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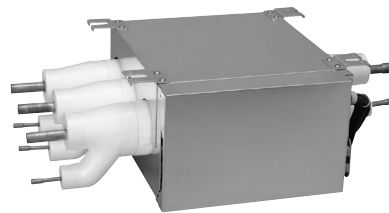
**R-410A**

# Engineering Data

- Heat Pump -

## Multi-Split Type Air Conditioners

**RMXS-L Series**



**INVERTER**

**DAIKIN AC (AMERICAS), INC.**

# RMXS-L Series Multi-Split Heat Pump Engineering Data

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**Cautions**

1. Air conditioners should not be installed in areas where corrosive gases, such as acid gas or alkaline gas, are produced.
2. If the outdoor unit is to be installed close to the sea shore, direct exposure to the sea breeze should be avoided and choose an outdoor unit with anti-corrosion treatment.

# Part 1

# Selection Procedure

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# 1. Selection Procedure

## 1.1 Outdoor Unit

Model name		RMXS48LVJU
Rated capacity (kBtu/h)	Cooling	48
	Heating	54
Connectable indoor units	Number of indoor units	2 ~ 8 units
	Total indoor unit capacity (kBtu/h)	24 ~ 62
Maximum number of connectable BP units		3 units

## 1.2 Indoor Unit

Class		07	09	12	15	18	24
Rated capacity (kBtu/h)		7	9	12	15	18	24
RA	CTXS-L Series	●	—	—	—	—	—
	CTXS-J Series	●	—	—	—	—	—
	CTXS-H Series	—	●	●	—	—	—
	FTXS Series	—	—	—	●	●	●
	FDXS Series	—	●	●	—	—	—
	CDXS Series	—	—	—	●	●	●
SA	FFQ Series	—	●	●	●	●	—

## 1.3 Branch Provider (BP) Unit

Model name	BPMKS048A2U	BPMKS049A3U
Type	2 rooms	3 rooms
Maximum capacity (kBtu/h)	48	62
Maximum number of BP units for 1 system	3 units	

## 1.4 REFNET JOINT

Model name	KHRP26A22T	
Number of BP units	1	Not necessary
	2	KHRP26A22T × 1
	3	KHRP26A22T × 2

## 1.5 Remote Controller

Choose the suitable remote controller for FFQ series.

FFQ Series	Wired remote controller	BRC1E71
	Wireless remote controller	BRC7E830

## 1.6 Decoration Panel

A decoration panel (BYFQ60B8W1U) is required for FFQ series.

## 1.7 Options

You can choose various optional accessories for control system, indoor unit, and outdoor unit.

(→ See "Part 5 Options" for details.)

# Part 2

## Multi-Split Type Air Conditioners RMSX-L Series Heat Pump

<b>CTXS07LVJU</b>	<b>FFQ09LVJU</b>	<b>RMSX48LVJU</b>
<b>CTXS07JVJU</b>	<b>FFQ12LVJU</b>	<b>BPMKS048A2U</b>
<b>CTXS09HVJU</b>	<b>FFQ15LVJU</b>	<b>BPMKS049A3U</b>
<b>CTXS12HVJU</b>	<b>FFQ18LVJU</b>	
<b>FTXS15LVJU</b>		
<b>FTXS18LVJU</b>		
<b>FTXS24LVJU</b>		
<b>FDXS09LVJU</b>		
<b>FDXS12LVJU</b>		
<b>CDXS15LVJU</b>		
<b>CDXS18LVJU</b>		
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# 1. Power Supply

Indoor Unit		Outdoor Unit	Power Supply
CTXS, FTXS Series	CTXS07LVJU	RMXS48LVJU BPMKS048A2U BPMKS049A3U	1 $\phi$ , 208 - 230 V, 60 Hz
	CTXS07JVJU		
	CTXS09HVJU		
	CTXS12HVJU		
	FTXS15LVJU		
	FTXS18LVJU		
	FTXS24LVJU		
CDXS, FDXS Series	FDXS09LVJU		
	FDXS12LVJU		
	CDXS15LVJU		
	CDXS18LVJU		
	CDXS24LVJU		
FFQ Series	FFQ09LVJU		
	FFQ12LVJU		
	FFQ15LVJU		
	FFQ18LVJU		

**Note:** Power Supply Intake; Outdoor Unit, BP Unit

## 2. Functions

Category	Functions	RMXS48LVJU	Category	Functions	RMXS48LVJU
Basic Function	Inverter (with inverter power control)	●	Health & Clean	Air-purifying filter	—
	Operation limit for cooling (°CDB)	-5 ~ 46		Photocatalytic deodorizing filter	—
	Operation limit for cooling (°FDB)	23 ~ 115		Air-purifying filter with photocatalytic deodorizing function	—
	Operation limit for heating (°CWB)	-15 ~ 15.5		Titanium apatite photocatalytic air-purifying filter	—
	Operation limit for heating (°FWB)	5 ~ 60		Longlife filter	—
	PAM control	—		Air filter (prefilter)	—
Compressor	Oval scroll compressor	●		Wipe-clean flat panel	—
	Swing compressor	—		Washable grille	—
	Rotary compressor	—		Filter cleaning indicator	—
	Reluctance DC motor	●		Good-sleep cooling operation	—
Comfortable Airflow	Power-airflow flap	—	Timer	WEEKLY TIMER operation	—
	Power-airflow dual flaps	—		24-hour ON/OFF timer	—
	Power-airflow diffuser	—		72-hour ON/OFF timer	—
	Wide-angle louvers	—		NIGHT SET mode	—
	Vertical auto-swing (up and down)	—	Worry Free "Reliability & Durability"	Auto-restart (after power failure)	—
	Horizontal auto-swing (right and left)	—		Self-diagnosis (digital, LED) display	●
	3-D airflow	—		Wiring error check function	●
	COMFORT AIRFLOW operation	—		Automatic test operation	●
Comfort Control	Auto fan speed	—		Memory function	●
	Indoor unit quiet operation	—		Anti-corrosion treatment of outdoor heat exchanger	●
	NIGHT QUIET mode (automatic)	●	Flexibility	Multi-split / split type compatible indoor unit	—
	OUTDOOR UNIT QUIET operation (manual)	●		Flexible power supply correspondence	—
	INTELLIGENT EYE operation	—		High ceiling application	—
	Quick warming function	●		Chargeless	—
	Hot-start function	—		Either side drain (right or left)	—
Automatic defrosting	●	Power selection		—	
		°F/°C changeover R/C temperature display (factory setting: °F)		—	
Operation	Automatic operation	—	Remote Control	5-room centralized controller (option)	—
	Program dry function	—		Remote control adaptor (normal open pulse contact) (option)	—
	Fan only	—		Remote control adaptor (normal open contact) (option)	—
Lifestyle Convenience	New POWERFUL operation (non-inverter)	—		DIII-NET compatible (adaptor) (option)	—
	Inverter POWERFUL operation	—	Remote Controller	Wireless	—
	Priority-room setting	—		Wired	—
	COOL / HEAT mode lock	—			
	HOME LEAVE operation	—			
	ECONO operation	—			
	Indoor unit [ON/OFF] button	—			
	Signal receiving sign	—			
	R/C with back light	—			
	Temperature display	—			

**Note:** ● : Holding Functions  
— : No Functions

Category	Functions	CTXS07LVJU	CTXS07JVJU CTXS09/12HVJU	Category	Functions	CTXS07LVJU	CTXS07JVJU CTXS09/12HVJU
Basic Function	Inverter (with inverter power control)	●	●	Health & Clean	Air-purifying filter	—	—
	Operation limit for cooling (°CDB)	—	—		Photocatalytic deodorizing filter	—	—
	Operation limit for cooling (°FDB)	—	—		Air-purifying filter with photocatalytic deodorizing function	—	●
	Operation limit for heating (°CWB)	—	—		Titanium apatite photocatalytic air-purifying filter	●	—
	Operation limit for heating (°FWB)	—	—		Longlife filter (option)	—	—
	PAM control	—	—		Air filter (prefilter)	●	●
Compressor	Oval scroll compressor	—	—	Wipe-clean flat panel	●	●	
	Swing compressor	—	—	Washable grille	—	—	
	Rotary compressor	—	—	Filter cleaning indicator	—	—	
	Reluctance DC motor	—	—	Good-sleep cooling operation	—	—	
Comfortable Airflow	Power-airflow louver (horizontal blade)	—	—	Timer	WEEKLY TIMER operation	●	—
	Power-airflow dual louvers	●	●		24-hour ON/OFF TIMER	●	●
	Power-airflow diffuser	—	—		NIGHT SET mode	●	●
	Wide-angle fins (vertical blades)	●	●	Worry Free "Reliability & Durability"	Auto-restart (after power failure)	●	●
	Vertical auto-swing (up and down)	●	●		Self-diagnosis (digital, LED) display	●	●
	Horizontal auto-swing (right and left)	●	●		Wiring error check function	—	—
	3-D airflow	●	●		Automatic test operation	—	—
	COMFORT AIRFLOW operation	●	—		Memory function	—	—
Comfort Control	Auto fan speed	●	●	Flexibility	Anticorrosion treatment of outdoor heat exchanger	—	—
	Indoor unit quiet operation	●	●		Multi-split / split type compatible indoor unit	—	—
	NIGHT QUIET mode (automatic)	—	—		Flexible power supply correspondence	—	—
	OUTDOOR UNIT QUIET operation (manual)	●	●	High ceiling application	—	—	
	INTELLIGENT EYE operation	●	●	Chargeless	—	—	
	Quick warming function	—	—	Either side drain (right or left)	●	●	
	Hot-start function	●	●	Power selection	—	—	
	Automatic defrosting	—	—	°F/°C changeover R/C temperature display (factory setting: °F)	●	●	
Operation	Automatic operation	●	●	Remote Control	5-room centralized controller (option)	●	●
	Program dry function	●	●		Remote control adaptor (normal open pulse contact) (option)	●	●
	Fan only	●	●		Remote control adaptor (normal open contact) (option)	●	●
Lifestyle Convenience	New POWERFUL operation (non-inverter)	—	—	Remote Controller	DIII-NET compatible (adaptor) (option)	●	●
	Inverter POWERFUL operation	●	●		Wireless	●	●
	Priority-room setting	—	—		Wired (option)	●	●
	COOL / HEAT mode lock	—	—				
	HOME LEAVE operation	—	●				
	ECONO operation	●	—				
	Indoor unit [ON/OFF] button	●	●				
	Signal receiving sign	●	●				
	R/C with back light	●	●				
Temperature display	—	—					

**Note:** ● : Function Included  
— : Function not included



Category	Functions	FTXS15/18/24LVJU	Category	Functions	FTXS15/18/24LVJU	
Basic Function	Inverter (with inverter power control)	●	Health & Clean	Air-purifying filter	—	
	Operation limit for cooling (°CDB)	—		Photocatalytic deodorizing filter	—	
	Operation limit for cooling (°FDB)	—		Air-purifying filter with photocatalytic deodorizing function	—	
	Operation limit for heating (°CWB)	—		Titanium apatite photocatalytic air-purifying filter	●	
	Operation limit for heating (°FWB)	—		Longlife filter (option)	—	
	PAM control	—		Air filter (prefilter)	●	
Compressor	Oval scroll compressor	—	Wipe-clean flat panel	●		
	Swing compressor	—	Washable grille	—		
	Rotary compressor	—	Filter cleaning indicator	—		
	Reluctance DC motor	—	Good-sleep cooling operation	—		
Comfortable Airflow	Power-airflow louver (horizontal blade)	—	Timer	WEEKLY TIMER operation	●	
	Power-airflow dual louvers	●		24-hour ON/OFF TIMER	●	
	Power-airflow diffuser	—		NIGHT SET mode	●	
	Wide-angle fins (vertical blades)	●	Worry Free "Reliability & Durability"	Auto-restart (after power failure)	●	
	Vertical auto-swing (up and down)	●		Self-diagnosis (digital, LED) display	●	
	Horizontal auto-swing (right and left)	●		Wiring error check function	—	
	3-D airflow	●		Automatic test operation	—	
	COMFORT AIRFLOW operation	●		Memory function	—	
Comfort Control	Auto fan speed	●	Flexibility	Anticorrosion treatment of outdoor heat exchanger	—	
	Indoor unit quiet operation	●		Multi-split / split type compatible indoor unit	●	
	NIGHT QUIET mode (automatic)	—		Flexible power supply correspondence	—	
	OUTDOOR UNIT QUIET operation (manual)	●		High ceiling application	—	
	INTELLIGENT EYE operation	●		Chargeless	—	
	Quick warming function	—	Either side drain (right or left)	●		
	Hot-start function	●	Power selection	—		
	Automatic defrosting	—	°F/°C changeover R/C temperature display (factory setting: °F)	●		
Operation	Automatic operation	●	Remote Control	5-room centralized controller (option)	●	
	Program dry function	●		Remote control adaptor (normal open pulse contact) (option)	●	
	Fan only	●		Remote control adaptor (normal open contact) (option)	●	
Lifestyle Convenience	New POWERFUL operation (non-inverter)	—		Remote Controller	DIII-NET compatible (adaptor) (option)	●
	Inverter POWERFUL operation	●			Wireless	●
	Priority-room setting	—	Wired (option)		●	
	COOL / HEAT mode lock	—				
	HOME LEAVE operation	—				
	ECONO operation	●				
	Indoor unit [ON/OFF] button	●				
	Signal receiving sign	●				
R/C with back light	●					
Temperature display	—					

**Note:** ● : Function Included  
 — : Function not included

Category	Functions	FDXS09/12LVJU	CDXS15/18/24LVJU	Category	Functions	FDXS09/12LVJU	CDXS15/18/24LVJU	
Basic Function	Inverter (with inverter power control)	●	●	Health & Clean	Air-purifying filter	—	—	
	Operation limit for cooling (°CDB)	—	—		Photocatalytic deodorizing filter	—	—	
	Operation limit for cooling (°FDB)	—	—		Air-purifying filter with photocatalytic deodorizing function	—	—	
	Operation limit for heating (°CWB)	—	—		Titanium apatite photocatalytic air-purifying filter	—	—	
	Operation limit for heating (°FWB)	—	—		Longlife filter (option)	—	—	
	PAM control	—	—		Air filter (prefilter)	●	●	
Compressor	Oval scroll compressor	—	—		Wipe-clean flat panel	—	—	
	Swing compressor	—	—		Washable grille	—	—	
	Rotary compressor	—	—		Filter cleaning indicator	—	—	
	Reluctance DC motor	—	—		Good-sleep cooling operation	—	—	
Comfortable Airflow	Power-airflow louver (horizontal blade)	—	—	Timer	WEEKLY TIMER operation	—	—	
	Power-airflow dual louvers	—	—		24-hour ON/OFF TIMER	●	●	
	Power-airflow diffuser	—	—		NIGHT SET mode	●	●	
	Wide-angle fins (vertical blades)	—	—	Worry Free "Reliability & Durability"	Auto-restart (after power failure)	●	●	
	Vertical auto-swing (up and down)	—	—		Self-diagnosis (digital, LED) display	●	●	
	Horizontal auto-swing (right and left)	—	—		Wiring error check function	—	—	
	3-D airflow	—	—		Automatic test operation	—	—	
	COMFORT AIRFLOW operation	—	—		Memory function	—	—	
Comfort Control	Auto fan speed	●	●	Flexibility	Anticorrosion treatment of outdoor heat exchanger	—	—	
	Indoor unit quiet operation	●	●		Multi-split / split type compatible indoor unit	●	—	
	NIGHT QUIET mode (automatic)	—	—		Flexible power supply correspondence	—	—	
	OUTDOOR UNIT QUIET operation (manual)	●	●		High ceiling application	—	—	
	INTELLIGENT EYE operation	—	—		Chargeless	—	—	
	Quick warming function	—	—		Either side drain (right or left)	—	—	
	Hot-start function	●	●		Power selection	—	—	
	Automatic defrosting	—	—		°F/°C changeover R/C temperature display (factory setting: °F)	●	●	
Operation	Automatic operation	●	●		Remote Control	5-room centralized controller (option)	●	●
	Program dry function	●	●			Remote control adaptor (normal open pulse contact) (option)	●	●
	Fan only	●	●	Remote control adaptor (normal open contact) (option)		●	●	
Lifestyle Convenience	New POWERFUL operation (non-inverter)	—	—	Remote Control		DIII-NET compatible (adaptor) (option)	●	●
	Inverter POWERFUL operation	●	●			Wireless	●	●
	Priority-room setting	—	—		Wired (option)	●	●	
	COOL / HEAT mode lock	—	—					
	HOME LEAVE operation	—	—					
	ECONO operation	●	●					
	Indoor unit [ON/OFF] button	●	●					
	Signal receiving sign	●	●					
	R/C with back light	●	●					
	Temperature display	—	—					

**Note:** ● : Function Included

— : Function not included

Category	Functions	FFQ09/12/15/18LVJU	Category	Functions	FFQ09/12/15/18LVJU
Basic Function	Inverter (with inverter power control)	●	Health & Clean	Air-purifying filter	—
	Operation limit for cooling (°CDB)	—		Photocatalytic deodorizing filter	—
	Operation limit for cooling (°FDB)	—		Air-purifying filter with photocatalytic deodorizing function	—
	Operation limit for heating (°CWB)	—		Titanium apatite photocatalytic air-purifying filter	—
	Operation limit for heating (°FWB)	—		Longlife filter (option)	●
	PAM control	—		Air filter (prefilter)	—
Compressor	Oval scroll compressor	—		Wipe-clean flat panel	—
	Swing compressor	—		Washable grille	●
	Rotary compressor	—		Filter cleaning indicator	●
	Reluctance DC motor	—		Good-sleep cooling operation	—
Comfortable Airflow	Power-airflow louver (horizontal blade)	—	Timer	WEEKLY TIMER operation	●★2
	Power-airflow dual louvers	—		24-hour ON/OFF TIMER	—
	Power-airflow diffuser	—		72-hour ON/OFF TIMER	●★1
	Wide-angle fins (vertical blades)	—		NIGHT SET mode	—
	Vertical auto-swing (up and down)	●	Worry Free "Reliability & Durability"	Auto-restart (after power failure)	●
	Horizontal auto-swing (right and left)	—		Self-diagnosis (digital, LED) display	●
	3-D airflow	—		Wiring error check function	—
	COMFORT AIRFLOW operation	—		Automatic test operation	—
Comfort Control	Auto fan speed	—	Flexibility	Memory function	—
	Indoor unit quiet operation	—		Anticorrosion treatment of outdoor heat exchanger	—
	NIGHT QUIET mode (automatic)	—		Multi-split / split type compatible indoor unit	—
	OUTDOOR UNIT QUIET operation (manual)	—	Flexible power supply correspondence	—	
	INTELLIGENT EYE operation	—	High ceiling application	—	
	Quick warming function	—	Chargeless	—	
	Hot-start function	●	Either side drain (right or left)	—	
Automatic defrosting	—	Power selection	—		
Operation	Automatic operation	●	Remote Control	°F/°C changeover R/C temperature display (factory setting: °F)	●★2
	Program dry function	●		5-room centralized controller (option)	—
	Fan only	●	Remote control adaptor (normal open pulse contact) (option)	—	
Lifestyle Convenience	New POWERFUL operation (non-inverter)	—	Remote Control	Remote control adaptor (normal open contact) (option)	—
	Inverter POWERFUL operation	—		Remote control adaptor (normal open contact) (option)	—
	Priority-room setting	—		DIII-NET compatible (adaptor) (option)	●
	COOL / HEAT mode lock	—		Wireless (option)	●
	HOME LEAVE operation	—	Remote Controller	Wired (option)	●
	ECONO operation	—			
	Indoor unit [ON/OFF] button	●★1			
	Signal receiving sign	●★1			
	R/C with back light	●★2			
	Temperature display	—			

**Note:** ● : Function Included  
 — : Function not included

★1: With wireless remote controller  
 ★2: With wired remote controller

## 3. Specifications

### 3.1 Outdoor Unit

60 Hz, 208 - 230 V

Model			RMXS48LVJU
Cooling Capacity ★	Btu/h		48,000
Heating Capacity ★	Btu/h		54,000
Casing Color			Ivory White
Heat Exchanger			Cross Fin Coil
Compressor	Type		Hermetically Sealed Scroll Type
	Piston Displacement	ft <sup>3</sup> /h	791.5
	Number of Revolutions	r.p.m.	6,480
	Motor Output (2.2 kW / 60 rps)	kW	3.0
	Starting Method		Direct on line
Refrigerant Oil	Model		DAPHNE FVC68D
	Charge	L (fioz)	1.7 (57.5)
Refrigerant	Type		R-410A
	Charge	Lbs (kg)	8.8 (4.0)
	Control		Electronic Expansion Valve
Fan	Type		Propeller Fan
	Motor Output	kW	0.070 × 2
	Airflow rate	cfm	3,740
	Drive		Direct Drive
Dimensions (H × W × D)		in. (mm)	52-15/16 × 35-7/16 × 12-5/8 (1,345 × 900 × 320)
Weight (Mass)		Lbs (kg)	283 (129)
Piping Connection	Liquid	in. (mm)	ϕ 3/8 (ϕ 9.5) C1220T (Flare Connection)
	Gas	in. (mm)	ϕ 3/4 (ϕ 19.1) C1220T (Brazing Connection)
Defrost Method			Reverse Cycle Defrosting
Drawing No.			4D080735

**Note:** ★ The data are based on the conditions shown in the table below.

Cooling	Indoor ; 80°FDB (26.7°CDB) / 67°FWB (19.4°CWB) Outdoor ; 95°FDB (35°CDB)
Heating	Indoor ; 70°FDB (21°CDB) Outdoor ; 47°FDB (8.3°CDB) / 43°FWB (6°CWB)
Piping Length	O.U. – BP : 16.4 ft (5 m) BP – I.U. : 9.8 ft (3 m) Level Difference: 0 ft (0 m)

Conversion Formulae

kcal/h = kW × 860  
Btu/h = kW × 3412  
cfm = m<sup>3</sup>/min × 35.3

2

### 3.2 Combination Capacity

Class	07	09	12	15	18	24
Rated Capacity (kBtu/h)	7	9	12	15	18	24

$$\text{Capacity of each indoor unit} = \frac{\text{Cooling / heating capacity on the following tables} \times \text{Rated capacity of each indoor unit}}{\text{Total rated capacity of indoor units}}$$

**For Example: (cooling)**

CTXS07J + CTXS12H + FTXS18L + FTXS24L

Total rated capacity of indoor units =  $\frac{7}{7} + \frac{12}{12} + \frac{18}{18} + \frac{24}{24} = 61 < 62$

Cooling capacity of CTXS07J =  $\frac{52 \times 7}{61} = 5.967$       Cooling capacity of FTXS18L =  $\frac{52 \times 18}{61} = 15.344$

Cooling capacity of CTXS12H =  $\frac{52 \times 12}{61} = 10.229$       Cooling capacity of FTXS24L =  $\frac{52 \times 24}{61} = 20.459$

### 3.2.1 CTXS, FTXS Series

#### Cooling Capacity

Total rated capacity of indoor units [kBtu/h]	Combination [%]	Cooling capacity [kBtu/h]	Power consumption [kW]	Total rated capacity of indoor units [kBtu/h]	Combination [%]	Cooling capacity [kBtu/h]	Power consumption [kW]
24.0	50.0%	24.0	1.78	43.2	90.0%	43.2	3.91
24.5	51.0%	24.5	1.81	43.7	91.0%	43.7	3.98
25.0	52.0%	25.0	1.85	44.2	92.0%	44.2	4.05
25.4	53.0%	25.4	1.89	44.6	93.0%	44.6	4.13
25.9	54.0%	25.9	1.92	45.1	94.0%	45.1	4.20
26.4	55.0%	26.4	1.96	45.6	95.0%	45.6	4.28
26.9	56.0%	26.9	2.00	46.1	96.0%	46.1	4.35
27.4	57.0%	27.4	2.04	46.6	97.0%	46.6	4.43
27.8	58.0%	27.8	2.09	47.0	98.0%	47.0	4.51
28.3	59.0%	28.3	2.13	47.5	99.0%	47.5	4.59
28.8	60.0%	28.8	2.17	48.0	100.0%	48.0	4.64
29.3	61.0%	29.3	2.22	48.5	101.0%	48.2	4.65
29.8	62.0%	29.8	2.26	49.0	102.0%	48.5	4.67
30.2	63.0%	30.2	2.31	49.4	103.0%	48.7	4.69
30.7	64.0%	30.7	2.35	49.9	104.0%	48.9	4.71
31.2	65.0%	31.2	2.40	50.4	105.0%	49.1	4.73
31.7	66.0%	31.7	2.45	50.9	106.0%	49.3	4.75
32.2	67.0%	32.2	2.50	51.4	107.0%	49.5	4.77
32.6	68.0%	32.6	2.55	51.8	108.0%	49.7	4.79
33.1	69.0%	33.1	2.60	52.3	109.0%	49.9	4.81
33.6	70.0%	33.6	2.66	52.8	110.0%	50.0	4.82
34.1	71.0%	34.1	2.71	53.3	111.0%	50.2	4.84
34.6	72.0%	34.6	2.76	53.8	112.0%	50.4	4.85
35.0	73.0%	35.0	2.82	54.2	113.0%	50.5	4.87
35.5	74.0%	35.5	2.88	54.7	114.0%	50.7	4.88
36.0	75.0%	36.0	2.93	55.2	115.0%	50.8	4.90
36.5	76.0%	36.5	2.99	55.7	116.0%	50.9	4.91
37.0	77.0%	37.0	3.05	56.2	117.0%	51.1	4.92
37.4	78.0%	37.4	3.11	56.6	118.0%	51.2	4.94
37.9	79.0%	37.9	3.17	57.1	119.0%	51.3	4.95
38.4	80.0%	38.4	3.24	57.6	120.0%	51.4	4.96
38.9	81.0%	38.9	3.30	58.1	121.0%	51.5	4.97
39.4	82.0%	39.4	3.36	58.6	122.0%	51.6	4.98
39.8	83.0%	39.8	3.43	59.0	123.0%	51.7	4.99
40.3	84.0%	40.3	3.49	59.5	124.0%	51.8	4.99
40.8	85.0%	40.8	3.56	60.0	125.0%	51.8	5.00
41.3	86.0%	41.3	3.63	60.5	126.0%	51.9	5.01
41.8	87.0%	41.8	3.70	61.0	127.0%	52.0	5.01
42.2	88.0%	42.2	3.76	61.4	128.0%	52.0	5.02
42.7	89.0%	42.7	3.84	61.9	129.0%	52.1	5.02
				62.0	129.2%	52.1	5.03

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#### Notes:

1. Cooling capacity is based on 80°FDB (26.7°CDB) / 67°FWB (19.4°CWB) (Indoor temperature), 95°FDB (35°CDB) / 75°FWB (24°CWB) (Outdoor temperature).
2. The total capacity of indoor units: 24 ~ 62 kBtu/h
3. Quantity of indoor units: 2 ~ 8

Heating Capacity

Total rated capacity of indoor units [kBtu/h]	Combination [%]	Cooling capacity [kBtu/h]	Power consumption [kW]	Total rated capacity of indoor units [kBtu/h]	Combination [%]	Cooling capacity [kBtu/h]	Power consumption [kW]
24.0	50.0%	29.0	2.13	43.2	90.0%	49.0	3.67
24.5	51.0%	29.5	2.17	43.7	91.0%	49.5	3.70
25.0	52.0%	30.0	2.21	44.2	92.0%	50.0	3.74
25.4	53.0%	30.5	2.25	44.6	93.0%	50.5	3.77
25.9	54.0%	31.0	2.30	45.1	94.0%	51.0	3.81
26.4	55.0%	31.5	2.34	45.6	95.0%	51.5	3.84
26.9	56.0%	32.0	2.38	46.1	96.0%	52.0	3.87
27.4	57.0%	32.5	2.42	46.6	97.0%	52.5	3.91
27.8	58.0%	33.0	2.46	47.0	98.0%	53.0	3.94
28.3	59.0%	33.5	2.50	47.5	99.0%	53.5	3.98
28.8	60.0%	34.0	2.54	48.0	100.0%	54.0	3.98
29.3	61.0%	34.5	2.58	48.5	101.0%	54.1	3.99
29.8	62.0%	35.0	2.62	49.0	102.0%	54.2	3.99
30.2	63.0%	35.5	2.66	49.4	103.0%	54.3	4.00
30.7	64.0%	36.0	2.70	49.9	104.0%	54.4	4.00
31.2	65.0%	36.5	2.74	50.4	105.0%	54.5	4.01
31.7	66.0%	37.0	2.78	50.9	106.0%	54.6	4.01
32.2	67.0%	37.5	2.82	51.4	107.0%	54.7	4.02
32.6	68.0%	38.0	2.86	51.8	108.0%	54.8	4.02
33.1	69.0%	38.5	2.90	52.3	109.0%	54.9	4.02
33.6	70.0%	39.0	2.93	52.8	110.0%	55.0	4.03
34.1	71.0%	39.5	2.97	53.3	111.0%	55.1	4.03
34.6	72.0%	40.0	3.01	53.8	112.0%	55.2	4.04
35.0	73.0%	40.5	3.05	54.2	113.0%	55.3	4.04
35.5	74.0%	41.0	3.09	54.7	114.0%	55.4	4.04
36.0	75.0%	41.5	3.12	55.2	115.0%	55.5	4.05
36.5	76.0%	42.0	3.16	55.7	116.0%	55.6	4.05
37.0	77.0%	42.5	3.20	56.2	117.0%	55.7	4.05
37.4	78.0%	43.0	3.24	56.6	118.0%	55.8	4.06
37.9	79.0%	43.5	3.27	57.1	119.0%	55.9	4.06
38.4	80.0%	44.0	3.31	57.6	120.0%	56.0	4.06
38.9	81.0%	44.5	3.35	58.1	121.0%	56.1	4.06
39.4	82.0%	45.0	3.38	58.6	122.0%	56.2	4.07
39.8	83.0%	45.5	3.42	59.0	123.0%	56.3	4.07
40.3	84.0%	46.0	3.46	59.5	124.0%	56.4	4.07
40.8	85.0%	46.5	3.49	60.0	125.0%	56.5	4.08
41.3	86.0%	47.0	3.53	60.5	126.0%	56.6	4.08
41.8	87.0%	47.5	3.56	61.0	127.0%	56.7	4.08
42.2	88.0%	48.0	3.60	61.4	128.0%	56.8	4.08
42.7	89.0%	48.5	3.63	61.9	129.0%	56.9	4.08
				62.0	129.2%	57.0	4.09

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Notes:

1. Heating capacity is based on 70°FDB (21°CDB) / 60°FWB (15.6°CWB) (Indoor temperature), 47°FDB (8.3°CDB) / 43°FWB (6°CWB) (Outdoor temperature).
2. The total capacity of indoor units: 24 ~ 62 kBtu/h
3. Quantity of indoor units: 2 ~ 8

## 3.2.2 CDXS, FDXS Series

## Cooling Capacity

Total rated capacity of indoor units [kBtu/h]	Combination [%]	Cooling capacity [kBtu/h]	Power consumption [kW]	Total rated capacity of indoor units [kBtu/h]	Combination [%]	Cooling capacity [kBtu/h]	Power consumption [kW]
24.0	50.0%	24.0	1.92	43.2	90.0%	43.2	4.39
24.5	51.0%	24.5	1.97	43.7	91.0%	43.7	4.47
25.0	52.0%	25.0	2.01	44.2	92.0%	44.2	4.55
25.4	53.0%	25.4	2.06	44.6	93.0%	44.6	4.63
25.9	54.0%	25.9	2.11	45.1	94.0%	45.1	4.71
26.4	55.0%	26.4	2.16	45.6	95.0%	45.6	4.79
26.9	56.0%	26.9	2.21	46.1	96.0%	46.1	4.88
27.4	57.0%	27.4	2.26	46.6	97.0%	46.6	4.96
27.8	58.0%	27.8	2.31	47.0	98.0%	47.0	5.04
28.3	59.0%	28.3	2.36	47.5	99.0%	47.5	5.13
28.8	60.0%	28.8	2.42	48.0	100.0%	48.0	5.13
29.3	61.0%	29.3	2.47	48.5	101.0%	48.1	5.14
29.8	62.0%	29.8	2.53	49.0	102.0%	48.2	5.15
30.2	63.0%	30.2	2.58	49.4	103.0%	48.3	5.15
30.7	64.0%	30.7	2.64	49.9	104.0%	48.4	5.16
31.2	65.0%	31.2	2.70	50.4	105.0%	48.5	5.16
31.7	66.0%	31.7	2.75	50.9	106.0%	48.6	5.17
32.2	67.0%	32.2	2.81	51.4	107.0%	48.7	5.17
32.6	68.0%	32.6	2.87	51.8	108.0%	48.8	5.18
33.1	69.0%	33.1	2.93	52.3	109.0%	48.9	5.18
33.6	70.0%	33.6	2.99	52.8	110.0%	49.0	5.19
34.1	71.0%	34.1	3.06	53.3	111.0%	49.1	5.19
34.6	72.0%	34.6	3.12	53.8	112.0%	49.2	5.20
35.0	73.0%	35.0	3.18	54.2	113.0%	49.3	5.20
35.5	74.0%	35.5	3.25	54.7	114.0%	49.4	5.21
36.0	75.0%	36.0	3.31	55.2	115.0%	49.5	5.21
36.5	76.0%	36.5	3.38	55.7	116.0%	49.6	5.22
37.0	77.0%	37.0	3.45	56.2	117.0%	49.7	5.22
37.4	78.0%	37.4	3.51	56.6	118.0%	49.8	5.23
37.9	79.0%	37.9	3.58	57.1	119.0%	49.9	5.23
38.4	80.0%	38.4	3.65	57.6	120.0%	50.0	5.24
38.9	81.0%	38.9	3.72	58.1	121.0%	50.1	5.24
39.4	82.0%	39.4	3.79	58.6	122.0%	50.2	5.25
39.8	83.0%	39.8	3.87	59.0	123.0%	50.3	5.25
40.3	84.0%	40.3	3.94	59.5	124.0%	50.4	5.26
40.8	85.0%	40.8	4.01	60.0	125.0%	50.5	5.26
41.3	86.0%	41.3	4.09	60.5	126.0%	50.6	5.27
41.8	87.0%	41.8	4.16	61.0	127.0%	50.7	5.27
42.2	88.0%	42.2	4.24	61.4	128.0%	50.8	5.28
42.7	89.0%	42.7	4.32	61.9	129.0%	50.9	5.28
				62.0	129.2%	51.0	5.28

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**Notes:**

1. Cooling capacity is based on 80°FDB (26.7°CDB) / 67°FWB (19.4°CWB) (Indoor temperature), 95°FDB (35°CDB) / 75°FWB (24°CWB) (Outdoor temperature).
2. The total capacity of indoor units: 24 ~ 62 kBtu/h
3. Quantity of indoor units: 2 ~ 8



## Heating Capacity

Total rated capacity of indoor units [kBtu/h]	Combination [%]	Cooling capacity [kBtu/h]	Power consumption [kW]	Total rated capacity of indoor units [kBtu/h]	Combination [%]	Cooling capacity [kBtu/h]	Power consumption [kW]
24.0	50.0%	29.0	2.56	43.2	90.0%	49.0	4.80
24.5	51.0%	29.5	2.62	43.7	91.0%	49.5	4.85
25.0	52.0%	30.0	2.68	44.2	92.0%	50.0	4.90
25.4	53.0%	30.5	2.74	44.6	93.0%	50.5	4.95
25.9	54.0%	31.0	2.80	45.1	94.0%	51.0	5.00
26.4	55.0%	31.5	2.86	45.6	95.0%	51.5	5.05
26.9	56.0%	32.0	2.92	46.1	96.0%	52.0	5.10
27.4	57.0%	32.5	2.98	46.6	97.0%	52.5	5.15
27.8	58.0%	33.0	3.04	47.0	98.0%	53.0	5.20
28.3	59.0%	33.5	3.10	47.5	99.0%	53.5	5.24
28.8	60.0%	34.0	3.16	48.0	100.0%	54.0	5.27
29.3	61.0%	34.5	3.21	48.5	101.0%	54.1	5.28
29.8	62.0%	35.0	3.27	49.0	102.0%	54.1	5.28
30.2	63.0%	35.5	3.33	49.4	103.0%	54.2	5.28
30.7	64.0%	36.0	3.39	49.9	104.0%	54.2	5.28
31.2	65.0%	36.5	3.45	50.4	105.0%	54.3	5.29
31.7	66.0%	37.0	3.50	50.9	106.0%	54.3	5.29
32.2	67.0%	37.5	3.56	51.4	107.0%	54.4	5.29
32.6	68.0%	38.0	3.62	51.8	108.0%	54.4	5.29
33.1	69.0%	38.5	3.67	52.3	109.0%	54.5	5.29
33.6	70.0%	39.0	3.73	52.8	110.0%	54.5	5.30
34.1	71.0%	39.5	3.79	53.3	111.0%	54.6	5.30
34.6	72.0%	40.0	3.84	53.8	112.0%	54.6	5.30
35.0	73.0%	40.5	3.90	54.2	113.0%	54.7	5.30
35.5	74.0%	41.0	3.95	54.7	114.0%	54.7	5.30
36.0	75.0%	41.5	4.01	55.2	115.0%	54.8	5.31
36.5	76.0%	42.0	4.06	55.7	116.0%	54.8	5.31
37.0	77.0%	42.5	4.12	56.2	117.0%	54.9	5.31
37.4	78.0%	43.0	4.17	56.6	118.0%	54.9	5.31
37.9	79.0%	43.5	4.22	57.1	119.0%	55.0	5.31
38.4	80.0%	44.0	4.28	57.6	120.0%	55.0	5.32
38.9	81.0%	44.5	4.33	58.1	121.0%	55.1	5.32
39.4	82.0%	45.0	4.38	58.6	122.0%	55.1	5.32
39.8	83.0%	45.5	4.44	59.0	123.0%	55.2	5.32
40.3	84.0%	46.0	4.49	59.5	124.0%	55.2	5.32
40.8	85.0%	46.5	4.54	60.0	125.0%	55.3	5.33
41.3	86.0%	47.0	4.59	60.5	126.0%	55.3	5.33
41.8	87.0%	47.5	4.64	61.0	127.0%	55.4	5.33
42.2	88.0%	48.0	4.70	61.4	128.0%	55.4	5.33
42.7	89.0%	48.5	4.75	61.9	129.0%	55.5	5.33
				62.0	129.2%	55.5	5.34

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**Notes:**

1. Heating capacity is based on 70°FDB (21°CDB) / 60°FWB (15.6°CWB) (Indoor temperature), 47°FDB (8.3°CDB) / 43°FWB (6°CWB) (Outdoor temperature).
2. The total capacity of indoor units: 24 ~ 62 kBtu/h
3. Quantity of indoor units: 2 ~ 8

### 3.3 BP Unit

60 Hz, 208 - 230 V

Model		BPMKS048A2U		BPMKS049A3U	
Power Consumption	W	10		10	
Running Current	A	0.05		0.05	
Refrigerant Type		R-410A			
Dimensions (H x W x D)	in. (mm)	7-1/16 x 11-9/16 [26-11/16]* x 13-3/4 (180 x 294 [678]* x 350)			
Packaged Dimensions (H x W x D)	in. (mm)	10-1/8 x 29-1/16 x 16-13/16 (257 x 738 x 427)			
Weight (Mass)	Lbs (kg)	18 (8)		20 (9)	
Gross Weight (Gross Mass)	Lbs (kg)	27 (12)		29 (13)	
Number of Wiring Connections	Power Supply	3 (including ground wiring)			
	O.U. – BP	2 (for DIII transmission)			
	BP – I.U.	4 (including ground wiring)			
Piping Connection (Flare)	Liquid	O.U. side	in. (mm)	φ 3/8 (φ 9.5) x 1	
		I.U. side		φ 1/4 (φ 6.4) x 2	φ 1/4 (φ 6.4) x 3
	Gas	O.U. side	in. (mm)	φ 5/8 (φ 15.9) x 1	
		I.U. side		φ 5/8 (φ 15.9) x 2	φ 5/8 (φ 15.9) x 3
	Drain	Drain Processingless			
Heat Insulation		Both Liquid and Gas Pipes			
Min. Combination	Btu/h	7,000			
Max. Combination	Btu/h	48,000		62,000	
Drawing No.		4D080441			

**Note:** [\*] : including auxiliary piping length

Conversion Formulae
kcal/h = kW x 860
Btu/h = kW x 3412
cfm = m <sup>3</sup> /min x 35.3

2

### 3.4 Indoor Unit

60 Hz, 208 - 230 V

Model			CTXS07LVJU		CTXS07JVJU	
			Cooling	Heating	Cooling	Heating
Rated Capacity ★			7 kBtu/h Class		7 kBtu/h Class	
Front Panel Color			White		White	
Airflow Rate	H	cfm (m <sup>3</sup> /min)	332 (9.4)	350 (9.9)	388 (11.0)	400 (11.3)
	M		261 (7.4)	290 (8.2)	335 (9.5)	357 (10.1)
	L		194 (5.5)	233 (6.6)	283 (8.0)	314 (8.9)
	SL		145 (4.1)	219 (6.2)	-	-
Fan	Type		Cross Flow Fan		Cross Flow Fan	
	Motor Output	W	23		40	
	Speed	Steps	5 Steps, Quiet, Auto		5 Steps, Quiet, Auto	
Air Direction Control			Right, Left, Horizontal, Downward		Right, Left, Horizontal, Downward	
Air Filter			Removable / Washable / Mildew Proof		Removable / Washable / Mildew Proof	
Running Current (Rated)		A	0.09 - 0.08	0.11 - 0.10	0.18	0.2
Power Consumption (Rated)		W	18 - 18	21 - 21	40	45
Power Factor (Rated)		%	96.2 - 97.8	91.8 - 91.3	96.6	97.8
Temperature Control			Microcomputer Control		Microcomputer Control	
Dimensions (H x W x D)		in. (mm)	11-5/8 x 31-1/2 x 8-7/16 (295 x 800 x 215)		11-7/16 x 31-5/16 x 9-3/8 (290 x 795 x 238)	
Packaged Dimensions (H x W x D)		in. (mm)	10-13/16 x 34-1/4 x 14-7/16 (274 x 870 x 366)		11 x 33-1/16 x 13-5/16 (280 x 840 x 338)	
Weight (Mass)		Lbs (kg)	20 (9)		20 (9)	
Gross Weight (Gross Mass)		Lbs (kg)	29 (13)		29 (13)	
Sound Pressure Level	H / M / L / SL	dB(A)	38 / 32 / 25 / 22	38 / 33 / 28 / 25	44 / 40 / 35 / -	44 / 39 / 34 / -
Sound Power Level		dB	54	54	-	-
Heat Insulation			Both Liquid and Gas Pipes		Both Liquid and Gas Pipes	
Piping Connection	Liquid	in. (mm)	φ 1/4 (φ 6.4)		φ 1/4 (φ 6.4)	
	Gas	in. (mm)	φ 3/8 (φ 9.5)		φ 3/8 (φ 9.5)	
	Drain	in. (mm)	φ 5/8 (φ 16.0)		φ 11/16 (φ 18.0)	
Drawing No.			3D075490		3D066156A	

Model			CTXS09HVJU		CTXS12HVJU	
			Cooling	Heating	Cooling	Heating
Rated Capacity ★			9 kBtu/h Class		12 kBtu/h Class	
Front Panel Color			White		White	
Airflow Rate	H	cfm (m <sup>3</sup> /min)	388 (11.0)	400 (11.3)	388 (11.0)	400 (11.3)
	M		335 (9.5)	357 (10.1)	335 (9.5)	357 (10.1)
	L		283 (8.0)	314 (8.9)	283 (8.0)	314 (8.9)
Fan	Type		Cross Flow Fan		Cross Flow Fan	
	Motor Output	W	40		40	
	Speed	Steps	5 Steps, Quiet, Auto		5 Steps, Quiet, Auto	
Air Direction Control			Right, Left, Horizontal, Downward		Right, Left, Horizontal, Downward	
Air Filter			Removable / Washable / Mildew Proof		Removable / Washable / Mildew Proof	
Running Current (Rated)		A	0.18	0.2	0.18	0.2
Power Consumption (Rated)		W	40	45	40	45
Power Factor (Rated)		%	96.6	97.8	96.6	97.8
Temperature Control			Microcomputer Control		Microcomputer Control	
Dimensions (H x W x D)		in. (mm)	11-7/16 x 31-5/16 x 9-3/8 (290 x 795 x 238)		11-7/16 x 31-5/16 x 9-3/8 (290 x 795 x 238)	
Packaged Dimensions (H x W x D)		in. (mm)	11 x 33-1/16 x 13-5/16 (280 x 840 x 338)		11 x 33-1/16 x 13-5/16 (280 x 840 x 338)	
Weight (Mass)		Lbs (kg)	20 (9)		20 (9)	
Gross Weight (Gross Mass)		Lbs (kg)	29 (13)		29 (13)	
Sound Pressure Level	H / M / L	dB(A)	44 / 40 / 35	44 / 39 / 34	45 / 41 / 36	45 / 40 / 35
Heat Insulation			Both Liquid and Gas Pipes		Both Liquid and Gas Pipes	
Piping Connection	Liquid	in. (mm)	φ 1/4 (φ 6.4)		φ 1/4 (φ 6.4)	
	Gas	in. (mm)	φ 3/8 (φ 9.5)		φ 3/8 (φ 9.5)	
	Drain	in. (mm)	φ 11/16 (φ 18.0)		φ 11/16 (φ 18.0)	
Drawing No.			3D062870A		3D062871A	

**Note:** ★ See page 12 ~ 16 "Combination Capacity".

Conversion Formulae
kcal/h = kW × 860
Btu/h = kW × 3412
cfm = m <sup>3</sup> /min × 35.3

60 Hz, 208 - 230 V

2

Model			FTXS15LVJU		FTXS18LVJU	
			Cooling	Heating	Cooling	Heating
Rated Capacity ★			15 kBtu/h Class		18 kBtu/h Class	
Front Panel Color			White		White	
Airflow Rate	H	cfm (m <sup>3</sup> /min)	568 (16.1)	593 (16.8)	583 (16.5)	625 (17.7)
	M		477 (13.5)	505 (14.3)	484 (13.7)	526 (14.9)
	L		385 (10.9)	417 (11.8)	385 (10.9)	431 (12.2)
	SL		360 (10.2)	371 (10.5)	360 (10.2)	399 (11.3)
Fan	Type		Cross Flow Fan		Cross Flow Fan	
	Motor Output	W	48		48	
	Speed	Steps	5 Steps, Quiet, Auto		5 Steps, Quiet, Auto	
Air Direction Control			Right, Left, Horizontal, Downward		Right, Left, Horizontal, Downward	
Air Filter			Removable / Washable / Mildew Proof		Removable / Washable / Mildew Proof	
Running Current (Rated)			A	0.31 - 0.29	0.32 - 0.30	0.32 - 0.30
Power Consumption (Rated)			W	38 - 38	38 - 38	38 - 38
Power Factor (Rated)			%	58.9 - 57.0	58.9 - 57.0	57.1 - 55.1
Temperature Control			Microcomputer Control		Microcomputer Control	
Dimensions (H x W x D)			in. (mm)	13-3/8 x 41-5/16 x 9-3/4 (340 x 1,050 x 248)	13-3/8 x 41-5/16 x 9-3/4 (340 x 1,050 x 248)	
Packaged Dimensions (H x W x D)			in. (mm)	13 x 45-11/16 x 16-7/8 (331 x 1,160 x 429)		
Weight (Mass)			Lbs (kg)	31 (14)		
Gross Weight (Gross Mass)			Lbs (kg)	44 (20)		
Sound Pressure Level	H / M / L / SL	dB(A)	45 / 40 / 35 / 32	43 / 38 / 33 / 30	46 / 41 / 36 / 33	45 / 40 / 35 / 32
	Sound Power Level			61	59	62
Heat Insulation			Both Liquid and Gas Pipes		Both Liquid and Gas Pipes	
Piping Connections	Liquid	in. (mm)	ϕ 1/4 (ϕ 6.4)		ϕ 1/4 (ϕ 6.4)	
	Gas	in. (mm)	ϕ 1/2 (ϕ 12.7)		ϕ 1/2 (ϕ 12.7)	
	Drain	in. (mm)	ϕ 5/8 (ϕ 16.0)		ϕ 5/8 (ϕ 16.0)	
Drawing No.			3D075043		3D075044	

Model			FTXS24LVJU		
			Cooling	Heating	
Rated Capacity ★			24 kBtu/h Class		
Front Panel Color			White		
Airflow Rate	H	cfm (m <sup>3</sup> /min)	643 (18.2)	699 (19.8)	
	M		494 (14.0)	572 (16.2)	
	L		350 (9.9)	445 (12.6)	
	SL		328 (9.3)	403 (11.4)	
Fan	Type		Cross Flow Fan		
	Motor Output	W	48		
	Speed	Steps	5 Steps, Quiet, Auto		
Air Direction Control			Right, Left, Horizontal, Downward		
Air Filter			Removable / Washable / Mildew Proof		
Running Current (Rated)			A	0.57 - 0.51	
Power Consumption (Rated)			W	69 - 68	
Power Factor (Rated)			%	58.2 - 58.0	
Temperature Control			Microcomputer Control		
Dimensions (H x W x D)			in. (mm)	13-3/8 x 41-5/16 x 9-3/4 (340 x 1,050 x 248)	
Packaged Dimensions (H x W x D)			in. (mm)	13 x 45-11/16 x 16-7/8 (331 x 1,160 x 429)	
Weight (Mass)			Lbs (kg)	31 (14)	
Gross Weight (Gross Mass)			Lbs (kg)	46 (21)	
Sound Pressure Level (H / M / L / SL)			51 / 44 / 37 / 34	48 / 42 / 37 / 34	
Sound Power Level			67	64	
Heat Insulation			Both Liquid and Gas Pipes		
Piping Connections	Liquid	in. (mm)	ϕ 1/4 (6.4)		
	Gas	in. (mm)	ϕ 5/8 (15.9)		
	Drain	in. (mm)	ϕ 5/8 (16.0)		
Drawing No.			3D075045		

**Note:** ★ See page 12 ~ 16 "Combination Capacity".

Conversion Formulae
kcal/h = kW × 860
Btu/h = kW × 3412
cfm = m <sup>3</sup> /min × 35.3

Model			FDXS09LVJU		FDXS12LVJU	
			Cooling	Heating	Cooling	Heating
Rated Capacity ★			9 kBtu/h Class		12 kBtu/h Class	
External Static Pressure		inAq (Pa)	0.12 (30)		0.12 (30)	
Airflow Rate	H	cfm (m <sup>3</sup> /min)	305 (8.6)	305 (8.6)	305 (8.6)	305 (8.6)
	M		280 (7.9)	280 (7.9)	280 (7.9)	280 (7.9)
	L		260 (7.4)	260 (7.4)	260 (7.4)	260 (7.4)
	SL		235 (6.7)	235 (6.7)	235 (6.7)	235 (6.7)
Fan	Type		Sirocco Fan		Sirocco Fan	
	Motor Output	W	62		62	
	Speed	Steps	5 Steps, Quiet, Auto		5 Steps, Quiet, Auto	
Air Filter			Removable / Washable / Mildew Proof		Removable / Washable / Mildew Proof	
Running Current (Rated)		A	0.58 - 0.52	0.58 - 0.52	0.58 - 0.52	0.58 - 0.52
Power Consumption (Rated)		W	72 - 72	72 - 72	72 - 72	72 - 72
Power Factor (Rated)		%	59.7 - 60.2	59.7 - 60.2	59.7 - 60.2	59.7 - 60.2
Temperature Control			Microcomputer Control		Microcomputer Control	
Dimensions (H x W x D)		in. (mm)	7-7/8 x 27-9/16 x 24-7/16 (200 x 700 x 620)		7-7/8 x 27-9/16 x 24-7/16 (200 x 700 x 620)	
Packaged Dimensions (H x W x D)		in. (mm)	10-13/16 x 36-5/16 x 30-1/4 (274 x 923 x 768)		10-13/16 x 36-5/16 x 30-1/4 (274 x 923 x 768)	
Weight (Mass)		Lbs (kg)	47 (21)		47 (21)	
Gross Weight (Gross Mass)		Lbs (kg)	64 (29)		64 (29)	
Sound Pressure Level	H / M / L	dB(A)	35 / 33 / 31	35 / 33 / 31	35 / 33 / 31	35 / 33 / 31
Sound Power Level		dB	51	51	51	51
Heat Insulation			Both Liquid and Gas Pipes		Both Liquid and Gas Pipes	
Piping Connections	Liquid	in. (mm)	φ 1/4 (φ 6.4)		φ 1/4 (φ 6.4)	
	Gas	in. (mm)	φ 3/8 (φ 9.5)		φ 3/8 (φ 9.5)	
	Drain	in. (mm)	VP20 (O.D. φ 1-1/32 (φ 26), I.D. φ 25/32 (φ 20))		VP20 (O.D. φ 1-1/32 (φ 26), I.D. φ 25/32 (φ 20))	
Drawing No.			3D075493		3D075494	

Model			CDXS15LVJU		CDXS18LVJU	
			Cooling	Heating	Cooling	Heating
Rated Capacity ★			15 kBtu/h Class		18 kBtu/h Class	
External Static Pressure		inAq (Pa)	0.16 (40)		0.16 (40)	
Airflow Rate	H	cfm (m <sup>3</sup> /min)	424 (12.0)	424 (12.0)	424 (12.0)	424 (12.0)
	M		388 (11.0)	388 (11.0)	388 (11.0)	388 (11.0)
	L		353 (10.0)	353 (10.0)	353 (10.0)	353 (10.0)
	SL		297 (8.4)	297 (8.4)	297 (8.4)	297 (8.4)
Fan	Type		Sirocco Fan		Sirocco Fan	
	Motor Output	W	130		130	
	Speed	Steps	5 Steps, Quiet, Auto		5 Steps, Quiet, Auto	
Air Filter			Removable / Washable / Mildew Proof		Removable / Washable / Mildew Proof	
Running Current (Rated)		A	0.79	0.79	0.79	0.79
Power Consumption (Rated)		W	172	172	172	172
Power Factor (Rated)		%	94.4	94.4	94.4	94.4
Temperature Control			Microcomputer Control		Microcomputer Control	
Dimensions (H x W x D)		in. (mm)	7-7/8 x 35-7/16 x 24-7/16 (200 x 900 x 620)		7-7/8 x 35-7/16 x 24-7/16 (200 x 900 x 620)	
Packaged Dimensions (H x W x D)		in. (mm)	10-1/2 x 43-9/16 x 29-9/16 (266 x 1,106 x 751)		10-1/2 x 43-9/16 x 29-9/16 (266 x 1,106 x 751)	
Weight (Mass)		Lbs (kg)	60 (27)		60 (27)	
Gross Weight (Gross Mass)		Lbs (kg)	75 (34)		75 (34)	
Sound Pressure Level	H / M / L / SL	dB(A)	37 / 35 / 33 / 31	37 / 35 / 33 / 31	37 / 35 / 33 / 31	37 / 35 / 33 / 31
Heat Insulation			Both Liquid and Gas Pipes		Both Liquid and Gas Pipes	
Piping Connections	Liquid	in. (mm)	φ 1/4 (φ 6.4)		φ 1/4 (φ 6.4)	
	Gas	in. (mm)	φ 1/2 (φ 12.7)		φ 1/2 (φ 12.7)	
	Drain	in. (mm)	VP20 (O.D. φ 1-1/32 (φ 26), I.D. φ 25/32 (φ 20))		VP20 (O.D. φ 1-1/32 (φ 26), I.D. φ 25/32 (φ 20))	
Drawing No.			C: 3D075721		C: 3D075722	

**Note:** ★ See page 12 ~ 16 "Combination Capacity".

Conversion Formulae
kcal/h = kW × 860
Btu/h = kW × 3412
cfm = m <sup>3</sup> /min × 35.3

60 Hz, 208 - 230 V

2

Model			CDXS24LVJU	
			Cooling	Heating
Rated Capacity ★			24 kBtu/h Class	
External Static Pressure		inAq (Pa)	0.16 (40)	
Airflow Rate	H	cfm (m <sup>3</sup> /min)	565 (16.0)	565 (16.0)
	M		523 (14.8)	523 (14.8)
	L		477 (13.5)	477 (13.5)
	SL		395 (11.2)	395 (11.2)
Fan	Type	Sirocco Fan		
	Motor Output	W	130	
	Speed	Steps	5 Steps, Quiet, Auto	
Air Filter			Removable / Washable / Mildew Proof	
Running Current (Rated)		A	0.79	0.79
Power Consumption (Rated)		W	160	160
Power Factor (Rated)		%	90.3	92.8
Temperature Control			Microcomputer Control	
Dimensions (H x W x D)		in. (mm)	7-7/8 x 43-5/16 x 24-7/16 (200 x 1,100 x 620)	
Packaged Dimensions (H x W x D)		in. (mm)	10-1/2 x 52-1/16 x 30-1/4 (266 x 1,323 x 768)	
Weight (Mass)		Lbs (kg)	66 (30)	
Gross Weight (Gross Mass)		Lbs (kg)	84 (38)	
Sound Pressure Level	H / M / L / SL	dB(A)	38 / 36 / 34 / 32	38 / 36 / 34 / 32
Heat Insulation			Both Liquid and Gas Pipes	
Piping Connections	Liquid	in. (mm)	φ 1/4 (φ 6.4)	
	Gas	in. (mm)	φ 5/8 (φ 15.9)	
	Drain	in. (mm)	VP20 (O.D. φ 1-1/32 (φ 26), I.D. φ 25/32 (φ 20))	
Drawing No.			3D080590	

**Note:** ★ See page 12 ~ 16 "Combination Capacity".

Model			FFQ09LVJU		FFQ12LVJU	
			Cooling	Heating	Cooling	Heating
Rated Capacity			9 kBtu/h Class		12 kBtu/h Class	
Decoration Panel	Color	White				
	Dimensions (H x W x D)	2-5/32 x 27-9/16 x 27-9/16 (55 x 700 x 700)		2-5/32 x 27-9/16 x 27-9/16 (55 x 700 x 700)		
Airflow Rate	H	cfm (m <sup>3</sup> /min)	318 (9.0)	318 (9.0)	353 (10.0)	353 (10.0)
	L		230 (6.5)	230 (6.5)	230 (6.5)	230 (6.5)
Fan	Type	Turbo Fan				
	Motor Output	W	55			
	Speed	Steps	2 Steps			
Air Direction Control			Horizontal, Downward		Horizontal, Downward	
Running Current (Rated)		A	0.44	0.38	0.47	0.42
Power Consumption (Rated)		W	87	76	98	89
Power Factor		%	85.8	87.0	91.3	91.8
Temperature Control			Microcomputer Control		Microcomputer Control	
Dimensions (H x W x D)		in. (mm)	11-1/4 x 22-5/8 x 22-5/8 (285 x 575 x 575)		11-1/4 x 22-5/8 x 22-5/8 (285 x 575 x 575)	
Packaged Dimensions (H x W x D)		in. (mm)	14-9/16 x 27-1/16 x 26-9/16 (370 x 687 x 674)		14-9/16 x 27-1/16 x 26-9/16 (370 x 687 x 674)	
Weight (Mass)		Lbs (kg)	38.6 (17.5)		38.6 (17.5)	
Gross Weight (Gross Mass)		Lbs (kg)	46 (21)		46 (21)	
Sound Pressure Level	H / L	dB(A)	36.0 / 29.5	36.0 / 29.5	38.5 / 29.0	38.5 / 29.0
Heat Insulation			Both Liquid and Gas Pipes		Both Liquid and Gas Pipes	
Piping Connections	Liquid	in. (mm)	φ 1/4 (φ 6.4)		φ 1/4 (φ 6.4)	
	Gas	in. (mm)	φ 3/8 (φ 9.5)		φ 3/8 (φ 9.5)	
	Drain	in. (mm)	VP20 (O.D. φ 1-1/32 (φ 26) / I.D. φ 25/32 (φ 20))		VP20 (O.D. φ 1-1/32 (φ 26) / I.D. φ 25/32 (φ 20))	
Drawing No.			3D080626		3D080627	

Conversion Formulae
kcal/h = kW × 860
Btu/h = kW × 3412
cfm = m <sup>3</sup> /min × 35.3

60 Hz, 208 - 230 V

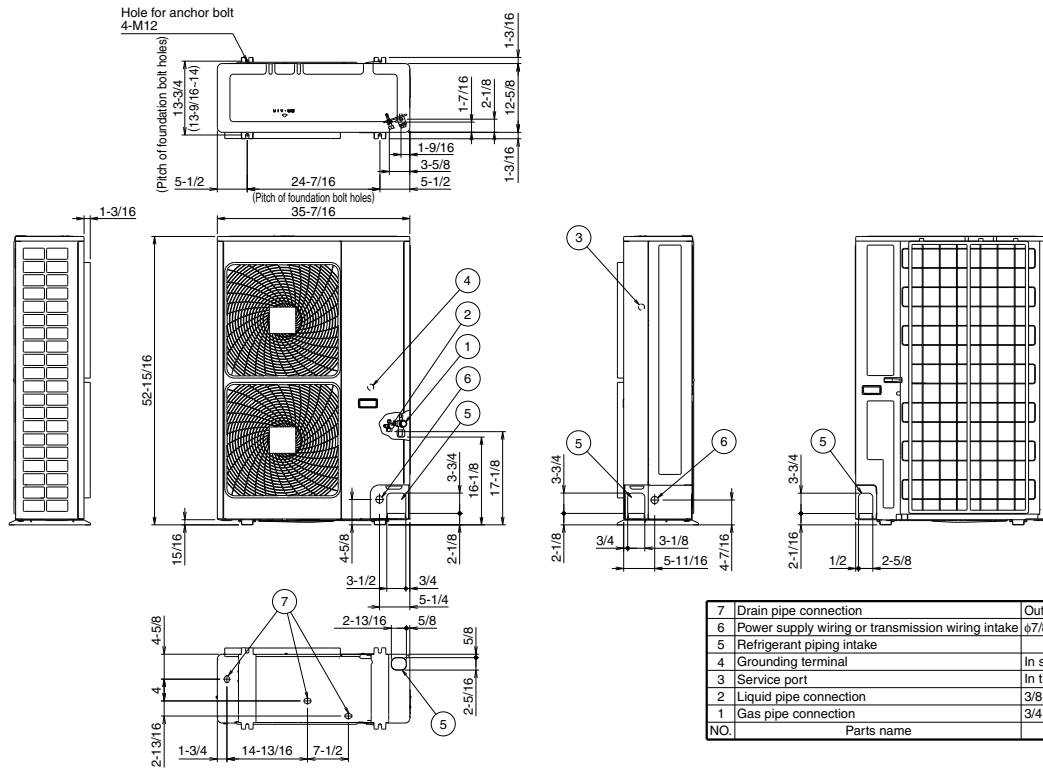
Model			FFQ15LVJU		FFQ18LVJU	
			Cooling	Heating	Cooling	Heating
Rated Capacity			15 kBtu/h Class		18 kBtu/h Class	
Color			White		White	
Dimensions (H x W x D)			2-5/32 x 27-9/16 x 27-9/16 (55 x 700 x 700)		2-5/32 x 27-9/16 x 27-9/16 (55 x 700 x 700)	
Airflow Rate	H	cfm	424 (12.0)	424 (12.0)	530 (15.0)	530 (15.0)
	L	(m <sup>3</sup> /min)	283 (8.0)	283 (8.0)	353 (10.0)	353 (10.0)
Fan	Type		Turbo Fan		Turbo Fan	
	Motor Output	W	55		55	
	Speed	Steps	2 Steps		2 Steps	
Air Direction Control			Horizontal, Downward		Horizontal, Downward	
Running Current (Rated)			A	0.57	0.52	0.71
Power Consumption (Rated)			W	112	103	140
Power Factor			%	86.1	86.0	85.5
Temperature Control			Microcomputer Control		Microcomputer Control	
Dimensions (H x W x D)			in. (mm)	11-1/4 x 22-5/8 x 22-5/8 (285 x 575 x 575)	11-1/4 x 22-5/8 x 22-5/8 (285 x 575 x 575)	
Packaged Dimensions (H x W x D)			in. (mm)	14-9/16 x 27-1/16 x 26-9/16 (370 x 687 x 674)	14-9/16 x 27-1/16 x 26-9/16 (370 x 687 x 674)	
Weight (Mass)			Lbs (kg)	38.6 (17.5)		
Gross Weight (Gross Mass)			Lbs (kg)	46 (21)		
Sound Pressure Level	H / L	dB(A)	42.5 / 31.5	42.5 / 31.5	46.0 / 37.5	46.0 / 37.5
	Heat Insulation		Both Liquid and Gas Pipes		Both Liquid and Gas Pipes	
Piping Connections	Liquid	in. (mm)	ϕ 1/4 (ϕ 6.4)		ϕ 1/4 (ϕ 6.4)	
	Gas	in. (mm)	ϕ 1/2 (ϕ 12.7)		ϕ 1/2 (ϕ 12.7)	
	Drain	in. (mm)	VP20 (O.D. ϕ 1-1/32 (ϕ 26) / I.D. ϕ 25/32 (ϕ 20)		VP20 (O.D. ϕ 1-1/32 (ϕ 26) / I.D. ϕ 25/32 (ϕ 20)	
Drawing No.			3D080628		3D080629	

Conversion Formulae
kcal/h = kW x 860
Btu/h = kW x 3412
cfm = m <sup>3</sup> /min x 35.3

# 4. Dimensions

## 4.1 Outdoor Unit

RMXS48LVJU



7	Drain pipe connection	Outside diameterø1" 3points
6	Power supply wiring or transmission wiring intake	ø7/8" Knockout hole
5	Refrigerant piping intake	
4	Grounding terminal	In switch box (M5)
3	Service port	In the unit
2	Liquid pipe connection	3/8" Flare
1	Gas pipe connection	3/4" Brazing
NO.	Parts name	Remarks

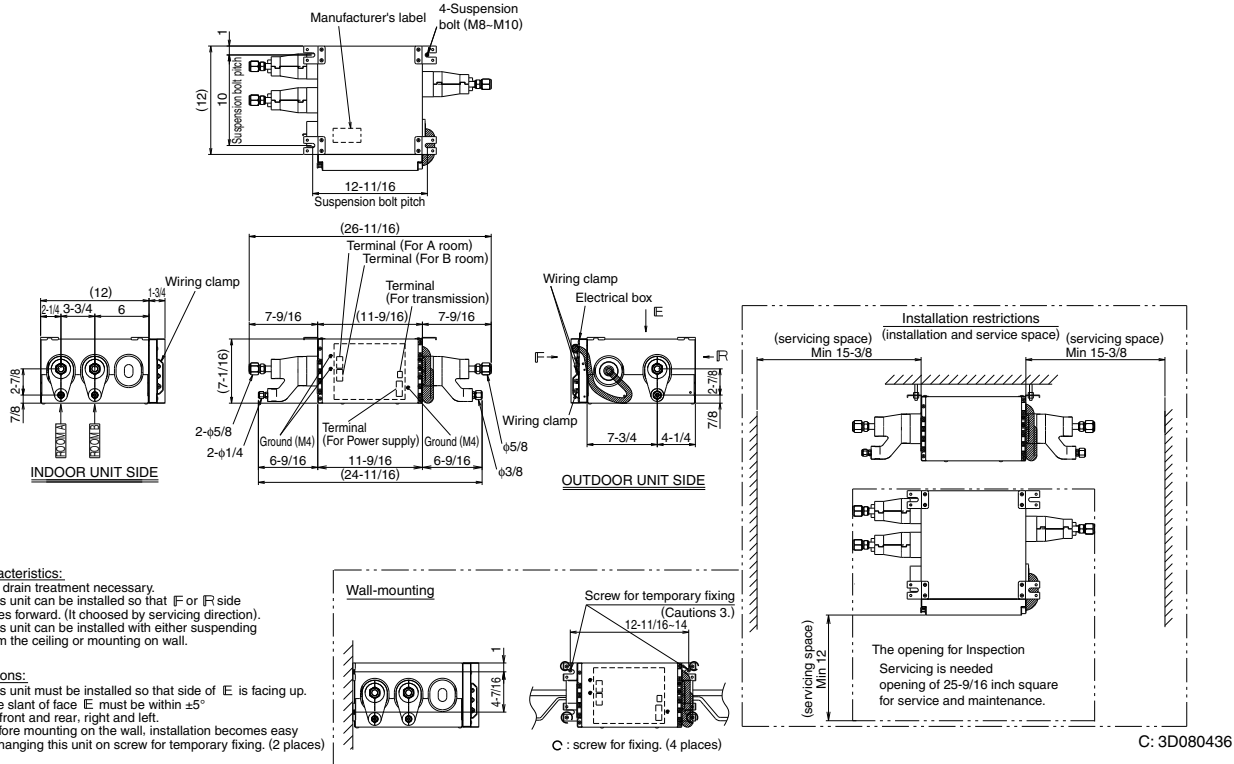
3D080736

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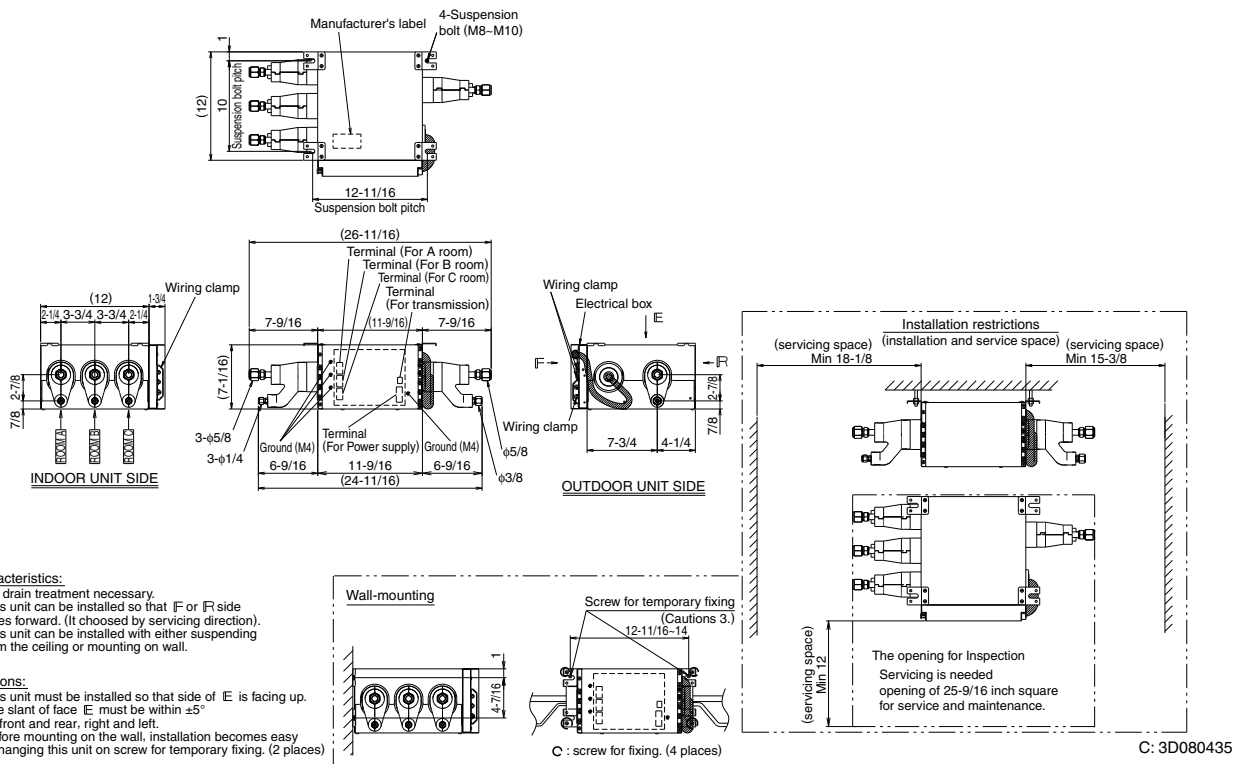


## 4.2 BP Unit

### BPMKS048A2U

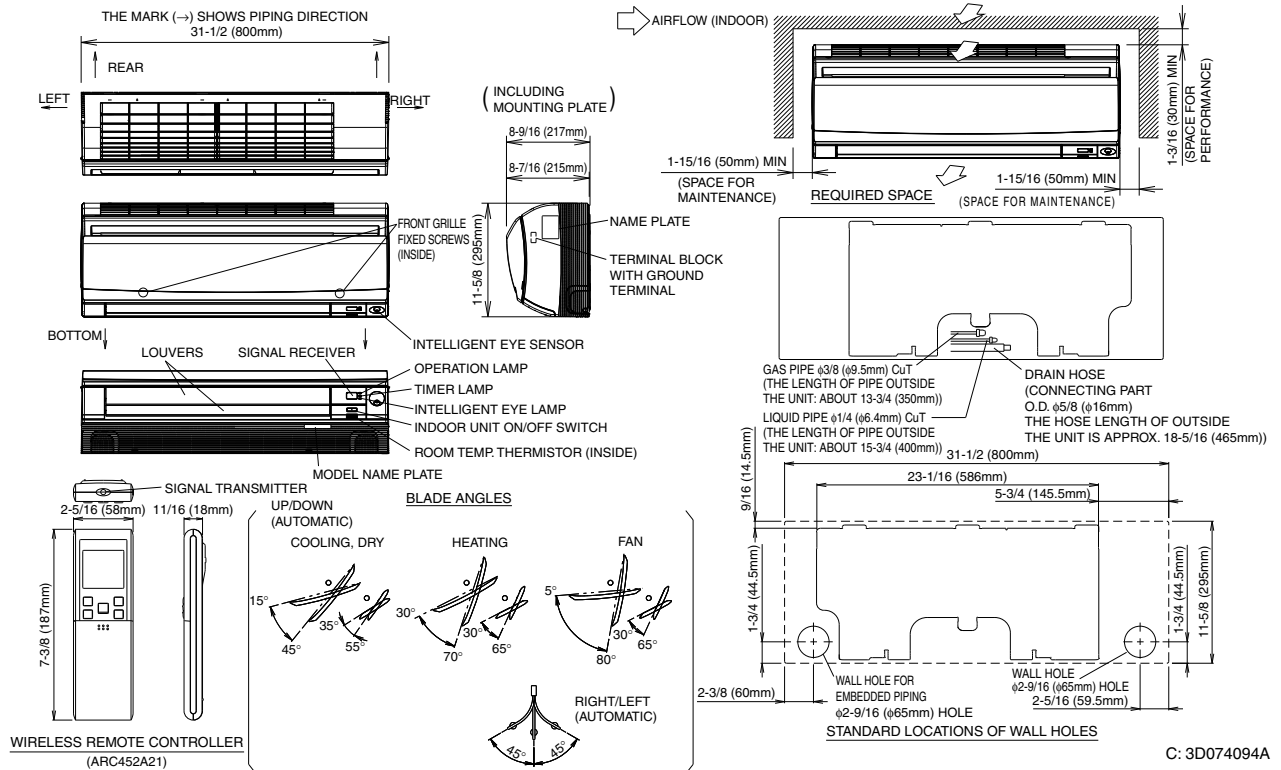


### BPMKS049A3U



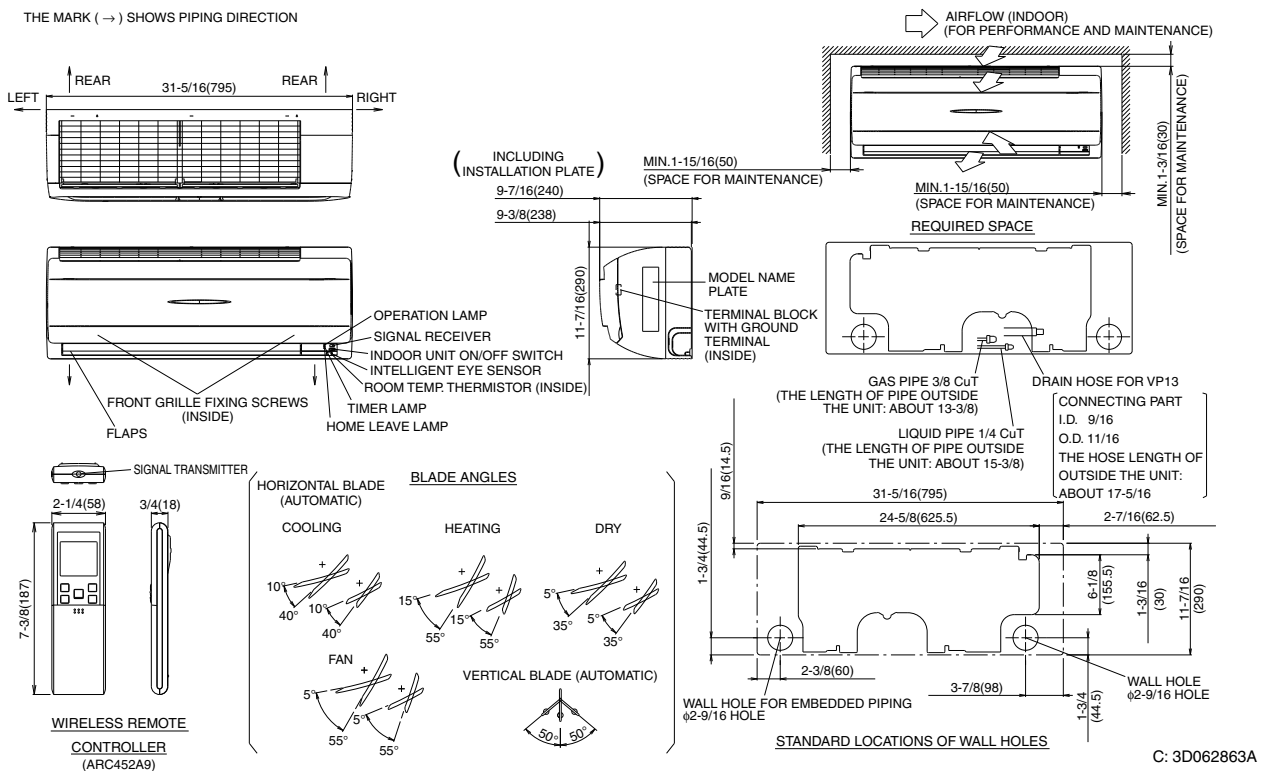
### 4.3 Indoor Unit

#### CTXS07LVJU

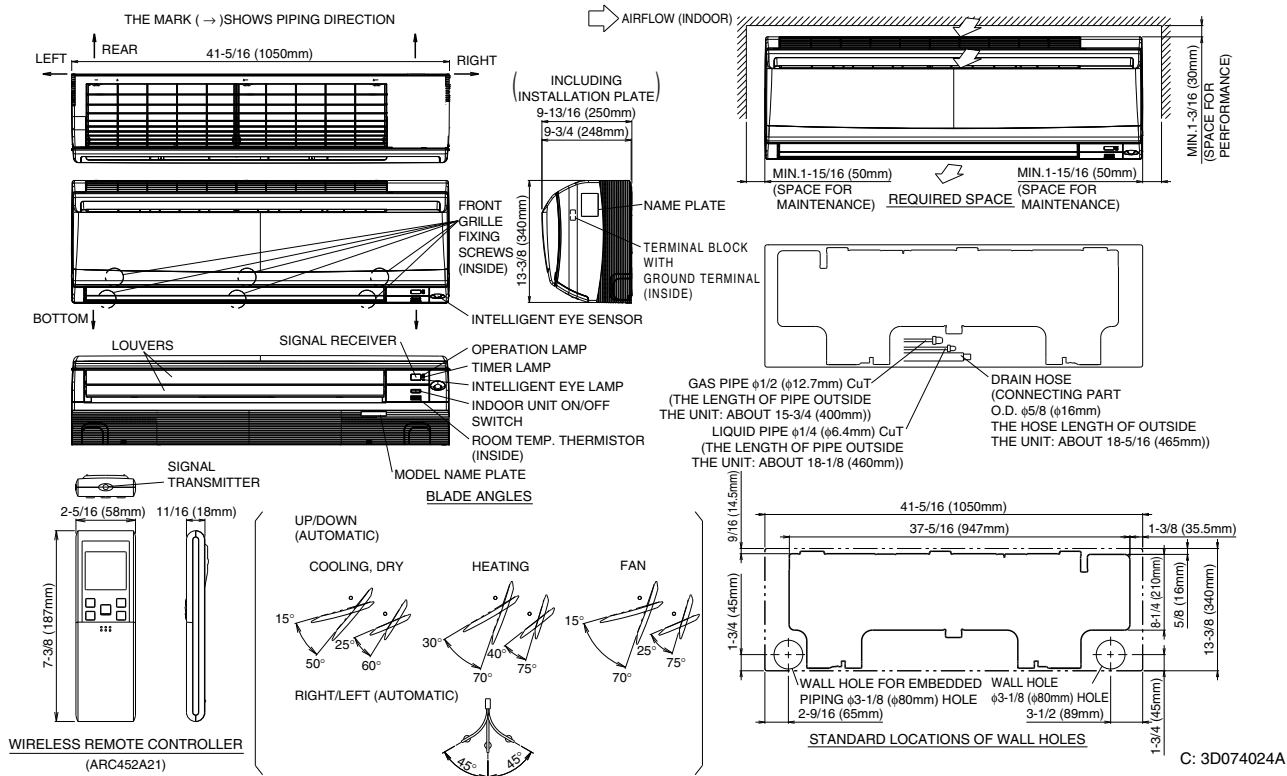


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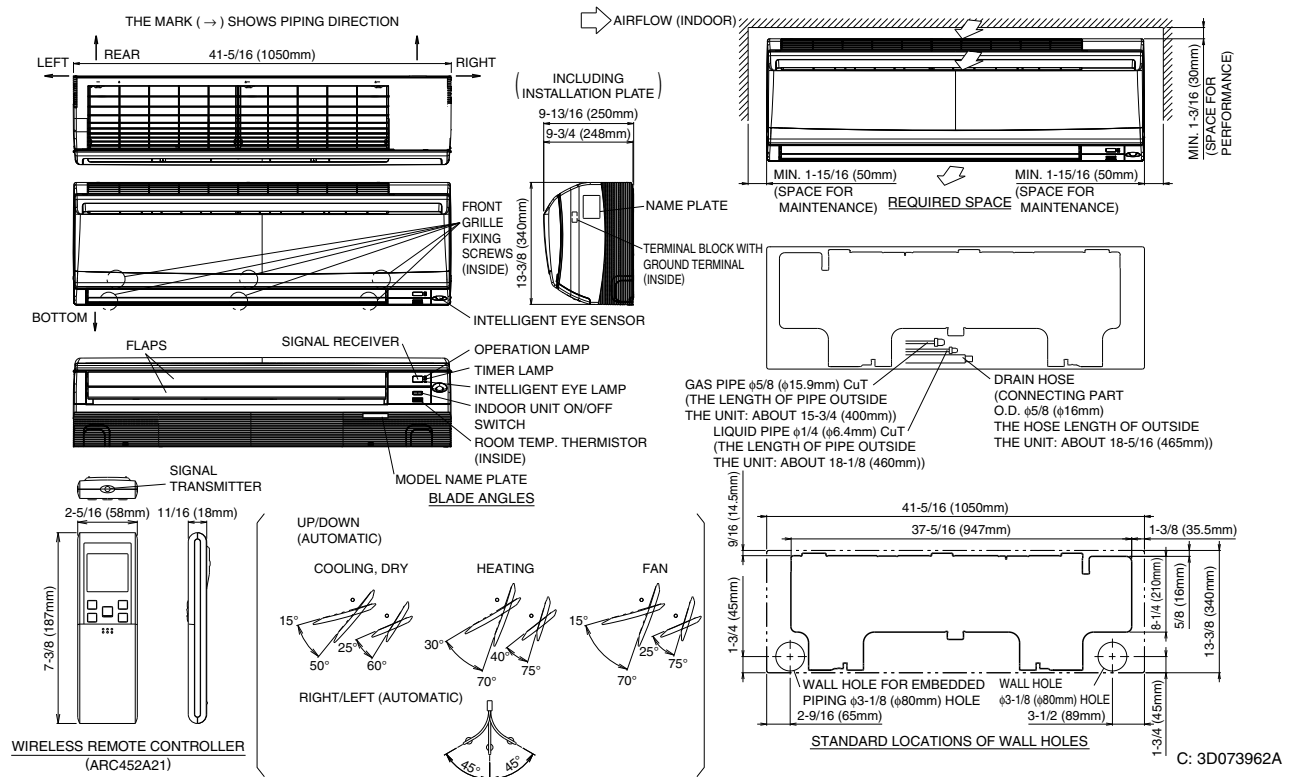
#### CTXS07JVJU, CTXS09/12HVJU



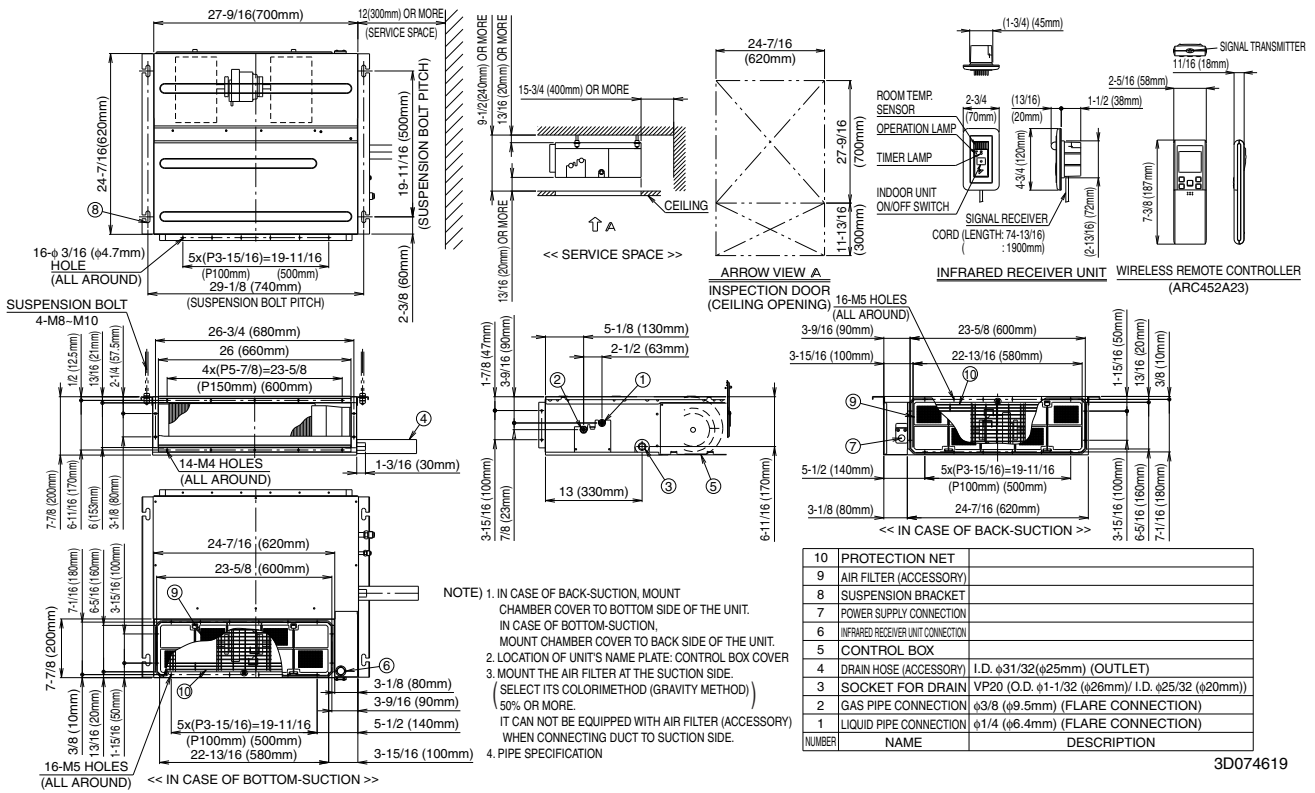
FTXS15/18LVJU



FTXS24LVJU

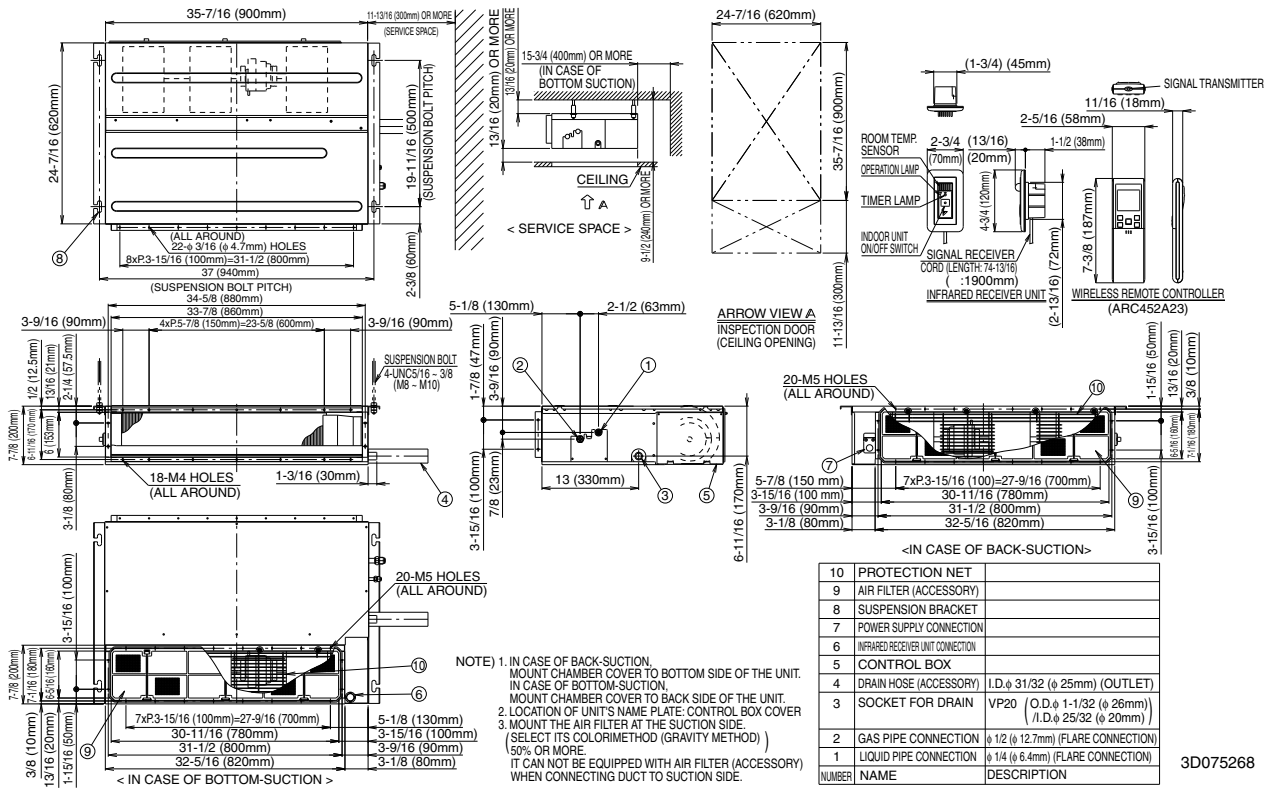


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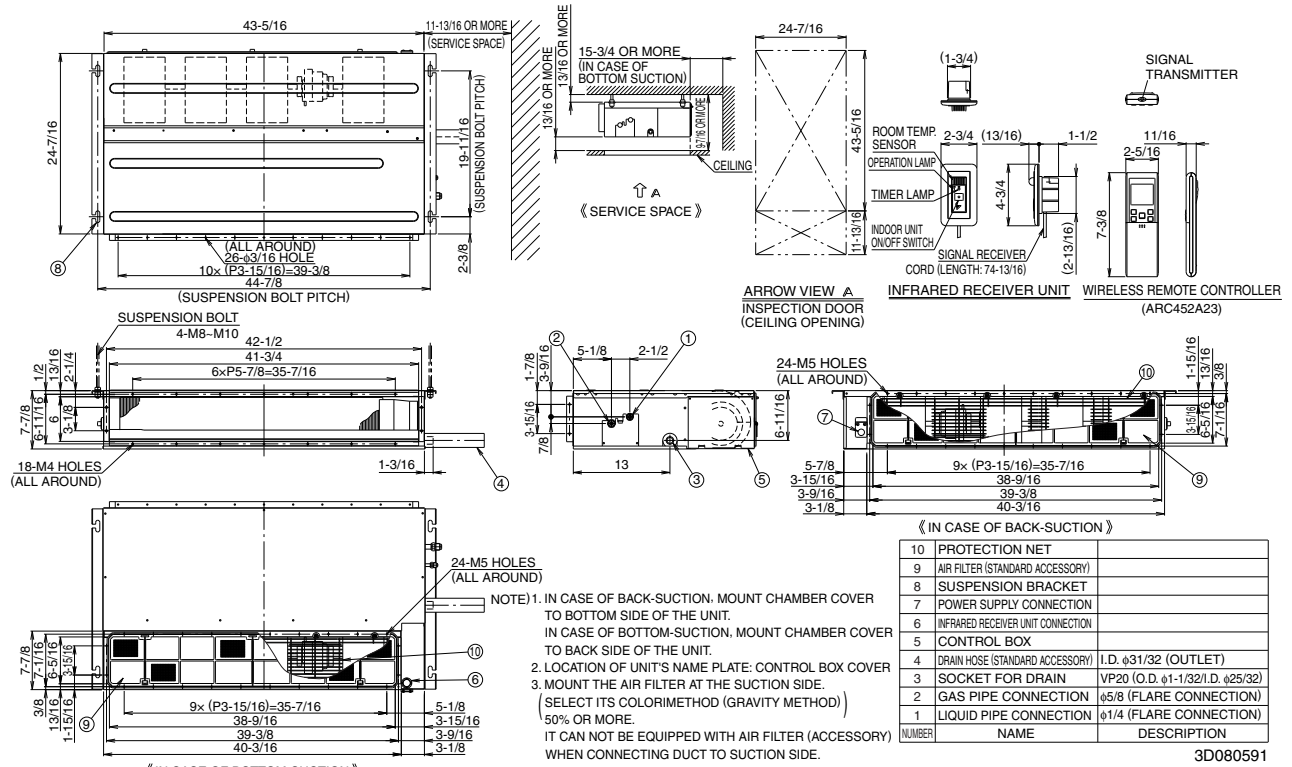
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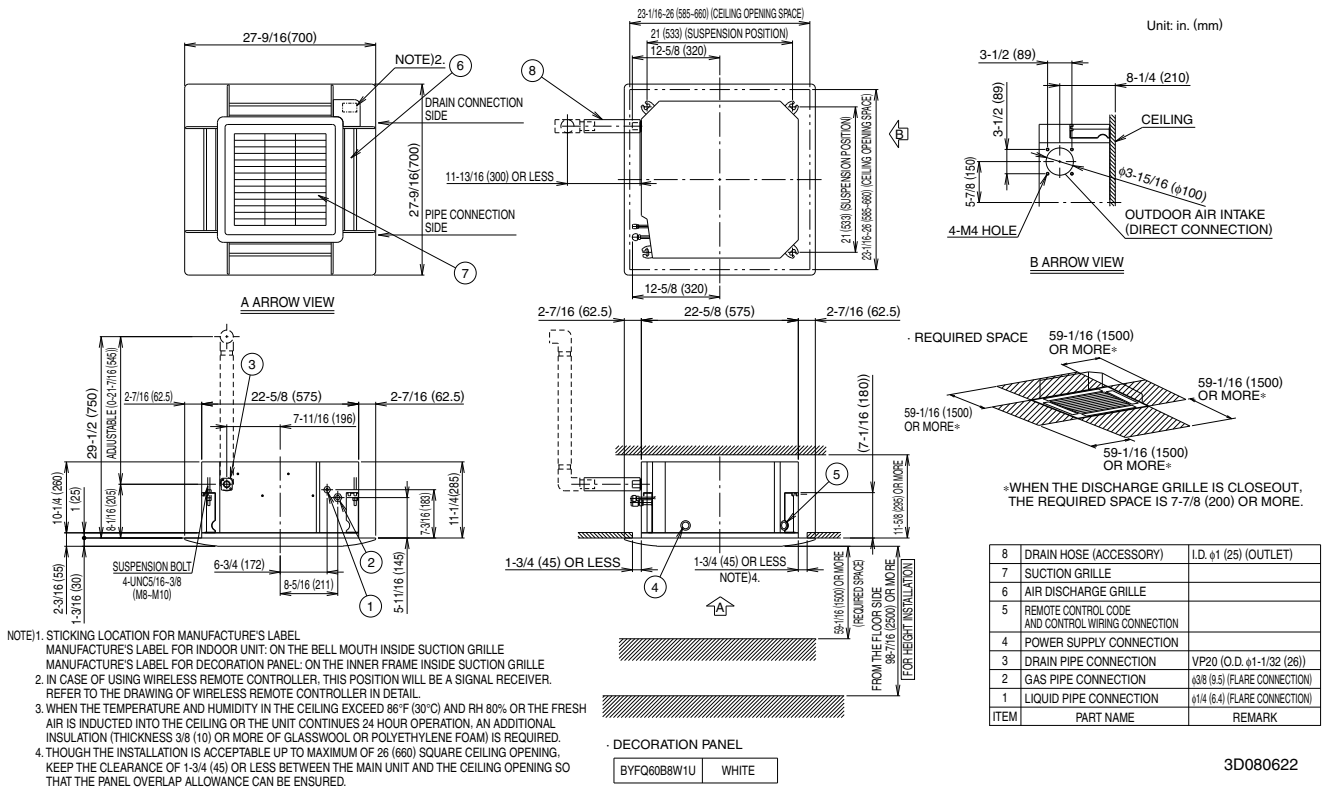


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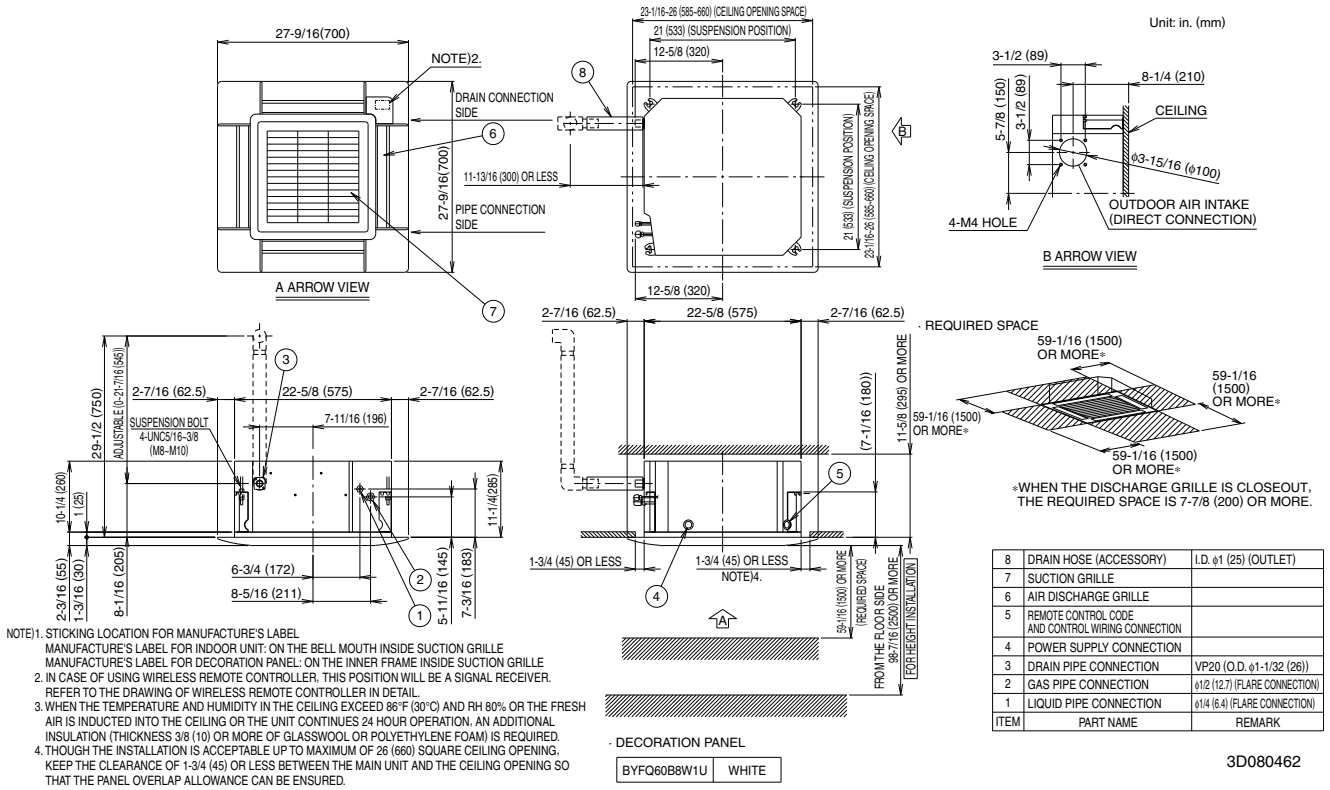


FFQ09/12LVJU with BYFQ60B8W1U (Decoration Panel)

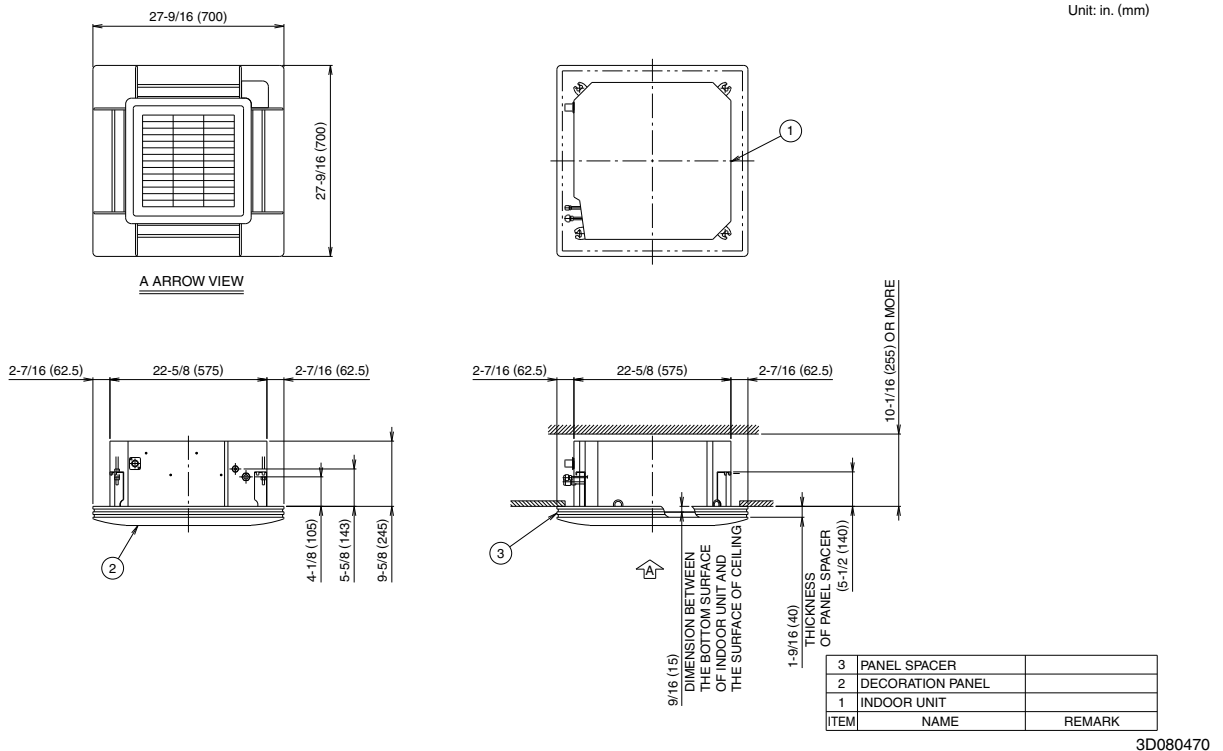


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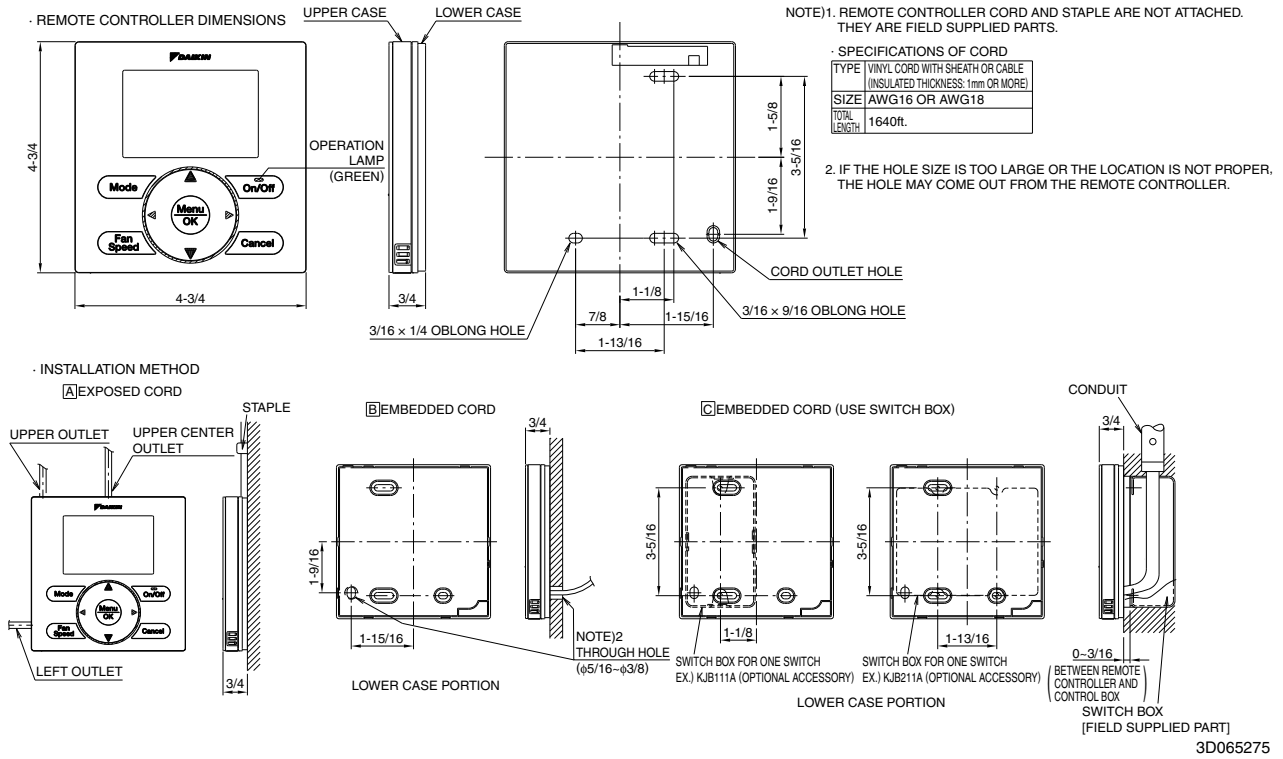
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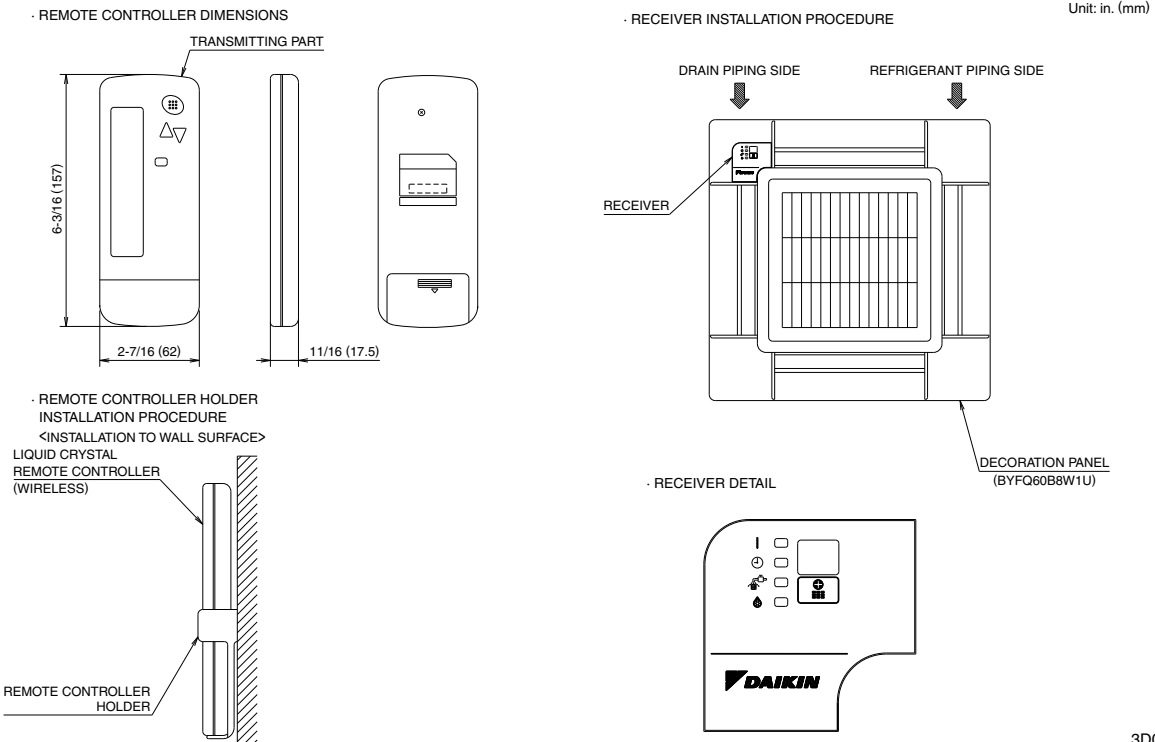
BYFQ60B8W1U — Decoration Panel (Option) —



**BRC1E71/E72 — Wired Remote Controller (Option) —**



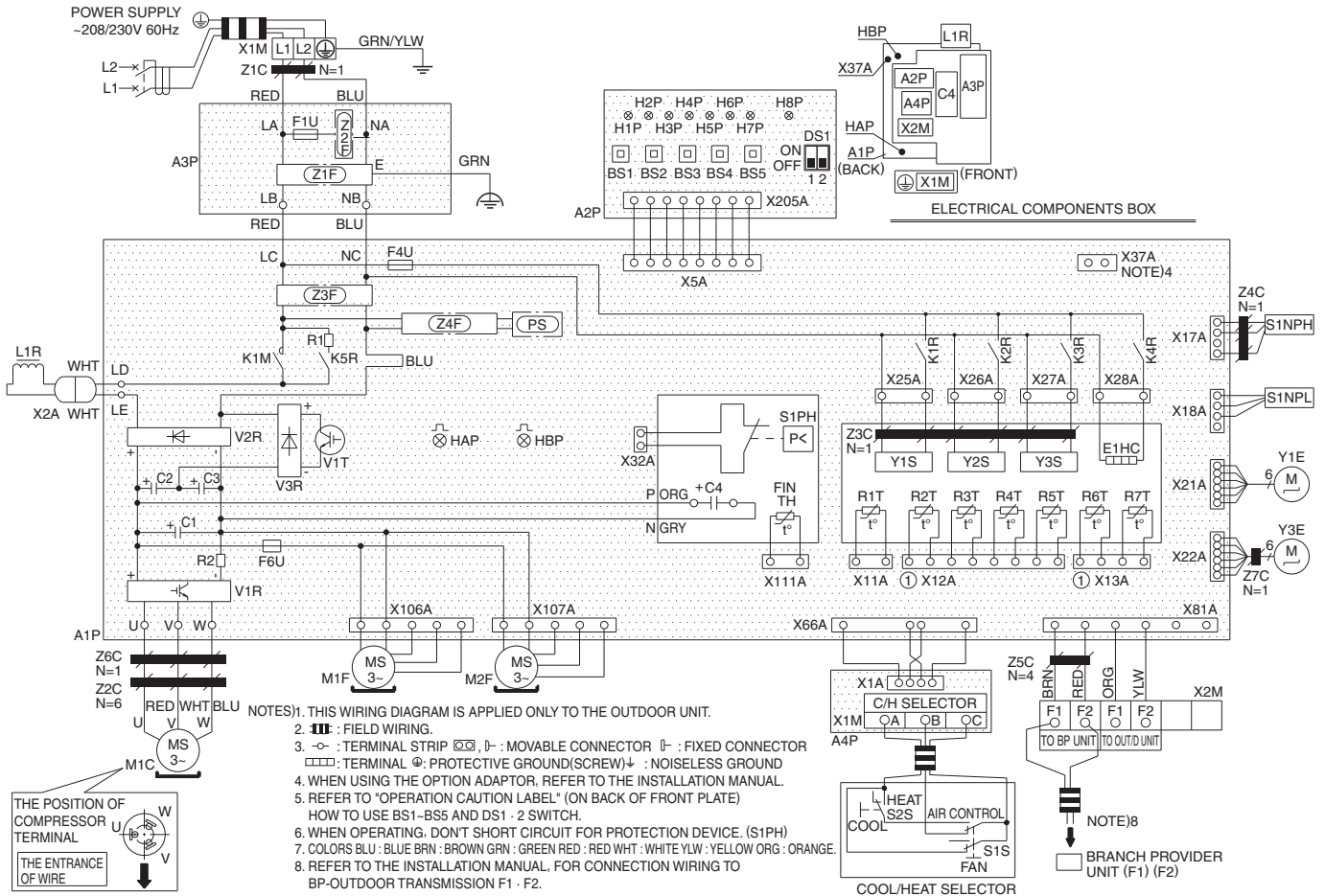
**BRC7E830 — Wireless Remote Controller (Option) —**



# 5. Wiring Diagrams

## 5.1 Outdoor Unit

### RMXS48LVJU



- NOTES)1. THIS WIRING DIAGRAM IS APPLIED ONLY TO THE OUTDOOR UNIT.  
 2. ■■■ : FIELD WIRING.  
 3. -○- : TERMINAL STRIP □□, □- : MOVABLE CONNECTOR □- : FIXED CONNECTOR  
 □□□ : TERMINAL ⊕ : PROTECTIVE GROUND(SCREW)⊕ : NOISELESS GROUND  
 4. WHEN USING THE OPTION ADAPTOR, REFER TO THE INSTALLATION MANUAL.  
 5. REFER TO "OPERATION CAUTION LABEL" (ON BACK OF FRONT PLATE)  
 HOW TO USE BS1-BS5 AND DS1 · 2 SWITCH.  
 6. WHEN OPERATING, DON'T SHORT CIRCUIT FOR PROTECTION DEVICE. (S1PH)  
 7. COLORS BLU : BLUE BRN : BROWN GRN : GREEN RED : RED WHT : WHITE YLW : YELLOW ORG : ORANGE.  
 8. REFER TO THE INSTALLATION MANUAL, FOR CONNECTION WIRING TO  
 BP-OUTDOOR TRANSMISSION F1 · F2.

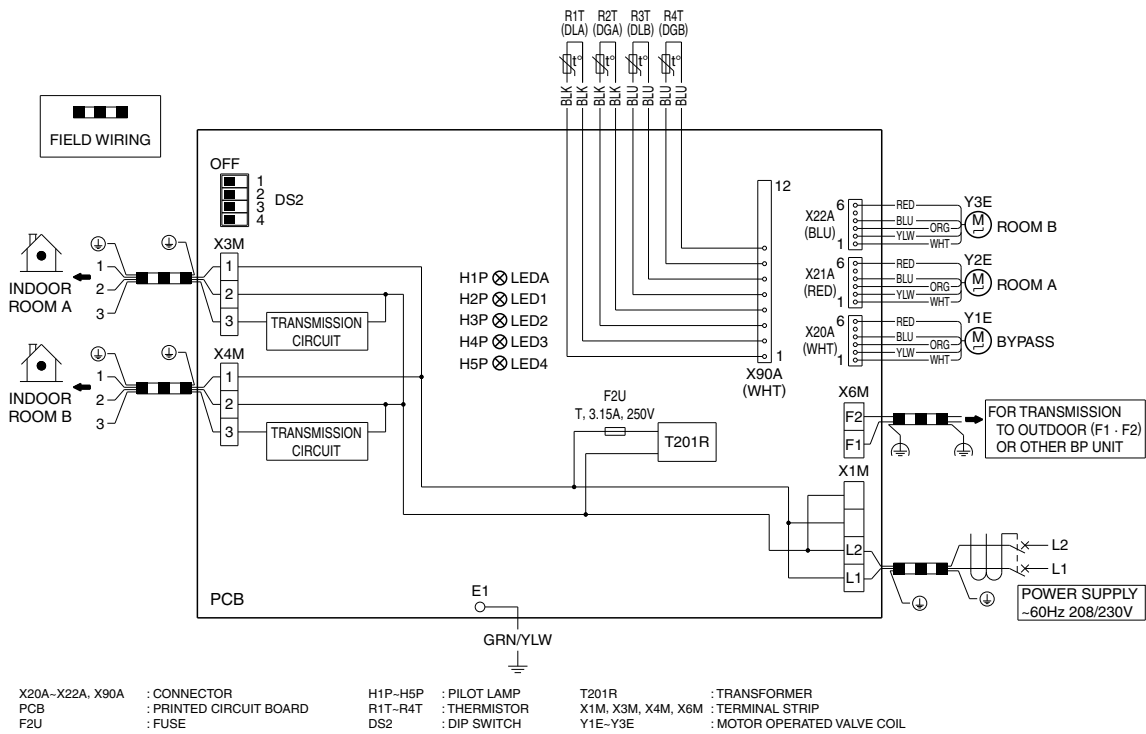
L1-RED	L2-BLU	K2R	MAGNETIC RELAY (Y2S)	S1PH	PRESSURE SWITCH (HIGH)
A1P	PRINTED CIRCUIT BOARD (MAIN)	K3R	MAGNETIC RELAY (Y3S)	V1R	POWER MODULE
A2P	PRINTED CIRCUIT BOARD (SERVICE)	K4R	MAGNETIC RELAY (E1HC)	V2R, V3R	DIODE MODULE
A3P	PRINTED CIRCUIT BOARD (NOISE FILTER)	K5R	MAGNETIC RELAY	V1T	IGBT
A4P	PRINTED CIRCUIT BOARD (C/H SELECTOR)	L1R	REACTOR	X1M	TERMINAL STRIP (POWER SUPPLY)
BS1-5	PUSH BUTTON SWITCH (MODE, SET, RETURN, TEST, RESET)	M1C	MOTOR (COMPRESSOR)	X2M	TERMINAL STRIP (CONTROL)
C1-4	CAPACITOR	M1F	MOTOR (FAN) (UPPER)	X1M	TERMINAL STRIP (C/H SELECTOR) (A4P)
DS1	DIP SWITCH	M2F	MOTOR (FAN) (LOWER)	Y1E	ELECTRONIC EXPANSION VALVE (MAIN)
E1HC	CRANKCASE HEATER	PS	POWER SUPPLY	Y3E	ELECTRONIC EXPANSION VALVE (SUB COOL)
F1U, F4U	FUSE (T 6.3A/250V)	R1	RESISTOR	Y1S	SOLENOID VALVE (4 WAY VALVE)
F6U	FUSE (T 5.0A/250V)	R2	RESISTOR	Y2S	SOLENOID VALVE (HOT GAS)
H1P-8P	PILOT LAMP (SERVICE MONITOR-ORANGE) (H2P)PREPARE, TEST.....FLICKERING MALFUNCTION DETECTION-LIGHT UP	R1T	THERMISTOR (AIR)	Y3S	SOLENOID VALVE (U/L CIRCUIT)
HAP	OPERATION PILOT LAMP (SERVICE MONITOR-GREEN) (A1P)	R2T	THERMISTOR (M1C DISCHARGE)	Z1C-7C	NOISE FILTER (FERRITE CORE)
HBP	INV. PILOT LAMP (SERVICE MONITOR-GREEN) (A1P)	R3T	THERMISTOR (SUCTION1)	Z1F-4F	NOISE FILTER
K1M	MAGNETIC CONTACTOR	R4T	THERMISTOR (COIL)		C/H SELECTOR
K1R	MAGNETIC RELAY (Y1S)	R5T	THERMISTOR (SUCTION2)	S1S	SELECTOR SWITCH (FAN/COOL · HEAT)
		R6T	THERMISTOR (SUBCOOL)	S2S	SELECTOR SWITCH (COOL/HEAT)
		R7T	THERMISTOR (LIQUID)		CONNECTOR OF OPTION ADAPTOR
		FINTH	THERMISTOR (FIN)	X37A	CONNECTOR
		S1NPH	PRESSURE SENSOR (HIGH)	NOTE)4	(OPTION ADAPTOR POWER SUPPLY)
		S1NPL	PRESSURE SENSOR (LOW)		

3D080424

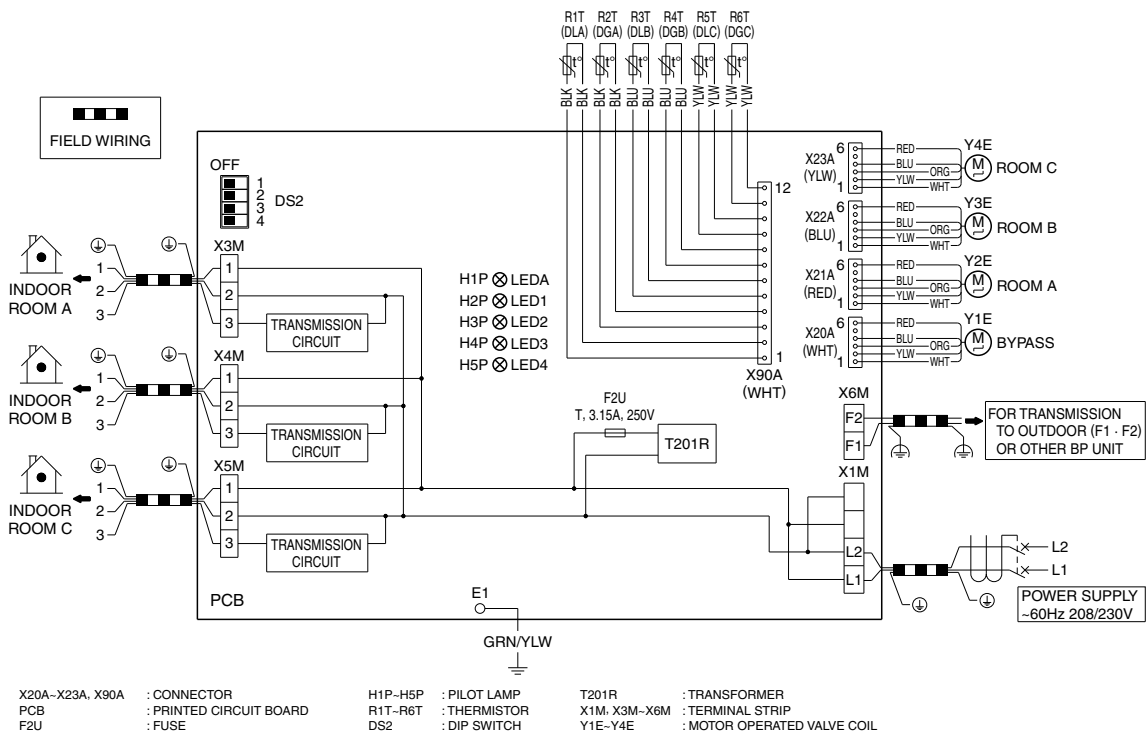


## 5.2 BP Unit

### BPMKS048A2U

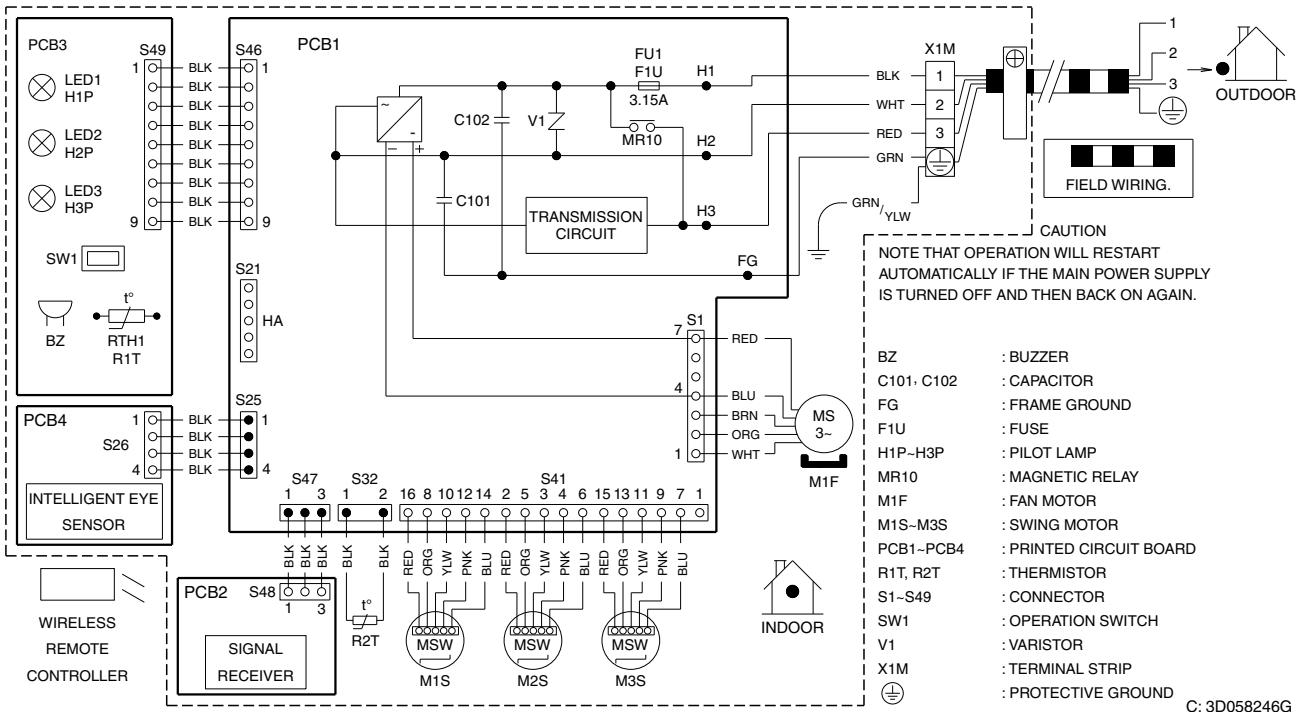


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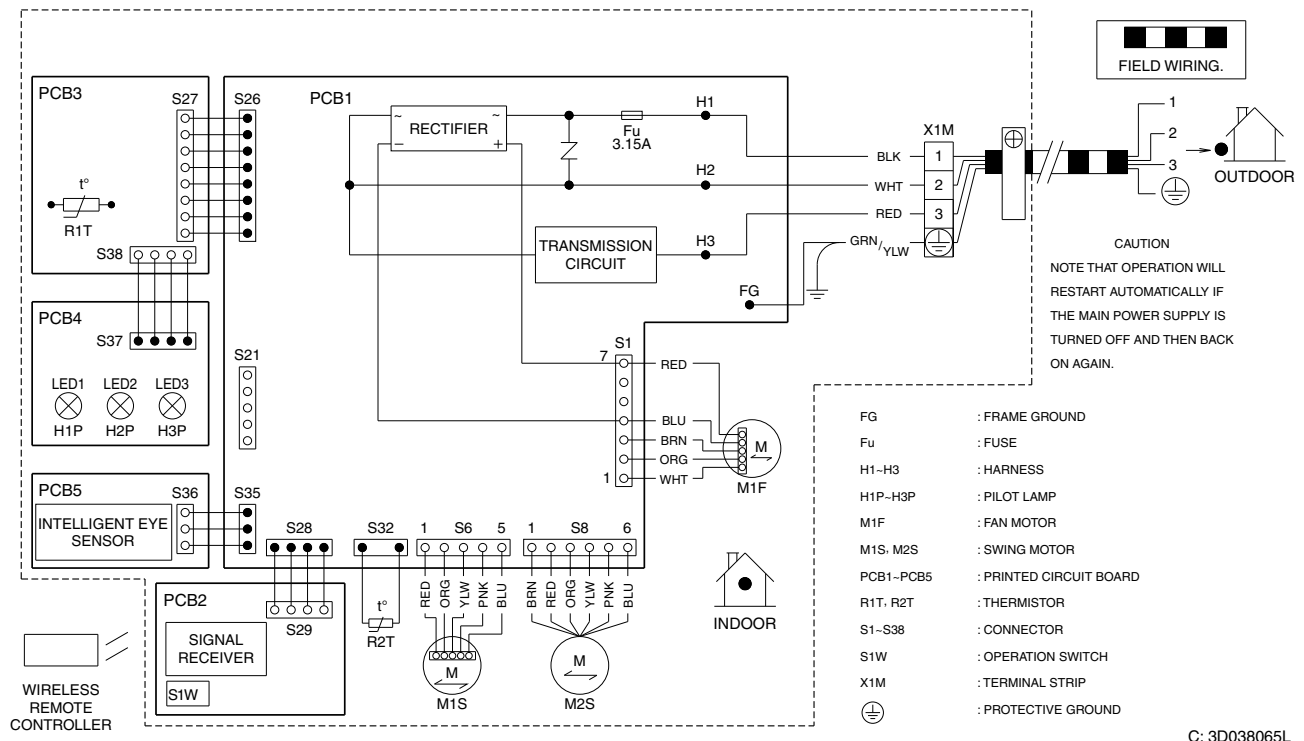
### 5.3 Indoor Unit

#### CTXS07LVJU

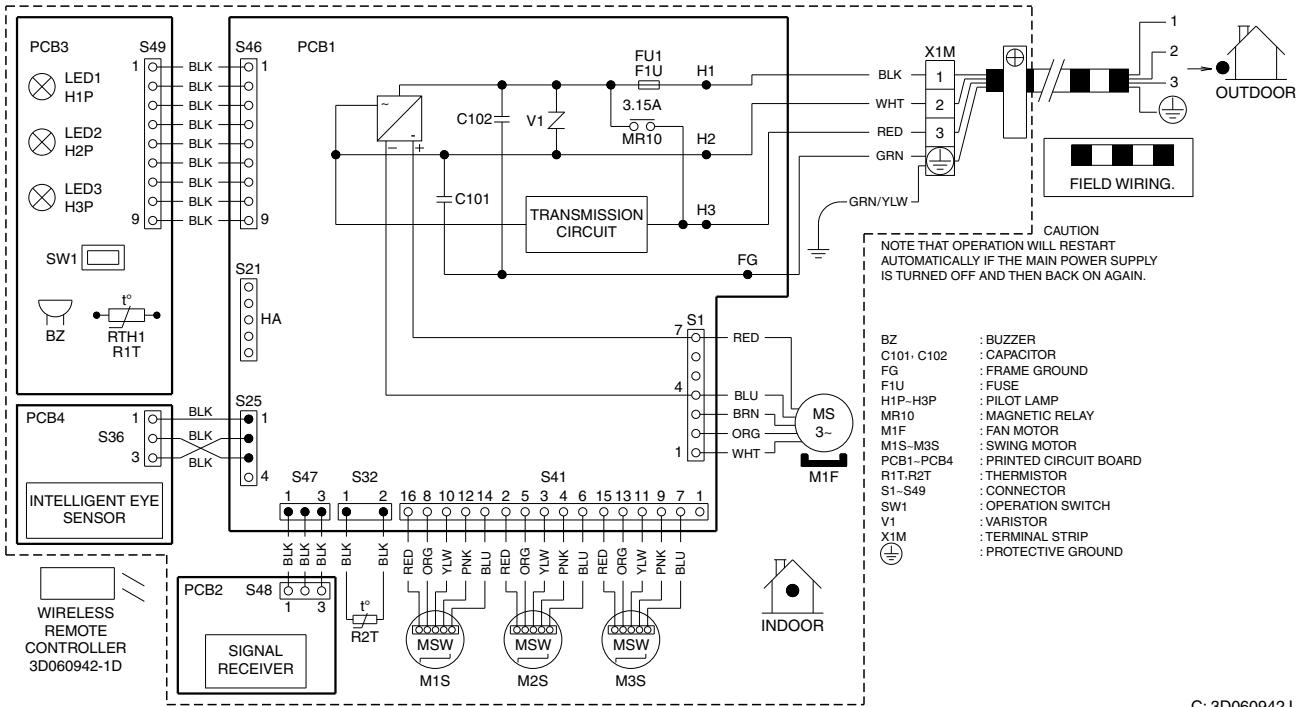


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#### CTXS07JVJU, CTXS09/12HVJU

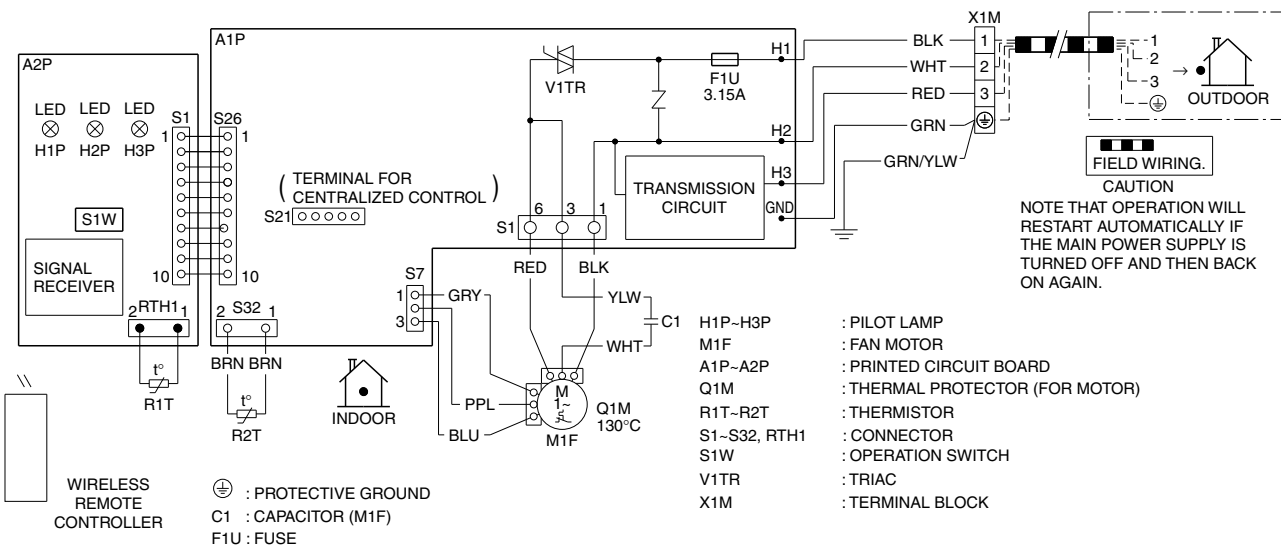


FTXS15/18/24LVJU



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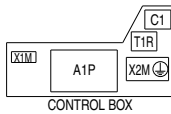
FDXS09/12LVJU, CDXS15/18/24LVJU



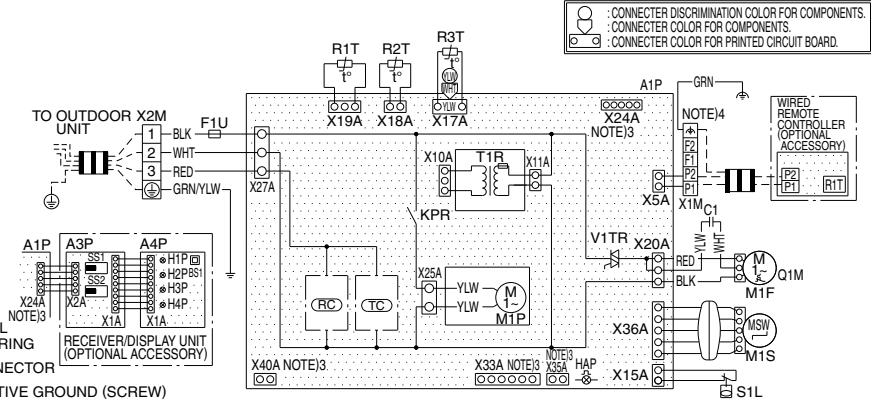
C: 3D073998B

FFQ09/12/15/18LVJU

A1P	PRINTED CIRCUIT BOARD	H1P	PILOT LAMP (ON-RED)
C1	CAPACITOR (M1F)	H2P	PILOT LAMP (TIMER-GREEN)
F1U	FUSE (F. 5A. 250V)	H3P	PILOT LAMP (FILTER SIGN-RED)
HAP	PILOT LAMP (SERVICE MONITOR GREEN)	H4P	PILOT LAMP (DEFROST-ORANGE)
KPR	MAGNETIC RELAY (M1P)	SS1	SELECTOR SWITCH (MAIN/SUB)
M1F	FAN MOTOR	SS2	SELECTOR SWITCH (WIRELESS ADDRESS SET)
M1P	DRAIN PUMP MOTOR	X24A	CONNECTOR FOR OPTIONAL PARTS
M1S	SWING LOUVER MOTOR	X24A	CONNECTOR (WIRELESS REMOTE CONTROLLER)
Q1M	THERMAL PROTECTOR FOR MOTOR	X33A	CONNECTOR (ADAPTOR FOR WIRING)
R1T	THERMISTOR (AIR)	X35A	CONNECTOR (GROUP CONTROL ADAPTOR)
R2T	THERMISTOR (COIL-1)	X40A	CONNECTOR (ON/OFF INPUT FROM OUTSIDE)
R3T	THERMISTOR (COIL-2)		
S1L	FLOAT SWITCH		
T1R	TRANSFORMER (208-230V/25V)		
V1TR	TRIAC		
X1M	TERMINAL BLOCK		
X2M	TERMINAL BLOCK		
X3P	SIGNAL RECEIVER CIRCUIT		
X4P	SIGNAL TRANSMISSION CIRCUIT		
X5A	WIRELESS REMOTE CONTROLLER		
X6A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X7A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X8A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X9A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X10A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X11A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X12A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X13A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X14A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X15A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X16A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X17A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X18A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X19A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X20A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X21A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X22A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X23A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X24A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X25A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X26A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X27A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X28A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X29A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X30A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X31A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X32A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X33A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X34A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X35A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X36A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X37A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X38A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X39A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		
X40A	WIRELESS REMOTE CONTROLLER (RECEIVER/DISPLAY UNIT)		



- NOTES
- □ □ □ : TERMINAL
    - — — : FIELD WIRING
    - ⊠ : CONNECTOR
    - ⊕ : PROTECTIVE GROUND (SCREW)
    - ⚡ : NOISELESS GROUND
  - IN CASE USING CENTRAL REMOTE CONTROLLER, CONNECT IT TO THE UNIT IN ACCORDANCE WITH THE ATTACHED INSTALLATION MANUAL.
  - X24A, X33A, X35A AND X40A ARE CONNECTED WHEN THE OPTIONAL ACCESSORIES ARE USED.
  - GROUND THE SHIELD OF THE REMOTE CONTROLLER CORD TO THE INDOOR UNIT (IN CASE OF USING SHIELD WIRE).
  - SYMBOLS SHOW AS FOLLOWS: RED: RED BLK: BLACK WHT: WHITE YLW: YELLOW GRN: GREEN BLU: BLUE



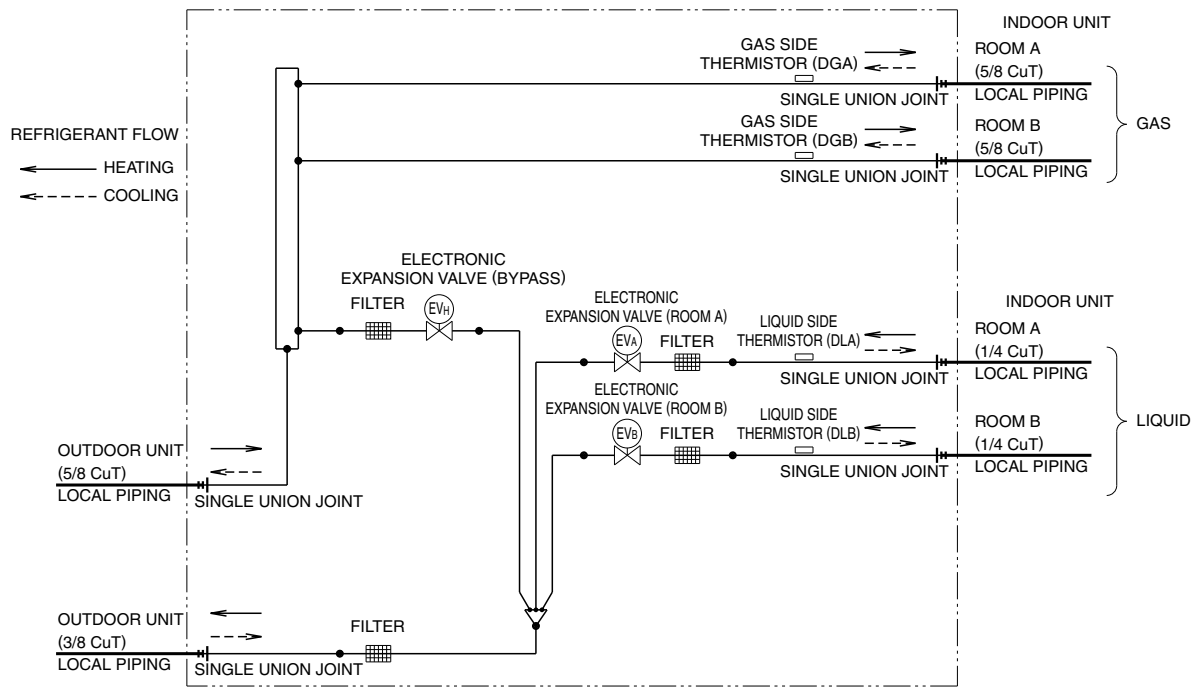
⊠ : CONNECTOR DISCRIMINATION COLOR FOR COMPONENTS.  
 ⊠ : CONNECTOR COLOR FOR COMPONENTS.  
 ⊠ : CONNECTOR COLOR FOR PRINTED CIRCUIT BOARD.

C: 3D080351A



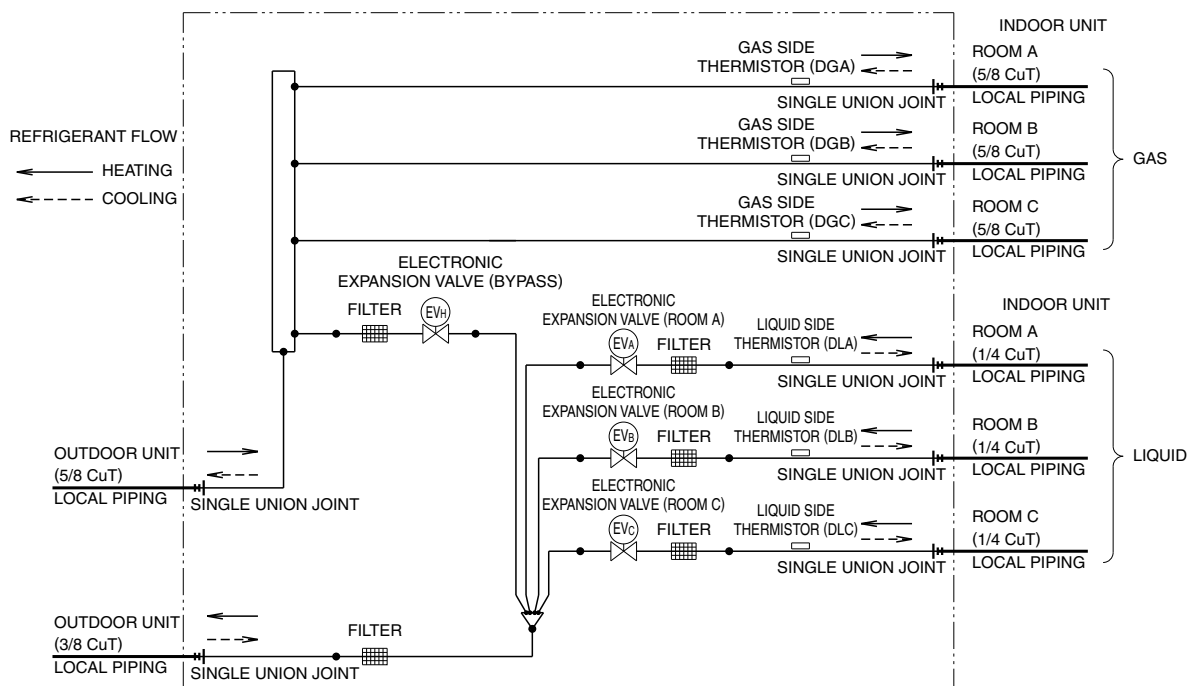
## 6.2 BP Unit

### BPMKS048A2U



3D080438

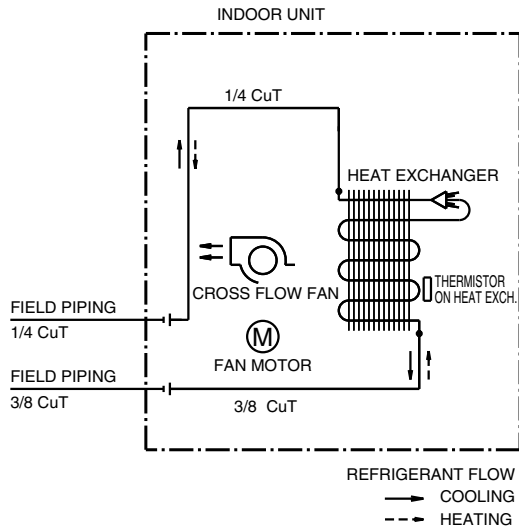
### BPMKS049A3U



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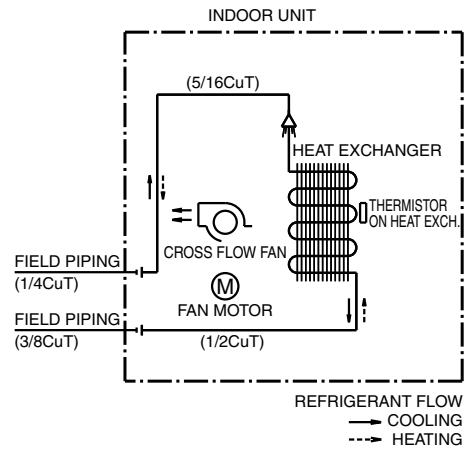
### 6.3 Indoor Unit

CTXS07LVJU



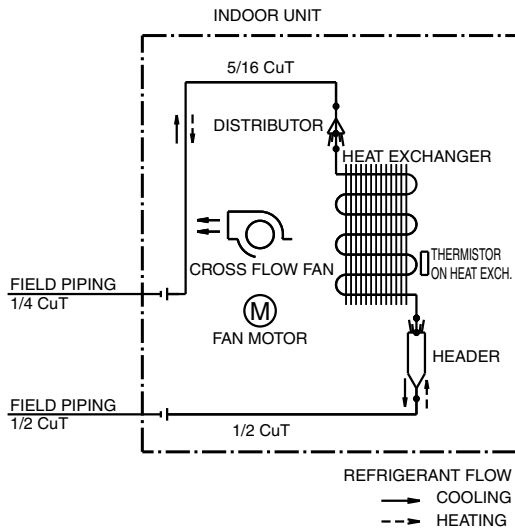
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CTXS07JVJU, CTXS09/12HVJU



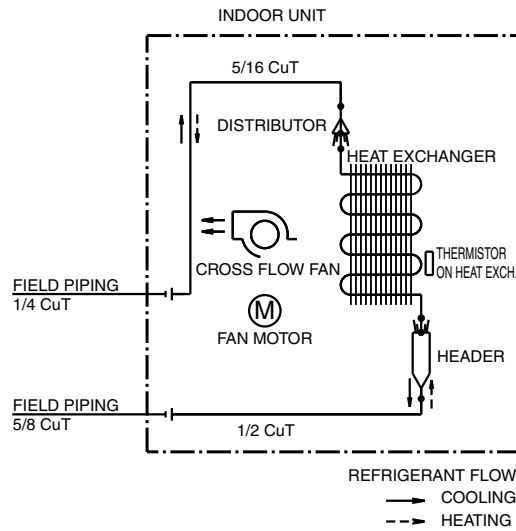
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FTXS15/18LVJU



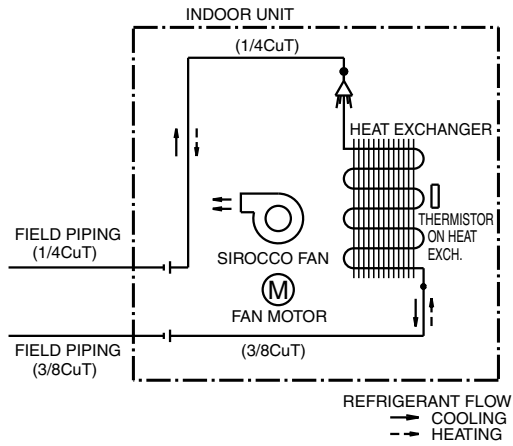
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FTXS24LVJU



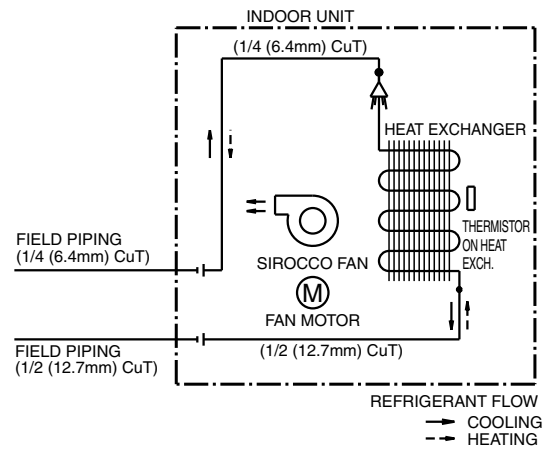
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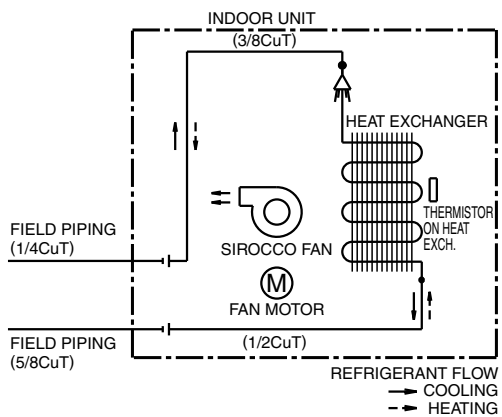
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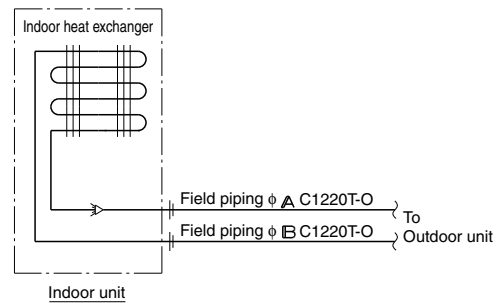
4D075271

CDXS24LVJU



4D080593

FFQ09/12/15/18LVJU



MODEL	A	B
FFQ09 - 12LVJU	1/4 (6.4)	3/8 (9.5)
FFQ15 - 18LVJU	1/4 (6.4)	1/2 (12.7)

4D080624



## 7. Capacity Tables

### 7.1 CTXS, FTXS Series

#### Cooling Capacity

COMBINATION (%)	OUTDOOR AIR TEMP.	INDOOR AIR TEMP.: (°F WB)											
		57		61		64		67		72		75	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
°FDB	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	
130%	50	52.18	2.62	56.28	2.66	59.44	2.70	62.42	2.73	67.63	2.78	70.79	2.82
	57	50.57	2.89	54.67	2.93	57.83	2.97	60.81	3.00	66.02	3.06	69.18	3.09
	64	48.97	3.19	53.06	3.24	56.22	3.27	59.20	3.31	64.41	3.36	67.57	3.40
	68	48.06	3.38	52.15	3.42	55.31	3.46	58.29	3.49	63.50	3.55	66.66	3.58
	74	46.68	3.68	50.77	3.73	53.93	3.76	56.91	3.79	62.12	3.85	65.28	3.88
	80	45.32	4.01	49.41	4.05	52.57	4.08	55.55	4.12	60.76	4.17	63.92	4.21
	88	43.48	4.48	47.57	4.52	50.74	4.55	53.71	4.59	58.92	4.64	62.09	4.68
	95	41.87	4.92	45.96	4.97	49.13	5.00	52.10	5.03	57.31	5.09	60.48	5.12
	102	40.26	5.28	44.36	5.28	47.52	5.28	50.50	5.28	55.57	5.28	58.56	5.28
	109	38.65	4.01	42.75	4.01	45.07	4.01	47.12	4.01	50.66	4.01	52.78	4.01
115	35.16	2.90	37.13	2.90	38.63	2.90	40.03	2.90	42.46	2.90	43.91	2.90	
120%	50	51.46	2.58	55.50	2.62	58.62	2.66	61.55	2.69	66.69	2.75	69.81	2.78
	57	49.88	2.85	53.91	2.89	57.03	2.93	59.97	2.96	65.11	3.01	68.22	3.05
	64	48.29	3.15	52.33	3.19	55.45	3.23	58.38	3.26	63.52	3.31	66.64	3.35
	68	47.39	3.33	51.43	3.38	54.55	3.41	57.49	3.44	62.62	3.50	65.74	3.53
	74	46.03	3.63	50.07	3.68	53.19	3.71	56.12	3.74	61.26	3.80	64.38	3.83
	80	44.69	3.95	48.73	3.99	51.85	4.03	54.78	4.06	59.92	4.11	63.04	4.15
	88	42.88	4.41	46.92	4.46	50.04	4.49	52.97	4.52	58.11	4.58	61.23	4.61
	95	41.29	4.85	45.33	4.90	48.45	4.93	51.40	4.96	56.52	5.02	59.64	5.05
	102	39.71	5.28	43.74	5.28	46.86	5.28	49.80	5.28	54.84	5.28	57.82	5.28
	109	38.12	4.01	42.16	4.01	44.47	4.01	46.52	4.01	50.05	4.01	52.17	4.01
115	34.70	2.90	36.66	2.90	38.16	2.90	39.56	2.90	41.98	2.90	43.43	2.90	
110%	50	50.09	2.51	54.02	2.55	57.06	2.58	59.91	2.61	64.91	2.67	67.95	2.70
	57	48.55	2.77	52.48	2.81	55.51	2.84	58.37	2.88	63.37	2.93	66.41	2.96
	64	47.00	3.06	50.93	3.10	53.97	3.14	56.82	3.17	61.83	3.22	64.86	3.25
	68	46.13	3.24	50.06	3.28	53.10	3.31	55.95	3.35	60.95	3.40	63.99	3.43
	74	44.80	3.53	48.73	3.57	51.77	3.60	54.63	3.64	59.63	3.69	62.66	3.72
	80	43.50	3.84	47.43	3.88	50.46	3.91	53.32	3.94	58.32	4.00	61.36	4.03
	88	41.74	4.29	45.66	4.33	48.70	4.36	51.56	4.39	56.56	4.45	59.60	4.48
	95	40.19	4.72	44.12	4.76	47.16	4.79	50.00	4.82	55.02	4.88	58.05	4.91
	102	38.65	5.17	42.58	5.22	45.61	5.25	48.47	5.28	53.44	5.28	56.42	5.28
	109	37.10	4.01	41.03	4.01	43.31	4.01	45.36	4.01	48.88	4.01	51.00	4.01
115	33.80	2.90	35.76	2.90	37.25	2.90	38.65	2.90	41.07	2.90	42.51	2.90	
100%	50	48.07	2.41	51.84	2.45	54.75	2.49	57.49	2.52	62.29	2.57	65.21	2.60
	57	46.59	2.67	50.36	2.71	53.27	2.74	56.01	2.77	60.81	2.82	63.72	2.85
	64	45.10	2.95	48.87	2.99	51.79	3.02	54.53	3.05	59.33	3.10	62.24	3.13
	68	44.27	3.12	48.04	3.16	50.95	3.19	53.69	3.22	58.49	3.27	61.41	3.30
	74	42.99	3.40	46.77	3.44	49.68	3.47	52.42	3.50	57.22	3.55	60.13	3.58
	80	41.74	3.69	45.51	3.74	48.43	3.77	51.17	3.80	55.97	3.85	58.88	3.88
	88	40.05	4.13	43.82	4.17	46.73	4.20	49.48	4.23	54.28	4.28	57.19	4.31
	95	38.57	4.54	42.34	4.58	45.25	4.61	48.00	4.64	52.79	4.69	55.71	4.73
	102	37.09	4.98	40.86	5.02	43.77	5.05	46.51	5.08	51.31	5.14	54.23	5.17
	109	35.60	4.01	39.38	4.01	41.66	4.01	43.69	4.01	47.20	4.01	49.30	4.01
115	32.55	2.90	34.50	2.90	35.98	2.90	37.37	2.90	39.77	2.90	41.20	2.90	
90%	50	43.26	2.03	46.65	2.07	49.28	2.10	51.74	2.12	56.06	2.16	58.69	2.19
	57	41.93	2.25	45.32	2.28	47.94	2.31	50.41	2.33	54.73	2.38	57.35	2.40
	64	40.59	2.48	43.99	2.52	46.61	2.54	49.08	2.57	53.40	2.61	56.02	2.64
	68	39.84	2.63	43.23	2.66	45.86	2.69	48.32	2.71	52.64	2.76	55.27	2.78
	74	38.70	2.86	42.09	2.90	44.71	2.92	47.18	2.95	51.50	2.99	54.12	3.02
	80	37.57	3.11	40.96	3.15	43.58	3.17	46.05	3.20	50.37	3.24	52.99	3.27
	88	36.05	3.48	39.44	3.51	42.06	3.54	44.53	3.56	48.85	3.61	51.47	3.64
	95	34.71	3.83	38.11	3.86	40.73	3.89	43.20	3.91	47.51	3.96	50.14	3.98
	102	33.38	4.20	36.77	4.23	39.39	4.26	41.86	4.28	46.18	4.33	48.80	4.35
	109	32.04	4.01	35.18	4.01	37.45	4.01	39.57	4.01	43.23	4.01	45.42	4.01
115	28.86	2.90	30.89	2.90	32.44	2.90	33.88	2.90	36.38	2.90	37.88	2.90	

COMBINATION (%)	OUTDOOR AIR TEMP.	INDOOR AIR TEMP.: (°FWB)											
		57		61		64		67		72		75	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°FDB	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW
80%	50	38.45	1.69	41.47	1.71	43.80	1.74	45.99	1.76	49.83	1.79	52.16	1.82
	57	37.27	1.86	40.28	1.89	42.62	1.91	44.81	1.93	48.65	1.97	50.98	1.99
	64	36.08	2.06	39.10	2.09	41.43	2.11	43.62	2.13	47.46	2.17	49.79	2.19
	68	35.41	2.18	38.43	2.21	40.76	2.23	42.96	2.25	46.79	2.29	49.13	2.31
	74	34.40	2.37	37.41	2.40	39.74	2.42	41.94	2.44	45.78	2.48	48.11	2.50
	80	33.39	2.58	36.41	2.61	38.74	2.63	40.93	2.65	44.77	2.69	47.10	2.71
	88	32.04	2.88	35.06	2.91	37.39	2.93	39.58	2.95	43.42	2.99	45.75	3.01
	95	30.85	3.17	33.87	3.20	36.20	3.22	38.40	3.24	42.23	3.28	44.57	3.30
	102	29.67	3.48	32.69	3.51	35.02	3.53	37.21	3.55	41.05	3.59	43.38	3.61
	109	28.48	3.81	31.50	3.84	33.83	3.86	36.02	3.88	39.86	3.91	42.19	3.94
	115	25.73	2.90	27.86	2.90	29.49	2.90	31.01	2.90	33.64	2.90	35.21	2.90
70%	50	33.65	1.38	36.29	1.41	38.33	1.43	40.25	1.44	43.60	1.47	45.64	1.49
	57	32.61	1.53	35.25	1.55	37.29	1.57	39.21	1.59	42.57	1.62	44.61	1.63
	64	31.57	1.69	34.21	1.71	36.25	1.73	38.17	1.75	41.53	1.78	43.57	1.80
	68	30.99	1.79	33.63	1.81	35.67	1.83	37.59	1.85	40.95	1.88	42.98	1.89
	74	30.10	1.95	32.74	1.97	34.78	1.99	36.69	2.01	40.05	2.04	42.09	2.05
	80	29.22	2.12	31.86	2.14	33.90	2.16	35.82	2.18	39.18	2.21	41.22	2.22
	88	28.04	2.37	30.67	2.39	32.71	2.41	34.63	2.43	37.99	2.45	40.03	2.47
	95	27.00	2.60	29.64	2.63	31.68	2.64	33.60	2.66	36.96	2.69	39.00	2.71
	102	25.96	2.86	28.60	2.88	30.64	2.90	32.56	2.91	35.92	2.94	37.96	2.96
	109	24.92	3.13	27.56	3.15	29.60	3.17	31.52	3.18	34.88	3.21	36.92	3.23
	115	23.16	2.90	25.39	2.90	27.10	2.90	28.70	2.90	31.45	2.90	33.10	2.90
60%	50	28.84	1.13	31.10	1.15	32.85	1.16	34.50	1.18	37.38	1.20	39.12	1.22
	57	27.95	1.25	30.21	1.27	31.96	1.28	33.61	1.29	36.49	1.32	38.23	1.33
	64	27.06	1.38	29.32	1.40	31.07	1.41	32.72	1.43	35.60	1.45	37.35	1.46
	68	26.56	1.46	28.82	1.48	30.57	1.49	32.22	1.51	35.10	1.53	36.84	1.55
	74	25.80	1.59	28.06	1.61	29.81	1.62	31.45	1.64	34.33	1.66	36.08	1.68
	80	25.04	1.73	27.31	1.75	29.06	1.76	30.70	1.78	33.58	1.80	35.33	1.81
	88	24.03	1.93	26.29	1.95	28.04	1.96	29.69	1.98	32.57	2.00	34.31	2.02
	95	23.14	2.12	25.40	2.14	27.15	2.16	28.80	2.17	31.68	2.20	33.42	2.21
	102	22.25	2.33	24.51	2.35	26.26	2.36	27.91	2.38	30.79	2.40	32.54	2.42
	109	21.36	2.55	23.63	2.57	25.37	2.58	27.02	2.60	29.90	2.62	31.65	2.64
	115	20.61	2.75	22.87	2.77	24.62	2.78	26.27	2.79	29.15	2.82	30.89	2.83
50%	50	24.03	0.93	25.92	0.94	27.38	0.95	28.75	0.97	31.15	0.99	32.60	1.00
	57	23.29	1.02	25.18	1.04	26.63	1.05	28.01	1.06	30.41	1.08	31.86	1.09
	64	22.55	1.13	24.44	1.15	25.89	1.16	27.26	1.17	29.66	1.19	31.12	1.20
	68	22.13	1.20	24.02	1.21	25.48	1.22	26.85	1.24	29.25	1.26	30.70	1.27
	74	21.50	1.30	23.38	1.32	24.84	1.33	26.21	1.34	28.61	1.36	30.07	1.37
	80	20.87	1.42	22.76	1.43	24.21	1.45	25.58	1.46	27.98	1.48	29.44	1.49
	88	20.03	1.58	21.91	1.60	23.37	1.61	24.74	1.62	27.14	1.64	28.59	1.65
	95	19.28	1.74	21.17	1.76	22.63	1.77	24.00	1.78	26.40	1.80	27.85	1.81
	102	18.54	1.91	20.43	1.93	21.89	1.94	23.26	1.95	25.66	1.97	27.11	1.98
	109	17.80	2.09	19.69	2.11	21.14	2.12	22.52	2.13	24.91	2.15	26.37	2.16
	115	17.18	2.25	19.06	2.27	20.52	2.28	21.89	2.29	24.29	2.31	25.74	2.32

**Symbols:**

TC : Total capacity (kBtu/h)  
 PI : Power input (kW)

**Note:**

1. ■ shows rated capacities and power input.
2. This table shows outdoor unit cooling capacity and power input.
3. PI of indoor units is not included in the table.

3D081274

Heating Capacity

COMBINATION (%)	OUTDOOR AIR TEMP. °FWB	INDOOR AIR TEMP.: (°FDB)											
		61		65		68		70		72		76	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
130%	5	31.57	2.91	31.22	3.07	30.95	3.20	30.78	3.28	30.61	3.36	30.25	3.52
	12	36.44	3.06	36.09	3.22	35.82	3.35	35.65	3.43	35.48	3.51	35.12	3.67
	17	39.93	3.17	39.59	3.33	39.32	3.45	39.15	3.54	38.97	3.62	38.62	3.78
	26	46.18	3.36	45.83	3.52	45.56	3.65	45.39	3.73	45.22	3.81	44.86	3.98
	32	50.30	3.49	49.95	3.65	49.69	3.78	49.51	3.86	49.34	3.94	48.99	4.10
	36	53.05	3.57	52.70	3.74	52.43	3.86	52.26	3.94	52.09	4.02	51.73	4.19
	43	57.92	3.73	57.57	3.89	57.30	4.01	57.00	4.09	56.96	4.17	56.60	4.34
	50	62.79	3.88	62.44	4.04	62.17	4.16	62.00	4.24	61.83	4.33	61.47	4.49
	54	65.54	3.96	65.19	4.12	64.92	4.25	64.75	4.33	64.58	4.41	64.22	4.58
120%	5	31.01	2.89	30.67	3.05	30.41	3.17	30.24	3.25	30.07	3.33	29.72	3.50
	12	35.80	3.04	35.46	3.20	35.20	3.32	35.03	3.40	34.86	3.48	34.51	3.65
	17	39.23	3.14	38.89	3.30	38.63	3.43	38.46	3.51	38.29	3.59	37.94	3.75
	26	45.37	3.34	45.03	3.50	44.77	3.62	44.60	3.70	44.43	3.78	44.08	3.95
	32	49.42	3.46	49.08	3.62	48.81	3.75	48.64	3.83	48.47	3.91	48.13	4.07
	36	52.12	3.55	51.78	3.71	51.51	3.83	51.34	3.91	51.17	3.99	50.83	4.16
	43	56.90	3.70	56.56	3.86	56.30	3.98	56.00	4.06	55.96	4.14	55.61	4.31
	50	61.69	3.85	61.35	4.01	61.08	4.13	60.91	4.21	60.74	4.29	60.40	4.46
	54	64.39	3.93	64.05	4.09	63.78	4.22	63.61	4.30	63.44	4.38	63.10	4.54
110%	5	30.46	2.86	30.13	3.02	29.87	3.15	29.70	3.23	29.53	3.31	29.19	3.47
	12	35.16	3.01	34.83	3.17	34.57	3.30	34.40	3.38	34.23	3.46	33.89	3.62
	17	38.53	3.12	38.20	3.28	37.94	3.40	37.77	3.48	37.61	3.56	37.27	3.73
	26	44.56	3.31	44.22	3.47	43.97	3.59	43.80	3.67	43.63	3.75	43.29	3.92
	32	48.54	3.44	48.20	3.60	47.94	3.72	47.78	3.80	47.61	3.88	47.27	4.04
	36	51.19	3.52	50.85	3.68	50.59	3.80	50.43	3.88	50.26	3.96	49.92	4.13
	43	55.89	3.67	55.55	3.83	55.29	3.95	55.00	4.03	54.96	4.11	54.62	4.28
	50	60.59	3.82	60.25	3.98	59.99	4.10	59.83	4.18	59.66	4.26	59.32	4.43
	54	63.24	3.90	62.90	4.06	62.64	4.19	62.48	4.27	62.31	4.35	61.97	4.51
100%	5	29.91	2.83	29.58	2.99	29.32	3.11	29.16	3.19	29.00	3.27	28.66	3.43
	12	34.52	2.98	34.19	3.13	33.94	3.26	33.77	3.34	33.61	3.41	33.27	3.58
	17	37.83	3.08	37.51	3.24	37.25	3.36	37.09	3.44	36.92	3.52	36.59	3.68
	26	43.75	3.27	43.42	3.43	43.17	3.55	43.00	3.63	42.84	3.71	42.50	3.87
	32	47.65	3.39	47.33	3.55	47.07	3.67	46.91	3.75	46.74	3.83	46.41	3.99
	36	50.26	3.48	49.93	3.64	49.67	3.76	49.51	3.84	49.35	3.92	49.01	4.08
	43	54.87	3.62	54.54	3.78	54.29	3.90	54.00	3.98	53.96	4.06	53.63	4.22
	50	59.48	3.77	59.16	3.93	58.90	4.05	58.74	4.13	58.58	4.21	58.24	4.37
	54	62.09	3.85	61.76	4.01	61.51	4.13	61.34	4.21	61.18	4.29	60.84	4.45
90%	5	27.14	2.61	26.84	2.75	26.61	2.87	26.46	2.94	26.31	3.01	26.01	3.16
	12	31.32	2.74	31.03	2.89	30.80	3.00	30.65	3.08	30.50	3.15	30.19	3.30
	17	34.33	2.84	34.03	2.99	33.80	3.10	33.65	3.17	33.51	3.25	33.20	3.39
	26	39.70	3.02	39.40	3.16	39.17	3.27	39.02	3.35	38.87	3.42	38.57	3.57
	32	43.24	3.13	42.94	3.28	42.71	3.39	42.57	3.46	42.42	3.53	42.11	3.68
	36	45.60	3.21	45.31	3.35	45.08	3.46	44.93	3.54	44.78	3.61	44.47	3.76
	43	49.79	3.34	49.49	3.49	49.26	3.60	49.00	3.67	48.97	3.75	48.66	3.89
	50	53.98	3.48	53.68	3.62	53.45	3.74	53.30	3.81	53.15	3.88	52.85	4.03
	54	56.34	3.55	56.04	3.70	55.81	3.81	55.66	3.89	55.51	3.96	55.21	4.11
80%	5	24.37	2.35	24.10	2.48	23.89	2.59	23.76	2.65	23.63	2.72	23.35	2.85
	12	28.13	2.48	27.86	2.61	27.65	2.71	27.52	2.77	27.39	2.84	27.11	2.97
	17	30.83	2.56	30.56	2.69	30.35	2.80	30.22	2.86	30.09	2.93	29.81	3.06
	26	35.65	2.72	35.38	2.85	35.17	2.95	35.04	3.02	34.91	3.08	34.63	3.22
	32	38.83	2.82	38.56	2.95	38.36	3.06	38.22	3.12	38.09	3.19	37.82	3.32
	36	40.95	2.89	40.68	3.02	40.48	3.12	40.34	3.19	40.21	3.26	39.94	3.39
	43	44.71	3.01	44.44	3.15	44.24	3.25	44.00	3.31	43.97	3.38	43.70	3.51
	50	48.47	3.14	48.20	3.27	48.00	3.37	47.86	3.44	47.73	3.50	47.46	3.63
	54	50.59	3.21	50.32	3.34	50.12	3.44	49.98	3.50	49.85	3.57	49.58	3.70
59	53.29	3.29	53.02	3.42	52.82	3.53	52.68	3.59	52.55	3.66	52.28	3.79	

COMBINATION (%)	OUTDOOR AIR TEMP.	INDOOR AIR TEMP.: (°FDB)											
		61		65		68		70		72		76	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°FWB	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW
70%	5	21.60	2.08	21.36	2.20	21.18	2.29	21.06	2.35	20.94	2.41	20.70	2.52
	12	24.93	2.19	24.70	2.31	24.51	2.40	24.39	2.46	24.28	2.51	24.03	2.63
	17	27.33	2.27	27.09	2.39	26.91	2.47	26.79	2.53	26.67	2.59	26.43	2.71
	26	31.60	2.41	31.36	2.52	31.18	2.61	31.06	2.67	30.94	2.73	30.70	2.85
	32	34.42	2.50	34.18	2.62	34.00	2.71	33.88	2.76	33.76	2.82	33.52	2.94
	36	36.30	2.56	36.06	2.68	35.88	2.77	35.76	2.82	35.64	2.88	35.40	3.00
	43	39.63	2.67	39.39	2.78	39.21	2.87	39.00	2.93	38.97	2.99	38.73	3.11
	50	42.96	2.78	42.73	2.89	42.54	2.98	42.43	3.04	42.31	3.10	42.06	3.22
	54	44.84	2.84	44.61	2.95	44.42	3.04	44.31	3.10	44.19	3.16	43.94	3.28
	59	47.24	2.92	47.00	3.03	46.82	3.12	46.70	3.18	46.58	3.24	46.34	3.36
60%	5	18.83	1.81	18.63	1.91	18.47	1.98	18.36	2.03	18.26	2.08	18.05	2.19
	12	21.74	1.90	21.53	2.00	21.37	2.08	21.27	2.13	21.16	2.18	20.95	2.28
	17	23.82	1.97	23.62	2.07	23.46	2.15	23.35	2.20	23.25	2.25	23.04	2.35
	26	27.55	2.09	27.34	2.19	27.18	2.27	27.08	2.32	26.98	2.37	26.76	2.47
	32	30.01	2.17	29.80	2.27	29.64	2.35	29.54	2.40	29.43	2.45	29.22	2.55
	36	31.65	2.22	31.44	2.32	31.28	2.40	31.18	2.45	31.07	2.50	30.86	2.60
	43	34.55	2.31	34.35	2.41	34.19	2.49	34.00	2.54	33.98	2.59	33.77	2.70
	50	37.46	2.41	37.25	2.51	37.09	2.59	36.99	2.64	36.88	2.69	36.67	2.79
	54	39.10	2.46	38.89	2.56	38.73	2.64	38.63	2.69	38.52	2.74	38.31	2.84
	59	41.18	2.53	40.98	2.63	40.82	2.71	40.71	2.76	40.61	2.81	40.40	2.91
50%	5	16.06	1.51	15.89	1.60	15.75	1.66	15.66	1.71	15.57	1.75	15.39	1.83
	12	18.54	1.59	18.37	1.68	18.23	1.74	18.14	1.78	18.05	1.83	17.87	1.91
	17	20.32	1.65	20.14	1.73	20.01	1.80	19.92	1.84	19.83	1.88	19.65	1.97
	26	23.50	1.75	23.32	1.83	23.19	1.90	23.10	1.94	23.01	1.98	22.83	2.07
	32	25.60	1.82	25.42	1.90	25.28	1.97	25.20	2.01	25.11	2.05	24.93	2.14
	36	26.99	1.86	26.82	1.95	26.68	2.01	26.59	2.05	26.51	2.10	26.32	2.18
	43	29.47	1.94	29.30	2.02	29.16	2.09	29.00	2.13	28.98	2.17	28.80	2.26
	50	31.95	2.02	31.77	2.10	31.64	2.17	31.55	2.21	31.46	2.25	31.28	2.34
	54	33.35	2.06	33.17	2.15	33.04	2.21	32.95	2.25	32.86	2.30	32.68	2.38
	59	35.13	2.12	34.95	2.20	34.82	2.27	34.73	2.31	34.64	2.35	34.46	2.44

**Symbols:**

TC : Total capacity (kBtu/h)  
 PI : Power input (kW)

**Note:**

1. ■ shows rated capacities and power input.
2. This table shows outdoor unit cooling capacity and power input.
3. PI of indoor units is not included in the table.

3D081275

## 7.2 CDXS, FDXS Series

## Cooling Capacity

COMBINATION (%)	OUTDOOR AIR TEMP.	INDOOR AIR TEMP.: (°FWB)											
		57		61		64		67		72		75	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
°FDB	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	
130%	50	51.08	2.75	55.09	2.80	58.18	2.83	61.10	2.87	66.20	2.93	69.29	2.96
	57	49.51	3.04	53.51	3.09	56.61	3.12	59.52	3.16	64.62	3.21	67.72	3.25
	64	47.93	3.36	51.94	3.41	55.04	3.44	57.95	3.48	63.05	3.54	66.15	3.57
	68	47.04	3.56	51.05	3.60	54.15	3.64	57.06	3.67	62.16	3.73	65.26	3.77
	74	45.69	3.87	49.70	3.92	52.79	3.96	55.71	3.99	60.81	4.05	63.90	4.09
	80	44.36	4.21	48.37	4.26	51.46	4.29	54.38	4.33	59.48	4.39	62.57	4.42
	88	42.56	4.71	46.57	4.75	49.67	4.79	52.58	4.82	57.68	4.88	60.78	4.92
	95	40.99	5.18	44.99	5.22	48.09	5.26	51.00	5.28	56.04	5.28	59.04	5.28
	102	39.41	5.28	43.42	5.28	46.52	5.28	49.43	5.28	54.53	5.28	57.48	5.28
	109	37.84	4.01	41.84	4.01	44.94	4.01	47.12	4.01	50.47	4.01	52.47	4.01
	115	35.71	2.90	37.57	2.90	38.99	2.90	40.32	2.90	42.61	2.90	43.98	2.90
120%	50	50.08	2.73	54.01	2.77	57.04	2.81	59.90	2.84	64.90	2.90	67.94	2.94
	57	48.54	3.01	52.46	3.06	55.50	3.09	58.36	3.13	63.36	3.18	66.39	3.22
	64	46.99	3.33	50.92	3.37	53.96	3.41	56.81	3.44	61.81	3.50	64.85	3.54
	68	46.12	3.52	50.05	3.57	53.09	3.60	55.94	3.64	60.94	3.70	63.98	3.73
	74	44.80	3.84	48.72	3.88	51.76	3.92	54.62	3.95	59.62	4.01	62.65	4.05
	80	43.49	4.17	47.42	4.22	50.45	4.25	53.31	4.29	58.31	4.35	61.35	4.38
	88	41.73	4.66	45.66	4.71	48.69	4.74	51.55	4.78	56.55	4.84	59.58	4.87
	95	40.18	5.13	44.11	5.17	47.15	5.21	50.00	5.24	54.99	5.28	57.96	5.28
	102	38.64	5.28	42.57	5.28	45.60	5.28	48.46	5.28	53.46	5.28	56.42	5.28
	109	37.10	4.01	41.02	4.01	44.06	4.01	46.38	4.01	49.69	4.01	51.67	4.01
	115	35.22	2.90	37.06	2.90	38.46	2.90	39.78	2.90	42.04	2.90	43.40	2.90
110%	50	49.08	2.70	52.93	2.75	55.90	2.78	58.70	2.81	63.60	2.87	66.58	2.91
	57	47.57	2.98	51.42	3.03	54.39	3.06	57.19	3.10	62.09	3.15	65.07	3.19
	64	46.05	3.30	49.90	3.34	52.88	3.38	55.68	3.41	60.58	3.47	63.55	3.50
	68	45.20	3.49	49.05	3.53	52.02	3.57	54.82	3.60	59.72	3.66	62.70	3.70
	74	43.90	3.80	47.75	3.85	50.72	3.88	53.52	3.91	58.42	3.97	61.40	4.01
	80	42.62	4.13	46.47	4.18	49.44	4.21	52.24	4.25	57.14	4.30	60.12	4.34
	88	40.89	4.62	44.74	4.66	47.72	4.70	50.52	4.73	55.42	4.79	58.39	4.83
	95	39.38	5.08	43.23	5.12	46.20	5.16	49.00	5.19	53.90	5.25	56.87	5.28
	102	37.87	5.28	41.72	5.28	44.69	5.28	47.49	5.28	52.39	5.28	55.35	5.28
	109	36.35	4.01	40.20	4.01	43.18	4.01	45.63	4.01	48.91	4.01	50.87	4.01
	115	34.72	2.90	36.54	2.90	37.93	2.90	39.23	2.90	41.48	2.90	42.82	2.90
100%	50	48.08	2.67	51.85	2.71	54.76	2.75	57.51	2.78	62.31	2.84	65.22	2.87
	57	46.60	2.95	50.37	2.99	53.28	3.03	56.02	3.06	60.82	3.12	63.74	3.15
	64	45.11	3.26	48.88	3.30	51.80	3.34	54.54	3.37	59.34	3.43	62.26	3.46
	68	44.28	3.45	48.05	3.49	50.96	3.53	53.71	3.56	58.51	3.62	61.42	3.65
	74	43.00	3.76	46.78	3.80	49.69	3.84	52.43	3.87	57.23	3.93	60.15	3.96
	80	41.75	4.08	45.52	4.13	48.44	4.16	51.18	4.20	55.98	4.26	58.89	4.29
	88	40.06	4.56	43.83	4.61	46.74	4.64	49.49	4.68	54.29	4.73	57.20	4.77
	95	38.58	5.02	42.35	5.06	45.26	5.10	48.00	5.13	52.80	5.19	55.72	5.22
	102	37.09	5.28	40.87	5.28	43.78	5.28	46.52	5.28	51.32	5.28	54.24	5.28
	109	35.61	4.01	39.38	4.01	42.30	4.01	44.84	4.01	48.09	4.01	50.04	4.01
	115	34.19	2.90	35.99	2.90	37.37	2.90	38.65	2.90	40.88	2.90	42.21	2.90
90%	50	43.26	2.28	46.65	2.32	49.28	2.35	51.74	2.38	56.06	2.43	58.69	2.46
	57	41.93	2.52	45.32	2.56	47.94	2.59	50.41	2.62	54.73	2.67	57.35	2.70
	64	40.59	2.79	43.99	2.83	46.61	2.86	49.08	2.88	53.40	2.93	56.02	2.96
	68	39.84	2.95	43.23	2.99	45.86	3.02	48.32	3.05	52.64	3.10	55.27	3.13
	74	38.70	3.21	42.09	3.25	44.71	3.28	47.18	3.31	51.50	3.36	54.12	3.39
	80	37.57	3.50	40.96	3.53	43.58	3.56	46.05	3.59	50.37	3.64	52.99	3.67
	88	36.05	3.91	39.44	3.94	42.06	3.97	44.53	4.00	48.85	4.05	51.47	4.08
	95	34.71	4.30	38.11	4.33	40.73	4.36	43.20	4.39	47.51	4.44	50.14	4.47
	102	33.38	4.71	36.77	4.75	39.39	4.78	41.86	4.81	46.18	4.86	48.80	4.89
	109	32.04	4.01	35.44	4.01	38.01	4.01	39.94	4.01	43.27	4.01	45.27	4.01
	115	30.06	2.90	31.91	2.90	33.33	2.90	34.65	2.90	36.92	2.90	38.29	2.90

COMBINATION (%)	OUTDOOR AIR TEMP.	INDOOR AIR TEMP.: (°FWB)											
		57		61		64		67		72		75	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°FDB	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW
80%	50	38.45	1.90	41.47	1.93	43.80	1.96	45.99	1.98	49.83	2.02	52.16	2.04
	57	37.27	2.10	40.28	2.13	42.62	2.15	44.81	2.18	48.65	2.22	50.98	2.24
	64	36.08	2.32	39.10	2.35	41.43	2.37	43.62	2.40	47.46	2.44	49.79	2.46
	68	35.41	2.45	38.43	2.49	40.76	2.51	42.96	2.53	46.79	2.57	49.13	2.60
	74	34.40	2.67	37.41	2.71	39.74	2.73	41.94	2.75	45.78	2.79	48.11	2.82
	80	33.39	2.91	36.41	2.94	38.74	2.96	40.93	2.99	44.77	3.03	47.10	3.05
	88	32.04	3.25	35.06	3.28	37.39	3.30	39.58	3.33	43.42	3.37	45.75	3.39
	95	30.85	3.57	33.87	3.60	36.20	3.63	38.40	3.65	42.23	3.69	44.57	3.72
	102	29.67	3.92	32.69	3.95	35.02	3.98	37.21	4.00	41.05	4.04	43.38	4.06
	109	28.48	4.01	31.49	4.01	33.65	4.01	35.66	4.01	39.14	4.01	41.22	4.01
	115	26.27	2.90	28.20	2.90	29.67	2.90	31.05	2.90	33.42	2.90	34.85	2.90
70%	50	33.65	1.56	36.29	1.58	38.33	1.60	40.25	1.62	43.60	1.65	45.64	1.68
	57	32.61	1.72	35.25	1.74	37.29	1.76	39.21	1.78	42.57	1.82	44.61	1.84
	64	31.57	1.90	34.21	1.93	36.25	1.95	38.17	1.96	41.53	2.00	43.57	2.02
	68	30.99	2.01	33.63	2.04	35.67	2.06	37.59	2.08	40.95	2.11	42.98	2.13
	74	30.10	2.19	32.74	2.22	34.78	2.24	36.69	2.26	40.05	2.29	42.09	2.31
	80	29.22	2.38	31.86	2.41	33.90	2.43	35.82	2.45	39.18	2.48	41.22	2.50
	88	28.04	2.66	30.67	2.69	32.71	2.71	34.63	2.73	37.99	2.76	40.03	2.78
	95	27.00	2.93	29.64	2.95	31.68	2.97	33.60	2.99	36.96	3.02	39.00	3.05
	102	25.96	3.21	28.60	3.24	30.64	3.26	32.56	3.28	35.92	3.31	37.96	3.33
	109	24.92	3.51	27.56	3.54	29.60	3.56	31.52	3.58	34.88	3.61	36.92	3.63
	115	23.06	2.90	25.08	2.90	26.62	2.90	28.06	2.90	30.55	2.90	32.03	2.90
60%	50	28.84	1.26	31.10	1.28	32.85	1.30	34.50	1.31	37.38	1.34	39.12	1.36
	57	27.95	1.39	30.21	1.41	31.96	1.43	33.61	1.44	36.49	1.47	38.23	1.49
	64	27.06	1.54	29.32	1.56	31.07	1.57	32.72	1.59	35.60	1.62	37.35	1.63
	68	26.56	1.63	28.82	1.65	30.57	1.66	32.22	1.68	35.10	1.71	36.84	1.72
	74	25.80	1.77	28.06	1.79	29.81	1.81	31.45	1.83	34.33	1.85	36.08	1.87
	80	25.04	1.93	27.31	1.95	29.06	1.96	30.70	1.98	33.58	2.01	35.33	2.02
	88	24.03	2.15	26.29	2.17	28.04	2.19	29.69	2.21	32.57	2.23	34.31	2.25
	95	23.14	2.37	25.40	2.39	27.15	2.41	28.80	2.42	31.68	2.45	33.42	2.46
	102	22.25	2.60	24.51	2.62	26.26	2.64	27.91	2.65	30.79	2.68	32.54	2.69
	109	21.36	2.84	23.63	2.86	25.37	2.88	27.02	2.90	29.90	2.92	31.65	2.94
	115	20.37	2.90	22.47	2.90	24.08	2.90	25.57	2.90	28.16	2.90	29.71	2.90
50%	50	24.03	1.00	25.92	1.02	27.38	1.03	28.75	1.04	31.15	1.06	32.60	1.08
	57	23.29	1.10	25.18	1.12	26.63	1.13	28.01	1.15	30.41	1.17	31.86	1.18
	64	22.55	1.22	24.44	1.24	25.89	1.25	27.26	1.26	29.66	1.28	31.12	1.30
	68	22.13	1.29	24.02	1.31	25.48	1.32	26.85	1.33	29.25	1.35	30.70	1.37
	74	21.50	1.41	23.38	1.42	24.84	1.44	26.21	1.45	28.61	1.47	30.07	1.48
	80	20.87	1.53	22.76	1.55	24.21	1.56	25.58	1.57	27.98	1.59	29.44	1.61
	88	20.03	1.71	21.91	1.73	23.37	1.74	24.74	1.75	27.14	1.77	28.59	1.78
	95	19.28	1.88	21.17	1.90	22.63	1.91	24.00	1.92	26.40	1.94	27.85	1.96
	102	18.54	2.06	20.43	2.08	21.89	2.09	23.26	2.10	25.66	2.12	27.11	2.14
	109	17.80	2.26	19.69	2.27	21.14	2.29	22.52	2.30	24.91	2.32	26.37	2.33
	115	17.18	2.43	19.06	2.45	20.52	2.46	21.89	2.47	24.29	2.49	25.74	2.51

**Symbols:**

TC : Total capacity (kBtu/h)  
 PI : Power input (kW)

**Note:**

1. ■ shows rated capacities and power input.
2. This table shows outdoor unit cooling capacity and power input.
3. PI of indoor units is not included in the table.

3D081276

## Heating Capacity

COMBINATION (%)	OUTDOOR AIR TEMP.	INDOOR AIR TEMP.: (°FDB)											
		61		65		68		70		72		76	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°FWB	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW
130%	5	30.74	3.80	30.40	4.01	30.14	4.17	29.97	4.28	29.80	4.38	29.46	4.60
	12	35.48	3.99	35.14	4.21	34.88	4.37	34.71	4.47	34.54	4.58	34.20	4.80
	17	38.88	4.14	38.55	4.35	38.29	4.51	38.12	4.62	37.95	4.72	37.60	4.94
	26	44.96	4.39	44.63	4.60	44.37	4.76	44.20	4.87	44.03	4.98	43.68	5.19
	32	48.98	4.55	48.64	4.77	48.38	4.93	48.21	5.04	48.04	5.14	47.70	5.36
	36	51.65	4.67	51.31	4.88	51.05	5.04	50.89	5.15	50.72	5.25	50.37	5.47
	43	56.39	4.86	56.06	5.08	55.80	5.24	55.50	5.34	55.46	5.45	53.82	5.47
	50	61.14	5.06	60.80	5.27	60.54	5.44	59.84	5.47	58.87	5.47	57.04	5.47
	54	63.81	5.17	63.47	5.38	62.60	5.47	61.59	5.47	60.62	5.47	58.79	5.47
	59	67.22	5.31	66.42	5.47	64.75	5.47	63.74	5.47	62.77	5.47	60.93	5.47
120%	5	30.46	3.78	30.13	3.99	29.87	4.16	29.70	4.26	29.53	4.37	29.19	4.58
	12	35.16	3.98	34.83	4.19	34.57	4.35	34.40	4.46	34.23	4.56	33.89	4.78
	17	38.53	4.12	38.20	4.33	37.94	4.49	37.77	4.60	37.61	4.70	37.27	4.92
	26	44.56	4.37	44.22	4.58	43.97	4.75	43.80	4.85	43.63	4.96	43.29	5.17
	32	48.54	4.54	48.20	4.75	47.94	4.91	47.78	5.02	47.61	5.12	47.27	5.34
	36	51.19	4.65	50.85	4.86	50.59	5.02	50.43	5.13	50.26	5.23	49.92	5.45
	43	55.89	4.85	55.55	5.06	55.29	5.22	55.00	5.32	54.96	5.43	53.47	5.47
	50	60.59	5.04	60.25	5.25	59.99	5.42	59.46	5.47	58.50	5.47	56.68	5.47
	54	63.24	5.15	62.90	5.36	62.21	5.47	61.20	5.47	60.24	5.47	58.42	5.47
	59	66.61	5.29	66.01	5.47	64.35	5.47	63.34	5.47	62.38	5.47	60.55	5.47
110%	5	30.18	3.77	29.85	3.98	29.60	4.14	29.43	4.25	29.26	4.35	28.93	4.57
	12	34.84	3.96	34.51	4.17	34.25	4.34	34.09	4.44	33.92	4.55	33.58	4.76
	17	38.18	4.10	37.85	4.31	37.60	4.48	37.43	4.58	37.27	4.69	36.93	4.90
	26	44.15	4.36	43.82	4.57	43.57	4.73	43.40	4.83	43.24	4.94	42.90	5.15
	32	48.09	4.52	47.76	4.73	47.51	4.89	47.34	5.00	47.18	5.10	46.84	5.32
	36	50.72	4.63	50.39	4.84	50.13	5.00	49.97	5.11	49.80	5.21	49.46	5.43
	43	55.38	4.83	55.05	5.04	54.79	5.20	54.50	5.30	54.46	5.41	53.13	5.47
	50	60.04	5.02	59.70	5.23	59.45	5.40	59.08	5.47	58.13	5.47	56.32	5.47
	54	62.66	5.13	62.33	5.34	61.82	5.47	60.81	5.47	59.86	5.47	58.05	5.47
	59	66.01	5.27	65.59	5.47	63.94	5.47	62.94	5.47	61.99	5.47	60.17	5.47
100%	5	29.91	3.75	29.58	3.96	29.32	4.12	29.16	4.22	29.00	4.33	28.66	4.54
	12	34.52	3.94	34.19	4.15	33.94	4.31	33.77	4.42	33.61	4.52	33.27	4.73
	17	37.83	4.08	37.51	4.29	37.25	4.45	37.09	4.56	36.92	4.66	36.59	4.87
	26	43.75	4.33	43.42	4.54	43.17	4.70	43.00	4.81	42.84	4.91	42.50	5.12
	32	47.65	4.50	47.33	4.70	47.07	4.87	46.91	4.97	46.74	5.07	46.41	5.29
	36	50.26	4.61	49.93	4.81	49.67	4.98	49.51	5.08	49.35	5.18	49.01	5.40
	43	54.87	4.80	54.54	5.01	54.29	5.17	54.00	5.27	53.96	5.38	52.85	5.47
	50	59.48	4.99	59.16	5.20	58.90	5.36	58.74	5.47	57.83	5.47	56.03	5.47
	54	62.09	5.10	61.76	5.31	61.51	5.47	60.51	5.47	59.55	5.47	57.75	5.47
	59	65.40	5.24	65.07	5.45	63.62	5.47	62.62	5.47	61.67	5.47	59.86	5.47
90%	5	27.14	3.41	26.84	3.60	26.61	3.75	26.46	3.84	26.31	3.94	26.01	4.13
	12	31.32	3.59	31.03	3.78	30.80	3.93	30.65	4.02	30.50	4.12	30.19	4.31
	17	34.33	3.72	34.03	3.91	33.80	4.05	33.65	4.15	33.51	4.24	33.20	4.44
	26	39.70	3.94	39.40	4.13	39.17	4.28	39.02	4.38	38.87	4.47	38.57	4.67
	32	43.24	4.09	42.94	4.28	42.71	4.43	42.57	4.53	42.42	4.62	42.11	4.82
	36	45.60	4.19	45.31	4.38	45.08	4.53	44.93	4.63	44.78	4.72	44.47	4.92
	43	49.79	4.37	49.49	4.56	49.26	4.71	49.00	4.80	48.97	4.90	48.66	5.09
	50	53.98	4.55	53.68	4.74	53.45	4.89	53.30	4.98	53.15	5.08	52.85	5.27
	54	56.34	4.65	56.04	4.84	55.81	4.99	55.66	5.08	55.51	5.18	55.21	5.37
	59	59.35	4.78	59.05	4.97	58.82	5.11	58.67	5.21	58.52	5.30	58.03	5.47
80%	5	24.37	3.04	24.10	3.21	23.89	3.34	23.76	3.43	23.63	3.51	23.35	3.69
	12	28.13	3.20	27.86	3.37	27.65	3.50	27.52	3.59	27.39	3.67	27.11	3.84
	17	30.83	3.31	30.56	3.48	30.35	3.62	30.22	3.70	30.09	3.78	29.81	3.96
	26	35.65	3.52	35.38	3.69	35.17	3.82	35.04	3.90	34.91	3.99	34.63	4.16
	32	38.83	3.65	38.56	3.82	38.36	3.95	38.22	4.04	38.09	4.12	37.82	4.29
	36	40.95	3.74	40.68	3.91	40.48	4.04	40.34	4.13	40.21	4.21	39.94	4.38
	43	44.71	3.90	44.44	4.07	44.24	4.20	44.00	4.28	43.97	4.37	43.70	4.54
	50	48.47	4.06	48.20	4.23	48.00	4.36	47.86	4.44	47.73	4.53	47.46	4.70
	54	50.59	4.15	50.32	4.32	50.12	4.45	49.98	4.53	49.85	4.62	49.58	4.79
	59	53.29	4.26	53.02	4.43	52.82	4.56	52.68	4.64	52.55	4.73	52.28	4.90

COMBINATION (%)	OUTDOOR AIR TEMP.	INDOOR AIR TEMP.: (°FDB)											
		61		65		68		70		72		76	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	°FWB	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW
70%	5	21.60	2.65	21.36	2.80	21.18	2.91	21.06	2.99	20.94	3.06	20.70	3.21
	12	24.93	2.79	24.70	2.94	24.51	3.05	24.39	3.13	24.28	3.20	24.03	3.35
	17	27.33	2.89	27.09	3.04	26.91	3.15	26.79	3.22	26.67	3.30	26.43	3.45
	26	31.60	3.07	31.36	3.21	31.18	3.33	31.06	3.40	30.94	3.48	30.70	3.63
	32	34.42	3.18	34.18	3.33	34.00	3.44	33.88	3.52	33.76	3.59	33.52	3.74
	36	36.30	3.26	36.06	3.41	35.88	3.52	35.76	3.60	35.64	3.67	35.40	3.82
	43	39.63	3.40	39.39	3.55	39.21	3.66	39.00	3.73	38.97	3.81	38.73	3.96
	50	42.96	3.53	42.73	3.68	42.54	3.80	42.43	3.87	42.31	3.94	42.06	4.10
	54	44.84	3.61	44.61	3.76	44.42	3.87	44.31	3.95	44.19	4.02	43.94	4.17
	59	47.24	3.71	47.00	3.86	46.82	3.97	46.70	4.05	46.58	4.12	46.34	4.27
60%	5	18.83	2.25	18.63	2.37	18.47	2.47	18.36	2.53	18.26	2.59	18.05	2.72
	12	21.74	2.36	21.53	2.49	21.37	2.59	21.27	2.65	21.16	2.71	20.95	2.84
	17	23.82	2.45	23.62	2.57	23.46	2.67	23.35	2.73	23.25	2.79	23.04	2.92
	26	27.55	2.60	27.34	2.72	27.18	2.82	27.08	2.88	26.98	2.94	26.76	3.07
	32	30.01	2.70	29.80	2.82	29.64	2.92	29.54	2.98	29.43	3.04	29.22	3.17
	36	31.65	2.76	31.44	2.89	31.28	2.98	31.18	3.05	31.07	3.11	30.86	3.24
	43	34.55	2.88	34.35	3.00	34.19	3.10	34.00	3.16	33.98	3.23	33.77	3.35
	50	37.46	2.99	37.25	3.12	37.09	3.22	36.99	3.28	36.88	3.34	36.67	3.47
	54	39.10	3.06	38.89	3.19	38.73	3.28	38.63	3.35	38.52	3.41	38.31	3.54
	59	41.18	3.14	40.98	3.27	40.82	3.37	40.71	3.43	40.61	3.49	40.40	3.62
50%	5	16.06	1.82	15.89	1.92	15.75	2.00	15.66	2.05	15.57	2.10	15.39	2.21
	12	18.54	1.91	18.37	2.02	18.23	2.09	18.14	2.15	18.05	2.20	17.87	2.30
	17	20.32	1.98	20.14	2.08	20.01	2.16	19.92	2.21	19.83	2.26	19.65	2.37
	26	23.50	2.10	23.32	2.21	23.19	2.28	23.10	2.33	23.01	2.39	22.83	2.49
	32	25.60	2.18	25.42	2.29	25.28	2.36	25.20	2.41	25.11	2.47	24.93	2.57
	36	26.99	2.24	26.82	2.34	26.68	2.42	26.59	2.47	26.51	2.52	26.32	2.62
	43	29.47	2.33	29.30	2.43	29.16	2.51	29.00	2.56	28.98	2.61	28.80	2.72
	50	31.95	2.43	31.77	2.53	31.64	2.61	31.55	2.66	31.46	2.71	31.28	2.81
	54	33.35	2.48	33.17	2.58	33.04	2.66	32.95	2.71	32.86	2.76	32.68	2.86
	59	35.13	2.55	34.95	2.65	34.82	2.73	34.73	2.78	34.64	2.83	34.46	2.93

**Symbols:**

TC : Total capacity (kBtu/h)  
 PI : Power input (kW)

**Note:**

1. ■ shows rated capacities and power input.
2. This table shows outdoor unit cooling capacity and power input.
3. PI of indoor units is not included in the table.

3D081277



## 7.3 Capacity Correction Factor by the Length of Refrigerant Piping

### 7.3.1 Rate of Change in Capacity by the Main Piping Length

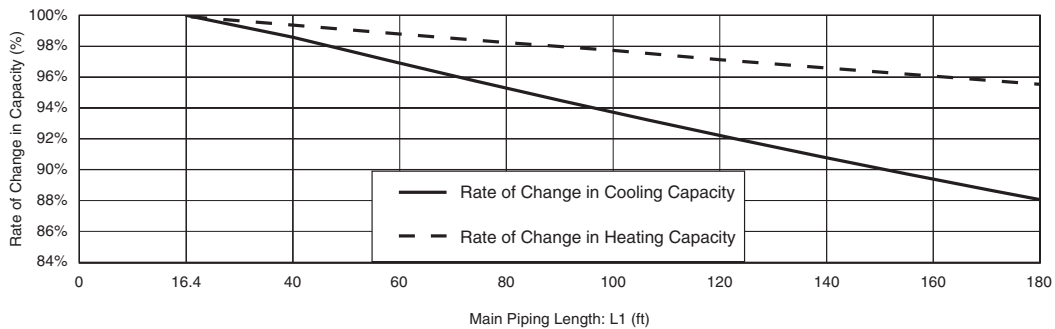
Rate of Change in Cooling Capacity

Main Piping Length (ft)	16.4	20	40	60	80	100	120	140	160	180
Rate of Change in Cooling Capacity	100.0%	99.7%	98.0%	96.4%	94.8%	93.4%	91.9%	90.6%	89.3%	88.1%

Rate of Change in Heating Capacity

Main Piping Length (ft)	16.4	20	40	60	80	100	120	140	160	180
Rate of Change in Heating Capacity	100.0%	99.9%	99.3%	98.8%	98.2%	97.7%	97.2%	96.6%	96.1%	95.6%

Main Piping Length Rate of Change in Capacity



(R18401)

Both case the outdoor unit is in inferior or superior to the indoor unit, the rate of change in capacity is the same.

### 7.3.2 Rate of Change in Capacity by Branch Piping Length

#### 1. Refrigerant Piping Connection Diameter

liquid:  $\phi$  1/4 inch ( $\phi$  6.4 mm)

gas :  $\phi$  5/8 inch ( $\phi$  15.9 mm)

Branch Piping length (ft)	Rate of Change in Capacity	
	Cooling	Heating
9.8	100.0%	100.0%
20.0	99.4%	99.8%
30.0	98.8%	99.7%
40.0	98.3%	99.5%
49.0	97.9%	99.3%

#### 2. Refrigerant Piping Connection Diameter

liquid:  $\phi$  1/4 inch ( $\phi$  6.4 mm)

gas :  $\phi$  1/2 inch ( $\phi$  12.7 mm)

Branch Piping length (ft)	Rate of Change in Capacity	
	Cooling	Heating
9.8	100.0%	100.0%
20.0	98.6%	99.2%
30.0	97.3%	98.4%
40.0	96.0%	97.7%
49.0	94.8%	97.0%

#### 3. Refrigerant Piping Connection Diameter

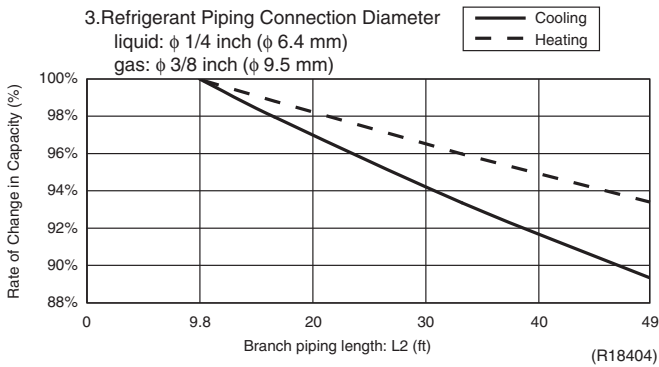
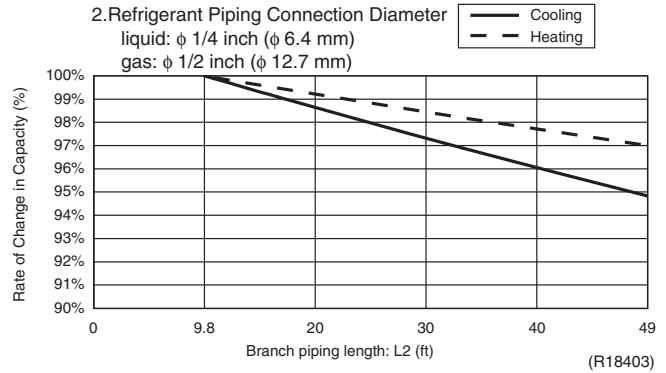
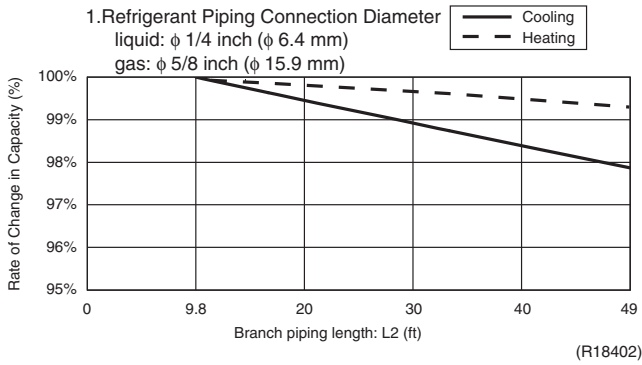
liquid:  $\phi$  1/4 inch ( $\phi$  6.4 mm)

gas :  $\phi$  3/8 inch ( $\phi$  9.5 mm)

Branch Piping length (ft)	Rate of Change in Capacity	
	Cooling	Heating
9.8	100.0%	100.0%
20.0	96.9%	98.2%
30.0	94.1%	96.5%
40.0	91.5%	94.9%
49.0	89.3%	93.5%

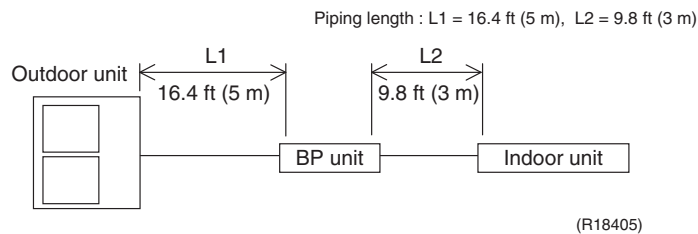
Piping size for field connection

Class (Btu/h)	Liquid	Gas
7,000	$\phi$ 1/4 inch ( $\phi$ 6.4 mm)	$\phi$ 3/8 inch ( $\phi$ 9.5 mm)
9,000		
12,000		$\phi$ 1/2 inch ( $\phi$ 12.7 mm)
15,000		
18,000		
24,000	$\phi$ 5/8 inch ( $\phi$ 15.9 mm)	



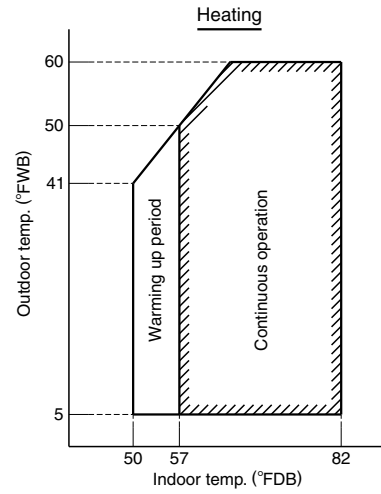
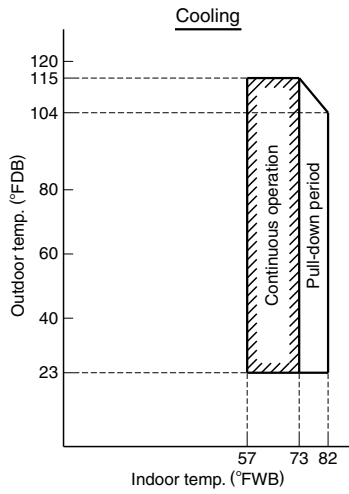
[Method of calculating cooling/heating capacity]  
 Total capacity from capacity tables × (Rate of change in capacity by main piping length  
 × Rate of change in capacity by branch piping length)

- Note:**
1. These figures illustrate the rate of change in capacity of a standard indoor unit system at maximum load (with the thermostat set to maximum) under standard conditions. Moreover, under partial load conditions there is only a minor deviation from the rate of change in capacity shown in the above figures.
  2. With this outdoor unit, evaporating pressure constant control when cooling, and condensing pressure constant control when heating is carried out.
  3. System layout of piping



# 8. Operation Limit

RMXS48LVJU



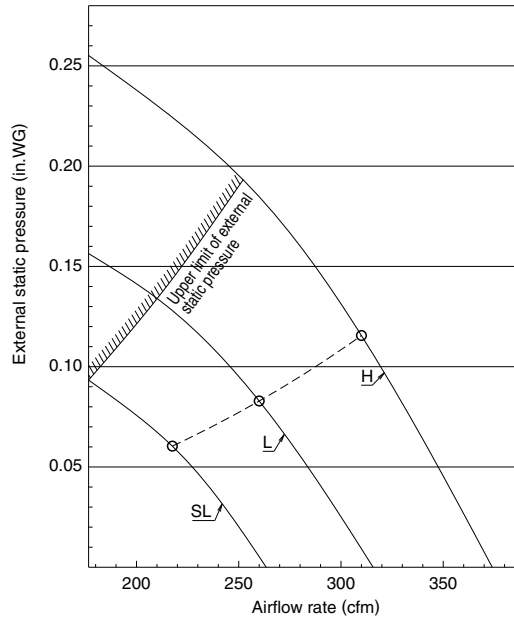
- Notes :
- The graphs are based on the following conditions.
- Equivalent piping length
    - From outdoor unit to BP unit 16.4ft
    - From BP unit to each indoor units 9.8ft
  - Level difference 0ft
  - Air flow rate High

3D080742

# 9. Fan Characteristics

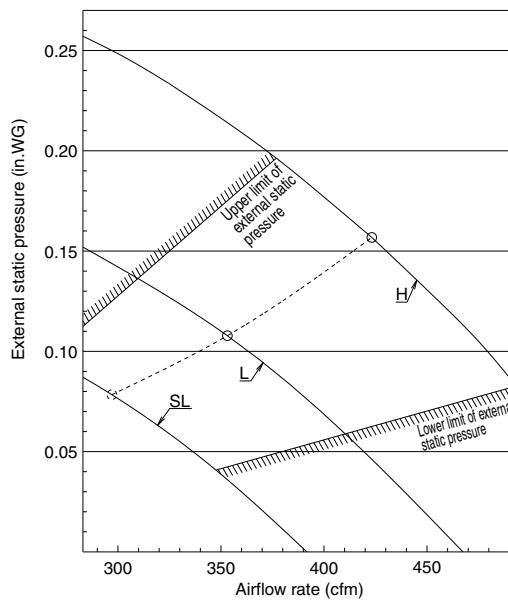
FDXS09/12LVJU

2



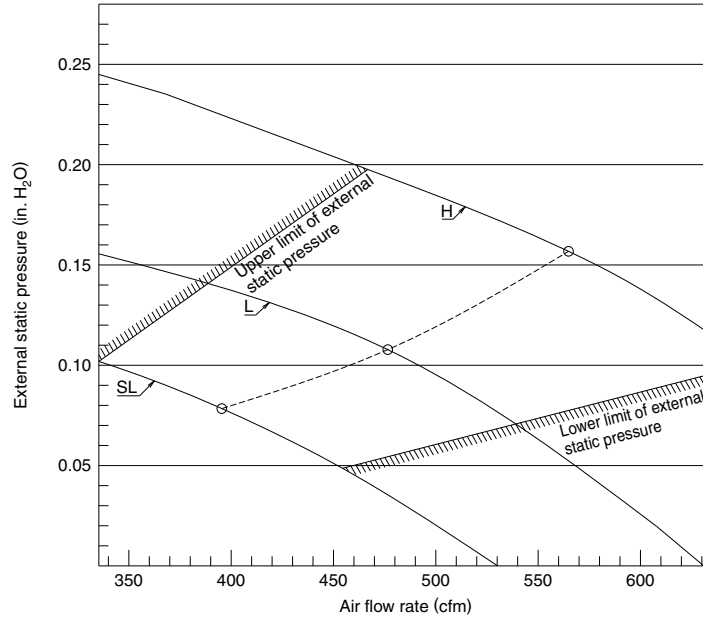
3D074625

CDXS15/18LVJU



3D075306

CDXS24LVJU

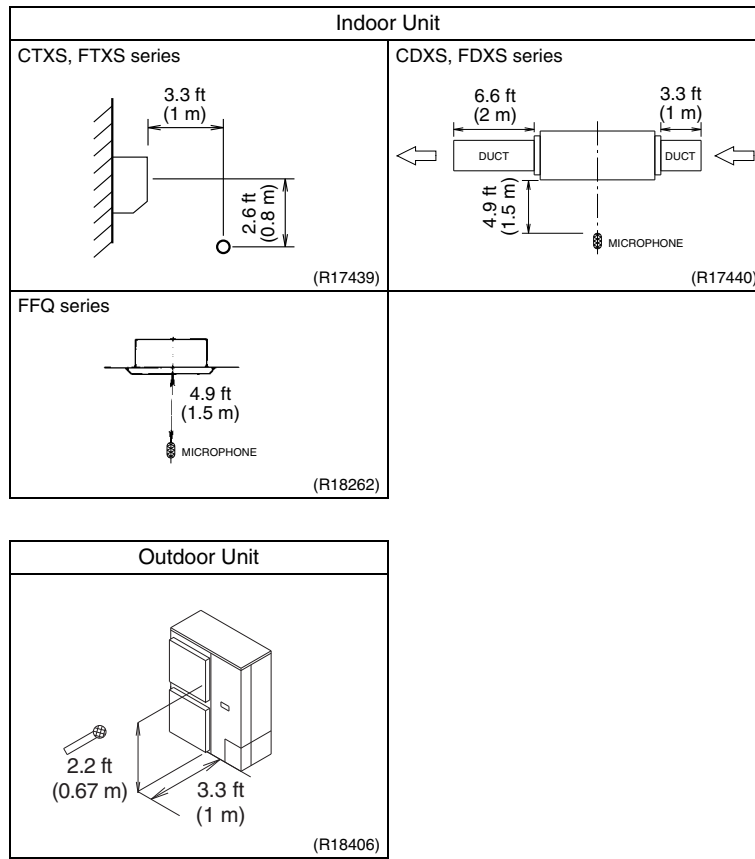


3D080595

# 10. Sound Level

## 10.1 Measuring Location

2



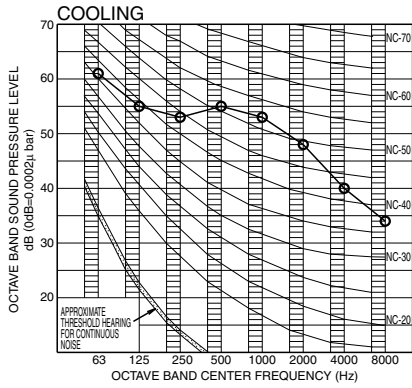
- Note:**
1. Operation sound is measured in an anechoic chamber.
  2. The data are based on the conditions shown in the table below.

Cooling	Heating	Piping Length
Indoor ; 80°FDB (26.7°CDB) / 67°FWB (19.4°CWB) Outdoor ; 95°FDB (35°CDB) / 75°FWB (24°CWB)	Indoor ; 70°FDB (21°CDB) / 60°FWB (15.6°CWB) Outdoor ; 47°FDB (8.3°CDB) / 43°FWB (6°CWB)	16.4 ft (5 m)

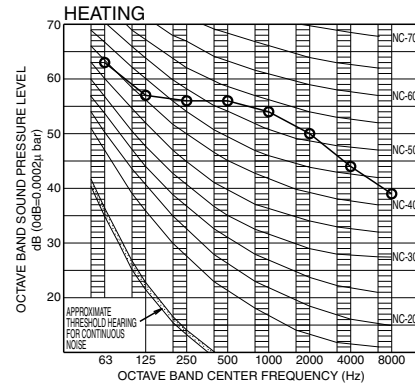
## 10.2 Octave Band Level

### 10.2.1 Outdoor Unit

RMXS48LVJU



OVER ALL (dB)	
SCALE	60Hz 208/230V
A	57
(B.G.N IS ALREADY RECTIFIED)	
OPERATING CONDITIONS	
POWER SOURCE	208/230V 60Hz
JIS STANDARD	

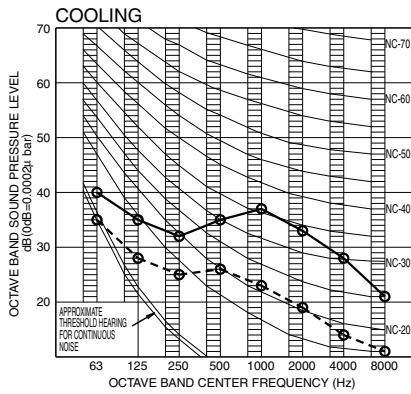


OVER ALL (dB)	
SCALE	60Hz 208/230V
A	58
(B.G.N IS ALREADY RECTIFIED)	
OPERATING CONDITIONS	
POWER SOURCE	208/230V 60Hz
JIS STANDARD	

3D080743

10.2.2 Indoor Unit

CTXS07LVJU



OVER ALL ( dB )

SCALE	60Hz 208/230V (H)	60Hz 208/230V (L)
A	38	25

( B.G.N IS ALREADY RECTIFIED )

OPERATING CONDITIONS

POWER SOURCE 208/230V 60Hz

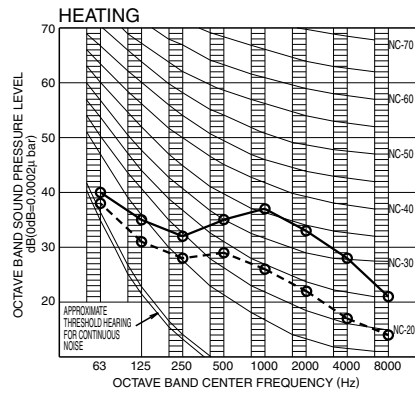
JIS STANDARD

STANDARD EXTERNAL STATIC PRESSURE

○ — ○ 60Hz 208/230V(H)

○ - - ○ 60Hz 208/230V(L)

Cooling



OVER ALL ( dB )

SCALE	60Hz 208/230V (H)	60Hz 208/230V (L)
A	38	28

( B.G.N IS ALREADY RECTIFIED )

OPERATING CONDITIONS

POWER SOURCE 208/230V 60Hz

JIS STANDARD

STANDARD EXTERNAL STATIC PRESSURE

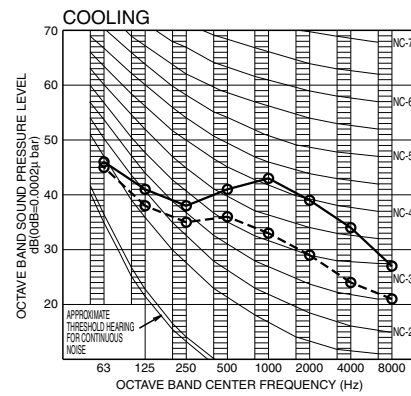
○ — ○ 60Hz 208/230V(H)

○ - - ○ 60Hz 208/230V(L)

Heating

3D075359

CTXS07JVJU, CTXS09HVJU



OVER ALL ( dB )

SCALE	60Hz 208/230V (H)	60Hz 208/230V (L)
A	44	35

( B.G.N IS ALREADY RECTIFIED )

OPERATING CONDITIONS

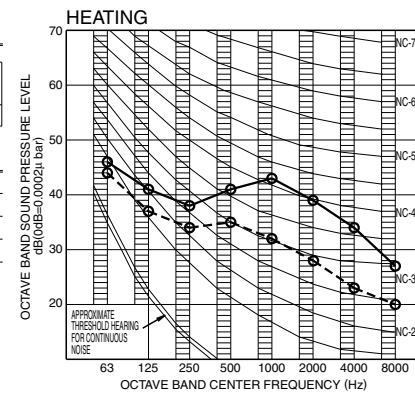
POWER SOURCE 208/230V 60Hz

JIS STANDARD

○ — ○ 60Hz 208/230V(H)

○ - - ○ 60Hz 208/230V(L)

Cooling



OVER ALL ( dB )

SCALE	60Hz 208/230V (H)	60Hz 208/230V (L)
A	44	34

( B.G.N IS ALREADY RECTIFIED )

OPERATING CONDITIONS

POWER SOURCE 208/230V 60Hz

JIS STANDARD

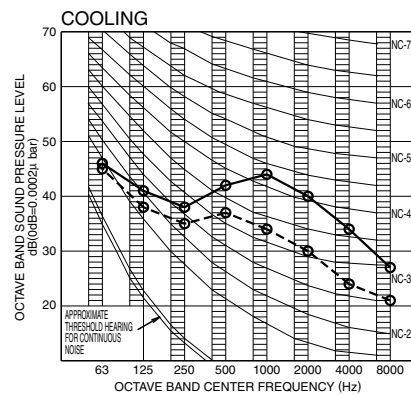
○ — ○ 60Hz 208/230V(H)

○ - - ○ 60Hz 208/230V(L)

Heating

3D048473C

CTXS12HVJU



OVER ALL ( dB )

SCALE	60Hz 208/230V (H)	60Hz 208/230V (L)
A	45	36

( B.G.N IS ALREADY RECTIFIED )

OPERATING CONDITIONS

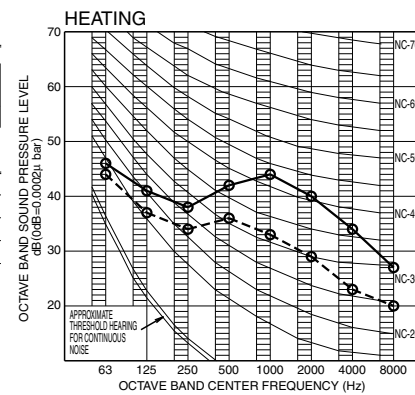
POWER SOURCE 208/230V 60Hz

JIS STANDARD

○ — ○ 60Hz 208/230V(H)

○ - - ○ 60Hz 208/230V(L)

Cooling



OVER ALL ( dB )

SCALE	60Hz 208/230V (H)	60Hz 208/230V (L)
A	45	35

( B.G.N IS ALREADY RECTIFIED )

OPERATING CONDITIONS

POWER SOURCE 208/230V 60Hz

JIS STANDARD

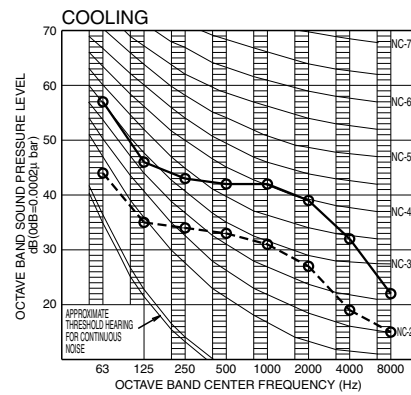
○ — ○ 60Hz 208/230V(H)

○ - - ○ 60Hz 208/230V(L)

Heating

3D058813A

FTXS15LVJU



OVER ALL ( dB )

SCALE	60Hz 208/230V (H)	60Hz 208/230V (L)
A	45	35

( B.G.N IS ALREADY RECTIFIED )

OPERATING CONDITIONS

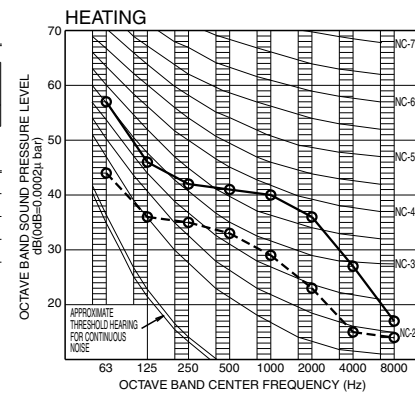
POWER SOURCE 208/230V 60Hz

JIS STANDARD

○ — ○ 60Hz 208/230V(H)

○ - - ○ 60Hz 208/230V(L)

Cooling



OVER ALL ( dB )

SCALE	60Hz 208/230V (H)	60Hz 208/230V (L)
A	43	33

( B.G.N IS ALREADY RECTIFIED )

OPERATING CONDITIONS

POWER SOURCE 208/230V 60Hz

JIS STANDARD

○ — ○ 60Hz 208/230V(H)

○ - - ○ 60Hz 208/230V(L)

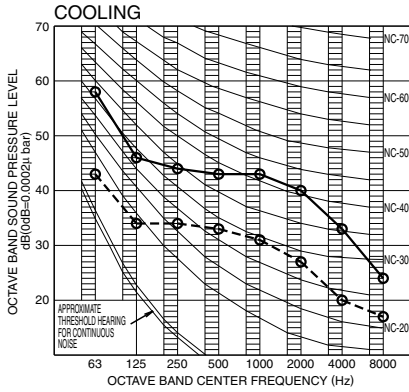
Heating

3D074864





FTXS18LVJU



OVER ALL (dB)		
SCALE	60Hz 208/230V (H)	60Hz 208/230V (L)
A	46	36

( B.G.N IS ALREADY RECTIFIED )

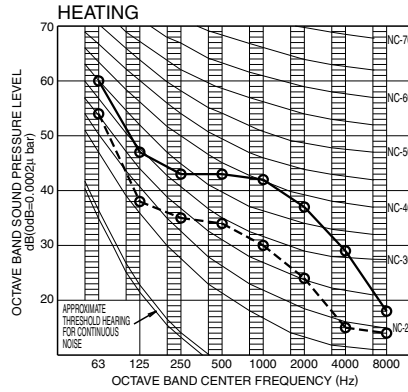
OPERATING CONDITIONS

POWER SOURCE 208/230V 60Hz

JIS STANDARD

○—○ 60Hz 208/230V(H)  
○- -○ 60Hz 208/230V(L)

Cooling



OVER ALL (dB)		
SCALE	60Hz 208/230V (H)	60Hz 208/230V (L)
A	45	35

( B.G.N IS ALREADY RECTIFIED )

OPERATING CONDITIONS

POWER SOURCE 208/230V 60Hz

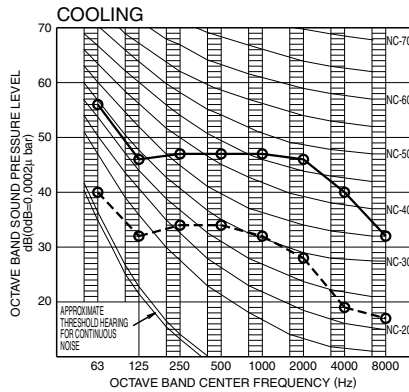
JIS STANDARD

○—○ 60Hz 208/230V(H)  
○- -○ 60Hz 208/230V(L)

Heating

3D074865

FTXS24LVJU



OVER ALL (dB)		
SCALE	60Hz 208/230V (H)	60Hz 208/230V (L)
A	51	37

( B.G.N IS ALREADY RECTIFIED )

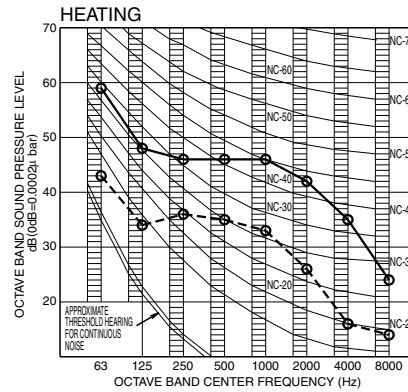
OPERATING CONDITIONS

POWER SOURCE 208/230V 60Hz

JIS STANDARD

○—○ 60Hz 208/230V(H)  
○- -○ 60Hz 208/230V(L)

Cooling



OVER ALL (dB)		
SCALE	60Hz 208/230V (H)	60Hz 208/230V (L)
A	48	37

( B.G.N IS ALREADY RECTIFIED )

OPERATING CONDITIONS

POWER SOURCE 208/230V 60Hz

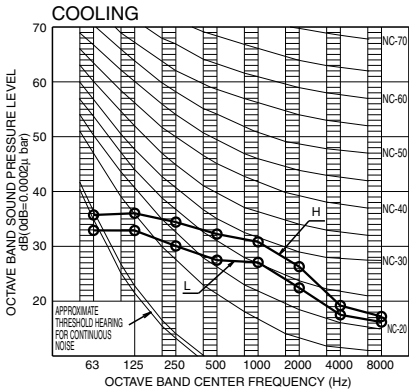
JIS STANDARD

○—○ 60Hz 208/230V(H)  
○- -○ 60Hz 208/230V(L)

Heating

3D074866

FDXS09/12LVJU



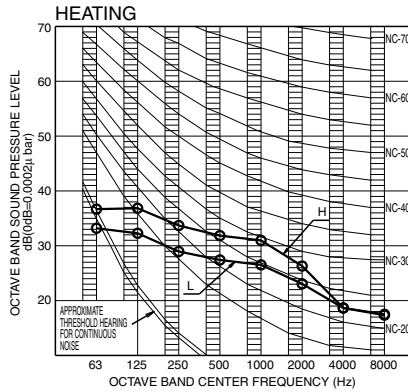
OVER ALL (dB)		
SCALE	HI	LOW
A	35	31

( B.G.N IS ALREADY RECTIFIED )

OPERATING CONDITIONS

POWER SOURCE 208-230V/60Hz

COOLING RETURN AIR TEMPERATURE: 80°FDB, 67°FWB  
OUTDOOR TEMPERATURE: 95°FDB, 75°FWB



OVER ALL (dB)		
SCALE	HI	LOW
A	35	31

( B.G.N IS ALREADY RECTIFIED )

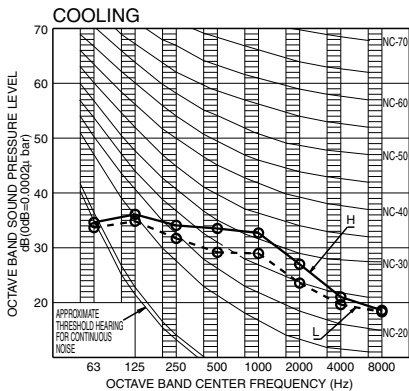
OPERATING CONDITIONS

POWER SOURCE 208-230V/60Hz

HEATING RETURN AIR TEMPERATURE: 70°FDB, 60°FWB  
OUTDOOR TEMPERATURE: 47°FDB, 43°FWB

3D074623

CDXS15/18LVJU



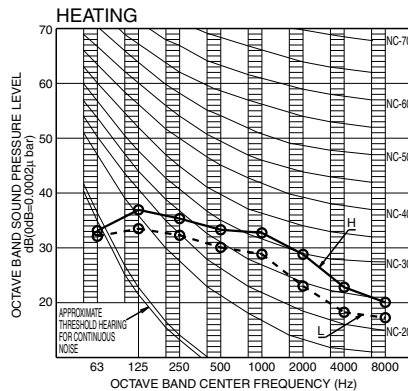
OVER ALL (dB)		
SCALE	AIR FLOW RATE	
	HI	LOW
A	37	33

( B.G.N IS ALREADY RECTIFIED )

OPERATING CONDITIONS

POWER SOURCE 208/230V, 60Hz

STANDARD CONDITION (JIS)



OVER ALL (dB)		
SCALE	AIR FLOW RATE	
	HI	LOW
A	37	33

( B.G.N IS ALREADY RECTIFIED )

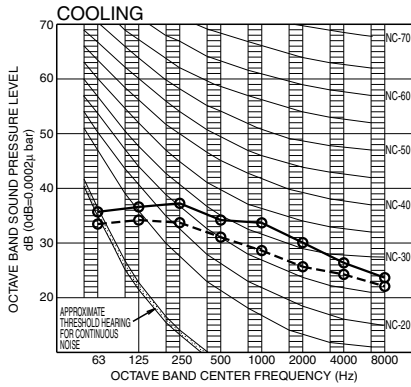
OPERATING CONDITIONS

POWER SOURCE 208/230V, 60Hz

STANDARD CONDITION (JIS)

3D075272

CDXS24LVJU



OVER ALL (dB)

SCALE	AIR FLOW RATE	
	H	L
A	38	34

(B.G.N IS ALREADY RECTIFIED)

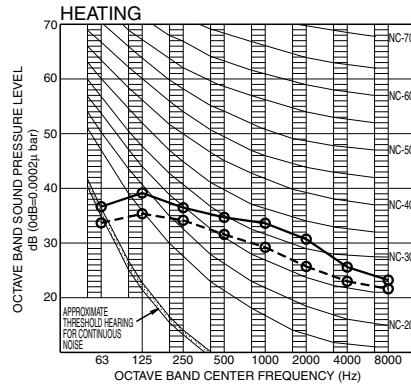
OPERATING CONDITIONS

POWER SOURCE 208/230V, 60Hz

JIS STANDARD

STANDARD EXTERNAL STATIC PRESSURE  
 ○ (H) 208/230V, 60Hz  
 ○ (L) 208/230V, 60Hz

○ Cooling



OVER ALL (dB)

SCALE	AIR FLOW RATE	
	H	L
A	38	34

(B.G.N IS ALREADY RECTIFIED)

OPERATING CONDITIONS

POWER SOURCE 208/230V, 60Hz

JIS STANDARD

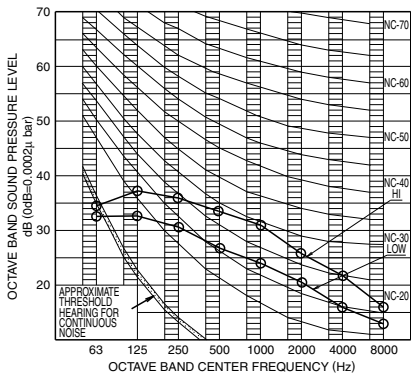
STANDARD EXTERNAL STATIC PRESSURE  
 ○ (H) 208/230V, 60Hz  
 ○ (L) 208/230V, 60Hz

○ Heating

3D080596



FFQ09LVJU



OVER ALL (dB)

SCALE	HI	LOW
	A	36.0

(B.G.N IS ALREADY RECTIFIED)

OPERATING CONDITIONS

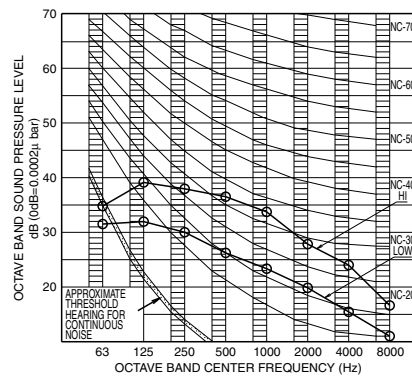
POWER SOURCE 208/230V, 60Hz

STANDARD CONDITION (JIS)

4 DIRECTION DISCHARGE

4D080696

FFQ12LVJU



OVER ALL (dB)

SCALE	HI	LOW
	A	38.5

(B.G.N IS ALREADY RECTIFIED)

OPERATING CONDITIONS

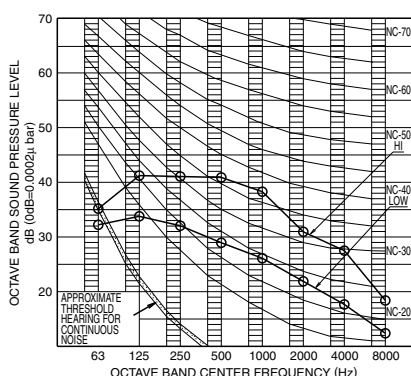
POWER SOURCE 208/230V, 60Hz

STANDARD CONDITION (JIS)

4 DIRECTION DISCHARGE

4D080697

FFQ15LVJU



OVER ALL (dB)

SCALE	HI	LOW
	A	42.5

(B.G.N IS ALREADY RECTIFIED)

OPERATING CONDITIONS

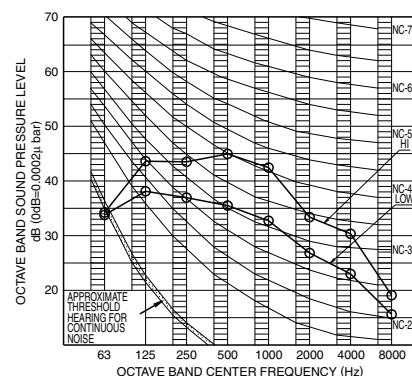
POWER SOURCE 208/230V, 60Hz

STANDARD CONDITION (JIS)

4 DIRECTION DISCHARGE

4D080698

FFQ18LVJU



OVER ALL (dB)

SCALE	HI	LOW
	A	46.0

(B.G.N IS ALREADY RECTIFIED)

OPERATING CONDITIONS

POWER SOURCE 208/230V, 60Hz

STANDARD CONDITION (JIS)

4 DIRECTION DISCHARGE

4D080699

# 11. Electric Characteristics

Outdoor Unit	Power supply						Comp.		OFM	
	Hz	Volts	Min.	Max.	MCA	MOP	MSC	RLA	W	FLA
RMXS48LVJU	60	208	187	229	27.0	30	23.7	22.7	70	0.3
		230	207	253			21.5	20.5	70	0.3

**Symbols:**

MCA : Min. circuit amps (A)  
 MOP : Max. overcurrent protective device (A)  
 MSC : Max. current while starting compressor (A)  
 RLA : Rated load amps (A)  
 OFM : Outdoor fan motor  
 W : Fan motor rated output (W)  
 FLA : Full load amps (A)

**Note:**

- RLA is based on the following conditions.  
 Cooling:  
 Indoor temp.: 80°FDB (26.7°CDB) / 67°FWB (19.4°CWB)  
 Outdoor temp.: 95°FDB (35°CDB)  
 Heating:  
 Indoor temp.: 70°FDB (21°CDB)  
 Outdoor temp.: 47°FDB (8.3°CDB) / 43°FWB (6°CWB)
- Voltage range.  
 Units are suitable for use on electrical systems where voltage supplied to unit terminal is not below or above listed range limits.
- Maximum allowable voltage variation between phases is 2%.
- MCA represents maximum input current.  
 MOP represents capacity which may accept MCA.
- Select wire size based on the value of MCA.
- MOP is used to select the fuse, circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker).
- Be sure to install a ground leakage detector that can handle higher harmonics. This unit uses an inverter, so it requires a ground leakage detector capable handling high harmonics in order to prevent malfunctioning of the ground leakage detector.

3D080740

# Part 3

## Installation Manual

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# 1. RMXS48LVJU

figure 1

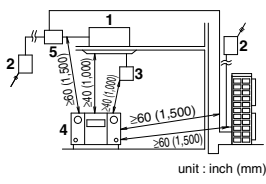


figure 2

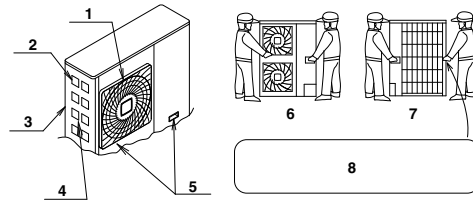


figure 3

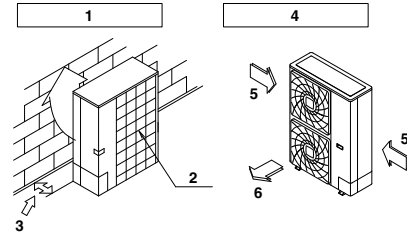


figure 4

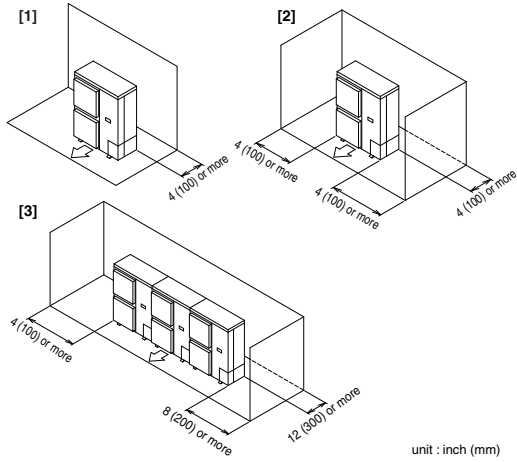


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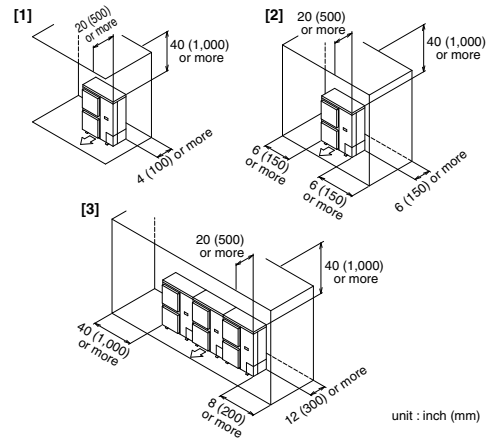


figure 6

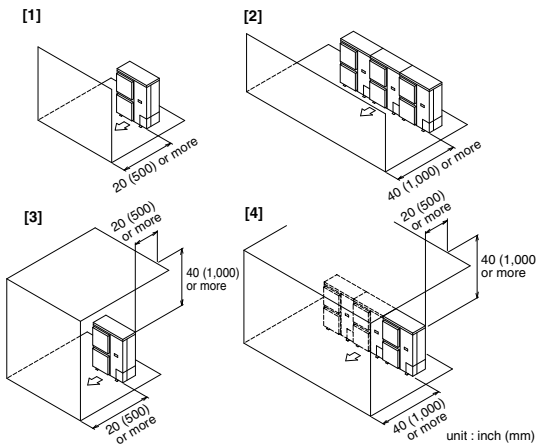


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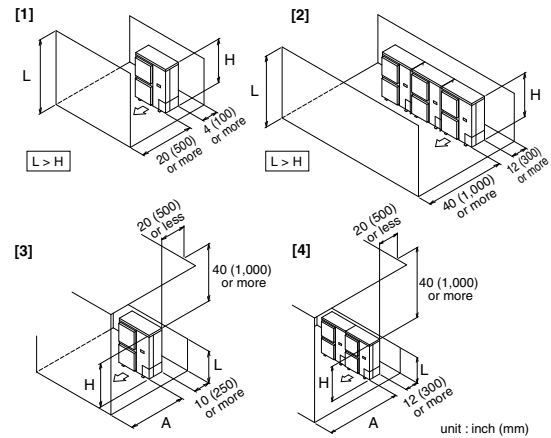


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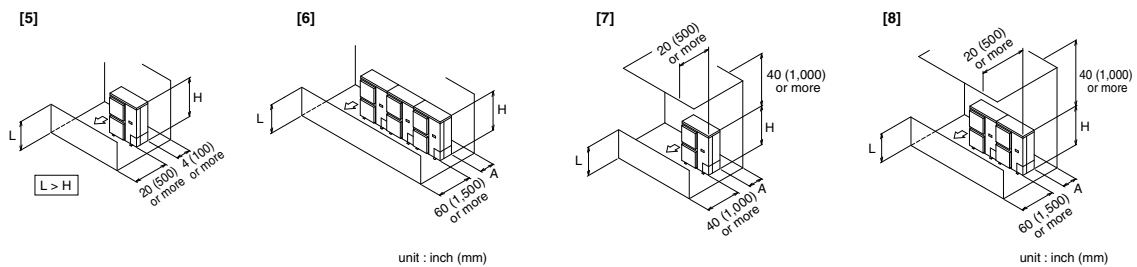


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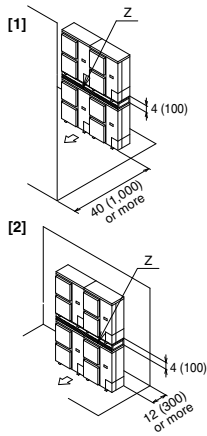


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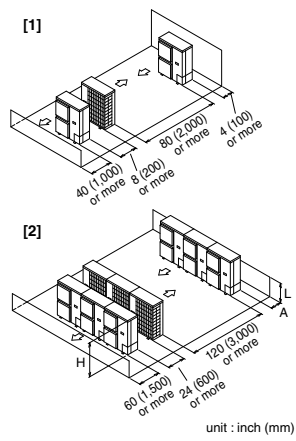


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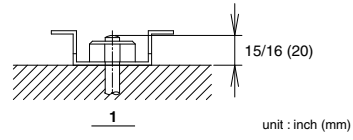


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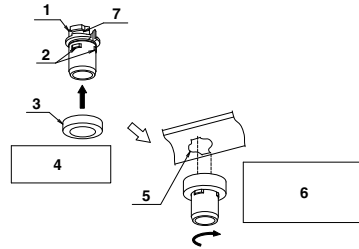


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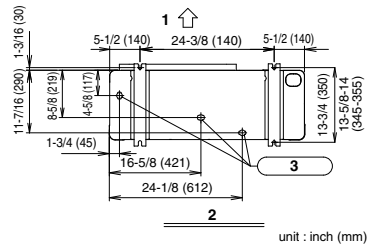


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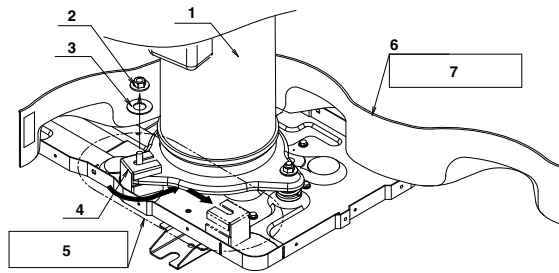


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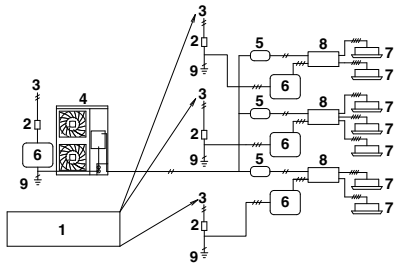


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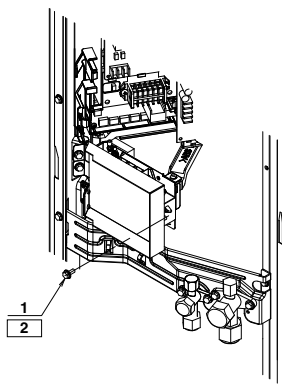


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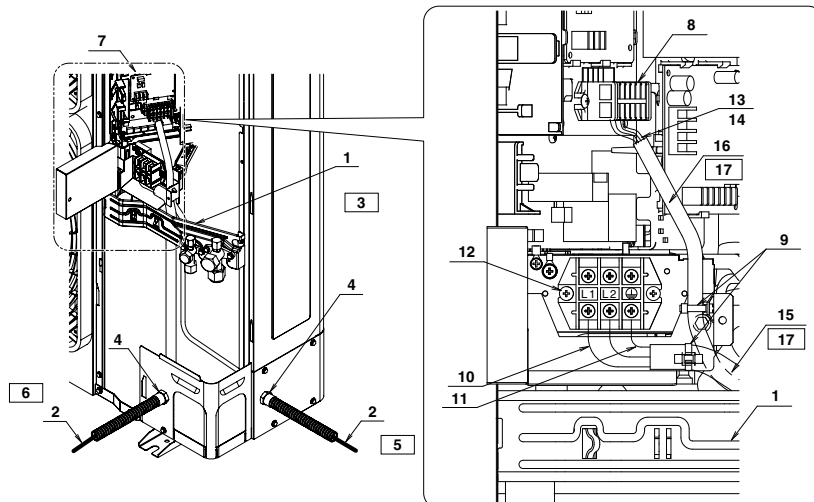


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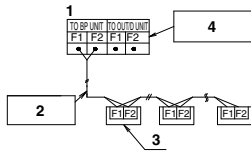


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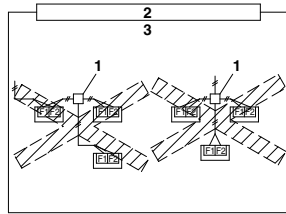


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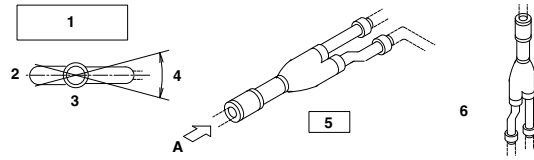


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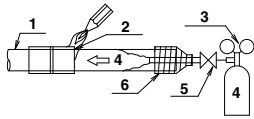


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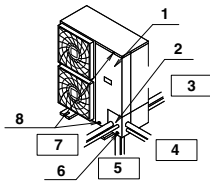


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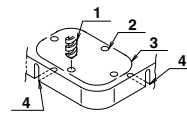


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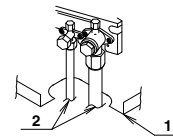


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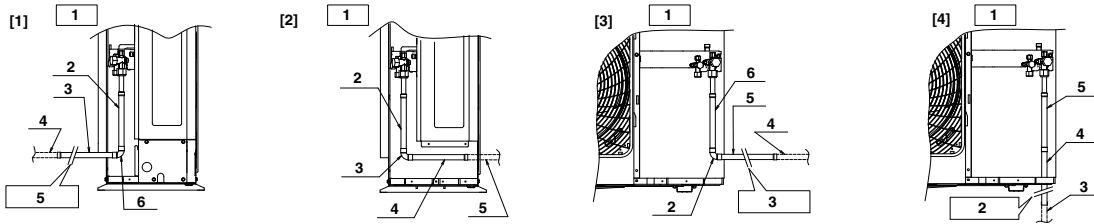


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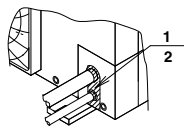


figure 26

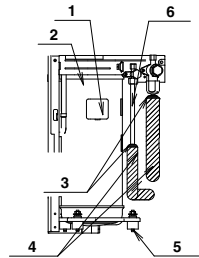


figure 27

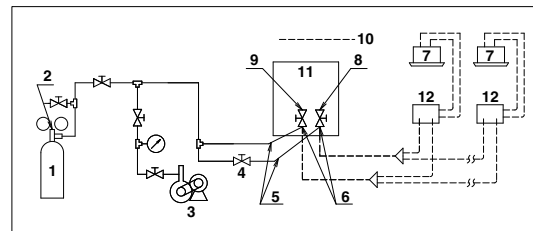


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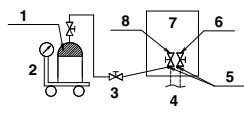


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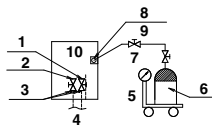
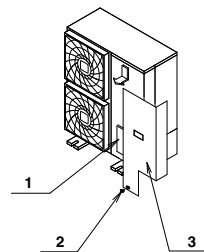


figure 30







## 1.1 Safety Considerations

Read these **SAFETY CONSIDERATIONS for Installation** carefully before installing an air conditioner or heat pump. After completing the installation, make sure that the unit operates properly during the startup operation.

Instruct the customer on how to operate and maintain the unit. Inform customers that they should store this Installation Manual with the Operation Manual for future reference.

Always use a licensed installer or contractor to install this product. Improper installation can result in water or refrigerant leakage, electrical shock, fire, or explosion.

Meanings of **DANGER**, **WARNING**, **CAUTION**, and **NOTE** Symbols

-  **DANGER** ..... Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
-  **WARNING** ..... Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
-  **CAUTION** ..... Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.
-  **NOTE** ..... Indicates situations that may result in equipment or property-damage accidents only.

- Refrigerant gas is heavier than air and replaces oxygen. A massive leak will result in oxygen depletion, especially in basements, and an asphyxiation hazard will result in serious injury or death.
- Do not ground units to water pipes, gas pipes, telephone wires, or lightning rods as incomplete grounding will result a severe shock hazard resulting in severe injury or death. Additionally, grounding to gas pipes will result a gas leak and potential explosion resulting in severe injury or death.
- If refrigerant gas leaks during installation, ventilate the area immediately. Refrigerant gas will result in producing toxic gas if it comes into contact with fire. Exposure to this gas will result in severe injury or death.
- After completing the installation work, check that the refrigerant gas does not leak throughout the system.
- Do not install unit in an area where flammable materials are present due to risk of explosions that will result in serious injury or death.
- Safely dispose all packing and transportation materials in accordance with federal/state/local laws or ordinances. Packing materials such as nails and other metal or wood parts, including plastic packing materials used for transportation will result in injuries or death by suffocation.
- Only qualified personnel must carry out the installation work. Installation must be done in accordance with this installation manual. Improper installation could result in water leakage, electric shock, or fire.
- When installing the unit in a small room, take measures to keep the refrigerant concentration from exceeding allowable safety limits. Excessive refrigerant leaks, in the event of an accident in a closed ambient space, could result in oxygen deficiency.
- Use only specified accessories and parts for installation work. Failure to use specified parts could result in water leakage, electric shocks, fire, or the unit falling.
- Install the air conditioner or heat pump on a foundation strong enough that it can withstand the weight of the unit. A foundation of insufficient strength could result in the unit falling and causing injuries.
- Take into account strong winds, typhoons, or earthquakes when installing. Improper installation could result in the unit falling and causing accidents.
- Make sure that a separate power supply circuit is provided for this unit and that all electrical work is carried out by qualified personnel according to local, state, and national regulations. An insufficient power supply capacity or improper electrical construction could result in electric shocks or fire.
- Make sure that all wiring is secured, that specified wires are used, and that no external forces act on the terminal connections or wires. Improper connections or installation could result in fire.
- When wiring, position the wires so that the terminal box lid can be securely fastened. Improper positioning of the terminal box lid could result in electric shocks, fire, or the terminals overheating.
- Before touching electrical parts, turn off the unit.
- This equipment can be installed with a Ground-Fault Circuit Breaker (GFCI). Although this is a recognized measure for additional protection, with the earthing system in North America, a dedicated GFCI is not necessary.
- Securely fasten the unit terminal cover (panel). If the terminal cover/panel is not installed properly, dust or water may enter the condenser unit and could result in fire or electric shock.
- When installing or relocating the system, keep the refrigerant circuit free from substances other than the specified refrigerant (R-410A) such as air. Any presence of air or other foreign substance in the refrigerant circuit could result in abnormal pressure rise or rupture, resulting in injury.
- Do not change the setting of the protection devices. If the pressure switch, thermal switch, or other protection device is shorted and operated forcibly, or parts other than those specified by Daikin are used, fire or explosion could result.



- Do not touch the switch with wet fingers. Touching a switch with wet fingers may result in electric shock.
- Do not allow children to play on or around the unit or it may result in injury.
- The heat exchanger fins are sharp enough to cut, and may result in injury if improperly used. To avoid injury wear gloves or cover the fins while working around them.
- Do not touch the refrigerant pipes during and immediately after operation as the refrigerant pipes may be hot or cold, depending on the condition of the refrigerant flowing through the refrigerant piping, compressor, and other refrigerant cycle parts. It may result in your hands getting burns or frostbite if you touch the refrigerant pipes. To avoid injury, give the pipes time to return to normal temperature or, if you must touch them, be sure to wear proper gloves.
- Install drain piping to proper drainage. Improper drain piping may result in water leakage and property damage.
- Insulate piping to prevent condensation.
- Be careful when transporting the product.
- Do not turn off the power immediately after stopping operation. Always wait for at least 5 minutes before turning off the power. Otherwise, water leakage may result.
- Do not use a charging cylinder. Using a charging cylinder may cause the refrigerant to deteriorate.
- Refrigerant R-410A in the system must be kept clean, dry, and tight.
  - (a) Clean and Dry -- Foreign materials (including mineral oils such as SUNISO oil or moisture) should be prevented from getting into the system.
  - (b) Tight -- R-410A does not contain any chlorine, does not destroy the ozone layer, and does not reduce the earth's protection against harmful ultraviolet radiation. R-410A can contribute to the greenhouse effect if it is released. Therefore take proper measures to check for the tightness of the refrigerant piping installation. Read the chapter *Refrigerant Piping* and follow the procedures.
- Since R-410A is a blend, the required additional refrigerant must be charged in its liquid state. If the refrigerant is charged in a state of gas, its composition can change and the system will not work properly.
- The indoor unit is for R-410A. See the catalog for indoor models that can be connected. Normal operation is not possible when connected to other units.
- Remote controller (wireless kit) transmitting distance can be shorter than expected in rooms with electronic fluorescent lamps (inverter or rapid start types). Install the indoor unit far away from fluorescent lamps as much as possible.
- Indoor units are for indoor installation only. Outdoor units can be installed either outdoors or indoors. This unit is for indoor use.
- Do not install the air conditioner or heat pump in the following locations:
  - (a) Where a mineral oil mist or oil spray or vapor is produced, for example, in a kitchen. Plastic parts may deteriorate and fall off and thus may result in water leakage.
  - (b) Where corrosive gas, such as sulfurous acid gas, is produced. Corroding copper pipes or soldered parts may result in refrigerant leakage.
  - (c) Near machinery emitting electromagnetic waves. Electromagnetic waves may disturb the operation of the control system and cause the unit to malfunction.
  - (d) Where flammable gas may leak, where there is carbon fiber, or ignitable dust suspension in the air, or where volatile flammables such as thinner or gasoline are handled. Operating the unit in such conditions may result in a fire.
- Take adequate measures to prevent the condenser unit from being used as a shelter by small animals. Small animals making contact with electrical parts may result in malfunctions, smoke, or fire. Instruct the customer to keep the area around the unit clean.
- Install the power supply and control wires for the indoor and outdoor units at least 3.5 feet away from televisions or radios to prevent image interference or noise. Depending on the radio waves, a distance of 3.5 feet may not be sufficient to eliminate the noise.
- Dismantling the unit, treatment of the refrigerant, oil and additional parts must be done in accordance with the relevant local, state, and national regulations.
- Do not use the following tools that are used with conventional refrigerants: gauge manifold, charge hose, gas leak detector, reverse flow check valve, refrigerant charge base, vacuum gauge, or refrigerant recovery equipment.
- If the conventional refrigerant and refrigerator oil are mixed in R-410A, the refrigerant may result in deterioration.
- This air conditioner or heat pump is an appliance that should not be accessible to the general public.
- As design pressure is 478 psi, the wall thickness of field-installed pipes should be selected in accordance with the relevant local, state, and national regulations.

**2. INTRODUCTION**

1. This series uses R410A new refrigerant. Be absolutely sure to comply with "7. PRECAUTIONS ON REFRIGERANT PIPING", because even greater caution is needed to prevent impurities from entering R410A (mineral oils and water).
2. The design pressure is 478 PSI (3.3 MPa), which means that piping may be thicker than conventionally, so please refer to "7. PRECAUTIONS ON REFRIGERANT PIPING".
3. This is a mixed refrigerant, so charge as a liquid when adding refrigerant.  
(If charged as a gas, the composition of the refrigerant may change, preventing normal operation.)
4. The indoor unit must use R410A. See the catalog for indoor unit and BP unit models which can be connected. (Normal operation is not possible when connected to other units.)
5. The power supply of this series is single-phase, 208/230V (60Hz).

**2-1 Combination**

The indoor units can be installed in the following range.

- Be sure to connect a dedicated indoor unit. See the catalog for indoor unit models which can be connected.
- Total capacity/quantity of indoor units

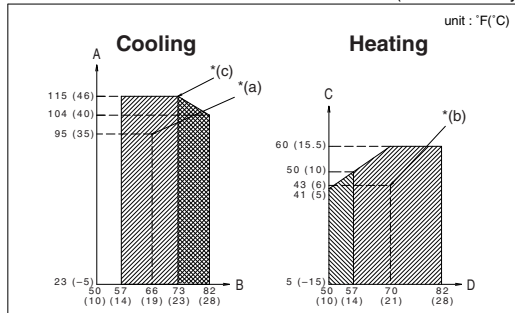
Outdoor unit	Total capacity of indoor units	Quantity of indoor units	
		Max.	Min.
RMXS48LVJU	24000 - 62000 Btu/h	8	2

**2-2 Standard operation limit**

**Normal operation**

The figures below assume following operating conditions for indoor and outdoor units:

- Equivalent pipe length
- From outdoor unit to BP unit..... 16.4 ft (5 m)
  - From BP unit to indoor unit..... 9.8ft (3 m)
  - Level difference ..... 0 ft (0 m)
- (H/P model only)



- A Outdoor temperature (°FDB / °CDB)
- B Indoor temperature (°FWB / °CWB)
- C Outdoor temperature (°FDB / °CWB)
- D Indoor temperature (°FDB / °CDB)
- Range for continuous operation
- Range for pull down operation
- Range for warming up operation

**2-3 Spec list**

For operating conditions marked with a \*(a)(b) in the table, see "2-2 Standard operation limit".

Model name		RMXS48LVJU		Remarks
Refrigerant type		R410A		
Wall mounted	Cooling performance	(MBh) (kW)	48 14.1	*(a)
	Heating performance	(MBh) (kW)	54 15.8	*(b)
	Energy use during cooling	(kW)	4.64	*(a)
	Energy use during heating	(kW)	3.98	*(b)
Duct	Cooling performance	(MBh) (kW)	48 14.1	*(a)
	Heating performance	(MBh) (kW)	54 15.8	*(b)
	Energy use during cooling	(kW)	5.13	*(a)
	Energy use during heating	(kW)	5.27	*(b)
External dimensions (height x width x depth)	(inch) (mm)	52-15/16 x 35-7/16 x 12-5/8 1345 x 900 x 320		
Mass		(lb.)	283	
		(kg)	129	
Connection piping	Gas line piping	(inch) (mm)	φ 3/4 φ 19.1	
	Liquid line piping	(inch) (mm)	φ 3/8 φ 9.4	

**2-4 Electrical properties**

For operating conditions marked with a \*(c) in the table, see "2-2 Standard operation limit".

Model name	H/P	RMXS48LVJU	Remarks
Phase		Single	
Frequency	(Hz)	60Hz	
Voltage	(V)	208/230V	
Voltage tolerance range	(%)	±10	
Rated current for fuses		30	
Maximum outdoor unit operating current	(A)	27	*(c)



**2-5 Standard supplied accessories**

Make sure that the accessories shown below are all present. (The accessories can be found behind the front panel.)

Name	Regarding use	Installation manual	Binding band
Quantity	1	1	6 pcs.
Shape			

Name	Gas side accessory pipe (1)	Gas side accessory pipe (2)	Gas side accessory pipe (3)
Quantity	1 pc.	1 pc.	1 pc.
Shape			

Name	Insulation tube	
Quantity	1 pc.	1 pc.
Shape	 (large)	 (small)

(Refer to figure 30)

1. Accessories
2. Screw for front panel
3. Front panel

**2-6 Option accessory**

- Refrigerant branching kit

REFNET joint	KHRP26M22T
--------------	------------

\* See "7. PRECAUTIONS ON REFRIGERANT PIPING" for details on how to connect refrigerant branch kits and how many are needed.

**3. BEFORE INSTALLATION**

**<Transporting the Unit>**

As shown in figure 2, bring the unit slowly. (Take care not to let hands or things come in contact with rear fins.)

(Refer to figure 2)

1. Air outlet grille
2. Intake hole
3. Corner
4. Outdoor unit
5. Handle
6. Front
7. Rear
8. Always hold the unit by the corners, as holding it by the side intake holes on the casing may cause them to deform.

Use only accessories and parts which are of the designated specification when installing.

**4. SELECTING INSTALLATION SITE**

(1) Select an installation site where the following conditions are satisfied and that meets with your customer's approval.

- Places which are well-ventilated.
- Places where the unit does not bother next-door neighbors.
- A locations where small animals will not make nests in the unit.

- Safe places which can withstand the unit's weight and vibration and where the unit can be installed level.
- Locations not exposed to rain.
- A locations where there is enough space to install the unit.
- Places where the indoor and outdoor unit's piping and wiring lengths come within the allowable ranges.
- A location where there is no risk of flammable gas leaking.

(2) If the unit is installed in a location where it might be exposed to strong wind, install as per figure 3.

- 16.4 ft/sec (5 m/sec) or more strong wind blown against the outdoor unit's air outlet causes the outdoor unit to deteriorate in air capacity and suck in the air blown out of its air outlet (short circuit), and the following effects may result.
  - Drop in performance.
  - Increased frost formation in heating mode.
  - Shutting down due to increase in pressure.
- If very strong wind blows continuously on the side of the outdoor unit with the outlet vent, the fan may turn in reverse at high speed and break, so install as per figure 3.

(Refer to figure 3)

1. Turn the air outlet side toward the building's wall, fence or windbreak screen.
2. Air inlet grille
3. Ensuring there is enough space for installing the unit.
4. Set the outlet side at a right angle to the direction of the wind.
5. Strong wind
6. Blown air

(3) In installing the unit in a place frequently exposed to snow, pay special attention to the following:

- Elevate the foundation as high as possible.
- Attach the snow hood (field supply).
- Remove the rear inlet grille to prevent snow from accumulating on the rear fins.

(4) The outdoor unit may short circuit depending on its environment, so use the louvers (field supply).

(5) The refrigerant gas (R410A) is a safe, non-toxic and non-flammable gas, but if it leaks into the room, the concentration may exceed tolerance levels, especially in small rooms, so steps need to be taken to prevent refrigerant leakage. See the equipment design reference for details.

(6) Inverter-type air conditioners sometimes cause static in other electrical appliances.

When selecting an installation location, make sure the air conditioner and all wiring are sufficiently far away from radios, computers, stereos, and other appliances, as shown in figure 1. Particularly for locations with weak reception, ensure there is a distance of at least 9.8 ft (3 m) for indoor remote controllers, place power supply wiring and inter-unit wiring in conduits, and ground the conduits. Use shielded wire for inter-unit wiring.

(Refer to figure 1)

1. Indoor unit
2. Branch switch (ground-fault circuit interrupter)
3. Remote controller
4. Personal computer or radio
5. BP unit

(7) Space needed for installation

**<Precautions when installing units in series>**

- The direction for inter-unit piping is either forward or down when installing units in series.
- If the piping is brought out from the back, the outdoor unit will require at least 10 inch (250 mm) from its right side.

**(7)-1 IN CASE OBSTACLES EXIST ONLY IN FRONT OF THE AIR INLET**

**When nothing is obstructing the top**

1. Installation of single unit
  - In case obstacles exist only in front of the air inlet (Refer to figure 4-[1])
  - In case obstacles exist in front of the air inlet and on both sides of the unit (Refer to figure 4-[2])

- In case of installing multiple units (2 units or more) in lateral connection per row
  - In case obstacles exist in front of the air inlet and on both sides of the unit (Refer to figure 4-[3])

**When something is obstructing the top**

- Installation of single unit
  - In case obstacles exist only in front of the air inlet (Refer to figure 5-[1])
  - In case obstacles exist in front of the air inlet and on both sides of the unit (Refer to figure 5-[2])
- In case of installing multiple units (2 units or more) in lateral connection per row
  - In case obstacles exist in front of the air inlet and on both sides of the unit (Refer to figure 5-[3])

**(7)-2 IN CASE OBSTACLES EXIST IN FRONT OF THE OUTLET SIDE**

**When nothing is obstructing the top**

- Installation of single unit (Refer to figure 6-[1])
- In case of installing multiple units (2 units or more) in lateral connection per row (Refer to figure 6-[2])

**When something is obstructing the top**

- Installation of single unit (Refer to figure 6-[3])
- In case of installing multiple units (2 units or more) in lateral connection per row (Refer to figure 6-[4])

**(7)-3 IN CASE OBSTACLES EXIST IN FRONT OF BOTH THE AIR INLET AND OUTLET SIDES**

**Pattern 1:** Where obstacle in front of the air outlet is higher than the unit.  
(There is no height limit for obstructions on the intake side.)

**When nothing is obstructing the top**

- Installation of single unit (Refer to figure 7-[1])
- In case of installing multiple units (2 units or more) in lateral connection per row (Refer to figure 7-[2])

**When something is obstructing the top**

- Installation of single unit (Refer to figure 7-[3])  
Relation of dimensions of H, A, and L are shown in the table below.  
inch (mm)

	L	A
L ≤ H	0 < L ≤ 1/2H	30 (750)
	1/2H < L ≤ H	40 (1000)
H < L	Set the frame to be L ≤ H	

**Note**

Get the lower part of the frame sealed so that air from the outlet does not bypass.

- Series installation (up to 2 units) (Refer to figure 7-[4])  
Relation of dimensions of H, A, and L are shown in the table below.  
inch (mm)

	L	A
L ≤ H	0 < L ≤ 1/2H	40 (1000)
	1/2H < L ≤ H	50 (1250)
H < L	Set the frame to be L ≤ H	

**Note**

- Get the lower part of the frame sealed so that air from the outlet does not bypass.
- Only two units at most can be installed in series.

**Pattern 2:** Where obstacles in front of the air outlet is lower than the unit.  
(There is no height limit for obstructions on the intake side.)

**When nothing is obstructing the top**

- Installation of single unit (Refer to figure 7-[5])
- In case of installing multiple units (2 units or more) in lateral connection per row (Refer to figure 7-[6])  
Relation of dimensions of H, A, and L are shown in the table below.

inch (mm)

L	A
0 < L ≤ 1/2H	10 (250)
1/2H < L ≤ H	12 (300)

**When something is obstructing the top**

- Installation of single unit (Refer to figure 7-[7])  
Relation of dimensions of H, A, and L are shown in the table below.  
inch (mm)

	L	A
L ≤ H	0 < L ≤ 1/2H	4 (100)
	1/2H < L ≤ H	8 (200)
H < L	Set the frame to be L ≤ H	

**Note**

Get the lower part of the frame sealed so that air from the outlet does not bypass.

- Series installation (up to 2 units) (Refer to figure 7-[8])  
Relation of dimensions of H, A, and L are shown in the table below.  
inch (mm)

	L	A
L ≤ H	0 < L ≤ 1/2H	10 (250)
	1/2H < L ≤ H	12 (300)
H < L	Set the frame to be L ≤ H	

**Note**

- Get the lower part of the frame sealed so that air from the outlet does not bypass.
- Only 2 units at most can be installed in series.

**(7)-4 IN CASE OF STACKED INSTALLATION**

- In case obstacles exist in front of the outlet side (Refer to figure 8-[1])

**Note**

- No more than 2 units should be stacked.
  - About 4 inch (100 mm) is required as the dimension for laying the upper outdoor unit's drain pipe.
  - Shut off the Z part (the area between the upper outdoor unit and the lower outdoor unit) so that outlet air does not bypass.
- In case obstacles exist in front of the air inlet (Refer to figure 8-[2])

**Note**

- No more than 2 units should be stacked.
- About 4 inch (100 mm) is required as the dimension for laying the upper outdoor unit's drain pipe.
- Shut off the Z part (the area between the upper outdoor unit and the lower outdoor unit) so that outlet air does not bypass.

**(7)-5 IN CASE OF MULTIPLE-ROW INSTALLATION (FOR ROOF TOP USE, ETC.)**

- In case of installing 1 unit per row (Refer to figure 9-[1])
- In case of installing multiple units (2 units or more) in lateral connection per row (Refer to figure 9-[2])  
Relation of dimensions of H, A, and L are shown in the table below.  
inch (mm)

	L	A
L ≤ H	0 < L ≤ 1/2H	10 (250)
	1/2H < L ≤ H	12 (300)
H < L	Installation impossible.	

## 5. PRECAUTIONS ON INSTALLATION

- Install making sure the unit is level and the foundation is sturdy enough to prevent vibration noise.
- In accordance with the foundation drawing in figure 10, fix the unit securely by means of the foundation bolts.  
(Prepare 4 sets of M12 foundation bolts, nuts and washers each which are available on the market.)
- The foundation bolts should be inserted 15/16 inch (20 mm).

### (Refer to figure 10)

1. Diagram of lower surface

### <Drain pipe disposal>

- Locations where drainage from the outdoor unit might be a problem.  
In such locations, for example, where the drainage might drip onto passersby, lay the drain piping using the separately sold drain plug.
- When laying the drain, at least 4 inch (100 mm) from the bottom of the outdoor unit is needed.
- Make sure the drain works properly.  
(Watch out for water leaks if piping is brought out the bottom.)

### (Refer to figure 11)

1. Drain plug
2. 4 tabs
3. Drain receiver
4. Insert the drain receiver as far as possible into the drain plug and hook the tabs.
5. Bottom frame drain hole
6. (1) Insert the drain plug through the drain hole in the bottom frame shown in figure 12.  
(2) Turn the drain plug along the guides until it stops (approx. 90°), and then attach the bottom frame.
7. Guide

### (Refer to figure 12)

1. Air outlet side
2. Diagram of lower surface
3. Drain hole

### [How to remove the transport clasp]

- A yellow transport clasp and washer are attached to the legs of the compressor to protect the unit during transportation, so remove them as shown in figure 13.

### (Refer to figure 13)

1. Compressor
2. Securing nut
3. Washer
4. Transport clasp
5. Turn in the direction of the arrow and remove.
6. Sound-proof cover
7. Do not remove with the cover open.

- (1) Open the sound-proof cover as shown in figure 13.  
Do not pull the sound-proof cover or remove it from the compressor.
- (2) Remove the securing nut.
- (3) Remove the washer.
- (4) Remove the transport clasp as shown in figure 13.
- (5) Retighten the securing nut.
- (6) Return the sound-proof cover as it was.

## 6. FIELD WIRING



### CAUTION

#### To the electrician

- Do not operate until refrigerant piping work is completed.  
(If operated before complete the piping work, the compressor may be broken down.)
- Be sure to install a ground fault circuit interrupter.  
(This unit uses an inverter, so install the ground fault circuit interrupter that be capable of handling high harmonics in order to prevent malfunctioning of the ground fault circuit interrupter itself.)

## 6-1 Wiring connection example for whole system

- Electrical wiring work should be done by a certified professional.
- Follow the "Electrical wiring diagram face plate" when carrying out any electrical wiring.  
Only proceed with wiring work after blocking off all power.
- Make sure the ground resistance is no greater than 4Ω .
- Attach a ground-fault circuit interrupter.
- Ground the indoor and outdoor units.
- Do not connect the ground wire to gas pipes, sewage pipes, lightning rods, or telephone ground wires.
  - **Gas pipes:** can explode or catch fire if there is a gas leak.
  - **Sewage pipes:** no grounding effect is possible if hard plastic piping is used.
  - **Telephone ground wires and lightning rods:** dangerous when struck by lightning due to abnormal rise in electrical potential in the grounding.
- Use copper wire.
- When doing the electrical wiring, always shut off the power source before working, and do not turn on the switch until all work is complete.
- This unit has an inverter, so it must be grounded in order to reduce noise and prevent it affecting other appliances, and also to release any electrical build-up in the unit case due to leaked current.
- Do not install a power-factor improving phase-advancing capacitor under any circumstances.  
(Not only will this not improve the power factor, but it might cause a fire.)
- Connect the wire securely using designated wire and fix it with attached clamp without applying external pressure on the terminal parts (terminal for power wiring, terminal for transmission wiring and ground terminal). See "6-3 How to connect the power supply wiring".
- Left-over wiring should not be wrapped and stuffed into the unit.
- To prevent the power wiring from being damaged by the knock hole edges, put it in a wiring pipe or plastic tube to protect it.
- Secure the wiring with the included clamp so that it does not come in contact with the piping or stop valve.  
(See "6-3 How to connect the power supply wiring".)



### CAUTION

- Use a power wire pipe for the power supply wiring.
- Outside the unit, make sure the weak electric wiring (i.e. for the remote controller cord, between units, etc.) and the strong electric wiring do not pass near each other, **keeping them at least 2 inch (50 mm) apart**.  
Proximity may cause electrical interference, malfunctions, and breakage.
- Be sure to connect the power wiring to the power wiring terminal block and secure it as described in "6-3 How to connect the power supply wiring".
- Inter-unit wiring should be secured as described in "6-4 Inter-unit wiring connection procedure".
- Secure wiring with binding band (accessory) to avoid contact with piping.
- Make sure the wiring and the front panel do not stick up above the structure, and close the cover firmly.

### (Refer to figure 14)

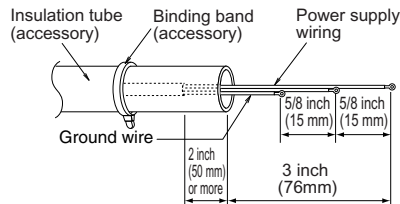
1. The power source is supplied to each BP unit individually.
2. Branch switch and over-current interrupter (ground-fault circuit interrupter)
3. Power supply
4. Outdoor unit
5. 16V
6. 208/230V
7. Indoor unit
8. BP unit
9. Ground wire

### 6-2 How to lay the power supply wiring and transmission wiring

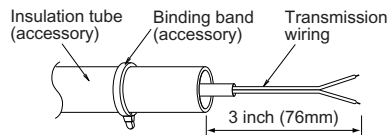
Let the power supply wiring and transmission wiring with a conduit pass through one of the knockout holes on the front or side cover, and let the transmission wiring with a conduit pass through another knockout hole.

- For protection from uninsulated live parts, thread the power supply wiring and the transmission wiring through the included insulation tube and secure it with the included binding band.

#### <Power supply wiring>

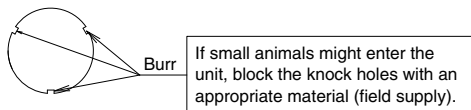


#### <Transmission wiring>



#### Precautions when knocking out knock holes

- Open the knock holes with a hammer or the like.
- After knocking out the holes, we recommend you remove burrs in the knock holes and paint the edges and areas around the edges using the repair paint to prevent rusting.
- When passing wiring through knock holes, make sure there are no burrs, and protect the wiring with protective tape.



#### (Refer to figure 15)

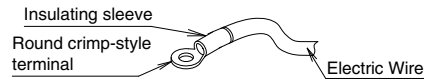
- Screw
- Unfasten the screw and open the cover.

#### (Refer to figure 16)

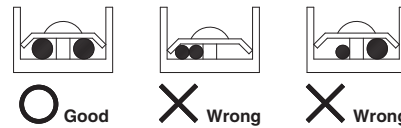
- Stop valve attachment plate
- Power supply wiring (including ground wire) or transmission wiring.
- Backward
- Knockout hole
- Sideways
- Forward
- Electrical Component Box
- Terminal block (X2M)
- Binding band (accessory)
- Connecting power supply wiring
- Ground wire (yellow/green)
- Terminal block (X1M)
- Transmission wiring
- (To X2M [To BP unit] (F1, F2))
- Insulation tube (large) (accessory)
- Insulation tube (small) (accessory)
- Cut off the insulation tube sticking out of the outdoor unit.

#### <Precautions when laying power wiring>

- Wiring of different thicknesses cannot be connected to the power terminal block.  
(Slack in the power wiring may cause abnormal heat.)
- Use sleeve-insulated round pressure terminals for connections to the power terminal block. When none are available, connect wire of the same diameter to both sides, as shown in the figure.



- Connect wires of the same gauge to both side.
- Do not connect wires of the same gauge to one side.
- Do not connect wires of different gauges.



#### Follow the instructions below if the wiring gets very hot due to slack in the power wiring.

- For wiring, use the designated power wire and connect firmly, then secure using the included clamping material to prevent outside pressure being exerted on the terminal block.
- Use an appropriate screwdriver for tightening the terminal screws. A screwdriver with a small head will strip the head and make proper tightening impossible.
- Over-tightening the terminal screw may break it.

See the table below the tightening torque of the terminal screws.

Tightening torque		
M5	Power terminal	1.76-2.15 ft-lbf (2.39-2.91 N·m)
M4	Shield ground	0.87-1.06 ft-lbf (1.18-1.44 N·m)
M3	Transmission wiring terminal block	0.58-0.72 ft-lbf (0.8-0.97 N·m)

### 6-3 How to connect the power supply wiring



#### CAUTION

##### Attach a ground-fault circuit interrupter.

- A ground-fault circuit interrupter is required in order to prevent electric shock and fires.

Model name	Frequency	Voltage	Rated current for fuses	Maximum outdoor unit operating current
RMXS48LVJU	60Hz	208/230V	30A	27A



#### CAUTION

- The wiring should be selected in compliance with local specifications. See the table above.
- Always turn off the power before doing wiring work.
- Grounding should be done in compliance with local laws and regulations.
- Attach a ground-fault circuit interrupter.  
(This unit has an inverter, so an interrupter capable of handling high frequencies is needed to prevent malfunction of the interrupter itself.)
- As shown in figure 16, when connecting the power supply wiring to the power supply terminal block, be sure to clamp securely.
- Once wiring work is completed, check to make sure there are no loose connections among the electrical parts in the control box.

### 6-4 Inter-unit wiring connection procedure

- Between indoor units in the same system, pass the wiring between the units as shown in figure 17. (There is no polarity.)

(Refer to figure 17)

- Terminal block (X2M)
- Use balance type shield wire (with no polarity).
- BP unit
- Not used for this model. **Never connect wires, or the entire system will be damaged.**

#### Precautions regarding the length of wiring between units

Exceeding the following limits may cause transmission malfunctions, so observe them.

Max. wiring length	Max. 656 ft (200 m)
Total wiring length	Max. 984 ft (300 m)

#### Precautions regarding wiring between units

- Do not connect 208/230V power wiring to terminals for the inter-unit wiring. Doing so would destroy the entire system.**
- Wiring to the BP unit should be wired to F1 and F2 (To BP unit) on the outdoor unit's terminal block (X2M).

#### Note

- The above wiring should be wired using AWG 18-16 (0.75 – 1.25 mm<sup>2</sup>) shielded (balance type) wiring. (See figure 16 for how to ground the shielded parts.)
- All inter-unit wiring is to be procured on site.



#### CAUTION

(Refer to figure 18)

- Branch
- Caution on branches in the wiring among BP units
- The following branches can not be performed

## 7. PRECAUTIONS ON REFRIGERANT PIPING



#### CAUTION

##### To the pipe-layer

- Do not operate the unit with the transport clasp attached. This can cause abnormal shaking or noise. See "5. PRECAUTIONS ON INSTALLATION" and "How to remove the transport clasp".

### 7-1 Installation tools

Use the right parts to ensure tolerance and to prevent foreign matter for entering.

#### Gauge manifold, charge hose, etc.

- Make sure to use installation tools that are exclusively used for R410A installations to withstand the pressure and to prevent foreign materials (e.g. mineral oils such as SUNISO and moisture) from mixing into the system. (The screw specifications differ for R410A.)

#### Vacuum pump

- Use extreme caution to prevent pump oil from flowing backwards through the system when the pump is stopped.
- Use a vacuum pump which can evacuate to -14.6 PSI (-100.7 kPa (5Torr, -755mmHg)).

### 7-2 Selecting piping material

- Use pipes that have no contaminants adhered to their inner surfaces (such as sulfur, iron oxide, dust, cutting chips, oil and moisture). (It is desirable that adhered oil inside the piping is 0.00006 lb. (30 mg) or less per 32.8 ft (10 m).)
- The wall thickness of the refrigerant piping should comply with local laws and regulations. The design pressure for R410A is 478 PSI (3.3 MPa).
- Use the following material for the refrigerant piping. Material: Jointless phosphor-deoxidized copper pipe.
- Thickness and size: choose based on the piping size selection method on the "7-8 Air tight test and vacuum drying".
- Make sure to use the separately sold refrigerant branch kit when branching the piping.

- Piping work should be done within the maximum length, height difference, and length after branches set out in "7-8 Air tight test and vacuum drying".
- Install the refrigerant branch kit while observing the following condition and referring to the installation manual offered as an accessory of the kit.

(Refer to figure 19)

- Install the REFNET joint so it splits horizontally or vertically.
- Horizontal surface
- A-arrow view
- ±30° or less
- Level
- Vertical is also OK

### 7-3 Protection against contamination when installing pipes

- Wrap the piping to prevent moisture, dirt, dust, etc. from entering the piping.
- Exercise caution when passing copper piping through the through-holes and when passing them out to the outside.

Place	Installation period	Protection method
Outdoor	More than a month	Pinch the pipe
	Less than a month	Pinch or tape the pipe
Indoor	Regardless of the period	

### 7-4 Pipe connection

- See "Stop valve operation procedure" in "7-8 Air tight test and vacuum drying" regarding handling of the stop valve.
- Only use the flare nuts included with the unit. Using different flare nuts may cause the refrigerant to leak.
- Be sure to perform a nitrogen blow when brazing.** (Brazing without performing nitrogen replacement or releasing nitrogen into the piping will create large quantities of oxidized film on the inside of the pipes, adversely affecting valves and compressors in the refrigerating system and preventing normal operation.)

#### Note

The nitrogen used when brazing while flowing the nitrogen should be set to 2.9 PSI (0.02 MPa) (2.8 PSI / 0.019 MPa: just enough to feel a breeze on your cheek) with the decompression valve.

- Do not mix any refrigerant other than that specified into the refrigerant system.
- Do not mix air into the refrigerant system.



#### CAUTION

Do not use a flux when brazing the refrigerant pipe joints. Use phosphor copper brazing (BCuP-2/B-Cu93P-710/795) which does not require flux. (Using a chlorine flux may cause the pipes to corrode, and if it contains fluoride it may cause the refrigerant lubricant to deteriorate, adversely affecting the refrigerant piping system.)

(Refer to figure 20)

- Refrigerant pipe
- Location to be brazed
- Regulator
- Nitrogen
- Manual valve
- Taping

### 7-5 Connecting the refrigerant piping

- The local inter-unit piping is connectable in four directions.

(Refer to figure 21)

- Front panel
- Pipe outlet panel
- Backward
- Sideways
- Downward
- Pipe outlet panel screw
- Forward
- Screw for front panel



- When connecting the pipings downward, remove the knock-out by making 4 holes in the middle on the each side of the knockout with a drill.

(Refer to figure 22)

1. Drill
  2. Center area around knockout hole
  3. Knockout hole
  4. Slit
- After knocking out the knock-out, it is recommended to apply repair paint to the edge and the surrounding end surfaces to prevent rusting.

(Refer to figure 23)

1. Bottom frame
2. Inter-unit piping

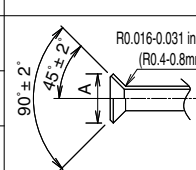
**Note**

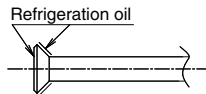
Cutting out the 2 slits makes it possible to install as shown in figure 23. (Use a metal saw to cut out the slits.)

<Precautions when connecting pipes>

- Please refer to the Table 1 for the dimensions for processing flares.
- When connecting the flare nut, coat the inner surface of the flare with refrigeration oil and initially tighten by hand 3 or 4 turns before tightening firmly.
- Please refer to the Table 1 for the tightening torque. (Too much tightening will end up in splitting of the flare.)

Table 1

Pipe size	Tightening torque	A dimensions for processing flares	Flare shape
φ 3/8 inch (φ 9.5mm)	24.1-29.4 ft-lbf (32.7-39.9N-m)	0.504-0.520 inch (12.8-13.2mm)	
φ 5/8 inch (φ 15.9mm)	45.6-55.6 ft-lbf (61.8-75.4N-m)	0.760-0.776 inch (19.3-19.7mm)	
φ 3/4 inch (φ 19.1mm)	71.7-87.5 ft-lbf (97.2-118.6N-m)	0.929-0.944 inch (23.6-24.0mm)	



- If a torque wrench is not available, there is a place where the tightening torque will suddenly increase if a normal wrench is used to tighten the flare nut. From that position, further tighten the flare nut the angle shown below.

Pipe size	Further tightening angle	Recommended arm length of tool
φ 3/8 inch (φ 9.5mm)	60° - 90°	Approx. 7-7/8 inch (200 mm)
φ 5/8 inch (φ 15.9mm)	30° - 60°	Approx. 11-13/16 inch (300 mm)
φ 3/4 inch (φ 19.1mm)	20° - 35°	Approx. 17-11/16 inch (450 mm)

- After all the piping has been connected, use nitrogen to perform a gas leak check.

(Refer to figure 24-[1])

1. Front connection
2. Gas side accessory pipe (1)
3. Gas side accessory pipe (3)
4. Gas side piping (field supply)
5. Cut at an appropriate length.
6. Gas side accessory pipe (2)

(Refer to figure 24-[2])

1. Rear-side connection
2. Gas side accessory pipe (1)
3. Gas side accessory pipe (2)
4. Gas side accessory pipe (3)
5. Gas side piping (field supply)

(Refer to figure 24-[3])

1. Side connection
2. Gas side accessory pipe (2)
3. Cut at an appropriate length.
4. Gas side piping (field supply)
5. Gas side accessory pipe (3)
6. Gas side accessory pipe (1)

(Refer to figure 24-[4])

1. Bottom connection
2. Cut at an appropriate length.
3. Gas side piping (field supply)
4. Gas side accessory pipe (3)
5. Gas side accessory pipe (1)

**Precautions for connecting pipes**

- Be careful not to let the inter-unit piping come into contact with the compressor terminal cover. Adjust the height of the insulation material on liquid pipe when it has the possibility of getting in contact with the terminal. Also make sure that the inter-unit piping does not touch the mounting bolt of the compressor.

(Refer to figure 26)

1. Terminal cover
2. Compressor
3. Corking, etc.
4. Insulation material
5. Bolts
6. Inter-unit piping

- If installing the outdoor unit higher than the indoor unit, caulk the space around insulation and tubes because condensation on the check valve can seep through to the indoor unit side.

**[Preventing foreign objects from entering]**

- Plug the pipe through-holes with putty or insulating material (procured locally) to stop up all gaps, as shown in figure 25. (Insects or small animals entering the outdoor unit may cause a short in the control box.)

(Refer to figure 25)

1. Putty or insulating material
2. (field supply)

**7-6 Heat insulation of piping**

- If you think the humidity inside the ceiling might exceed 86°F (30°C) and RH80%, reinforce the insulation on the cooling piping. (At least 0.78 inch (20 mm) thick) (Condensation may form on the surface of the insulation.)
  - Be sure to insulate the inter-unit piping (liquid and gas-side) and the refrigerant branch kit. (Not insulating them may cause leaking.)
- (The highest temperature that the gas-side piping can reach is around 248°F (120°C), so be sure to use insulating material which is very resistant.)

**CAUTION**

For local insulation, be sure to insulate all the way to the pipe connections inside the machine. Exposed piping may cause leaking or burns on contact.



7-7 Example of connection

Example of connection (Connection of 7 units heat pump system)		Branch with refnet joint																						
<p>□ indoor unit</p> <p>BP BP unit</p> <p>△ refnet joint</p>		<p>Pipe length between outdoor and BP units ≤ 180 ft (55m) [Example] a-b-c-d+e ≤ 180 ft (55m)</p> <p>Piping length between BP and indoor units: 262ft (80m) [Example] f-g-h+i-j+k+l ≤ 262ft (80m)</p> <p>Piping length between BP and indoor unit ≤ 49 ft (15m) [Example] l, g, h, i, j, k, l ≤ 49 ft (15m)</p> <p>Difference in height between outdoor and indoor units (H1) ≤ 98 ft (30m)</p> <p>Difference in height between outdoor and BP units (H2) ≤ 98 ft (30m)</p> <p>Difference in height between BP and BP units (H3) ≤ 49 ft (15m)</p> <p>Difference in height between indoor and indoor units (H4) ≤ 49 ft (15m)</p> <p>Pipe length between outdoor unit and first refrigerant branch kit (refnet joint) ≥ 16.4 ft (5m) [Example] a ≥ 16.4 ft (5m)</p> <p>Piping length from first refrigerant branch kit (refnet joint) to indoor unit ≤ 131 ft (40m) [Example] unit 6: b+c+k ≤ 131 ft (40m) [Example] unit 5: b+e+l ≤ 131 ft (40m) [Example] unit 3: d+h ≤ 131 ft (40m)</p>	<p>Maximum allowable length</p> <p>Between outdoor and BP units</p> <p>Between BP and indoor units</p> <p>Between BP and indoor unit</p> <p>Difference in height</p> <p>Difference in height</p> <p>Difference in height</p> <p>Difference in height</p> <p>Minimum allowable length</p> <p>*1 Since the sound of refrigerant may be transferred from the outdoor unit to the indoor unit, make the pipe length from the outdoor unit to the first junction: 16.4 ft (5 m) or longer.</p> <p>Allowable length after the branch</p> <p>*2 Branch kit are recommended to set as possible as near the BP units. c, d, e are recommended to be as possible as short.</p>																					
<p>Refrigerant branch kit selection: refrigerant branch kits can only be used with R410A</p>	<p>Refrigerant branch kit (refnet joint) name : KHRP26A22T</p>	<p>• Piping size (Outer diameter x minimum thickness)</p> <table border="1"> <thead> <tr> <th>symbol</th> <th>Gas pipe</th> <th>Liquid pipe</th> </tr> </thead> <tbody> <tr> <td>a</td> <td>φ 3/4 x 0.038 (φ 19.1 x 1.0)</td> <td>φ 3/8 x 0.031 (φ 9.5 x 0.8)</td> </tr> <tr> <td>b</td> <td>φ 5/8 x 0.031 (φ 15.9 x 1.0)</td> <td>φ 3/8 x 0.031 (φ 9.5 x 0.8)</td> </tr> <tr> <td>c, d, e</td> <td colspan="2">See the table A</td> </tr> </tbody> </table> <p>Table A</p> <table border="1"> <thead> <tr> <th>Total indoor capacity Q</th> <th>Gas pipe</th> <th>Liquid pipe</th> </tr> </thead> <tbody> <tr> <td>Qc, Qd, Qe ≤ 17000 Btu (5.0 kW)</td> <td>φ 1/2 x 0.031 (φ 12.7 x 0.8)</td> <td>φ 1/4 x 0.031 (φ 6.4 x 0.8)</td> </tr> <tr> <td>Qc, Qd, Qe &gt; 17000 Btu (5.0 kW)</td> <td>φ 5/8 x 0.039 (φ 15.9 x 1.0)</td> <td>φ 3/8 x 0.031 (φ 9.5 x 0.8)</td> </tr> </tbody> </table> <p>*Qc, Qd, Qe is total connected indoor capacity *c, d, e indicates the symbols in the figure</p>	symbol	Gas pipe	Liquid pipe	a	φ 3/4 x 0.038 (φ 19.1 x 1.0)	φ 3/8 x 0.031 (φ 9.5 x 0.8)	b	φ 5/8 x 0.031 (φ 15.9 x 1.0)	φ 3/8 x 0.031 (φ 9.5 x 0.8)	c, d, e	See the table A		Total indoor capacity Q	Gas pipe	Liquid pipe	Qc, Qd, Qe ≤ 17000 Btu (5.0 kW)	φ 1/2 x 0.031 (φ 12.7 x 0.8)	φ 1/4 x 0.031 (φ 6.4 x 0.8)	Qc, Qd, Qe > 17000 Btu (5.0 kW)	φ 5/8 x 0.039 (φ 15.9 x 1.0)	φ 3/8 x 0.031 (φ 9.5 x 0.8)	<p>unit : inch (mm)</p> <p>[Example] indoor 1: 9000 Btu/h indoor 2: 12000 Btu/h indoor 3: 18000 Btu/h =&gt; (Gas pipe) φ 5/8 x 0.031 (φ 15.9 x 1.0) / (Liquid pipe) φ 3/8 x 0.031 (φ 9.5 x 0.8)</p>
symbol	Gas pipe	Liquid pipe																						
a	φ 3/4 x 0.038 (φ 19.1 x 1.0)	φ 3/8 x 0.031 (φ 9.5 x 0.8)																						
b	φ 5/8 x 0.031 (φ 15.9 x 1.0)	φ 3/8 x 0.031 (φ 9.5 x 0.8)																						
c, d, e	See the table A																							
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Qc, Qd, Qe > 17000 Btu (5.0 kW)	φ 5/8 x 0.039 (φ 15.9 x 1.0)	φ 3/8 x 0.031 (φ 9.5 x 0.8)																						
<p>How to calculate the additional refrigerant to be charged</p> <p>Additional refrigerant to be charged R (lb./kg)</p> <p>R should be rounded off in units of 0.1 lb. (0.1kg).</p>	<p>R = (Total length (ft./m) of liquid piping size at φ 3/8 inch (φ 9.5 mm) × 0.038 lb./ft. (0.054 kg/m)) + (Total length (ft./m) of liquid piping size at φ 1/4 inch (φ 6.4 mm) × 0.015 lb./ft. (0.022 kg/m))</p> <p>[Example] for refrigerant branch using refnet joint unit : inchx ft (mmx m)</p> <table border="1"> <tbody> <tr> <td>a: φ 3/8 x 32 (φ 9.5 x 1.0)</td> <td>d: φ 3/8 x 32 (φ 9.5 x 1.0)</td> <td>g: φ 1/4 x 32 (φ 6.4 x 1.0)</td> <td>j: φ 1/4 x 32 (φ 6.4 x 1.0)</td> </tr> <tr> <td>b: φ 3/8 x 32 (φ 9.5 x 1.0)</td> <td>e: φ 3/8 x 32 (φ 9.5 x 1.0)</td> <td>h: φ 1/4 x 32 (φ 6.4 x 1.0)</td> <td>k: φ 1/4 x 16 (φ 6.4 x 5)</td> </tr> <tr> <td>c: φ 1/4 x 32 (φ 6.4 x 1.0)</td> <td>f: φ 1/4 x 32 (φ 6.4 x 1.0)</td> <td>i: φ 1/4 x 32 (φ 6.4 x 1.0)</td> <td>l: φ 1/4 x 26 (φ 6.4 x 8)</td> </tr> </tbody> </table> <p>R = [(a+b+d+e) × 0.038 + (c+f+h+i+j+k+l) × 0.015] ÷ 2.2046 = 128 × 0.038 + (73) × 0.015 = 8.718 → 8.7 lb. R = [(a+b+d+e) × (0.054) + (c+f+h+i+j+k+l) × (0.022)] ÷ (7.3) × (0.022) = (3.766) ÷ (0.022) = 171.2 → 171 kg</p>	a: φ 3/8 x 32 (φ 9.5 x 1.0)	d: φ 3/8 x 32 (φ 9.5 x 1.0)	g: φ 1/4 x 32 (φ 6.4 x 1.0)	j: φ 1/4 x 32 (φ 6.4 x 1.0)	b: φ 3/8 x 32 (φ 9.5 x 1.0)	e: φ 3/8 x 32 (φ 9.5 x 1.0)	h: φ 1/4 x 32 (φ 6.4 x 1.0)	k: φ 1/4 x 16 (φ 6.4 x 5)	c: φ 1/4 x 32 (φ 6.4 x 1.0)	f: φ 1/4 x 32 (φ 6.4 x 1.0)	i: φ 1/4 x 32 (φ 6.4 x 1.0)	l: φ 1/4 x 26 (φ 6.4 x 8)											
a: φ 3/8 x 32 (φ 9.5 x 1.0)	d: φ 3/8 x 32 (φ 9.5 x 1.0)	g: φ 1/4 x 32 (φ 6.4 x 1.0)	j: φ 1/4 x 32 (φ 6.4 x 1.0)																					
b: φ 3/8 x 32 (φ 9.5 x 1.0)	e: φ 3/8 x 32 (φ 9.5 x 1.0)	h: φ 1/4 x 32 (φ 6.4 x 1.0)	k: φ 1/4 x 16 (φ 6.4 x 5)																					
c: φ 1/4 x 32 (φ 6.4 x 1.0)	f: φ 1/4 x 32 (φ 6.4 x 1.0)	i: φ 1/4 x 32 (φ 6.4 x 1.0)	l: φ 1/4 x 26 (φ 6.4 x 8)																					

**7-8 Air tight test and vacuum drying**

After doing the piping, perform the following inspections.

**Air tight test**

Be sure to use nitrogen gas. (See the figure (“Stop valve operation procedure”) for the location of the service port.)

[Procedure]

Pressurize from the liquid pipes and gas pipes to 478 PSI (3.3 MPa) (and not above 478 PSI (3.3 MPa)). If there is not pressure drop over the next 24 hours, the equipment has passed the test.

If the pressure drops, check for leakage positions. (Confirm that there is no leakage, then release nitrogen.)

**Vacuum drying**

Use a vacuum pump that can create a vacuum down to at least -14.6 PSI (-100.7 kPa).

[Procedure]

Operate the vacuum pump for **at least 2 hours** from **both the liquid and gas pipes** and decrease the pressure to at least -14.6 PSI (-100.7 kPa).

Leave at below -14.6 PSI (-100.7 kPa) for at least 1 hour and make sure that the vacuum gauge does not rise. (If it does rise, there is either still moisture in the system or a leak.)

**Cases where moisture might enter the piping** (i.e., if doing work during the rainy season, if the actual work takes long enough that condensation may form on the inside of the pipes, if rain might enter the pipes during work, etc.)

After performing the vacuum drying for 2 hours, pressurize to 7.2 PSI (0.05 MPa) (i.e., vacuum breakdown) with nitrogen gas, then depressurize down to at least -14.6 PSI (-100.7 kPa) for an hour using the vacuum pump (vacuum drying). (If the pressure does not reach at least -14.6 PSI (-100.7 kPa) even after depressurizing for at least 2 hours, repeat the vacuum breakdown - vacuum drying process.) Leave as a vacuum for 1 hour after that, and make sure the vacuum gauge does not rise.

(Refer to figure 27)

1. Nitrogen
2. Decompression valve
3. Vacuum pump
4. Valve (open)
5. Charge hose
6. Stop valve service port
7. Indoor unit
8. Gas line stop valve (close)
9. Liquid line stop valve (close)
10. Indicates local procurement
11. Outdoor unit
12. BP unit

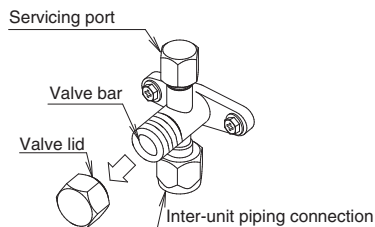
**Note**

The stop valve must always be turned to “closed”. Otherwise the refrigerant in the outdoor unit will pour out.

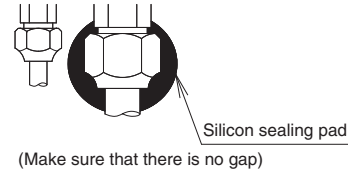
**Stop valve operation procedure**

**Precautions when handling the stop valve**

- The names of parts needed to operate the stop valve are shown in the figure below. The unit is shipped from the factory with the stop valve turned to the “closed” position.



- Since the side boards may be deformed if only a torque wrench is used when loosening or tightening flare nuts, always lock the stop valve with a wrench and then use a torque wrench.
- In cases where the unit is run in heating mode when the outside temperature is low or in other situations where the operating pressure might drop, seal the gas-side flare nut on the stop valve with silicon sealant or the like to prevent it from freezing.



**Stop valve operation procedure**

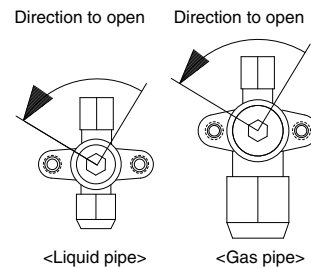
Have a hexagonal wrench ready (size: 0.2 inch and 0.3 inch / 4 mm and 6 mm).

**Opening the valve**

1. Place the hexagonal wrench on the valve bar and turn counter-clockwise.
2. Stop when the valve bar no longer turns. It is now open.

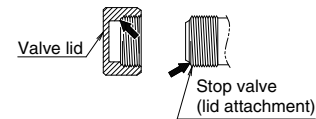
**Close the valve**

1. Place the hexagonal wrench on the valve bar and turn clockwise.
2. Stop when the valve bar no longer turns. It is now closed.



**Precautions for handling valve lid**

- A seal is attached to the point indicated by the arrow. Take care not to damage it.

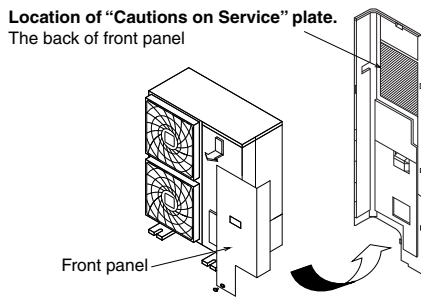


- Be sure to tighten the valve lid securely after operating the valves.

Liquid-side tightening torque	Gas-side tightening torque
10.0-12.2 ft-lbf (13.5-16.5 N-m)	16.6-20.3 ft-lbf (22.5-27.5 N-m)

**Precautions for handling servicing port**

- Use a push-rod-provided charging hose for operation.
- Be sure to tighten the valve lid securely after operation. Tightening torque ..... 8.5-10.3 ft-lbf (11.5-14.0 N-m)



**8. ADDITIONAL REFRIGERANT CHARGE**

**WARNING**

- When leaving the unit with the power on, be sure to switch with another person doing the installation or close the front panel.

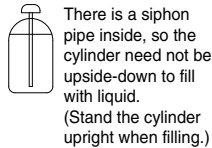
**8-1 Before adding refrigerant**

- Make sure the following work and inspection is complete, in accordance with the installation manual.
  - Piping
  - Wiring
  - Airtightness test, Vacuum drying

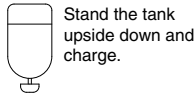
**8-2 Checking the refrigerant tank**

- Check whether the tank has a siphon pipe before charging and place the tank so that the refrigerant is charged in liquid form. (See the figure below.)

Tank with siphon pipe



Other tanks



**8-3 Adding refrigerant**

**Filling after calculating the amount of refrigerant to add**

- Calculate the amount of refrigerant to add as described in "Calculating the amount of refrigerant to add" in "7-7 Example of connection (page 10)".
  - After the vacuum drying is finished, open valve A and charge the calculated amount of refrigerant through the service port for the liquid-side stop valve.
  - Close valve A after charging is complete.
- Note: If all the refrigerant to be added cannot be charged using the above procedure, right-hand the procedure below and re-charge the refrigerant.

**Status of the stop valve and other valves when adding refrigerant**

<ul style="list-style-type: none"> <li>See "Stop valve operation procedure" in "7-8 Air tight test and vacuum drying (page 11)" for details on how to use the stop valve. (Refer to figure 28)</li> </ul>			
1. R410A Tank (Siphon system)	5. Stop valve service port		
2. Measuring instrument	6. Gas line stop valve		
3. Valve A	7. Outdoor unit		
4. BP unit	8. Liquid line stop valve		
State of valve A and the stop valve	Valve A	Liquid line stop valve	Gas line stop valve
Before starting to charge the refrigerant	Close	Close	Close
During charging of the refrigerant	Open	Close	Close

**If all the refrigerant could not be added**

Add refrigerant using the following procedure. See the "Cautions on Service" plate on the back of the front panel for details on the settings for adding refrigerant.

[Procedure]

- Close the front panel and turn on the power to all outdoor units and indoor units in the refrigeration system.
- Open the gas and liquid-side stop valve all the way and add the refrigerant. (Open valve A immediately after starting the compressor.)
- Once the appropriate amount of refrigerant is in, press the confirmation button (BS3) on the outdoor unit PC board (A2P), and stop operation after adding the refrigerant.
- Close valve A after charging is complete.

**Status of the stop valve and other valves when adding refrigerant operation**

- See "Stop valve operation procedure" in "7-8 Air tight test and vacuum drying (page 11)" for details on how to use the stop valve.
  - Connect the service port (for charging refrigerant) inside the unit. When the unit is shipped from the factory, refrigerant is already charged, so be careful when connecting the charge hose.
  - After adding the refrigerant, do not forget to close the lid of the service port (for adding refrigerant). The tightening torque of the lid is 8.5-10.3 ft-lbf (11.5-14.0 N-m)
- (Refer to figure 29)
- Gas line stop valve
  - Liquid line stop valve
  - Stop valve service port
  - BP unit
  - Measuring instrument
  - R410A Tank (Siphon system)
  - Valve A
  - Service port
  - (For adding refrigerant)
  - Outdoor unit

State of valve A and the stop valve	Valve A	Liquid line stop valve	Gas line stop valve
Before starting to charge the refrigerant	Close	Open	Open
During charging of the refrigerant	Open	Open	Open

**9. POST-WORK CHECKS**

Perform the following checks after work is complete.

- Drain pipe connection, removal of transport clasp → See "5. PRECAUTIONS ON INSTALLATION (page 6)".
- Incorrect power supply wiring, loose screws → See "6-3 How to connect the power supply wiring (page 7)".
- Incorrect inter-unit wiring, loose screws → See "6-4 Inter-unit wiring connection procedure (page 8)".
- Incorrect refrigerant piping connections → See "7. PRECAUTIONS ON REFRIGERANT PIPING (page 8)".
- Piping sizes, use of insulation → See : "7-2 Selecting piping material (page 8)". "7-6 Heat insulation of piping (page 9)".
- Stop valve check → Make sure both the liquid-side and gas-side stop valves are open.
- Record of Amount of Refrigerant Added → Record it on "Recording the additionally charged refrigerant quantity" on the "Cautions on Service" plate.
- Measuring the insulation of the main power circuit →
  - Use a 500V mega-tester.
  - Do not use the mega-tester for weak currents other than 208/230V. (Inter-unit wiring)

**CAUTION**


**To the pipe-layer**  
After completing installation, be sure to open the valve. (Operating the unit with the valve shut will break the compressor.)

### 10. TEST RUN

This unit is equipped with a crank case heater to ensure smooth startup. Be sure to turn the power on at least 6 hours before operation in order to have power running to the crank case heater.

**⚠ WARNING**

When leaving the unit with the power on, be sure to switch with another person doing the installation or close the front panel.



#### Precautions before turning the power on

- Using insulating sheets, tape electric parts as described in the "Cautions on Service" plate on the back of the front panel.
- All indoor units connected to the outdoor unit operate automatically. Complete work on the indoor units in order to ensure maximum safety.

#### 10-1 Power On-Check Operation

- Make sure to perform the check operation after installation. (If the air conditioner is operated using the indoor remote controller without performing the check operation, the malfunction code "U3" is displayed in the indoor remote controller, and normal operation is disabled.)
- When making settings on the outdoor unit PC board (A2P) after turning the power on, do not touch anything other than the push-button switches and dip switches. (See the "Cautions on Service" plate for the locations of the push-button switches (BS1-5) and dip switches (D1-1, 2) on the PC board (A2P).)
- During the operation, monitor the outdoor unit operation status and check for any incorrect wiring.

1. Close the outdoor unit's front panel. Turn the power on for the outdoor unit and the BP unit.	<b>Caution</b> Be sure to turn the power on at least 6 hours before operation in order to have power running to the crank case heater.																																				
2. Open the outdoor unit's front panel. Make sure the LED display on the outdoor unit's PC boards (A1P and A2P) are as shown in the following chart.																																					
	<table border="1"> <thead> <tr> <th rowspan="2">LED display (Default status before delivery)</th> <th colspan="2">A1P</th> <th colspan="7">A2P</th> </tr> <tr> <th>SEVICE MONITOR</th> <th>MODE</th> <th>TEST/ HWL</th> <th>IND</th> <th>MASTER</th> <th>SLAVE</th> <th>LN.O.P</th> <th>DEMAND</th> </tr> </thead> <tbody> <tr> <td></td> <td>HAP</td> <td>H1P</td> <td>H2P</td> <td>H3P</td> <td>H4P</td> <td>H5P</td> <td>H6P</td> <td>H7P</td> </tr> <tr> <td></td> <td>⊙</td> <td>●</td> <td>⊙</td> <td>⊙</td> <td>●</td> <td>●</td> <td>●</td> <td>●</td> </tr> </tbody> </table> <p>LED display: ● OFF ⊙ ON ⊙ Blinking</p> <p><b>⚠</b> To avoid the risk of electric shock, do not touch anything other than the push-button switches on the PC board (A2P) when making settings.</p>	LED display (Default status before delivery)	A1P		A2P							SEVICE MONITOR	MODE	TEST/ HWL	IND	MASTER	SLAVE	LN.O.P	DEMAND		HAP	H1P	H2P	H3P	H4P	H5P	H6P	H7P		⊙	●	⊙	⊙	●	●	●	●
LED display (Default status before delivery)	A1P		A2P																																		
	SEVICE MONITOR	MODE	TEST/ HWL	IND	MASTER	SLAVE	LN.O.P	DEMAND																													
	HAP	H1P	H2P	H3P	H4P	H5P	H6P	H7P																													
	⊙	●	⊙	⊙	●	●	●	●																													
3. When the customer requests quiet operation or demand operation, make these settings using the push-button switches (BS1-5) on the outdoor unit's PC board (A2P). Operate the push-button switches through the opening after protecting it with an insulation cover. (See the "Cautions on Service" plate for details.)	<p><b>⚠</b> Use caution to avoid electric shock while working, since the outdoor unit is on.</p> <ul style="list-style-type: none"> <li>Only set the push-button switches (BS1-5) after making sure the microcomputer OK monitor is lit up.</li> <li>See the "Cautions on Service" plate on the front panel of the outdoor unit for details on how to make the settings. (Do not forget to write the settings down on the "Cautions on Service" plate.)</li> <li>The dip switch (DS1-1) does not need to be set, so do not touch it. Doing so may cause malfunction.</li> </ul>																																				
4. Check that the liquid and gas-side stop valves are open, and if they are closed, open them.	<b>Caution</b> Do not leave any stop valve closed otherwise the compressor will fail.																																				
5. Press the test run button (BS4) for at least 5 seconds and perform check operation. For details, see "check operation procedure" on the "Cautions on Service" plate.	<ul style="list-style-type: none"> <li>If you have to leave the outdoor unit during check operation, either switch with another worker or close the front panel.</li> <li>The system operates for about 30 minutes (60 minutes at maximum) and automatically stops the check operation.</li> <li>The system can start normal operation about 3 minutes after the check operation if the remote controller does not display any error code.</li> </ul>																																				
6. Close the outer panel of the outdoor unit after check operation is complete.																																					

#### <Precautions During Check Operation>

- If operation is performed within 12 minutes of BP units and outdoor units being turned on, H2P will light up, and the compressor will not run. Only perform operation after checking that the LED display is as shown in "10-1 Power On-Check Operation" 2. table.
- In order to ensure uniform refrigerant distribution, it may take up to around 10 minutes for the compressor to start up after the unit begins running. This is not a malfunction.
- Each indoor unit cannot be checked individually for problems. After this operation is complete, run the unit normally using the remote controller.
- The check run cannot be performed in recovery or other modes.
- If the outlet pipe thermistor (R2T), the intake pipe thermistor (R3T), and the pressure sensors (S1NPH and S1NPL) are removed before operation, the compressor might burn out, so avoid this under all circumstances.

#### 10-2 Temperature control operation checklist

- After check operation is complete, checking the temperature control using normal operation. (Heating is not possible if the outdoor temperature is 75°F (24°C) or higher. See the included operation manual.)
  - Make sure the indoor and outdoor units are operating normally. (If liquid compression by the compressor or other abnormal noises can be heard, stop the unit immediately, heat the crank case for a sufficient amount of time, and try again.)
  - Run each indoor unit one at a time and make sure the corresponding outdoor unit is also running.
  - Check to see if cold (or hot) air is coming out of the indoor unit.
  - Press the fan direction and fan strength buttons on the indoor unit to see if they operate properly.

#### <Precautions during temperature control checks>

- For around 5 minutes after the compressor stops, the compressor will not run even if the "operate/stop" button on the remote controller is pressed.
- When the system operation is stopped by the remote controller, the outdoor units may continue operating for further 1 minutes at maximum.
- Malfunction code "U3" is displayed if check operation is not performed using the test run button the first time after installation. Perform the check operation in accordance with "10-1 Power On-Check Operation".

#### [Indoor unit displays malfunction sign]

(Check on a remote controller connected to the indoor unit. For details, see the operation manual which comes with indoor unit.)

Malfunction code	Installation error	Remedial action
E3	The stop valve of an outdoor unit is left closed.	Open the gas-side stop valve and the liquid-side stop valve.
	Refrigerant overcharge.	Recalculate the required amount of refrigerant from the piping length and correct the refrigerant charge level by recovering any excessive refrigerant with a refrigerant recovery machine.
E4	The stop valve of an outdoor unit is left closed.	Open the gas-side stop valve and the liquid-side stop valve.
	Insufficient refrigerant.	Check if the additional refrigerant charge has been finished correctly. Recalculate the required amount of refrigerant from the piping length and add an adequate amount of refrigerant.
F3	Refrigerant overcharge.	Recalculate the required amount of refrigerant from the piping length and correct the refrigerant charge level by recovering any excessive refrigerant with a refrigerant recovery machine.
	The stop valve of an outdoor unit is left closed.	Open the gas-side stop valve and the liquid-side stop valve.
	Insufficient refrigerant.	Check if the additional refrigerant charge has been finished correctly. Recalculate the required amount of refrigerant from the piping length and add an adequate amount of refrigerant.

U2	Insufficient supply voltage	Check to see if the supply voltage is supplied properly.
U3	If a check operation has not been performed.	Perform a check operation.
U4	No power is supplied to an outdoor unit.	Turn the power on for the outdoor unit.
UA	If no dedicated indoor unit is being used.	Check the indoor unit. If it is not a dedicated unit, replace the indoor unit.
UF	The stop valve of an outdoor unit is left closed.	Open the gas-side stop valve and the liquid-side stop valve.
	If the right indoor unit piping and wiring are not properly connected to the outdoor unit.	Make sure that the right indoor unit piping and wiring are properly connected to the outdoor unit.
UH	If the inter-unit wiring has not been connected or it has shorted.	Make sure the inter-unit wiring is correctly attached to terminals (X2M) F1/F2 (To BP unit) on the outdoor unit circuit board.

- When using a central controller, see the installation manual or service manual which came with the central controller.

**CAUTION**  
**To the pipe-layer, To the electrician**  
 After the test run, when handing the unit over to the customer, make sure the front panel on the unit and all screws are attached.

### 11. CAUTION FOR REFRIGERANT LEAKS

(Points to note in connection with refrigerant leaks)

#### Introduction

The installer and system specialist shall secure safety against leakage according to local regulations or standards. The following standards may be applicable if local regulations are not available.

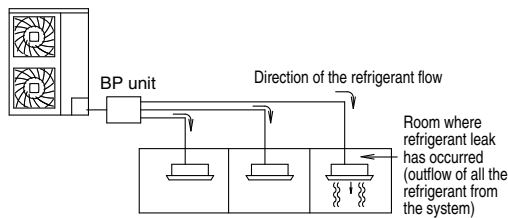
This system uses R410A as refrigerant. R410A itself is an entirely safe non-toxic, non-combustible refrigerant. Nevertheless care must be taken to ensure that air conditioning facilities are installed in a room which is sufficiently large. This assures that the maximum concentration level of refrigerant gas is not exceeded, in the unlikely event of major leak in the system and this in accordance to the local applicable regulations and standards.

#### Maximum concentration level

The maximum charge of refrigerant and the calculation of the maximum concentration of refrigerant is directly related to the humanly occupied space in to which it could leak.

The unit of measurement of the concentration is lb./ft<sup>3</sup> (kg/m<sup>3</sup>) (the weight in lb. (kg) of the refrigerant gas in 1 ft<sup>3</sup> (0.028 m<sup>3</sup>) volume of the occupied space).

Compliance to the local applicable regulations and standards for the maximum allowable concentration level is required.



Pay a special attention to the place, such as a basement, etc. where refrigerant can stay, since refrigerant is heavier than air.

#### Procedure for checking maximum concentration

Check the maximum concentration level in accordance with steps 1 to 4 below and take whatever action is necessary to comply.

- Calculate the amount of refrigerant (lb. / kg) charged to each system separately.

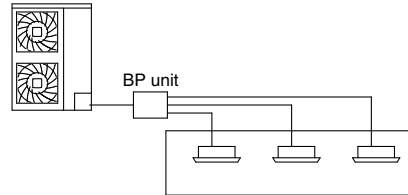
$$\begin{matrix} \text{amount of refrigerant} \\ \text{in a single unit} \\ \text{system (amount of} \\ \text{refrigerant with} \\ \text{which the system} \\ \text{is charged before} \\ \text{leaving the factory)} \end{matrix} + \begin{matrix} \text{additional charging} \\ \text{amount (amount of} \\ \text{refrigerant added} \\ \text{locally in accordance} \\ \text{with the length or} \\ \text{diameter of the refrigerant} \\ \text{piping)} \end{matrix} = \begin{matrix} \text{total amount} \\ \text{of refrigerant} \\ \text{(lb. / kg)} \\ \text{in the system} \end{matrix}$$

#### Note

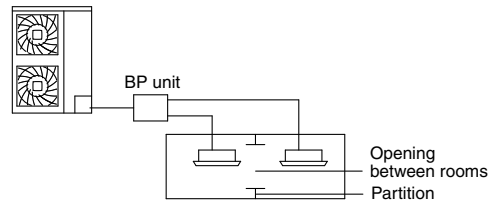
- Where a single refrigerant facility is divided into 2 entirely independent refrigerant systems then use the amount of refrigerant with which each separate system is charged.

- Calculate the smallest room volume (ft<sup>3</sup>/m<sup>3</sup>) Incase like the following, calculate the volume of (A), (B) as a single room or as the smallest room.

**A.**Where there are no smaller room divisions



**B.**Where there is a room division but there is an opening between the rooms sufficiently large to permit a free flow of air back and forth.



(Where there is an opening without a door or where there are openings above and below the door which are each equivalent in size to 0.15% or more of the floor area.)

- Calculating the refrigerant density using the results of the calculations in steps 1 and 2 above.

$$\frac{\text{total volume of refrigerant in the refrigerant system}}{\text{size (ft}^3 / \text{m}^3 \text{) of smallest room in which there is an indoor unit installed}} \leq \text{maximum concentration level (lb./ft}^3 / \text{kg/m}^3 \text{)}$$

If the result of the above calculation exceeds the maximum concentration level then make similar calculations for the second then third smallest room and so until the result falls short of the maximum concentration.

- Dealing with the situations where the result exceeds the maximum concentration level.

Where the installation of a facility results in a concentration in excess of the maximum concentration level then it will be necessary to revise the system.

Please consult your Daikin supplier.







## 2. BPMKS048A2U, BPMKS049A3U

### 2.1 Safety Considerations

Read these **SAFETY CONSIDERATIONS for Installation** carefully before installing an air conditioner or heat pump. After completing the installation, make sure that the unit operates properly during the startup operation. Instruct the customer on how to operate and maintain the unit. Inform customers that they should store this Installation Manual with the Operation Manual for future reference. Always use a licensed installer or contractor to install this product. Improper installation can result in water or refrigerant leakage, electrical shock, fire, or explosion.

Meanings of **DANGER**, **WARNING**, **CAUTION**, and **NOTE** Symbols:

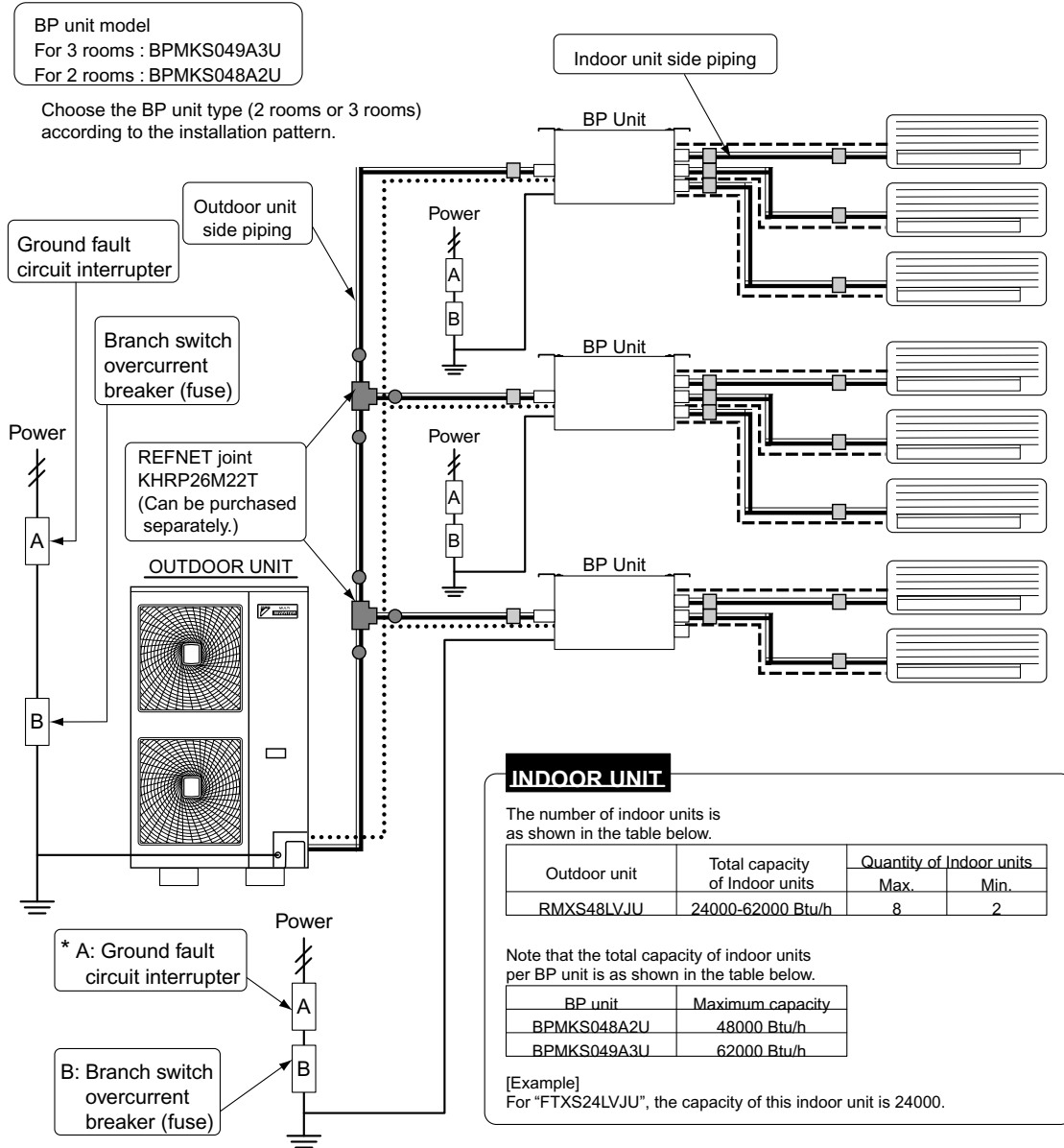
-  **DANGER** ..... Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
-  **WARNING** ..... Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
-  **CAUTION** ..... Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.
-  **NOTE** ..... Indicates situations that may result in equipment or property-damage accidents only.

- Refrigerant gas is heavier than air and replaces oxygen. A massive leak will result in oxygen depletion, especially in basements, and an asphyxiation hazard will result in serious injury or death.
- Do not ground units to water pipes, gas pipes, telephone wires, or lightning rods as incomplete grounding will result a severe shock hazard resulting in severe injury or death. Additionally, grounding to gas pipes will result a gas leak and potential explosion resulting in severe injury or death.
- If refrigerant gas leaks during installation, ventilate the area immediately. Refrigerant gas will result in producing toxic gas if it comes into contact with fire. Exposure to this gas will result in severe injury or death.
- After completing the installation work, check that the refrigerant gas does not leak throughout the system.
- Do not install unit in an area where flammable materials are present due to risk of explosions that will result in serious injury or death.
- Safely dispose all packing and transportation materials in accordance with federal/state/local laws or ordinances. Packing materials such as nails and other metal or wood parts, including plastic packing materials used for transportation will result in injuries or death by suffocation.
- Only qualified personnel must carry out the installation work. Installation must be done in accordance with this installation manual. Improper installation could result in water leakage, electric shock, or fire.
- When installing the unit in a small room, take measures to keep the refrigerant concentration from exceeding allowable safety limits. Excessive refrigerant leaks, in the event of an accident in a closed ambient space, could result in oxygen deficiency.
- Use only specified accessories and parts for installation work. Failure to use specified parts could result in water leakage, electric shocks, fire, or the unit falling.
- Install the air conditioner or heat pump on a foundation strong enough that it can withstand the weight of the unit. A foundation of insufficient strength could result in the unit falling and causing injuries.
- Take into account strong winds, typhoons, or earthquakes when installing. Improper installation could result in the unit falling and causing accidents.
- Make sure that a separate power supply circuit is provided for this unit and that all electrical work is carried out by qualified personnel according to local, state, and national regulations. An insufficient power supply capacity or improper electrical construction could result in electric shocks or fire.
- Make sure that all wiring is secured, that specified wires are used, and that no external forces act on the terminal connections or wires. Improper connections or installation could result in fire.
- When wiring, position the wires so that the terminal box lid can be securely fastened. Improper positioning of the terminal box lid could result in electric shocks, fire, or the terminals overheating.
- Before touching electrical parts, turn off the unit.
- This equipment can be installed with a Ground-Fault Circuit Breaker (GFCI). Although this is a recognized measure for additional protection, with the earthing system in North America, a dedicated GFCI is not necessary.
- Securely fasten the unit terminal cover (panel). If the terminal cover/panel is not installed properly, dust or water may enter the condenser unit and could result in fire or electric shock.
- When installing or relocating the system, keep the refrigerant circuit free from substances other than the specified refrigerant (R-410A) such as air. Any presence of air or other foreign substance in the refrigerant circuit could result in abnormal pressure rise or rupture, resulting in injury.
- Do not change the setting of the protection devices. If the pressure switch, thermal switch, or other protection device is shorted and operated forcibly, or

- parts other than those specified by Daikin are used, fire or explosion could result.
- Do not touch the switch with wet fingers. Touching a switch with wet fingers may result in electric shock.
  - Do not allow children to play on or around the unit or it may result in injury.
  - The heat exchanger fins are sharp enough to cut, and may result in injury if improperly used. To avoid injury wear gloves or cover the fins while working around them.
  - Do not touch the refrigerant pipes during and immediately after operation as the refrigerant pipes may be hot or cold, depending on the condition of the refrigerant flowing through the refrigerant piping, compressor, and other refrigerant cycle parts. It may result in your hands getting burns or frostbite if you touch the refrigerant pipes. To avoid injury, give the pipes time to return to normal temperature or, if you must touch them, be sure to wear proper gloves.
  - Install drain piping to proper drainage. Improper drain piping may result in water leakage and property damage.
  - Insulate piping to prevent condensation.
  - Be careful when transporting the product.
  - Do not turn off the power immediately after stopping operation. Always wait for at least 5 minutes before turning off the power. Otherwise, water leakage may result.
  - Do not use a charging cylinder. Using a charging cylinder may cause the refrigerant to deteriorate.
  - Refrigerant R-410A in the system must be kept clean, dry, and tight.
    - (a) Clean and Dry -- Foreign materials (including mineral oils such as SUNISO oil or moisture) should be prevented from getting into the system.
    - (b) Tight -- R-410A does not contain any chlorine, does not destroy the ozone layer, and does not reduce the earth's protection against harmful ultraviolet radiation. R-410A can contribute to the greenhouse effect if it is released. Therefore take proper measures to check for the tightness of the refrigerant piping installation. Read the chapter *Refrigerant Piping* and follow the procedures.
  - Since R-410A is a blend, the required additional refrigerant must be charged in its liquid state. If the refrigerant is charged in a state of gas, its composition can change and the system will not work properly.
  - The indoor unit is for R-410A. See the catalog for indoor models that can be connected. Normal operation is not possible when connected to other units.
  - Remote controller (wireless kit) transmitting distance can be shorter than expected in rooms with electronic fluorescent lamps (inverter or rapid start types). Install the indoor unit far away from fluorescent lamps as much as possible.
  - Indoor units are for indoor installation only. Outdoor units can be installed either outdoors or indoors. This unit is for indoor use.
  - Do not install the air conditioner or heat pump in the following locations:
    - (a) Where a mineral oil mist or oil spray or vapor is produced, for example, in a kitchen. Plastic parts may deteriorate and fall off and thus may result in water leakage.
    - (b) Where corrosive gas, such as sulfurous acid gas, is produced. Corroding copper pipes or soldered parts may result in refrigerant leakage.
    - (c) Near machinery emitting electromagnetic waves. Electromagnetic waves may disturb the operation of the control system and cause the unit to malfunction.
    - (d) Where flammable gas may leak, where there is carbon fiber, or ignitable dust suspension in the air, or where volatile flammables such as thinner or gasoline are handled. Operating the unit in such conditions may result in a fire.
  - Take adequate measures to prevent the condenser unit from being used as a shelter by small animals. Small animals making contact with electrical parts may result in malfunctions, smoke, or fire. Instruct the customer to keep the area around the unit clean.
  - Install the power supply and control wires for the indoor and outdoor units at least 3.5 feet away from televisions or radios to prevent image interference or noise. Depending on the radio waves, a distance of 3.5 feet may not be sufficient to eliminate the noise.
  - Dismantling the unit, treatment of the refrigerant, oil and additional parts must be done in accordance with the relevant local, state, and national regulations.
  - Do not use the following tools that are used with conventional refrigerants: gauge manifold, charge hose, gas leak detector, reverse flow check valve, refrigerant charge base, vacuum gauge, or refrigerant recovery equipment.
  - If the conventional refrigerant and refrigerator oil are mixed in R-410A, the refrigerant may result in deterioration.
  - This air conditioner or heat pump is an appliance that should not be accessible to the general public.
  - As design pressure is 478 psi, the wall thickness of field-installed pipes should be selected in accordance with the relevant local, state, and national regulations.

# System Layout









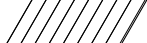
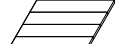
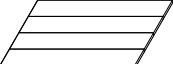

For installation of the indoor and outdoor units, follow the instructions in the Installation manual for each unit.



\* Only if required by local code.



# Accessories

Ⓐ Installation Manual 	1pc.	Ⓔ Conduit mounting plate (A) 	1pc.
Ⓑ Hanger metal 	4pcs.	Ⓒ Conduit mounting plate (B) 	1pc.
Ⓒ Screws: M4 (length: 5/16 inch) 	16pcs.	Ⓕ Conduit mounting plate (cover) 	2pcs.
Ⓓ Reducer assembly 	1set	Ⓖ Binding band 	6pcs.
Ⓔ Heat insulation tape  8pcs. (short)  4pcs. (middle)  4pcs. (long) Peel off each heat insulation tape from the release paper before use.	Total 16pcs.	Ⓙ Heat insulation (2pcs. is 1set) 	BPMKS048A2U (for 2 rooms) : 3sets BPMKS049A3U (for 3 rooms) : 4sets

## Items to be prepared in the field

- Intra-unit wires between BP unit and indoor unit (AWG16-14: 4 wires)
- Intra-unit wires for power supply (AWG16-14: 3 wires)
- Transmission wires (AWG18-16: sheathed two-core cables)
- Installation parts (hanging bolts: 4 × M8 or M10; nuts: 8; flat washers: 8)
- Screws for wall-mounting: 6 × M5
- Heat insulation (joint)  
 Thermal conductivity: **0.024 - 0.030Btu/ft<sup>2</sup>·h°F (0.041 - 0.052W/mK) or more**  
 Thickness: **1/2 inch (13mm) or more**  
 Heat resistance: 212°F (100°C) or higher (only heat pump system)

# Precautions for Selecting the Location

## The BP unit is for indoor use.

Install in a location such as above a ceiling or behind a wall in accordance with the following conditions:

- That the unit is fully supported, and is in a location with little or no vibration.
- That the refrigerant pipes for the indoor and outdoor units can be repaired with ease, and that the units are placed well within the distance from each other allowed by the pipe length.
- That there is nothing nearby that produces heat or steam (gas).
- When installing, that there is enough room for servicing the unit.
- Do not install in location that is hot or humid for long periods of time.  
 A location where the dry-bulb (DB) temperature around the BP unit reaches 140°F (60°C) or higher.
- A well-ventilated area.
- Do not install near bedrooms. The sound of refrigerant flowing through the piping may sometimes be audible.  
 For restrictions on installation, refer to P6-7. "Installation".

# Installation

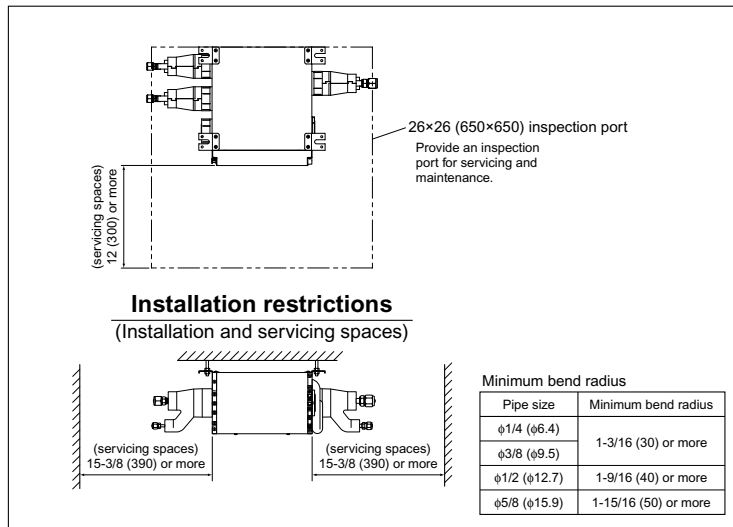
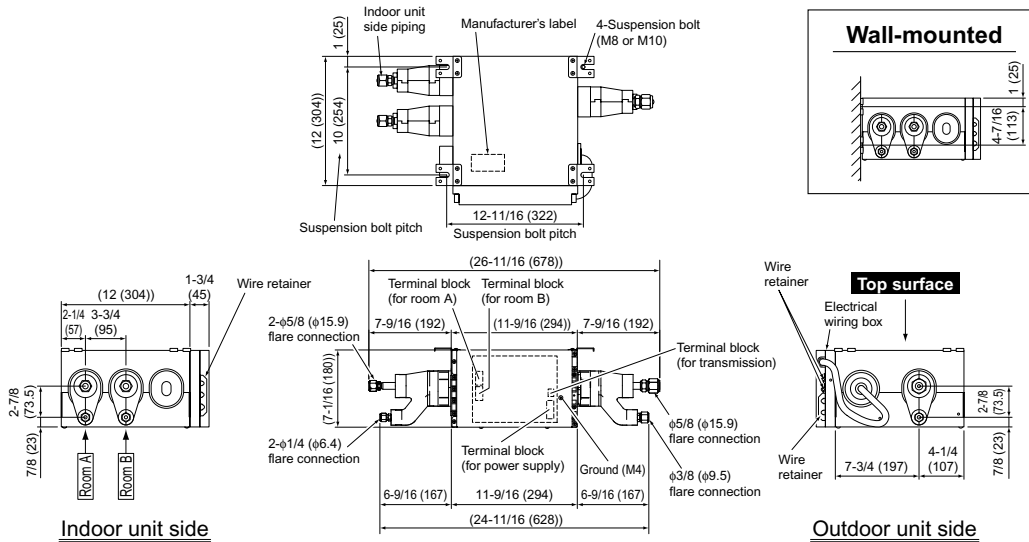
<p>Example of connection (Connection of 7 units heat pump system)</p> <p>① indoor unit BP ① BP unit △ A refrigerant branch kit (refnet joint)</p>		<p><b>Branch with refnet joint</b></p>																																	
Maximum allowable length	Between outdoor and BP units	Total piping length	Pipe length between outdoor and BP units ≤ 180ft (55m) [Example] $a+b+c+d+e \leq 180\text{ft (55m)}$																																
	Between BP and indoor units	Total piping length	Piping length between BP and indoor units ≤ 262ft (80m) [Example] $f+g+h+i+j+k+l \leq 262\text{ft (80m)}$																																
	Between BP and indoor unit	1 room length	Piping length between BP and indoor unit ≤ 49ft (15m) [Example] $f, g, h, i, j, k, l \leq 49\text{ft (15m)}$																																
Allowable height	Between outdoor and indoor units	Difference in height	Difference in height between outdoor and indoor units ( $H1$ ) ≤ 98ft (30m)																																
	Between outdoor and BP units	Difference in height	Difference in height between outdoor and BP units ( $H2$ ) ≤ 98ft (30m)																																
	Between BP and BP units	Difference in height	Difference in height between BP unit and BP units ( $H3$ ) ≤ 49ft (15m)																																
	Between indoor and indoor units	Difference in height	Difference in height between indoor and indoor units ( $H4$ ) ≤ 49ft (15m)																																
Minimum allowable length *1 Since the sound of refrigerant may be transferred from the outdoor unit to the indoor unit, make the pipe length from the outdoor unit to the first junction 16.4ft (5m) or longer.	Piping length		Pipe length between outdoor unit and first refrigerant branch kit (refnet joint) ≥ 16.4ft (5m) [Example] $a \geq 16.4\text{ft (5m)}$																																
Allowable length after the branch *2 Branch kit are recommended to set as possible as near the BP units. c, d, e are recommended to be as possible as short.	Piping length		Piping length from first refrigerant branch kit (refnet joint) to indoor unit ≤ 131ft (40m) [Example] unit 6: $b+c+k \leq 131\text{ft (40m)}$ [Example] unit 5: $b+e+j \leq 131\text{ft (40m)}$ [Example] unit 3: $d+h \leq 131\text{ft (40m)}$																																
Refrigerant branch kit selection (refrigerant branch kits can only be used with R410A)	Refrigerant branch kit (refnet joint) name: KHRP26A22T																																		
Piping size selection	• Piping size (Outer diameter × minimum thickness) unit: inch (mm) <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>symbol</th> <th>Gas pipe</th> <th>Liquid pipe</th> </tr> </thead> <tbody> <tr> <td>Between outdoor unit and first refrigerant branch kit</td> <td>a</td> <td>φ3/4 × 0.039 (φ19.1 × 1.0)</td> <td>φ3/8 × 0.031 (φ9.5 × 0.8)</td> </tr> <tr> <td>Between first refrigerant branch kit and the other branch kit</td> <td>b</td> <td>φ5/8 × 0.039 (φ15.9 × 1.0)</td> <td>φ3/8 × 0.031 (φ9.5 × 0.8)</td> </tr> <tr> <td>Between refrigerant branch kit and BP unit</td> <td>c, d, e</td> <td colspan="2" style="text-align: center;">See the table A</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Table A</th> </tr> <tr> <th>Total indoor capacity Q</th> <th></th> </tr> </thead> <tbody> <tr> <td>Gas pipe</td> <td></td> </tr> <tr> <td>Qc, Qd, Qe ≤ 17000 Btu/h</td> <td>φ1/2 × 0.031 (φ12.7 × 0.8)</td> </tr> <tr> <td>Qc, Qd, Qe &gt; 17000 Btu/h</td> <td>φ5/8 × 0.039 (φ15.9 × 1.0)</td> </tr> <tr> <td>Liquid pipe</td> <td></td> </tr> <tr> <td>Qc, Qd, Qe ≤ 17000 Btu/h</td> <td>φ1/4 × 0.031 (φ6.4 × 0.8)</td> </tr> <tr> <td>Qc, Qd, Qe &gt; 17000 Btu/h</td> <td>φ3/8 × 0.031 (φ9.5 × 0.8)</td> </tr> </tbody> </table> <p style="text-align: right; font-size: small;">*Qc, Qd, Qe is total connected indoor capacity *Subscript c, d, e indicates the above symbol</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>[Example]</p> <p>indoor 1: 9000 Btu/h indoor 2: 12000 Btu/h indoor 3: 18000 Btu/h</p> <p style="text-align: right;">} <math>Q_e = 39000 \text{ Btu/h}</math></p> <p>=&gt; (Gas pipe) φ5/8 × 0.039 (φ15.9 × 1.0) / (Liquid pipe) φ3/8 × 0.031 (φ9.5 × 0.8)</p> </div>				symbol	Gas pipe	Liquid pipe	Between outdoor unit and first refrigerant branch kit	a	φ3/4 × 0.039 (φ19.1 × 1.0)	φ3/8 × 0.031 (φ9.5 × 0.8)	Between first refrigerant branch kit and the other branch kit	b	φ5/8 × 0.039 (φ15.9 × 1.0)	φ3/8 × 0.031 (φ9.5 × 0.8)	Between refrigerant branch kit and BP unit	c, d, e	See the table A		Table A		Total indoor capacity Q		Gas pipe		Qc, Qd, Qe ≤ 17000 Btu/h	φ1/2 × 0.031 (φ12.7 × 0.8)	Qc, Qd, Qe > 17000 Btu/h	φ5/8 × 0.039 (φ15.9 × 1.0)	Liquid pipe		Qc, Qd, Qe ≤ 17000 Btu/h	φ1/4 × 0.031 (φ6.4 × 0.8)	Qc, Qd, Qe > 17000 Btu/h	φ3/8 × 0.031 (φ9.5 × 0.8)
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# Installation

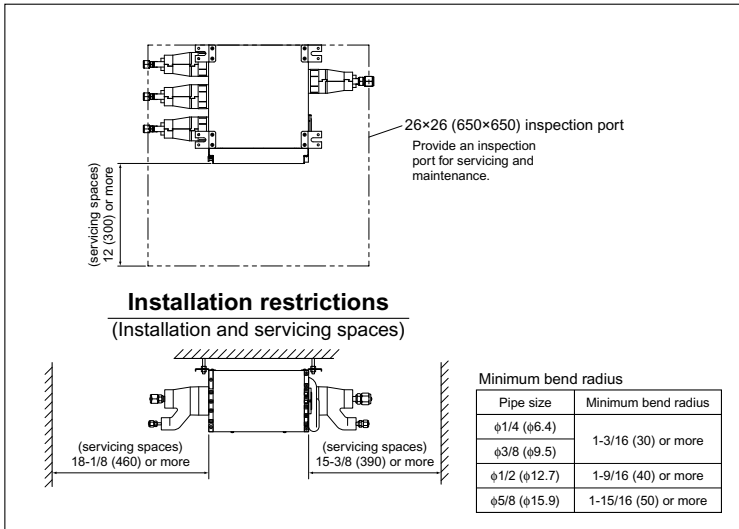
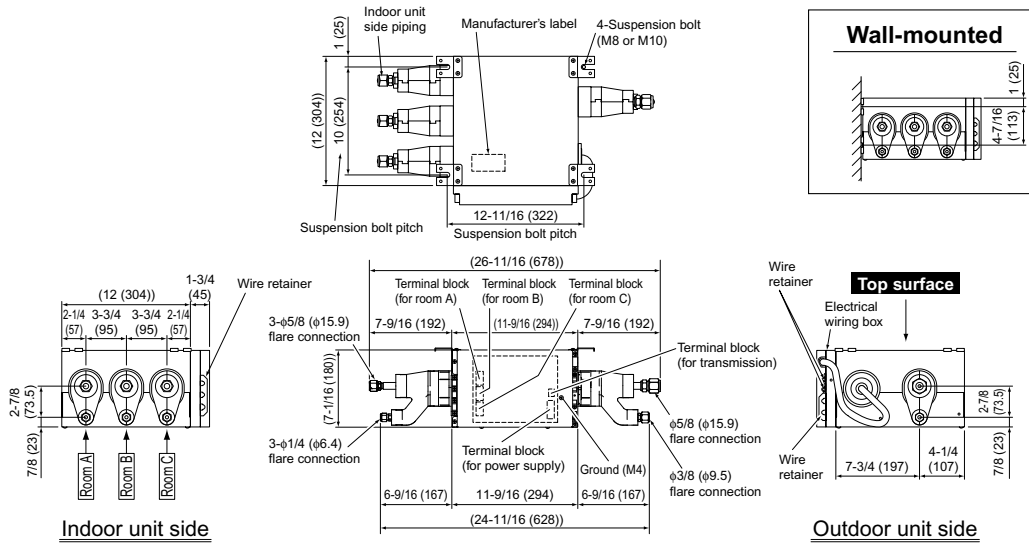
- This unit may be installed suspended from the ceiling or mounted on the wall.
- **Be sure to install the unit with the top surface facing upward as shown in the diagram.**
- Be sure to leave a **26 inch (650mm) square** opening for maintenance and inspection as shown in the diagram below, for both ceiling-suspended installation and wall-mounted installation.
- This unit **“does not require drain treatment”**.
- The inclination of top surface must be within  $\pm 5$  degrees forward or back or to the sides.

◆ **For 2 rooms**

(product dimensions and attachment bolt pitch)



◆ For 3 rooms  
(product dimensions and attachment bolt pitch)



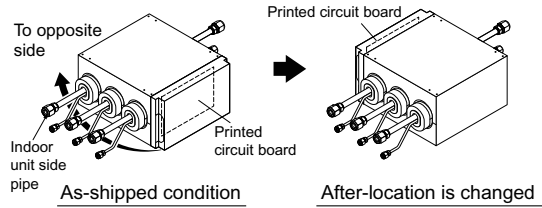
unit: inch (mm)

# Installation of the Unit

## 1. Replacing the printed circuit board

- This unit has 2 different installation types: (1) ceiling-suspended type and (2) wall-mounted type.
- Choose the proper installation pattern according to the location of installation.
- The installation location for the printed circuit board can be changed.

If the installation location of the printed circuit board needs to be changed because of the installation conditions, perform the following:

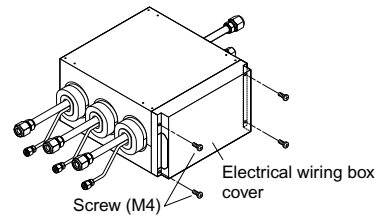


### ⚠ CAUTION

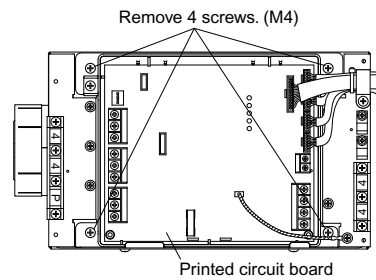
- Before doing any wiring on site, replace the printed circuit board.

### Procedure for changing the installation location of the printed circuit board

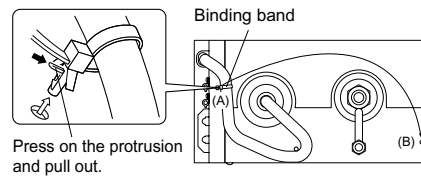
- 1) Remove the screws and pull off the electrical wiring box cover.



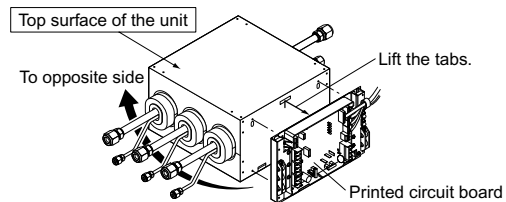
- 2) Remove 4 screws shown in the figure, remove the printed circuit board.



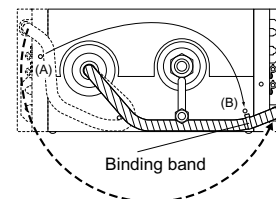
- 3) Remove the binding band (A) which holds the wires.



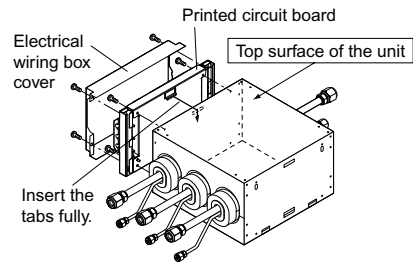
- 4) Remove the printed circuit board, and reattach as shown in the figure.



- 5) Reattach the binding band to position (B).



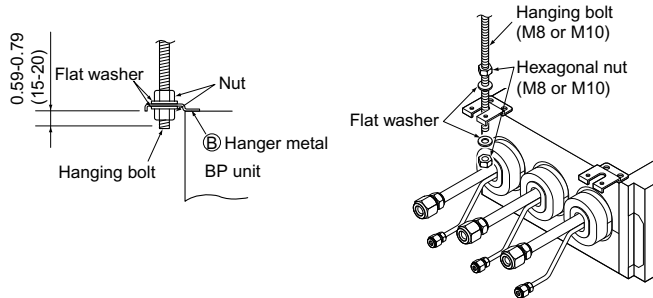
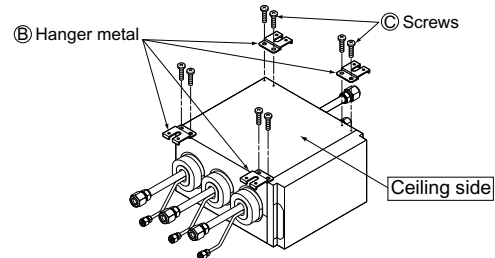
6) Attach the printed circuit board and electrical wiring box cover to the other side and secure with the screws.



## 2. Ceiling-suspended type

### Procedure:

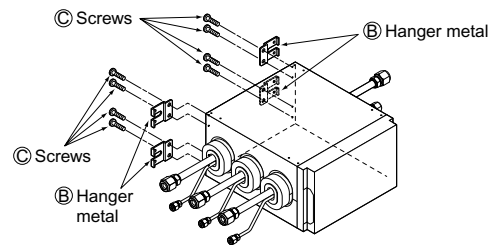
- 1) Fix the furnished ② hanger metal with two ③ screws. (4 locations in total)
  - 2) Using an insert-hole-in-anchor, hang the hanging bolt.
  - 3) Install a hexagon nut and a flat washer (field supply) to the hanging bolt as shown in the figure in the below, and lift the unit to hang on the hanger metal.
  - 4) After checking with a level that the unit is level, tighten the hexagon nut.
- \* The tilt of the unit should be within  $\pm 5^\circ$  in front/ back and left/right.



## 3. Wall-mounted type

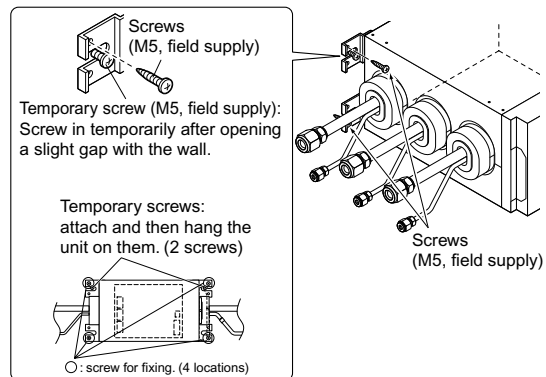
### Procedure:

- 1) Fix the furnished ② hanger metal with two ③ screws. (4 locations in total)
  - 2) Create a gap with the wall and screw in the temporary screws (M5, field supply), and hang the BP unit.
  - 3) After checking with a level that the unit is level, fix the unit with screws (M5, field supply).
- \* The tilt of the unit should be within  $\pm 5^\circ$  in front/ back and left/right.



### ⚠ CAUTION

- Be sure to install the unit with the top surface up.
- **Do not install near bedrooms. The sound of refrigerant flowing through the piping may sometimes be audible.**



# Connection of Refrigerant Piping

<Make sure to perform heat insulation work for both gas piping and liquid piping. If not insulated, water leakage may occur. For gas piping, use a heat insulation material designed for use with HVAC Systems. Condensation may be formed on the surface of the heat insulation material.>

<Before installation, make sure that the refrigerant type is R410A. (Wrong refrigerant types prevent normal operation.)>

- The refrigerant is filled in the outdoor unit.
- When connecting a pipe to the unit body or removing it, be sure to use a spanner and torque wrench. (See Fig. [1].)
- For the work dimension and the tightening torque of the flare section, see <Table-1>.
- When connecting a flare nut, apply the refrigerant oil used for the compressor of the outdoor unit (or similar product) to the flare section (only the inner surface), and screw the nut three or four times initially by hand. (See Fig. [2].)
- If the connecting piping is bent above the ceiling, it should be bent as loosely as possible.
- If it is bent sharply, the heat insulation material may be compressed at the bent section, causing condensation.
- Be sure to use the flare nuts included with the unit body.

## ⚠ CAUTION

- Do not mix air or other gases than the specified refrigerant into the refrigeration cycle.
- If the refrigerant gas has leaked during the work, provide ventilation.
- Excessive tightening can cause a fracture of the flare nut and leakage of the refrigerant.
- Be sure to perform heat insulation for the field piping including the pipe connection in the unit. Exposure of piping can cause condensation or burn injury.
- At the time of flare connection, apply the refrigerant oil used for the compressor of the outdoor unit (or similar product) to the flare section. (See Fig. [2].)
- To prevent dirt, water content, and dust from entering the pipes, provide protection for the pipes using pinches or tape.

<Table-1>

Pipe size	Tightening torque	Work dimension for flare section: A	Flare shape
φ1/4 inch (φ6.4mm)	10.4-12.7ft-lbf (14.2-17.2N·m)	0.343-0.358 inch (8.7-9.1mm)	
φ3/8 inch (φ9.5mm)	24.1-29.4ft-lbf (32.7-39.9N·m)	0.504-0.519 inch (12.8-13.2mm)	
φ1/2 inch (φ12.7mm)	36.5-44.5ft-lbf (49.5-60.3N·m)	0.638-0.653 inch (16.2-16.6mm)	
φ5/8 inch (φ15.9mm)	45.6-55.6ft-lbf (61.8-75.4N·m)	0.760-0.775 inch (19.3-19.7mm)	

Fig. [1]

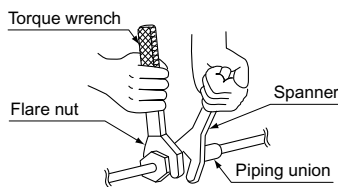
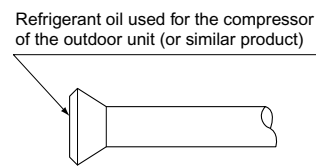


Fig. [2]

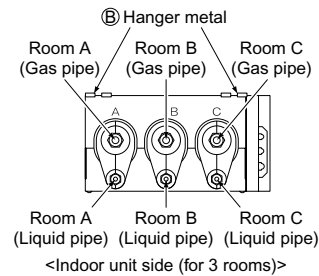


- Alphabets (A, B, and C) corresponding to the room to be connected with each indoor unit are inscribed on the main body of the BP unit. (Figure on the right)

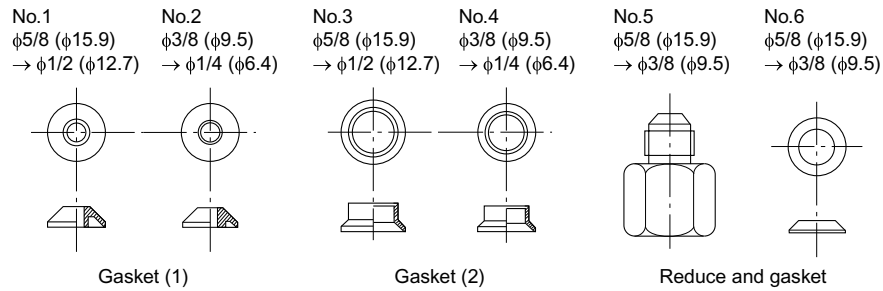
- A: Refrigerant pipe connection port for "Room A"
- B: Refrigerant pipe connection port for "Room B"
- C: Refrigerant pipe connection port for "Room C"

## ⚠ CAUTION

- Be sure to put a mark on every refrigerant piping (such as liquid pipe and gas pipe) so that to which room each indoor unit belongs can be known clearly. (Example: A, B, C)

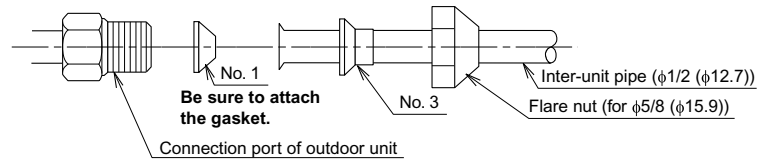


**How to use reducer**

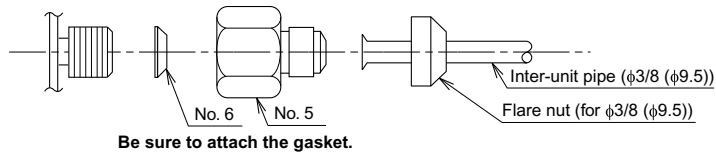


Use the reducers supplied with the unit as described below.

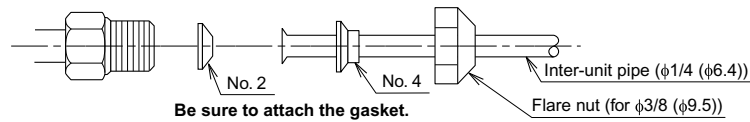
- 1) Connecting a pipe of φ1/2 (φ12.7) to a gas pipe connection port for φ5/8 (φ15.9):



- 2) Connecting a pipe of φ3/8 (φ9.5) to a gas pipe connection port for φ5/8 (φ15.9):



- 3) Connecting a pipe of φ1/4 (φ6.4) to a liquid pipe connection port for φ3/8 (φ9.5):



unit: inch (mm)

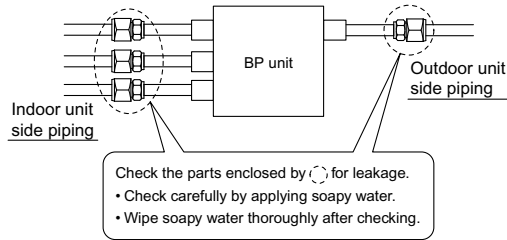
- When using the reducer packing shown above, be careful not to overtighten the nut. (See <Table-1>.)
- Apply refrigeration oil on the connection port where the flare nut is fitted.



# Connection of Refrigerant Piping

## Gas leakage check

- Perform gas leakage check after the completion of piping work.



- After the leakage check, attach heat insulation materials and wind the tape around the heat insulation materials so that no gap is made between them.

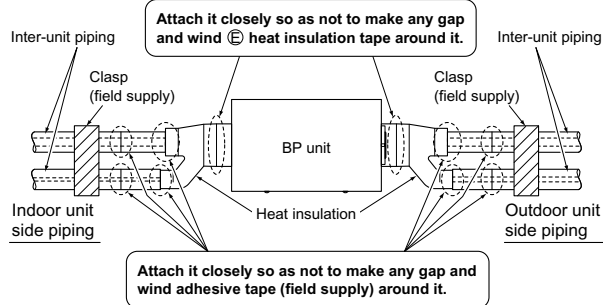
For the inter-unit piping, use the heat insulation materials in conformity with the following specifications.

Thermal conductivity: **0.024-0.030Btu/ft·h·°F**  
(**0.041-0.052W/mK**)

Thickness: 1/2 inch (13mm) or more

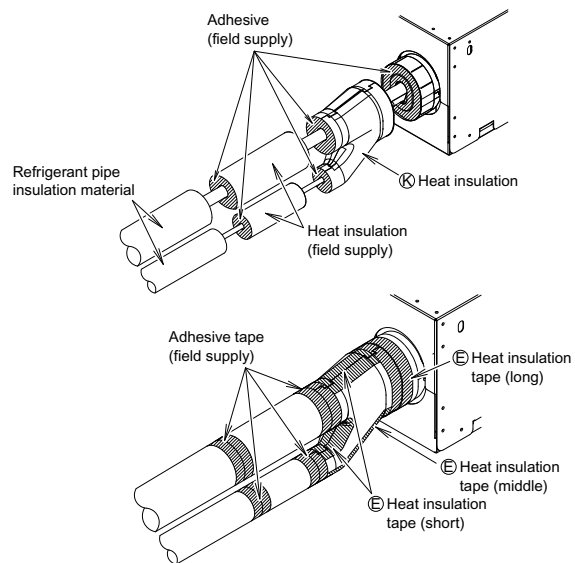
Designed for use with HVAC Systems

- Secure the local inter-unit piping near the BP unit using clasps (field supply) so that the BP unit does not directly receive the weight of the inter-unit piping.



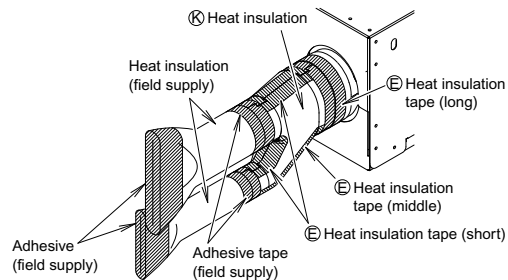
## 1. Insulation of pipes

- 1) Attach the (⊗) heat insulation and the heat insulation (field supply) to each pipe.
- 2) To eliminate a gap between the heat insulation, secure the butting surfaces (shaded sections on the right figure) with a silicon resin type adhesive (field supply).
- 3) When insulating the pipes, attach the (⊖) heat insulation tape and adhesive tape (field supply) to prevent air from entering into the heat insulation.



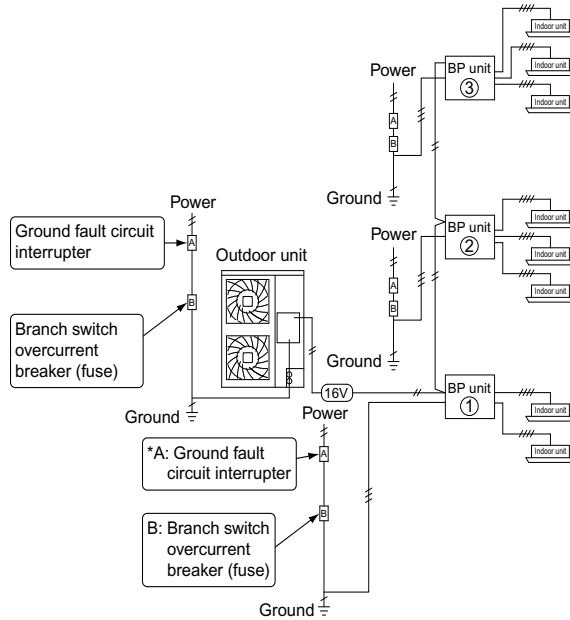
## 2. Unconnected pipes

- 1) Attach the heat insulation (field supply) and the (⊗) heat insulation.
- 2) Attach the (⊖) heat insulation tape and adhesive tape (field supply) to prevent air from entering into the heat insulation.

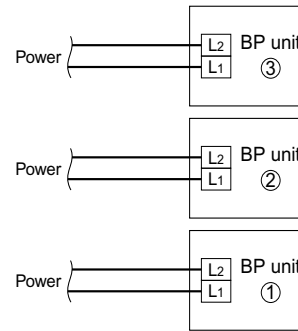


# Connecting the Wiring

## Connection example of total system wiring



Wiring method for the power line.



• Be sure to prepare a power supply for each BP unit.

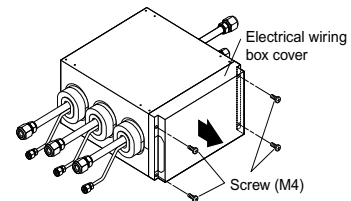
3

### CAUTION

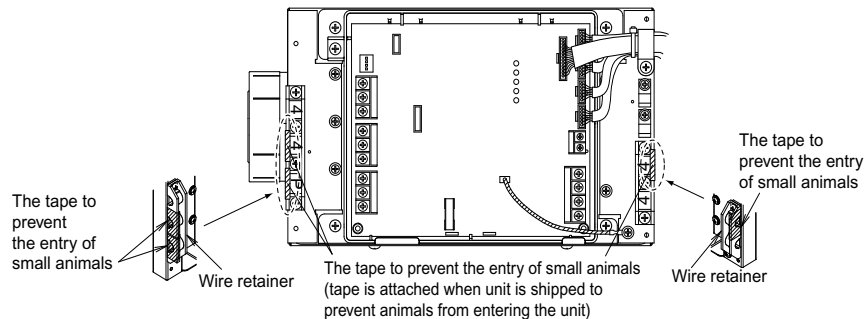
- Be sure to connect the power line to L1 and L2.

### Work procedure

- 1) Remove the screws and pull off the electrical wiring box cover.



- 2) Tape is attached to the wire retainer. The purpose of the tape is to prevent small animals from entering the unit. Only remove the tape from places where wiring it to be passed through.



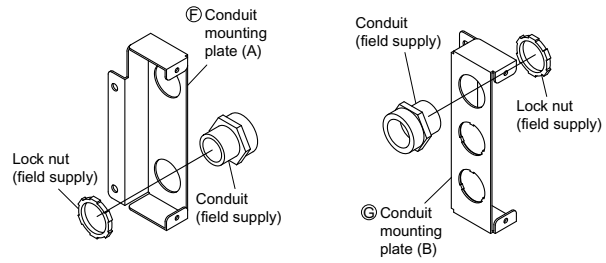
### CAUTION

- If the tape is not replaced for places where wiring will not pass through, small animals may enter, causing product malfunction.

\* Only if required by local code.

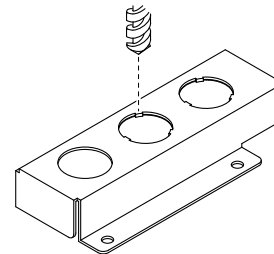
# Connecting the Wiring

- 3) Install the conduit (field supply) and lock nut (field supply) to ㊦ conduit mounting plate (A) and ㊧ conduit mounting plate (B).

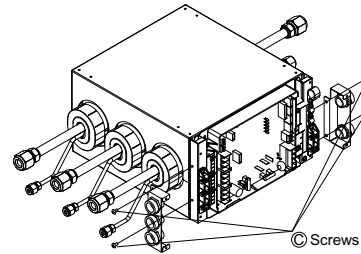


## <When connecting indoor units for 2 or 3 rooms>

- 1) Open the knockout holes with a drill or the like without deforming ㊦ conduit mounting plate (A) and ㊧ conduit mounting plate (B).
- 2) After knocking out the holes, remove burrs in the knockout holes.

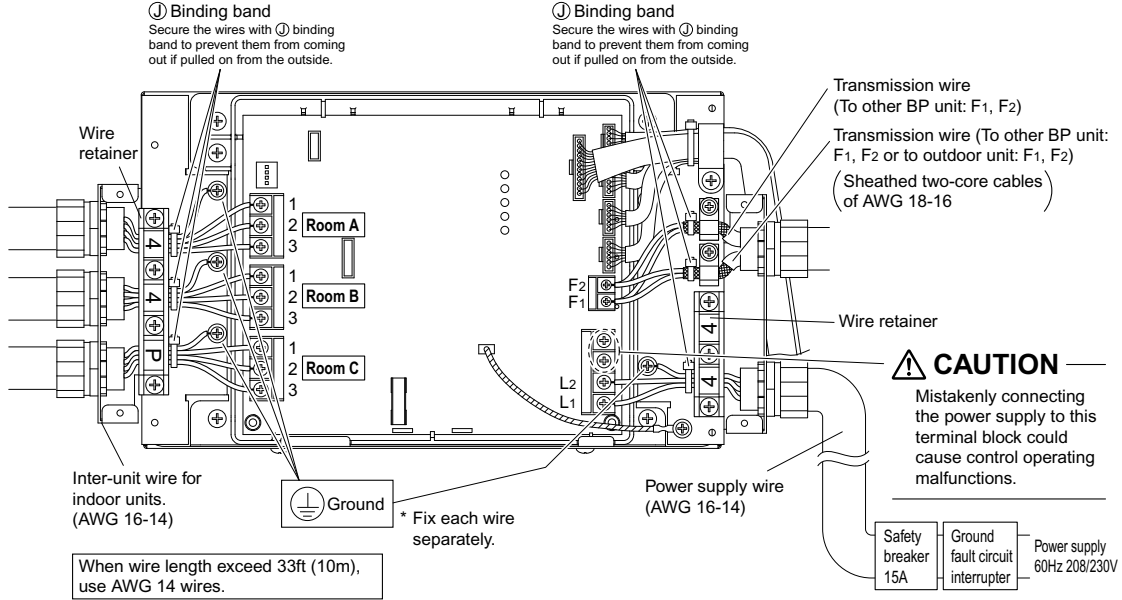


- 4) Fix the conduits with ㊨ screws.



5) Follow the instructions on the wiring nameplate to connect the connection wires of indoor/outdoor units to terminal block numbers (1, 2, 3, F1 and F2). Always fix each ground wire separately with a ground screw. (See the figure below.)

Example <For 3 rooms>

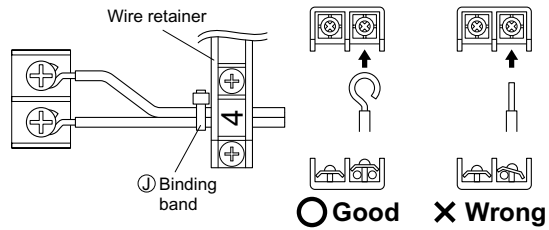


**⚠ WARNING**

- Do not use tapped wires, stranded wires, extension cords, or starburst connections, as they may cause overheating, electrical shock, or fire.

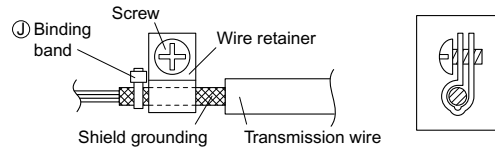
**⚠ CAUTION**

- Pass all inter-unit wires through wire retainers. In addition, secure the wires with Ⓜ binding band to prevent them from coming out on the outside.
- When connecting the inter-unit wires to the terminal block using a single core wire, be sure to perform curling. Problems with the work may cause heat and fires.



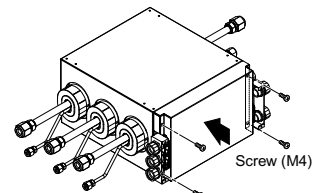
**How to ground the shield for transmission wires**

- Fold back the grounding section of the shield for the transmission wire and secure it with the copper foil section of the wire retainer.



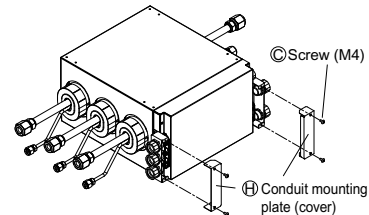
# Connecting the Wiring

- 6) Return the electrical wiring box cover to its original position, and fix it with the screws.



Install the electrical wiring box cover.

- 7) Fix the ⊕ conduit mounting plate (cover) with the screw.



# Operating Test

Follow the "Operating test" as described in the installation manual of the outdoor unit.

If the BP unit does not operate normally during the test run, the error can be checked on the remote controller display for the indoor unit.

## Error codes displayed on the remote controller

Malfunction code	Nonconformity during installation	Remedial action
A9	Electric expansion valve connector not connected (BP unit)	Please contact your dealer.
E2	Printed circuit board faulty (BP unit)	
J0	Liquid and gas thermistor faulty (BP unit)	
U4	Transmission error between BP unit and indoor unit	Connect correctly the interconnections between BP unit and indoor unit.
U9	Transmission error between outdoor unit and other BP unit	Connect correctly the interconnections between outdoor and other BP unit.
UJ	Transmission error between outdoor unit and this BP unit connecting with the indoor unit of error code displayed	Connect correctly the interconnections between outdoor and this BP unit connecting with the indoor unit of error code displayed.

## The BP Unit

Simple diagnosis can be done using the LEDs on the BP unit's circuit board.

For details, see the label on the inside of the BP unit's electrical wiring box cover.

### 3. Indoor Unit: CTXS, FTXS, CDXS, FDXS Series





#### 3.1 Safety Considerations

Read these **SAFETY CONSIDERATIONS for Installation** carefully before installing an air conditioner or heat pump. After completing the installation, make sure that the unit operates properly during the startup operation.

Instruct the customer on how to operate and maintain the unit. Inform customers that they should store this Installation Manual with the Operation Manual for future reference.

Always use a licensed installer or contractor to install this product. Improper installation can result in water or refrigerant leakage, electrical shock, fire, or explosion.

Meanings of **DANGER**, **WARNING**, **CAUTION**, and **NOTE** Symbols:

-  **DANGER** ..... Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
-  **WARNING** ..... Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
-  **CAUTION** ..... Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.
-  **NOTE** ..... Indicates situations that may result in equipment or property-damage accidents only.

- Refrigerant gas is heavier than air and replaces oxygen. A massive leak will result in oxygen depletion, especially in basements, and an asphyxiation hazard will result in serious injury or death.
- Do not ground units to water pipes, gas pipes, telephone wires, or lightning rods as incomplete grounding will result a severe shock hazard resulting in severe injury or death. Additionally, grounding to gas pipes will result a gas leak and potential explosion resulting in severe injury or death.
- If refrigerant gas leaks during installation, ventilate the area immediately. Refrigerant gas will result in producing toxic gas if it comes into contact with fire. Exposure to this gas will result in severe injury or death.
- After completing the installation work, check that the refrigerant gas does not leak throughout the system.
- Do not install unit in an area where flammable materials are present due to risk of explosions that will result in serious injury or death.
- Safely dispose all packing and transportation materials in accordance with federal/state/local laws or ordinances. Packing materials such as nails and other metal or wood parts, including plastic packing materials used for transportation will result in injuries or death by suffocation.
- Only qualified personnel must carry out the installation work. Installation must be done in accordance with this

installation manual. Improper installation could result in water leakage, electric shock, or fire.

- When installing the unit in a small room, take measures to keep the refrigerant concentration from exceeding allowable safety limits. Excessive refrigerant leaks, in the event of an accident in a closed ambient space, could result in oxygen deficiency.
- Use only specified accessories and parts for installation work. Failure to use specified parts could result in water leakage, electric shocks, fire, or the unit falling.
- Install the air conditioner or heat pump on a foundation strong enough that it can withstand the weight of the unit. A foundation of insufficient strength could result in the unit falling and causing injuries.
- Take into account strong winds, typhoons, or earthquakes when installing. Improper installation could result in the unit falling and causing accidents.
- Make sure that a separate power supply circuit is provided for this unit and that all electrical work is carried out by qualified personnel according to local, state, and national regulations. An insufficient power supply capacity or improper electrical construction could result in electric shocks or fire.
- Make sure that all wiring is secured, that specified wires are used, and that no external forces act on the terminal connections or wires. Improper connections or installation could result in fire.
- When wiring, position the wires so that the terminal box lid can be securely fastened. Improper positioning of the terminal box lid could result in electric shocks, fire, or the terminals overheating.
- Before touching electrical parts, turn off the unit.
- This equipment can be installed with a Ground-Fault Circuit Breaker (GFCI). Although this is a recognized measure for additional protection, with the earthing system in North America, a dedicated GFCI is not necessary.
- Securely fasten the unit terminal cover (panel). If the terminal cover/panel is not installed properly, dust or water may enter the condenser unit and could result in fire or electric shock.
- When installing or relocating the system, keep the refrigerant circuit free from substances other than the specified refrigerant (R-410A) such as air. Any presence of air or other foreign substance in the refrigerant circuit could result in abnormal pressure rise or rupture, resulting in injury.

- Do not change the setting of the protection devices. If the pressure switch, thermal switch, or other protection device is shorted and operated forcibly, or parts other than those specified by Daikin are used, fire or explosion could result.
- Do not touch the switch with wet fingers. Touching a switch with wet fingers may result in electric shock.
- Do not allow children to play on or around the unit or it may result in injury.
- The heat exchanger fins are sharp enough to cut, and may result in injury if improperly used. To avoid injury wear gloves or cover the fins while working around them.
- Do not touch the refrigerant pipes during and immediately after operation as the refrigerant pipes may be hot or cold, depending on the condition of the refrigerant flowing through the refrigerant piping, compressor, and other refrigerant cycle parts. It may result in your hands getting burns or frostbite if you touch the refrigerant pipes. To avoid injury, give the pipes time to return to normal temperature or, if you must touch them, be sure to wear proper gloves.
- Install drain piping to proper drainage. Improper drain piping may result in water leakage and property damage.
- Insulate piping to prevent condensation.
- Be careful when transporting the product.
- Do not turn off the power immediately after stopping operation. Always wait for at least 5 minutes before turning off the power. Otherwise, water leakage may result.
- Do not use a charging cylinder. Using a charging cylinder may cause the refrigerant to deteriorate.
- Refrigerant R-410A in the system must be kept clean, dry, and tight.
  - (a) Clean and Dry -- Foreign materials (including mineral oils such as SUNISO oil or moisture) should be prevented from getting into the system.
  - (b) Tight -- R-410A does not contain any chlorine, does not destroy the ozone layer, and does not reduce the earth's protection against harmful ultraviolet radiation. R-410A can contribute to the greenhouse effect if it is released. Therefore take proper measures to check for the tightness of the refrigerant piping installation. Read the chapter *Refrigerant Piping* and follow the procedures.
- Since R-410A is a blend, the required additional refrigerant must be charged in its liquid state. If the refrigerant is charged in a state of gas, its composition can change and the system will not work properly.
- The indoor unit is for R-410A. See the catalog for indoor models that can be connected. Normal operation is not possible when connected to other units.
- Remote controller (wireless kit) transmitting distance can be shorter than expected in rooms with electronic fluorescent lamps (inverter or rapid start types). Install the indoor unit far away from fluorescent lamps as much as possible.
- Indoor units are for indoor installation only. Outdoor units can be installed either outdoors or indoors. This unit is for indoor use.
- Do not install the air conditioner or heat pump in the following locations:
  - (a) Where a mineral oil mist or oil spray or vapor is produced, for example, in a kitchen. Plastic parts may deteriorate and fall off and thus may result in water leakage.
  - (b) Where corrosive gas, such as sulfurous acid gas, is produced. Corroding copper pipes or soldered parts may result in refrigerant leakage.
  - (c) Near machinery emitting electromagnetic waves. Electromagnetic waves may disturb the operation of the control system and cause the unit to malfunction.
  - (d) Where flammable gas may leak, where there is carbon fiber, or ignitable dust suspension in the air, or where volatile flammables such as thinner or gasoline are handled. Operating the unit in such conditions may result in a fire.
- Take adequate measures to prevent the condenser unit from being used as a shelter by small animals. Small animals making contact with electrical parts may result in malfunctions, smoke, or fire. Instruct the customer to keep the area around the unit clean.
- Install the power supply and control wires for the indoor and outdoor units at least 3.5 feet away from televisions or radios to prevent image interference or noise. Depending on the radio waves, a distance of 3.5 feet may not be sufficient to eliminate the noise.
- Dismantling the unit, treatment of the refrigerant, oil and additional parts must be done in accordance with the relevant local, state, and national regulations.
- Do not use the following tools that are used with conventional refrigerants: gauge manifold, charge hose, gas leak detector, reverse flow check valve, refrigerant charge base, vacuum gauge, or refrigerant recovery equipment.
- If the conventional refrigerant and refrigerator oil are mixed in R-410A, the refrigerant may result in deterioration.
- This air conditioner or heat pump is an appliance that should not be accessible to the general public.

- As design pressure is 478 psi, the wall thickness of field-installed pipes should be selected in accordance with the relevant local, state, and national regulations.



## 3.2 CTXS07LVJU

# Accessories

**Indoor unit** (A)–(L)

(A) Mounting plate	1	(E) Remote controller holder	1	(J) Tube	1
(B) Mounting plate fixing screw 3/16" × 1" (M4 × 25mm)	5	(F) Fixing screw for remote controller holder 1/8" × 13/16" (M3 × 20mm)	2	(K) Operation manual	1
(C) Titanium apatite photocatalytic air-purifying filter	2	(G) Dry battery AAA. LR03 (alkaline)	2	(L) Installation manual	1
(D) Wireless remote controller	1	(H) Indoor unit fixing screw 3/16" × 1/2" (M4 × 12mm)	2		

## Choosing an Installation Site

- Before choosing the installation site, obtain user approval.

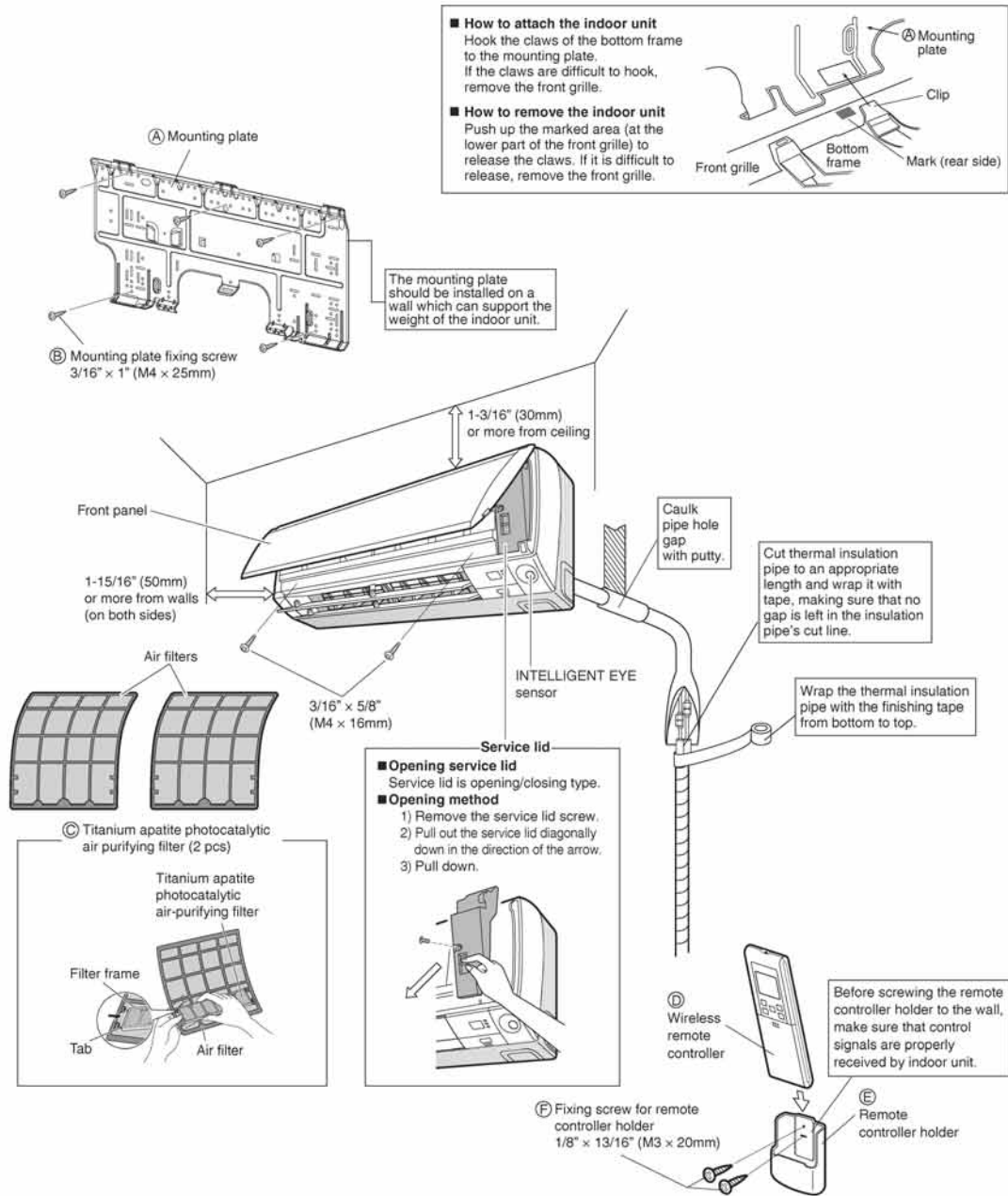
### 1. Indoor unit

- The indoor unit should be sited in a place where:
  - 1) the restrictions on installation specified in the indoor unit installation drawings are met
  - 2) both air inlet and air outlet have clear paths met
  - 3) the unit is not in the path of direct sunlight
  - 4) the unit is away from the source of heat or steam
  - 5) there is no source of machine oil vapor (this may shorten indoor unit life)
  - 6) cool (warm) air is circulated throughout the room
  - 7) the unit is away from electronic ignition type fluorescent lamps (inverter or rapid start type) as they may shorten the remote controller range
  - 8) the unit is at least 3.5ft (1m) away from any television or radio set (unit may cause interference with the picture or sound)
  - 9) install at the recommended height 6ft (1.8m)
  - 10) no laundry equipment is located in the space

### 2. Wireless remote controller

- 1) Turn on all the fluorescent lamps in the room, if any, and find the site where remote control signals are properly received by the indoor unit (within 23ft/7m).

# Indoor Unit Installation Drawings



## INTELLIGENT EYE sensor

### ⚠ CAUTION

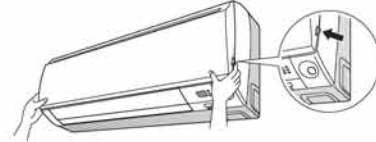
- Do not hit or forcefully push the INTELLIGENT EYE sensor. This can lead to damage and malfunction.
- Do not place large objects near the sensor. Keep heating units or humidifiers outside the sensor's detection area.

# Preparation before Installation

## 1. Removing and installing front panel

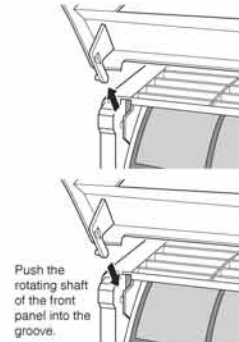
### • Removal method

Hook fingers on the tabs on the left and right of the main body, and open until the panel stops. Slide the front panel sideways to disengage the rotating shaft. Then pull the front panel toward you to remove it.



### • Installation method

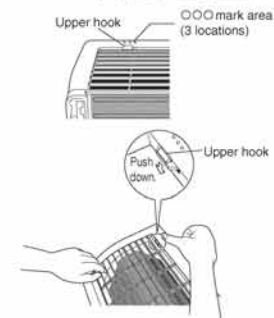
Align the tabs of the front panel with the grooves, and push all the way in. Then close slowly. Push the center of the lower surface of the panel firmly to engage the tabs.



## 2. Removing and installing front grille

### • Removal method

- 1) Remove front panel to remove the air filter.
- 2) Remove 2 screws from the front grille.
- 3) In front of the ○○○ mark of the front grille, there are 3 upper hooks. Lightly pull the front grille toward you with one hand, and push down on the hooks with the fingers of your other hand.



## When there is no work space because the unit is close to ceiling

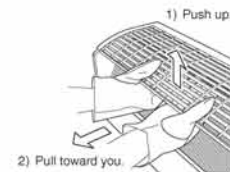
### ⚠ CAUTION

- Be sure to wear protection gloves.

Place both hands under the center of the front grille, and while pushing up, pull it toward you.

### • Installation method

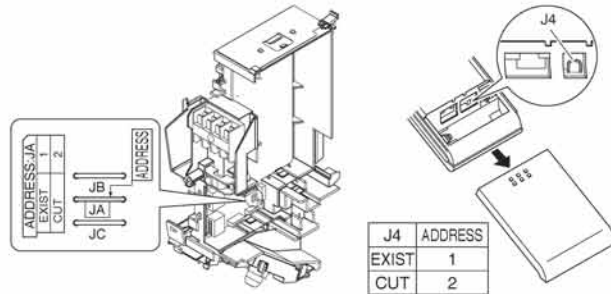
- 1) Install the front grille and firmly engage the upper hooks (3 locations).
- 2) Install 2 screws of the front grille.
- 3) Install the air filter and then mount the front panel.



### 3. How to set the different addresses

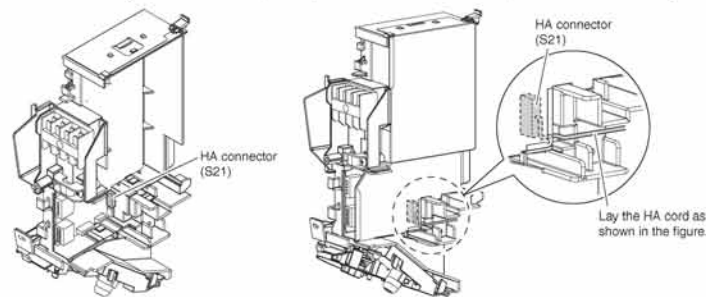
When 2 indoor units are installed in one room, the 2 wireless remote controllers can be set for different addresses.

- 1) Remove the metal plate electrical wiring cover.  
(Refer to the **When connecting to an HA system.**)
- 2) Cut the address jumper (JA) on the printed circuit board.
- 3) Cut the address jumper (J4) in the remote controller.



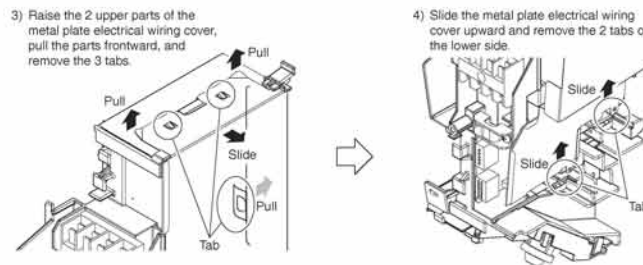
### 4. When connecting to an HA system (wired remote controller, central remote controller etc.)

- 1) Remove the metal plate electrical wiring cover.  
(Refer to the **Removal/attachment methods of metal plate electrical wiring covers.**)
- 2) Attach the connection cord to the S21 connector and pull the harness out through the notched part in the figure.
- 3) Replace the electrical wiring cover as it was, and pull the harness around, as shown in the figure.



#### • Removal methods of metal plate electrical wiring cover

- 1) Remove the front grille.
- 2) Remove the electrical wiring box. (1 screw)
- 3) Raise the 2 upper parts of the metal plate electrical wiring cover, pull the parts forward, and remove the 3 tabs.
- 4) Slide the metal plate electrical wiring cover upward and remove the 2 tabs on the lower side.

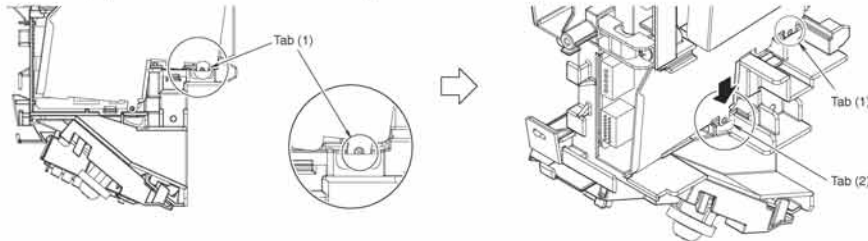


# Preparation before Installation

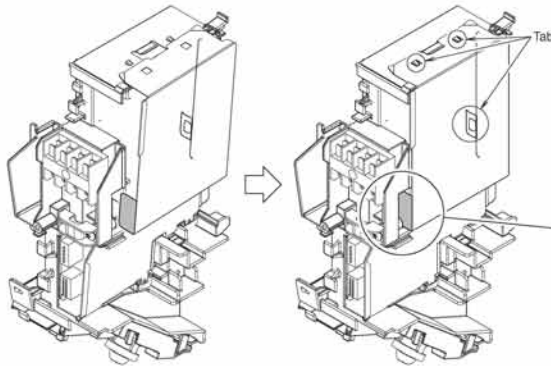
• **Attachment methods of metal plate electrical wiring cover**

Attach the metal plate electrical wiring cover as shown below.

- 1) Lean the metal plate electrical wiring cover as shown in the figure and attach tab (1) on the lower side to the electrical wiring box.
- 2) Attach tab (2) on the lower side of the metal plate electrical wiring cover.



- 3) Push in the upper part of the metal plate electrical wiring cover and attach the 3 tabs.



**CAUTION**

- Make sure that the shaded part (■) will not go inside the electrical wiring box.

# Refrigerant Piping Work

## 1. Flaring the pipe end

- 1) Cut the pipe end with a pipe cutter.
- 2) Remove burrs with the cut surface facing downward so that the chips do not enter the pipe.
- 3) Put the flare nut on the pipe.
- 4) Flare the pipe.
- 5) Check that the flaring is properly made.

(Cut exactly at right angles.)

Remove burrs.

**Check**

The pipe end must be evenly flared in a perfect circle.

Flare's inner surface must be flaw-free.

Make sure that the flare nut is fitted.

**Flaring**

Set exactly at the position shown below.

Flare tool for R410A	Conventional flare tool		
	Clutch-type	Clutch-type (Rigid-type)	Wing-nut type (Imperial-type)
A	0-0.020 inch (0-0.5mm)	0.039-0.059 inch (1.0-1.5mm)	0.059-0.079 inch (1.5-2.0mm)

**WARNING**

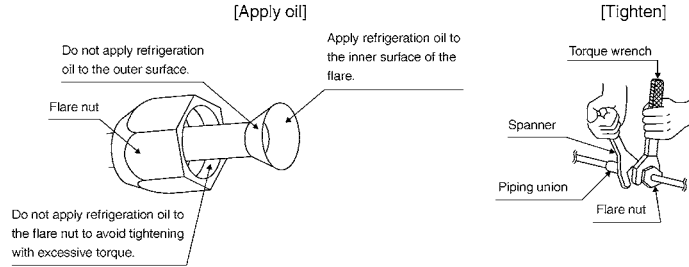
- Do not use mineral oil on flared part.
- Prevent mineral oil from getting into the system as this would reduce the lifetime of the units.
- Never use piping which has been used for previous installations. Only use parts which are delivered with the unit.
- Never install a drier to this R410A unit in order to guarantee its lifetime.
- The drying material may dissolve and damage the system.
- Incomplete flaring may cause refrigerant gas leakage.

## 2. Refrigerant piping

### ⚠ CAUTION

- Use the flare nut fixed to the main unit to prevent it from cracking and deteriorating from age.
- To prevent gas leakage, apply refrigeration oil only to the inner surface of the flare. (Use refrigeration oil for R410A.)
- Use torque wrenches when tightening the flare nuts to prevent damage to the flare nuts and gas leakage.

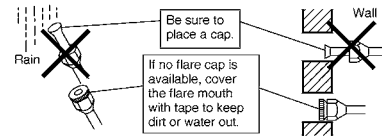
Align the centers of both flares and tighten the flare nuts 3 or 4 turns by hand. Then tighten them fully with the torque wrenches.



Flare nut tightening torque	
Gas side	Liquid side
3/8 inch (9.5mm)	1/4 inch (6.4mm)
24.1-29.4ft • lbf (32.7-39.9N • m)	10.4-12.7ft • lbf (14.2-17.2N • m)

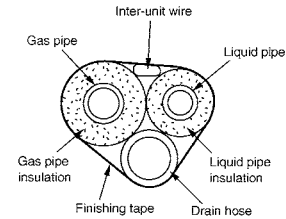
### 2-1. Caution on piping handling

- 1) Protect the open end of the pipe against dust and moisture.
- 2) All pipe bends should be as gentle as possible. Use a pipe bender for bending.



### 2-2. Selection of copper and heat insulation materials

- When using commercial copper pipes and fittings, observe the following:
  - 1) Insulation material: Polyethylene foam  
Heat transfer rate: 0.041 to 0.052W/mK (0.024 to 0.030Btu/ft•h°F (0.035 to 0.045kcal/mh°C))  
Be sure to use insulation that is designed for use with HVAC Systems.



- 2) Be sure to insulate both the gas and liquid piping and to provide insulation dimensions as below.

Gas side	Liquid side	Gas pipe thermal insulation	Liquid pipe thermal insulation
O.D. 3/8 inch (9.5mm)	O.D. 1/4 inch (6.4mm)	I.D. 15/32-19/32 inch (12-15mm)	I.D. 5/16-13/32 inch (8-10mm)
Minimum bend radius		Thickness 13/32 inch (10mm) Min.	
1-3/16 inch (30mm) or more			
Thickness 0.031 inch (0.8mm) (C1220T-O)			

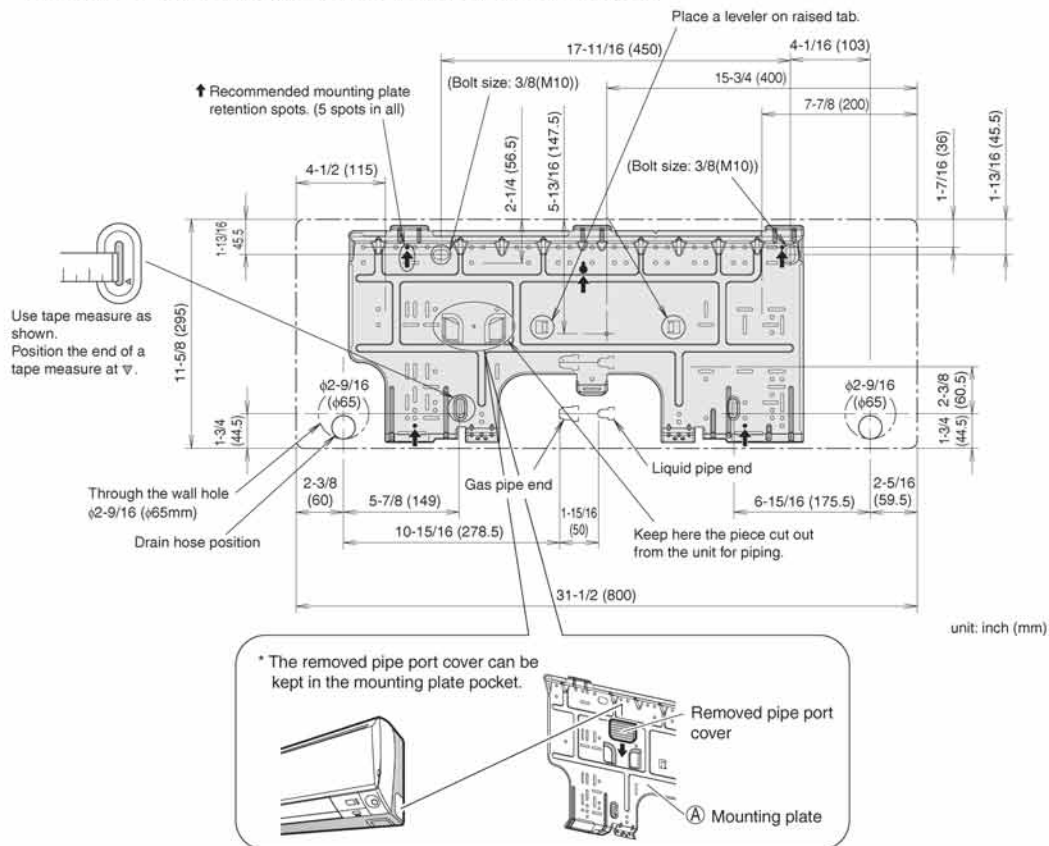
- 3) Use separate thermal insulation pipes for gas and liquid refrigerant pipes.

# Indoor Unit Installation

## 1. Installing the mounting plate

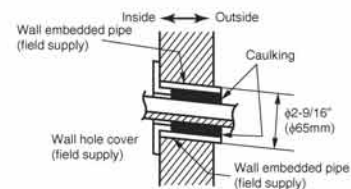
- The mounting plate should be installed on a wall which can support the weight of the indoor unit.
  - Temporarily secure the mounting plate to the wall, make sure that the plate is completely level, and mark the boring points on the wall.
  - Secure the mounting plate to the wall with screws.

### Recommended mounting plate retention spots and dimensions



## 2. Boring a wall hole and installing wall embedded pipe

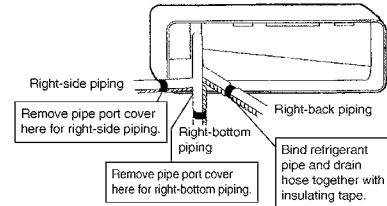
- For walls containing metal frame or metal board, be sure to use a wall embedded pipe and wall cover in the feed-through hole to prevent possible heat, electrical shock, or fire.
- Be sure to caulk the gaps around the pipes with caulking material to prevent water leakage.
  - Bore a feed-through hole of 2-9/16 inch (65mm) in the wall so it has a down slope toward the outside.
  - Insert a wall pipe into the hole.
  - Insert a wall cover into wall pipe.
  - After completing refrigerant piping, wiring, and drain piping, caulk pipe hole gap with putty.



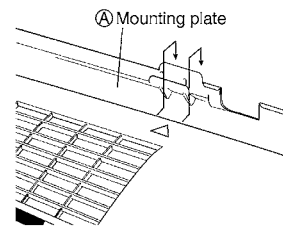
### 3. Laying piping, hoses, and wiring

#### 3-1. Right-side, right-back, or right-bottom piping

- 1) Attach the drain hose to the underside of the refrigerant pipes with an adhesive vinyl tape.
- 2) Wrap the refrigerant pipes and drain hose together with insulation tape.

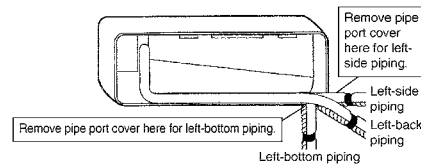


- 3) Pass the drain hose and refrigerant pipes through the wall hole, then set the indoor unit on the mounting plate hooks by using the  $\Delta$  markings at the top of the indoor unit as a guide.



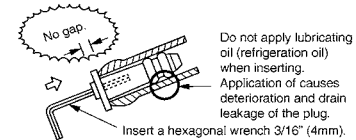
#### 3-2. Left-side, left-back, or left-bottom piping

- 1) Replace the drain plug and drain hose.
- 2) Attach the drain hose to the underside of the refrigerant pipes with adhesive vinyl tape.

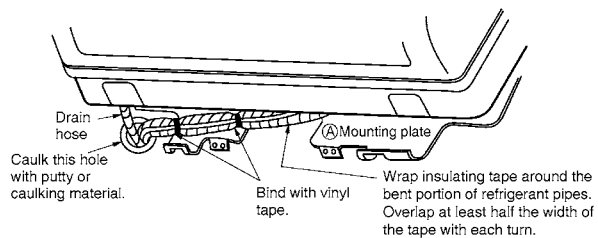


- 3) Be sure to connect the drain hose to the drain port in place of a drain plug.

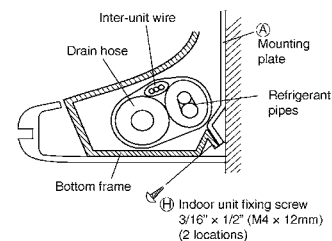
#### How to set drain plug.



- 4) Shape the refrigerant pipes along the pipe path marking on the mounting plate.
- 5) Pass drain hose and refrigerant pipes through the wall hole, then set the indoor unit on mounting plate hooks, using the  $\Delta$  markings at the top of indoor unit as a guide.
- 6) Pull in the inter-unit wire.
- 7) Connect the inter-unit pipes.



- 8) Wrap the refrigerant pipes and drain hose together with insulation tape as right figure, in case of setting the drain hose through the back of the indoor unit.
- 9) While exercising care so that the inter-unit wire do not catch indoor unit, press the bottom edge of indoor unit with both hands until it is firmly caught by the mounting plate hooks. Secure indoor unit to the mounting plate with indoor unit fixing screws  $3/16 \times 1/2$  inch (M4  $\times$  12mm).

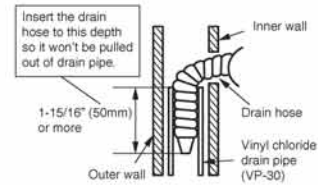




# Indoor Unit Installation

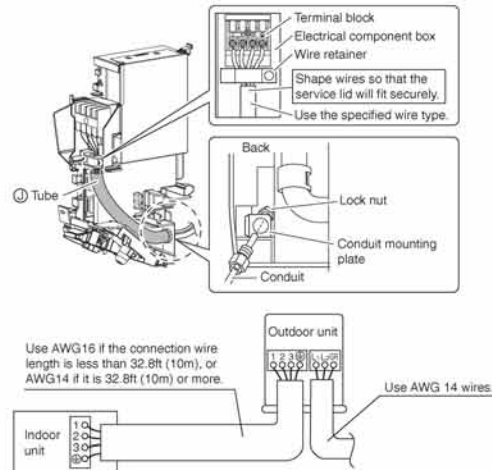
## 3-3. Wall embedded piping

- Insert the drain hose to this depth so it won't be pulled out of the drain pipe.



## 4. Wiring

- 1) As shown in the illustration on the right-hand side, insert the wires including the ground wire into the conduit and secure them with lock nut onto the conduit mounting plate.
- 2) Insert the wires including the ground wire into  $\text{J}$  tube.
  - Cut  $\text{J}$  tube when  $\text{J}$  tube is too long.
- 3) Strip wire ends (9/16 inch (15mm)).
- 4) Match wire colors with terminal numbers on indoor and outdoor unit's terminal blocks and firmly screw wires to the corresponding terminals.
- 5) Connect the ground wires to the corresponding terminals.
- 6) Pull the wires and check that the wires are securely fixed to the terminal block.
- 7) In case of connecting to an adapter system, run the remote controller cable and attach the S21. (Refer to P5 when connecting to an HA system.)
- 8) Shape the wires so that the service lid fits securely, then close service lid.

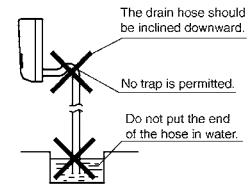


### **⚠ WARNING**

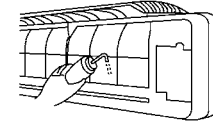
- Do not use tapped wires, stranded wires, extension cords, or starburst connections, as they may cause overheating, electrical shock, or fire.
- Do not use locally purchased electrical parts inside the product. (Do not branch the power for the drain pump, etc., from the terminal block.) Doing so may cause electric shock or fire.
- When carrying out wiring connection, take care not to pull at the conduit.
- Do not connect the power wire to the indoor unit. Doing so may cause electric shock or fire.

## 5. Drain piping

1) Connect the drain hose, as described right.

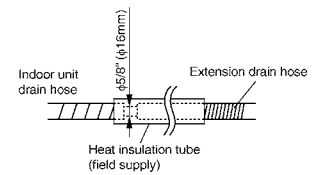


2) Remove the air filters and pour some water into the drain pan to check the water flows smoothly.

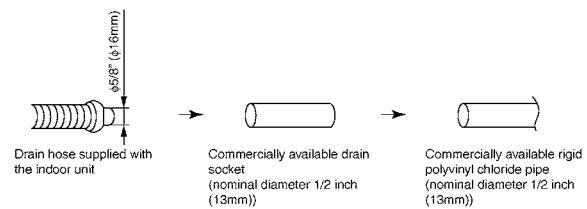


3) When drain hose requires extension, obtain an extension hose commercially available.

Be sure to thermally insulate the indoor section of the extension hose.



4) When connecting a rigid polyvinyl chloride pipe (nominal diameter 1/2 inch (13mm)) directly to the drain hose attached to the indoor unit as with embedded piping work, use any commercially available drain socket (nominal diameter 1/2 inch (13mm)) as a joint.



# Trial Operation and Testing

## 1. Trial operation and testing

- 1-1 Measure the supply voltage and make sure that it falls in the specified range.
- 1-2 Trial operation should be carried out in either cooling or heating mode.
- In cooling mode, select the lowest programmable temperature; in heating mode, select the highest programmable temperature.
    - 1) Trial operation may be disabled in either mode depending on the room temperature.  
Use the remote controller for trial operation as described below.
    - 2) After trial operation is complete, set the temperature to a normal level (78°F to 82°F (26°C to 28°C) in cooling mode, 68°F to 75°F (20°C to 24°C) in heating mode).
    - 3) For protection, the system disables restart operation for 3 minutes after it is turned off.
- 1-3 Carry out the test operation in accordance with the operation manual to ensure that all functions and parts, such as fin movement, are working properly.
- The air conditioner requires a small amount of power in its standby mode. If the system is not to be used for some time after installation, shut off the circuit breaker to eliminate unnecessary power consumption.
  - If the circuit breaker trips to shut off the power to the air conditioner, the system will restore the original operation mode when the circuit breaker is opened again.

### Trial operation from remote controller

- 1) Press "ON/OFF" button to turn on the system.
- 2) Press "TEMP" button (2 locations) and "MODE" button at the same time.
- 3) Press "MODE" button twice.  
(“ ? ” will appear on the display to indicate that trial operation mode is selected.)
- 4) Trial operation terminates in approx. 30 minutes and switches into normal mode. To quit a trial operation, press "ON/OFF" button.

## 2. Test items

Test items	Symptom (diagnostic display on RC)	Check
Indoor and outdoor units are installed properly on solid bases.	Fall, vibration, noise	
No refrigerant gas leaks.	Incomplete cooling/heating function	
Refrigerant gas and liquid pipes and indoor drain hose extension are thermally insulated.	Water leakage	
Draining line is properly installed.	Water leakage	
System is properly grounded.	Electrical leakage	
The specified wires are used for inter-unit wiring.	Inoperative or burn damage	
Indoor or outdoor unit's air inlet or air outlet has clear path of air. Stop valves are opened.	Incomplete cooling/heating function	
Indoor unit properly receives remote control commands.	Inoperative	
The heat pump or cooling only mode is selectable with the DIP switch of the remote controller.	Remote controller malfunctioning	

C: 3P297301-1

### 3.3 CTXS07JVJU, CTXS09/12HVJU

#### Accessories

Ⓐ Mounting plate	1	Ⓔ Remote controller holder	1	Ⓚ Operation manual	1
Ⓑ Mounting plate fixing screws 3/16" × 1"L (M4 × 25mm)	10	Ⓕ Fixing screws for remote controller holder 1/8" × 13/16"L (M3 × 20mm)	2	Ⓛ Installation manual	1
Ⓒ Air-purifying filter with photocatalytic deodorizing function	2	Ⓖ Dry batteries AAA. LR03 (alkaline)	2		
Ⓓ Wireless remote controller	1	Ⓗ Indoor unit fixing screws 3/16" × 1/2"L (M4 × 12mm)	2		

#### Choosing a Site

- Before choosing the installation site, obtain user approval.

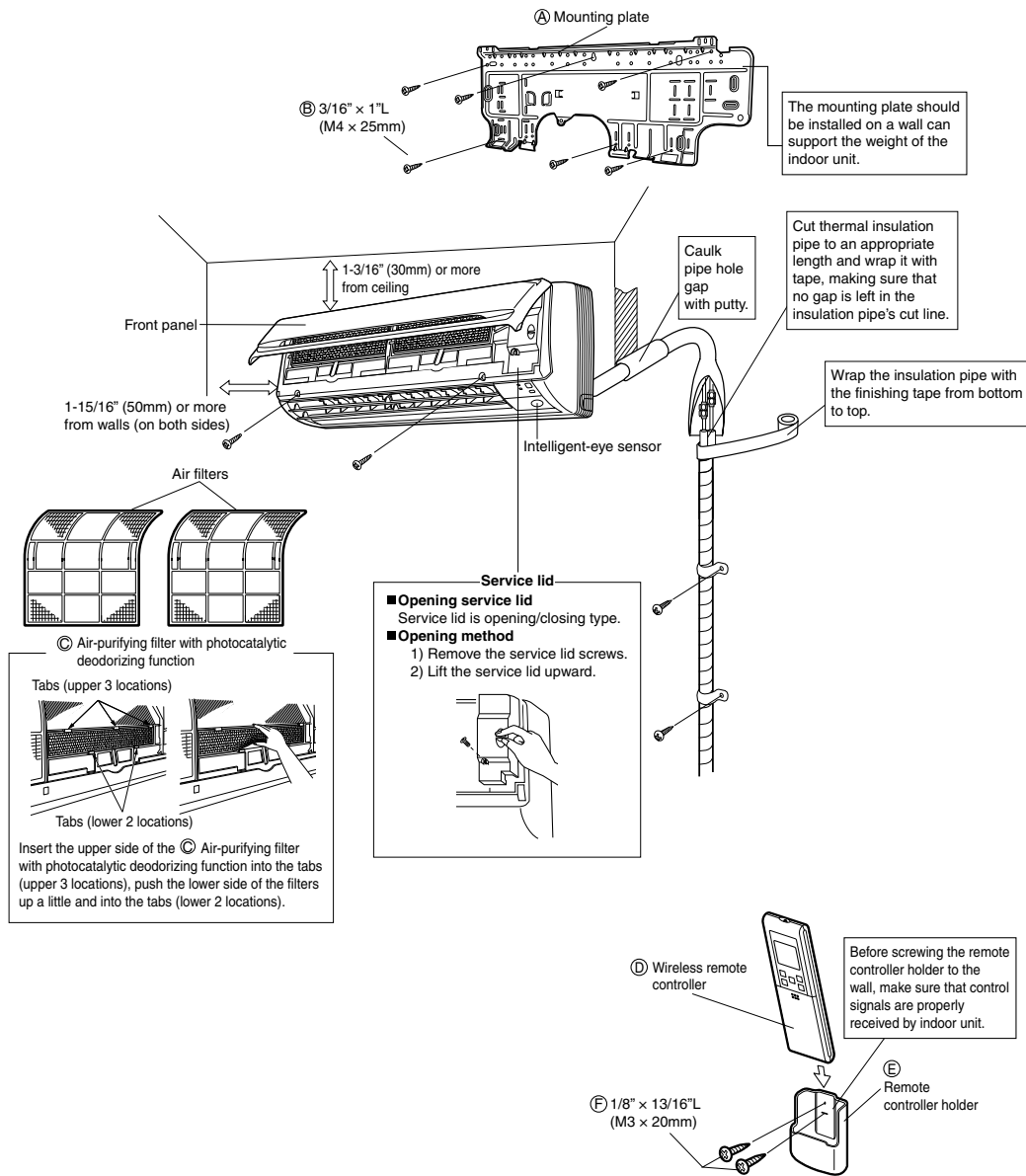
##### 1. Indoor unit.

- The indoor unit should be sited in a place where:
  - 1) The restrictions on installation specified in the indoor unit installation drawings are met.
  - 2) Both air intake and exhaust have clear paths met.
  - 3) The unit is not in the path of direct sunlight.
  - 4) The unit is away from the source of heat or steam.
  - 5) There is no source of machine oil vapor (this may shorten indoor unit life).
  - 6) Cool air is circulated throughout the room.
  - 7) The unit is away from electronic ignition type fluorescent lamps (inverter or rapid start type) as they may shorten the remote controller range.
  - 8) The unit is at least 3.5 ft (1m) away from any television or radio set (unit may cause interference with the picture or sound).

##### 2. Wireless remote controller.

- 1) Turn on all the fluorescent lamps in the room, if any, and find the site where remote controller signals are properly received by the indoor unit (within 23 ft (7m)).

## Indoor Unit Installation Drawings



## Intelligent-eye Sensor

### ⚠ CAUTION

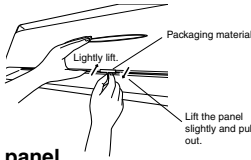
- 1) Do not hit or forcefully push the intelligent-eye sensor. This can lead to damage and malfunction.
- 2) Do not place large objects near the sensor. Also keep heating units or humidifiers outside the sensor's detection area.

## Installation Tips

### 1. Removing packaging material.

**Removal method**

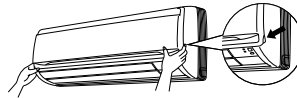
Grasp the packaging material which is in the center of the front panel, with one hand, and lightly pull the front panel up and toward you.



### 2. Removing and installing front panel.

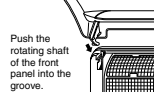
**Removal method**

Hook fingers on the panel protrusions on the left and right of the main body, and open until the panel stops. Slide the front panel sideways to disengage the rotating shaft. Then pull the front panel toward you to remove it.



**Installation method**

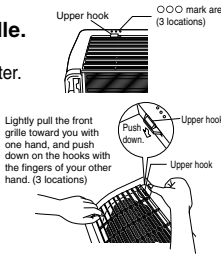
Align the tabs of the front panel with the grooves, and push all the way in. Then close slowly. Push the center of the lower surface of the panel firmly to engage the tabs.



### 3. Removing and installing front grille.

**Removal method**

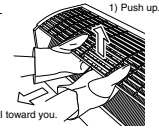
- 1) Remove front panel to remove the air filter.
- 2) Remove the front grille. (2 screws)
- 3) In front of the ○○○ mark of the front grille, there are 3 upper hooks. Lightly pull the front grille toward you with one hand, and push down on the hooks with the fingers of your other hand. (3 locations)



<When there is no work space because the unit is close to ceiling>

**CAUTION**

Be sure to wear protection gloves.



Place both hands under the center of the front grille, and while pushing up, pull it toward you.

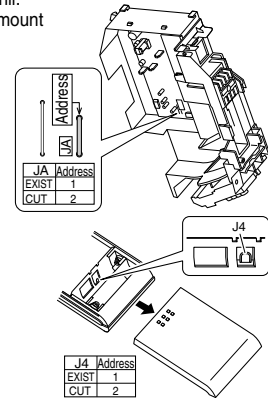
**Installation method**

- 1) Install the front grille and firmly engage the upper hooks. (3 locations)
- 2) Install 2 screws of the front grill.
- 3) Install the air filter and then mount the front panel.

### 4. How to set the different addresses.

When two indoor units are installed in one room, the two wireless remote controllers can be set for different addresses.

- 1) In the same way as when connecting to an HA system, remove the metal plate electrical wiring cover.
- 2) Cut the address jumper (JA).
- 3) Cut the address jumper (J4).

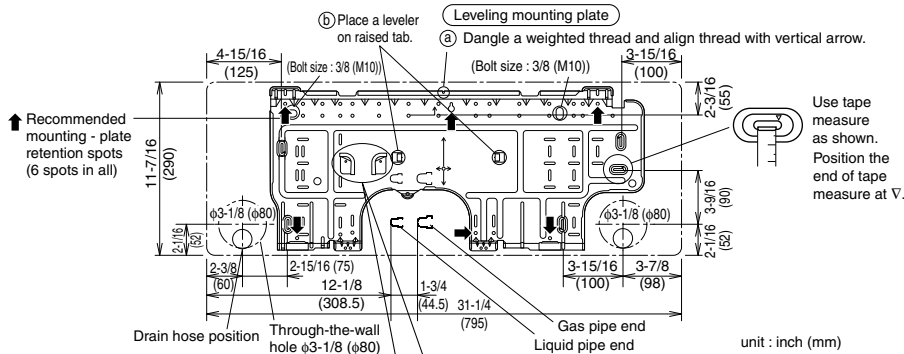


## Indoor Unit Installation (1)

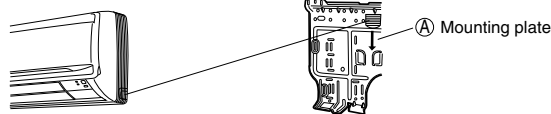
### 1. Installing the mounting plate.

- The mounting plate should be installed on a wall which can support the weight of the indoor unit.
- 1) Temporarily secure the mounting plate to the wall, make sure that the plate is completely level, and mark the boring points on the wall.
  - 2) Secure the mounting plate to the wall with screws.

#### Recommended mounting-plate retention spots and Dimensions



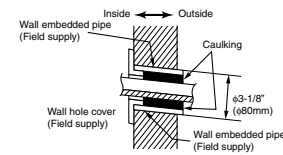
\* The removed pipe port cover can be kept in the mounting plate pocket.



## Indoor Unit Installation (2)

### 2. Boring a wall hole and installing wall embedded pipe.

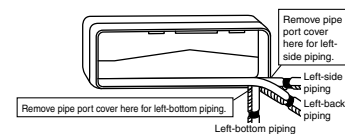
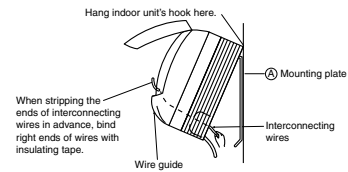
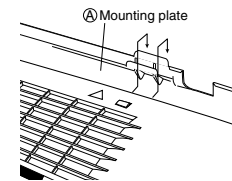
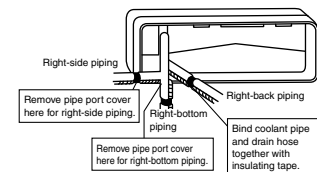
- For walls containing metal frame or metal board, be sure to use a wall embedded pipe and wall cover in the feed-through hole to prevent possible heat, electrical shock, or fire.
  - Be sure to caulk the gaps around the pipes with caulking material to prevent water leakage.
- Bore a feed-through hole of 3-1/8 inch (80mm) in the wall so it has a down slope toward the outside.
  - Insert a wall pipe into the hole.
  - Insert a wall cover into wall pipe.
  - After completing refrigerant piping, wiring, and drain piping, caulk pipe hole gap with putty.



### 3. Installing indoor unit.

#### 3-1. Right-side, right-back, or right-bottom piping.

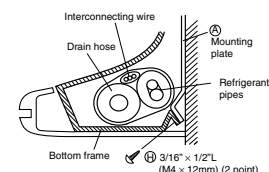
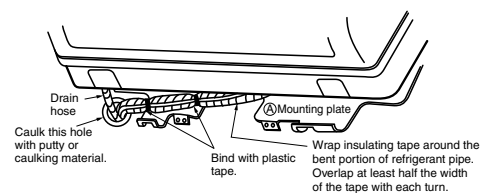
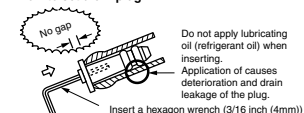
- Attach the drain hose to the underside of the refrigerant pipes with adhesive vinyl tape.
- Wrap the refrigerant pipes and drain hose together with insulation tape.
- Pass the drain hose and refrigerant pipes through the wall hole, then set the indoor unit on the mounting plate hooks by using the  $\Delta$  markings at the top of the indoor unit as a guide.
- Open the front panel, then open the service lid. Refer to Installation Tips.
- Pass the interconnecting wires from the outdoor unit through the feed-through wall hole and then through the back of the indoor unit. Pull them through the front side. Bend the ends of tie wires upward in advance for easier work. (If the interconnecting wire ends are to be stripped first, bundle wire ends with adhesive tape.)
- Press the indoor unit's bottom panel with both hands to set it on the mounting plate hooks. Make sure the wires do not catch on the edge of the indoor unit.



#### 3-2. Left-side, left-back, or left-bottom piping.

- Attach the drain hose to the underside of the refrigerant pipes with adhesive vinyl tape.
- Be sure to connect the drain hose to the drain port in place of a drain plug.
- Shape the refrigerant pipe along the pipe path marking on the mounting plate.
- Pass drain hose and refrigerant pipes through the wall hole, then set the indoor unit on mounting plate hooks, using the  $\Delta$  markings at the top of indoor unit as a guide.
- Pull in the interconnecting wires.
- Connect the inter-unit piping.
- Wrap the refrigerant pipes and drain hose together with insulation tape as right figure, in case of setting the drain hose through the back of the indoor unit.
- While exercising care so that the interconnecting wires do not catch indoor unit, press the bottom edge of indoor unit with both hands until it is firmly caught by the mounting plate hooks. Secure indoor unit to the mounting plate with the screws (3/16" x 1/2" L (M4 x 12mm)).

#### How to set drain plug



## Indoor Unit Installation (3)

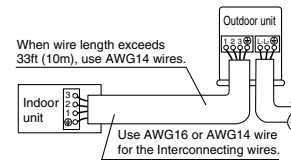
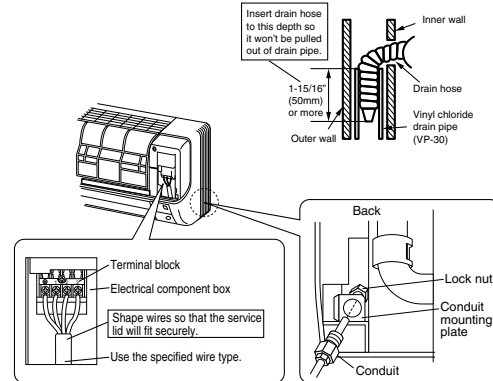
### 3-3. Wall embedded piping.

- Insert the drain hose to this depth so it won't be pulled out of the drain pipe.

### 4. Wiring.

**With a Multi indoor unit**, install as described in the installation manual supplied with the Multi outdoor unit.

- 1) Strip wire ends. (9/16 inch (15mm))
- 2) Match wire colors with terminal numbers on indoor and outdoor unit's terminal blocks and firmly screw wires to the corresponding terminals.
- 3) Connect the ground wires to the corresponding terminals.
- 4) Pull wires to make sure that they are securely latched up.
- 5) In case of connecting to an adapter system. Run the remote controller cable and attach the S21 connector as the illustration above.
- 6) Shape the wires so that the service lid fits securely, then close service lid.

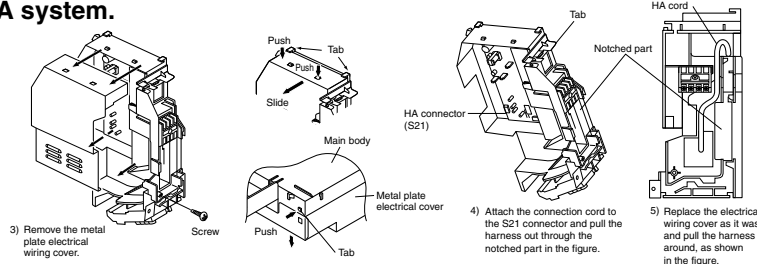


### **⚠ WARNING**

- 1) Do not use spliced wires, stranded wires, extension cords, or starburst connections, as they may cause overheating, electrical shock, or fire. Follow all Local, and State electrical codes.
- 2) Do not use locally purchased electrical parts inside the product. (Do not overload the circuit by adding drain pump or other electrical equipment to unit terminals.) Doing so may cause electric shock or fire.
- 3) When carrying out wiring connection, take care not to pull at the conduit.
- 4) Do not connect the power wire to the indoor unit. Doing so may cause electric shock or fire.

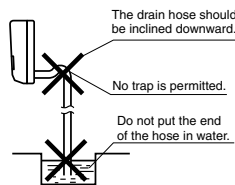
### 5. When connecting to an HA system.

- 1) Remove the front grille. (2 screws)
- 2) Remove the electrical wiring box. (1 screw)
- 3) Remove the metal plate electrical wiring cover. (4 tabs)
- 4) Attach the connection cord to the S21 connector and pull the harness out through the notched part in the figure.
- 5) Replace the electrical wiring cover as it was, and pull the harness around, as shown in the figure.

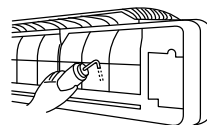


### 6. Drain piping.

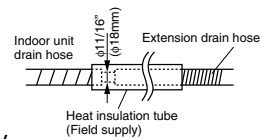
- 1) Connect the drain hose, as described right.



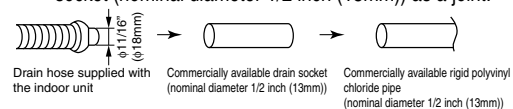
- 2) Remove the air filters and pour some water into the drain pan to check the water flows smoothly.



- 3) If the drain hose requires an extension, procure one locally. Be sure to thermally insulate the indoor section of the extension hose.



- 4) When connecting a rigid polyvinyl chloride pipe (nominal diameter 1/2 inch (13mm)) directly to the drain hose attached to the indoor unit as with embedded piping work, use any commercially available drain socket (nominal diameter 1/2 inch (13mm)) as a joint.

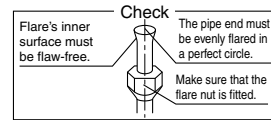
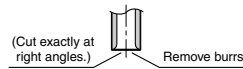




# Refrigerant Piping Work

## 1. Flaring the pipe end.

- 1) Cut the pipe end with a pipe cutter.
- 2) Remove burrs with the cut surface facing downward so that the chips do not enter the pipe.
- 3) Put the flare nut on the pipe.
- 4) Flare the pipe.
- 5) Check that the flaring is properly made.



Set exactly at the position shown below.

Flaring		Conventional flare tool	
Flare tool for R410A		Clutch-type (Rigid-type)	Wing-nut type (Imperial-type)
	Clutch-type		
A	0-0.020 inch (0-0.5mm)	0.039-0.059 inch (1.0-1.5mm)	0.059-0.079 inch (1.5-2.0mm)

### ⚠ WARNING

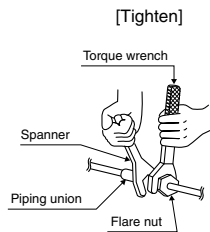
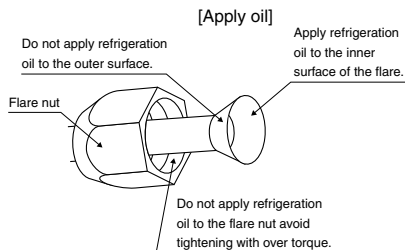
- 1) Do not use mineral oil on flared part.
- 2) Prevent mineral oil from getting into the system as this would reduce the unit life.
- 3) Never use piping which has been used for previous installations. Only use parts which are provided with the unit.
- 4) Do never install a refrigerant drier to this unit.
- 5) The drying material may dissolve and damage the system.
- 6) Incomplete or improper flaring may cause refrigerant gas leakage.

## 2. Refrigerant piping.

### ⚠ CAUTION

- 1) Use the flare nut fixed to the main unit to prevent deterioration and cracking from age.
- 2) To prevent gas leakage, apply refrigeration oil only to the inner surface of the flare. (Use refrigeration oil for R410A.)
- 3) Use torque wrenches when tightening the flare nuts to prevent damage to the flare nuts and gas leakage.

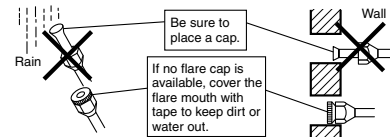
Align the centers of both flares and tighten the flare nuts 3 or 4 turns by hand. Then tighten them fully with the torque wrenches.



Flare nut tightening torque	
Gas side	Liquid side
3/8 inch (9.5mm)	1/4 inch (6.4mm)
24.1 - 29.4ft • lbf (32.7 - 39.9N • m)	10.4 - 12.7ft • lbf (14.2 - 17.2N • m)

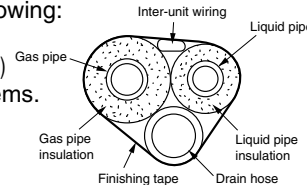
### 2-1. Caution on piping handling

- 1) Protect the open end of the pipe against dust and moisture.
- 2) All pipe bends should be as gentle as possible. Use a pipe bender for bending.



### 2-2. Selection of copper and heat insulation materials

- When using commercial copper pipes and fittings, observe the following:
  - 1) Insulation material: Polyethylene foam  
Heat transfer rate: 0.041 to 0.052 W/mK (0.024 to 0.030 Btu/ft<sup>2</sup>•F (0.035 to 0.045kcal/mh<sup>2</sup>•C))  
Be sure to use insulation that is designed for use with HVAC Systems.



- 2) Be sure to insulate both the gas and liquid piping and to provide insulation dimensions as below.

Gas side	Liquid side	Gas pipe thermal insulation	Liquid pipe thermal insulation
O.D. 3/8 inch (9.5mm)	O.D. 1/4 inch (6.4mm)	I.D. 0.427 - 0.590 inch (12 - 15mm)	I.D. 0.315 - 0.393 inch (8- 10mm)
Minimum bend radius		Thickness 0.393 inch (8mm) Min.	
1-3/16 inch (30mm) or more			
Thickness 0.031 inch (0.8mm) (C1220T-O)			

- 3) Use separate thermal insulation pipes for gas and liquid refrigerant pipes.

## Run Test and Final Check

### 1. Trial operation and testing.

- 1-1 Measure the supply voltage and make sure that it falls in the specified range.
- 1-2 Trial operation should be carried out in either cooling or heating mode.
  - In cooling mode, select the lowest programmable temperature; in heating mode, select the highest programmable temperature.
    - 1) Trial operation may be disabled in either mode depending on the room temperature. Use the remote controller for trial operation as described below.
    - 2) After trial operation is complete, set the temperature to a normal level (78°F to 82°F (26°C to 28°C) in cooling mode, 68°F to 75°F (20°C to 24°C) in heating mode).
    - 3) For protection, the unit disables restart operation for 3 minutes after it is turned off.
- 1-3 Carry out the test operation in accordance with the Operation Manual to ensure that all functions and parts, are working properly.
  - The air conditioner requires a small amount of power in its standby mode. If the system is not to be used for some time after installation, shut off the circuit breaker to eliminate unnecessary power consumption.
  - If the circuit breaker trips to shut off the power to the air conditioner, the system will restore the original operation mode when the circuit breaker is opened again.

Trial operation from remote controller.
1) Press the MODE button and select the trial operation mode. 2) Press ON/OFF button to turn on the system. 3) Simultaneously press MODE button and both of the TEMP buttons. 4) Press MODE button twice. (“T” will appear on the display to indicate that Trial Operation mode is selected.) 5) Trial run mode terminates in approx. 30 minutes and switches into normal mode. To quit a trial operation, press ON/OFF button.

### 2. Test items.

Test items	Symptom	Check
Indoor and outdoor units are installed properly on solid bases.	Fall, vibration, noise	
No refrigerant gas leaks.	Incomplete cooling/heating function	
Refrigerant gas and liquid pipes and indoor drain hose extension are thermally insulated.	Water leakage	
Drain line is properly installed.	Water leakage	
System is properly grounded.	Electrical leakage	
The specified wires are used for interconnecting wire connections.	Inoperative or burn damage	
Indoor or outdoor unit's air intake or exhaust has clear path of air. Stop valves are opened.	Incomplete cooling/heating function	
Indoor unit properly receives remote controller commands.	Inoperative	

### 3.4 FTXS15/18/24LVJU

## Accessories

**Indoor unit** (A) – (M)

(A) Mounting plate	1	(E) Remote controller holder	1	(J) Tube	1
(B) Mounting plate fixing screw 3/16" × 1" (M4 × 25mm)	9	(F) Fixing screw for remote controller holder 1/8" × 13/16" (M3 × 20mm)	2	(K) Operation manual	1
(C) Titanium apatite photocatalytic air-purifying filter	2	(G) Dry battery AAA. LR03 (alkaline)	2	(L) Installation manual	1
(D) Wireless remote controller	1	(H) Indoor unit fixing screw 3/16" × 1/2" (M4 × 12mm)	2	(M) Screw cover	3

## Choosing an Installation Site

- Before choosing the installation site, obtain user approval.

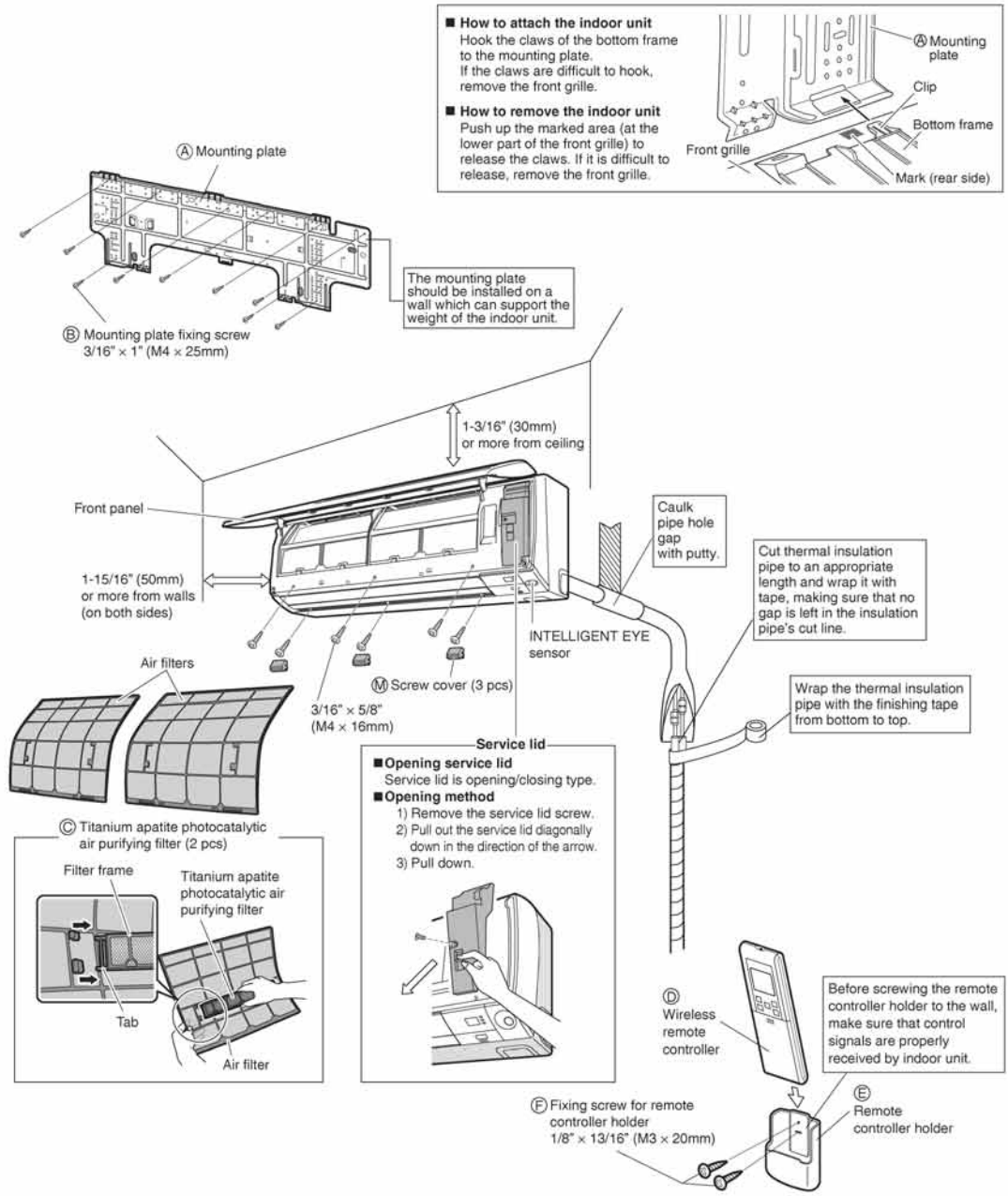
### 1. Indoor unit

- The indoor unit should be sited in a place where:
  - 1) the restrictions on installation specified in the indoor unit installation drawings are met
  - 2) both air inlet and air outlet have clear paths met
  - 3) the unit is not in the path of direct sunlight
  - 4) the unit is away from the source of heat or steam
  - 5) there is no source of machine oil vapor (this may shorten indoor unit life)
  - 6) cool (warm) air is circulated throughout the room
  - 7) the unit is away from electronic ignition type fluorescent lamps (inverter or rapid start type) as they may shorten the remote controller range
  - 8) the unit is at least 3.5ft (1m) away from any television or radio set (unit may cause interference with the picture or sound)
  - 9) install at the recommended height 6ft (1.8m)
  - 10) no laundry equipment is located in the space

### 2. Wireless remote controller

- 1) Turn on all the fluorescent lamps in the room, if any, and find the site where remote control signals are properly received by the indoor unit (within 23ft/7m).

# Indoor Unit Installation Drawings



## INTELLIGENT EYE sensor

**⚠ CAUTION**

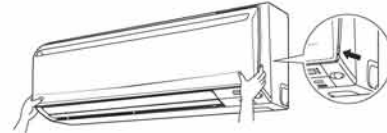
- Do not hit or forcefully push the INTELLIGENT EYE sensor. This can lead to damage and malfunction.
- Do not place large objects near the sensor. Keep heating units or humidifiers outside the sensor's detection area.

# Preparation before Installation

## 1. Removing and installing front panel

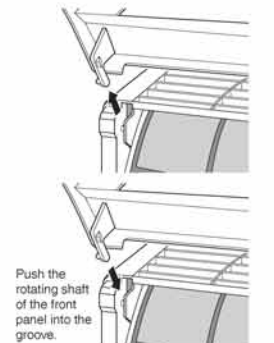
### • Removal method

Hook fingers on the tabs on the left and right of the main body, and open until the panel stops. Slide the front panel sideways to disengage the rotating shaft. Then pull the front panel toward you to remove it.



### • Installation method

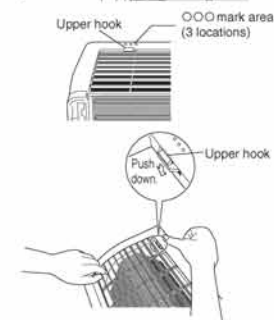
Align the tabs of the front panel with the grooves, and push all the way in. Then close slowly. Push the center of the lower surface of the panel firmly to engage the tabs.



## 2. Removing and installing front grille

### • Removal method

- 1) Remove front panel to remove the air filter.
- 2) Remove 6 screws from the front grille.
- 3) In front of the ○○○ mark of the front grille, there are 3 upper hooks. Lightly pull the front grille toward you with one hand, and push down on the hooks with the fingers of your other hand.



## When there is no work space because the unit is close to ceiling

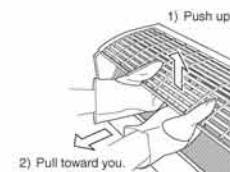
### ⚠ CAUTION

- Be sure to wear protection gloves.

Place both hands under the center of the front grille, and while pushing up, pull it toward you.

### • Installation method

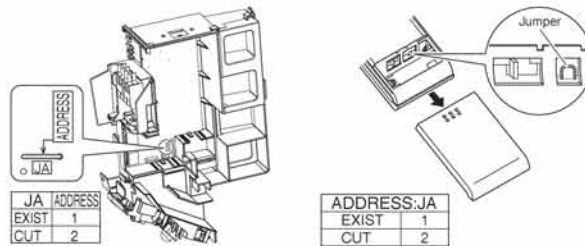
- 1) Install the front grille and firmly engage the upper hooks (3 locations).
- 2) Install 6 screws of the front grille.
- 3) Install the air filter and then mount the front panel.



### 3. How to set the different addresses

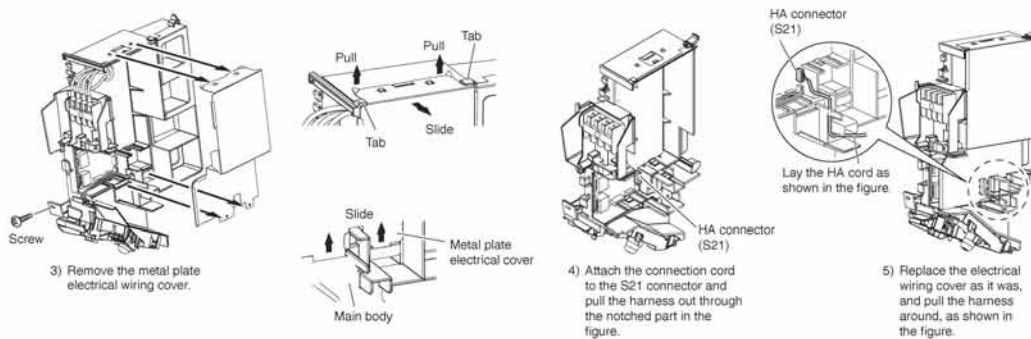
When 2 indoor units are installed in one room, the 2 wireless remote controllers can be set for different addresses.

- 1) Remove the metal plate electrical wiring cover.  
(Refer to the **When connecting to an HA system.**)
- 2) Cut the address jumper (JA) on the printed circuit board.
- 3) Cut the address jumper (JA) in the remote controller.



### 4. When connecting to an HA system (wired remote controller, central remote controller etc.)

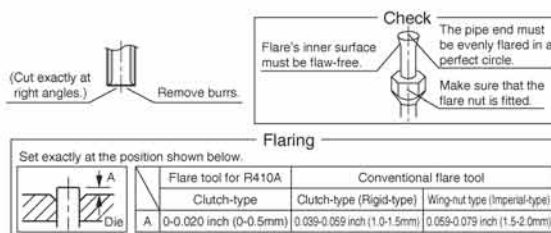
- 1) Remove the front grille. (6 screws)
- 2) Remove the electrical wiring box. (1 screw)
- 3) Remove the metal plate electrical wiring cover. (4 tabs)
- 4) Attach the connection cord to the S21 connector and pull the harness out through the notched part in the figure.
- 5) Replace the electrical wiring cover as it was, and pull the harness around, as shown in the figure.



## Refrigerant Piping Work

### 1. Flaring the pipe end

- 1) Cut the pipe end with a pipe cutter.
- 2) Remove burrs with the cut surface facing downward so that the chips do not enter the pipe.
- 3) Put the flare nut on the pipe.
- 4) Flare the pipe.
- 5) Check that the flaring is properly made.



#### **⚠ WARNING**

- Do not use mineral oil on flared part.
- Prevent mineral oil from getting into the system as this would reduce the lifetime of the units.
- Never use piping which has been used for previous installations. Only use parts which are delivered with the unit.
- Never install a drier to this R410A unit in order to guarantee its lifetime.
- The drying material may dissolve and damage the system.
- Incomplete flaring may cause refrigerant gas leakage.

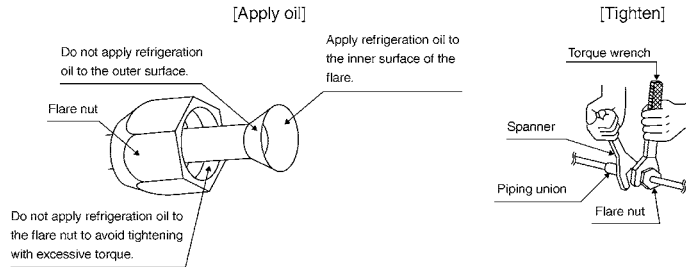
# Refrigerant Piping Work

## 2. Refrigerant piping

### ⚠ CAUTION

- Use the flare nut fixed to the main unit to prevent it from cracking and deteriorating from age.
- To prevent gas leakage, apply refrigeration oil only to the inner surface of the flare. (Use refrigeration oil for R410A.)
- Use torque wrenches when tightening the flare nuts to prevent damage to the flare nuts and gas leakage.

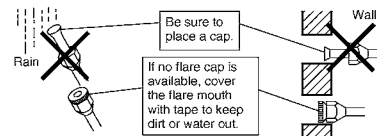
Align the centers of both flares and tighten the flare nuts 3 or 4 turns by hand. Then tighten them fully with the torque wrenches.



Flare nut tightening torque		
Gas side		Liquid side
15,18 class	24 class	
1/2 inch (12.7mm)	5/8 inch (15.9mm)	1/4 inch (6.4mm)
36.5-44.5ft • lbf (49.5-60.3N • m)	45.6-55.6ft • lbf (61.8-75.4N • m)	10.4-12.7ft • lbf (14.2-17.2N • m)

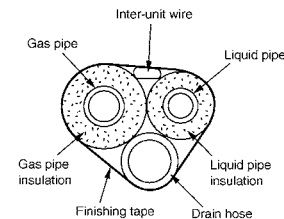
### 2-1. Caution on piping handling

- 1) Protect the open end of the pipe against dust and moisture.
- 2) All pipe bends should be as gentle as possible. Use a pipe bender for bending.



### 2-2. Selection of copper and heat insulation materials

- When using commercial copper pipes and fittings, observe the following:
- 1) Insulation material: Polyethylene foam  
Heat transfer rate: 0.041 to 0.052W/mK (0.024 to 0.030Btu/ft<sup>2</sup>h°F (0.035 to 0.045kcal/mh°C))  
Be sure to use insulation that is designed for use with HVAC Systems.



- 2) Be sure to insulate both the gas and liquid piping and to provide insulation dimensions as below.

Gas side		Liquid side	Gas pipe thermal insulation		Liquid pipe thermal insulation
15,18 class	24 class		15,18 class	24 class	
O.D. 1/2 inch (12.7mm)	O.D. 5/8 inch (15.9mm)	O.D. 1/4 inch (6.4mm)	I.D. 9/16-5/8 inch (14-16mm)	I.D. 5/8-25/32 inch (16-20mm)	I.D. 5/16-13/32 inch (8-10mm)
Minimum bend radius			Thickness 13/32 inch (10mm) Min.		
1-9/16 inch (40mm) or more		1-3/16 inch (30mm) or more			
Thickness 0.031 inch (0.8mm) (C1220T-O)					

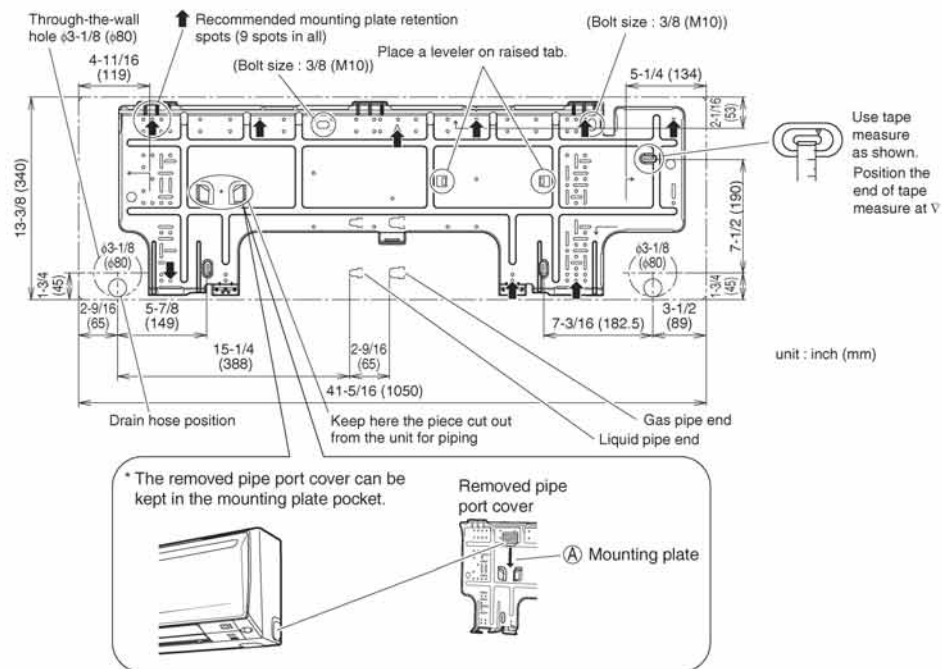
- 3) Use separate thermal insulation pipes for gas and liquid refrigerant pipes.

# Indoor Unit Installation

## 1. Installing the mounting plate

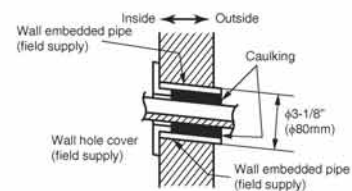
- The mounting plate should be installed on a wall which can support the weight of the indoor unit.
  - Temporarily secure the mounting plate to the wall, make sure that the plate is completely level, and mark the boring points on the wall.
  - Secure the mounting plate to the wall with screws.

### Recommended mounting plate retention spots and dimensions



## 2. Boring a wall hole and installing wall embedded pipe

- For walls containing metal frame or metal board, be sure to use a wall embedded pipe and wall cover in the feed-through hole to prevent possible heat, electrical shock, or fire.
- Be sure to caulk the gaps around the pipes with caulking material to prevent water leakage.
  - Bore a feed-through hole of 3-1/8 inch (80mm) in the wall so it has a down slope toward the outside.
  - Insert a wall pipe into the hole.
  - Insert a wall cover into wall pipe.
  - After completing refrigerant piping, wiring, and drain piping, caulk pipe hole gap with putty.



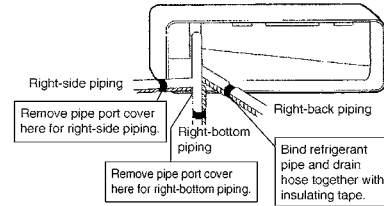


# Indoor Unit Installation

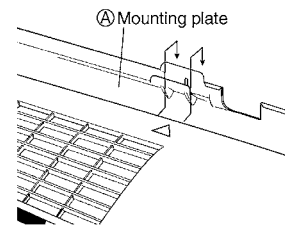
## 3. Laying piping, hoses, and wiring

### 3-1. Right-side, right-back, or right-bottom piping

- 1) Attach the drain hose to the underside of the refrigerant pipes with an adhesive vinyl tape.
- 2) Wrap the refrigerant pipes and drain hose together with insulation tape.

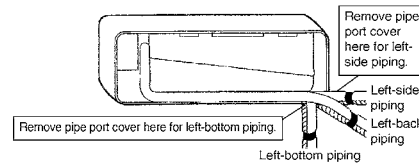


- 3) Pass the drain hose and refrigerant pipes through the wall hole, then set the indoor unit on the mounting plate hooks by using the  $\Delta$  markings at the top of the indoor unit as a guide.



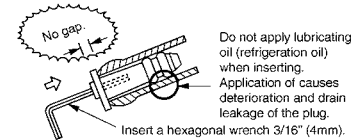
### 3-2. Left-side, left-back, or left-bottom piping

- 1) Replace the drain plug and drain hose.
- 2) Attach the drain hose to the underside of the refrigerant pipes with adhesive vinyl tape.

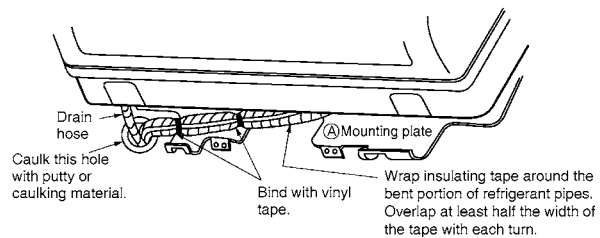


- 3) Be sure to connect the drain hose to the drain port in place of a drain plug.

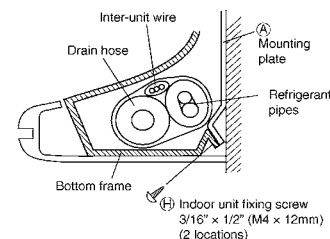
#### How to set drain plug.



- 4) Shape the refrigerant pipes along the pipe path marking on the mounting plate.
- 5) Pass drain hose and refrigerant pipes through the wall hole, then set the indoor unit on mounting plate hooks, using the  $\Delta$  markings at the top of indoor unit as a guide.
- 6) Pull in the inter-unit wire.
- 7) Connect the inter-unit pipes.

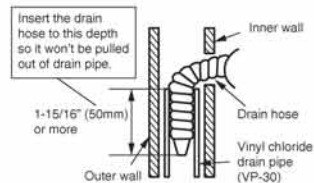


- 8) Wrap the refrigerant pipes and drain hose together with insulation tape as right figure, in case of setting the drain hose through the back of the indoor unit.
- 9) While exercising care so that the inter-unit wire do not catch indoor unit, press the bottom edge of indoor unit with both hands until it is firmly caught by the mounting plate hooks. Secure indoor unit to the mounting plate with indoor unit fixing screws 3/16" x 1/2" (M4 x 12mm).



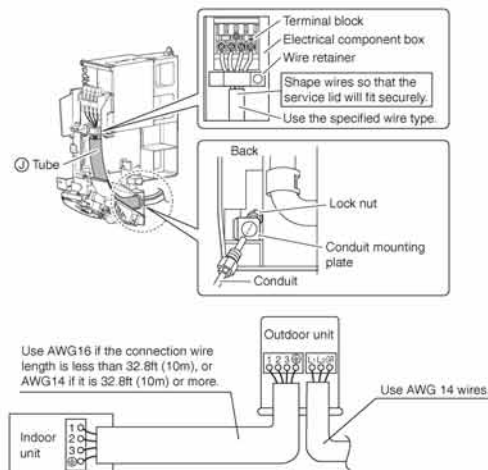
### 3-3. Wall embedded piping

- Insert the drain hose to this depth so it won't be pulled out of the drain pipe.



## 4. Wiring

- 1) As shown in the illustration on the right-hand side, insert the wires including the ground wire into the conduit and secure them with lock nut onto the conduit mounting plate.
- 2) Insert the wires including the ground wire into (J) tube.
- 3) Strip wire ends (9/16 inch (15mm)).
- 4) Match wire colors with terminal numbers on indoor and outdoor unit's terminal blocks and firmly screw wires to the corresponding terminals.
- 5) Connect the ground wires to the corresponding terminals.
- 6) Pull the wires and check that the wires are securely fixed to the terminal block.
- 7) In case of connecting to an adapter system, run the remote controller cable and attach the S21. (Refer to P5 when connecting to an HA system.)
- 8) Shape the wires so that the service lid fits securely, then close service lid.



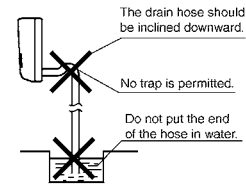
### ⚠ WARNING

- Do not use tapped wires, stranded wires, extension cords, or starburst connections, as they may cause overheating, electrical shock, or fire.
- Do not use locally purchased electrical parts inside the product. (Do not branch the power for the drain pump, etc., from the terminal block.) Doing so may cause electric shock or fire.
- When carrying out wiring connection, take care not to pull at the conduit.
- Do not connect the power wire to the indoor unit. Doing so may cause electric shock or fire.

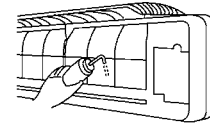
# Indoor Unit Installation

## 5. Drain piping

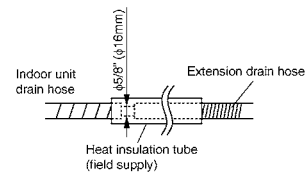
1) Connect the drain hose, as described right.



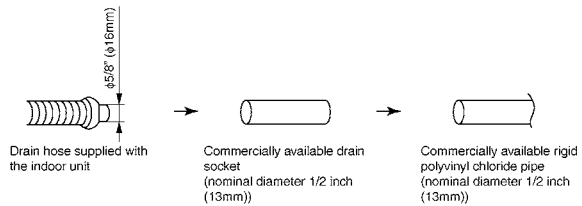
2) Remove the air filters and pour some water into the drain pan to check the water flows smoothly.



3) When drain hose requires extension, obtain an extension hose commercially available.  
Be sure to thermally insulate the indoor section of the extension hose.



4) When connecting a rigid polyvinyl chloride pipe (nominal diameter 1/2 inch (13mm)) directly to the drain hose attached to the indoor unit as with embedded piping work, use any commercially available drain socket (nominal diameter 1/2 inch (13mm)) as a joint.



# Trial Operation and Testing

## 1. Trial operation and testing

- 1-1 Measure the supply voltage and make sure that it falls in the specified range.
- 1-2 Trial operation should be carried out in either cooling or heating mode.
- In cooling mode, select the lowest programmable temperature; in heating mode, select the highest programmable temperature.
    - 1) Trial operation may be disabled in either mode depending on the room temperature. Use the remote controller for trial operation as described below.
    - 2) After trial operation is complete, set the temperature to a normal level (78°F to 82°F (26°C to 28°C) in cooling mode, 68°F to 75°F (20°C to 24°C) in heating mode).
    - 3) For protection, the system disables restart operation for 3 minutes after it is turned off.
- 1-3 Carry out the test operation in accordance with the operation manual to ensure that all functions and parts, such as fin movement, are working properly.
- The air conditioner requires a small amount of power in its standby mode. If the system is not to be used for some time after installation, shut off the circuit breaker to eliminate unnecessary power consumption.
  - If the circuit breaker trips to shut off the power to the air conditioner, the system will restore the original operation mode when the circuit breaker is opened again.

### Trial operation from remote controller

- 1) Press "ON/OFF" button to turn on the system.
- 2) Press "TEMP" button (2 locations) and "MODE" button at the same time.
- 3) Press "MODE" button twice.  
(“ ? ” will appear on the display to indicate that trial operation mode is selected.)
- 4) Trial operation terminates in approx. 30 minutes and switches into normal mode. To quit a trial operation, press "ON/OFF" button.

























## 2. Test items

Test items	Symptom (diagnostic display on RC)	Check
Indoor and outdoor units are installed properly on solid bases.	Fall, vibration, noise	
No refrigerant gas leaks.	Incomplete cooling/heating function	
Refrigerant gas and liquid pipes and indoor drain hose extension are thermally insulated.	Water leakage	
Draining line is properly installed.	Water leakage	
System is properly grounded.	Electrical leakage	
The specified wires are used for inter-unit wiring.	Inoperative or burn damage	
Indoor or outdoor unit's air inlet or air outlet has clear path of air. Stop valves are opened.	Incomplete cooling/heating function	
Indoor unit properly receives remote control commands.	Inoperative	
The heat pump or cooling only mode is selectable with the DIP switch of the remote controller.	Remote controller malfunctioning	

C: 3P297301-2

### 3.5 FDXS09/12LVJU, CDXS15/18/24LVJU

# Accessories

Clamp metal	Insulation for fitting	Sealing pad			Drain hose	Washer for hanger bracket	Sealing material	Clamp	Washer fixing plate	Screws for duct flanges
1 pc.	1 each	Large and small 1 each	3 pcs. (only for CDXS)	1 pc.	1 pc.	8 pcs.	2 pcs.	6 pcs.	1 set	1 set
	 for gas pipe  for liquid pipe	 Large  Small	 2 large  1 small Stored in outlet vent	 Hanger (right) insulation				 One is spare	 4 pcs.	 24 pcs.
Conduit mounting plate	Screws for conduit mounting plate	Insulation tube	Air filter	Wireless remote controller	Remote controller holder	Dry battery AAA, LR03 (alkaline)	Receiver kit			
1 pc.	2 pcs.	1 pc.	1 pc.	1 pc.	1 pc.	1 set	1 pc.	1 pc.	2 pcs.	
						 2 pcs.	 Mounting frame	 Decorative cover	 Screws M4 x 25	
[ Other ]	• Operation manual		• Installation manual							

# Choosing an Installation Site

- Before choosing the installation site, obtain user approval.

## 1. Indoor unit

### ⚠ CAUTION

- When moving the unit during or after unpacking, make sure to lift it by holding its lifting lugs. Do not exert any pressure on other parts, especially the refrigerant piping, drain piping and flange parts. Wear protective gear (such as gloves) when installing the unit.
- If you think the humidity inside the ceiling might exceed 86°F (30°C) and RH80%, reinforce the insulation on the unit body. Use glass wool or polyethylene foam as insulation so that the thickness is more than 0.4in (10mm) and fits inside the ceiling opening.

- Optimum air distribution is ensured.
- The air passage is not blocked.
- Condensate can drain properly.
- The ceiling is strong enough to bear the weight of the indoor unit.
- A false ceiling does not seem to be at an incline.
- Sufficient clearance for maintenance and servicing is ensured.
- Piping between the indoor and outdoor units is within the allowable limits. (Refer to the installation manual for the outdoor unit.)
- The indoor unit, outdoor unit, power supply wiring and transmission wiring is at least 3.3ft (1m) away from televisions and radios. This prevents image interference and noise in electrical appliances. (Noise may be generated depending on the conditions under which the electric wave is generated, even if a 3.3ft (1m) allowance is maintained.)

- **Use suspension bolts to install the unit. Check whether or not the ceiling is strong enough to support the weight of the unit. If there is a risk that the ceiling is not strong enough, reinforce the ceiling before installing the unit.**

(Installation pitch is marked on the carton box for installation. Refer to it to check for points requiring reinforcing.) Select the "H" dimension such that a downward slope of at least 1/100 is ensured as indicated in "Drain Piping Work".

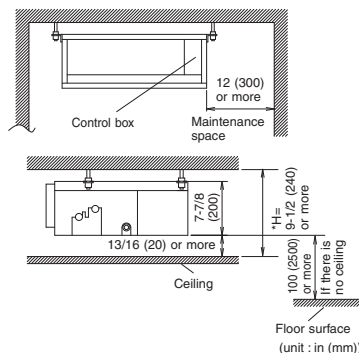
- The installation pitch is listed on the packing material, and should be checked when deciding whether to reinforce the location or not.

- **Select the signal receiver mounting location according to the following conditions:**

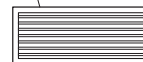
- Install the signal receiver, which has a built-in temperature sensor, near the intake vent where there is convection of air and it can get an accurate reading of the room's temperature. If the intake vent is in another room or the unit cannot be installed near the intake vent for any other reason, install it 5ft (1.5m) above the floor on a wall where there is convection.
- In order to get an accurate reading of the room's temperature, install the signal receiver in a location where it is not exposed directly to cold or hot air from the air discharge grille or to direct sunlight.
- Since the receiver has a built-in light receptor to receive signals from the wireless remote controller, do not mount it in a location where the signal may be blocked by a curtain, etc.

### ⚠ CAUTION

If the signal receiver is not installed in a location where there is convection of air, it may be unable to get an accurate reading of the room's temperature.



Air outlet grille:  
Wooden or plastic grille is recommended because condensation may occur depending on humidity conditions.



# Choosing an Installation Site

## 2. Wireless remote controller

- Turn on all the fluorescent lamps in the room, if any, and find the site where remote controller signals are properly received by the indoor unit (within 13ft (4m)).

## 3. Outdoor unit

- For outdoor unit installation, see the installation manual supplied with the outdoor unit.

# Preparations before Installation

### ■ Relation of the unit to the suspension bolt positions.

- Install the inspection opening on the control box side where maintenance and inspection of the control box are easy. Install the inspection opening also in the lower part of the unit.

### ■ Make sure the range of the unit's external static pressure is not exceeded.

(See the technical documentation for the range of the external static pressure setting.)

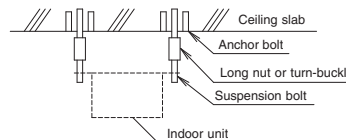
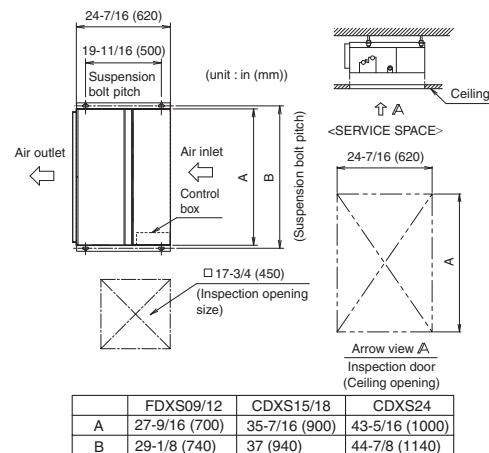
### ■ Open the installation hole. (Pre-set ceilings)

- Once the installation hole is opened in the ceiling where the unit is to be installed, pass refrigerant piping, drain piping, transmission wiring, and remote controller wiring (unnecessary if using a wireless remote controller) to the unit's piping and wiring holes. See "Refrigerant Piping Work", "Drain Piping Work", and "Wiring".
- After opening the ceiling hole, make sure ceiling is level if needed. It might be necessary to reinforce the ceiling frame to prevent shaking. Consult an architect or carpenter for details.

### ■ Install the suspension bolts.

(Use W3/8 to M10 suspension bolts.)

- Use a hole-in-anchor, sunken insert, sunken anchor for existing ceilings, and a sunken insert, sunken anchor or other part to be procured in the field to reinforce the ceiling to bearing the weight of the unit. (Refer to Fig.)

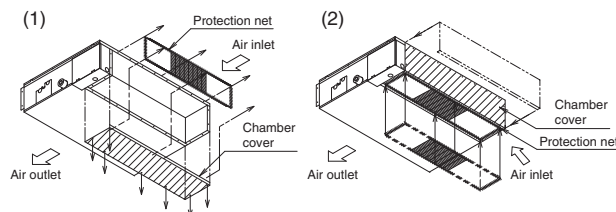


Note: All the above parts are field supplied.

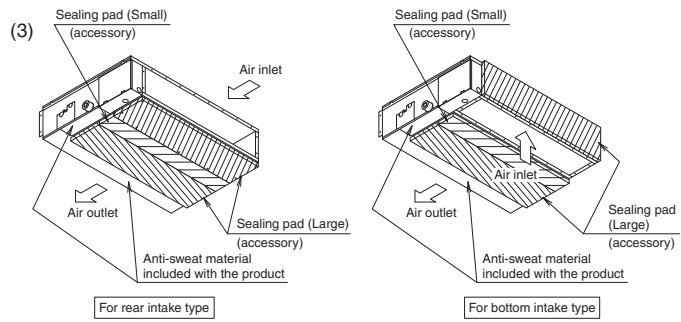
### ■ Mount chamber cover and air filter (accessory).

For bottom intake, replace the chamber cover and the protection net in the procedure listed in Fig.

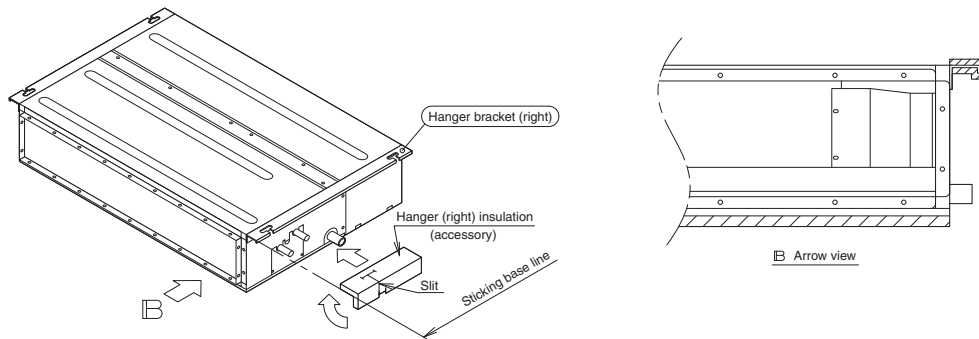
- (1) Remove the protection net. (6 locations)  
Remove the chamber cover. (7 locations)
- (2) Reattach the removed chamber cover in the orientation shown in Fig. (7 locations)  
Reattach the removed protection net in the orientation shown in Fig. (6 locations)  
Refer to Fig. for the direction of the protection net.



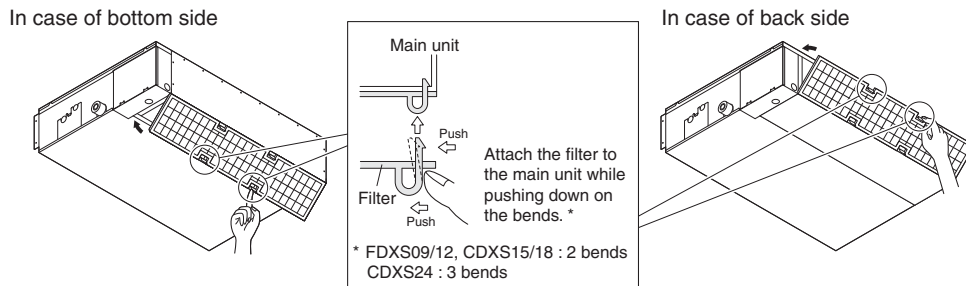
- (3) Attach sealing pad as shown in the right figure. (Stored in outlet vent) (only for CDXS)  
 (In order to take in the air inside the ceiling, and when not taking in air from outdoor air, it is not necessary to stick.)
- Attach the sealing pad (accessory) to the plate metal sections which are not covered by anti-sweat material.
  - Make sure there are no gaps between the different pieces of sealing pad.



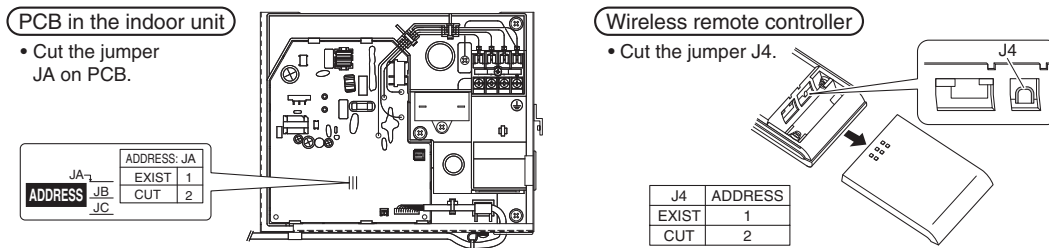
- (4) Attach the hanger (right) insulation to the right hanger. (Stored in outlet vent)  
 (See the below figure for the sticking base line.)



- (5) Attach the air filter (accessory) in the manner shown in the diagram.



■ When two indoor units are installed in one room, one of the two wireless remote controllers can be easily set for another addresses.





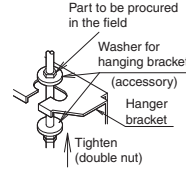
# Indoor Unit Installation

<< As for the parts to be used for installation work, be sure to use the provided accessories and specified parts designated by our company. >>

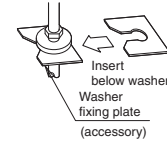
■ **Install the indoor unit temporarily.**

- Attach the hanger bracket to the suspension bolt. Be sure to fix it securely by using a nut and washer from the upper and lower sides of the hanger bracket. (Refer to Fig.)

[ Securing the hanger bracket ]



[ How to secure washers ]

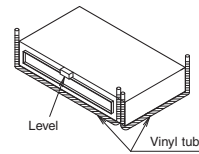


[ PRECAUTION ]

Since the unit uses a plastic drain pan, prevent welding spatter and other foreign substances from entering the outlet hole during installation.

■ **Adjust the height of the unit.**

■ **Check the unit is horizontally level.**



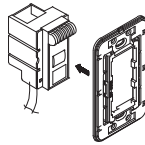
**CAUTION**

- Make sure the unit is installed level using a level or a plastic tube filled with water. In using a plastic tube instead of a level, adjust the top surface of the unit to the surface of the water at both ends of the plastic tube and adjust the unit horizontally. (One thing to watch out for in particular is if it is installed so that the slope is not in the direction of the drain piping, as this might cause leaking.)

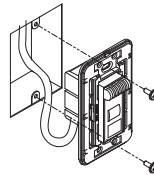
■ **Tighten the upper nut.**

■ **Mounting the receiver.**

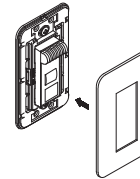
Mount the receiver as shown below.



① Press the receiver into the mounting frame.



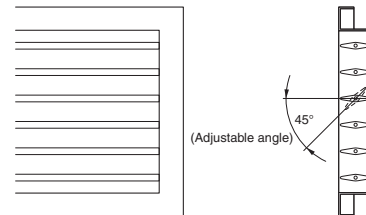
② Mount the completed assembly using two screws.



③ Press the decorative cover into the mounting frame.

Note) Mount the Remote controller cord far enough away from strong electrical wires (such as distribution wires for electrical lights, air conditioners, etc.) and from weak electrical wires (such as wires for telephones, intercoms, etc.).

For heat pump: If your feet feel cold when using the heating function, it is recommended that the air outlet grille shown at below be attached.



# Outdoor unit Installation

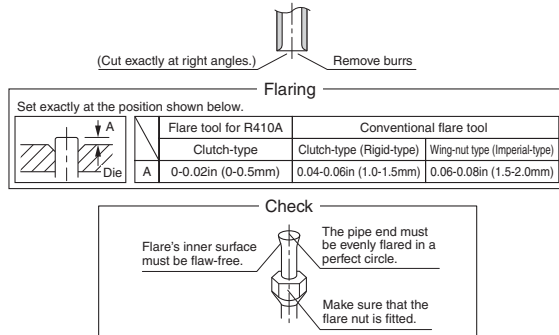
Install as described in the installation manual supplied with the outdoor unit.

# Refrigerant Piping Work

See the installation manual supplied with the outdoor unit.

## 1. Flaring the pipe end

- 1) Cut the pipe end with a pipe cutter.
- 2) Remove burrs with the cut surface facing downward so that the chips do not enter the pipe.
- 3) Put the flare nut on the pipe.
- 4) Flare the pipe.
- 5) Check that the flaring is properly made.



### ⚠ WARNING

- Do not use mineral oil on flared part.
- Prevent mineral oil from getting into the system as this would reduce the lifetime of the units.
- Never use piping which has been used for previous installations. Only use parts which are delivered with the unit.
- Never install a drier to this R410A unit in order to guarantee its lifetime.
- The drying material may dissolve and damage the system. Incomplete flaring may cause refrigerant gas leakage.

## 2. Refrigerant piping

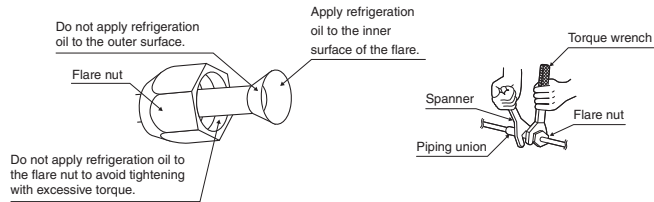
- 1) To prevent gas leakage, apply refrigeration machine oil to the inner surface of the flare. (Use refrigeration oil for R410A)
- 2) Align the centers of both flares and tighten the flare nuts 3 or 4 turns by hand. Then tighten them fully with the torque wrenches.
  - Use torque wrenches when tightening the flare nuts to prevent damage to the flare nuts and escaping gas.

Flare nut tightening torque			
Gas side		Liquid side	
3/8 inch (9.5mm)	1/2 inch (12.7mm)	5/8 inch (15.9mm)	1/4 inch (6.4mm)
24.1-29.4ft•lbf (32.7-39.9N•m)	36.5-44.5ft•lbf (49.5-60.3N•m)	45.6-55.6ft•lbf (61.8-75.4N•m)	10.4-12.7ft•lbf (14.2-17.2N•m)

### ⚠ CAUTION

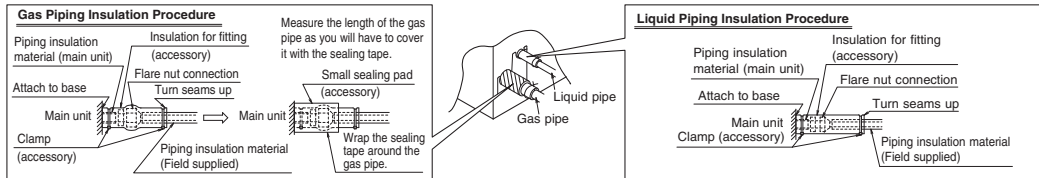
- Overtightening may damage the flare and cause leaks.

- 3) After the work is finished, make sure to check that there is no gas leak.



- 4) After checking for gas leaks, be sure to insulate the pipe connections.

- Insulate using the insulation for fitting included with the liquid and gas pipes. Besides, make sure the insulation for fitting on the liquid and gas piping has its seams facing up. (Tighten both edges with clamp.)
- For the gas piping, wrap the medium sealing pad over the insulation for fitting (flare nut part).



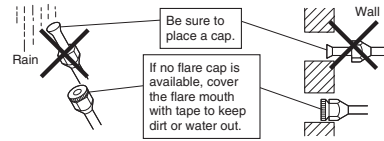
# Refrigerant Piping Work

## ⚠ CAUTION

Be sure to insulate any field piping all the way to the piping connection inside the unit. Any exposed piping may cause condensation or burns if touched.

### Cautions on Pipe Handling

- Protect the open end of the pipe against dust and moisture. (Tighten both edges with clamp.)
- All pipe bends should be as gentle as possible. Use a pipe bender for bending. (See the minimum bend radius in the table below.)



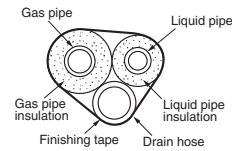
### Selection of Copper and Heat Insulation materials

When using commercial copper pipes and fittings, observe the following:

- Insulation material: Polyethylene foam  
Heat transfer rate: 0.041 to 0.052W/mK (0.024 to 0.030Btu/fth°F (0.035 to 0.045kcal/mh°C))  
Be sure to use insulation that is designed for use with HVAC Systems.
- Be sure to insulate both the gas and liquid piping and to provide insulation dimensions as below.

Gas side			Liquid side	Gas pipe thermal insulation			Liquid pipe thermal insulation
O.D. 3/8 inch (9.5mm)	O.D. 1/2 inch (12.7mm)	O.D. 5/8 inch (15.9mm)	O.D. 1/4 inch (6.4mm)	I.D. 15/32-19/32 inch (12-15mm)	I.D. 9/16-5/8 inch (14-16mm)	I.D. 5/8-25/32 inch (16-20mm)	I.D. 5/16-13/32 inch (8-10mm)
Minimum bend radius				Thickness 13/32 inch (10mm) Min.			
1-3/16 inch (30mm) or more	1-9/16 inch (40mm) or more	1-15/16 inch (50mm) or more	1-3/16 inch (30mm) or more				
Thickness 0.031 inch (0.8mm) (C1220T-O)		Thickness 0.039 inch (1.0mm) (C1220T-O)	Thickness 0.031 inch (0.8mm) (C1220T-O)				

- Also, when subject to high humidity, heat insulation of the refrigerant piping (the unit piping and branch piping) must be further reinforced.  
Reinforce the insulation when installing the unit near bathrooms, kitchens, and other similar locations.  
Refer to the following:
- 86°F (30°C), more than 75% RH: 13/16 inch (20mm) Min. in thickness
- If the insulation is not sufficient, condensation may form on the surface of the insulation.
- Use separate thermal insulation pipes for gas and liquid refrigerant pipes.



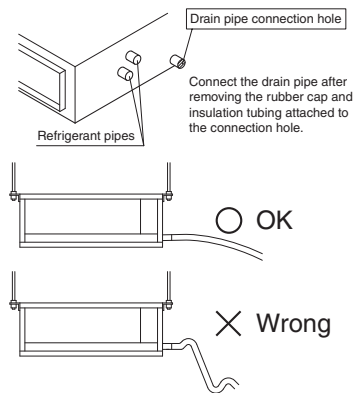
# Drain Piping Work

## ⚠ CAUTION

Make sure all water is out before making the duct connection.

### ■ Install the drain piping.

- Make sure the drain works properly.
- The diameter of the drain pipe should be greater than or equal to the diameter of the connecting pipe (vinyl tube; pipe size: 25/32 inch (20mm); outer dimension: 1-1/32 inch (26mm)).
- Keep the drain pipe short and sloping downwards at a gradient of at least 1/100 to prevent air pockets from forming.

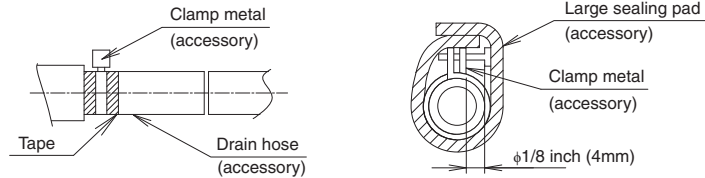


**⚠ CAUTION**

- Water accumulating in the drain piping can cause the drain to clog.

- To keep the drain tube from sagging, space hanging wires every 3 (1) to 5ft (1.5m).
- Use the drain hose and the metal clamp. Insert the drain hose fully into the drain socket and firmly tighten the metal clamp with the upper part of the tape on the hose end. Tighten the metal clamp until the screw head is less than 1/8 inch (4mm) from the hose.
- The two areas below should be insulated because condensation may form there causing water to leak.
  - Drain piping passing indoors
  - Drain sockets

Referring the figure below, insulate the metal clamp and drain hose using the included large sealing pad.



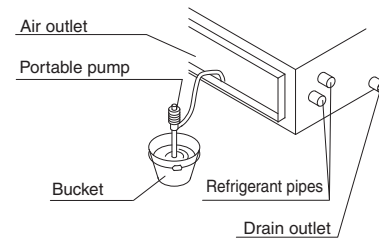
**<PRECAUTIONS>**

**Drain piping connections**

- Do not connect the drain piping directly to sewage pipes that smell of ammonia. The ammonia in the sewage might enter the indoor unit through the drain pipes and corrode the heat exchanger.
- Do not twist or bend the drain hose, so that excessive force is not applied to it. (This type of treatment may cause leaking.)

**■ After piping work is finished, check drainage flows smoothly.**

- Gradually insert approximately 1L of water into the drain pan to check drainage in the manner described below.
  - Gradually pour approximately 1L of water from the outlet hole into the drain pan to check drainage.
  - Check the drainage.



# Installing the Duct

Connect the duct supplied in the field.

**Air inlet side**

- Attach the duct and intake-side flange (field supply).
- Connect the flange to the main unit with accessory screws (in 16, 20 or 24 positions).
- Wrap the intake-side flange and duct connection area with aluminum tape or something similar to prevent air escaping.

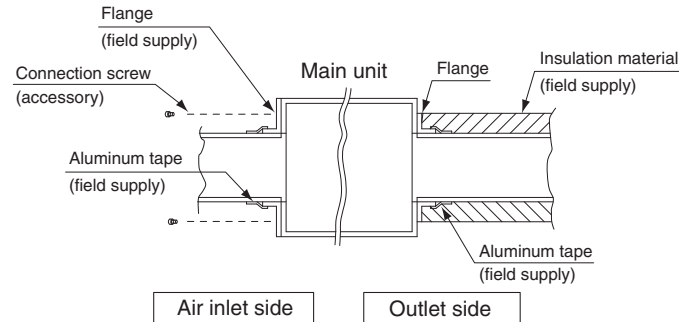
**⚠ CAUTION**

- When attaching a duct to the intake side, be sure also to attach an air filter inside the air passage on the intake side. (Use an air filter whose dust collecting efficiency is at least 50% in a gravimetric technique.)

# Installing the Duct

## Outlet side

- Connect the duct according to the inside of the outlet-side flange.
- Wrap the outlet-side flange and the duct connection area with aluminum tape or something similar to prevent air escaping.



### ⚠ CAUTION

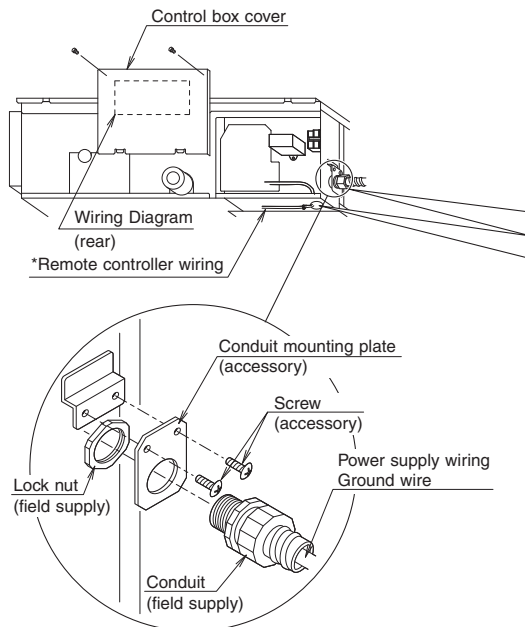
- Be sure to insulate the duct to prevent condensation from forming. (Material: glass wool or polyethylene foam, 1 inch (25mm) thick)
- Use electric insulation between the duct and the wall when using metal ducts to pass metal laths of the net or fence shape or metal plating into wooden buildings.

# Wiring

See the installation manual supplied with the outdoor unit.

## ■ HOW TO CONNECT WIRINGS.

- Wire only after removing the control box cover as shown in the Fig.



⚠ • Wrap the power supply wiring and the remote controller wiring with the sealing material as shown in the figure below.  
 (Otherwise, moisture or small creatures such as insects from the outside may cause short-circuit inside the control box.)  
 Attach securely so that there are no gaps.

[How to adhere it]

**⚠ CAUTION**

- When doing the wiring, make sure the wiring is neat and does not cause the control box cover to stick up, then close the cover firmly. When attaching the control box cover, make sure you do not pinch any wires.
- Outside the unit, separate the low voltage wiring (remote controller wiring) and high voltage wiring (ground wire and power supply wiring) at least 5in so that they do not pass through the same place together. Proximity may cause electrical interference, malfunctions, and breakage.

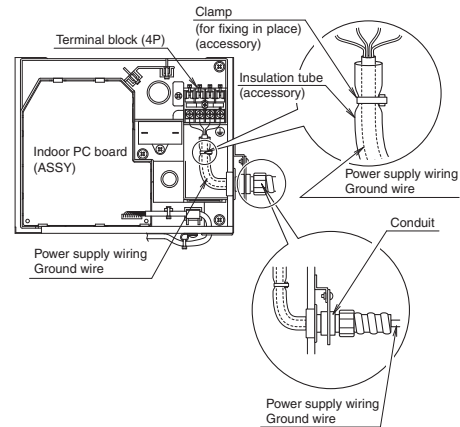
[ PRECAUTION ]

- See also the “Electrical Wiring Diagram Label” when wiring the unit for power supply.

[ Connecting electrical wiring ]

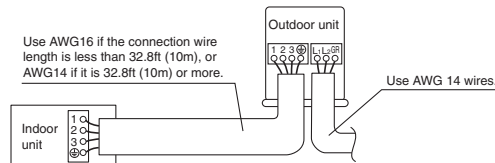
• **Power supply wiring and ground wire**

Remove the control box cover.  
 Next, pull the wires into the unit through the conduit and thread them through the insulation tube (accessory), then connect to the power wiring terminal block (4P).  
 Secure the wires covered by the insulation tube with the clamp (accessory).  
 Be sure to put the part of the sheathed vinyl into the control box.



**⚠ WARNING**

- Do not use tapped wires, stranded wires, extension cords, or starburst connections, as they may cause overheating, electrical shock, or fire.



# Trial Operation and Testing

## 1. Trial operation and testing

- (1) Measure the supply voltage and make sure that it falls in the specified range.
- (2) Trial operation should be carried out in either cooling or heating mode.

Trial operation from remote controller
<ol style="list-style-type: none"> <li>(1) Press ON/OFF button to turn on the system.</li> <li>(2) Simultaneously press center of TEMP button and MODE button.</li> <li>(3) Press MODE button twice. ("T" will appear on the display to indicate that Trial Operation mode is selected.)</li> <li>(4) Trial operation mode terminates in approx. 30 minutes and switches into normal mode. To quit the trial operation, press ON/OFF button.</li> </ol>

In cooling mode, select the lowest programmable temperature; in heating mode, select the highest programmable temperature.

- Trial operation may be disabled in either mode depending on the room temperature.
- After trial operation is complete, set the temperature to a normal level (79°F (26°C) to 82°F (28°C) in cooling mode, 68°F (20°C) to 75°F (24°C) in heating mode).
- For protection, the system disables restart operation for 3 minutes after it is turned off.

- (3) Carry out the test operation in accordance with the Operation Manual to ensure that all functions and parts, are working properly.

\* The air conditioner requires a small amount of power in its standby mode. If the system is not to be used for some time after installation, shut off the circuit breaker to eliminate unnecessary power consumption.

\* If the circuit breaker trips to shut off the power to the air conditioner, the system will restore the original operation mode when the circuit breaker is turned on again.

## 2. Test items

Test items	Symptom (diagnostic display on RC)	Check
Indoor and outdoor units are installed properly on solid bases.	Fall, vibration, noise	
No refrigerant gas leaks.	Incomplete cooling/heating function	
Refrigerant gas and liquid pipes and indoor drain hose extension are thermally insulated.	Water leakage	
Drain pipe is properly installed.	Water leakage	
System is properly grounded.	Electrical leakage	
The specified wires are used for interconnecting wire connections.	Inoperative or burn damage	
Indoor or outdoor unit's air inlet or discharge has clear path of air. Shut-off valves are opened.	Incomplete cooling/heating function	
Indoor unit properly receives remote controller commands.	Inoperative	





3P297301-3C

## 4. Indoor Unit: FFQ Series / FFQ09/12/15/18LVJU

### 4.1 Safety Considerations

Read these **SAFETY CONSIDERATIONS for Installation** carefully before installing an air conditioner or heat pump. After completing the installation, make sure that the unit operates properly during the startup operation. Instruct the customer on how to operate and maintain the unit. Inform customers that they should store this Installation Manual with the Operation Manual for future reference. Always use a licensed installer or contractor to install this product. Improper installation can result in water or refrigerant leakage, electrical shock, fire, or explosion.

Meanings of **DANGER**, **WARNING**, **CAUTION**, and **NOTE** Symbols:

-  **DANGER** ..... Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
-  **WARNING** ..... Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
-  **CAUTION** ..... Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.
-  **NOTE** ..... Indicates situations that may result in equipment or property-damage accidents only.

- Refrigerant gas is heavier than air and replaces oxygen. A massive leak will result in oxygen depletion, especially in basements, and an asphyxiation hazard will result in serious injury or death.
- Do not ground units to water pipes, gas pipes, telephone wires, or lightning rods as incomplete grounding will result a severe shock hazard resulting in severe injury or death. Additionally, grounding to gas pipes will result a gas leak and potential explosion resulting in severe injury or death.
- If refrigerant gas leaks during installation, ventilate the area immediately. Refrigerant gas will result in producing toxic gas if it comes into contact with fire. Exposure to this gas will result in severe injury or death.
- After completing the installation work, check that the refrigerant gas does not leak throughout the system.
- Do not install unit in an area where flammable materials are present due to risk of explosions that will result in serious injury or death.
- Safely dispose all packing and transportation materials in accordance with federal/state/local laws or ordinances. Packing materials such as nails and other metal or wood parts, including plastic packing materials used for transportation will result in injuries or death by suffocation.
- Only qualified personnel must carry out the installation work. Installation must be done in accordance with this installation manual. Improper installation could result in water leakage, electric shock, or fire.
- When installing the unit in a small room, take measures to keep the refrigerant concentration from exceeding allowable safety limits. Excessive refrigerant leaks, in the event of an accident in a closed ambient space, could result in oxygen deficiency.
- Use only specified accessories and parts for installation work. Failure to use specified parts could result in water leakage, electric shocks, fire, or the unit falling.
- Install the air conditioner or heat pump on a foundation strong enough that it can withstand the weight of the unit. A foundation of insufficient strength could result in the unit falling and causing injuries.
- Take into account strong winds, typhoons, or earthquakes when installing. Improper installation could result in the unit falling and causing accidents.
- Make sure that a separate power supply circuit is provided for this unit and that all electrical work is carried out by qualified personnel according to local, state, and national regulations. An insufficient power supply capacity or improper electrical construction could result in electric shocks or fire.
- Make sure that all wiring is secured, that specified wires are used, and that no external forces act on the terminal connections or wires. Improper connections or installation could result in fire.
- When wiring, position the wires so that the terminal box lid can be securely fastened. Improper positioning of the terminal box lid could result in electric shocks, fire, or the terminals overheating.
- Before touching electrical parts, turn off the unit.
- This equipment can be installed with a Ground-Fault Circuit Breaker (GFCI). Although this is a recognized measure for additional protection, with the earthing system in North America, a dedicated GFCI is not necessary.
- Securely fasten the unit terminal cover (panel). If the terminal cover/panel is not installed properly, dust or water may enter the condenser unit and could result in fire or electric shock.
- When installing or relocating the system, keep the refrigerant circuit free from substances other than the specified refrigerant (R-410A) such as air. Any presence of air or other foreign substance in the refrigerant circuit could result in abnormal pressure rise or rupture, resulting in injury.
- Do not change the setting of the protection devices. If the pressure switch, thermal switch, or other protection device is shorted and operated forcibly, or



- parts other than those specified by Daikin are used, fire or explosion could result.
- Do not touch the switch with wet fingers. Touching a switch with wet fingers may result in electric shock.
  - Do not allow children to play on or around the unit or it may result in injury.
  - The heat exchanger fins are sharp enough to cut, and may result in injury if improperly used. To avoid injury wear gloves or cover the fins while working around them.
  - Do not touch the refrigerant pipes during and immediately after operation as the refrigerant pipes may be hot or cold, depending on the condition of the refrigerant flowing through the refrigerant piping, compressor, and other refrigerant cycle parts. It may result in your hands getting burns or frostbite if you touch the refrigerant pipes. To avoid injury, give the pipes time to return to normal temperature or, if you must touch them, be sure to wear proper gloves.
  - Install drain piping to proper drainage. Improper drain piping may result in water leakage and property damage.
  - Insulate piping to prevent condensation.
  - Be careful when transporting the product.
  - Do not turn off the power immediately after stopping operation. Always wait for at least 5 minutes before turning off the power. Otherwise, water leakage may result.
  - Do not use a charging cylinder. Using a charging cylinder may cause the refrigerant to deteriorate.
  - Refrigerant R-410A in the system must be kept clean, dry, and tight.
    - (a) Clean and Dry -- Foreign materials (including mineral oils such as SUNISO oil or moisture) should be prevented from getting into the system.
    - (b) Tight -- R-410A does not contain any chlorine, does not destroy the ozone layer, and does not reduce the earth's protection against harmful ultraviolet radiation. R-410A can contribute to the greenhouse effect if it is released. Therefore take proper measures to check for the tightness of the refrigerant piping installation. Read the chapter *Refrigerant Piping* and follow the procedures.
  - Since R-410A is a blend, the required additional refrigerant must be charged in its liquid state. If the refrigerant is charged in a state of gas, its composition can change and the system will not work properly.
  - The indoor unit is for R-410A. See the catalog for indoor models that can be connected. Normal operation is not possible when connected to other units.
  - Remote controller (wireless kit) transmitting distance can be shorter than expected in rooms with electronic fluorescent lamps (inverter or rapid start types). Install the indoor unit far away from fluorescent lamps as much as possible.
  - Indoor units are for indoor installation only. Outdoor units can be installed either outdoors or indoors. This unit is for indoor use.
  - Do not install the air conditioner or heat pump in the following locations:
    - (a) Where a mineral oil mist or oil spray or vapor is produced, for example, in a kitchen. Plastic parts may deteriorate and fall off and thus may result in water leakage.
    - (b) Where corrosive gas, such as sulfurous acid gas, is produced. Corroding copper pipes or soldered parts may result in refrigerant leakage.
    - (c) Near machinery emitting electromagnetic waves. Electromagnetic waves may disturb the operation of the control system and cause the unit to malfunction.
    - (d) Where flammable gas may leak, where there is carbon fiber, or ignitable dust suspension in the air, or where volatile flammables such as thinner or gasoline are handled. Operating the unit in such conditions may result in a fire.
  - Take adequate measures to prevent the condenser unit from being used as a shelter by small animals. Small animals making contact with electrical parts may result in malfunctions, smoke, or fire. Instruct the customer to keep the area around the unit clean.
  - Install the power supply and control wires for the indoor and outdoor units at least 3.5 feet away from televisions or radios to prevent image interference or noise. Depending on the radio waves, a distance of 3.5 feet may not be sufficient to eliminate the noise.
  - Dismantling the unit, treatment of the refrigerant, oil and additional parts must be done in accordance with the relevant local, state, and national regulations.
  - Do not use the following tools that are used with conventional refrigerants: gauge manifold, charge hose, gas leak detector, reverse flow check valve, refrigerant charge base, vacuum gauge, or refrigerant recovery equipment.
  - If the conventional refrigerant and refrigerator oil are mixed in R-410A, the refrigerant may result in deterioration.
  - This air conditioner or heat pump is an appliance that should not be accessible to the general public.
  - As design pressure is 478 psi, the wall thickness of field-installed pipes should be selected in accordance with the relevant local, state, and national regulations.

## 2. BEFORE INSTALLATION

**Do not exert pressure on the resin parts when opening the unit or when moving it after opening. Be sure to check the type of R410A refrigerant to be used before doing any work. (Using an incorrect refrigerant will prevent normal operation of the unit.)**













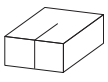
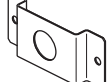

- When opening the unit or moving it after opening, be sure to lift it by holding on to the hanger brackets without exerting any pressure on other parts, especially, drain piping, and other resin parts.
- Decide upon a line of transport.
- Leave the unit inside its packaging while moving, until reaching the installation site. Use a sling of soft material, where unpacking is unavoidable or protective plates together with a sling when lifting, to avoid damage or scratches to the unit.
- **Especially, do not unfasten packing case (top) guarding the control box until suspending the unit.**
- Refer to the installation manual of the outdoor unit for items not described in this manual.
- Do not dispose of any parts necessary for installation until the installation is complete.

### 2-1 SAFETY PRECAUTIONS

- Be sure to read this manual before installing the indoor unit.
- When selecting installation site, refer to the paper pattern.
- This unit is suitable for installation in a household, commercial and light industrial environment.
- Do not install or operate the unit in rooms mentioned below.
  - Laden with mineral oil, or filled with oil vapor or spray like in kitchens. (Plastic parts may deteriorate.)
  - Where corrosive gas like sulfurous gas exists. (Copper tubing and brazed spots may corrode.)
  - Where volatile flammable gas like thinner or gasoline is used.
  - Where machines can generate electromagnetic waves. (Control system may malfunction.)
  - Where the air contains high levels of salt such as that near the ocean and where voltage fluctuates greatly such as that in factories. Also in vehicles or vessels.

### 2-2 ACCESSORIES

Check the following accessories are included with your unit.

Name	(1) Drain hose	(2) Metal clamp	(3) Washer for hanger bracket	(4) Clamp		(5) Paper pattern for installation	(6) Screws (M5)
Quantity	1 pc.	1 pc.	8 pcs.	(Big) 6 pcs.	(Small) 1 pc.	1 pc.	4 pcs.
Shape						Also used as packing material 	For paper pattern for installation 
Name	(7) Washer fixing plate	Insulation for fitting	Sealing pad	(12) Sealing material	(13) Conduit mounting plate	(14) Screws (M4)	(Other) • Operation manual • Installation manual
Quantity	4 pcs.	1 each	1 each	2 pcs.	1pc.	2pcs.	
Shape		(8) For gas pipe  (9) For liquid pipe 	(10) Large  (11) Small 				

### 2-3 OPTIONAL ACCESSORIES

- The optional decoration panel and remote controller are required for this indoor unit. (Refer to Table 1 and 2)

Table 1

Model	Optional decoration panel
FFQ09-12-15-18LVJU	BYFQ60B8W1U
	Color : White

- These are two types of remote controllers: wired and wireless. Select a remote controller from Table 2 according to customer request and install in an appropriate place.

Table 2

Remote controller type	Heat Pump type
Wired type	BRC1E71-72
Wireless type	BRC7E830

**NOTE** 

- If you wish to use a remote controller that is not listed in Table 2, select a suitable remote controller after consulting catalogs and technical materials.

**FOR THE FOLLOWING ITEMS, TAKE SPECIAL CARE DURING CONSTRUCTION AND CHECK AFTER INSTALLATION IS FINISHED.**

**a. Items to be checked after completion of work**

Items to be checked	If not properly done, what is likely to occur	Check
Are the indoor and outdoor unit fixed firmly?	The units may drop, vibrate or make noise.	
Is the outdoor unit fully installed?	The unit may malfunction or the components burn out.	
Is the gas leak test finished?	It may result in insufficient cooling and heating.	
Is the unit fully insulated?	Condensate water may drip.	
Does drainage flow smoothly?	Condensate water may drip.	
Does the power supply voltage correspond to that shown on the name plate?	The unit may malfunction or the components burn out.	
Are wiring and piping correct?	The unit may malfunction or the components burn out.	
Is the unit safely grounded?	Dangerous at electric leakage.	
Is wiring size according to specifications?	The unit may malfunction or the components burn out.	
Is something blocking the air outlet or inlet of either the indoor or outdoor units?	It may result in insufficient cooling and heating.	
Are refrigerant piping length and additional refrigerant charge noted down?	The refrigerant charge in the system is not clear.	

**b. Items to be checked at time of delivery**

Also review the "SAFETY PRECAUTIONS"

Items to be checked	Check
Are the control box cover, air filter, suction grille attached?	
Did you explain about operations while showing the operation manual to your customer?	
Did you hand the operation manual over to your customer?	

**c. Points for explanation about operations**

The items with  $\triangle$  WARNING and  $\triangle$  CAUTION marks in the operation manual are the items pertaining to possibilities for bodily injury and material damage in addition to the general usage of the product. Accordingly, it is necessary that you make a full explanation about the described contents and also ask your customers to read the operation manual.

**2-4 NOTE TO THE INSTALLER**

Be sure to instruct customers how to properly operate the unit (especially cleaning the filter, operating different functions, and adjusting the temperature) by having them carry out operations while looking at the manual.

**3. SELECTING INSTALLATION SITE**

<Hold the unit by the 4 hanger brackets when opening the box and moving it, and do not exert pressure on to any other part, piping (refrigerant, drain, etc.), or plastic parts.

If the temperature or humidity inside the ceiling might rise above 86°F or RH 80%, respectively, add extra insulation to the main unit body.

Use glass wool or polyethylene foam as insulation and make sure it is at least 3/8 in. thick and fits inside the ceiling opening.>

The direction this product directs air can be selected. However, a separately sold sealing material kit is needed in order to make the unit direct air in two, three, or four (corner shut-off) directions.

**(1) Select an installation location with the customer’s approval which matches the following conditions.**

- A location from which cool (warm) air will reach the whole room.
- A location with no objects blocking the air passage.
- A location where drainage can be done with no problem.
- A location strong enough to support the weight of the indoor unit.
- A location where the wall is not significantly tilted.
- A location which leaves enough room for installation and service work.
- A location where there is no risk of flammable gas leaking.
- A location where the length of the indoor-outdoor piping is no longer than the tolerated length (see the installation manual that came with the outdoor unit for details).

[Space required for installation] (in.)

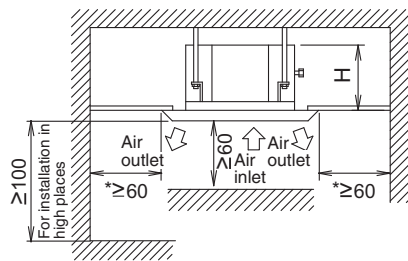


Fig. 1

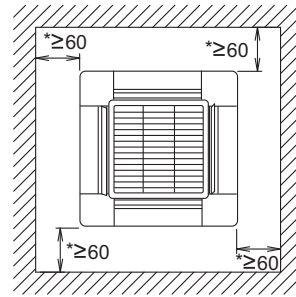


Fig. 2

**NOTE**

- Leave 8 in. or more space where marked with the \*, on sides where the air outlet is closed.

Model	H
FFQ09-12-15-18LVJU	11-1/4(Confirm the space of 11-5/8 or more)

**CAUTION**

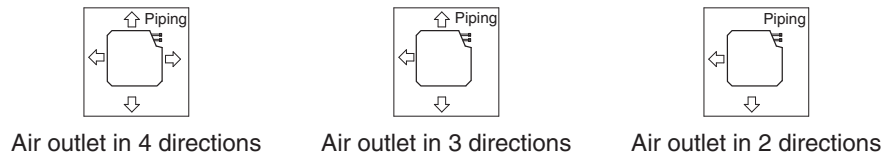
- Install the indoor and outdoor units, power supply and transmission wiring at least 40 in. away from televisions or radios in order to prevent image interference or noise. (Depending on the radio waves, a distance of 40 in. may not be sufficient enough to eliminate the noise.)

**(2) Air flow direction**

The air direction shown is an example.

Select the appropriate number of directions according to the shape of the room and the location of the unit. (Field settings have to be made using the remote controller and the outlet vents have to be shut off if two, three, or four (corner shut-off) directions are selected. See the sealing materials (sold separately) installation manual for details.)

[Air flow direction] (Example)



- (3) Use suspension bolts for installation. Check whether the ceiling is strong enough to support the weight of the unit or not. If there is a risk, reinforce the ceiling before installing the unit. (Installation pitch is marked on the paper pattern for installation. Refer to it to check for points requiring reinforcing.)

**4. PREPARATIONS BEFORE INSTALLATION**

- (1) Relation of ceiling opening to unit and suspension bolt position.

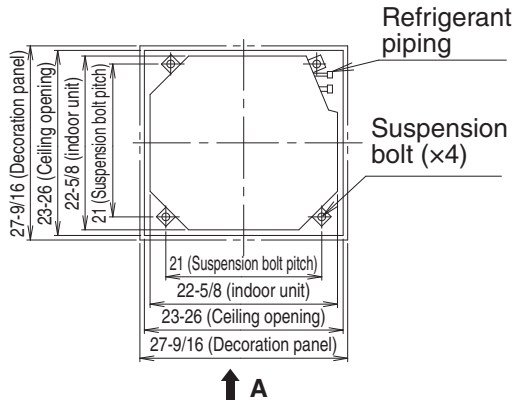


Fig. 3

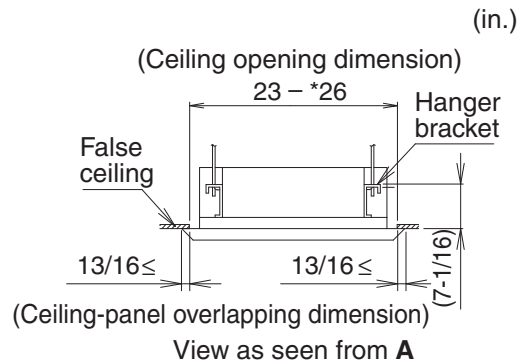


Fig. 4

**NOTE**

- Installation is possible with a ceiling dimension of 26 in. (marked with \*). However, to achieve a ceiling-panel overlapping dimension of 13/16 in., the spacing between the ceiling and the unit should be 1-3/4 in. or less. If the spacing between ceiling and the unit is over 1-3/4 in., attach ceiling material to part or recover the ceiling.

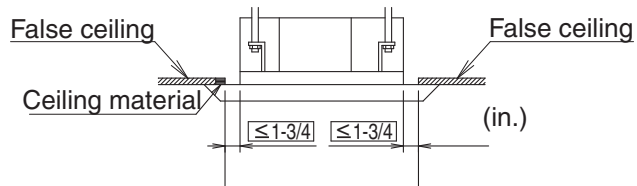


Fig. 5

- (2) Make the ceiling opening needed for installation where applicable. (For existing ceilings)

- Refer to the paper pattern for installation (5) for ceiling opening dimensions.
- Create the ceiling opening required for installation. From the side of the opening to the casing outlet, implement the refrigerant and drain piping and wiring for remote controller (unnecessary for wireless type) and wiring between units. Refer to each PIPING or WIRING section.
- After making an opening in the ceiling, it may be necessary to reinforce ceiling beams to keep the ceiling level and to prevent it from vibrating. Consult the builder for details.

- (3) Install the suspension bolts.

(Use either a M8 - M10 size bolt or the equivalent)  
 Use a hole-in anchor for existing ceilings, and a sunken insert, sunken anchor or other field supplied parts for new ceilings to reinforce the ceiling to bear the weight of the unit.  
 Adjust clearance (2 - 4 in.) from the ceiling before proceeding further.

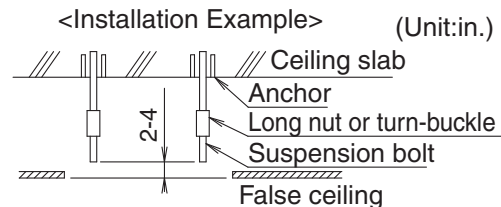


Fig. 6

**NOTE**

- All the above parts are field supplied.

## 5. INDOOR UNIT INSTALLATION

Installing optional accessories (except for the decoration panel) before installing the indoor unit is easier. However, for existing ceilings, install Fresh air intake kit and branch duct before installing the unit.

As for the parts to be used for installation work, be sure to use the provided accessories and specified parts designated by Daikin.

### (1) For new ceilings

(1-1) Install the indoor unit temporarily.

- Attach the hanger bracket to the suspension bolt. Be sure to fix it securely by using a nut and washer (3) from the upper and lower sides of the hanger bracket. The washer fixing plate (7) will prevent the washer from falling.

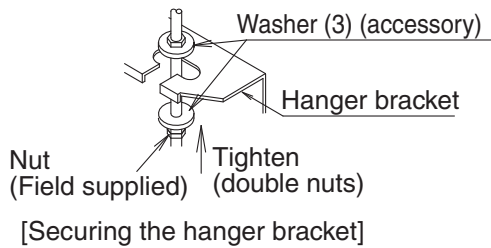


Fig. 7

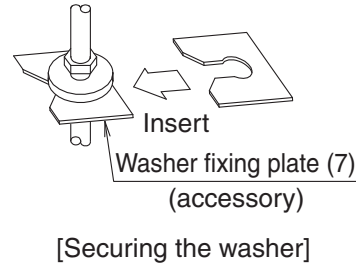


Fig. 8

(1-2) Refer to the paper pattern for installation (5) for ceiling opening dimension.

Consult the builder or carpenter for details.

- The center of the ceiling opening is indicated on the paper pattern for installation.
- The center of the unit is indicated on the paper pattern for installation.
- Fix the paper pattern to the unit with screws (6) (×4).
- Ceiling height is shown on the side of the paper pattern for installation (5). Adjust the height of the unit according to this indication.

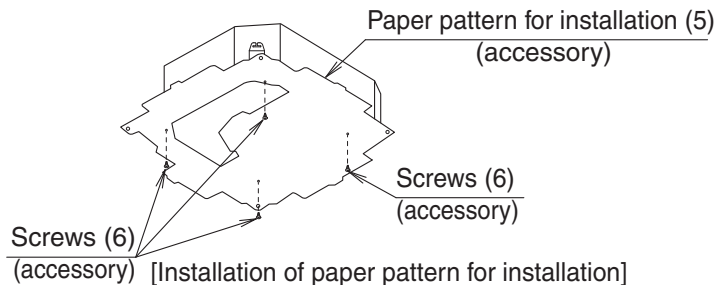


Fig. 9

### <Ceiling work>

(1-3) Adjust the unit to the right position for installation.

(Refer to 4.PREPARATIONS BEFORE INSTALLATION-(1).)

(1-4) Check the unit is horizontally level.

- The indoor unit is equipped with a built-in drain pump and float switch. Verify that it is level by using a water level or a water-filled vinyl tube.

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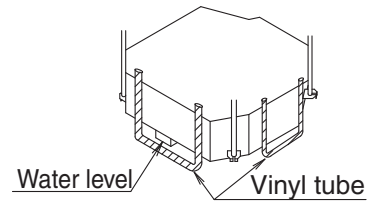
**⚠ CAUTION**


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If the unit is tilted against condensate flow, the float switch may malfunction and cause water to drip.

---

- (1-5) Remove the washer fixing plate (7) used for preventing the washer from falling and tighten the upper nut.  
 (1-6) Remove the paper pattern for installation (5).

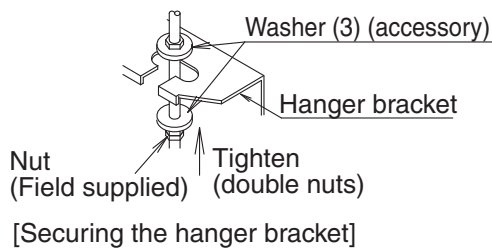


[Maintaining horizontality]

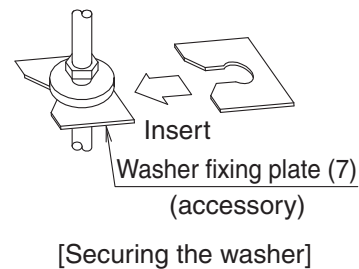
**Fig. 10**

**(2) For existing ceilings**

- (2-1) Install the indoor unit temporarily.
- Attach the hanger bracket to the suspension bolt. Be sure to fix it securely by using a nut and washer (3) from the upper and lower sides of hanger bracket. The washer fixing plate (7) will prevent the washer from falling.



**Fig. 11**



**Fig. 12**

- (2-2) Adjust the height and position of the unit.  
 (Refer to 4. PREPARATIONS BEFORE INSTALLATION-(1).)  
 (2-3) Perform steps (1-4), (1-5) in (1) for new ceilings.

## 6. REFRIGERANT PIPING WORK

<For refrigerant piping of outdoor units, see the installation manual attached to the outdoor unit.>

<Execute thermal insulation work completely on both sides of the gas and the liquid piping.>

Otherwise, a water leakage can result sometimes.>

Be sure to use insulation designed for use with HVAC systems.

<Also, in cases where the temperature and humidity of the refrigerant piping sections might exceed 86°F or RH80%, reinforce the refrigerant insulation. (13/16 in. or thicker) Condensation may form on the surface of the insulating material.>

<Before refrigerant piping work, check which type of refrigerant is used. Proper operation is not possible if the types of refrigerant are not the same.>

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**⚠ CAUTION**


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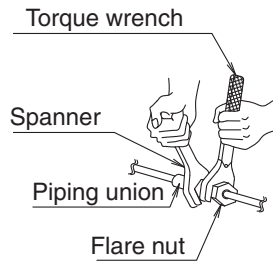
- Use a pipe cutter and flare suitable for the type of refrigerant.
  - Apply ester oil or ether oil inside the flare portions before connecting.
  - To prevent dust, moisture or other foreign matter from infiltrating the tube, either pinch the end or cover it with tape.
  - Do not allow anything other than the designated refrigerant to get mixed into the refrigerant circuit, such as air. If any refrigerant gas leaks while working on the unit, thoroughly ventilate the room immediately.
-



- The outdoor unit is charged with refrigerant.
- Be sure to use both a spanner and torque wrench together, as shown in the drawing, when connecting or disconnecting pipes to/from the unit. **(Refer to Fig. 13)**
- Refer to **Table 3** for the dimensions of flare nut spaces.
- When connecting the flare nut, coat the flare section (only inside) with ester oil or ether oil, rotate three or four times first, then screw in. **(Refer to Fig. 14)**

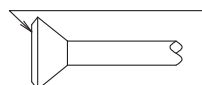
**CAUTION**  
Over-tightening may damage the flare and cause a refrigerant leakage.

**NOTE**  
• Use the flare nut included with the unit main body.



**Fig. 13**

Apply ester oil or ether oil only inside



**Fig. 14**

Table 3

Pipe size	Tightening torque	Flare dimensions A (in.)	Flare
ø1/4	10.4 - 12.7 ft-lbf	0.342 - 0.358	
ø3/8	24.1 - 29.4 ft-lbf	0.504 - 0.520	
ø1/2	36.5 - 44.5 ft-lbf	0.638 - 0.654	

- Refer to **Table 3** to determine the proper tightening torque.

**Not recommended but in case of emergency:**  
You must use a torque wrench but if one is not available, you may follow the installation method described below.

**After the work is finished, make sure to check that there is no gas leak.**

When you keep tightening the flare nut with a spanner, there is a point where the tightening torque suddenly increases. From that position, further tighten the flare nut at the angle shown below:

Pipe size	Further tightening angle	Recommended arm length of tool
ø1/4	60 – 90 degrees	Approx. 6 in.
ø3/8	60 – 90 degrees	Approx. 8 in.
ø1/2	30 – 60 degrees	Approx. 10 in.

**CAUTION**  
**CAUTION TO BE TAKEN WHEN BRAZING REFRIGERANT PIPING**  
Do not use flux when brazing refrigerant piping. Therefore, use the phosphor copper brazing filler metal (B-Cu93P-710/795: ISO 3677) which does not require flux. Flux has extremely harmful influence on refrigerant piping systems. For instance, if the chlorine based flux is used, it will cause pipe corrosion or, in particular, if the flux contains fluorine, it will damage the refrigerant oil.

- Before brazing field refrigerant piping, nitrogen gas shall be blown through the piping to expel air from the piping.  
If brazing is done without nitrogen gas blowing, a large amount of oxide film develops inside the piping, and could cause system malfunction.

- When brazing the refrigerant piping, only begin brazing after having carried out nitrogen substitution or while inserting nitrogen into the refrigerant piping. Once this is done, connect the indoor unit with a flared connection.
- Nitrogen should be set to 2.9 psig with a pressure-reducing valve if brazing while inserting nitrogen into the piping. **(Refer to Fig.15)**

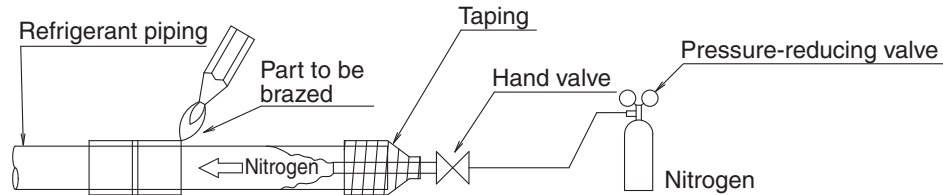


Fig. 15

- Make absolutely sure to execute thermal insulation works on the pipe-connecting section after checking gas leakage by thoroughly studying the following figure and using the attached thermal insulating materials for fitting (8) and (9). Fasten both ends with the clamps (4). **(Refer to Fig. 16)**
- Wrap the sealing pad (11) only around the insulation for the joints on the gas piping side. **(Refer to Fig. 16)**

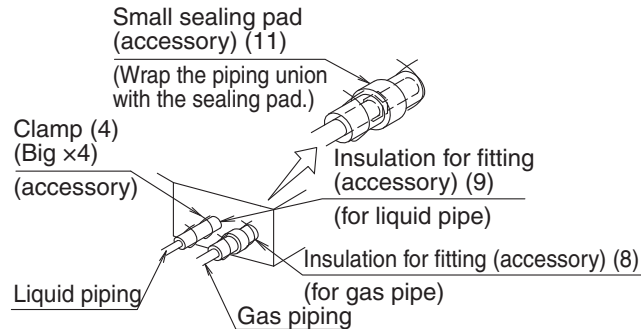


Fig. 16

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— **⚠ CAUTION** —

Be sure to insulate any field piping all the way to the piping connection inside the unit. Any exposed piping may cause condensation or burns if touched.

---

## 7. DRAIN PIPING WORK

### (1) Carry out the drain piping.

- Lay pipes properly to ensure that drainage can occur without problems.
- Employ a pipe with either the same diameter or with the diameter larger (excluding the raising section) than that of the connecting pipe (PVC pipe, nominal diameter 1 in., outside diameter 1-1/4 in.).
- To keep the drain pipe short and sloping downwards at a gradient of at least 1/100 to prevent air pockets from forming.
- If the drain hose cannot be sufficiently set on a slope, refer to PRECAUTIONS FOR DRAIN RAISING PIPING on page 13.
- To keep the drain hose from sagging, space hanger bracket every 40 to 60 in..

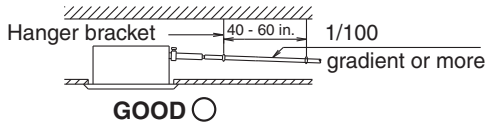


Fig. 17

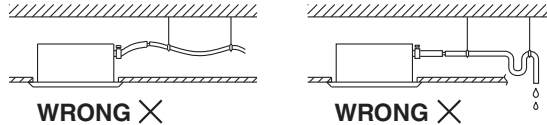


Fig. 18

**CAUTION**  
Water pooling in the drainage piping can cause the drain to clog.

- Use the attached drain hose (1) and metal clamp (2).
- Insert the drain hose into the drain socket up to the base, and tighten the clamp securely within the portion of a gray tape of the hose-inserted tip. Tighten the clamp until the screw head is less than 5/32 in. from the hose.
- Make sure that thermal insulation work is executed on the following 2 spots to prevent any possible water leakage due to dew condensation.
  - Indoor drain pipe
  - Drain socket
- Wrap the attached sealing pad (10) over the metal clamp (2) and drain hose to insulate.

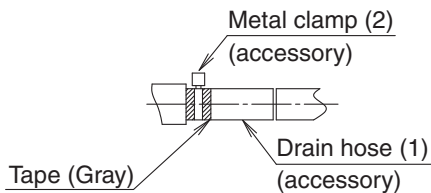


Fig. 19

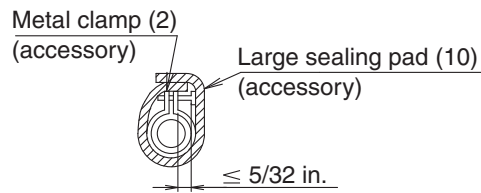


Fig. 20

**<PRECAUTIONS FOR DRAIN RAISING PIPING>**

- Install the drain raising pipes at a height of less than 21-7/16 in..
- Install the drain raising pipes at a right angle to the indoor unit and no more than 11-3/4 in. from the unit.

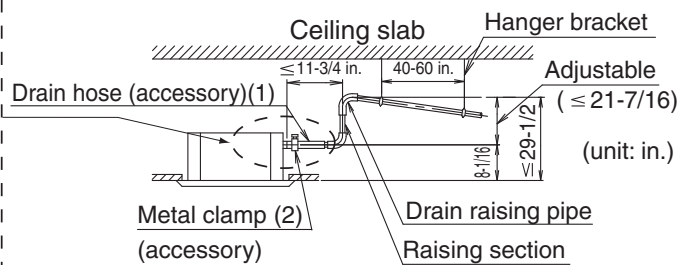
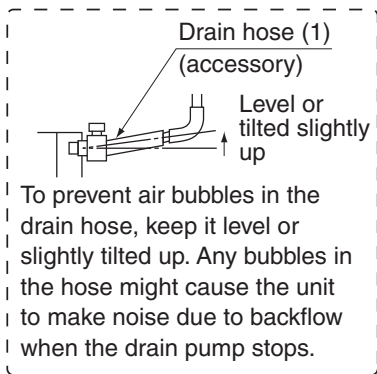


Fig. 21

**NOTE**

- To ensure no excessive pressure is applied to the included drain hose (1), do not bend or twist the hose when installing as it could cause leakage.
- If converging multiple drain pipes, install according to the procedure shown below.

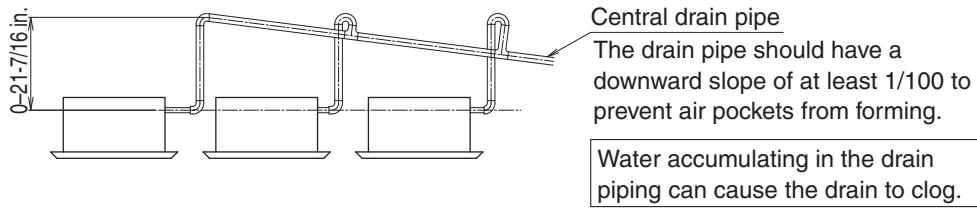


Fig. 22

Select converging drain pipes with gauges is suitable for the operating capacity of the unit.

**(2) After piping work is finished, check if drainage flows smoothly.**

- Add approximately 1/4 gal of water slowly from the air outlet and check drainage flow.

**WHEN ELECTRIC WIRING WORK IS FINISHED**

- Check drainage flow during cooling operation, explained in HOW TO TEST RUN on page 23.

**WHEN ELECTRIC WIRING WORK IS NOT FINISHED**

**⚠ CAUTION**

- Electrical wiring work should be done by a certified electrician.
- If someone who does not have the proper qualifications performs the work, perform the following actions after the test run is complete.

- Remove the control box cover. Connect the single phase power supply (SINGLE PHASE 60 Hz 208/230V) to connections No.1 and No.2 on the power supply terminal block. Do not connect to No.3 of the power supply terminal block or the drain pump will not operate. When carrying out wiring work around the control box, make sure none of the connectors come undone. Be sure to attach the control box cover before turning on the power.
- After confirming drainage (**Fig.23, Fig.24**), turn off the power supply and remove the power supply wiring.
- Attach the control box cover as before.

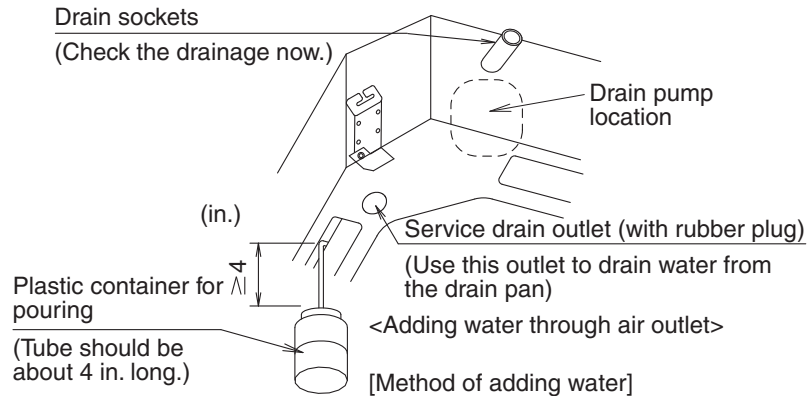


Fig. 23

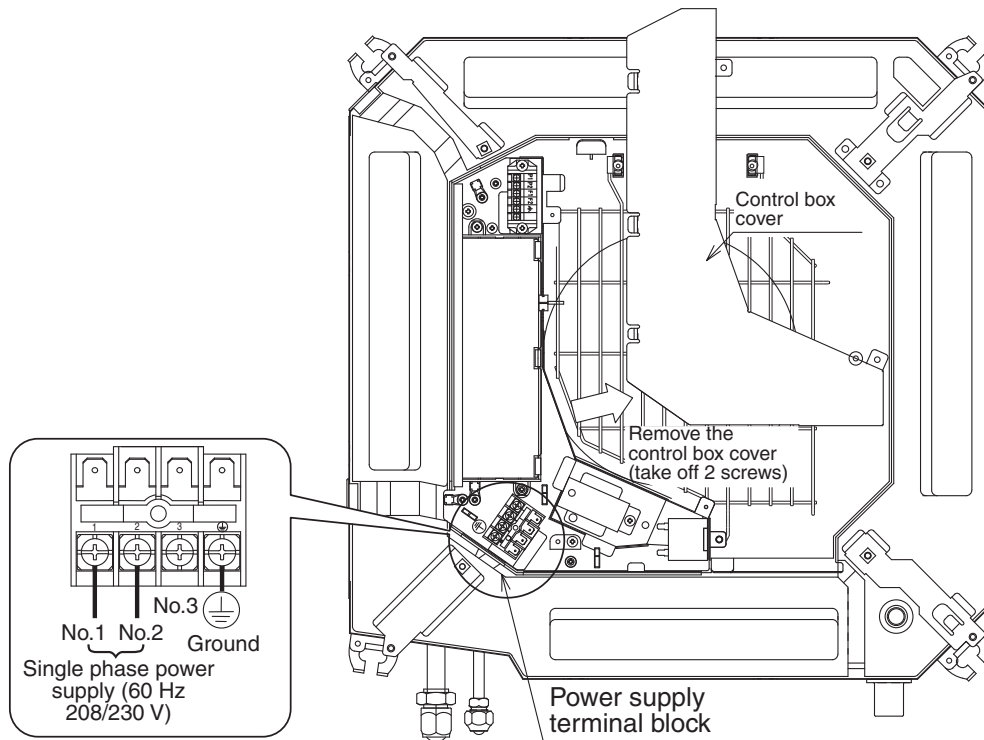


Fig. 24

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**⚠ CAUTION**


---

- Drain piping connections
  - Do not connect the drain piping directly to sewage pipes that smell of ammonia. The ammonia in the sewage might enter the indoor unit through the drain pipes and corrode the heat exchanger.
  - Keep in mind that the drain pipe becomes blocked if water collects on it.
- 

## 8. WIRING EXAMPLE

For the wiring of outdoor units, refer to the installation manual attached to the outdoor units.

### Confirm the system type.

- **Multi system:** 1 through 4 indoor units connect to 1 outdoor unit. The indoor unit is controlled by remote controller connected to each indoor unit. **(Refer to Fig. 25)**  
However, the group control is not expected.
- **Group control:** 1 remote controller controls up to 16 indoor units. (All indoor units operate according to the remote controller) **(Refer to Fig. 26)**
- **2 remote controllers control:** 2 remote controllers control 1 indoor unit. **(Refer to Fig. 27)**

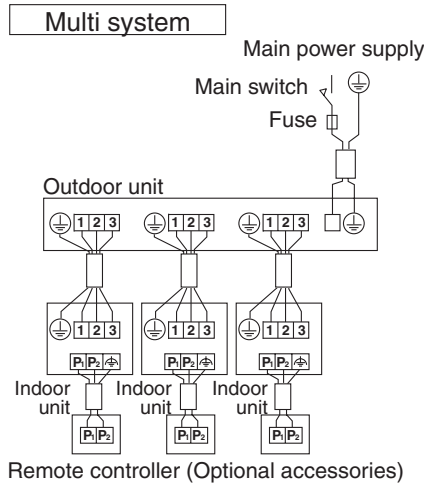


Fig. 25

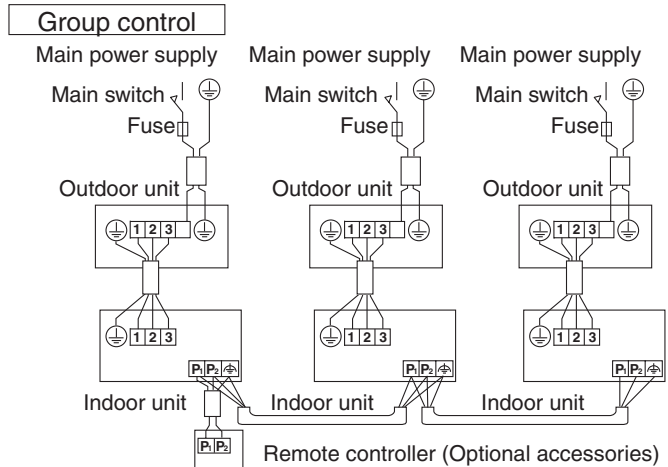


Fig. 26

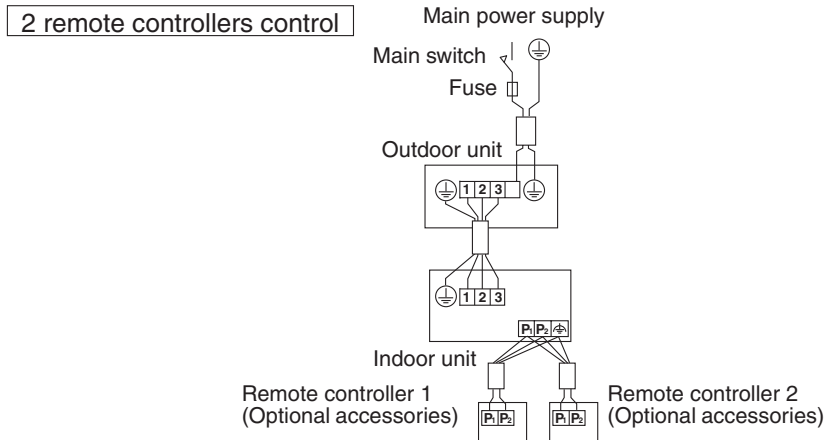


Fig. 27

**NOTE**

1. All transmission wiring, except for the remote controller wires, is polarized and must match the terminal symbol.
2. In case a shielding wire is to be used, connect a shielded portion with the  $\oplus$  of a remote controller terminal board. Also, connect the ground for the remote controller to a grounded metal part.
3. For group control remote controller, choose the remote controller that suits the indoor unit which has the most functions (as attached swing flap).
4. When controlling the simultaneous operation system with 2 remote controllers, connect it to the master unit (wiring to the slave unit is unnecessary).

## 9. ELECTRIC WIRING WORK

- All field supplied parts and materials and electric works must conform to local codes.
- Use copper wire only.
- For electric wiring work, refer to also “Wiring diagram label” attached to the control box cover.
- For remote controller wiring details, refer to the installation manual attached to the remote controller.
- All wiring must be performed by an authorized electrician.
- A circuit breaker capable of shutting down power supply to the entire system must be installed.
- Refer to the installation manual attached to the outdoor unit for the size of power supply wire connected to the outdoor unit, the capacity of the circuit breaker and switch, and wiring instructions.
- Be sure to ground the air conditioner.
- Do not connect the ground wire to gas and water pipes, lightning rods, or telephone ground wires.
  - Gas pipes : might cause explosions or fire if gas leaks.
  - Water pipes : no grounding effect if hard vinyl piping is used.
  - Telephone ground wires or lightning rods : might cause abnormally high electric potential in the ground during lightning storms.

### • Specifications for field wire

The remote controller wiring should be procured locally. Refer to the **Table 4** when preparing one.

Table 4

	Wire	Size	Length (ft.)
Wiring between units	Wire size and length must comply with local codes.	–	–
Remote controller wiring	Sheathed (2 wire)	AWG 18 - 16	Max.1640*
Wiring to ground terminal	Wire size and length must comply with local codes.	–	–

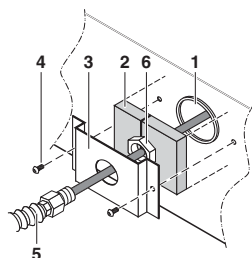
\* This will be the total extended length in the system when doing group control.

### ⚠ CAUTION

- Arrange the wires and fix a cover firmly so that the cover does not float during wiring work.
- Do not clamp remote controller wiring together with wiring between units together. Doing so may cause malfunction.
- Remote controller wiring and wiring between units should be located at least 2 in. from other electric wires. Not following this guideline may result in malfunction due to electrical noise.

### Connection of wiring between units, ground wire and remote controller wiring (Refer to Fig. 29)

- Wiring between units and ground wire  
Remove the control box cover. Connect wires of matching number to the power supply terminal block (4P) inside and the ground wire to the terminal block. Then, fasten a conduit to the conduit mounting plate (13) with a locknut securely. In doing this, pull the wires inside through the hole and fix the wires securely with the included clamp (4).
  - Give enough slack to the wires between the clamp (4) and power supply terminal block. Use Fig. 30 as a guide and allow at least 3-1/4 in. for removing the sheath.
  - After connection, attach the sealing material. (Refer to Fig. 28). Be sure to attach it to prevent infiltration of water from the outside. Make sure that the slit in the sealing material is positioned vertically.
- After attaching the sealing, screw the conduit mounting plate (13) using the 2 delivered screws (M4) (14) to the side of the unit where the power supply cables enter the unit. (Refer to Fig. 28).



1. Hole in the side plate of the unit
2. Sealing material
3. Conduit mounting plate
4. Screw (M4)
5. Conduit (Field supply)
6. Lock nut (Field supply)

**Fig. 28**

- Remove the control box cover and pull the wires inside through the hole and connect to the terminal block for remote controller (6P). (no polarity) Securely fix the remote controller wiring with the included clamp (4).
- Give enough slack to the wires between the clamp (4) and the terminal block for the remote controller.
- After connection, attach sealing material (12).
- Be sure to attach it to prevent the infiltration of water as well as any insects and other small creatures from the outside. Otherwise a short circuit may occur inside the control box.



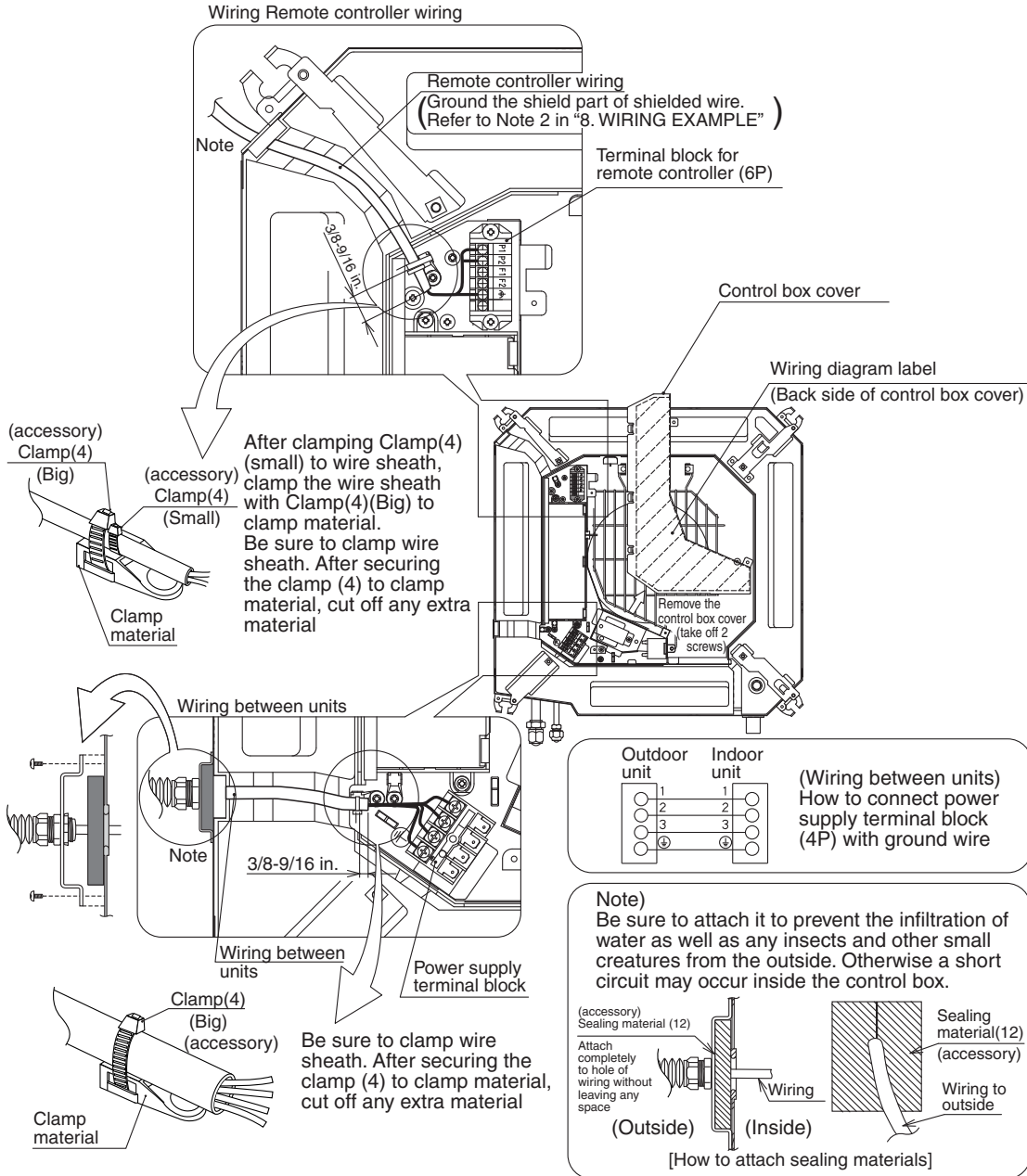


Fig. 29

Observe the notes mentioned below when wiring to the power supply terminal block.

**Tightening torque for the terminal blocks**

- Use the correct screwdriver for tightening the terminal screws. If the blade of screwdriver is too small, the head of the screw might be damaged, and the screw will not be properly tightened.
- If the terminal screws are tightened too hard, screws might be damaged.
- Refer to the table below for the tightening torque of the terminal screws.

	Tightening torque (ft-lbf)
Terminal block for remote controller (6P)	0.58 - 0.72
Power supply terminal block (4P)	0.87 - 1.06

**Precautions to be taken for power supply wiring**

Use a round crimp-style terminal for connection to the power supply terminal block. If it cannot be used due to unavoidable reasons, be sure to observe the following instructions:

Be sure to peel off the sheath of wiring between units more than 3-1/4 in..

(Refer to Fig. 30)

- In wiring, make certain that prescribed wires are used, carry out complete connections, and fix the wires so that external forces are not applied to the terminals.

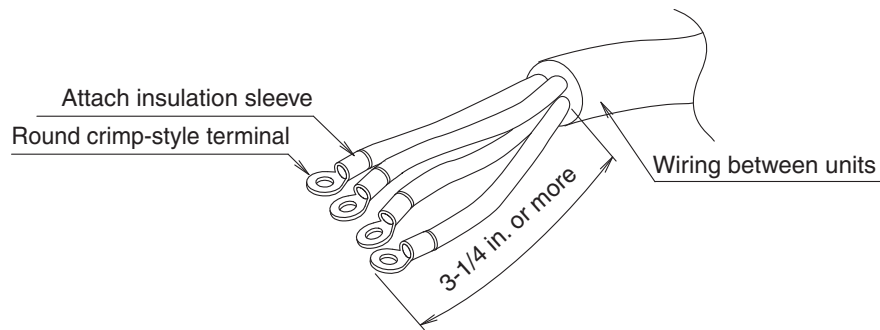


Fig. 30

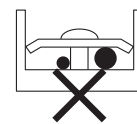
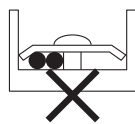
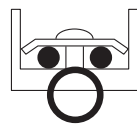
**When none is available, follow the instructions below**

- Do not connect wires of different gauge to the same power supply terminal.

Connect wires of the same gauge to each side.

Do not connect wires of the same gauge to one side.

Do not connect wires of different gauges.



(Looseness in the connection may cause overheating.)

**CAUTION**

- When clamping wiring, use the included clamping material to prevent outside pressure being exerted on the wiring connections and clamp firmly. When doing the wiring, make sure the wiring is neat and does not cause the control box cover to stick up, then close the cover firmly.
- When attaching the control box cover, make sure you do not pinch any wires.
- After all the wiring connections are done, fill in any gaps in the through holes with putty or insulation (procured locally) to prevent small animals and insects from entering the unit from outside. (If any gets in, they could cause short circuits in the control box.)
- Outside the unit, separate the low voltage wiring (remote controller wiring) and high voltage wiring (wiring between units, ground, and other power wiring) at least 2 in. so that they do not pass through the same place together. Proximity may cause electrical interference, malfunctions, and breakage.

## 10. INSTALLATION OF THE DECORATION PANEL

### Caution:

With the wireless remote controller, field setting and test run cannot be performed without attaching the decoration panel.

<Read "12. TEST RUN" before making a test run without attaching the decoration panel.>

Refer to the installation manual attached to the decoration panel.

After installing the decoration panel, ensure that there is no space between the unit body and decoration panel.

## 11. FIELD SETTINGS

### ⚠ CAUTION

When performing field setting or test run without attaching the decoration panel, do not touch the drain pump. This may cause electric shock.

- (1) Make sure the control box cover is closed on the indoor and outdoor units.
- (2) Field settings must be made from the remote controller and in accordance with installation conditions.
  - Setting can be made by changing the "Mode No.," "FIRST CODE NO." and "SECOND CODE NO.".
  - The "Field Settings" included with the remote control lists the order of the settings and method of operation.

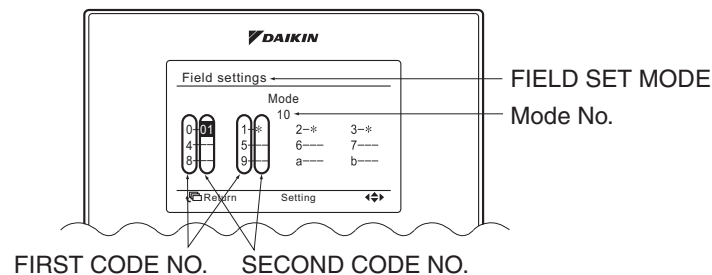


Fig. 31

### 11-1 SETTING AIR OUTLET DIRECTION

- For changing air outlet direction (2 or 3 directions), refer to the installation manual attached to the sealing material of air discharge outlet kit or the service manual. (SECOND CODE NO. is factory set to "01" for air outlet in 4 directions.)

### 11-2 SETTING FOR OPTIONS

- For settings for options, see the installation manual provided with the option.

### 11-3 SETTING AIR FILTER SIGN

- Remote controllers are equipped with liquid crystal display air filter signs to display the time to clean air filters.
- Change the SECOND CODE NO. according to Table 5 depending on the amount of dirt or dust in the room. (SECOND CODE NO. is factory set to "01" for air filter contamination-light.)

Table 5

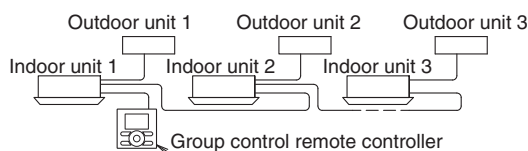
Setting	Spacing time of display air filter sign (long life type)	Mode No.	FIRST CODE NO.	SECOND CODE NO.
Air filter contamination-light	Approx. 2500 hrs	10 (20)	0	01
Air filter contamination-heavy	Approx. 1250 hrs			02

**When using wireless remote controllers**

- When using the wireless remote controllers, wireless remote controller address setting is necessary. Refer to the installation manual attached to the wireless remote controller.

**11-4 WHEN IMPLEMENTING GROUP CONTROL**

- When using as a pair unit, you may control up to 16 units with the remote controller.
- In this case, all the indoor units in the group will operate in accordance with the group control remote controller.
- Select a remote controller which matches as many of the functions (swing flap, etc) in the group as possible.



**Wiring Method** (See 9. ELECTRIC WIRING WORK on page 17.)

- Remove the control box cover.
- Cross-wire the remote control terminal block (P<sub>1</sub>, P<sub>2</sub>) inside the control box. (There is no polarity.)  
(Refer to Fig. 26 on page 16 and Table 4 on page 17)

**11-5 TWO REMOTE CONTROLLERS (CONTROLLING 1 INDOOR UNIT BY 2 REMOTE CONTROLLERS)**

- When using 2 remote controllers, one must be set to "MAIN" and the other to "SUB".

**Wiring Method** (See 9. ELECTRIC WIRING WORK on page 17.)

- Remove the control box cover.
- Add remote controller 2 to the remote control terminal block (P<sub>1</sub>, P<sub>2</sub>) in the control box. (There is no polarity.) (Refer to Fig. 27 on page 16 and Table 4 on page 17)

**12. TEST RUN****— ⚠ CAUTION —**

When performing field settings or test run without attaching the decoration panel, do not touch the drain pump. This may cause electric shock.

Refer to the section of **FOR THE FOLLOWING ITEMS, TAKE SPECIAL CARE DURING CONSTRUCTION AND CHECK AFTER INSTALLATION IS FINISHED** on page 6.

- After finishing the construction of refrigerant piping, drain piping, and electric wiring, conduct test run accordingly to protect the unit.

## 12-1 HOW TO TEST RUN

1. Open the gas side stop valve.
2. Open the liquid side stop valve.
3. Turn on power supply for 6 hours.
4. Set the operation mode to cooling by using the remote controller.
5. Press and hold Cancel button for 4 seconds or longer. Service settings menu is displayed.
6. Select **Test Operation** in the service settings menu, and press Menu/OK button. Basic screen returns and "Test Operation" is displayed at the bottom.
7. Press On/Off button within 10 seconds, and the test operation starts.  
Monitor the operation of the indoor unit for a minimum of 10 minutes. During test operation, the indoor unit will continue to cool regardless of the temperature setpoint and room temperature.

### NOTE

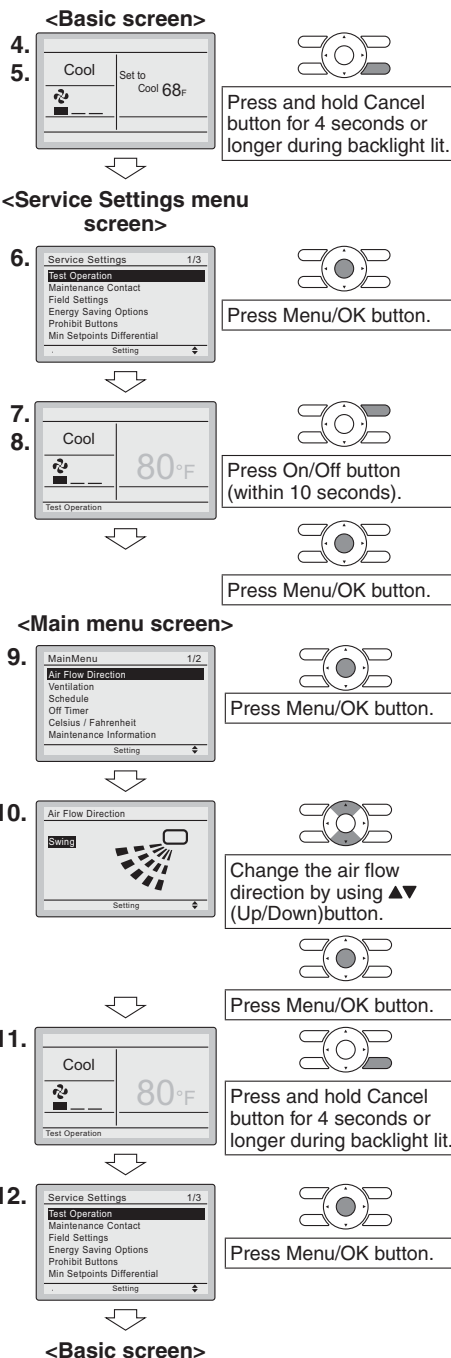
- In the case of above-mentioned procedures 6 and 7 in reverse order, test operation can start as well.
8. Press Menu/OK button in the basic screen. Main menu is displayed.
  9. Select **Air Flow Direction** in the main menu and check that air flow direction is actuated according to the setting.  
For operation of air flow direction setting, see the operation manual.
  10. After the operation of air flow direction is confirmed, press Menu/OK button. Basic screen returns.
  11. Press and hold Cancel button for 4 seconds or longer in the basic screen.  
Service settings menu is displayed.
  12. Select **Test Operation** in the service settings menu, and press Menu/OK button. Basic screen returns and normal operation is conducted.

### NOTE

- The test operation will automatically finish in 30 minutes.
13. Confirm function of unit according to the operation manual of the remote controller.
  14. If the decoration panel has not been installed, turn off the power after the test run.

## PRECAUTIONS

1. Refer to "12-2 HOW TO DIAGNOSE FOR MALFUNCTION" if the unit does not operate properly.



**12-2 HOW TO DIAGNOSE FOR MALFUNCTION**

- If the air conditioner does not operate normally after installing the air conditioner, a malfunction shown in the table below may happen.

Remote controller display	Description
No display	<ul style="list-style-type: none"> <li>• Power outage, power voltage error or open-phase</li> <li>• Incorrect wiring (between indoor and outdoor units)</li> <li>• Indoor PC-board assembly failure</li> <li>• Remote controller wiring not connected</li> <li>• Remote controller failure</li> <li>• Open fuse or tripped circuit breaker (outdoor unit)</li> </ul>
“Checking the connection. Please stand by.” *	<ul style="list-style-type: none"> <li>• Indoor PC-board assembly failure</li> <li>• Wrong wiring (between indoor and outdoor units)</li> </ul>

\* “Checking the connection. Please stand by” will be displayed for up to 90 seconds following the application of power to the indoor unit. This is normal and does not indicate a malfunction.

■ Diagnose with the display on the liquid crystal display remote controller.


1. With the wired remote controller.

When the operation stops due to a malfunction, operation lamp flashes, and the malfunction code is indicated on the liquid crystal display. In such a case, diagnose the fault contents by referring to **Error History** in the service settings menu in case of group control, the unit No. is displayed so that the indoor unit No. with the trouble can be recognized.

2. With the wireless remote controller.

(Refer also to the operation manual attached to the wireless remote controller)

When the operation stops due to a malfunction the display on the indoor unit flashes. In such a case, diagnose the fault contents with the error code which can be found by following procedures.

(1) Press the INSPECTION/TEST RUN button, “” is displayed and “0” flashes.

(2) Press the PROGRAMMING TIME button and find the unit No. which stopped due to trouble.

Number of beeps	3 short beeps.....	Perform all the following operations
	1 short beep .....	Perform (3) and (6)
	1 long beep.....	No trouble

(3) Press the OPERATION MODE SELECTOR button and upper figure of the error code flashes.

(4) Continue pressing the PROGRAMMING TIME button until it makes 2 short beeps and find the upper code.

(5) Press the OPERATION MODE SELECTOR button and lower figure of the error code flashes.

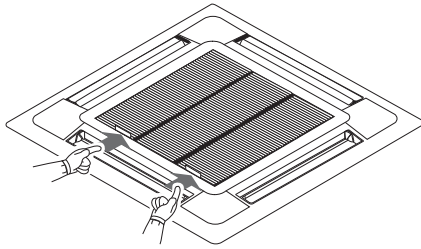
(6) Continue pressing the PROGRAMMING TIME button until it makes a long beep and find the lower code.

- A long beep indicate the error code.

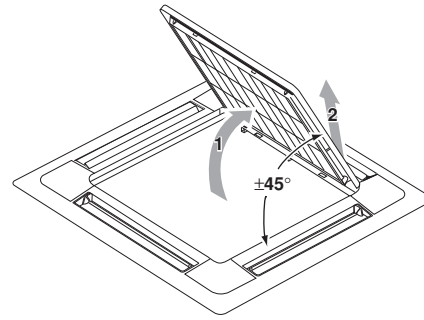
**NOTE** 

- Check the items in “b. Items to be checked at time of delivery” on page 6 after a test run.

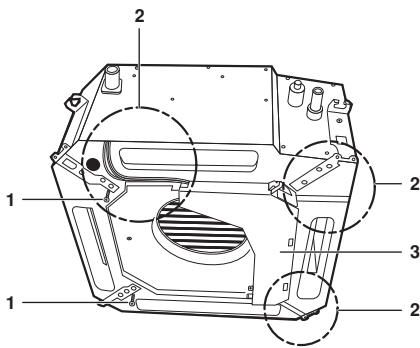
### 4.2 <BYFQ60B8W1U> Decoration Panel



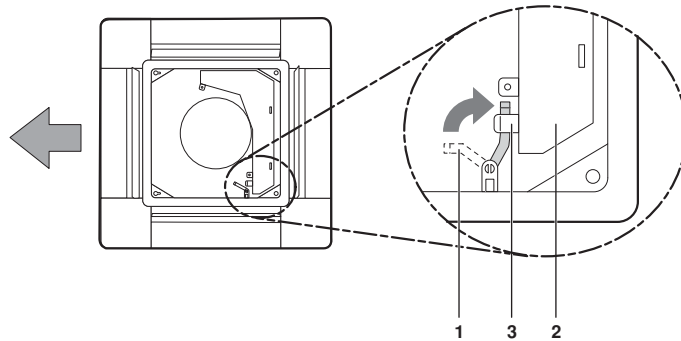
1



2

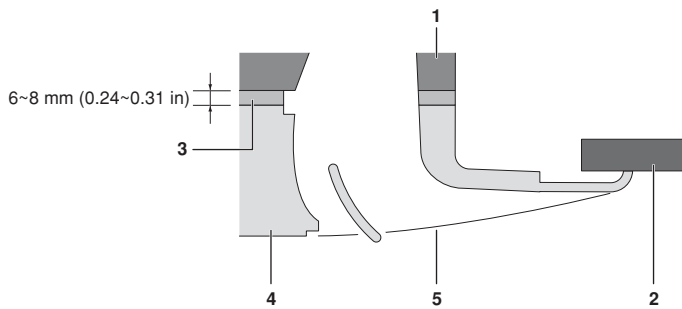


3



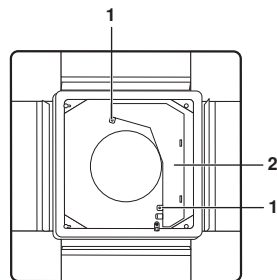
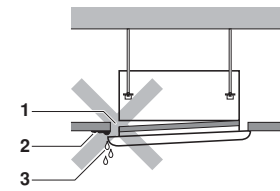
4

5

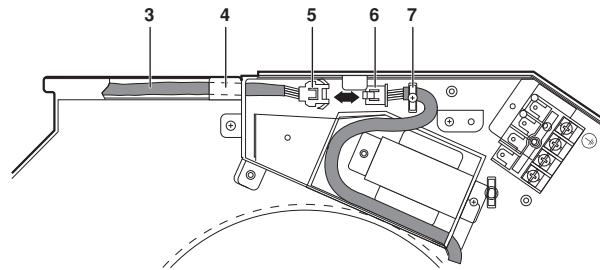


6

7



8



**⚠** Read this manual attentively before installation. Do not throw it away. Keep it in your files for future reference.


Improper installation or attachment of equipment or accessories could result in electric shock, short-circuit, leaks, fire or other damage to the equipment. Be sure only to use accessories made by Daikin that are specifically designed for the use with the equipment and have them installed by a professional.

If unsure of installation procedures or use, always contact your dealer for advice and information.

**BEFORE INSTALLATION**

- Leave the unit inside its packaging until you reach the installation site.
- Refer to the warning symbols on the unit.


**⚠ Rotary fan**





Cut off the main power before opening the grille.

- Refer to the installation manual of the indoor unit for items not described in this manual.

**NOTE To the installer**

 Be sure to instruct the customer how to properly operate the system showing him or her the operation manual of the indoor unit.

**Accessories**

Installation manual	
Screws (4x)	

**PREPARATION BEFORE INSTALLATION**

For this unit, you are able to select air flow directions. To discharge air in 2 or 3 directions, it is necessary to purchase the optional blocking pad kit.

**Handling of the decoration panel**

To prevent any damage to the decoration panel, take care of the following:

- Never place the panel with the front facing down.
- Never let the panel lean against a wall.
- Never put it down on a projecting object.
- Never touch or put pressure on the swing flap in order to prevent malfunction of the swing flap.

**Preparing the decoration panel for installation**

- 1 Remove the suction grille from the decoration panel.
  - Push the suction grille lever in the direction of the arrow and open the grille. (See figure 1)
  - Detach the suction grille from the decoration panel by lifting the grille up approximately 45 degrees so the grille can be removed. (See figure 2)

**INSTALLATION OF THE DECORATION PANEL TO THE INDOOR UNIT**

Refer to the installation manual of the indoor unit for details on installing the indoor unit.

- 1 Hold the decoration panel against the indoor unit by matching the piping side and drain side marks on the decoration panel with the position of the piping section and drain section of the indoor unit.

- 2 Install the decoration panel.

- 1 Make sure that the swing flap motor lead wire does not come out of the groove for routing the wire inside the indoor unit (3 locations). If it has, put it back in. (Connecting the decoration panel with the wire out of the groove may cause water leakage.)

- 2 Provisionally tighten the 2 supplied screws approximately 5 mm (0.2 in) into the indoor unit at the side opposite the switch box. (See figure 3)

- 1 Supplied screws
- 2 Groove for wire routing
- 3 Switch box

- 3 Slide the panel in the direction of the arrow, matching the 2 attachment holes (⊕) over the provisionally tightened screws. (See figure 4)
- 4 Turn the decoration panel lever at the side of the indoor unit switch box over the hook located on that switch box. (See figure 5)

- 1 Lever
- 2 Switch box
- 3 Hook

- 5 Attach the remaining screws and tighten all 4 screws until the thickness of the sealing material between the decoration panel and the indoor unit is reduced to 6~8 mm (0.24~0.31 in). (See figure 6)

- 1 Indoor unit
- 2 Ceiling
- 3 Sealing material
- 4 Decoration panel
- 5 Air outlet



**Precautions**

- Improper tightening of the screws (see [figure 7](#)) may cause air to leak into the unit and air to escape between the ceiling and the decoration panel (1), resulting in contamination (2) and dew formation (3).
- If there is a gap remaining between the ceiling and the decoration panel after tightening the screws, re-adjust the indoor unit body height.

**3 Wiring of the decoration panel (See [figure 8](#))**

- 1 Screws (2)
- 2 Switch box
- 3 Swing flap motor lead wire
- 4 Hang the swing flap motor lead wire on this tab
- 5 Connector of the decoration panel swing flap motor
- 6 Connector of the indoor unit
- 7 Clamp  
Pass the swing flap motor lead wire through the clamp as shown. After connection, store the connector inside the switch box.

- 1 Remove the switch box cover after making sure that the power to the unit is off.
- 2 Connect the connectors of the swing flap motor lead wire.
- 3 Put the switch box cover back in place and fix it with the 2 screws again.



- If the connectors are not connected properly, the swing flap will not work.
- Make sure that the swing flap motor lead wire is not caught between the indoor unit and the decoration panel.

**INSTALLATION OF THE SUCTION GRILLE**

Install the suction grille by reversing the procedure shown in "[Preparing the decoration panel for installation](#)" on [page 1](#).

- The suction grille may be installed in 4 directions by simply turning it 90 degrees.
- Change the direction when adjusting the direction of the suction grille of multiple units or to comply with the demands of the customer.

**NOTE**

Be careful not to get the swing flap motor lead wire caught when installing the suction grille.

### 4.3 <BRC1E71/E72> Wired Remote Controller

## 1. Safety Considerations

All phases of the field-installation, including, but not limited to, electrical, piping, safety, etc. must be in accordance with manufacturer’s instructions and must comply with national, state, provincial and local codes.




Read these **SAFETY CONSIDERATIONS** carefully before installing the remote controller.


After completing the installation, ensure that the remote controller operates properly during the startup operation.

Train the customer to operate and maintain the remote controller. Inform customers that they should store this Installation Manual with the Operation Manual for future reference.

Always use a licensed installer or contractor to install this product. Improper installation can result in electrical shock, fire, or explosion.

Meanings of **WARNING**, **CAUTION**, and **NOTE** Symbols.

 <b>WARNING</b>	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
 <b>CAUTION</b>	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.
 <b>NOTE</b>	Indicates situations that may result in equipment or property-damage accidents only.

 <b>WARNING</b>
Only qualified personnel must carry out the installation work.
Consult your Daikin dealer regarding relocation and reinstallation of the remote controller. Improper installation work may result in electric shocks or fire.
Install the remote controller in accordance with the instructions in the installation manual. Improper installation may cause electrical shocks or fire.
Use only specified accessories and parts for installation work. Failure to use specified parts may result in electric shocks, fire, or the unit falling.
Do not disassemble, reconstruct, or repair. Electric shock or fire may occur.
Make sure that all wiring is secured, that specified wires are used, and that no external forces act on the terminal connections or wires. Improper connections or installation may result in fire.
Before touching electrical parts, turn off the unit.

**⚠ CAUTION**

Keep water out of the remote controller.

To avoid electric shock due to entry of water or insects, fill the wiring through-hole with putty.  
Do not wash the remote controller with water as it may result in electrical shocks or fire.

Do not touch the remote controller buttons with wet fingers.  
Touching the buttons with wet fingers can cause an electric shock.

Do not install the remote controller in the following locations:

- (a) Where a mineral oil mist or oil spray or vapor is produced, for example, in a kitchen.  
Plastic parts may deteriorate and fall off.
- (b) Where corrosive gas, such as sulfurous acid gas, is produced.
- (c) Near machinery emitting electromagnetic waves.  
Electromagnetic waves may disturb the operation of the control system and cause the unit to malfunction.
- (d) Where flammable gas may leak, where there is carbon fiber or ignitable dust suspensions in the air, or where volatile flammables such as thinner or gasoline are handled.  
Operating the unit in such conditions can cause a fire.
- (e) High temperature area or directly flamed point.  
Heating and/or fire can occur.
- (f) Moist area, where there is exposure to water. If water enters the inside of the remote controller, it may cause electric shock and electrical components may fail.

**⚠ NOTE**





Install the control wires for the indoor and the remote controller at least 3.5 feet (1 meter) away from televisions or radios to prevent image interference or noise. Depending on the radio waves, a distance of 3.5 feet (1 meter) may not be sufficient to eliminate the noise.

When remote controller's thermostat sensor is used, select the installation location as per the following:

- A place where average temperature in the room can be detected.
- A place where it is not exposed to direct sunlight.
- A place where it is far apart from heat source.
- A place where it is not affected by outside air due to door opening/closing.

## 2. Accessories

The following accessories are included.

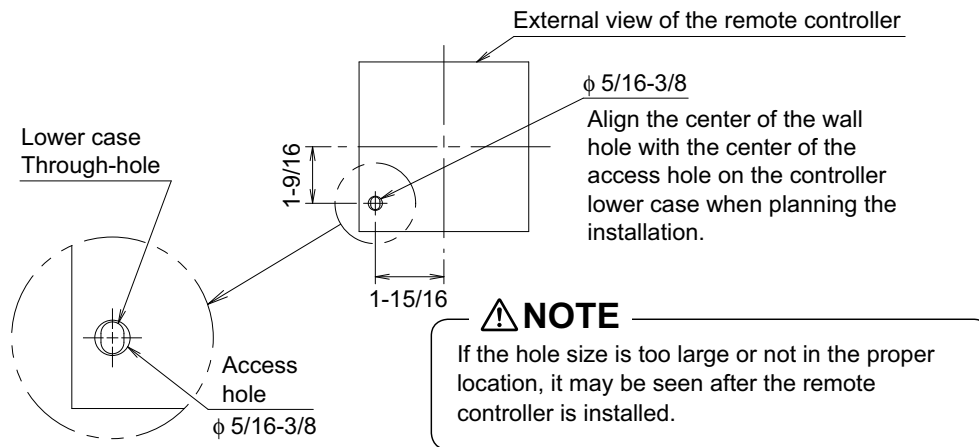
Wood screw	Small screw	Clamp	Operation manual	Installation manual	Wiring retainer
( $\phi 3.5 \times 16\text{mm}$ )	(M4 $\times 16\text{mm}$ )				
(2 pcs.)	(2 pcs.)	(1 pc.)	(1 pc.)	(1 pc.)	(1 pc.)

## 3. Remote controller installation procedure

### 3-1 Determine where to install the remote controller.

Make sure to follow the **Safety Considerations** when determining the location.

### 3-2 If the control cable for the remote controller is to be routed from the rear, make a hole in the wall taking into consideration the location of the access hole in the lower case.

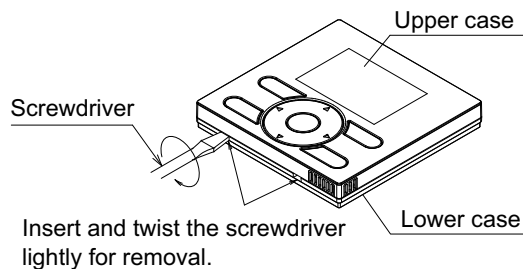


### 3-3 Remove upper case.

Insert a screwdriver in the recess of lower case to remove the upper case (2 points).

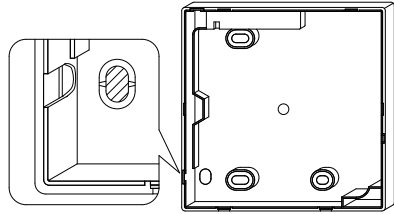
Remote controller PC-board is installed on the upper case. Take care not to damage the PC-board with the screwdriver.

Take care that dust or moisture does not touch the PC-board.



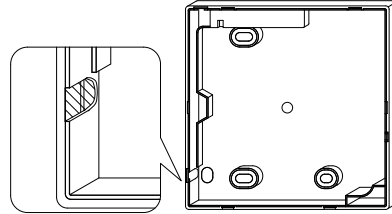
### 3-4 Determine the location where the cabling will enter the remote controller (back, left side, top left, top center).

#### 3-4-1 Back outlet



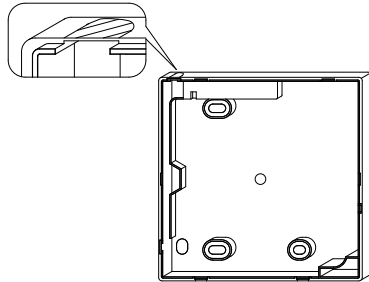
Cut off resin area (hatched area).

#### 3-4-2 Left outlet



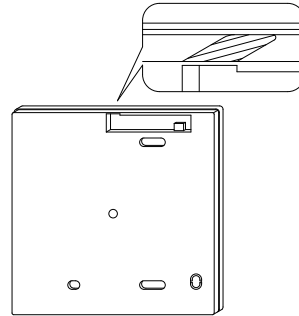
Using an appropriate tool, cut the plastic at the hatched area and remove any remaining burrs.

#### 3-4-3 Top left outlet



Using an appropriate tool, cut the plastic at the hatched area and remove any remaining burrs.

#### 3-4-4 Top center outlet



Using an appropriate tool, cut the plastic at the hatched area and remove any remaining burrs.

### 3-5 Install wiring.

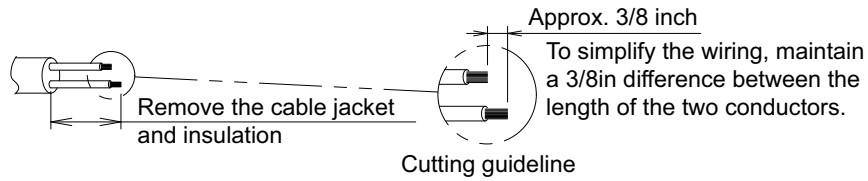
#### ⚠ NOTE

1. Switch box and control wiring are not attached.
2. Do not touch the remote controller PC-board.

#### Wiring Specifications

Wiring Type	Non-shielded, 2-conductor, stranded copper cable
Wiring Size	AWG-18
Wiring Length	Maximum 1640 feet (500m)

Prepare the cabling for connection to the remote controller following these instructions:

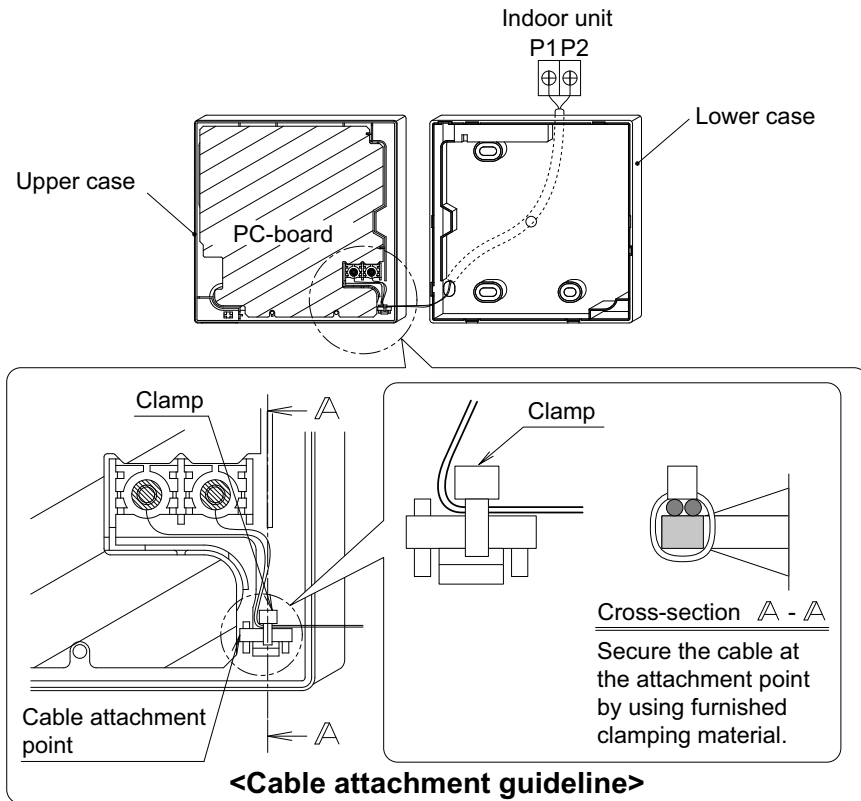


Length of jacket to be removed:

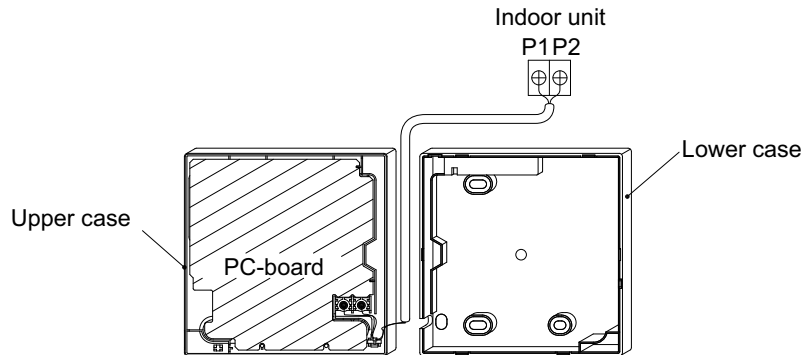
- Approx. 6 inch for top left outlet
- Approx. 8 inch for top center outlet

Connect the terminals (P/P1, N/P2) of the remote controller to the terminals (P1, P2) of the indoor unit. (P1 and P2 are not polarity sensitive.)

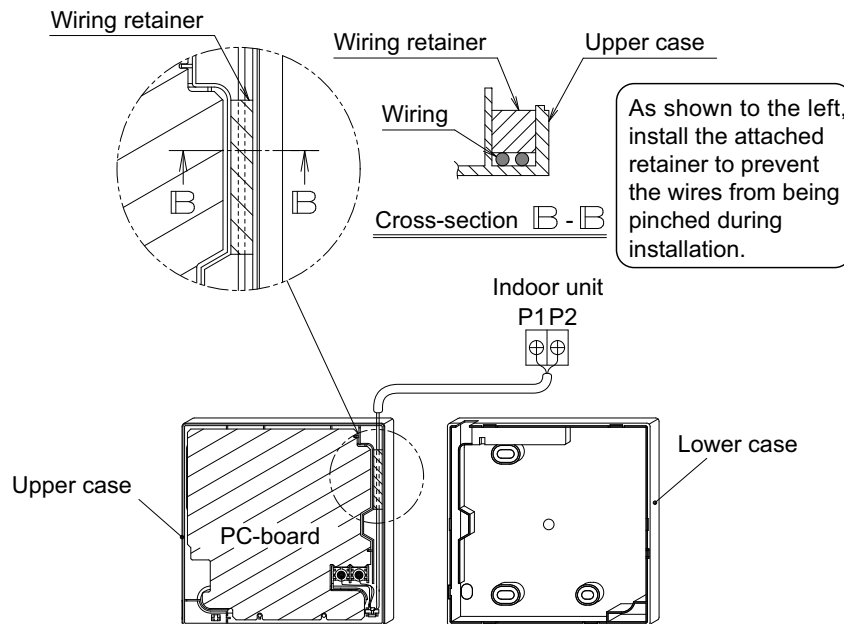
### 3-5-1 Back outlet



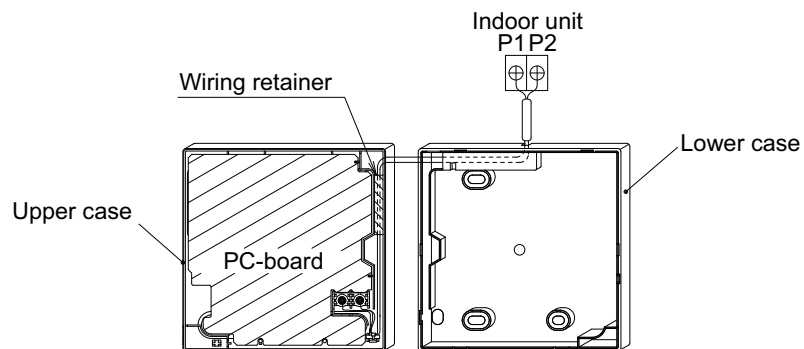
**3-5-2 Left outlet**



**3-5-3 Top left outlet**



**3-5-4 Top center outlet**



**NOTE**

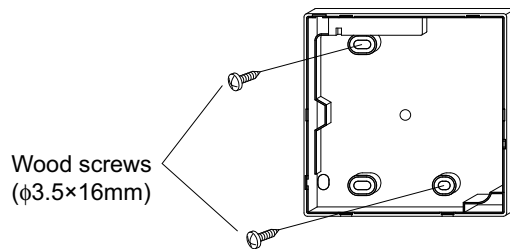
- To prevent electrical noise and possible communication errors, avoid installing the remote controller cabling parallel to or in the vicinity of line voltage circuits.

**3-6 Installation procedure for the lower case.**

When wiring the remote controller through the top center or rear access points, attachment of the cable to the lower case is required before it is wall mounted. Closely follow the wiring procedures.

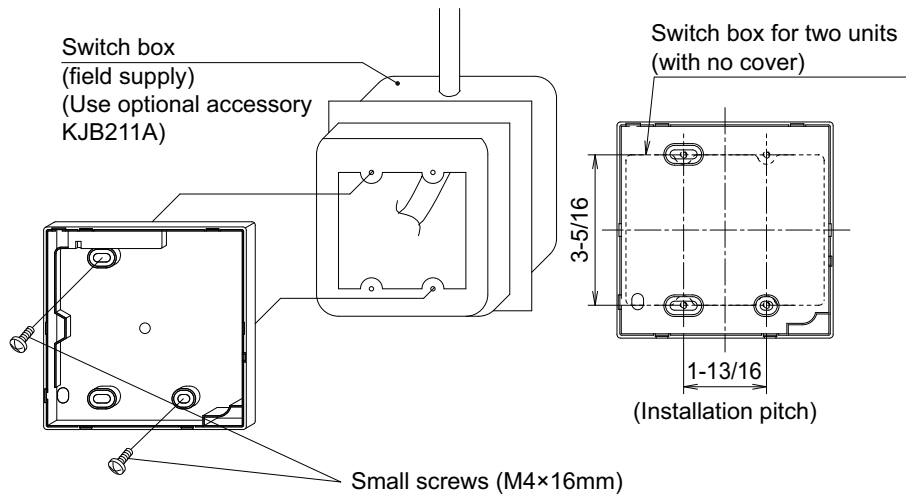
**3-6-1 Wall installatoin**

Secure by using attached wood screws (2 pcs.).

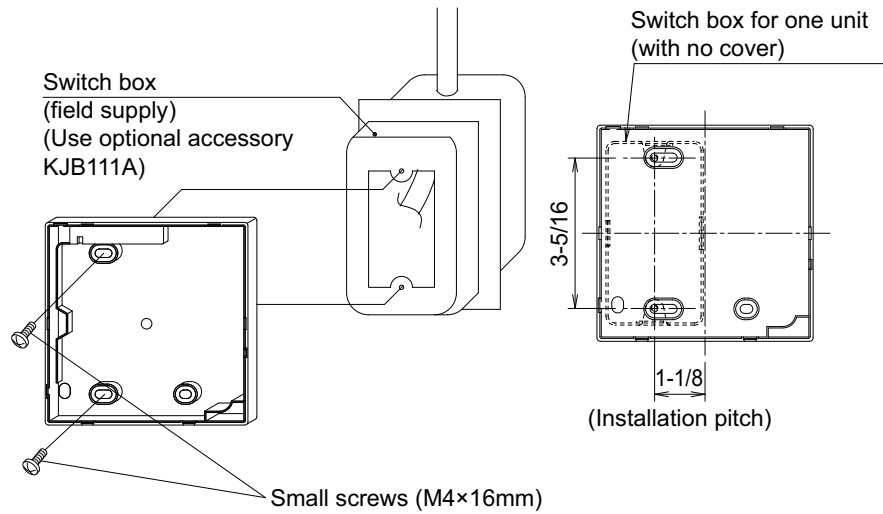


**3-6-2 Switch box installation**

Secure by using attached small screws (2 pcs.).





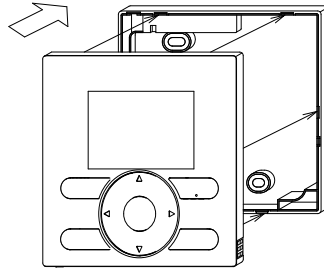


### ⚠ NOTE

- Install the control on a flat surface only.
- To prevent deformation of the lower case, avoid over-tightening the installation screws.

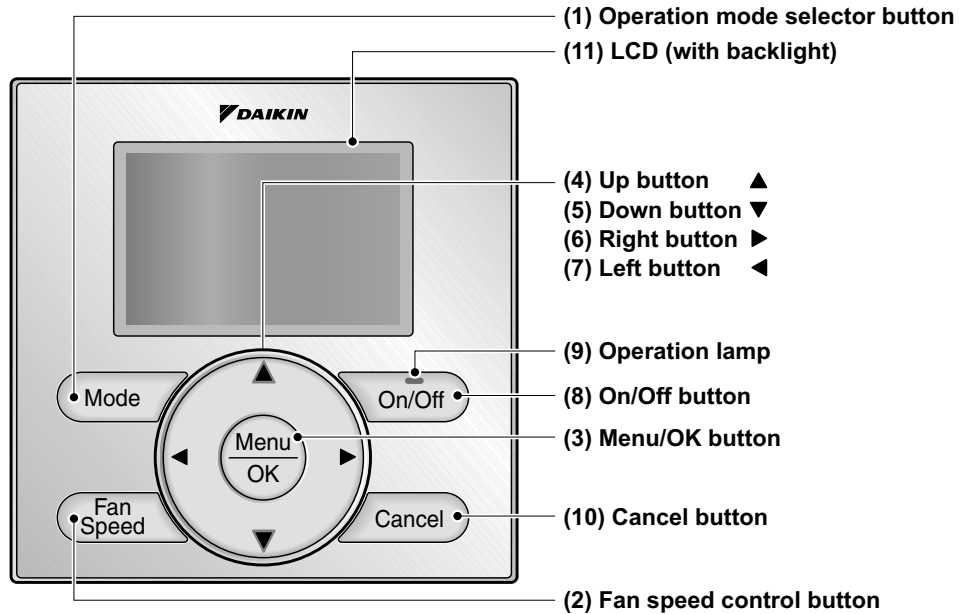
### 3-7 Install the upper case.

- Align the upper case with tabs of the lower case (6 points), insert and install the upper case.
- Install the wiring with care to prevent pinching.
- Peel off the protective membrane which overlays the upper case.



# 4. Functions and menu items of remote controller buttons

## 4-1 Functions and menu items



**(1) Operation mode selector button**  
Used to change the mode.

**(2) Fan speed control button**  
Used to change the fan control.

**(3) Menu/OK button**

- Used to indicate the main menu.  
(For details of the main menu, see the operation manual.)
- Used to enter the item selected.

Main Menu
Airflow Direction
Ventilation
Schedule
Off Timer
Celsius / Fahrenheit
Maintenance Information
Configuration
Current Settings
Clock & Calendar
Daylight Saving Time
Language

\*Depending on connected model

**(4) Up button ▲**

- Used to raise the setpoint temperature.
- The previous menu items will be highlighted.  
(The highlighted items will be scrolled continuously when the button is pressed continuously.)
- Used to change the selected item.

**(5) Down button ▼**

- Used to lower the setpoint temperature.
- Items below the currently selected item will be highlighted.  
(The highlighted items will be scrolled continuously when the button is pressed continuously.)
- Used to change the selected item.

**(6) Right button ►**

- Used to highlight items to the right of the currently selected item.
- Display contents are changed to next screen per page.

**(7) Left button ◀**

- Used to highlight items to the left of the currently selected item.
- Display contents are changed to previous screen per page.

**(8) On/Off button**

Press once to operate, and press once again to stop.

**(9) Operation lamp**

Green lamp lights up during operation. The lamp will blink if an malfunction occurs.

**(10) Cancel button**

- Used to return to the previous screen.
- Press and hold this button for 4 seconds or longer to display service settings menu.

**(11) LCD (with backlight)**

The backlight will illuminate for approximately 30 seconds by pressing any operation button.

**Service Settings menu**

- Test Operation
- Maintenance Contact
- Field Settings
- Energy Saving Options
- Prohibit Function
- Min Setpoints Differential
- Outdoor unit AirNet Address
- Error History
- Indoor Unit Status
- Outdoor Unit Status
- Forced Fan ON
- Switch Main Sub Controller
- Filter Indicator
- Brush/Filter Ind.
- Disable Filter Auto Clean

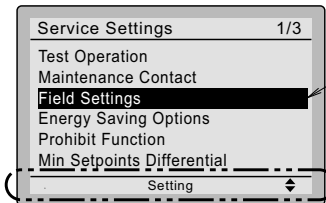
\*Depending on connected model

**⚠ NOTE**

- Operate the button while the backlight is illuminated.
- When one indoor unit is controlled by two remote controllers (main / sub) only the first controller to be accessed by the user will illuminate it's backlight.

**4-2 Button menu display descriptions**

**<Service Settings menu screen>**



Highlighted display (selected items)

In the highlighted display (selected items) setting screen, button operation descriptions are displayed.

## 5. Power-on

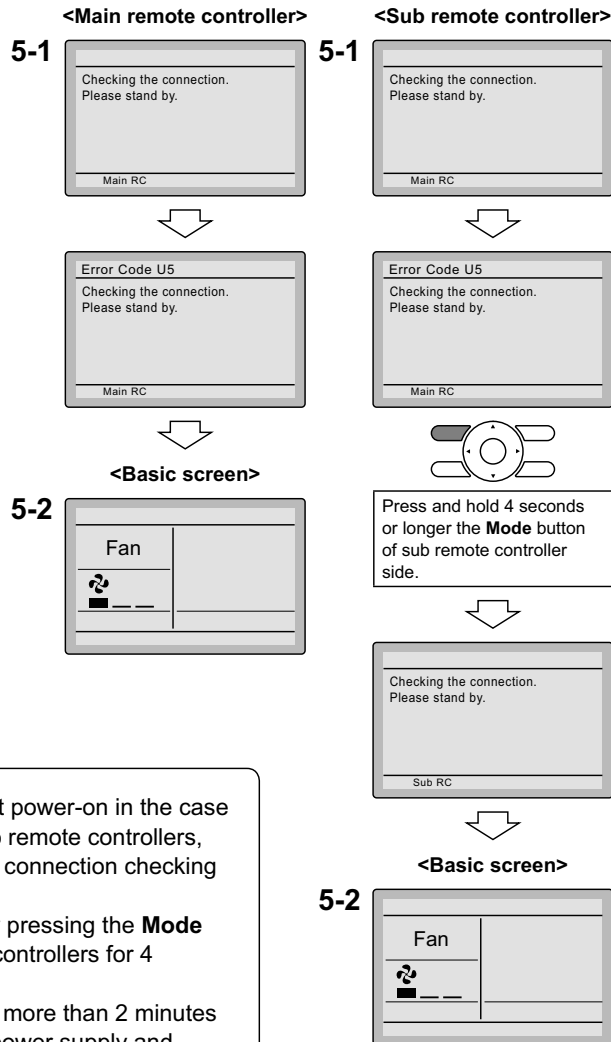
- Check for completion of indoor/outdoor unit wiring.
- Ensure that covers have been replaced on electrical component boxes for both indoor and outdoor units prior to restoring power.

**5-1** The following are displayed after power-on.  
**Checking the connection.**  
**Please stand by.**

During above display, the backlight will not be available.

**When 1 indoor unit is controlled by 2 remote controllers:**

Be sure to set sub remote controller during above display. Press and hold 4 seconds or longer the **Mode** button of the remote controller to be set. When the display is changed from main remote controller to sub remote controller, the setting is completed.



**5-2** Basic screen is displayed.

**NOTE**

If sub remote controller is not set at power-on in the case of one indoor unit controlled by two remote controllers, **Error Code: U5** is displayed in the connection checking screen. Select the sub remote controller by pressing the **Mode** button of either one of the remote controllers for 4 seconds or longer. If the basic screen is not displayed more than 2 minutes after **Sub RC** display, shut off the power supply and check the wiring.

**NOTE**

When selecting a different language, refer to **Chapter 12. Language.**  
 (See page 21.)

# 6. Field Settings

**6-1** Press and hold **Cancel** button for 4 seconds or longer.  
Service settings menu is displayed.

**6-2** Select **Field Settings** in the Service Settings menu, and press **Menu/OK** button.  
Field settings screen is displayed.

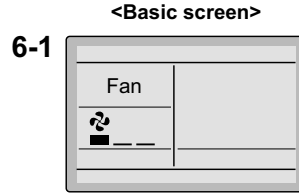
**6-3** Highlight the mode, and select desired "Mode No." by using **▲▼** (Up/Down) button.

**6-4** In the case of setting per indoor unit during group control (When Mode No. such as **20**, **21**, **22**, **23**, **25** are selected), highlight the unit No. and select "Indoor unit No." to be set by using **▲▼** (Up/Down) button. (In the case of group total setting, this operation is not needed.)

In the case of individual setting per indoor unit, current settings are displayed. And, SECOND CODE NO. " - " means no function.

**6-5** Highlight SECOND CODE NO. of the FIRST CODE NO. to be changed, and select desired "SECOND CODE NO." by using **▲▼** (Up/Down) button. Multiple identical mode number settings are available.

In case of setting for all indoor units in the remote control group, available SECOND CODE NO. is displayed as " \* " which means it can be changed. When SECOND CODE NO. is displayed as " - ", there is no function.



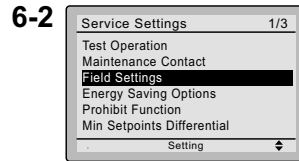
**6-1**



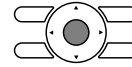
Press and hold **Cancel** button for 4 seconds or longer during backlight lit.



<Service Settings menu screen>



**6-2**

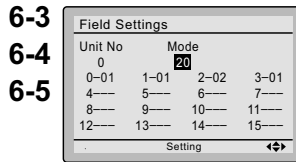


Press **Menu/OK** button.



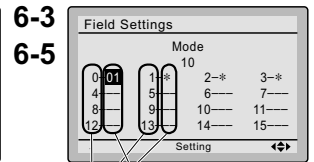
<Service Settings screen>

**In the case of individual setting per indoor unit**



**6-3**  
**6-4**  
**6-5**

**In the case of group total setting**



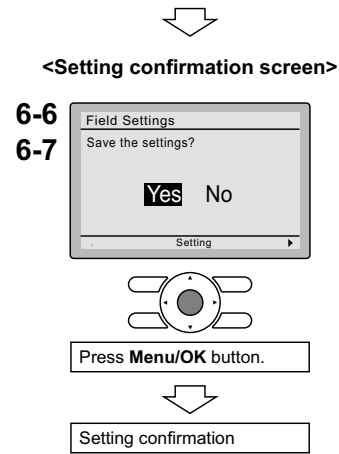
**6-3**  
**6-5**

SECOND CODE NO.  
FIRST CODE (SW) NO.



Press **Menu/OK** button.

- 6-6** Press **Menu/OK** button. Setting confirmation screen is displayed.
- 6-7** Select **Yes** and press **Menu/OK** button. Setting details are determined and field settings screen returns.
- 6-8** In the case of multiple setting changes, repeat “**6-3**” to “**6-7**”.
- 6-9** After all setting changes are completed, press **Cancel** button twice.
- 6-10** Backlight goes out, and **[Checking the connection. Please stand by.]** is displayed for initialization. After the initialization, the basic screen returns.



**NOTE**

- Installation of optional accessories on the indoor unit may require changes to field settings. See the manual of the optional accessory.
- For field setting details related to the indoor unit, see installation manual shipped with the indoor unit.

Mode No. (Note 1)	First Code No.	Description	Second Code No. (Note 2) (Items in bold are factory default settings)			
			01	02	03	04
10 (20)	2	Priority of thermistor sensors for space temperature control	The return air thermistor is primary and the remote controller thermistor is secondary.	The remote controller thermistor is not utilized. Only the return air thermistor will be utilized.	Only the remote controller thermistor will be utilized.	_____
	5	Room temperature value reported to multizone controllers	Return air thermistor	Thermistor designated by 10-2 above (Note 3)	_____	_____
12 (22)	2	Thermo-on/off deadband (Note 4)	2F (1C)	1F (0.5C)	_____	_____
1c	1	Thermistor sensor for auto changeover and setback control by the remote controller	Utilize the return air thermistor	Utilize the remote controller thermistor	_____	_____
	3	Access permission level setting	Level 2	Level 3	_____	_____
1e	2	Setback availability	N/A	Heat only	Cool only	Cool/Heat

- Notes)
1. Field settings are normally applied to the entire remote control group, however if individual indoor units in the remote control group require specific settings or for confirmation that settings have been established, utilize the mode number in parenthesis.
  2. Any features not supported by the installed indoor unit will not be displayed.
  3. When mode 10-2-01 is selected, only the return air temperature value is reported to the multizone controller.
  4. The actual default deadband value will depend upon the indoor unit model.

## 7. Test Operation

**Also see installation manuals attached to the indoor unit and the outdoor unit.**

- Check that wiring work of the indoor unit and the outdoor unit is completed.
- Ensure that covers have been replaced on electrical component boxes for both indoor and outdoor units prior to restoring power.
- After refrigerant piping, drain piping and electric wiring are completed, clean inside of the indoor unit and decorative panel.
- Perform the test operation according to following procedure.
- To protect the compressor, apply power to the outdoor unit at least 6 hours prior to test operation.
- Set the remote controller display mode to standard or detailed display mode. Refer to Operation Manual for the setting method.

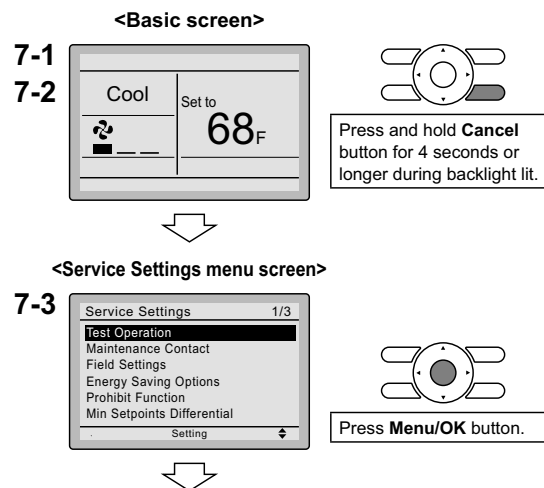
### Notes for backlight

- The backlight will illuminate for 30 seconds by pressing any button.
- The initial push of the button will only illuminate the backlight. While the backlight is illuminated, the buttons assigned functionality will be available.

**7-1** Set the operation mode to cooling by using the remote controller.

**7-2** Press and hold **Cancel** button for 4 seconds or longer. Service settings menu is displayed.

**7-3** Select **Test Operation** in the service settings menu, and press **Menu/OK** button. Basic screen returns and **Test Operation** is displayed at the button.



**7-4** Press **On/Off** button within 10 seconds, and the test operation starts. Monitor the operation of the indoor unit for a minimum of 10 minutes. During test operation, the indoor unit will continue to cool regardless of the temperature setpoint and room temperature.

\* Note) In the case of above-mentioned procedures **7-3** and **7-4** in reverse order, test operation can start as well.

**7-5** Press **Menu/OK** button in the basic screen. Main menu is displayed.

**7-6** In the case of a model having airflow direction function, select **Airflow Direction** in the main menu and check that airflow direction is actuated according to the setting. For operation of airflow direction setting, see the operation manual.

**7-7** After the operation of airflow direction is confirmed, press **Menu/OK** button. Basic screen returns.

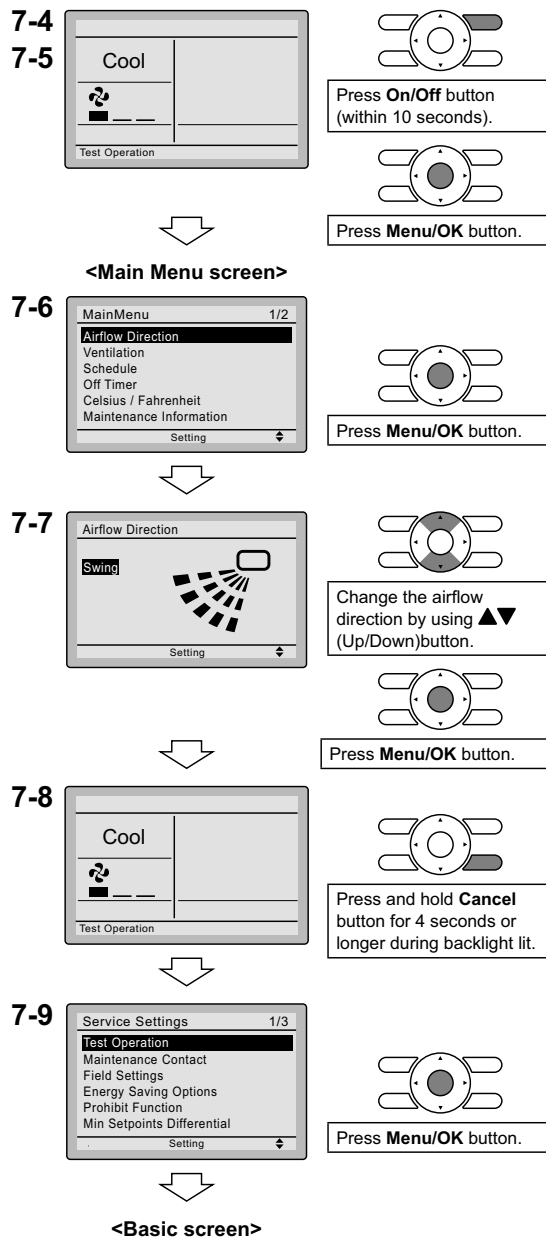
**7-8** Press and hold **Cancel** button for 4 seconds or longer in the basic screen. Service settings menu is displayed.

**7-9** Select **Test Operation** in the service settings menu, and press **Menu/OK** button. Basic screen returns and normal operation is conducted.  
\* Note) The test operation will automatically finish in 30 minutes.

**7-10** Check the functions according to the operation manual.

**7-11** When the decorative panel is not installed, shut off the power supply after the test operation finishes.

- If construction activities are planned within the space following the test operation procedure, recommend to the customer that the air conditioner is not operated to prevent contamination from paints, drywall dust and other airborne materials.





### NOTE

- If operation is not possible due to a malfunction, refer to following **Failure diagnosis method**.
- After the test operation finishes, check that error code history is not displayed in the Maintenance Information screen of the main menu according to the following procedure.

**7-12** Press **Menu/OK** button in the basic screen. Main menu screen is displayed.

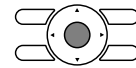
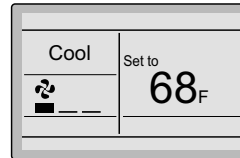
**7-13** Select **Maintenance Information** in the main menu, and press **Menu/OK** button.

**7-14** Maintenance Information screen is displayed. Check that error code history is not displayed in the screen.  
\* If no error code history is displayed following this procedure the system has normally completed the test operation mode.

**7-15** If the error code history is displayed, conduct the failure diagnosis referring to <Error code list> in the installation manual of the indoor unit. After the failure diagnosis finishes, press and hold **On/Off** button for 4 seconds or longer in the **Maintenance Information** screen to erase the error code history.

#### <Basic screen>

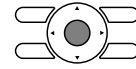
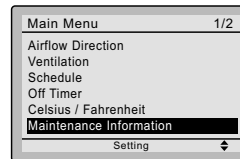
**7-12**



Press **Menu/OK** button.

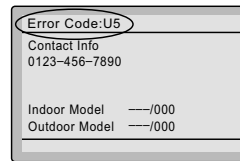
#### <Main menu screen>

**7-13**

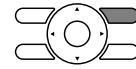


Press **Menu/OK** button.

**7-14**



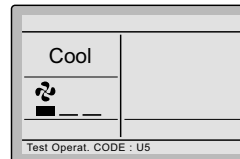
**7-15**



Press and hold **On/Off** button for 4 seconds or longer during backlight lit.

### Failure diagnosis method

- Whenever the remote controller display is blank or displays [**Checking the connection. Please stand by.**], troubleshoot the system per the items in the Description column of the following table.
- If an error occurs, **CODE** is displayed in the LCD as shown to the right. Conduct the failure analysis referring to <Error code list> in the installation manual of the indoor unit. When the unit No. which detected the error during group control is confirmed, refer to **Chapter 8: Procedure for Checking Error History**.

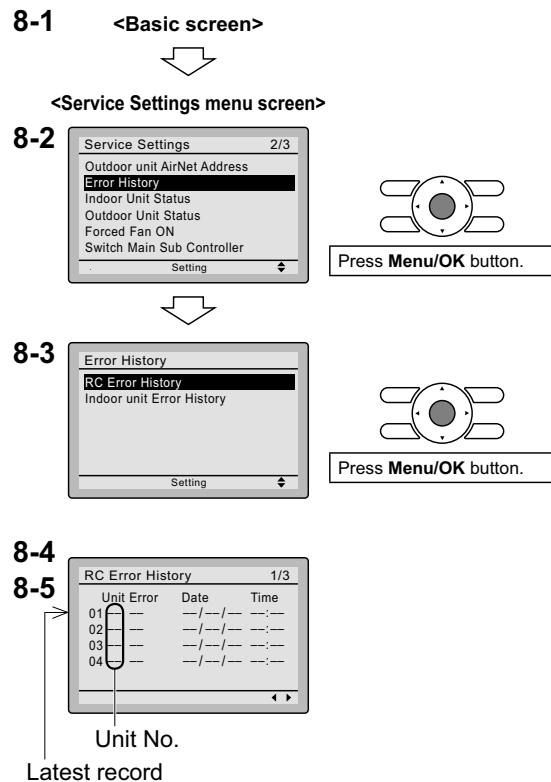


Remote controller display	Description
No display	<ul style="list-style-type: none"> <li>• Power outage, power voltage error or open-phase</li> <li>• Incorrect wiring (between indoor and outdoor units)</li> <li>• Indoor PC-board assembly failure</li> <li>• Remote controller wiring not connected</li> <li>• Remote controller failure</li> <li>• Open fuse or tripped circuit breaker (outdoor unit)</li> </ul>
Checking the connection. Please stand by. *	<ul style="list-style-type: none"> <li>• Indoor PC-board assembly failure</li> <li>• Wrong wiring (between indoor and outdoor units)</li> </ul>

\* [Checking the connection. Please stand by.] will be displayed for up to 90 seconds following the application of power to the indoor unit. This is normal and does not indicate a malfunction.

## 8. Procedure for Checking Error History

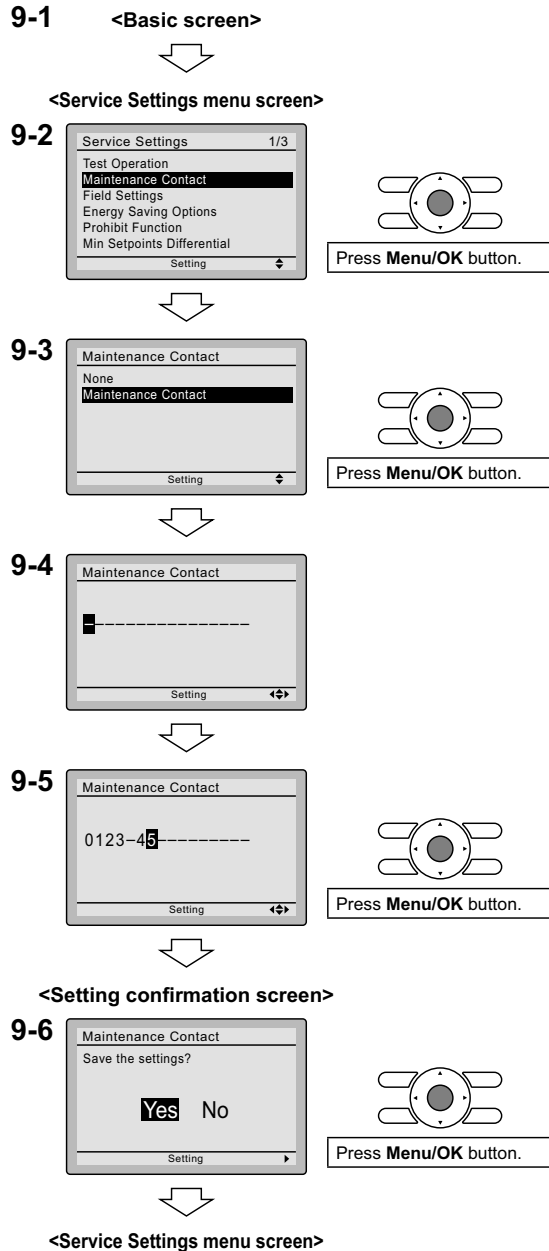
- 8-1** Press and hold **Cancel** button for 4 seconds or longer in the basic screen. Service settings menu is displayed.
- 8-2** Select **Error History** in the service settings menu, and press **Menu/OK** button. The error history menu screen is displayed.
- 8-3** Select **RC Error History** in the error history menu, and press **Menu/OK** button. Error codes and unit No. can be confirmed in the RC error history screen.
- 8-4** In the error history, the 10 most recent items are displayed in order of occurrence.
- 8-5** Press **Cancel** button in the RC error history screen 3 times. The basic screen returns.



# 9. Entering Maintenance Contact Information

- Registration of the maintenance contact.

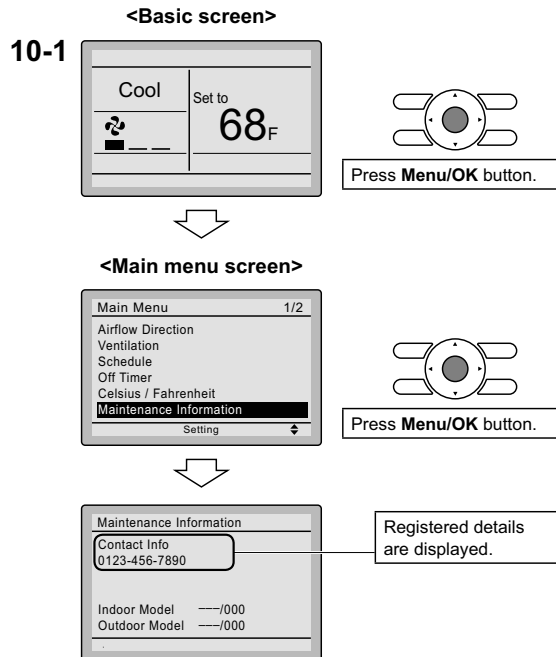
- 9-1** Press and hold **Cancel** button for 4 seconds or longer in the basic screen.  
Service settings menu is displayed.
- 9-2** Select **Maintenance Contact** in the service settings menu, and press **Menu/OK** button. "Maintenance Contact" menu screen is displayed.
- 9-3** Select **Maintenance Contact**, and press **Menu/OK** button.
- 9-4** Enter the telephone number.  
Scroll through the numbers by using **▲▼** (Up/Down) buttons. Start from the left side. Blank digits should remain as " -".
- 9-5** Press **Menu/OK** button.  
Setting confirmation screen is displayed.
- 9-6** Select **Yes** and press **Menu/OK** button.  
Setting details are determined and service settings menu screen returns.
- 9-7** Press **Cancel** button once.  
The basic screen returns.



## 10. Confirmation registered details

**10-1** Press **Menu/OK** button in the basic screen.  
Main menu is displayed.  
Select **Maintenance Information** in the main menu, and press **Menu/OK** button.

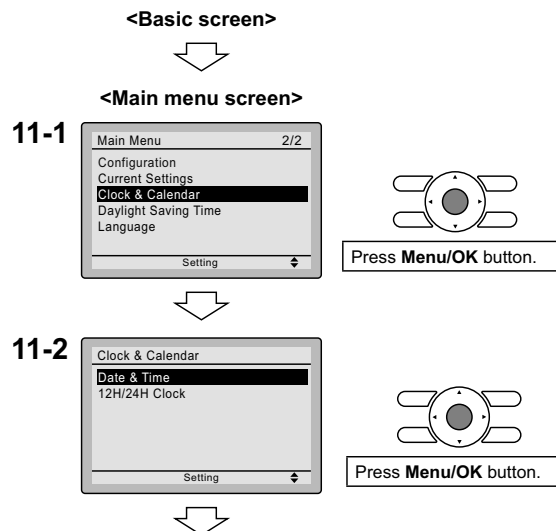
**10-2** Press **Cancel** button twice.  
The basic screen returns.



## 11. Clock & Calendar

**11-1** Press **Menu/OK** button in the basic screen.  
Main menu is displayed.  
Select **Clock & Calendar** in the main menu, press **Menu/OK** button.

**11-2** Press **▲▼** buttons to select **Date & Time** on the clock & calendar screen.  
\* The date & time screen will appear when the **Menu/OK** button is pressed.



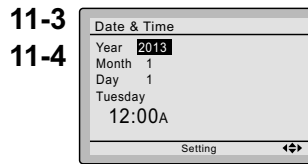
**11-3** Select **year, month, day** and **time** by using ◀▶ (Left/Right) button and set by using ▲▼ (Up/Down) button in the Date & Time screen. Press and hold the button for continuous change of the numeric value.

\* Day of the week is set automatically.

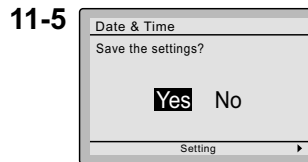
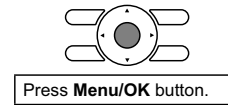
**11-4** Press **Menu/OK** button.  
Setting confirmation screen is displayed.

**11-5** Select **Yes** and press **Menu/OK** button.  
Setting details are confirmed and basic screen returns.

\* If duration of power outage exceeds 48 hours, reset is needed.



**11-4**



<Basic screen>

## 12. Language

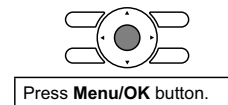
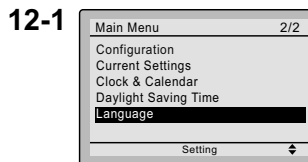
**12-1** Press **Menu/OK** button in the basic screen.  
Main menu is displayed.  
Select **Language** in the main menu, press **Menu/OK** button.

**12-2** Press ▲▼ (Up/Down) buttons to select **Language** on the language screen.  
English/Français/Español  
Press **Menu/OK** button.

<Basic screen>



<Main Menu screen>



## 4.4 <BRC7E830> Wireless Remote Controller

### CONTENTS

1. SAFETY CONSIDERATIONS .....	1
2. BEFORE INSTALLATION.....	2
3. REMOTE CONTROLLER INSTALLATION.....	2
4. RECEIVER INSTALLATION.....	3
5. FIELD SETTING .....	7
6. TEST RUN .....	9

### 1. SAFETY CONSIDERATIONS

Please read these “SAFETY CONSIDERATIONS” carefully before installing air conditioning equipment and be sure to install it correctly. After completing the installation, make sure that the unit operates properly during the test run. Please instruct the customer on how to operate the unit and keep it maintained.

Also, inform customers that they should store this installation manual along with the operation manual for future reference. This air conditioner comes under the term “appliances not accessible to the general public”.

Meaning of warning, caution and note symbols.

**⚠ WARNING** . . . . . Indication a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**⚠ CAUTION** . . . . . Indication a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

**⚠ NOTE** . . . . . Indication situation that may result in equipment or property-damage-only accidents.

— **⚠ WARNING** —

- **Perform installation work in accordance with this installation manual.**  
Improper installation may result in electric shocks or fire.
- **Be sure to use only the specified accessories and parts for installation work.**  
Failure to use the specified parts may result in, electric shocks, fire or the unit falling.
- **Before touching electrical parts, turn off the unit.**
- **Do not touch the switch with wet fingers.**  
Touching a switch with wet fingers can cause electric shock.

— **⚠ CAUTION** —

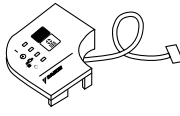
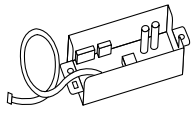

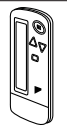

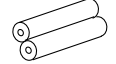


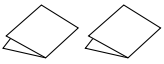
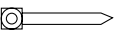
- **Refer also to the installation manuals attached to the indoor unit and the decoration panel.**
- **Confirm that the following conditions are satisfied prior to installation.**  
Ensure that nothing interrupts the operation of the wireless remote controller. (Ensure that there is neither a source of light nor fluorescent lamp near the receiver. Also, ensure that the receiver is not exposed of direct sunlight.)  
Ensure that the operation display lamp and other indicators are easy to see.
- **The installation position of this receiver is one corner of the decoration panel. Therefore, confirm that its position is set so that the signal from the wireless remote controller can be easily transmitted and its display can be easily seen.**

- If both this kit and fresh air intake kit are installed, only one duct chamber shall be used. Refer to the installation manual of the fresh air intake kit.

## 2. BEFORE INSTALLATION

### 2-1 ACCESSORIES

Check if the following accessories are included with your unit.

Name	Receiver	Transmitter board	Tapping screw for transmitter board	Wireless remote controller	Remote controller holder
Quantity	1 set.	1 pc.	2 pcs.	1 pc.	1 pc.
Shape					
Name	Dry cell battery LR03 (AAA)	Unit No. label	Screw for installing remote controller holder	Operation manual Installation manual	Clamp
Quantity	2 pcs.	1 pc.	2 pcs.	1 each	1 pc.
Shape					

### 2-2 NOTE TO THE INSTALLER

- Be sure to instruct the customer how to properly operate the system showing him/her the attached operation manual.

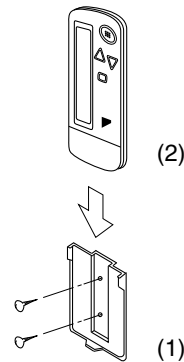
## 3. REMOTE CONTROLLER INSTALLATION

### <Installing wireless remote controller>

- Do not throw the remote controller or impose large shocks. Also, do not store where it may be exposed to moisture or direct sunlight.
- When operating, point the transmitting part of the remote controller in the direction of the receiver.
- The direct transmitting distance of the remote controller is approximately 23 ft.
- The signal cannot be transmitted if something such as curtains blocks the receiver and the remote controller.

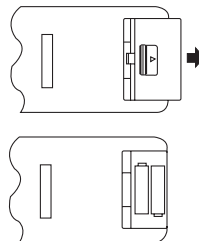
- **Installing to a wall or a pillar**

- (1) Fix the remote controller holder with the screws.
- (2) Slide the remote controller into the remote controller holder from the top.



- **How to insert the batteries**

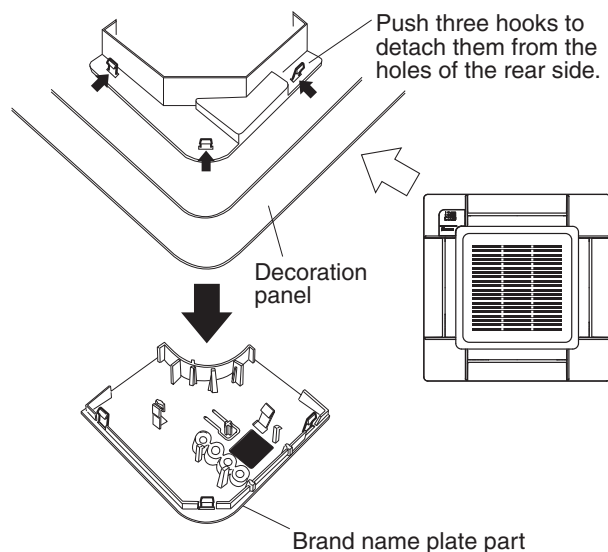
1. Open the back cover of the remote controller by sliding it in the direction of the arrow.
2. Insert the attached dry cell batteries. Properly insert, set the batteries by matching the (+) and (-) polarity marks as indicated. Then close the cover as before.



#### 4. RECEIVER INSTALLATION

##### (1) Preparations before installation

1. Detach the brand name plate part of the decoration corner panel piece, before attaching the decoration panel. This part is not needed hereafter.
2. Next, remove the suction grille and the air filter according to the instructions in the installation manual attached to the decoration panel.
3. Remove the control box cover according to the instructions in the installation manual attached to the indoor unit.  
(Be sure to turn off power, before removing the control box cover.)



##### (2) Determination of address and MAIN/SUB remote controller.




If setting multiple wireless remote controllers to operate in one room, perform address setting for the receiver and the wireless remote controller.  
If setting multiple wired remote controllers in one room, change the MAIN/SUB switch of the receiver.





**SETTING PROCEDURE**

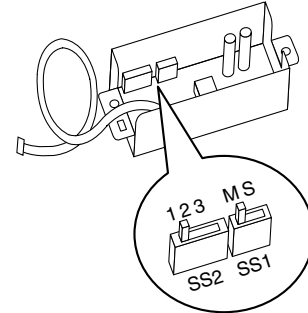
**1. Setting the receiver**

Set the wireless address switch (SS2) on the transmitter board according to the table below.

Unit No.	No. 1	No. 2	No. 3
Wireless address switch (SS2)			




When using both a wired and a wireless remote controller for 1 indoor unit, the wired controller should be set to MAIN. Therefore, set the MAIN/SUB switch (SS1) of the transmitter board to SUB.

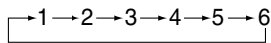
	MAIN	SUB
MAIN/SUB switch (SS1)		





**2. Setting the address of wireless remote controller (It is factory set to "1")**

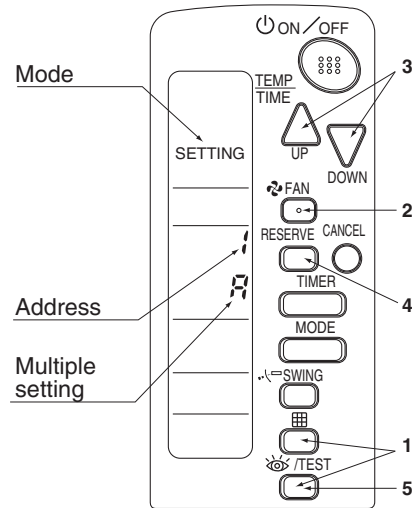
<Setting from the remote controller>

1. Hold down the  button and the  button for at least 4 seconds to get the Field Set mode. (Indicated in the display area in the figure at right.)
2. Press the  button and select a multiple setting (A/b). Each time the button is pressed the display switches between "A" and "b".
3. Press the "UP" button and "DOWN" button to set the address.



Address can be set from 1 to 6, but set it to 1 – 3 and to same address as the receiver. (The receiver does not work with address 4 – 6.)

4. Press the  button to enter the setting.
5. Hold down the  button for at least 1 second to quit the Field Set mode and return to the normal display.



— Multiple settings A/b —

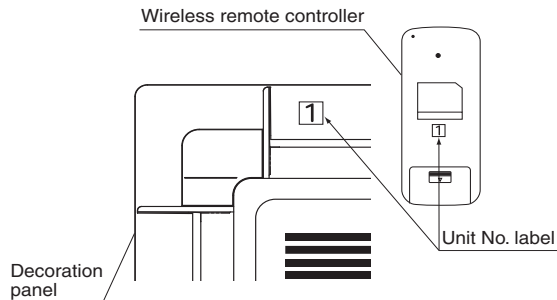
When the indoor unit is operated by outside control (central remote controller, etc.), it sometimes does not respond to ON/OFF and temperature setting commands from this remote controller. Check what setting the customer wants and make the multiple setting as shown below.

Remote controller		Movement when the operation is controlled by the other air conditioners and equipment
Multiple setting	Remote controller display	
A: Standard	All items displayed.	When operation changeover, temperature setting or the like is carried out from the remote controller, the indoor unit rejects the instruction. (Signal receiving sound “peeh” or “pick-pick-pick”) As a result, a discrepancy between the operation state of the indoor unit and the indication of the remote controller display occurs.
b: Multi System	Operations remain displayed shortly after execution.	Since the indication of the remote controller is turned off, no discrepancy such as mentioned above occurs.

3. Stick the Unit No. label on the air outlet of the decoration panel and the back of the wireless remote controller.

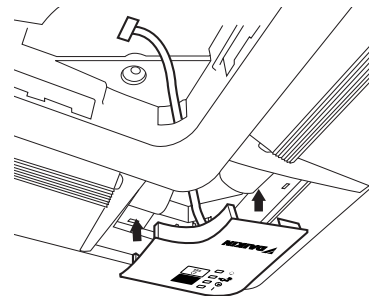
[PRECAUTIONS]

Set the Unit No. of the receiver and the wireless remote controller to be equal. If the settings differ, the signal from the remote controller cannot be transmitted.

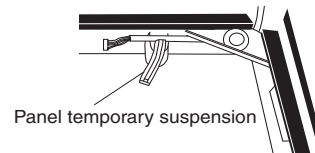


(3) Receiver installation

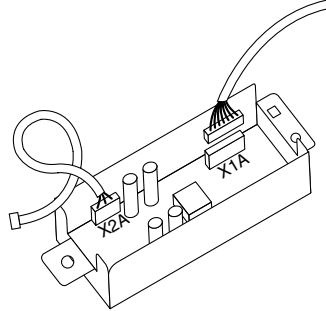
1. As shown at right, pass the harness from the receiver through the wiring hole of the decoration panel. Then, attach the receiver to the decoration panel.



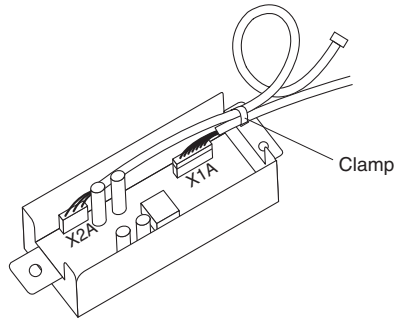
2. Hook the harness from the receiver on the upper part of the panel temporary suspension of the decoration panel. Be sure to push the harness to the groove.



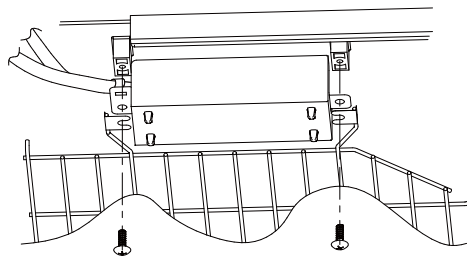
3. Attach the decoration panel to the indoor unit.  
(Refer to the installation manual attached to the decoration panel.)
4. Connect the harness from the receiver to the connector X1A on the transmitter board.



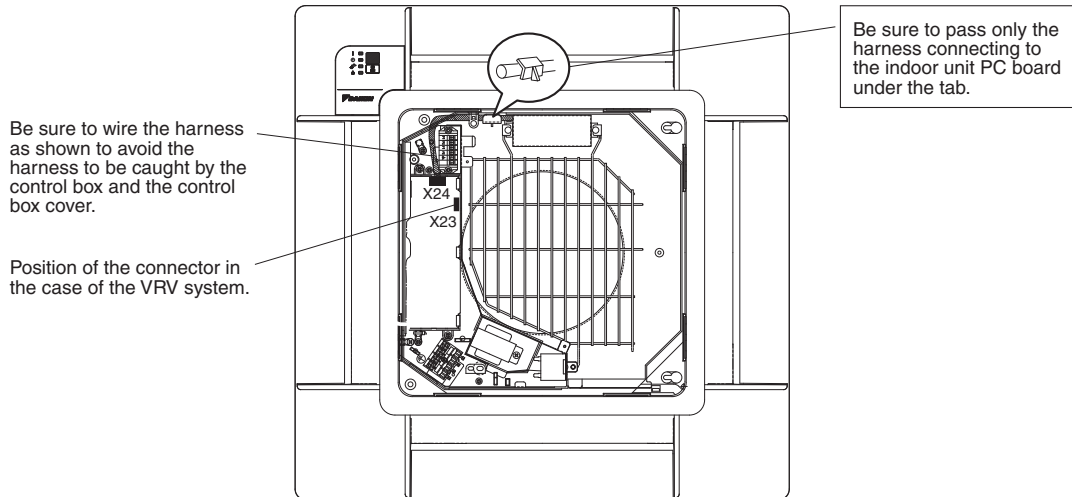
After connecting, use the attached clamp to fix the two harnesses to the transmitter board box.



5. Use two tapping screws to attach the transmitter board to the indoor unit, as shown in the figure.



- Connect the harness from the transmitter board to the connector X23 or X24 on the indoor unit PC board.



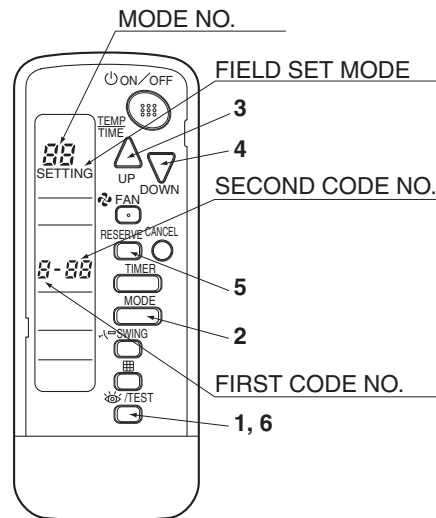
3

### 5. FIELD SETTING

If optional accessories are mounted on the indoor unit, the indoor unit setting may have to be changed. Refer to the installation manual for each optional accessory.

**Procedure**

- When in the normal mode, press the button for a minimum of four seconds, and the FIELD SET MODE is entered.
- Select the desired MODE NO. with the button.
- Push the “” button and select the FIRST CODE NO.
- Push the “” button and select the SECOND CODE NO.
- Push the button and the present settings are SET.
- Push the button to return to the normal mode.



(Example)

If the time to clean air filter is set to “Filter Contamination-Heavy”, set Mode No. to “10”, FIRST CODE NO. to “0”, and SECOND CODE NO. to “02”.

MODE NO.	FIRST CODE NO.	DESCRIPTION OF SETTING		SECOND CODE NO. NOTE)				
				01	02	03		
10	0	Filter Contamination-Heavy/Light (Setting for spacing time of display time to clean air filter) (Setting for when filter contamination is heavy, and spacing time of display time to clean air filter is to be halved)	Long-life type	light	approx. 2,500 hours	heavy	approx. 1,250 hours	-
	3	Spacing time of display time to clean air filter count (Setting for when the filter sign is not to be displayed)		Display		Do not display		-
12 (VRV system)	1	ON/OFF input from outside (Set to enable starting/stopping from remote.)		Forced OFF input		ON/OFF		-
	2	Thermostat differential changeover (Set when using remote controller thermostat sensor.)		1°F		0.5°F		-
13	1	Selection of Air Flow Direction (Setting for when a sealing member of air discharge outlet kit has been installed)		F		T		W
	4	Air Flow Direction Range Setting		Upper		Normal		Lower

**NOTE** 

- The SECOND CODE NO. is factory set to “01”. However, for the following cases it is set to “02”.
  - Air Flow Direction Range Setting

Do not use any settings not listed in the table.





For group control with a wireless remote controller, initial settings for all the indoor units of the group are equal. (For group control, refer to the installation manual attached to the indoor unit for group control.)

## 6. TEST RUN

- Perform test run according to the instructions in the installation manual attached to the indoor unit.
- After refrigerant piping, drain piping, and electric wiring, operate according to the table to protect the unit.

### [PRECAUTIONS]

1. Refer to malfunction code of installation manual attached to the indoor unit, if it does not operate.
2. Refer to the installation manual attached to the outdoor unit for individual operation system types.

Order	Operation
(1)	Open gas side stop valve.
(2)	Open liquid side stop valve.
(3)	Electrify for 6 hours.
(4)	Set to cooling with the remote controller and push  button to start operation.
(5)	Push  button twice and operate in TEST RUN mode for 3 minutes.
(6)	Push  button and confirm its operation.
(7)	Push  button and operate normally.
(8)	Confirm its function according to the operation manual.



# Part 4

## Operation Manual

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# 1. RMXS48LVJU

## REGARDING USE

### POINTS THE CUSTOMER SHOULD BE AWARE OF

#### ■ COMFORT

##### At startup

- After the power is initially turned on, it will take approx. 10 minutes until startup. Usually the unit will start in 3 minutes.

##### HEAT operation

- The colder it is outside or the greater the number of indoor units, the longer the time required from the start of operation until the emission of warm air (around 95°F / 35°C). When the outside temperature is 23 to 35°F (-5 to 2°C), the inside temperature is 41 to 50°F (5 to 10°C), and total indoor unit combination is 100% capacity, the first startup of all indoor units in the morning will take approximately 20 to 30 minutes.
- Oil return operation will be performed once every 8 hours to preserve the lubrication of oil to the compressor.  
Since operation is switched to cooling cycle during HEAT operation in order to return the oil, HEAT operation will not be possible for around 5 to 10 minutes.
- When the outside temperature is 82°F (28°C) or higher, the unit will be set to the standby mode for protection.

#### ■ OPERATING NOISE

##### At startup

- During startup, in order to emit warm or cool air as quickly as possible, the sound of refrigerant flowing will be heard for a short time (1 to 2 minutes) from the outdoor unit.

##### At shutdown

- In order to ensure smooth startup the next time this unit is operated, the outdoor unit will continue to operate for around 1 minute after shutdown. (The time of continued operation depends on the outside temperature, capacity of connected indoor units, and connection pipe length.)

##### Cooling at low outside temperatures

- During COOL operation when the outside temperature is 68°F (20°C) or less, the fan of the outdoor unit will operate at low speed to preserve capacity and the outdoor unit valve will be opened depending on the pressure conditions, making it more likely that the sound of refrigerant flowing will be heard.

##### Defrost

- When the outside unit is performing defrost operation, the fan of the indoor unit will stop temporarily, and the slight sound of refrigerant flowing will be heard.

##### Excessive heating load

- During HEAT operation when the outside temperature is high (59 to 75°F / 15 to 24°C), the fan of the outdoor unit will be operated at low speed, making it more likely that the sound of refrigerant flowing will be heard from the outdoor unit.

## 2. CTXS, FTXS, CDXS, FDXS Series

### 2.1 Manual Contents and Reference Page

Model Series	CTXS07JVJU CTXS09/12HVJU	CTXS07LVJU FTXS15/18/24LVJU	CDXS, FDXS Series
<b>Read Before Operation</b>			
Safety Considerations	194	194	194
Names of Parts	197	201	205
Preparation before Operation ★	209	209	209
<b>Operation</b>			
AUTO · DRY · COOL · HEAT · FAN Operation ★	211	211	211
Adjusting the Airflow Direction and Rate	213	216, 218	220
COMFORT AIRFLOW/INTELLIGENT EYE Operation	221	223	—
POWERFUL Operation ★	225	225	225
OUTDOOR UNIT QUIET Operation ★	226	226	226
ECONO Operation ★	—	227	227
HOME LEAVE Operation	228	—	—
OFF TIMER Operation ★	230	230	230
ON TIMER Operation ★	231	231	231
WEEKLY TIMER Operation	—	232	—
<b>Multi Connection</b>			
Note for Multi System	238	238	238
<b>Care</b>			
Care and Cleaning	240	244	249
<b>Troubleshooting</b>			
Troubleshooting ★	251	251	251
Quick Reference ★	256	256	256
Drawing No.	3P232717-3D	C: 3P297290-1 C: 3P297290-2	C: 3P297290-3B





★: Illustrations are for CTXS07LVJU as representative.

## 2.2 Safety Considerations

Read these **SAFETY CONSIDERATIONS for Operations** carefully before operating an air conditioner or heat pump. Make sure that the unit operates properly during the startup operation. Instruct the customer on how to operate and maintain the unit.

Inform customers that they should store this Operation Manual with the Installation Manual for future reference.

Meanings of **DANGER**, **WARNING**, **CAUTION**, and **NOTE** Symbols:

-  **DANGER** ..... Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
-  **WARNING** ..... Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
-  **CAUTION** ..... Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.
-  **NOTE** ..... Indicates situations that may result in equipment or property-damage accidents only.

- Do not install the unit in an area where flammable materials are present due to risk of explosion or it will result in serious injury or death.
- Any abnormalities in the operation of the air conditioner or heat pump, such as smoke or fire, will result in severe injury or death. Turn off the power and contact your dealer immediately.
- Refrigerant gas may produce toxic gas if it comes into contact with fire, such as from a fan, heater, stove, or cooking device. Exposure to this gas will result in severe injury or death.
- For refrigerant leakage, consult your dealer. Refrigerant gas is heavier than air and replaces oxygen. A massive leak will result in oxygen depletion, especially in basements, and an asphyxiation hazard will result, leading to serious injury or death.
- If equipment utilizing a burner is used in the same room as the air conditioner or heat pump, there is the danger of oxygen deficiency which will result in an asphyxiation hazard resulting in serious injury or death. Be sure to ventilate the room sufficiently to avoid this hazard.
- Safely dispose of the packing materials. Packing materials, such as nails and other metal or wooden parts, will result in stabs or other injuries.
- Tear apart and throw away plastic packaging bags so that children will not play with them. Children playing with plastic bags will result in death by suffocation.
- Contact your dealer for repair and maintenance. Improper repair and maintenance could result in water leakage, electric shock, and fire. Only use accessories made by Daikin that are specifically designed for use with the equipment and have them installed by a professional.
- Contact your dealer to move and reinstall the air conditioner or heat pump. Incomplete installation could result in water leakage, electric shock, and fire.
- Never let the indoor unit or the remote controller get wet. Water could result in an electric shock or a fire.
- Never use flammable spray such as hair spray, lacquer, or paint near the unit. Flammable spray could result in a fire.
- When a fuse blows out, never replace it with one of incorrect ampere ratings or different wires. Always replace any blown fuse with a fuse of the same specification.
- Never remove the fan guard of the unit. A fan rotating at high speed without the fan guard is very dangerous and could result in injury.
- Never inspect or service the unit by yourself. Contact a qualified service person to perform this work.
- Turn off all electrical power before doing any maintenance to avoid the risk of serious electric shock; never sprinkle or spill water or liquids on the unit.
- Do not touch the switch with wet fingers. Touching a switch with wet fingers could result in electric shock.
- Do not allow children to play on or around the unit to prevent injury.
- The heat exchanger fins are sharp enough to cut. To avoid injury wear gloves or cover the fins while working around them.
- Do not put a finger or other objects into the air inlet or air outlet. The fan is rotating at high speed and could result in injury.
- Check the unit foundation for damage on a continuous basis, especially if it has been in use for a long time. If left in a damaged condition the unit may fall and could result in injury.

- Placing a flower vase or other containers with water or other liquids on the unit could result in a shock or fire if a spill occurs.
- Do not touch the air outlet or horizontal blades while the swing flap is in operation could result in fingers getting caught and injured.
- Never touch the internal parts of the controller. Do not remove the front panel because some parts inside are dangerous to touch. To check and adjust internal parts, contact your dealer.
- Do not use the air conditioner or heat pump for any other purposes other than comfort cooling or heating. Do not use the unit for cooling precision instruments, food, plants, animals or works of art.
- Do not place items under the indoor unit as it could result in damage by condensates that may form if the humidity is above 80% or if the drain outlet gets blocked.
- Before cleaning, stop the operation of the unit by turning the power off or by pulling the supply cord out from its receptacle. Otherwise, an electric shock and injury could result.
- Do not wash the air conditioner or heat pump with excessive water. An electric shock or fire could result.
- Avoid placing the controller in a spot splashed with water. Water entering the controller could result in an electric shock or damage the internal electronic parts.
- Do not operate the air conditioner or heat pump when using a room-fumigation type of insecticide. Failure to observe this could result in the chemicals to be deposited in the unit and can endanger the health of those who are hypersensitive to chemicals.
- Do not turn off the power immediately after stopping operation. Always wait for at least five minutes before turning off the power. Otherwise, water leakage could result.
- The appliance is not intended for use by young children or infirm persons without supervision.
- The remote controller should be kept away from children so they cannot play with it.
- Consult with the installation contractor for cleaning.
- Incorrect cleaning of the inside of the air conditioner or heat pump could result in the plastics parts breaking, resulting in water leakage or electric shock.
- Do not touch the air inlet or aluminum fin of the air conditioner or heat pump as they can cut and could result in injury.
- Do not place objects in direct proximity of the outside unit. Do not let leaves and other debris accumulate around the unit. Leaves are a hotbed for small animals which can enter the unit. Once inside the unit, animals can result in the unit malfunctioning, and could result in smoke or fire when they make contact with electrical parts.
- Never press the button of the remote controller with a hard, pointed object. The remote controller may result in damage.
- Never pull or twist the electric wire of the remote controller. It may result in the unit malfunctioning.
- Do not place appliances that produce open flames in places that are exposed to the air flow of the unit or under the indoor unit. It may result in incomplete combustion or deformation of the unit due to the heat.
- Do not expose the controller to direct sunlight. The LCD display can become discolored and may result in fail to display the data.
- Do not wipe the controller operation panel with benzene, thinner, chemical dust cloth, etc. The result may be that the panel becomes discolored or the coating can peel off. If it is heavily dirty, soak a cloth in water-diluted neutral detergent, squeeze it well and wipe the panel clean. Then wipe it with another dry cloth.
- Dismantling of the unit, disposal of the refrigerant, oil, and additional parts, should be done in accordance with the relevant local, state, and national regulations.
- Operate the air conditioner or heat pump in a sufficiently ventilated area and not surrounded by obstacles. Do not use the air conditioner or heat pump in the following places.
  - a. Places with a mist of mineral oil, such as cutting oil.
  - b. Locations such as coastal areas where there is a lot of salt in the air.
  - c. Locations such as hot springs where there is a lot of sulfur in the air.
  - d. Locations such as factories where the power voltage varies a lot.
  - e. In cars, boats, and other vehicles.
  - f. Locations such as kitchens where oil may splatter or where there is steam in the air.
  - g. Locations where equipment produces electromagnetic waves.
  - h. Places with an acid or alkaline mist.
  - i. Places where fallen leaves can accumulate or where weeds can grow.
- Take snow protection measures. Contact your dealer for the details of snow protection measures, such as the use of a snow protection hood.

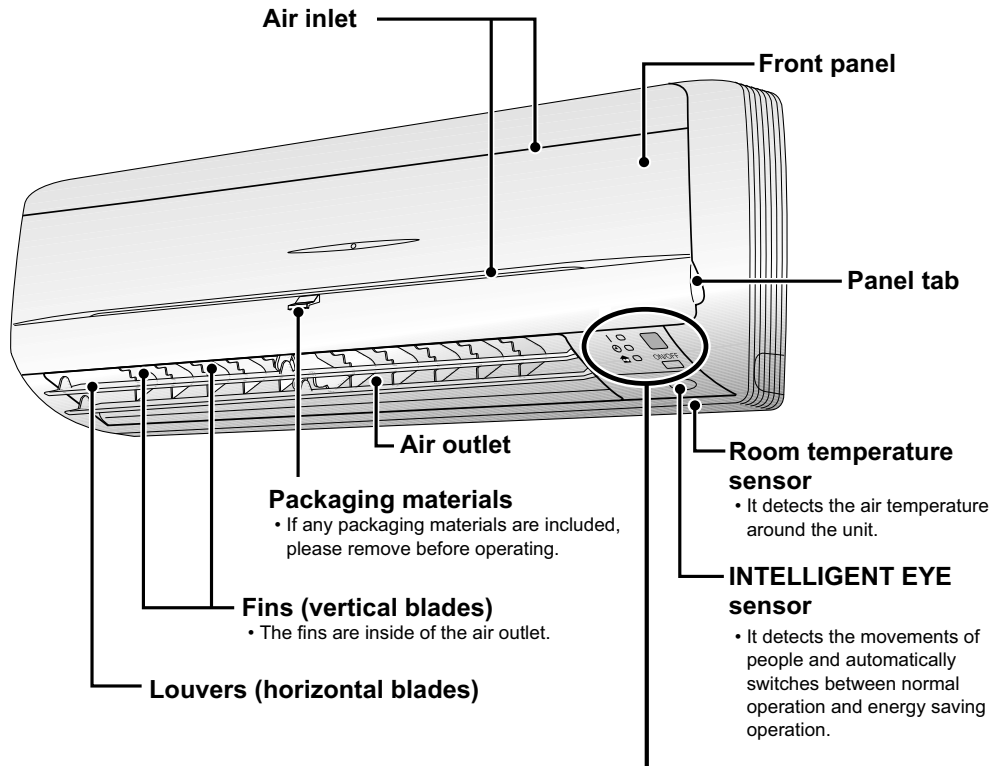
- **Do not attempt to do electrical work or grounding work unless you are licensed to do so. Consult with your dealer for electrical work and grounding work.**
- **Pay Attention to Operating Sound. Be sure to use the following places:**
  - a. **Places that can sufficiently withstand the weight of the air conditioner or heat pump yet can suppress the operating sound and vibration.**
  - b. **Places where warm air from the air outlet of the outside unit or the operating sound of the outside unit does not annoy neighbors.**
- **Make sure that there are no obstacles close to the outside unit. Obstacles close to the outside unit may drop the performance of the outside unit or increase the operating sound of the outside unit.**
- **Consult your dealer if the air conditioner or heat pump in operation generates unusual noise.**
- **Make sure that the drainpipe is installed properly to drain water. If no water is discharged from the drainpipe while the air conditioner or heat pump is in the cooling mode, the result may be that the drainpipe becomes clogged with dust or dirt and water leakage from the indoor unit may occur. Stop operating the air conditioner or heat pump and contact your dealer.**

### 2.3 Names of Parts

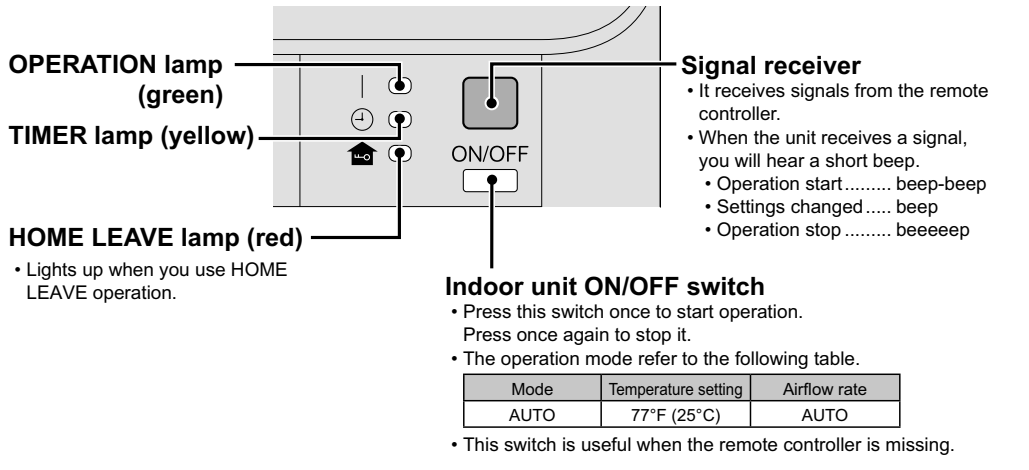
CTXS07JVJU, CTXS09/12HVJU

# Name of Parts

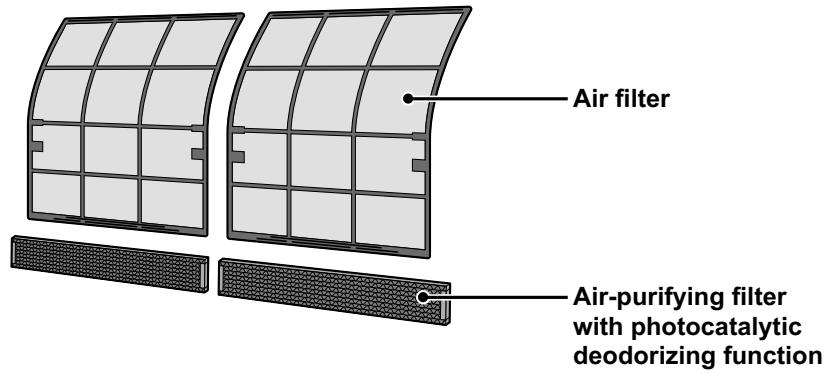
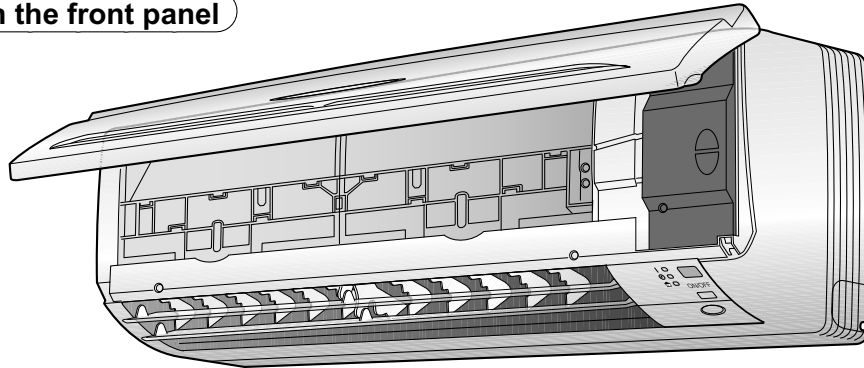
## Indoor Unit



## Display

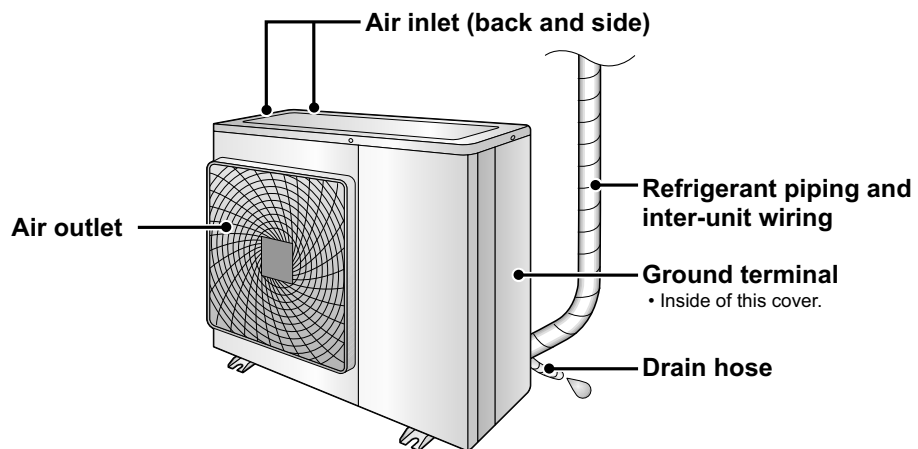


**Open the front panel**



**Outdoor Unit**

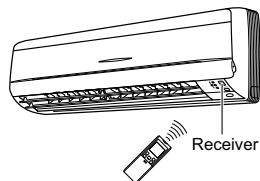
• Appearance of the outdoor unit may differ from some models.



# Name of Parts

## Remote Controller: ARC452A9

### Signal transmitter



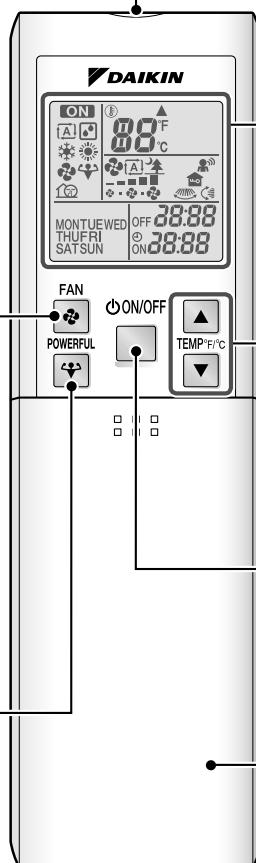
- To use the remote controller, aim the transmitter at the indoor unit. If there is anything to block signals between the unit and the remote controller, such as a curtain, the unit will not operate.
- Do not drop the remote controller. Do not get it wet.
- The maximum distance for communication is approximately 23ft. (7m).

### FAN setting button

- Selects the airflow rate setting.

### POWERFUL button

- POWERFUL operation.



### Display (LCD)

- Displays the current settings. (In this illustration, each section is shown with its displays on for the purpose of explanation.)

### TEMPERATURE adjustment buttons

- Changes the temperature setting.

### ON/OFF button

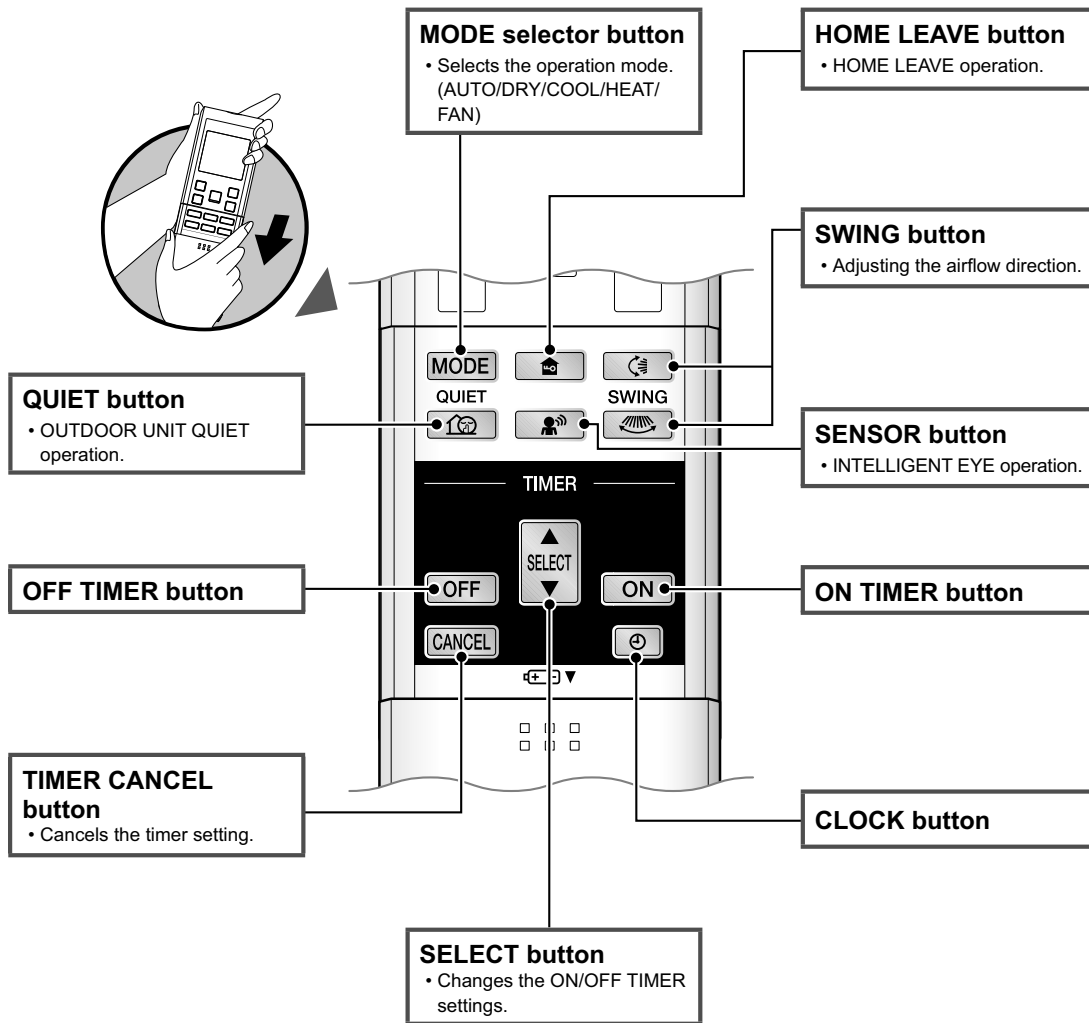
- Press this button once to start operation. Press once again to stop it.

### Front cover

- Open the front cover.



Open the front cover



CTXS07LVJU, FTXS15/18/24LVJU

# Names of Parts

Indoor Unit

**INTELLIGENT EYE sensor**

- It detects the movements of people and automatically switches between normal operation and energy saving operation.

**Room temperature sensor**

- It detects the air temperature around the unit.

Display

**Signal receiver**

- It receives signals from the remote controller.
- When the unit receives a signal, you will hear a beep sound.

Case	Sound type
Operation start	beep-beep
Setting changed	beep
Operation stop	long beep

**OPERATION lamp (green)**

**TIMER lamp (yellow)**

**INTELLIGENT EYE lamp (green)**

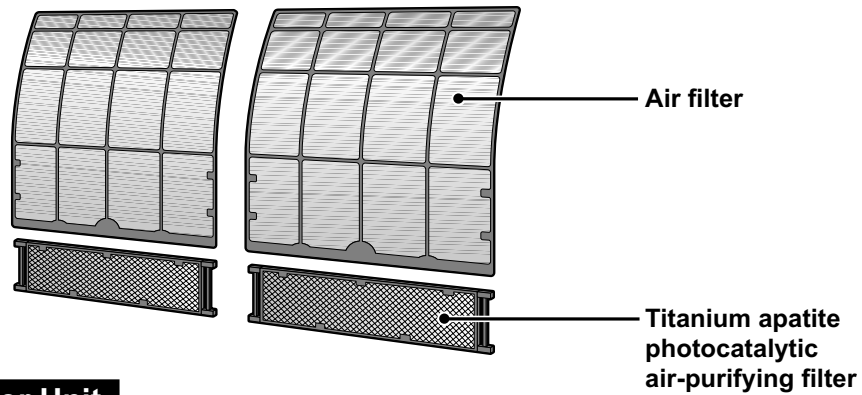
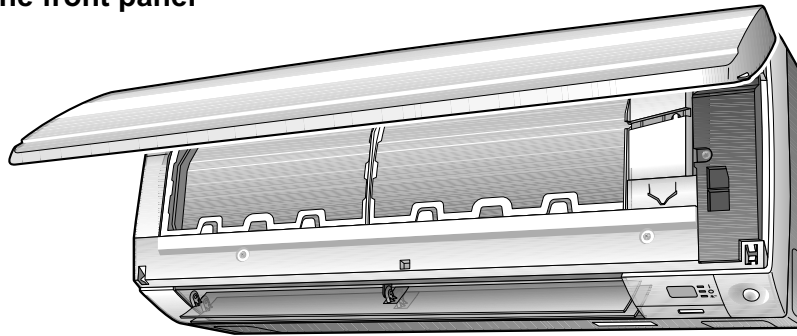
**Indoor unit ON/OFF switch**

- Press this switch once to start operation. Press once again to stop it.
- The operation mode refer to the following table.

Mode	Temperature setting	Airflow rate
AUTO	77°F (25°C)	AUTO

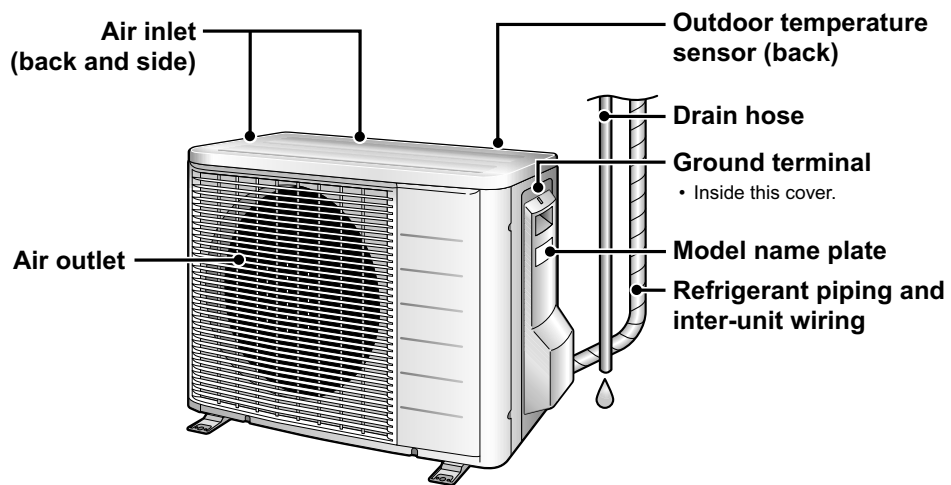
- This switch is useful when the remote controller is missing.

■ Open the front panel



**Outdoor Unit**

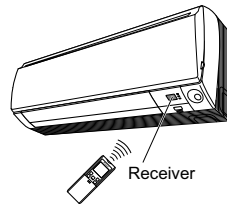
• Appearance of the outdoor unit may differ from some models.



# Names of Parts

## Remote Controller

### Signal transmitter



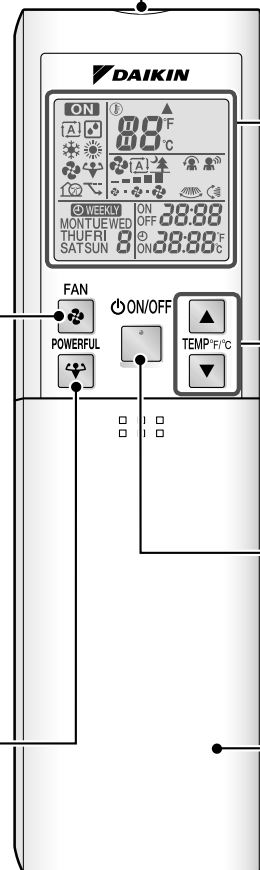
- To use the remote controller, aim the transmitter at the indoor unit. If there is anything to block signals between the unit and the remote controller, such as a curtain, the unit will not operate.
- Do not drop the remote controller. Do not get it wet.
- The maximum distance for communication is approximately 23ft (7m).

### FAN setting button

- Selects the airflow rate setting.

### POWERFUL button

- POWERFUL operation.



### Display (LCD)

- Displays the current settings. (In this illustration, each section is shown with all its displays on for the purpose of explanation.)

### TEMPERATURE adjustment buttons

- Changes the temperature setting.

### ON/OFF button

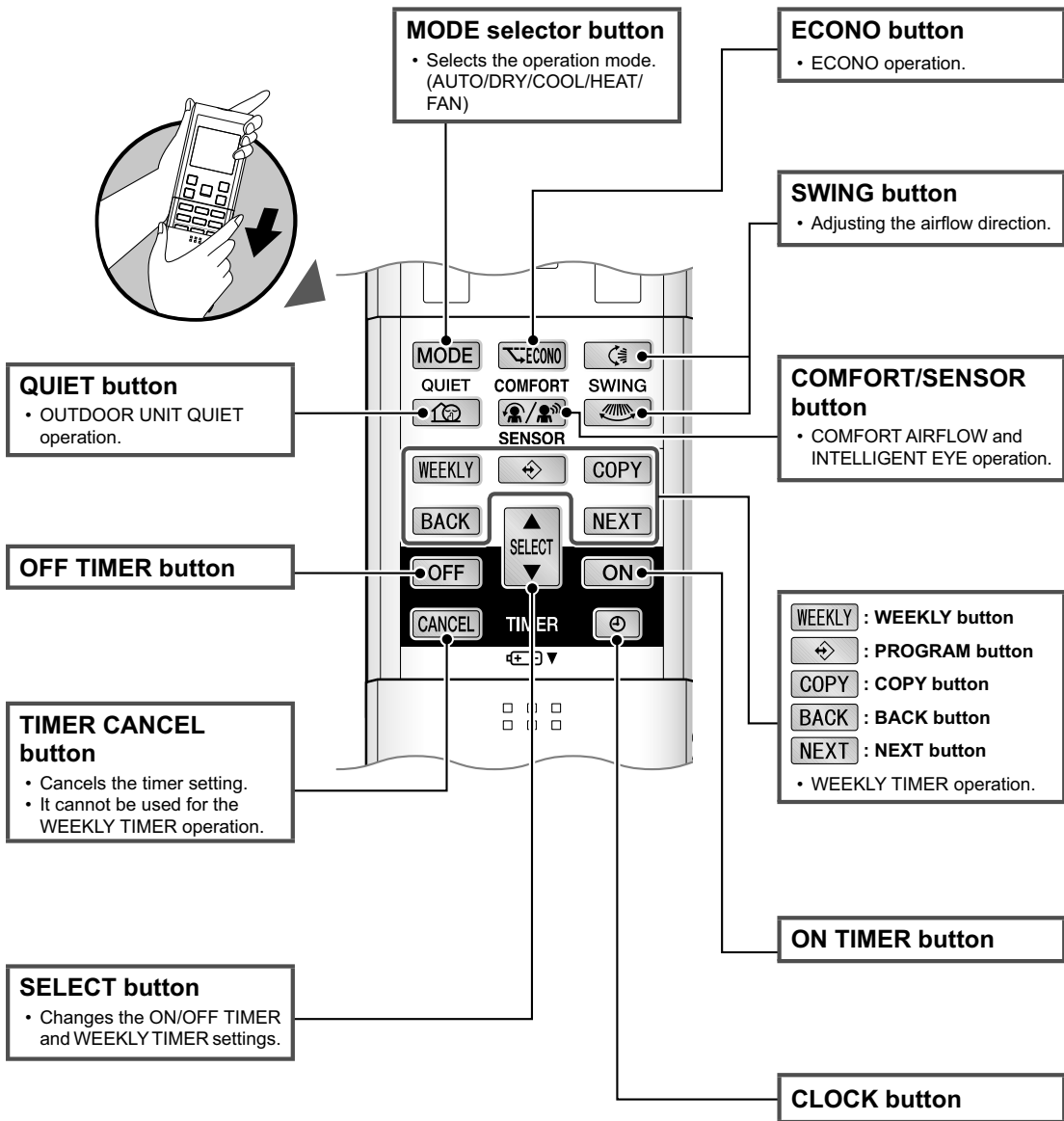
- Press this button once to start operation. Press once again to stop it.

### Front cover

- Open the front cover.

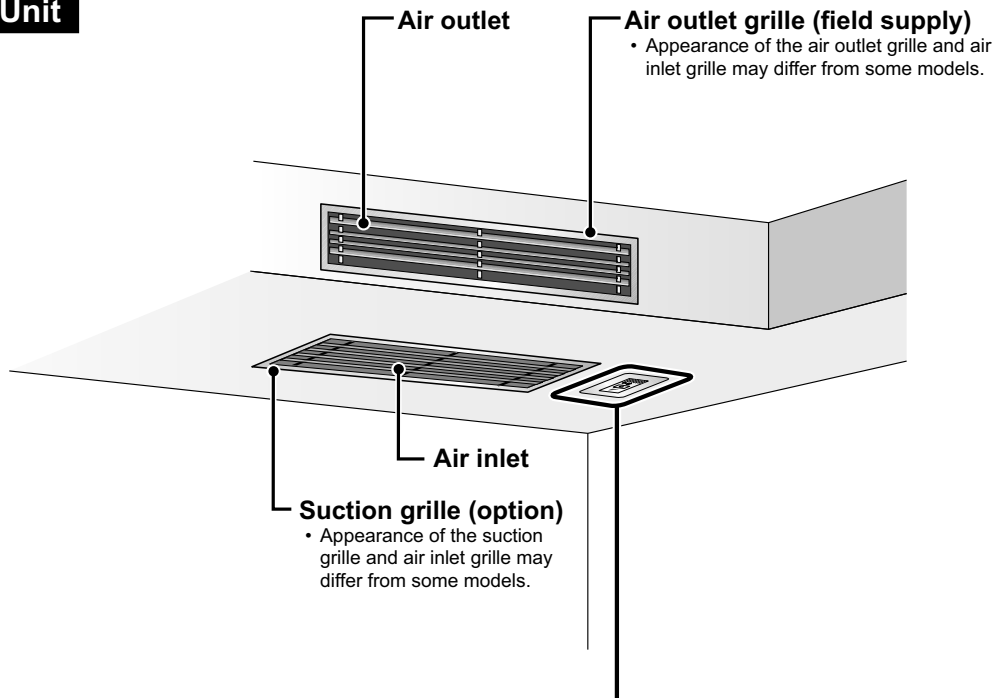
<ARC452A21>

■ Open the front cover

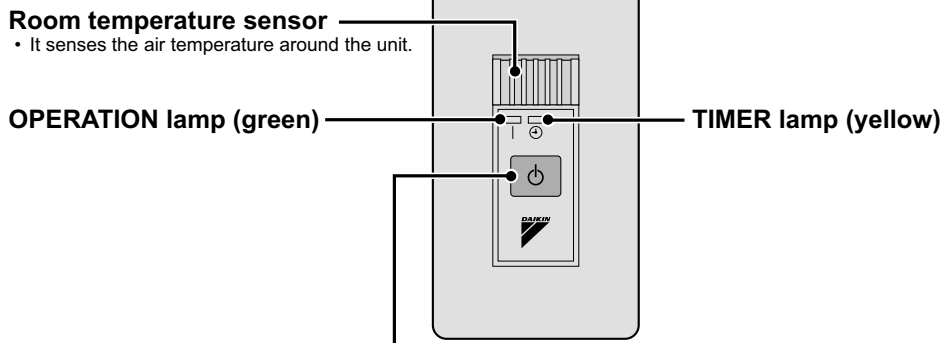


# Names of Parts

## Indoor Unit



## Receiver



### Indoor unit ON/OFF switch

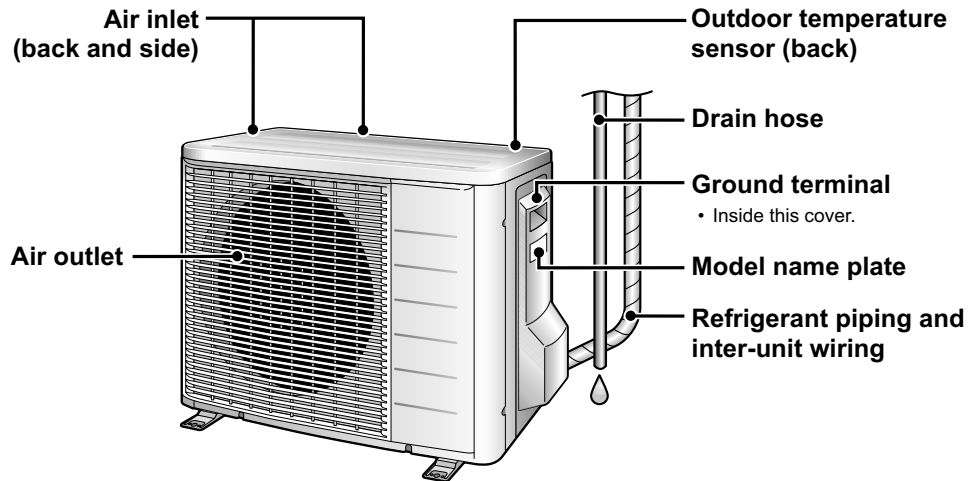
- Press this switch once to start operation. Press once again to stop it.
- The operation mode refers to the following table.

Mode	Temperature setting	Airflow rate
AUTO	77°F (25°C)	AUTO

- This switch is useful when the remote controller is missing.

## Outdoor Unit

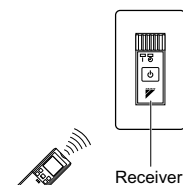
- Appearance of the outdoor unit may differ from some models.



# Names of Parts

## Remote Controller

### Signal transmitter



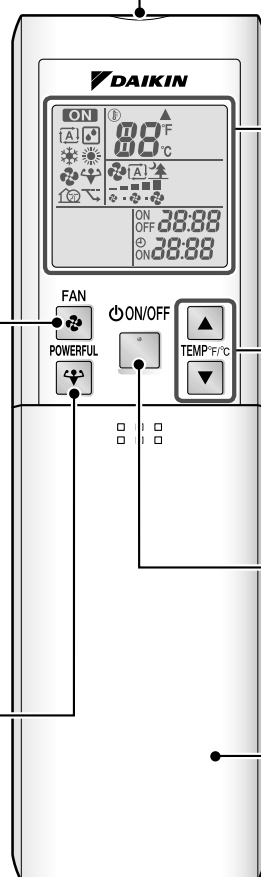
- To use the remote controller, aim the transmitter at the indoor unit. If there is anything to block signals between the unit and the remote controller, such as a curtain, the unit will not operate.
- Do not drop the remote controller. Do not get it wet.
- The maximum distance for communication is approximately 13ft (4m).

### FAN setting button

- Selects the airflow rate setting.

### POWERFUL button

- POWERFUL operation.



### Display (LCD)

- Displays the current settings. (In this illustration, each section is shown with all its displays on for the purpose of explanation.)

### TEMPERATURE adjustment buttons

- Changes the temperature setting.

### ON/OFF button

- Press this button once to start operation. Press once again to stop it.

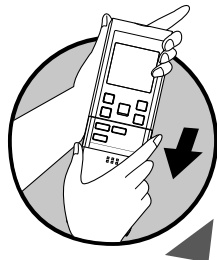
### Front cover

- Open the front cover.

<ARC452A23>



■ Open the front cover



**MODE selector button**  
 • Selects the operation mode.  
 (AUTO/DRY/COOL/HEAT/  
 FAN)

**QUIET button**  
 • OUTDOOR UNIT QUIET  
 operation.

**ECONO button**  
 • ECONO operation.

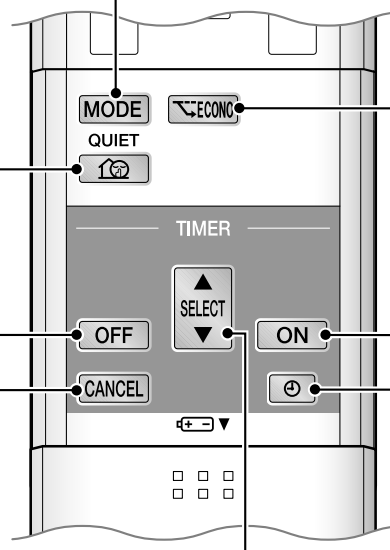
**OFF TIMER button**

**ON TIMER button**

**TIMER CANCEL  
 button**  
 • Cancels the timer setting.

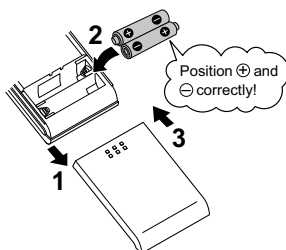
**CLOCK button**

**SELECT button**  
 • Changes the ON/OFF TIMER  
 settings.



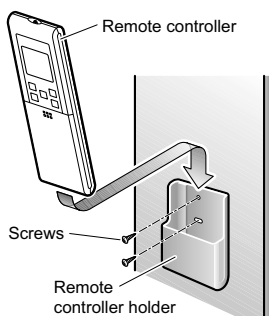
## 2.4 Preparation before Operation

# Preparation before Operation



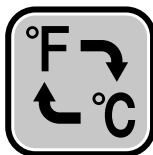
### ■ To set the batteries

1. Slide the front cover to take it off.
2. Set two dry batteries AAA.LR03 (alkaline).
3. Set the front cover as before.



### ■ To fix the remote controller holder on the wall

1. Choose a place from where the signals reach the unit.
2. Fix the holder to a wall, a pillar, etc. with the screws supplied with the holder.
3. Place the remote controller in the remote controller holder.



### ■ Celsius/Fahrenheit display switch

- The Celsius or Fahrenheit display is selectable with the following buttons.

Press  and  simultaneously for 5 seconds.

- The temperature will be displayed in Fahrenheit if it is presently displayed in Celsius, and vice versa.

## NOTE

### ■ Notes on batteries

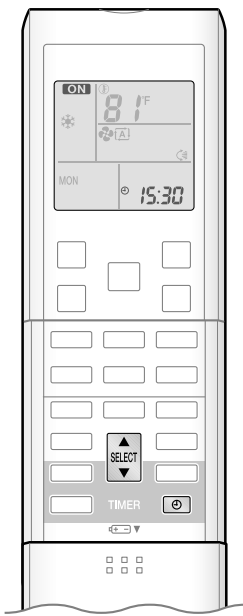
- When replacing the batteries, use batteries of the same type, and replace both batteries at the same time.
- When the system is not used for a long time, take the batteries out.
- The batteries will last for approximately 1 year. If the remote controller display begins to fade and the degradation of reception performance occurs within a year, however, replace both batteries with new, size AAA.LR03 (alkaline).
- The attached batteries are provided for the initial use of the system.  
The usable period of the batteries may be short depending on the manufactured date of the air conditioner.

### ■ Notes on remote controller

- Never expose the remote controller to direct sunlight.
- Dust on the signal transmitter or receiver will reduce the sensitivity. Wipe off dust with a soft cloth.
- Signal communication may be disabled if an electronic-starter-type fluorescent lamp (such as inverter-type lamps) is in the room. Consult the shop if that is the case.
- If the remote controller signals happen to operate another appliance, move that appliance somewhere else, or consult the service shop.

### ■ Celsius/Fahrenheit display change function of remote controller

- The set temperature may increase when the display is changed to Celsius from Fahrenheit, because a fraction of 0.5°C is rounded up.
- Example: A set temperature of 65°F (equivalent to 18.5°C) will be converted into 19°C.  
When the display is changed to Fahrenheit again, the set temperature will be converted into 66°F (equivalent to 19°C) instead of the original set temperature (65°F) but a set temperature of 66°F (equivalent to 19°C) will be converted into 19°C with no temperature change.
- A reception sound will go off for the transmission of set temperature to the indoor unit at the time of setting the Celsius/Fahrenheit display change function.



**■ Turn the breaker on**

- After the power is turned on, the louvers of the indoor unit open and close once to set the reference position.

**■ To set the clock**

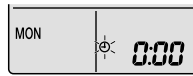
**1. Press** .



"0:00" is displayed.  
"MON" and "⏻" blink.

**2. Press**  **to set the current day of the week.**

**3. Press** .



"⏻" blinks.

**4. Press**  **to set the clock to the present time.**

- Holding down ▲ or ▼ rapidly increases or decreases the time display.

**5. Press** .

- Point the remote controller at the indoor unit when pressing the buttons.

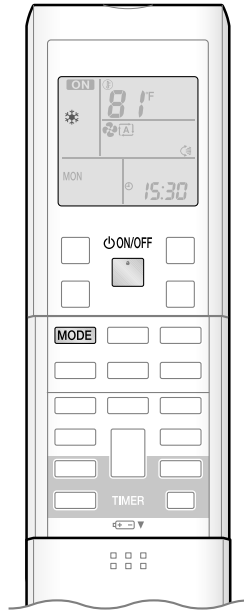


"⏻" blinks.

## 2.5 AUTO · DRY · COOL · HEAT · FAN Operation



# AUTO · DRY · COOL · HEAT · FAN Operation

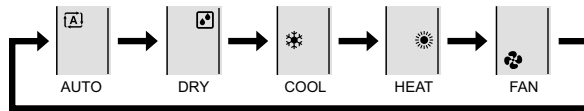


The air conditioner operates with the operation mode of your choice. From the next time on, the air conditioner will operate with the same operation mode.

### To start operation

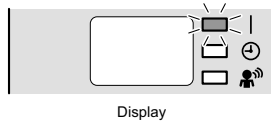
#### 1. Press **MODE** and select an operation mode.

- Each pressing of the button advances the mode setting in sequence.



#### 2. Press **ON/OFF**.

- "ON" is displayed on the LCD.
- The OPERATION lamp lights green.



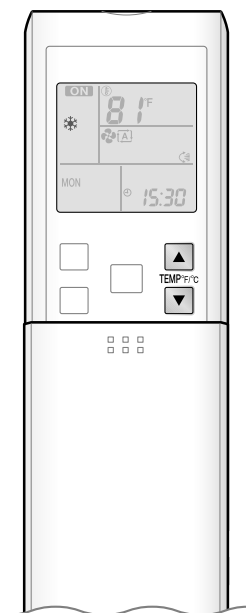
### To stop operation

#### Press **ON/OFF** again.

- "ON" is no longer displayed on the LCD.
- The OPERATION lamp goes off.

### NOTE

MODE	Notes on each operation mode
HEAT	<ul style="list-style-type: none"> <li>• Since this air conditioner heats the room by taking heat from outdoor air to indoors, the heating capacity becomes smaller in lower outdoor temperatures. If the heating effect is insufficient, it is recommended to use another heating appliance in combination with the air conditioner.</li> <li>• The heat pump system heats the room by circulating hot air around all parts of the room. After the start of HEAT operation, it takes some time before the room gets warmer.</li> <li>• In HEAT operation, frost may occur on the outdoor unit and lower the heating capacity. In that case, the system switches into defrosting operation to take away the frost.</li> <li>• During defrosting operation, hot air does not flow out of indoor unit.</li> </ul>
COOL	<ul style="list-style-type: none"> <li>• This air conditioner cools the room by releasing the heat in the room outside. Therefore, the cooling performance of the air conditioner may be degraded if the outdoor temperature is high.</li> </ul>
DRY	<ul style="list-style-type: none"> <li>• The computer chip works to rid the room of humidity while maintaining the temperature as much as possible. It automatically controls temperature and airflow rate, so manual adjustment of these functions is unavailable.</li> </ul>
AUTO	<ul style="list-style-type: none"> <li>• In AUTO operation, the system selects an appropriate operation mode (COOL or HEAT) based on the room and outside temperatures and starts the operation.</li> <li>• The system automatically reselects setting at a regular interval to bring the room temperature to user-setting level.</li> </ul>
FAN	<ul style="list-style-type: none"> <li>• This mode is valid for fan only.</li> </ul>



**■ To change the temperature setting**

Press  or  .

- The displayed items on the LCD will change whenever either one of the buttons is pressed.

COOL operation	HEAT operation	AUTO operation	DRY or FAN operation
64-90°F (18-32°C)	50-86°F (10-30°C)	64-86°F (18-30°C)	The temperature setting is not variable.
Press ▲ to raise the temperature and press ▼ to lower the temperature.			

**■ Operating conditions**

**■ Recommended temperature setting**

- For cooling: 78-82°F (26-28°C)
- For heating: 68-75°F (20-24°C)

**■ Tips for saving energy**

- Be careful not to cool (heat) the room too much. Keeping the temperature setting at a moderate level helps save energy.
- Cover windows with a blind or a curtain. Blocking sunlight and air from outdoors increases the cooling (heating) effect.
- Clogged air filters cause inefficient operation and waste energy. Clean them once in about every 2 weeks.

**■ Notes on the operating conditions**

- The air conditioner always consumes a small amount of electricity even while it is not operating.
- If you are not going to use the air conditioner for a long period, for example in spring or autumn, turn the breaker off.
- Use the air conditioner in the following conditions.

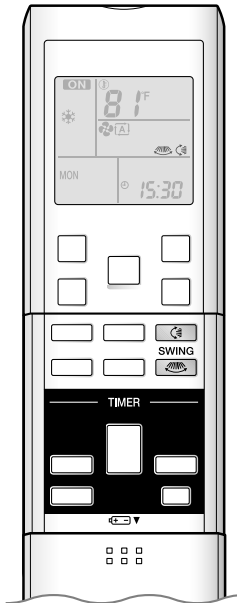
MODE	Operating conditions	If operation is continued out of this range
COOL	Outdoor temperature : 23-115°F (-5 to 46°C) Indoor temperature : 64-90°F (18-32°C) Indoor humidity : 80% max.	• A safety device may work to stop the operation. (In multi system, it may work to stop the operation of the outdoor unit only.) • Condensation may occur on the indoor unit and drip.
HEAT	Outdoor temperature : 5-75°F (-15-24°C) Indoor temperature : 50-86°F (10-30°C)	• A safety device may work to stop the operation.
DRY	Outdoor temperature : 50-115°F (10-46°C) Indoor temperature : 64-90°F (18-32°C) Indoor humidity : 80% max.	• A safety device may work to stop the operation. • Condensation may occur on the indoor unit and drip.

- Operation outside this humidity or temperature range may cause a safety device to disable the system.

## 2.6 Adjusting the Airflow Direction and Rate

CTXS07JVJU, CTXS09/12HVJU

# Adjusting the Airflow Direction




You can adjust the airflow direction to increase your comfort.


### Adjusting the upper and lower airflow direction

#### ■ To adjust the louvers (horizontal blades)

#### 1. Press .

- “” is displayed on the LCD and the louvers will begin to swing.

#### 2. When the louvers have reached the desired position, press once more.

- The louvers will stop moving.
- “” is no longer displayed on the LCD.


### Adjusting the right and left airflow direction

#### ■ To adjust the fins (vertical blades)

#### 3. Press .

- “” is displayed on the LCD.

#### 4. When the fins have reached the desired position, press once more.

- The fins will stop moving.
- “” is no longer displayed on the LCD.

■ To start 3-D airflow


1. 3. Press the  and the  :  
the “” and “” display will light up and the louvers and fins will move in turn.

■ To cancel 3-D airflow

2. 4. Press either the  or the .

**NOTE**

■ Note on the angles of the louvers

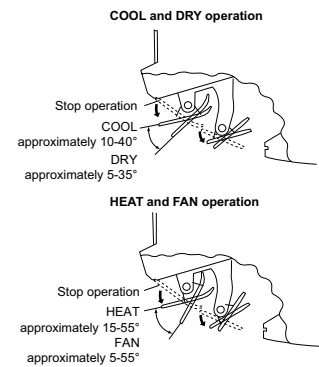
- When  is selected, the louvers swinging range depends on the operation. (See the figure.)

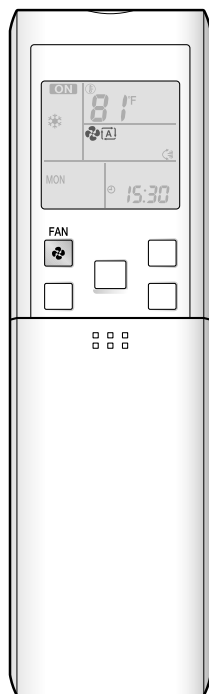
■ Note on 3-D airflow

- Using 3-D airflow circulates cold air, which tends to be collected at the bottom of the room, and hot air, which tends to collect near the ceiling, throughout the room, preventing areas of cold and hot developing.

■ ATTENTION


- Always use a remote controller to adjust the angles of the louvers and fins. If you attempt to move it forcibly with hand when it is swinging, the mechanism may be broken.
- Always use a remote controller to adjust the fins angles. Inside the air outlet, a fan is rotating at a high speed.





## ■ To change the airflow rate setting

Press .

DRY operation	AUTO or COOL or HEAT or FAN operation
The airflow rate setting is not variable.	5 levels of airflow rate setting from "☺" to "☹" plus "[A]" and "🌲" are available. 

- Indoor unit quiet operation  
When the airflow is set to "🌲", the noise from the indoor unit will become quieter. Use this when making the noise quieter.  
The unit might lose capacity when the airflow rate is set to a weak level.
- Each pressing of the button advances the airflow rate setting in sequence.



## NOTE

### ■ Notes on HEAT operation

- Since this air conditioner heats the room by taking heat from outdoor air to indoors, the heating capacity becomes smaller in lower outdoor temperatures. If the heating effect is insufficient, it is recommended to use another heating appliance in combination with the air conditioner.
- The heat pump system heats the room by circulating hot air around all parts of the room. After the start of HEAT operation, it takes some time before the room gets warmer.
- In HEAT operation, frost may occur on the outdoor unit and lower the heating capacity. In that case, the system switches into defrosting operation to take away the frost.
- During defrosting operation, hot air does not flow out of indoor unit.

### ■ Note on COOL operation

- This air conditioner cools the room by blowing the hot air in the room outside, so if the outside temperature is high, the performance of the air conditioner drops.

### ■ Note on DRY operation

- The computer chip works to rid the room of humidity while maintaining the temperature as much as possible. It automatically controls temperature and airflow rate, so manual adjustment of these functions is unavailable.

### ■ Notes on AUTO operation

- In AUTO operation, the system selects a temperature setting and an appropriate operation mode (COOL or HEAT) based on the room temperature at the start of the operation.
- The system automatically reselects setting at a regular interval to bring the room temperature to user-setting level.

### ■ Note on FAN operation

- This is valid for fan only.

### ■ Note on airflow rate setting

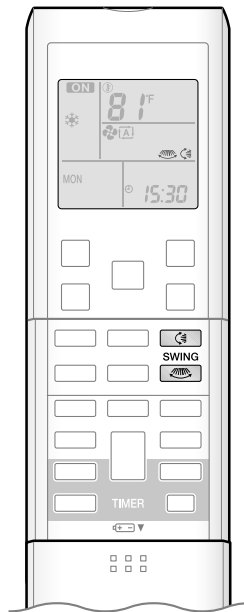
- At smaller airflow rates, the cooling (heating) effect is also smaller.



CTXS07LVJU



# Adjusting the Airflow Direction and Rate



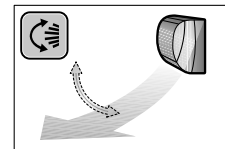
You can adjust the airflow direction to increase your comfort.

## ■ To start auto swing

### Upper and lower airflow direction

Press .

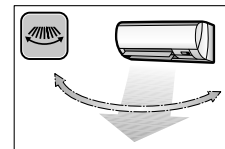
- “” is displayed on the LCD.
- The louvers (horizontal blades) will begin to swing.



### Right and left airflow direction

Press .

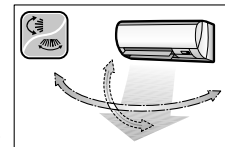
- “” is displayed on the LCD.
- The fins (vertical blades) will begin to swing.



### The 3-D airflow direction

Press and .

- “” and “” are displayed on the LCD.
- The louvers and fins move in turn.
- To cancel 3-D airflow, press either or again. The louvers or fins will stop moving.

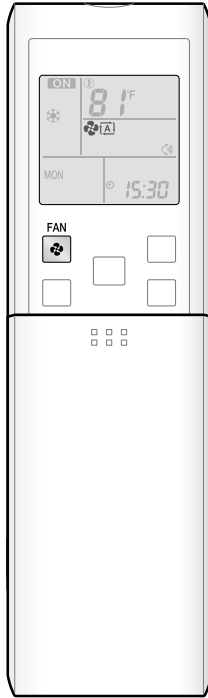


## ■ To set the louvers or fins at desired position

- This function is effective while louvers or fins are in auto swing mode.


Press and when the louvers or fins have reached the desired position.

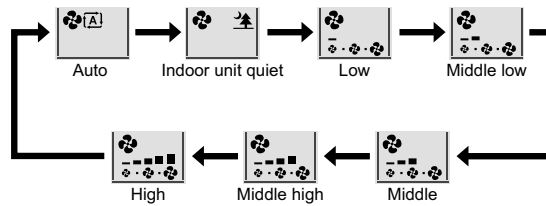
- In the 3-D airflow, the louvers and fins move in turn.
- “” or “” is no longer displayed on the LCD.




**■ To adjust the airflow rate setting**

Press .

- Each pressing of  advances the airflow rate setting in sequence.

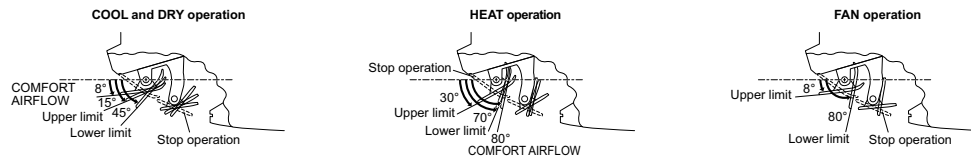


- When the airflow is set to "  ", indoor unit quiet operation will start and the sound from the unit will become quieter.
- In indoor unit quiet operation, the airflow rate is set to a weak level.
- In DRY operation, the airflow rate setting is not variable.

**NOTE**

**■ Notes on the angles of the louvers**

- The louvers swinging range depends on the operation. (See the figure.)



**■ Note on 3-D airflow**

- Using 3-D airflow circulates cold air, which tends to collect at the bottom of the room, and hot air, which tends to collect near the ceiling, throughout the room, preventing areas of cold and hot developing.

**■ Note on airflow rate setting**

- At smaller airflow rates, the cooling (heating) effect is also smaller.

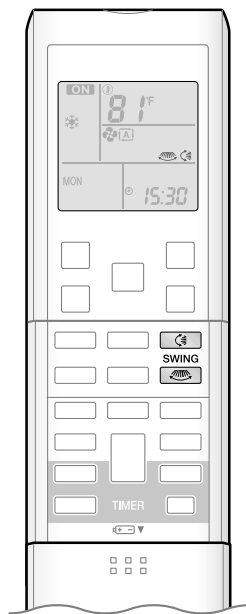
**⚠ CAUTION**

- Always use a remote controller to adjust the angles of the louvers and fins. If you attempt to move the louvers and fins forcibly with hand when they are swinging, the mechanism may be broken.
- Always use a remote controller to adjust the fins angles. Inside the air outlet, a fan is rotating at a high speed.

FTXS15/18/24LVJU



# Adjusting the Airflow Direction and Rate



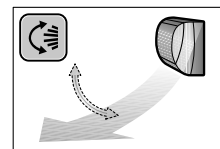
You can adjust the airflow direction to increase your comfort.

## ■ To start auto swing

### Upper and lower airflow direction

Press .

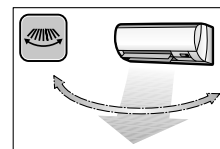
- “” is displayed on the LCD.
- The louvers (horizontal blades) will begin to swing.



### Right and left airflow direction

Press .

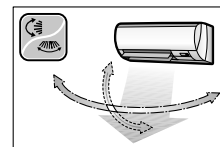
- “” is displayed on the LCD.
- The fins (vertical blades) will begin to swing.



### The 3-D airflow direction

Press and .

- “” and “” are displayed on the LCD.
- The louvers and fins move in turn.
- To cancel 3-D airflow, press either or again. The louvers or fins will stop moving.

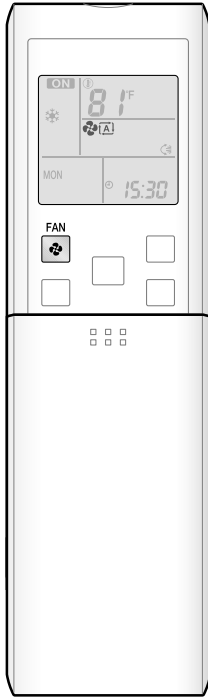


## ■ To set the louvers or fins at desired position

- This function is effective while louvers or fins are in auto swing mode.


Press and when the louvers or fins have reached the desired position.

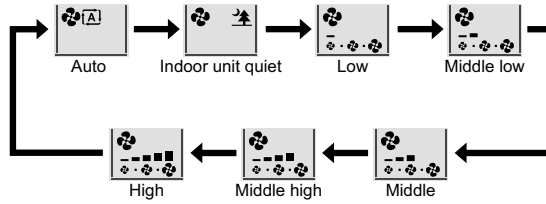
- In the 3-D airflow, the louvers and fins move in turn.
- “” or “” is no longer displayed on the LCD.




**■ To adjust the airflow rate setting**

Press .

- Each pressing of  advances the airflow rate setting in sequence.

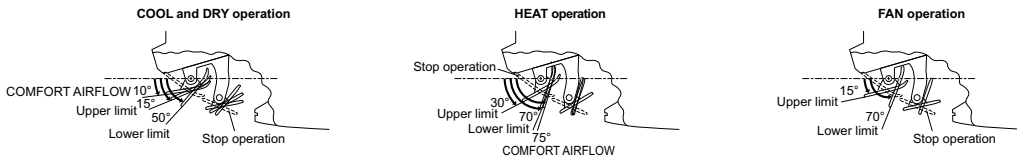


- When the airflow is set to “”, indoor unit quiet operation will start and the sound from the unit will become quieter.
- In indoor unit quiet operation, the airflow rate is set to a weak level.
- In DRY operation, the airflow rate setting is not variable.

**NOTE**

**■ Notes on the angles of the louvers**

- The louvers swinging range depends on the operation. (See the figure.)



**■ Note on 3-D airflow**

- Using 3-D airflow circulates cold air, which tends to be collected at the bottom of the room, and hot air, which tends to collect near the ceiling, throughout the room, preventing areas of cold and hot developing.

**■ Note on airflow rate setting**

- At smaller airflow rates, the cooling (heating) effect is also smaller.

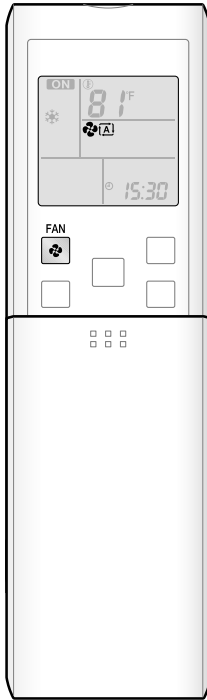
**⚠ CAUTION**

- Always use a remote controller to adjust the angles of the louvers and fins. If you attempt to move the louvers and fins forcibly with hand when they are swinging, the mechanism may be broken.
- Always use a remote controller to adjust the fins angles. Inside the air outlet, a fan is rotating at a high speed.

CDXS, FDXS Series




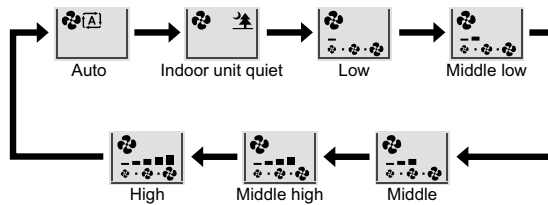
# Adjusting the Airflow Rate




■ To adjust the airflow rate setting

Press .

- Each pressing of  advances the airflow rate setting in sequence.



- When the airflow is set to “”, indoor unit quiet operation will start and the noise from the unit will become quieter.
- In indoor unit quiet operation, the airflow rate is set to a weak level.
- In DRY operation, the airflow rate setting is not variable.

**NOTE**

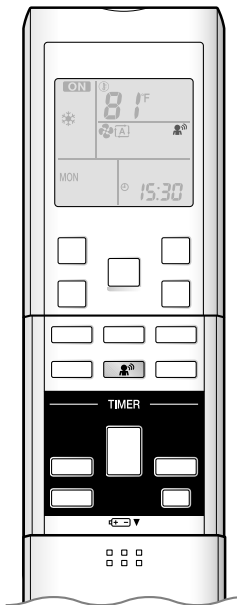
■ Note on airflow rate setting

- At smaller airflow rates, the cooling (heating) effect is also smaller.

## 2.7 COMFORT AIRFLOW / INTELLIGENT EYE Operation

CTXS07JVJU, CTXS09/12HVJU

# INTELLIGENT EYE Operation



“INTELLIGENT EYE” is the infrared sensor which detects the human movement.


### ■ To start INTELLIGENT EYE operation

#### 1. Press .

- “” is displayed on the LCD.

### ■ To cancel INTELLIGENT EYE operation

#### 2. Press again.

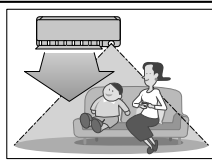
- “” is no longer displayed on the LCD.

### [Example]

#### When somebody in the room

##### • Normal operation

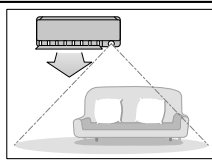
The air conditioner is in normal operation while the sensor is detecting the movement of people.



#### When nobody in the room

##### • 20 minutes after, start energy saving operation.

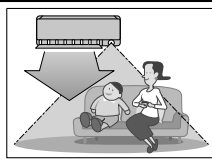
The set temperature is shifted in  $\pm 3.6^{\circ}\text{F}$  ( $\pm 2^{\circ}\text{C}$ ) steps.



#### Somebody back in the room

##### • Back to normal operation.

The air conditioner will return to normal operation when the sensor detects the movement of people again.



## “INTELLIGENT EYE” is useful for energy saving

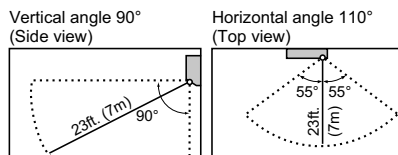
### ■ Energy saving operation

- Change the temperature  $-3.6^{\circ}\text{F}$  ( $-2^{\circ}\text{C}$ ) in HEAT /  $+3.6^{\circ}\text{F}$  ( $+2^{\circ}\text{C}$ ) in COOL /  $+1.8^{\circ}\text{F}$  ( $+1^{\circ}\text{C}$ ) in DRY operation from set temperature.
- Decrease the airflow rate slightly in FAN operation only.
- If no presence detected in the room for 20 minutes.

## NOTE

### ■ Notes on INTELLIGENT EYE operation

- Application range is as follows.



- Sensor may not detect moving objects further than 23ft. (7m) away. (Check the application range.)
- Sensor detection sensitivity changes according to indoor unit location, the speed of passersby, temperature range, etc.
- The sensor also mistakenly detects pets, sunlight, fluttering curtains and light reflected off of mirrors as passersby.
- INTELLIGENT EYE operation will not go on during POWERFUL operation.
- NIGHT SET mode will not go on during use of INTELLIGENT EYE operation.

## ⚠ CAUTION

- Do not place large objects near the sensor.  
Also keep heating units or humidifiers outside the sensor's detection area. This sensor can detect undesirable objects.
- Do not hit or forcefully push the INTELLIGENT EYE sensor. This can lead to damage and malfunction.

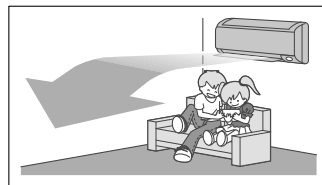
CTXS07LVJU, FTXS15/18/24LVJU



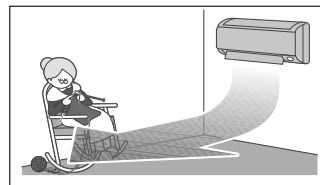
# COMFORT AIRFLOW / INTELLIGENT EYE Operation

## COMFORT AIRFLOW operation

The flow of air will be in the upward direction while in COOL operation and in the downward direction while in HEAT operation, providing comfortable cool or warm air that does not come in direct contact with people.



COOL operation



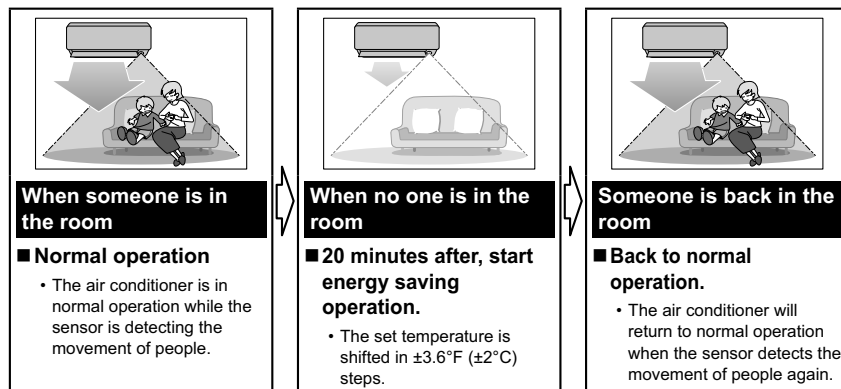
HEAT operation

## INTELLIGENT EYE operation

“INTELLIGENT EYE” is the infrared sensor which detects the human movement.

If no one is in the room for more than 20 minutes, the operation automatically changes to energy saving operation.

### [Example]



## INTELLIGENT EYE operation is useful for energy saving

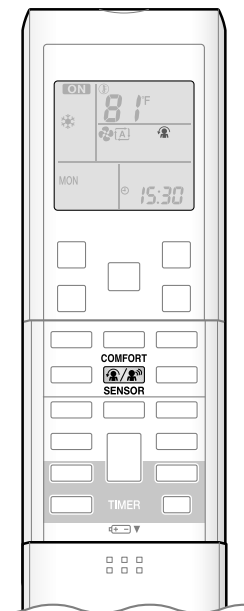
### Energy saving operation

- If no presence detected in the room for 20 minutes, the energy saving operation will start.
- This operation changes the temperature  $-3.6^{\circ}\text{F}$  ( $-2^{\circ}\text{C}$ ) in HEAT /  $+3.6^{\circ}\text{F}$  ( $+2^{\circ}\text{C}$ ) in COOL /  $+3.6^{\circ}\text{F}$  ( $+2^{\circ}\text{C}$ ) in DRY operation from set temperature. When the room temperature exceeds  $86^{\circ}\text{F}$  ( $30^{\circ}\text{C}$ ), the operation changes the temperature  $+1.8^{\circ}\text{F}$  ( $+1^{\circ}\text{C}$ ) in COOL /  $+1.8^{\circ}\text{F}$  ( $+1^{\circ}\text{C}$ ) in DRY operation from set temperature.
- This operation decreases the airflow rate slightly in FAN mode only.

## Combination COMFORT AIRFLOW and INTELLIGENT EYE operation


The air conditioner can go into operation with the COMFORT AIRFLOW and INTELLIGENT EYE functions combined.







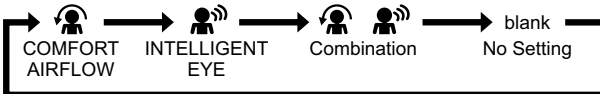
**■ To start operation**

Press  and select the desired mode.

- Each time the  is pressed a different setting option is displayed on the LCD.
- The INTELLIGENT EYE lamp lights green.



- By selecting “ ” from the following icons, the air conditioner will be in COMFORT AIRFLOW operation combined with INTELLIGENT EYE operation.



- When the louvers (horizontal blades) are swinging, the operating as above will stop movement of them.
- The lamp will be lit while human movements are detected.

**■ To cancel operation**

Press  and select “blank” on the LCD.

- The INTELLIGENT EYE lamp goes off.

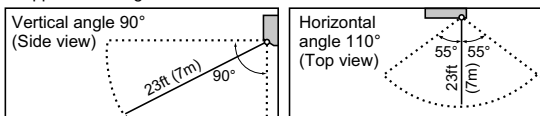
**NOTE**

**■ Notes on COMFORT AIRFLOW operation**

- The louver position will change, preventing air from blowing directly on the occupants of the room.
- POWERFUL operation and COMFORT AIRFLOW operation cannot be used at the same time. Priority is given to the function of whichever button is pressed last.
- The airflow rate will be set to AUTO. If the upper and lower airflow direction is selected, the COMFORT AIRFLOW function will be canceled.

**■ Notes on INTELLIGENT EYE operation**

- Application range is as follows.



- Sensor may not detect moving objects further than 23ft (7m) away. (Check the application range)
- Sensor detection sensitivity changes according to indoor unit location, the speed of passersby, temperature range, etc.
- The sensor also mistakenly detects pets, sunlight, fluttering curtains and light reflected off of mirrors as passersby.
- INTELLIGENT EYE operation will not go on during POWERFUL operation.
- NIGHT SET mode will not go on during use of INTELLIGENT EYE operation.

**■ Notes on combination of COMFORT AIRFLOW operation and INTELLIGENT EYE operation**

- The airflow rate will be set to AUTO. If the upper and lower airflow direction is selected, the COMFORT AIRFLOW operation will be canceled. Priority is given to the function of whichever button is pressed last.

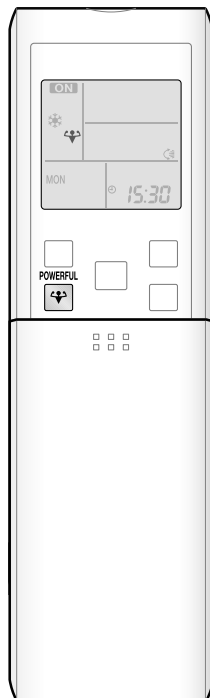
**⚠ CAUTION**

- Do not place large objects near the sensor. Keep heating units or humidifiers outside the sensor's detection area. This sensor can detect undesirable objects.
- Do not hit or forcefully push the INTELLIGENT EYE sensor. This can lead to damage and malfunction.

## 2.8 POWERFUL Operation




# POWERFUL Operation



POWERFUL operation quickly maximizes the cooling (heating) effect in any operation mode. You can get the maximum capacity.


### ■ To start POWERFUL operation

Press  during operation.

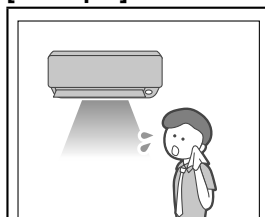
- POWERFUL operation ends in 20 minutes. Then the system automatically operates again with the previous settings which were used before POWERFUL operation.
- “” is displayed on the LCD.

### ■ To cancel POWERFUL operation

Press  again.

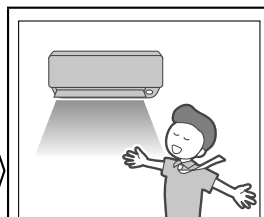
- “” is no longer displayed on the LCD.

### [Example]



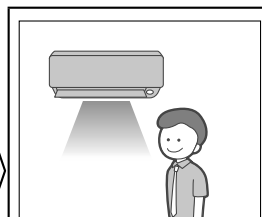
#### ■ Normal operation

- When you want to get the cooling effect quickly, start the POWERFUL operation.



#### ■ POWERFUL operation



- POWERFUL operation will work for 20 minutes.



#### ■ Back to normal operation

## NOTE

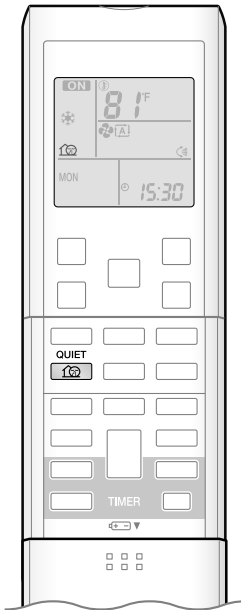
### ■ Notes on POWERFUL operation

- When using POWERFUL operation, there are some functions which are not available.
- POWERFUL operation cannot be used together with ECONO, COMFORT AIRFLOW or OUTDOOR UNIT QUIET operation. Priority is given to the function of whichever button is pressed last.
- POWERFUL operation can only be set when the unit is running. Pressing  causes the settings to be canceled, and “” is no longer displayed on the LCD.
- POWERFUL operation will not increase the capacity of the air conditioner if the air conditioner is already in operation with its maximum capacity demonstrated.
- **In COOL, HEAT and AUTO operation**  
To maximize the cooling (heating) effect, the capacity of outdoor unit is increased and the airflow rate is fixed to the maximum setting. The temperature and airflow settings are not variable.
- **In DRY operation**  
The temperature setting is lowered by 4.5°F (2.5°C) and the airflow rate is slightly increased.
- **In FAN operation**  
The airflow rate is fixed to the maximum setting.

## 2.9 OUTDOOR UNIT QUIET Operation




# OUTDOOR UNIT QUIET Operation



OUTDOOR UNIT QUIET operation lowers the sound level of the outdoor unit by changing the frequency and fan speed on the outdoor unit. This function is convenient during the night.


### ■ To start OUTDOOR UNIT QUIET operation

Press .

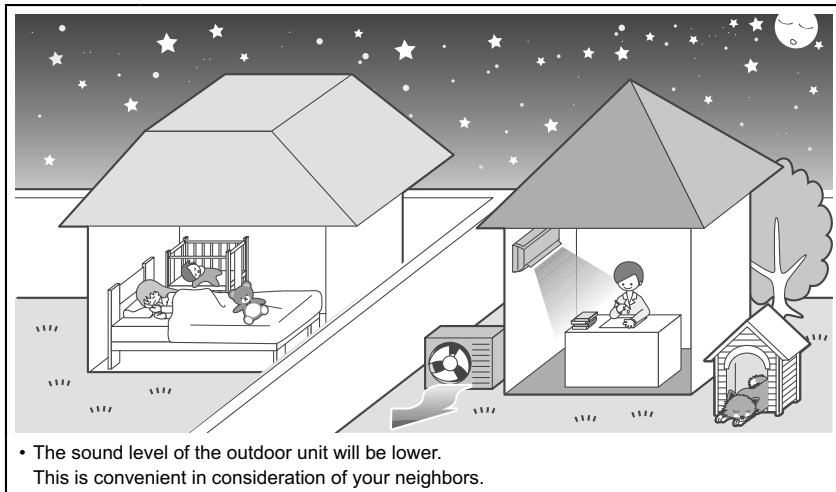
- “” is displayed on the LCD.

### ■ To cancel OUTDOOR UNIT QUIET operation

Press  again.

- “” is no longer displayed on the LCD.


**[Example]** Using the OUTDOOR UNIT QUIET operation during the night.



- The sound level of the outdoor unit will be lower.  
This is convenient in consideration of your neighbors.

## NOTE

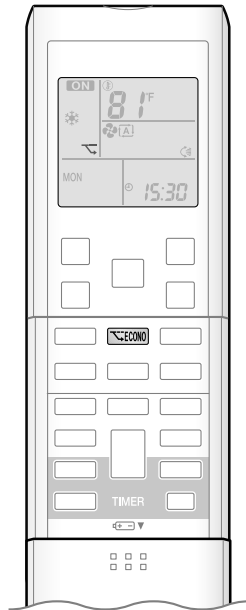
### ■ Notes on OUTDOOR UNIT QUIET operation

- If using a multi system, the OUTDOOR UNIT QUIET operation will work only when this function is set on all operated indoor units. However, if using priority room setting, refer to “Note for multi system”.
- This function is available in COOL, HEAT, and AUTO operation.  
This is not available in FAN and DRY operation.
- POWERFUL operation and OUTDOOR UNIT QUIET operation cannot be used at the same time.  
Priority is given to the function of whichever button is pressed last.
- Even the operation is stopped using the remote controller or the indoor unit ON/OFF switch when using OUTDOOR UNIT QUIET operation, “” will remain on the remote controller display.
- OUTDOOR UNIT QUIET operation will drop neither the frequency nor fan speed if they have been already dropped low enough.

## 2.10 ECONO Operation



# ECONO Operation



ECONO operation is a function which enables efficient operation by limiting the maximum power consumption value. This function is useful for cases in which attention should be paid to ensure a circuit breaker will not trip when the product runs alongside other appliances.

### ■ To start ECONO operation

Press during operation.

- "ECONO" is displayed on the LCD.

### ■ To cancel ECONO operation

Press again.

- "ECONO" is no longer displayed on the LCD.

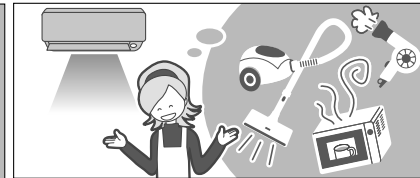
#### [Example]

##### Normal operation

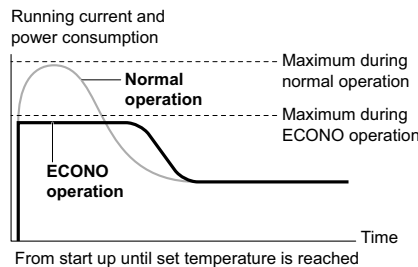


- In case the air conditioner and other appliances which require high power consumption are used at same time, a circuit breaker may trip if the air conditioner operate with its maximum capacity.

##### ECONO operation



- The maximum power consumption of the air conditioner is limited by using ECONO operation. The circuit breaker is unlikely to trip even if the air conditioner and other appliances are used at same time.



- This diagram is a representation for illustrative purposes only. The maximum running current and power consumption of the air conditioner in ECONO operation vary with the connecting outdoor unit.

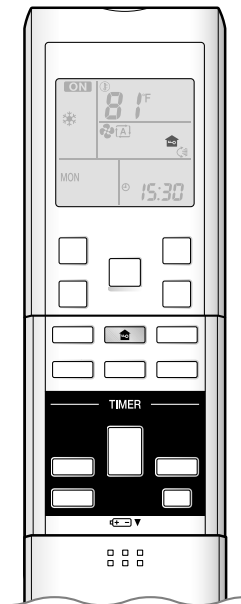
### NOTE

#### ■ Notes on ECONO operation

- ECONO operation can only be set when the unit is running. Pressing causes the settings to be canceled, and "ECONO" is no longer displayed on the LCD.
- ECONO operation functions in AUTO, COOL, DRY, and HEAT operation.
- POWERFUL and ECONO operation cannot be used at the same time. Priority is given to the function of whichever button is pressed last.
- If the level of power consumption is already low, ECONO operation will not drop the power consumption.

## 2.11 HOME LEAVE Operation


# HOME LEAVE Operation

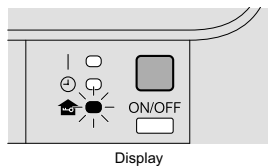


HOME LEAVE operation is a function which allows you to record your preferred temperature and airflow rate settings.

### ■ To start HOME LEAVE operation


#### 1. Press .

- “” is displayed on the LCD.
- The HOME LEAVE lamp lights up.



### ■ To cancel HOME LEAVE operation





#### 2. Press again.





- “” is no longer displayed on the LCD.
- The HOME LEAVE lamp goes off.

### Before using HOME LEAVE operation.

#### ■ To set the temperature and airflow rate for HOME LEAVE operation


When using HOME LEAVE operation for the first time, please set the temperature and airflow rate for HOME LEAVE operation. Record your preferred temperature and airflow rate.

	Initial setting		Selectable range	
	Temperature	Airflow rate	Temperature	Airflow rate
Cooling	77°F (25°C)	AUTO	64-90°F (18-32°C)	5 step, “  ” and “  ”
Heating	77°F (25°C)	AUTO	50-86°F (10-30°C)	5 step, “  ” and “  ”

1. Press . Make sure “” is displayed in the remote controller display.
2. Adjust the set temperature with  or  as you like.
3. Adjust the airflow rate with FAN setting button as you like.

HOME LEAVE operation will run with these settings the next time you use the unit. To change the recorded information, repeat steps 1 – 3.

## ■ What's the HOME LEAVE operation?

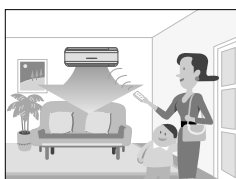
Is there a set temperature and airflow rate which is most comfortable, a set temperature and airflow rate which you use the most? HOME LEAVE operation is a function that allows you to record your favorite set temperature and airflow rate. You can start your favorite operation mode simply by pressing  on the remote controller. This function is convenient in the following situations.


### ■ Useful in these cases

#### 1. Use as an energy-saving mode.

Set the temperature 3-5°F(2-3°C) higher (COOL) or lower (HEAT) than normal. Setting the fan speed to the lowest setting allows the unit to be used in energy-saving mode. Also convenient for use while you are out or sleeping.

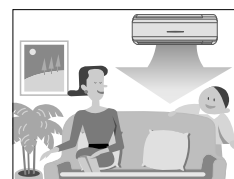
##### • Every day before you leave the house...




When you go out, press  and the air conditioner will adjust capacity to reach the preset temperature for HOME LEAVE operation.



When you return, you will be welcomed by a comfortably air conditioned room.



Press  again, and the air conditioner will adjust capacity to the set temperature for normal operation.

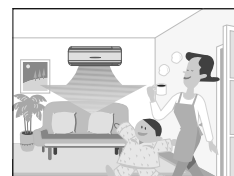
##### • Before bed...



Set the unit to HOME LEAVE operation before leaving the living room when going to bed.




The unit will maintain the temperature in the room at a comfortable level while you sleep.




When you enter the living room in the morning, the temperature will be just right. Disengaging HOME LEAVE operation will return the temperature to that set for normal operation. Even the coldest winters will pose no problem!

#### 2. Use as a favorite mode.

Once you record the temperature and airflow rate settings you most often use, you can retrieve them by pressing . You do not have to make all the selections again.

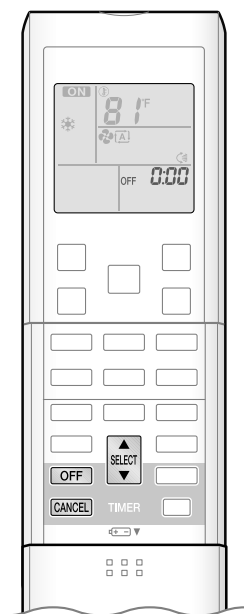
## NOTE

- Once the temperature and airflow rate for HOME LEAVE operation are set, those settings will be used whenever HOME LEAVE operation is used in the future. To change these settings, please refer to the before using HOME LEAVE operation section above.
- HOME LEAVE operation is only available in COOL and HEAT operation. It cannot be used in AUTO, DRY, and FAN operation.
- HOME LEAVE operation runs in accordance with the previous operation mode (COOL or HEAT) before using HOME LEAVE operation.
- HOME LEAVE operation and POWERFUL operation cannot be used at the same time. Last button that was pressed has priority.
- The operation mode cannot be changed while HOME LEAVE operation is being used.
- When operation is shut off during HOME LEAVE operation, using the remote controller or the indoor unit ON/OFF switch, "" will remain on the remote controller display.

## 2.12 OFF TIMER Operation



# OFF TIMER Operation

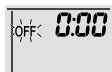


Timer functions are useful for automatically switching the air conditioner on or off at night or in the morning. You can also use OFF TIMER and ON TIMER in combination.

### ■ To use OFF TIMER operation

- Check that the clock is correct.  
If not, set the clock to the present time.

#### 1. Press **OFF**.



"0:00" is displayed on the LCD.  
"OFF" blinks.

- "⊕" is no longer displayed on the LCD.

#### 2. Press **SELECT** until the time setting reaches the point you like.

- Each pressing of either button increases or decreases the time setting by 10 minutes.  
Holding down either button changes the time setting rapidly.

#### 3. Press **OFF** again.

- "OFF" and setting time are displayed on the LCD.
- The TIMER lamp lights yellow.



Display

### ■ To cancel OFF TIMER operation

#### Press **CANCEL**.

- "OFF" and setting time are no longer displayed on the LCD.
- "⊕" and day of the week are displayed on the LCD.
- The TIMER lamp goes off.

### NOTE

#### ■ Notes on TIMER operation

- When TIMER is set, the present time is not displayed.
- Once you set ON/OFF TIMER, the time setting is kept in the memory. The memory is canceled when remote controller batteries are replaced.
- When operating the unit via the ON/OFF TIMER, the actual length of operation may vary from the time entered by the user. (Maximum approximately 10 minutes)

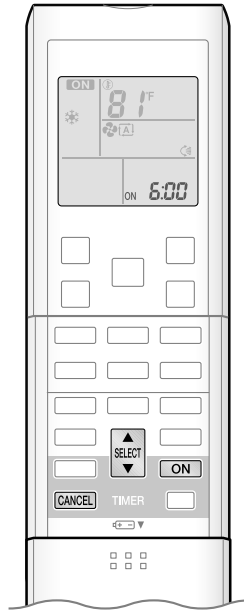
#### ■ NIGHT SET mode

- When the OFF TIMER is set, the air conditioner automatically adjusts the temperature setting (0.9°F (0.5°C) up in COOL, 3.6°F (2.0°C) down in HEAT) to prevent excessive cooling (heating) for your pleasant sleep.

## 2.13 ON TIMER Operation



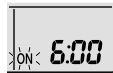
# ON TIMER Operation



### ■ To use ON TIMER operation

- Check that the clock is correct.  
If not, set the clock to the present time.

#### 1. Press **ON**.



- "6:00" is displayed on the LCD.
- "ON" blinks.

- "☉" and day of the week are no longer displayed on the LCD.

#### 2. Press **SELECT** until the time setting reaches the point you like.

- Each pressing of either button increases or decreases the time setting by 10 minutes.  
Holding down either button changes the setting rapidly.

#### 3. Press **ON** again.

- "ON" and setting time are displayed on the LCD.
- The TIMER lamp lights yellow.



Display

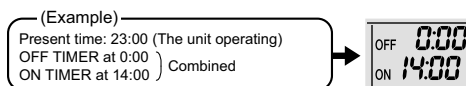
### ■ To cancel ON TIMER operation

#### Press **CANCEL**.

- "ON" and setting time are no longer displayed on the LCD.
- "☉" and day of the week are displayed on the LCD.
- The TIMER lamp goes off.

### ■ To combine ON TIMER and OFF TIMER

- A sample setting for combining the 2 timers is shown below.



### NOTE

#### ■ In the following cases, set the timer again.

- After a breaker has turned off.
- After a power failure.
- After replacing batteries in the remote controller.



## 2.14 WEEKLY TIMER Operation

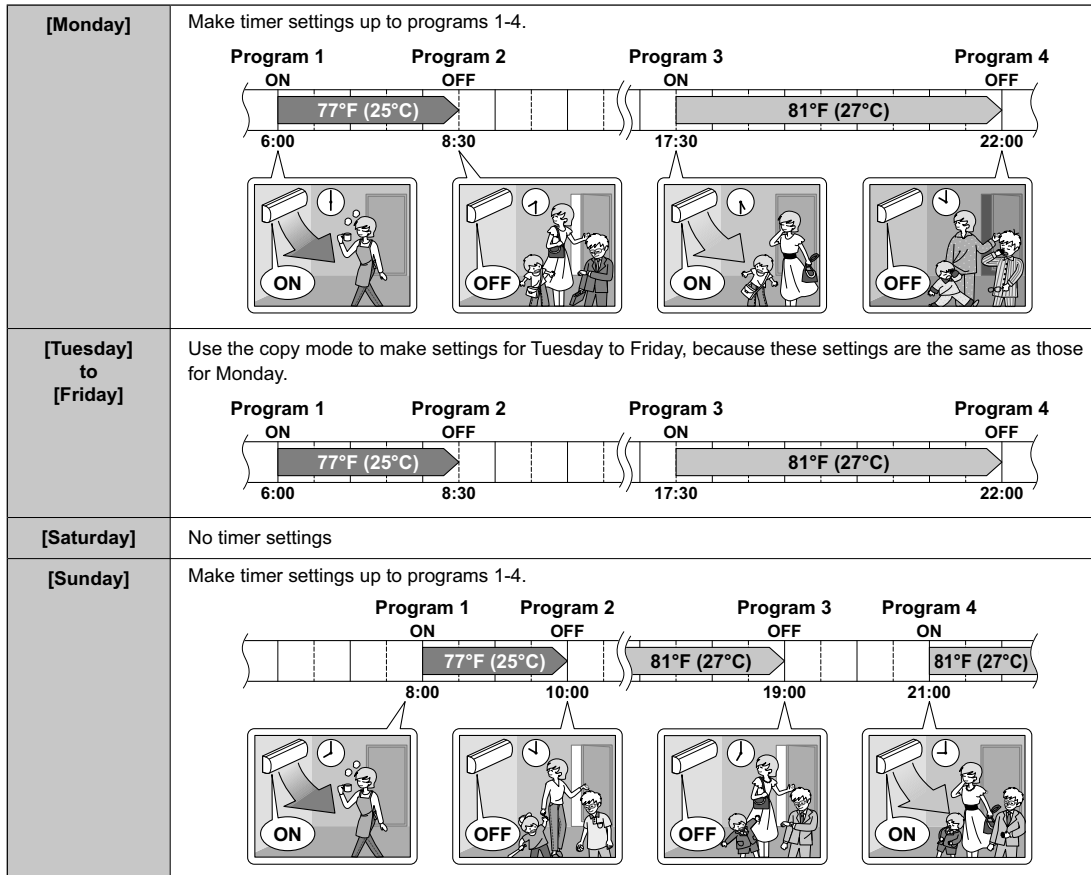


# WEEKLY TIMER Operation

Up to 4 timer settings can be saved for each day of the week. It is convenient if the WEEKLY TIMER is set according to the family's life style.

### ■ Using in these cases of WEEKLY TIMER

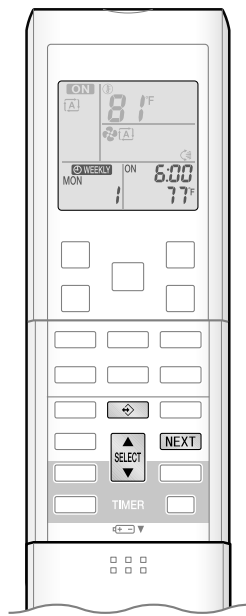
**Example:** The same timer settings are made for the week from Monday through Friday while different timer settings are made for the weekend.



- Up to 4 reservations per day and 28 reservations per week can be set in the WEEKLY TIMER. The effective use of the copy mode ensures ease of making reservations.
- The use of ON-ON-ON-ON settings, for example, makes it possible to schedule operating mode and set temperature changes. Furthermore, by using OFF-OFF-OFF-OFF settings, only the turn off time of each day can be set. This will turn off the air conditioner automatically if the user forgets to turn it off.



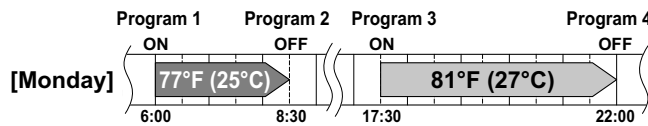
# WEEKLY TIMER Operation



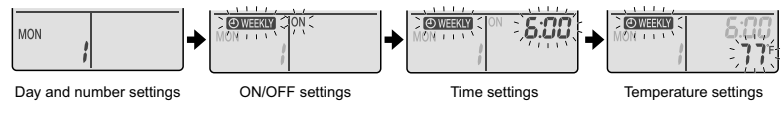
## ■ To use WEEKLY TIMER operation

### Setting mode

- Make sure the day of the week and time are set. If not, set the day of the week and time.



### Setting Displays



### 1. Press

- The day of the week and the reservation number of the current day will be displayed.
- 1 to 4 settings can be made per day.

### 2. Press to select the desired day of the week and reservation number.

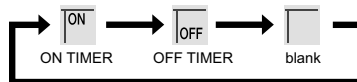
- Pressing changes the reservation number and the day of the week.

### 3. Press .

- The day of the week and reservation number will be set.
- "WEEKLY" and "ON" blink.

### 4. Press to select the desired mode.

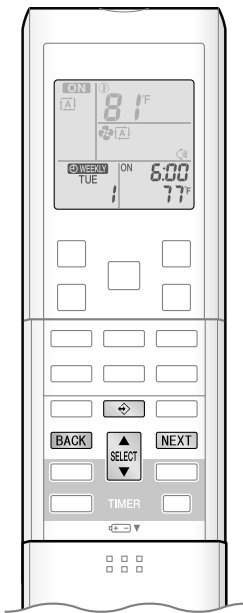
- Pressing changes "ON" or "OFF" setting in sequence.



- In case the reservation has already been set, selecting "blank" deletes the reservation.
- Go to **STEP 9** if "blank" is selected.

### 5. Press .

- The ON/OFF TIMER mode will be set.
- "WEEKLY" and the time blink.



**6. Press  to select the desired time.**

- The time can be set between 0:00 and 23:50 in 10 minute intervals.
- To return to the ON/OFF TIMER mode setting, press **BACK**.
- Go to **STEP 9** when setting the OFF TIMER.

**7. Press .**

- The time will be set.
- “**WEEKLY**” and the temperature blink.

**8. Press  to select the desired temperature.**

- The temperature can be set between 50°F (10°C) and 90°F (32°C).  
Cooling: The unit operates at 64°F (18°C) even if it is set at 50 (10) to 63°F (17°C).  
Heating: The unit operates at 86°F (30°C) even if it is set at 87 (31) to 90°F (32°C).
- To return to the time setting, press **BACK**.
- The set temperature is only displayed when the mode setting is on.

**9. Press .**

- The temperature will be set and go to the next reservation setting.
- To continue further settings, repeat the procedure from **STEP 4**.

**10. Press  to complete the setting.**

- Be sure to direct the remote controller toward the indoor unit and check for a receiving tone and flashing the OPERATION lamp.
- “**WEEKLY**” is displayed on the LCD and WEEKLY TIMER operation is activated.
- The TIMER lamp lights yellow.




Display

- A reservation made once can be easily copied and the same settings used for another day of the week. Refer to **Copy mode**.

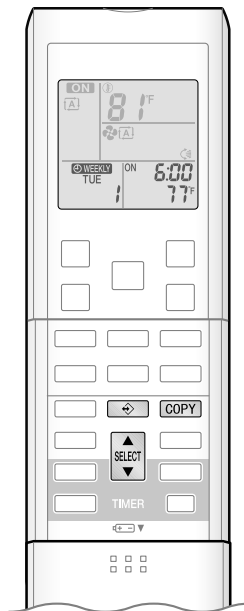
**NOTE**

■ **Notes on WEEKLY TIMER operation**

- Do not forget to set the clock on the remote controller first.
- The day of the week, ON/OFF TIMER mode, time and set temperature (only for ON TIMER mode) can be set with WEEKLY TIMER. Other settings for ON TIMER are based on the settings just before the operation.
- Both WEEKLY TIMER and ON/OFF TIMER operation cannot be used at the same time. The ON/OFF TIMER operation has priority if it is set while WEEKLY TIMER is still active. The WEEKLY TIMER will go into standby state, and “**WEEKLY**” will be no longer displayed on the LCD. When ON/OFF TIMER is up, the WEEKLY TIMER will automatically become active.
- Only the time and set temperature with the WEEKLY TIMER are sent with the . Set the WEEKLY TIMER only after setting the operation mode, the airflow rate and the airflow direction ahead of time.
- Shutting the breaker off, power failure, and other similar events will render operation of the indoor unit’s internal clock inaccurate. Reset the clock.
- The **BACK** can be used only for the time and temperature settings. It cannot be used to go back to the reservation number.

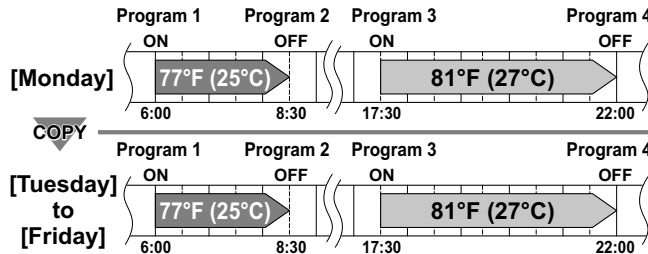


# WEEKLY TIMER Operation

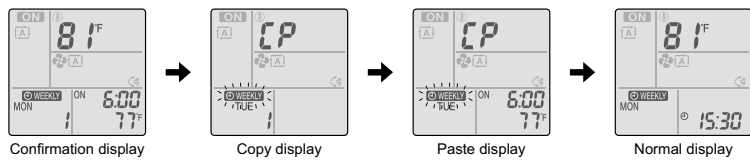


### Copy mode

- A reservation made once can be copied to another day of the week. The whole reservation of the selected day of the week will be copied.



### Setting Displays



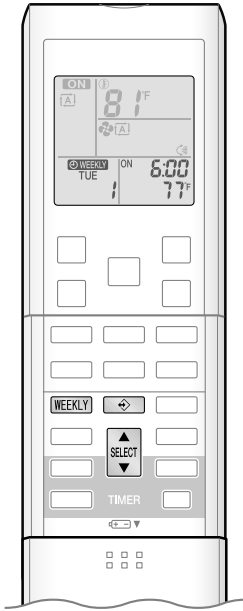
1. Press .
2. Press to confirm the day of the week to be copied.
3. Press .
  - The whole reservation of the selected day of the week will be copied.
4. Press to select the destination day of the week.
5. Press .
  - The reservation will be copied to the selected day of the week. The whole reservation of the selected day of the week will be copied.
  - To continue copying the settings to other days of the week, repeat **STEP 4** and **STEP 5**.
6. Press to complete the setting.
  - "WEEKLY" is displayed on the LCD and WEEKLY TIMER operation is activated.

### NOTE

#### ■ Note on COPY MODE

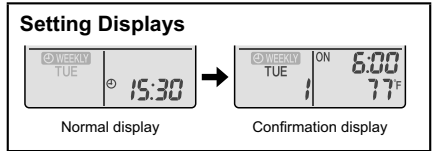
- The entire reservation of the source day of the week is copied in the copy mode.

In the case of making a reservation change for any day of the week individually after copying the content of weekly reservations, press and change the settings in the steps of **Setting mode**.





**■ Confirming a reservation**



- The reservation can be confirmed.




**1. Press**  .

- The day of the week and the reservation number of current day will be displayed.

**2. Press**  **SELECT**  **to select the day of the week and the reservation number to be confirmed.**

- Pressing  **SELECT**  displays the reservation details.
- To change the confirmed reserved settings, select the reservation number and press **NEXT**.  
The mode is switched to setting mode. Go to **Setting mode STEP 4.**

**3. Press**  **to exit confirming mode.**


- “ WEEKLY” is displayed on the LCD and WEEKLY TIMER operation is activated.
- The TIMER lamp lights yellow.



Display

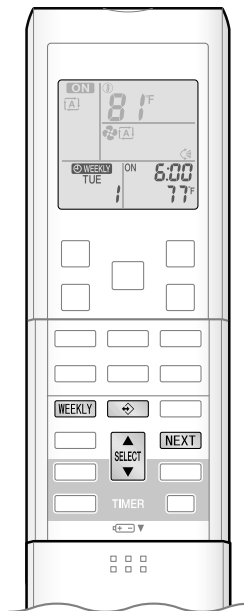
**■ To deactivate WEEKLY TIMER operation**

Press **WEEKLY** while “ WEEKLY” is displayed on the LCD.

- “ WEEKLY” will be no longer displayed on the LCD.
- The TIMER lamp goes off.
- To reactivate the WEEKLY TIMER operation, press **WEEKLY** again.
- If a reservation deactivated with **WEEKLY** is activated once again, the last reservation mode will be used.



# WEEKLY TIMER Operation



## To delete reservations

### The individual reservation

1. Press .
    - The day of the week and the reservation number will be displayed.
  2. Press to select the day of the week and the reservation number to be deleted.
  3. Press .
    - "WEEKLY" and "ON" or "OFF" blink.
  4. Press and select "blank".
    - Pressing changes ON/OFF TIMER mode.
    - The reservation has no setting when selecting "blank".
- ```

graph LR
    A[ON TIMER] --> B[OFF TIMER]
    B --> C[blank]
    
```
5. Press .
    - The selected reservation will be deleted.
  6. Press .
    - If there are still other reservations, WEEKLY TIMER operation will be activated.

### The reservations for each day of the week

- This function can be used for deleting reservations for each day of the week.
  - It can be used while confirming or setting reservations.
1. Press to select the day of the week to be deleted.
  2. Hold for 5 seconds.
    - The reservation of the selected day of the week will be deleted.

### All reservations

- Hold for 5 seconds while normal display.**
- Be sure to direct the remote controller toward the indoor unit and check for a receiving tone.
  - This operation is not effective on the setting display of WEEKLY TIMER.
  - All reservations will be deleted.

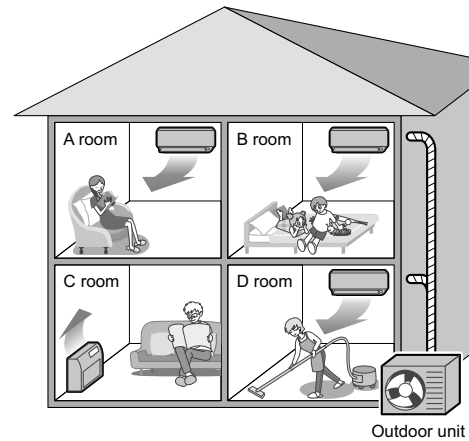
## 2.15 Note for Multi System

# Note for Multi System

Multi system has one outdoor unit connected to multiple indoor units.

### ■ Selecting the operation mode

When more than one indoor unit is operating, priority is given to the first unit that was turned on.  
In this case, set the units that are turned on later to the same operation mode as the first unit.  
Otherwise, they will enter the standby state, and the OPERATION lamp will flash: this does not indicate malfunction.



### NOTE

#### ■ Notes on operation mode for multi system

- COOL, DRY and FAN operation may be used at the same time.
- AUTO operation automatically selects COOL operation or HEAT operation based on the room temperature.  
Therefore, AUTO operation is available when selecting the same operation mode as that of the room with the first unit to be turned on.

### ⚠ CAUTION

- Normally, the operation mode in the room where the unit is first run is given priority, but the following situations are exceptions, so please keep this in mind.  
If the operation mode of the first room is **FAN operation**, then using **HEAT operation** in any room after this will give priority to **HEAT operation**. In this situation, the air conditioner running in FAN operation will go on standby, and the OPERATION lamp will flash.

Refer to “**Priority room setting**” on the next page.

### ■ NIGHT QUIET mode (Available only for COOL operation)

NIGHT QUIET mode requires initial programming during installation. Please consult your retailer or dealer for assistance.  
NIGHT QUIET mode reduces the operation sound of the outdoor unit during the nighttime hours to prevent annoyance to neighbors.

- The NIGHT QUIET mode is activated when the temperature drops 10.8°F (6°C) or more below the highest temperature recorded that day.  
Therefore, when the temperature difference is less than 7.2°F (4°C), this function will not be activated.
- NIGHT QUIET mode reduces slightly the cooling efficiency of the unit.

### ■ OUTDOOR UNIT QUIET operation

Refer to “**OUTDOOR UNIT QUIET operation**”.

#### With the priority room setting present but inactive or not present.

When using the OUTDOOR UNIT QUIET operation feature with the Multi system, set all indoor units to OUTDOOR UNIT QUIET operation using their remote controllers.

When clearing OUTDOOR UNIT QUIET operation, clear one of the operating indoor units using their remote controller.  
However OUTDOOR UNIT QUIET operation display remains on the remote controller for other rooms.

We recommend you release all rooms using their remote controllers.

#### With the priority room setting active.

Refer to “**Priority room setting**” on the next page.

# Note for Multi System

## ■ COOL / HEAT mode lock

The COOL / HEAT mode lock requires initial programming during installation. Please consult your authorized dealer for assistance. The COOL / HEAT mode lock sets the unit forcibly to either COOL or HEAT operation. This function is convenient when you wish to set all indoor units connected to the multi system to the same operation mode.



## 2.16 Care and Cleaning

CTXS07JVJU, CTXS09/12HVJU

# Care and Cleaning



### CAUTION

Before cleaning, be sure to stop the operation and turn the breaker off.

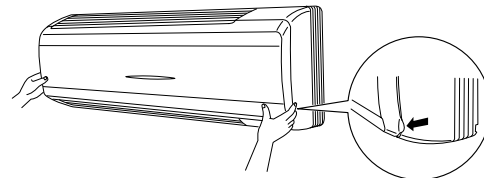
### Units

- Indoor unit, outdoor unit and remote controller  
Wipe them with a soft cloth when dirty.

### Front panel

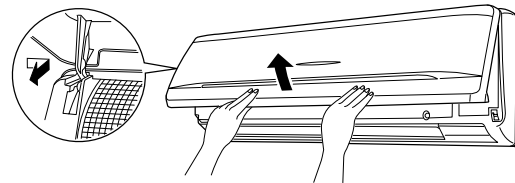
#### 1. Open the front panel.

- Hold the front panel by the panel tabs on the both sides and open it.



#### 2. Remove the front panel.

- Slide the front panel to either the left or right and pulling it toward you.  
This will disconnect the rotation dowel on one side.
- Disconnect the front panel shaft on the other side in the same manner.

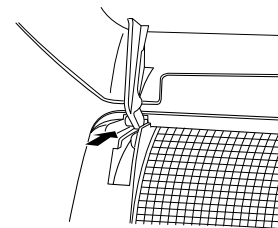


#### 3. Clean the front panel.

- Wipe it with a soft cloth soaked in water.
- Only neutral detergent may be used.
- If you wash the panel with water, wipe it with a dry soft cloth, and allow to dry in the shade.

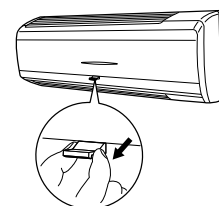
#### 4. Attach the front panel.

- Align the front panel shaft on the left and right of the front panel with the slots, then push them all the way in.
- Close the front panel slowly. (Press the panel at both sides and the center.)



### CAUTION

- When the packaging materials are attached to the front panel, please remove them.
- Do not touch the metal parts of the indoor unit. If you touch those parts, this may cause an injury.
- When removing or attaching the front panel, use a robust and stable stool and watch your steps carefully.
- When removing or attaching the front panel, support the panel securely with hand to prevent it from falling.
- For cleaning, do not use hot water above 104°F (40°C), benzene, gasoline, thinner, nor other volatile oils, polishing compound, scrubbing brushes, nor other hand stuff.
- After cleaning, make sure that the front panel is securely fixed.

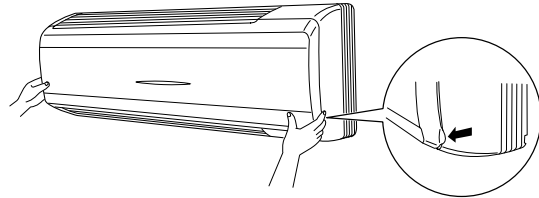


## Filters

### 1. Open the front panel.

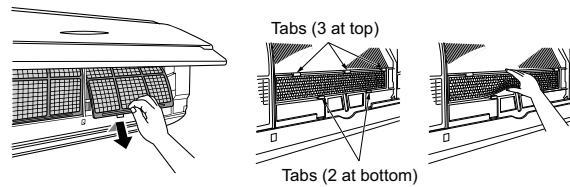
### 2. Pull out the air filters.

- Push a little upwards the tab at the center of each air filter, then pull it down.



### 3. Take off the air-purifying filter with photocatalytic deodorizing function.

- Press the top of the air-cleaning filter onto the tabs (3 at top). Then press the bottom of the filter up slightly, and press it onto the tabs (2 at bottom).

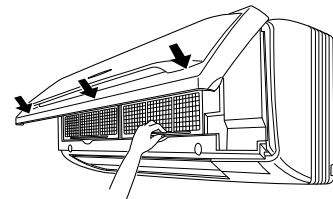


### 4. Clean or replace each filter.

See figure.

### 5. Set the air filter and the air-purifying filter with photocatalytic deodorizing function as they were and close the front panel.

- Press the front panel at both sides and the center.



## CAUTION

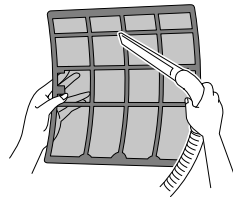
- Do not touch the aluminum fins by bare hand at the time of dismantling or mounting the filter.

# Care and Cleaning

## Air filter

### Wash the air filters with water or clean them with vacuum cleaner.

- If the dust does not come off easily, wash them with neutral detergent thinned with lukewarm water, then dry them up in the shade.
- It is recommended to clean the air filters every 2 weeks.



## Air-purifying filter with photocatalytic deodorizing function

The air-purifying filter with photocatalytic deodorizing function can be renewed by washing it with water once every 6 months. We recommend replacing it once every 3 years.

### [Maintenance]

#### 1. Vacuum dust, and soak in warm water or water for about 10 to 15 minutes if dirt is heavy.

- Do not remove filter from frame when washing with water.

#### 2. After washing, shake off remaining water and dry in the shade.

- Since the material is made out of paper, do not wring out the filter when removing water from it.

### [Replacement]

#### 1. Remove the tabs on the filter frame and replace with a new filter.

- Dispose of the old filters as flammable waste.

**NOTE**

- Operation with dirty filters:
  - 1) cannot deodorize the air,
  - 2) cannot clean the air,
  - 3) results in poor heating or cooling,
  - 4) may cause odor.
- To order air-purifying filter with photocatalytic deodorizing function contact to the service shop there you purchased the air conditioner.
- Dispose of the old filters as flammable waste.

| Item                                                                                | Part No.  |
|-------------------------------------------------------------------------------------|-----------|
| Air-purifying filter with photocatalytic deodorizing function (without frame) 1 set | KAF952A42 |



**ATTENTION**

- Do not throw away the filter frame. Reuse the filter frame when replacing the air-purifying filter with photocatalytic deodorizing function.

**CHECK**

- Check that the base, stand and other fittings of the outdoor unit are not decayed or corroded.
- Check that nothing blocks the air inlets and the outlets of the indoor unit and the outdoor unit.
- Check that the drain comes smoothly out of the drain hose during COOL or DRY operation.
  - If no drain water is seen, water may be leaking from the indoor unit. Stop operation and consult the service shop if this is the case.

**Before a long idle period****1. Operate the FAN only for several hours on a nice day to dry out the inside.**

- Press **MODE** and select “” operation.
- Press  and start operation.

**2. After operation stops, turn off the breaker for the room air conditioner.****3. Clean the air filters and set them again.****4. Take out batteries from the remote controller.**

CTXS07LVJU, FTXS15/18/24LVJU

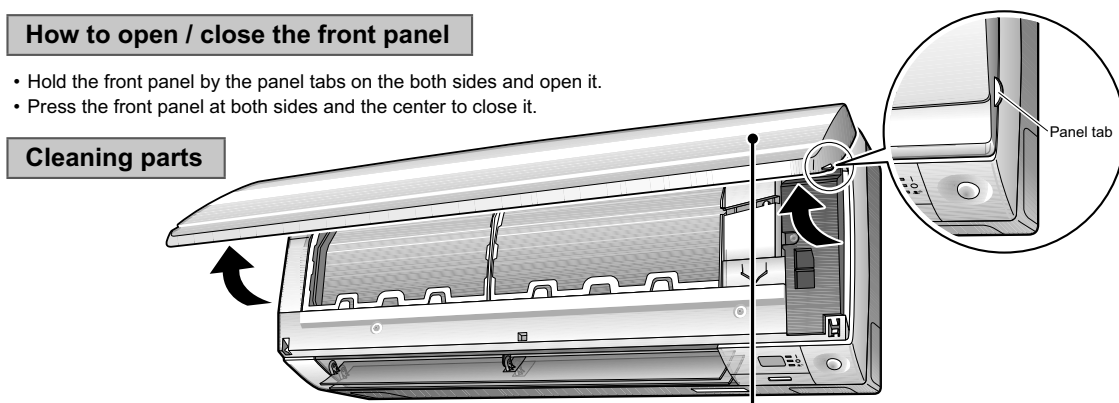
# Care and Cleaning

## ■ Quick reference

### How to open / close the front panel

- Hold the front panel by the panel tabs on the both sides and open it.
- Press the front panel at both sides and the center to close it.

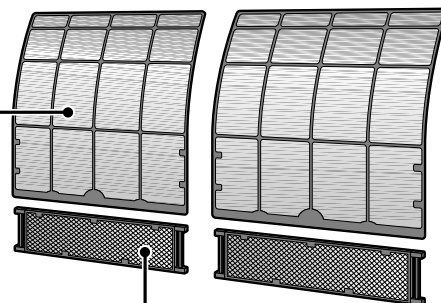
### Cleaning parts



#### Air filter

- Vacuum dust or wash the filter.

**Once every 2 weeks**



#### Front panel

- Wipe it with soft cloth soaked in water.

**If bothered by dirt**

#### Titanium apatite photocatalytic air-purifying filter

- Vacuum dust or replace the filter.

[Cleaning]

**Once every 6 months**

[Replacement]

**Once every 3 years**

#### Indoor unit, Outdoor unit and Remote controller

- Wipe them with soft cloth.

**If bothered by dirt**

### Notes on cleaning

#### ■ For cleaning, do not use the materials as follows.

- Hot water above 104°F (40°C).
- Benzine, gasoline, thinner, other volatile oils.
- Polishing compound.
- Scrubbing brushes, other hard stuff.



## ⚠ CAUTION

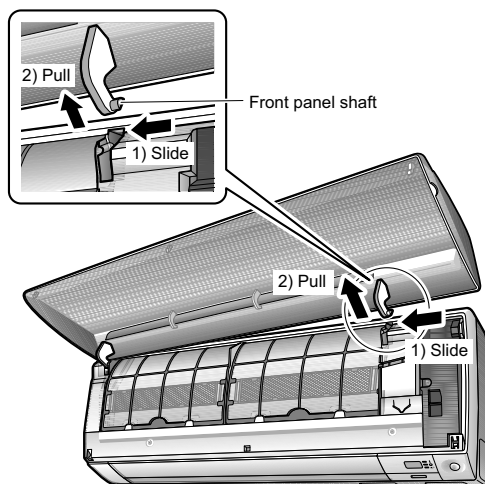
- Before cleaning, be sure to stop the operation and turn the breaker off.
- Do not touch the aluminum fins of the indoor unit. If you touch those parts, this may cause an injury.

# Care and Cleaning

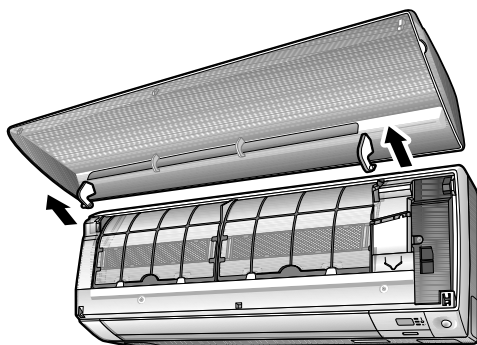
## ■ Front panel

### 1. Remove the front panel.

- Open the front panel.
- Slide the front panel to either the left or right and pulling it toward you. This will disconnect the front panel shaft on one side.



- Disconnect the front panel shaft on the other side in the same manner.

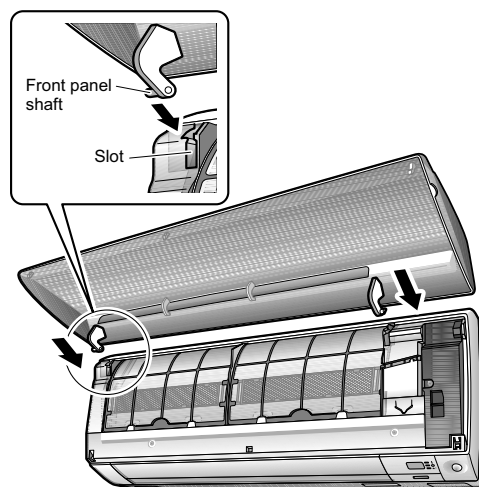


### 2. Clean the front panel.

- Wipe it with a soft cloth soaked in water.
- Only neutral detergent may be used.
- If you wash the panel with water, wipe it with a dry soft cloth, and allow to dry in the shade.

### 3. Attach the front panel.

- Align the front panel shaft on the left and right of the front panel with the slots, then push them all the way in.



- Close the front panel slowly. (Press the panel at both sides and the central area.)

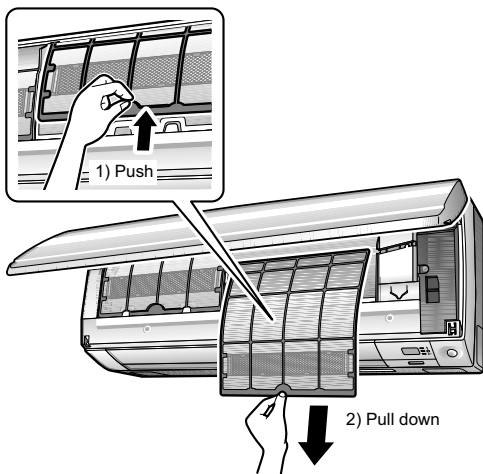
## ⚠ CAUTION

- When removing or attaching the front panel, use a robust and stable stool and watch your steps carefully.
- When removing or attaching the front panel, support the panel securely with hand to prevent it from falling.
- After cleaning, make sure that the front panel is securely fixed.

■ Air filter

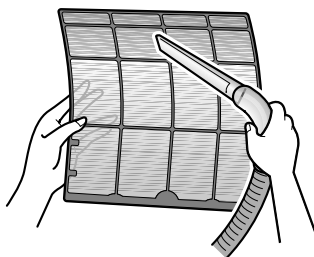
**1. Pull out the air filters.**

- Open the front panel.
- Push the filter tab at the center of each air filter slightly upward, then pull it down.



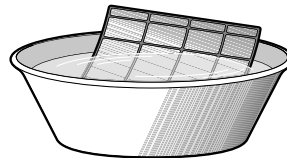
**2. Wash the air filters with water or clean them with vacuum cleaner.**

- It is recommended to clean the air filters every 2 weeks.



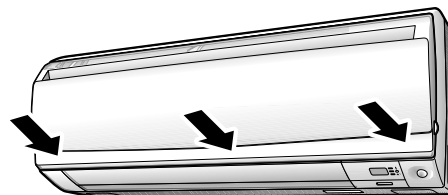
**If the dust does not come off easily**

- Wash the air filters with neutral detergent thinned with lukewarm water, then allow to dry in the shade.
- Be sure to remove the titanium apatite photocatalytic air-purifying filter. Refer to "Titanium apatite photocatalytic air-purifying filter" on the next page.



**3. Set the filters as they were and close the front panel.**

- Press the front panel at both sides and the central area.



**⚠ CAUTION**

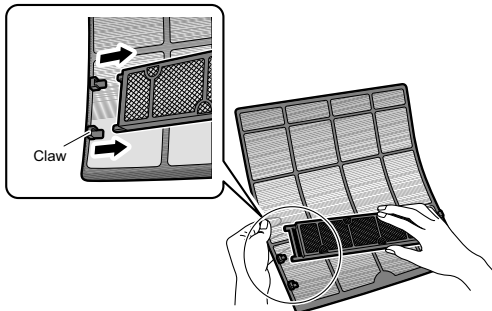
- Do not touch the aluminum fins by bare hand at the time of dismantling or mounting the filter.

# Care and Cleaning

## ■ Titanium apatite photocatalytic air-purifying filter

### 1. Take off the titanium apatite photocatalytic air-purifying filter.

- Open the front panel and pull out the air filters.
- Hold the recessed parts of the frame and unhook the 4 claws.

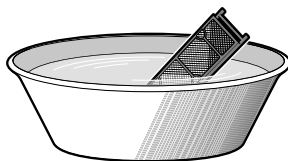


### 2. Clean or replace the titanium apatite photocatalytic air-purifying filter.

#### [Maintenance]

#### 2-1 Vacuum dust, and soak in lukewarm water or water for about 10 to 15 minutes if dirt is heavy.

- Do not remove the filter from frame when washing with water.

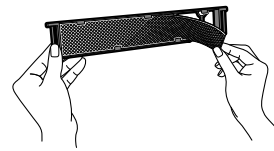


#### 2-2 After washing, shake off remaining water and dry in the shade.

- Since the material is made out of polyester, do not wring out the filter when removing water from it.

#### [Replacement]

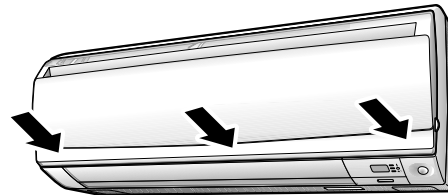
#### Remove the tabs on the filter frame and replace with a new filter.



- Do not throw away the filter frame. Reuse the filter frame when replacing the titanium apatite photocatalytic air-purifying filter.
- Dispose of the old filter as non-flammable waste.

### 3. Set the filters as they were and close the front panel.

- Press the front panel at both sides and the central area.



#### NOTE

- Operation with dirty filters:
  - cannot deodorize the air,
  - cannot clean the air,
  - results in poor heating or cooling,
  - may cause odor.
- Dispose of old filters as non-flammable waste.
- To order titanium apatite photocatalytic air-purifying filter contact to the service shop there you purchased the air conditioner.

|          |                                                                            |
|----------|----------------------------------------------------------------------------|
| Item     | Titanium apatite photocatalytic air-purifying filter (without frame) 1 set |
| Part No. | KAF970A46                                                                  |





### ■ Check the units

- Check that the base, stand and other fittings of the outdoor unit are not decayed or corroded.
- Check that nothing blocks the air inlets and the outlets of the indoor unit and the outdoor unit.
- Check that the drain comes smoothly out of the drain hose during COOL or DRY operation.
  - If no drain water is seen, water may be leaking from the indoor unit. Stop operation and consult the service shop if this is the case.

### ■ Before a long idle period

#### 1. Operate the FAN only for several hours on a nice day to dry out the inside.

- Press **MODE** and select “” operation.
- Press  and start the operation.

#### 2. After operation stops, turn off the breaker for the room air conditioner.

#### 3. Clean the air filters and set them again.

#### 4. Take out batteries from the remote controller.

- When a multi outdoor unit is connected, make sure the heating operation is not used at the other room before you use the fan operation.

### ■ We recommend periodical maintenance

- In certain operating conditions, the inside of the air conditioner may get foul after several seasons of use, resulting in poor performance. It is recommended to have periodical maintenance by a specialist aside from regular cleaning by the user.
- For specialist maintenance, contact the service shop where you purchased the air conditioner.
- The maintenance cost must be born by the user.

# Care and Cleaning

## ⚠ CAUTION

- Only a qualified service person is allowed to perform maintenance.
- Before cleaning, be sure to stop the operation and turn the breaker off.

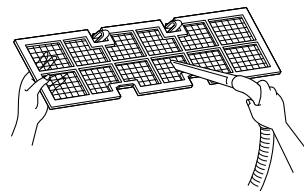
### ■ Air filter

## 1. Removing the air filter.

- Rear suction  
Pull the bottom side of the air filter backwards, over the bends.
- Bottom suction  
Pull the filter over the bends situated at the backside of the unit.

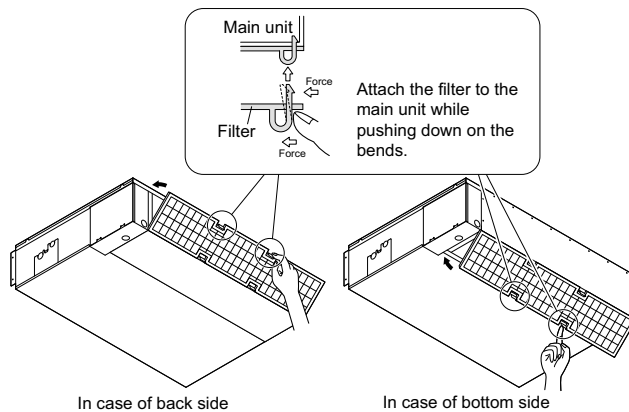
## 2. Cleaning the air filter.

- Remove dust from the air filter using a vacuum cleaner and gently rinse them in cool water. Do not use detergent or hot water to avoid filter shrinking or deformation. After cleaning dry them in the shade.



## 3. Replacing the air filter.

- Rear suction  
Hook the filter behind the flap situated at the top of the unit and push the other side gently over the bends.
- Bottom suction  
Hook the filter behind the flap situated at the middle of the unit and push the other side gently over the bends.



FDXS09/12, CDXS15/18 : 2 bends  
CDXS24 : 3 bends

## ■ Drain pan

- Clean the drain pan periodically, or drain piping may be clogged with dust and may result in water leakage. Ask your DAIKIN dealer to clean them.
- Prepare a cover locally to prevent any dust in the air around the indoor unit from getting in the drain pan, if there is a great deal of dust present.

## CAUTION


- Do not operate the air conditioner without filters, this to avoid dust accumulation inside the unit.
- Do not remove the air filter except when cleaning. Unnecessary handling may damage the filter.
- Do not use gasoline, benzene, thinner, polishing powder, liquid insecticide. It may cause discoloring or warping.
- Do not let the indoor unit get wet. It may cause an electric shock or a fire.
- Operation with dusty air filters lowers the cooling and heating capacity and wastes energy.
- The suction grille is option.
- Do not use water or air of 122°F (50°C) or higher for cleaning air filters and outside panels.
- Ask your DAIKIN dealer how to clean it.

## ■ Check the units

- Check that the base, stand and other fittings of the outdoor unit are not decayed or corroded.
- Check that nothing blocks the air inlets and the outlets of the indoor unit and the outdoor unit.
- Check that the drain comes smoothly out of the drain hose during COOL or DRY operation.
  - If no drain water is seen, water may be leaking from the indoor unit. Stop operation and consult the service shop if this is the case.

## ■ Before a long idle period

### 1. Operate the FAN only for several hours on a nice day to dry out the inside.

- Press **MODE** and select "🌀" operation.
- Press  and start the operation.

### 2. After operation stops, turn off the breaker for the room air conditioner.

### 3. Clean the air filters and set them again.

### 4. Take out batteries from the remote controller.

- When a multi outdoor unit is connected, make sure the HEAT operation is not used at the other room before you use the FAN operation.

## ■ We recommend periodic maintenance

- In certain operating conditions, the inside of the air conditioner may get foul after several seasons of use, resulting in poor performance. It is recommended to have periodic maintenance by a specialist aside from regular cleaning by the user.
- For specialist maintenance, contact the service shop where you purchased the air conditioner.
- The maintenance cost must be born by the user.

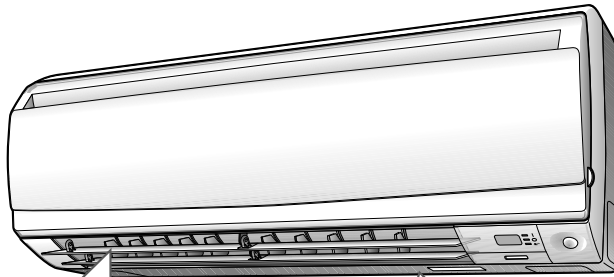
## 2.17 Troubleshooting

# Troubleshooting

## ■ These incidents are not malfunctions.

- The following incidents do not indicate a malfunctioning air conditioner and have explanations. The air conditioner can continue to operate.

### Indoor unit



#### The louvers do not immediately swing. The louvers move soon after startup.

- The air conditioner is adjusting the louver position. The louvers will start moving soon.

#### The HEAT operation stops suddenly and a flowing sound is heard.

- The outdoor unit is taking away the frost. The HEAT operation starts after the frost on the outdoor unit is removed. You should wait for about 4 to 12 minutes.

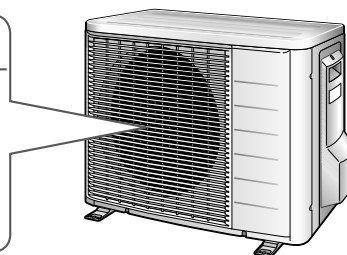
#### Operation does not start soon.

- **When "ON/OFF" button was pressed soon after operation was stopped.**
- **When the mode was reselected.**
  - This is to protect the air conditioner. You should wait for about 3 minutes.

### Outdoor unit

#### The outdoor unit emits water or steam.

- **In HEAT operation**
  - The frost on the outdoor unit melts into water or steam when the air conditioner is in defrost operation.
- **In COOL or DRY operation**
  - Moisture in the air condenses into water on the cool surface of outdoor unit piping and drips.



#### Possible sounds.

- **Flowing water**
  - Generated because the refrigerant in the air conditioner is flowing.
  - This is a pumping sound of the water in the air conditioner it is heard when the water is pumped out from the air conditioner in cooling or drying operation.
  - The refrigerant flows in the air conditioner even if the air conditioner is not working when the indoor units in other rooms are in operation.
- **Blowing**
  - Generated when the flow of the refrigerant in the air conditioner is switched over.
- **Ticking**
  - Generated when the size of the air conditioner slightly expands or shrinks as a result of temperature changes.
- **Whistling sound**
  - Generated when refrigerant flows during defrosting operation.
- **Clicking sound during operation or idle time**
  - Generated when the refrigerant control valves or the electrical parts operate.
- **Clopping sound**
  - Heard from the inside of the air conditioner when the exhaust fan is activated while the room doors are closed. Open the window or turn off the exhaust fan.

- Troubleshooting measures are classified into the following two types on a remedial basis. Take an appropriate measure according to the symptom.



### Not malfunction

- The following conditions do not indicate a problem with the system.



### Check

- Please check again before calling a repair person.

#### The air conditioner does not operate. (OPERATION lamp is off.)

- Is a breaker off or a fuse blown?
- Is there a power failure?
- Are batteries set in the remote controller?
- Is the timer setting correct?



#### Hot air does not flow out soon after the start of HEAT operation.

- The air conditioner is warming up. You should wait for 1 to 4 minutes. (The system is designed to start discharging air only after it has reached a certain temperature.)



#### Operation stopped suddenly. (OPERATION lamp is on.)

- For system protection, the air conditioner may stop operating on a sudden large voltage fluctuation. It automatically resumes operation in about 3 minutes.



#### Operation stopped suddenly. (OPERATION lamp flashes.)

- Are the air filters clean?  
Clean the air filters.
- Is there anything to block the air inlet or the outlet of the indoor and the outdoor units?
- Turn the breaker off and take all obstacles away. Then turn it on again and try operating the air conditioner with the remote controller. If the lamp still flashes, call the service shop where you purchased the air conditioner.
- Are operation modes all the same for indoor units connected to outdoor units in the **multi system**?  
If not, set all indoor units to the same operation mode and confirm that the lamps flash.  
When the operation mode is in "AUTO", set all indoor unit operation modes to "COOL" or "HEAT" for a moment and check again that the lamps are normal. If the lamps stop flashing after the above steps, there is no malfunction.



#### Mist comes out of the indoor unit.

- This happens when the air in the room is cooled into mist by the cold airflow during COOL operation.
- This is because the air in the room is cooled by the heat exchanger and becomes mist during defrosting operation.



# Troubleshooting

## Cooling (Heating) effect is poor.

- Are the air filters clean?
- Is there anything to block the air inlet or the outlet of the indoor and the outdoor units?
- Is the temperature setting appropriate?
- Are the windows and doors closed?
- Are the airflow rate and the airflow direction set appropriately?



## The ON/OFF TIMER does not operate according to the settings.

- Check if the ON/OFF TIMER and the WEEKLY TIMER are set to the same time. Change or deactivate the settings in the WEEKLY TIMER.



## Remote controller does not work properly.

- No remote controller signals are displayed.
- Remote controller sensitivity is low.
- Display is low in contrast or blacked out.
- Display runs out of control.

- The batteries are dying and the remote controller is malfunctioning. Replace all the batteries with new, size AAA.LR03 (alkaline). For details, refer to "To set the batteries" of this manual.



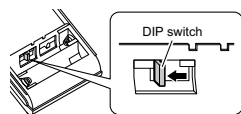
## The indoor unit gives out odor.

- This happens when smells of the room, furniture, or cigarettes are absorbed into the unit and discharged with the airflow. (If this happens, have the indoor unit washed by a technician from the service shop where you purchased the air conditioner.)



## HEAT operation cannot be selected, even though the unit is heat pump model.

- Slide the DIP switch to the left as shown in the illustration so that the HEAT operation can be selected with the "MODE" button.



## The outdoor fan rotates while the air conditioner is not in operation.

- After operation is stopped
  - The outdoor fan continues rotating for another 60 seconds for system protection.
- While the air conditioner is not in operation
  - When the outdoor temperature is very high, the outdoor fan starts rotating for system protection.



## An abnormal functioning happens during operation.

- The air conditioner may malfunction with lightning or radio waves. Turn the breaker off, turn it on again and try operating the air conditioner with the remote controller.



## ■ Call the service shop immediately

### WARNING

- **When an abnormality (such as a burning smell) occurs, stop operation and turn the breaker off.**
  - Continued operation in an abnormal condition may result in malfunctioning, electric shocks or fire.
  - Consult the service shop where you purchased the air conditioner.
- **Do not attempt to repair or modify the air conditioner by yourself.**
  - Incorrect work may result in electric shocks or fire.
  - Consult the service shop where you purchased the air conditioner.

If one of the following symptoms occurs, call the service shop immediately.

- The power cord is abnormally hot or damaged.
- An abnormal sound is heard during operation.
- The safety breaker, a fuse, or the ground leakage breaker cuts off the operation frequently.
- A switch or a button often fails to work properly.
- There is a burning smell.
- Water leaks from the indoor unit.

Turn the breaker off and call the service shop.



#### ■ After a power failure

- The air conditioner automatically resumes operation in about 3 minutes. Wait for it to restart.

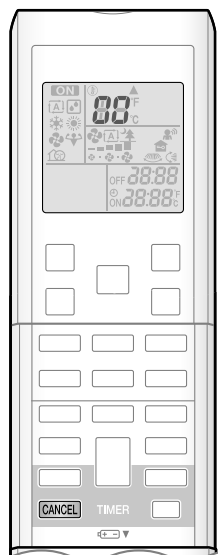
#### ■ Lightning

- If lightning may strike the neighboring area, stop operation and turn the breaker off for system protection.

## ■ Disposal requirements

- Dismantling the unit, and treatment of refrigerant, oil, and other parts, should be done in accordance with the relevant local and national regulations.

# Troubleshooting



## ■ Fault diagnosis by remote controller

- The remote controller can receive a corresponding error code from the indoor unit.

- When **CANCEL** is held down for 5 seconds, a “00” indication blinks on the temperature display section.
- Press **CANCEL** repeatedly until a continuous beep is produced.

- The code indication changes as displayed in the following table, and notifies with a long beep.

|              | CODE                                                | MEANING                                                        |
|--------------|-----------------------------------------------------|----------------------------------------------------------------|
| SYSTEM       | 00                                                  | NORMAL                                                         |
|              | UA                                                  | INDOOR-OUTDOOR UNIT COMBINATION FAULT                          |
|              | U0                                                  | REFRIGERANT SHORTAGE                                           |
|              | U2                                                  | DROP VOLTAGE OR MAIN CIRCUIT OVERVOLTAGE                       |
|              | U4                                                  | FAILURE OF TRANSMISSION (BETWEEN INDOOR UNIT AND OUTDOOR UNIT) |
| INDOOR UNIT  | A1                                                  | INDOOR PCB DEFECTIVENESS                                       |
|              | A5                                                  | HIGH PRESSURE CONTROL OR FREEZE-UP PROTECTOR                   |
|              | A6                                                  | FAN MOTOR FAULT                                                |
|              | C4                                                  | FAULTY HEAT EXCHANGER TEMPERATURE SENSOR                       |
| OUTDOOR UNIT | C9                                                  | FAULTY SUCTION AIR TEMPERATURE SENSOR                          |
|              | EA                                                  | COOLING-HEATING SWITCHING ERROR                                |
|              | E1                                                  | CIRCUIT BOARD FAULT                                            |
|              | E5                                                  | OL STARTED                                                     |
|              | E6                                                  | FAULTY COMPRESSOR START UP                                     |
|              | E7                                                  | DC FAN MOTOR FAULT                                             |
|              | E8                                                  | OVERCURRENT INPUT                                              |
|              | F3                                                  | HIGH TEMPERATURE DISCHARGE PIPE CONTROL                        |
|              | F6                                                  | HIGH PRESSURE CONTROL (IN COOLING)                             |
|              | H0                                                  | SENSOR FAULT                                                   |
|              | H6                                                  | OPERATION HALT DUE TO FAULTY POSITION DETECTION SENSOR         |
|              | H8                                                  | DC CURRENT SENSOR FAULT                                        |
|              | H9                                                  | FAULTY SUCTION AIR TEMPERATURE SENSOR                          |
|              | J3                                                  | FAULTY DISCHARGE PIPE TEMPERATURE SENSOR                       |
|              | J6                                                  | FAULTY HEAT EXCHANGER TEMPERATURE SENSOR                       |
|              | L3                                                  | ELECTRICAL PARTS HEAT FAULT                                    |
|              | L4                                                  | HIGH TEMPERATURE AT INVERTER CIRCUIT HEATSINK                  |
| L5           | OUTPUT OVERCURRENT                                  |                                                                |
| P4           | FAULTY INVERTER CIRCUIT HEATSINK TEMPERATURE SENSOR |                                                                |

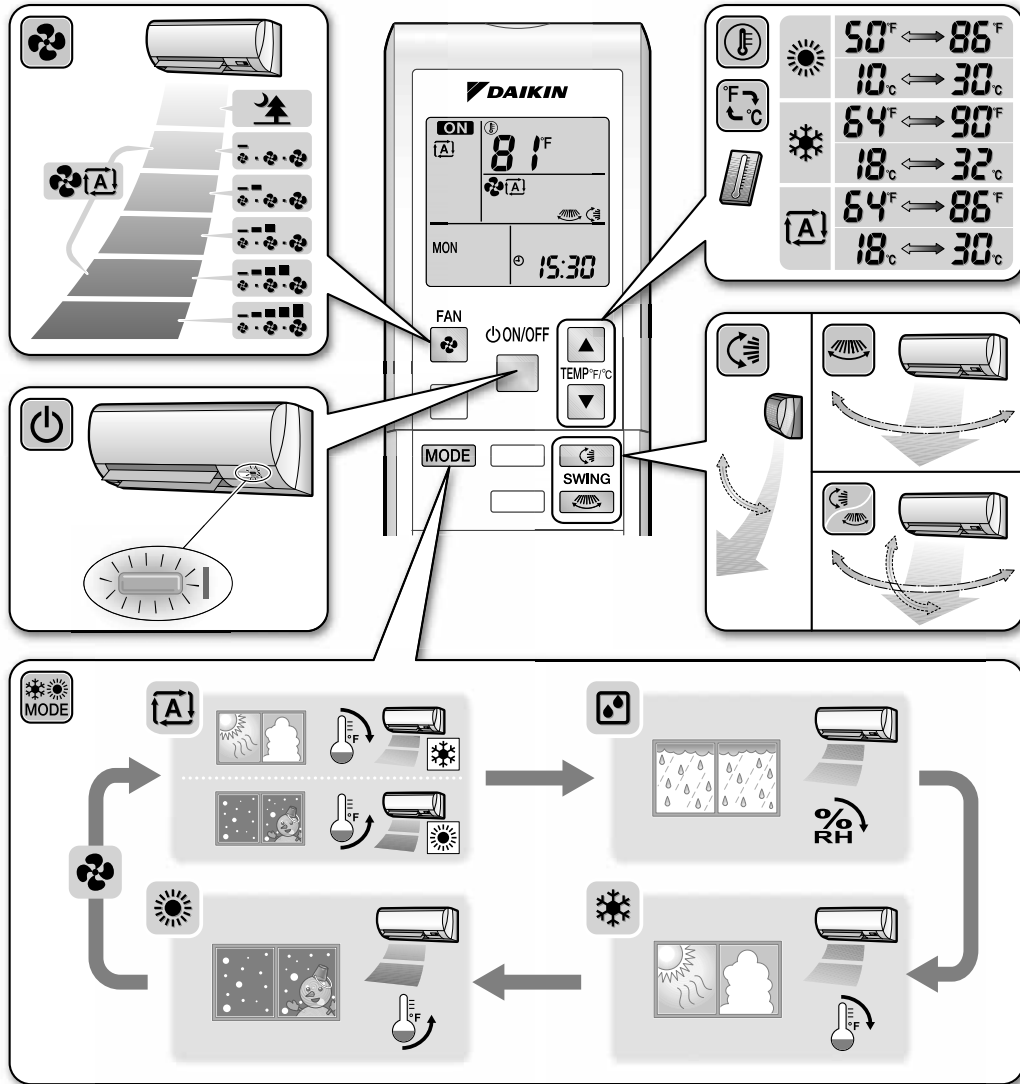
### NOTE

- A short beep and two consecutive beeps indicate non-corresponding codes.
- To cancel the code display, hold **CANCEL** for 5 seconds. The code display also cancel itself if the button is not pressed for 1 minute.

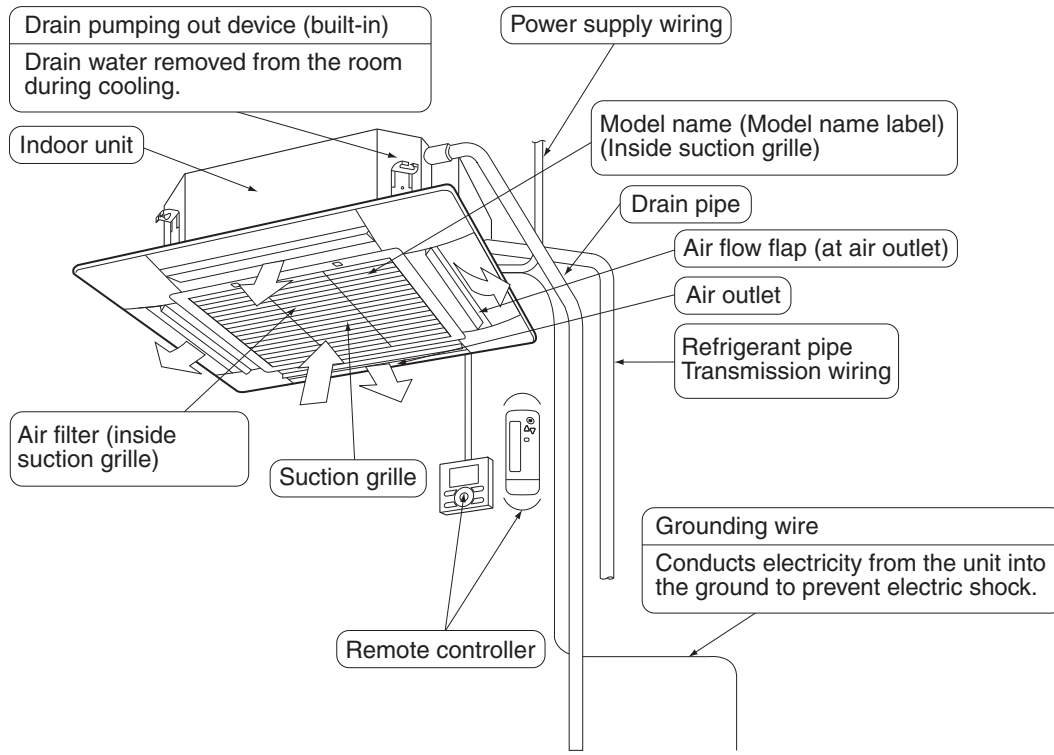


2.18 Quick Reference

# Quick Reference



### 3. FFQ Series







## 4. Safety Considerations for Operations

Read these ***SAFETY CONSIDERATIONS for Operations*** carefully before operating an air conditioner or heat pump. Make sure that the unit operates properly during the startup operation. Instruct the customer on how to operate and maintain the unit.

Inform customers that they should store this Operation Manual with the Installation Manual for future reference.

Meanings of **DANGER**, **WARNING**, **CAUTION**, and **NOTE** Symbols:


-  **DANGER** ..... Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
-  **WARNING** ..... Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
-  **CAUTION** ..... Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.
-  **NOTE** ..... Indicates situations that may result in equipment or property-damage accidents only.

- Do not install the unit in an area where flammable materials are present due to risk of explosion or it will result in serious injury or death.
- Any abnormalities in the operation of the air conditioner or heat pump, such as smoke or fire, will result in severe injury or death. Turn off the power and contact your dealer immediately.
- Refrigerant gas may produce toxic gas if it comes into contact with fire, such as from a fan, heater, stove, or cooking device. Exposure to this gas will result in severe injury or death.
- For refrigerant leakage, consult your dealer. Refrigerant gas is heavier than air and replaces oxygen. A massive leak will result in oxygen depletion, especially in basements, and an asphyxiation hazard will result, leading to serious injury or death.
- If equipment utilizing a burner is used in the same room as the air conditioner or heat pump, there is the danger of oxygen deficiency which will result in an asphyxiation hazard resulting in serious injury or death. Be sure to ventilate the room sufficiently to avoid this hazard.
- Safely dispose of the packing materials. Packing materials, such as nails and other metal or wooden parts, will result in stabs or other injuries.
- Tear apart and throw away plastic packaging bags so that children will not play with them. Children playing with plastic bags will result in death by suffocation.
- Contact your dealer for repair and maintenance. Improper repair and maintenance could result in water leakage, electric shock, and fire. Only use accessories made by Daikin that are specifically designed for use with the equipment and have them installed by a professional.
- Contact your dealer to move and reinstall the air conditioner or heat pump. Incomplete installation could result in water leakage, electric shock, and fire.
- Never let the indoor unit or the remote controller get wet. Water could result in an electric shock or a fire.
- Never use flammable spray such as hair spray, lacquer, or paint near the unit. Flammable spray could result in a fire.
- When a fuse blows out, never replace it with one of incorrect ampere ratings or different wires. Always replace any blown fuse with a fuse of the same specification.
- Never remove the fan guard of the unit. A fan rotating at high speed without the fan guard is very dangerous and could result in injury.
- Never inspect or service the unit by yourself. Contact a qualified service person to perform this work.
- Turn off all electrical power before doing any maintenance to avoid the risk of serious electric shock; never sprinkle or spill water or liquids on the unit.
- Do not touch the switch with wet fingers. Touching a switch with wet fingers could result in electric shock.
- Do not allow children to play on or around the unit to prevent injury.
- The heat exchanger fins are sharp enough to cut. To avoid injury wear gloves or cover the fins while working around them.
- Do not put a finger or other objects into the air inlet or air outlet. The fan is rotating at high speed and could result in injury.
- Check the unit foundation for damage on a continuous basis, especially if it has been in use for a long time. If left in a damaged condition the unit may fall and could result in injury.

- Placing a flower vase or other containers with water or other liquids on the unit could result in a shock or fire if a spill occurs.
- Do not touch the air outlet or horizontal blades while the swing flap is in operation could result in fingers getting caught and injured.
- Never touch the internal parts of the controller. Do not remove the front panel because some parts inside are dangerous to touch. To check and adjust internal parts, contact your dealer.
- Do not use the air conditioner or heat pump for any other purposes other than comfort cooling or heating. Do not use the unit for cooling precision instruments, food, plants, animals or works of art.
- Do not place items under the indoor unit as it could result in damage by condensates that may form if the humidity is above 80% or if the drain outlet gets blocked.
- Before cleaning, stop the operation of the unit by turning the power off or by pulling the supply cord out from its receptacle. Otherwise, an electric shock and injury could result.
- Do not wash the air conditioner or heat pump with excessive water. An electric shock or fire could result.
- Avoid placing the controller in a spot splashed with water. Water entering the controller could result in an electric shock or damage the internal electronic parts.
- Do not operate the air conditioner or heat pump when using a room-fumigation type of insecticide. Failure to observe this could result in the chemicals to be deposited in the unit and can endanger the health of those who are hypersensitive to chemicals.
- Do not turn off the power immediately after stopping operation. Always wait for at least five minutes before turning off the power. Otherwise, water leakage could result.
- The appliance is not intended for use by young children or infirm persons without supervision.
- The remote controller should be kept away from children so they cannot play with it.
- Consult with the installation contractor for cleaning.
- Incorrect cleaning of the inside of the air conditioner or heat pump could result in the plastics parts breaking, resulting in water leakage or electric shock.
- Do not touch the air inlet or aluminum fin of the air conditioner or heat pump as they can cut and could result in injury.
- Do not place objects in direct proximity of the outside unit. Do not let leaves and other debris accumulate around the unit. Leaves are a hotbed for small animals which can enter the unit. Once inside the unit, animals can result in the unit malfunctioning, and could result in smoke or fire when they make contact with electrical parts.
- Never press the button of the remote controller with a hard, pointed object. The remote controller may result in damage.
- Never pull or twist the electric wire of the remote controller. It may result in the unit malfunctioning.
- Do not place appliances that produce open flames in places that are exposed to the air flow of the unit or under the indoor unit. It may result in incomplete combustion or deformation of the unit due to the heat.
- Do not expose the controller to direct sunlight. The LCD display can become discolored and may result in fail to display the data.
- Do not wipe the controller operation panel with benzene, thinner, chemical dust cloth, etc. The result may be that the panel becomes discolored or the coating can peel off. If it is heavily dirty, soak a cloth in water-diluted neutral detergent, squeeze it well and wipe the panel clean. Then wipe it with another dry cloth.
- Dismantling of the unit, disposal of the refrigerant, oil, and additional parts, should be done in accordance with the relevant local, state, and national regulations.
- Operate the air conditioner or heat pump in a sufficiently ventilated area and not surrounded by obstacles. Do not use the air conditioner or heat pump in the following places.
  - a. Places with a mist of mineral oil, such as cutting oil.
  - b. Locations such as coastal areas where there is a lot of salt in the air.
  - c. Locations such as hot springs where there is a lot of sulfur in the air.
  - d. Locations such as factories where the power voltage varies a lot.
  - e. In cars, boats, and other vehicles.
  - f. Locations such as kitchens where oil may splatter or where there is steam in the air.
  - g. Locations where equipment produces electromagnetic waves.
  - h. Places with an acid or alkaline mist.
  - i. Places where fallen leaves can accumulate or where weeds can grow.
- Take snow protection measures. Contact your dealer for the details of snow protection measures, such as the use of a snow protection hood.

- **Do not attempt to do electrical work or grounding work unless you are licensed to do so. Consult with your dealer for electrical work and grounding work.**
- **Pay Attention to Operating Sound. Be sure to use the following places:**
  - a. **Places that can sufficiently withstand the weight of the air conditioner or heat pump yet can suppress the operating sound and vibration.**
  - b. **Places where warm air from the air outlet of the outside unit or the operating sound of the outside unit does not annoy neighbors.**
- **Make sure that there are no obstacles close to the outside unit. Obstacles close to the outside unit may drop the performance of the outside unit or increase the operating sound of the outside unit.**
- **Consult your dealer if the air conditioner or heat pump in operation generates unusual noise.**
- **Make sure that the drainpipe is installed properly to drain water. If no water is discharged from the drainpipe while the air conditioner or heat pump is in the cooling mode, the result may be that the drainpipe becomes clogged with dust or dirt and water leakage from the indoor unit may occur. Stop operating the air conditioner or heat pump and contact your dealer.**

## HOW TO CLEAN THE AIR FILTER

Clean the air filter when the display shows “” (TIME TO CLEAN AIR FILTER).

It will display that it will operate for a set amount of time.

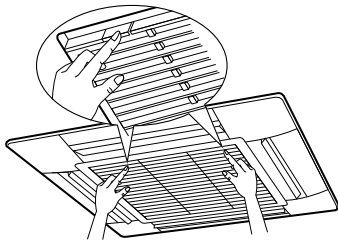
Increase the frequency of cleaning if the unit is installed in a room where the air is extremely contaminated.

If the dirt becomes too difficult to clean, change the air filter. (An optional extra air filter is available.)

### 1. Open the suction grille.

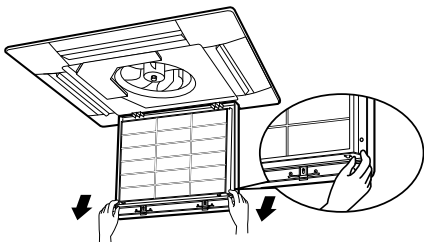
Push it downward slowly while pressing the buttons provided on two spots.

(Follow the same procedure for closing.)



### 2. Detach the air filter.

Pull the hook of the air filter out diagonally downward, and remove the filter.



### 3. Clean the air filter.

Use vacuum cleaner **A)** or wash the air filter with water **B)**.

#### A) Using a vacuum cleaner



#### B) Washing with water

When the air filter is very dirty, use soft brush and neutral detergent.



Remove water and dry in the shade.

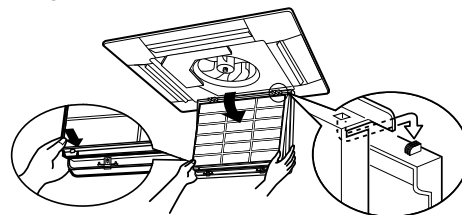
## NOTE

- Do not wash the air filter with hot water of more than 122°F. Doing so may result in discoloration and/or deformation.
- Do not expose it to fire, as doing so may result in burning.

### 4. Fix the air filter.

(1) Hook the air filter to a protrusion on the suction grille.


(2) Push the lower part of the air filter onto the protrusion at the lower part of the suction grille, and fix the air filter there.



### 5. Shut the suction grille.

Refer to item No.1.

### 6. After turning on the power, press FILTER SIGN RESET button.

“” (TIME TO CLEAN AIR FILTER) is no longer displayed.

## HOW TO CLEAN AIR OUTLET AND OUTSIDE PANELS

- Clean with soft cloth.
- When it is difficult to remove stains, use water or neutral detergent.
- When the flap is extremely contaminated, remove it as below and clean or exchange it. (Flap for exchange is optional.)

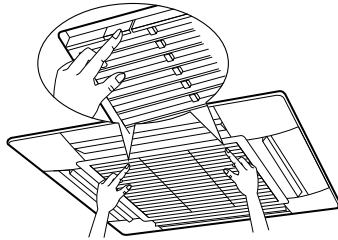
## NOTE

- Do not use gasoline, benzene, thinner, polishing powder or liquid insecticide. It may cause discoloring or warping.
- Do not let the indoor unit get wet. It may cause an electric shock or a fire.
- Do not scrub firmly when washing the blade with water. The surface sealing may peel off.
- Do not use water or air of 122°F or higher for cleaning air filters and outside panels.

## HOW TO CLEAN THE SUCTION GRILLE

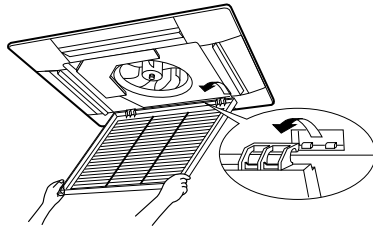
### 1. Open the suction grille.

Push it downward slowly while pressing the buttons provided on two spots. (Follow the same procedure for closing.)



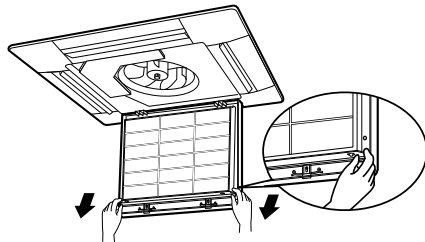
### 2. Detach the suction grille.

Open the suction grille 45 degrees and lift it upward.



### 3. Detach the air filter.

Refer to "HOW TO CLEAN THE AIR FILTER- item No.2".



### 4. Clean the suction grille.

Wash with a soft bristle brush and neutral detergent or water, and dry thoroughly.



- **When very grimy**

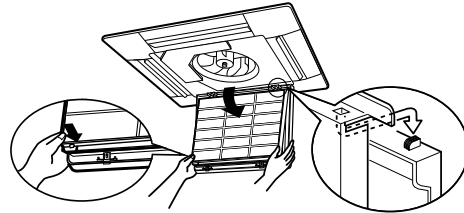
Directly apply the type of detergent used for cleaning ventilation fans or ovens, wait 10 minutes, and then rinse with water.

### NOTE

- Do not wash the air conditioner with hot water of more than 122°F. Doing so may result in discoloration or deformation.

### 5. Fix the air filter.

Refer to "HOW TO CLEAN THE AIR FILTER- item No.4".



### 6. Fix the suction grille.

Refer to item No. 2.

### 7. Shut the suction grille.

Refer to item No. 1.

## 4.1 With <BRC1E71/E72> Wired Remote Controller



# Safety Considerations

Read these **SAFETY CONSIDERATIONS** carefully before operating the remote controller.






Train the customer to operate and maintain the unit.






Inform customers that they should store this Operations Manual with the Installation Manual for future reference.

Meanings of **WARNING** and **CAUTION** Symbols:

|                                                                                                  |                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <b>WARNING</b> | Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.                                                          |
|  <b>CAUTION</b> | Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.<br>It may also be used to alert against unsafe practices. |







- The following pictograms are used in this manual.

|                                                                                   |                               |                                                                                   |                                       |
|-----------------------------------------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------------|---------------------------------------|
|  | Never do.                     |  | Always follow the instructions given. |
|  | Be sure to ground the unit.   |  | Keep wet hands away.                  |
|  | Keep water and moisture away. |                                                                                   |                                       |

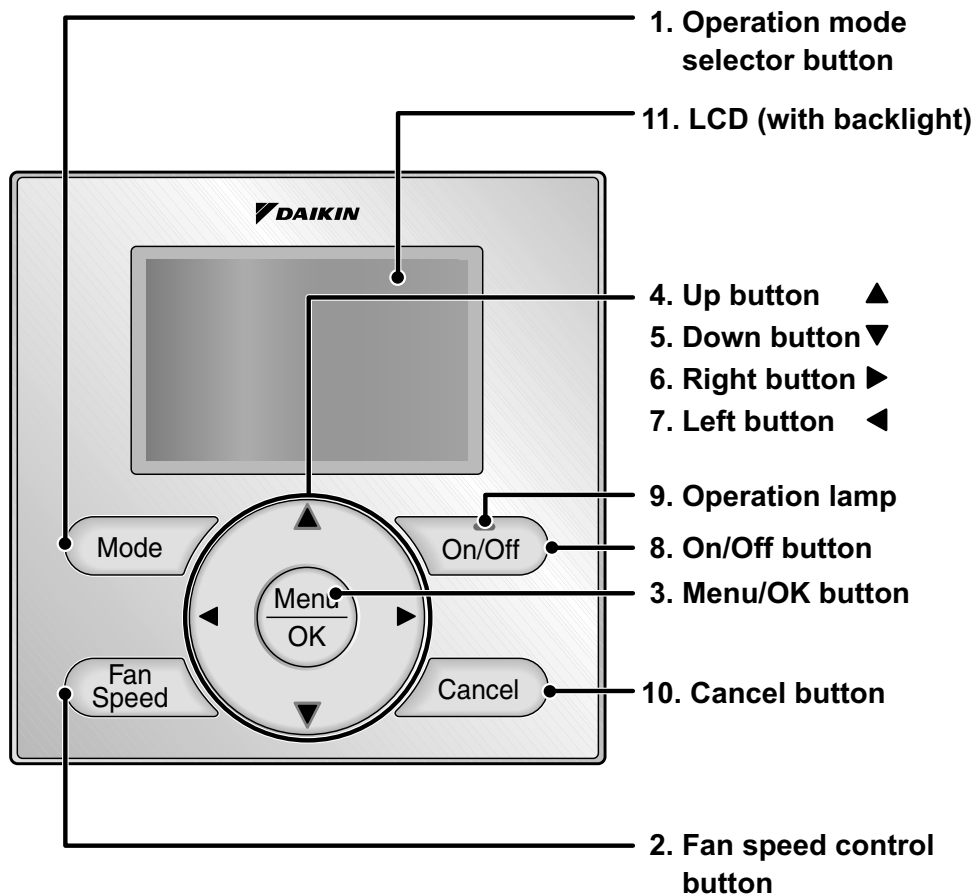
|  <b>WARNING</b> |                                                                                                                                                                                                                                                                                                                                            |
|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                 | <ul style="list-style-type: none"> <li><b>Do not modify or repair the remote controller.</b><br/>Consult your Daikin dealer for any modification or for repairs.</li> </ul>                                                                                                                                                                |
|                 | <ul style="list-style-type: none"> <li><b>Do not relocate or reinstall the remote controller by yourself.</b><br/>Improper installation may result in electric shocks or fire.<br/>Consult your Daikin dealer to relocate or for any reinstallation.</li> </ul>                                                                            |
|                 | <ul style="list-style-type: none"> <li><b>Do not use flammable materials (e.g., hairspray or insecticide) near the remote controller.</b><br/>Do not clean the product with organic solvents such as paint thinner.<br/>The use of organic solvents may cause cracking, damaging the product, causing electric shocks, or fire.</li> </ul> |
|                 | <ul style="list-style-type: none"> <li><b>Consult the dealer if the remote controller was submerged under water due to a natural disaster, such as a flood or hurricane.</b><br/><b>Do not operate the remote controller at this time or a malfunction, electric shock, or fire can occur.</b></li> </ul>                                  |



—Items to be Strictly Observed—

|  <b>CAUTION</b> |                                                                                                                                                                                                                                                     |
|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                 | <ul style="list-style-type: none"> <li>• <b>Do not allow children to play with the remote controller to avoid causing damage to the product.</b></li> </ul>                                                                                         |
|                 | <ul style="list-style-type: none"> <li>• <b>Never disassemble the remote controller.</b><br/>Touching the interior parts may result in electric shocks or fire.<br/>Consult your Daikin dealer for internal inspections and adjustments.</li> </ul> |
|                 | <ul style="list-style-type: none"> <li>• <b>Do not touch the remote controller buttons with wet fingers.</b><br/>Touching the buttons with wet fingers can cause an electric shock.</li> </ul>                                                      |
|                 | <ul style="list-style-type: none"> <li>• <b>Do not wash the remote controller.</b><br/>Doing so may cause electric leakage and result in electric shocks or fire.</li> </ul>                                                                        |
|                 | <ul style="list-style-type: none"> <li>• <b>Never let the remote controller to get wet.</b><br/>Water can cause damage to the remote controller, and may cause an electric shock or fire.</li> </ul>                                                |

## Button Locations and Descriptions



4

Functions other than basic operation items (i.e., On/Off, Operation mode selector, Fan speed control, and temperature setpoint) are set from the menu screen.

### NOTE

- Do not install the remote controller in places exposed to direct sunlight, otherwise the LCD will be damaged.
- Do not pull or twist the remote controller cord, otherwise the remote controller may be damaged.
- Do not use objects with sharp ends to press the buttons on the remote controller otherwise damage may result.

---

### 1. Operation mode selector button

- Press this button to select the operation mode of your preference. **(See page 10.)**  
\* Available modes vary with the indoor unit model.

---

### 2. Fan speed control button

- Press this button to select the fan speed of your preference. **(See page 11.)**  
\* Available fan speeds vary with the indoor unit model.

---

### 3. Menu/OK button

- Used to indicate the main menu. **(See page 20 for the menu items.)**
- Used to enter the selected item.

---

### 4. Up button ▲

- Used to raise the setpoint.
- The item above the current selection will be highlighted.  
(The highlighted items will be scrolled continuously when the button is continuously pressed.)
- Used to change the selected item.

---

### 5. Down button ▼

- Used to lower the setpoint.
- The item below the current selection will be highlighted.  
(The highlighted items will be scrolled continuously when the button is continuously pressed.)
- Used to change the selected item.

---

### 6. Right button ►

- Used to highlight the next items on the right-hand side.
- Each screen is scrolled in the right-hand direction.

---

### 7. Left button ◀

- Used to highlight the next items on the left-hand side.
- Each screen is scrolled in the left-hand direction.

---

### 8. On/Off button

- Press this button and system will start.
- Press this button again to stop the system.

---

### 9. Operation lamp (Green)

- This lamp illuminates solid during normal operation.
- This lamp blinks if a error occurs.

---

### 10. Cancel button

- Used to return to the previous screen.

---

### 11. LCD (with backlight)

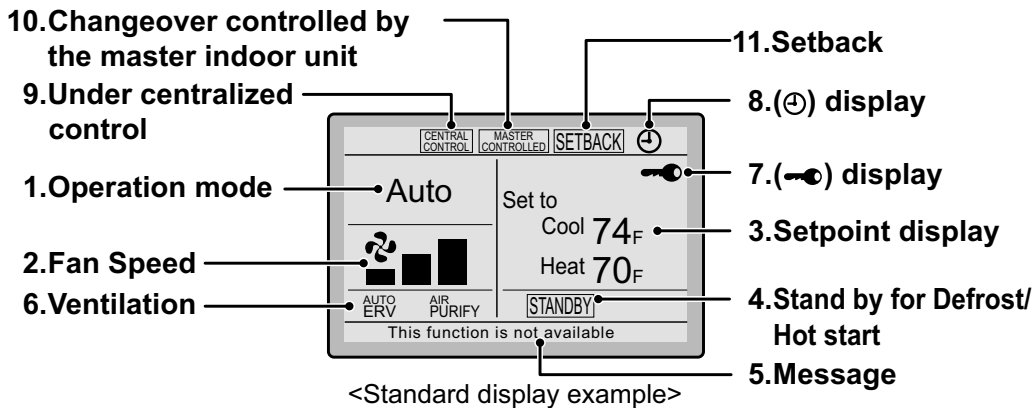
- The backlight will be illuminated for approximately 30 seconds by pressing any button.
- If two remote controllers are used to control a single indoor unit, only the controller to be accessed first will have backlight functionality.

# Names and Functions

## Liquid Crystal Display

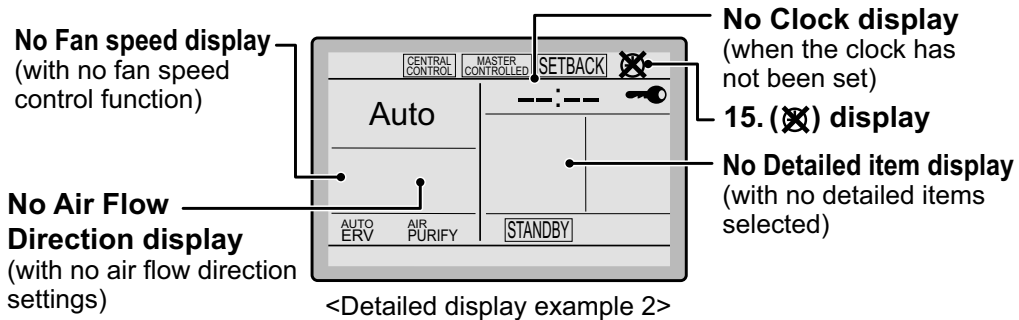
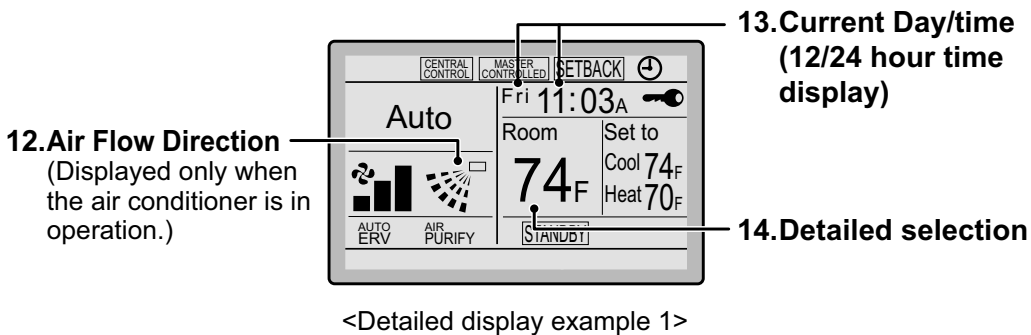
- Two types of liquid crystal display (LCD) are available. The standard display is set by default.
- Detailed display can be selected in the main menu. (See page 37.)
- The displayed contents of the screen vary with the operation mode of the indoor unit model. (The following display will appear when the indoor unit is in automatic operation.)

### Standard display



### Detailed Display

- The air flow direction, clock, and detailed selection items appear on the detailed display screen in addition to the items appearing on the standard display.



## 1. Operation mode

---

- Used to display the current operation mode: Cool, Heat, Vent, Fan, Dry or Auto.

## 2. Fan Speed

---


- Used to display the fan speed that is set for the indoor unit.
- The fan speed will not be displayed if the connected model does not have fan speed control functionality.

## 3. Setpoint display

---

- Used to display the setpoint for the indoor unit.
- Use the Celsius/Fahrenheit item in the main menu to select the temperature unit (Celsius or Fahrenheit).

## 4. Stand by for Defrost/Hot start

“  ” (See page 12.)

**If ventilation icon is displayed in this field:**

- Indicates that an energy recovery ventilator is connected.  
For details, refer to the Operation Manual of the ERV.

## 5. Message

---

**The following messages may be displayed.**

**“This function is not available”**

- Displayed for a few seconds when an operation button is pressed and the indoor unit does not provide the corresponding function.
- In a remote control group, the message will not appear if at least one of the indoor units provides the corresponding function.

**“Error: Push Menu button”**

**“Warning: Push Menu button”**

- Displayed if an error or warning is detected (see page 45).

**“Time to clean filter”**



**“Time to clean element”**

**“Time to clean filter & element”**

- Displayed as a reminder when it is time to clean the filter or element (see page 43).

## 6. Ventilation

---

- Displayed when a energy recovery ventilator is connected.
- **Ventilation Mode icon.** “  ERV BYPASS ”  
These icons indicate the current ventilation mode (ERV only) (AUTO, ERV, BYPASS).
- **Air Purify ICON** “  ”  
This icon indicates that the air purifying unit (option) in operation.

## 7. display (See page 18.)

---

- Displayed when the key lock is set.

## 8. display (See page 28.)

---

- Displayed if the Schedule or Off timer is enabled.

## 9. Under Centralized control “ ”

---

- Displayed if the system is under the management of a multi zone controller (option) and the operation of the system through the remote controller is limited.

## 10. Changeover controlled by the master indoor unit “ ” (VRV only)

---

- Displayed when another indoor unit on the system has the authority to change the operation mode between cool and heat.

# Names and Functions

## 11. Setback “” (See page 14.)

- The setback icon flashes when the unit is turned on under the setback control.

## 12. Air Flow Direction “”

- Displayed when the air flow direction and swing are set (see page 23).
- If the connected indoor unit model does not include oscillating louvers this item will not be displayed.

## 13. Current Day/Time (12/24 hour time display)

- Displayed if the clock is set (see page 39).
- If the clock is not set, “-- : --” will be displayed.
- 12 hour time format is displayed by default.
- Select 12/24 hour time display option in the main menu under “Clock & Calendar”.

## 14. Detailed selection

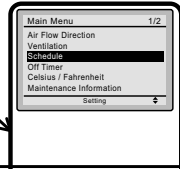
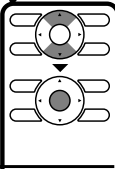
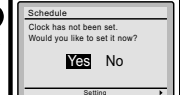
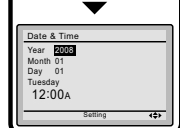
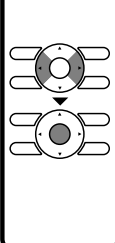
- Displayed if the detailed display item is selected (see page 38).
- Detailed items are not selected by default.

## 15. display

- Displayed when the clock needs to be set.
- The schedule function will not work unless the clock is set.

# Basic Operation

## Cool/Heat/Auto/Fan Operation (SkyAir and VRV)

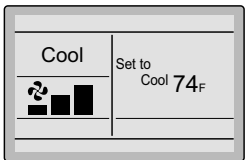
| How to follow the operation manual                                                                                                                                                   | Operation procedure                                                                                                                                                                                                                                                                                                                                                                                         | Operation button display                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| <p><b>Operation screen display</b></p> <p>Describes screens that will be displayed on the remote controller in operation.</p>                                                        | <p><b>Operation procedure</b></p> <p>Explains the sequence of operation for the remote controller. Operate the buttons according to the procedure.</p>                                                                                                                                                                                                                                                      | <p><b>Operation button display</b></p> <p>Displays the location of buttons to be operated.</p> |
| <p><b>1</b></p>                                                                                     | <ul style="list-style-type: none"> <li>• Display the main menu screen. (See page 22.)</li> <li>• Press ▼▲ buttons to select <b>Schedule</b> the main menu screen. Press Menu/OK button to display the timer screen.</li> </ul>                                                                                                                                                                              |             |
| <p><b>2</b></p>   | <ul style="list-style-type: none"> <li>• Before setting the schedule, the clock must be set.</li> <li>• If the clock has not been set, a screen like the one on the left will appear. Press ◀▶ buttons to select <b>Yes</b> and press Menu/OK button.</li> <li>• The date &amp; time screen will appear.</li> <li>• Set the current year, month, day, and time. (See clock settings on page 39.)</li> </ul> |            |

### Preparation

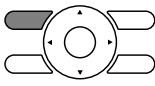
- For mechanical protection purposes, apply power to the outdoor units at least six hours before starting the operation of the system.

### Operation

**1**



- Press the Operation mode selector button several times until the desired mode Cool, Heat, Fan, or Auto mode is selected.



\* Unavailable operation modes are not displayed.

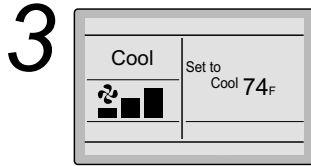
**Note**

- Before changing the mode, confirm that the display does not indicate master controlled status. Both heat and cool mode may not be selected if the unit is master controlled. See page 16 if MASTER CONTROLLED icon blinks.



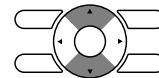
2

- Press On/Off button. The Operation lamp (green) will illuminate and the system will start operating.

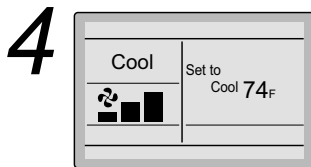


3

- The setpoint will increase by 1°F (or 1°C) when ▲ button is pressed and decrease by 1°F (or 1°C) when ▼ button is pressed.

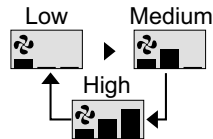


\* Setpoint is not available in fan or dry mode.



4

- To change the fan speed, press the Fan speed control button and select the desired fan speed from Low, Medium or High.



- \* Only two fan speed adjustment levels, low and high may be available depending on the type of indoor unit.
- \* The system may be in automatic fan speed control for equipment protection purposes.
- \* The system may be in automatic fan speed control according to the room temperature. It is normal for the fan to intermittently stop operating.
- \* It is normal for a delay to occur when changing the fan speed.



5

- Adjust Air Flow Direction from the main menu (see page 23).

\* If the connected indoor unit model does not include oscillating louvers this function will not be available.

4



## Basic Operation



- When the On/Off button is pressed again, the system will stop operating and the operation lamp will turn off.



\*When the system is stopped while in the heating mode, the fan will continue to operate for approximately one minute to remove residual heat from the indoor unit.

### Note

- To prevent water damage or system failure, do not immediately remove power from the indoor unit following system operation. Wait at least five minutes for the condensate pump to finishing draining residual water from the unit.

## Characteristics of Heat Mode

The system automatically controls the following operating modes to prevent the reduction of heating capacity and space comfort.

### Defrost operation

- The system will automatically go into defrost operation to prevent frost accumulation at the outdoor unit and loss of heating capacity.
- The indoor unit fan will stop, and “**STANDBY**” (Defrost/Hot start) will be displayed on the remote controller.
- The system will return to normal operation usually within six to eight minutes (but not more than 10 minutes).

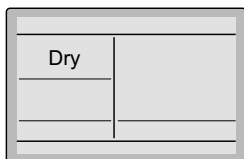
### Hot start

- When the system goes into heat mode, the indoor unit fan will stop in order to prevent a cold draft.  
(In that case, “**STANDBY**” (Defrost/Hot start) will be displayed on the remote controller.)

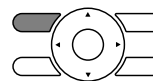
## Dry Mode

### Preparation

- For equipment protection purposes, apply power to the outdoor units at least six hours before starting the operation of the system.
- The dry mode may not be selected if the remote controller is master controlled and the system is not already in the cooling mode of operation. (see page 17 for details)

**Operation****1**

- Press Mode button several times until the Dry mode is selected.



\* The dry mode may not be available depending on the type of indoor unit.

**2**

- Press On/Off button. The Operation lamp (green) will illuminate and the system will start operating.



\* In Dry mode, the system maintains automatic temperature and fan speed control. Therefore, temperature setpoint or fan speed settings are not available while the indoor unit is in the Dry mode.

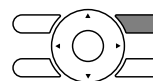
**3**

- Adjust Air Flow Direction from the main menu (see page 23).

\* If the connected indoor unit model does not include oscillating louvers this function will not be available.

**4**

- When the On/Off button is pressed again, the system will stop operating and the operation lamp will turn off.

**Note**

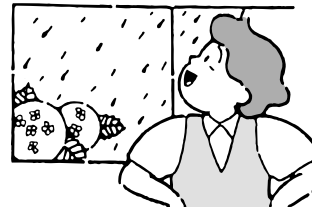
- To prevent water damage or system failure, do not immediately remove power from the indoor unit following system operation. Wait at least five minutes for the condensate pump to finishing draining residual water from the unit.

**4**

# Basic Operation

## Characteristic of Dry mode

The Dry mode dehumidifies the space at reduced cooling capacity to prevent the room temperature from dropping to uncomfortable levels.



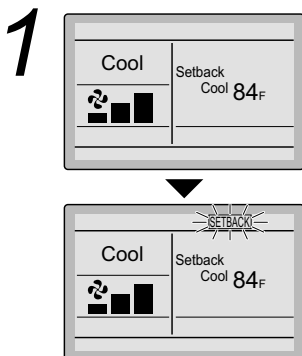
## Setback

The Setback feature will maintain the space temperature in a specific range during unoccupied periods.

**Note**

- This function will temporarily start an indoor unit that was previously turned off by the user or turned off from a schedule event / off timer.
- This function must be enabled by the system installer.

### Operation



- The setback icon flashes when the unit is turned on under the setback control.

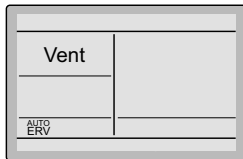
## Ventilation Mode When the Indoor Unit is Interlocked with Energy Recovery Ventilator

### Preparation

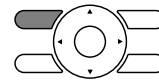
- For equipment protection purposes, apply power to the outdoor units at least six hours before starting the operation of the system.

### Operation

1



- When operating the energy recovery ventilator (ERV) between seasons without the air conditioner, set the control to ventilation mode.



2

- Changes to the ventilation mode are made from the main menu.

\* Ventilation Mode: Auto, ERV, and Bypass

3

- Changes to the ventilation rate are made from the main menu.

\* Ventilation Rate: Low or High

4



- Press On/Off button. The Operation lamp (green) will illuminate and the system will start operating.



5



- When the On/Off button is pressed again, the system will stop operating and the operation lamp will turn off.



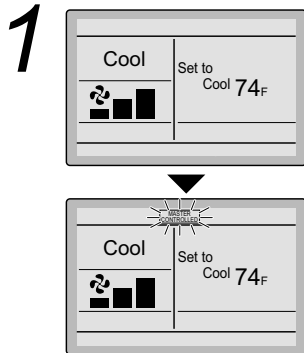
4

# Basic Operation

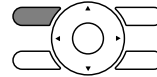
## Setting the Cool / Heat Changeover Master

(VRV only)

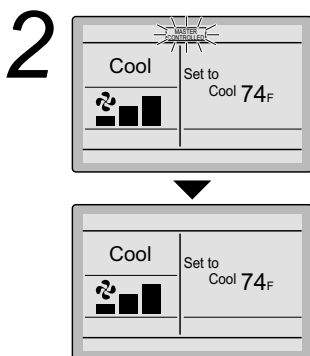
**Setting Changes** See page 18 for an explanation of the cool/heat changeover master indoor unit.



- Press the Operation Mode Selector button on the remote controller of the changeover master indoor unit for at least four seconds. (While the backlight is illuminated)
  - The “**MASTER CONTROLLED**” icon on each remote controller for the indoor units connected to the same outdoor unit or BS unit will start flashing.
- \* Vent mode setting changes are possible regardless of the cool/heat changeover master indoor unit.  
 \* If cool/heat mode is configured for control from the outdoor unit, all remote controllers serving the associated indoor units will display its “**MASTER CONTROLLED**” icon.
- Set the cool/heat changeover master indoor unit as outlined below.



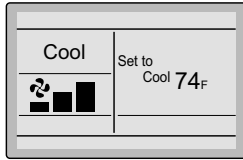
**Selection Settings** The icon “**MASTER CONTROLLED**” will flash on all remote controllers when the power is turned ON for the first time.




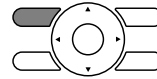
- Press the Mode Selector button on the remote controller of the indoor unit which is to serve as the cool/heat changeover master.
- The remote controller for the changeover master indoor unit is established and the **MASTER CONTROLLED** icon disappears.
- Other remote controllers in the system (indoor units served by the same outdoor unit or indoor units served by the same branch selector (BS) unit) will now display the **MASTER CONTROLLED** icon.



3



- Press the Mode button on the remote controller of the indoor unit designated as the cool/heat changeover master (the remote controller not displaying the  icon) repeatedly until the desired mode is selected. The display will change to “Fan”, “Dry”, “Auto”, “Cool”, “Heat” each time the button is pressed.
- Simultaneously, the other indoor units on the system will follow suit and change modes to reflect the new mode selected at the changeover master remote controller.



4

**Cool / Heat Mode Selection Availability**

- “Cool”, “Heat” and “Auto” are all only available for selection on the cool/heat changeover master indoor unit. The following table indicates the available operating modes of the other indoor units on the system based upon the selected mode of the master indoor unit.

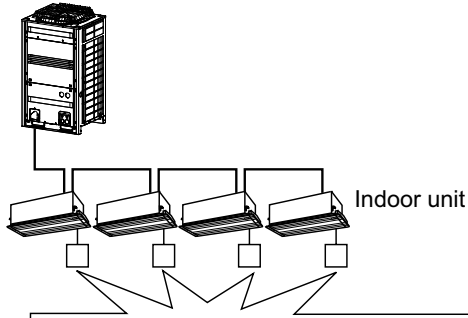
| When the master indoor unit is set to | The other indoor units in the system can be set to |     |      |     |
|---------------------------------------|----------------------------------------------------|-----|------|-----|
|                                       | Cool                                               | Dry | Heat | Fan |
| Cool mode                             | ✓                                                  | ✓   |      | ✓   |
| Dry mode                              | ✓                                                  | ✓   |      | ✓   |
| Heat mode                             |                                                    |     | ✓    | ✓   |
| Fan mode                              |                                                    |     |      | ✓   |
| Auto mode (Cooling operation)         | ✓                                                  | ✓   |      | ✓   |
| Auto mode (Heating operation)         |                                                    |     | ✓    | ✓   |

# Basic Operation

## Precautions for Selecting the Cool / Heat Changeover Master Indoor Unit

- The cool/heat changeover master must be set for a single indoor unit in the following applications

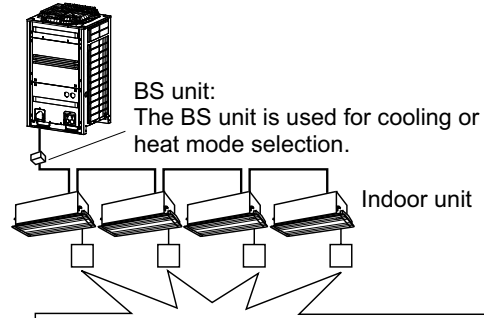
### (2-Pipe Heat Pump System)



**A number of indoor units are connected to a single outdoor unit.**

Set any one of the indoor units as the cool/heat changeover master.

### (3-Pipe Heat Recovery System)



**BS unit:**  
The BS unit is used for cooling or heat mode selection.

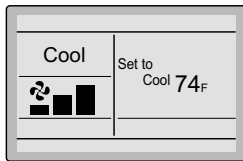
**A number of indoor units are connected to a single BS unit.**

Set any one of the indoor units as the cool/heat changeover master.

## Key Lock

**Operation** Confirm and cancel Key Lock settings in the basic display screen.

1

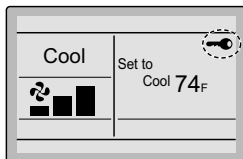



Basic screen

- Press the Menu/OK button for at least four seconds. (While the backlight is illuminated)



2



- “” will appear.
- All buttons are disabled when the keys are locked.
- To cancel the key lock mode, continue pressing Menu/OK button for at least four seconds. (While the backlight is illuminated)

## Quick Reference

### ■ The main menu has the following items.

| Menu item                                                                             |                         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Reference page |
|---------------------------------------------------------------------------------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>Air Flow Direction</b>                                                             |                         | <p>Used to configure air flow direction settings.</p> <ul style="list-style-type: none"> <li>The air flow direction louver is automatically operated up and down (left and right).</li> <li>The fixed air flow directions are configurable for five positions.</li> </ul> <p>* This function is not available on all models.</p>                                                                                                                                                                                                                                                                                                                                    | 23             |
| <b>Ventilation</b><br>(Ventilation operation settings for energy recovery ventilator) | <b>Ventilation Rate</b> | Used to set "Low" or "High"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 26             |
|                                                                                       | <b>Ventilation Mode</b> | Used to set Auto, ERV, or Bypass.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 27             |
| <b>Schedule</b>                                                                       | <b>Daily Patterns</b>   | <ul style="list-style-type: none"> <li>Day settings are selected from three patterns, i.e., "7Days", "Weekday/Weekend", and "Weekday/Sat/Sun".</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 29             |
|                                                                                       | <b>Settings</b>         | <ul style="list-style-type: none"> <li>Set the startup time and operation stop time.               <ul style="list-style-type: none"> <li>ON: Startup time, cooling and heating temperature setpoints can be configured.</li> <li>OFF: Operation stop time, cooling and heating setback temperature setpoints can be configured. ( --: Indicates that the setback function is disabled for this time period. )</li> <li>___: Indicates that the temperature setpoint and setback temperature setpoint for this time period is not specified. The last active setpoint will be utilized.</li> </ul> </li> <li>Up to five actions can be set for each day.</li> </ul> | 30             |
| <b>Off Timer</b>                                                                      |                         | <p>Used to set each operation period of the system.</p> <ul style="list-style-type: none"> <li>Possible to set in 10 minute increments from 30 to 180 minutes.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 33             |
| <b>Celsius / Fahrenheit</b>                                                           |                         | <ul style="list-style-type: none"> <li>Used to select whether temperature values will be displayed in Celsius or Fahrenheit.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | —              |
| <b>Maintenance Information</b>                                                        |                         | Used to display the maintenance information.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 35             |



| Menu item            |                                         | Description                                                                                                                                                                                                                                                                                                                                                                           | Reference page |
|----------------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Configuration        | Contrast Adjustment                     | Used to make LCD contrast adjustment.                                                                                                                                                                                                                                                                                                                                                 | 36             |
|                      | Display<br>Standard or Detailed Display | <b>Used to set standard or detailed display mode.</b> <ul style="list-style-type: none"> <li>• Display mode<br/>Standard or detailed display</li> <li>• Detailed display provides the choice to display between Room Temp, Outside Air Temp, System or None.</li> </ul>                                                                                                               | 37             |
| Current Settings     |                                         | <ul style="list-style-type: none"> <li>• Used to display a list of current settings for available items.</li> </ul>                                                                                                                                                                                                                                                                   | 39             |
| Clock & Calendar     | Date & time                             | <b>Used to configure date and time settings and corrections.</b> <ul style="list-style-type: none"> <li>• The default time display is 12H.</li> <li>• The clock will maintain accuracy to within ±30 seconds per month.</li> <li>• If there is a power failure for a period not exceeding 48 hours, the clock will continue working with the built-in backup power supply.</li> </ul> | 39             |
|                      | 12H/24H Clock                           | The time can be displayed in either a 12 hour or 24 hour time format.                                                                                                                                                                                                                                                                                                                 | 42             |
| Daylight Saving Time |                                         | Used to adjust the clock in observance of daylight saving time.                                                                                                                                                                                                                                                                                                                       | —              |
| Language             |                                         | The display language can be selected between English, Francais or Espanol.                                                                                                                                                                                                                                                                                                            | 42             |

Note: Available setting items vary with the indoor unit model.

|                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Sub Remote Controller Menu Items</b></p> <p>If two remote controllers are in control of a single indoor unit, the following menu items are not set in the sub remote controller. In this case, the following items should be configured in the main remote controller.</p> <ul style="list-style-type: none"> <li>• Schedule</li> <li>• Off timer</li> <li>• Setback</li> </ul> | <p>The diagram illustrates a system configuration where an outdoor unit is connected to an indoor unit. The indoor unit is further connected to two separate remote controllers, labeled as 'Two remote controllers in control'.</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

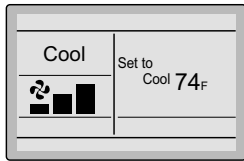
# Menu Options

## Moving Within the Main Menu Screen

### ■ Display Method for Main Menu

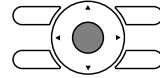
#### Operation

1

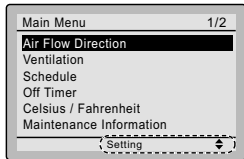


Basic screen

- Press Menu/OK button.



2



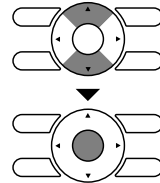
Main menu screen

- The main menu screen will appear.

← Instructions for moving within the main menu will appear.

3

- Selecting items from the main menu.
  1. Press ▼▲ buttons to select the desired item to be set.
  2. Press Menu/OK button to display the details for the selected item.



4

- To go back to the basic screen from the main menu, press the Cancel button.



#### Note

- If a button is not pressed for 5 minutes during configuration, the controller will automatically revert to the basic screen.

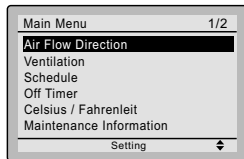
4

# Air Flow Direction

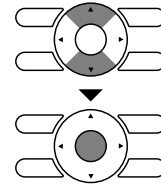
## ■ Configuring Air Flow Direction

### Operation

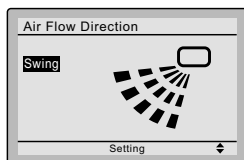
1



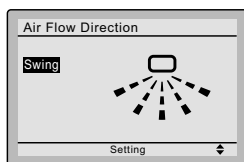
- Display the main menu screen. (See page 22.)
- Press ▼▲ buttons to select **Air Flow Direction** on the main menu screen and press the Menu/OK button.  
(For models with no airflow direction adjustment, **Air Flow Direction** will not be displayed on the main menu screen.)



2



Air Flow Direction (up/down)



Air Flow Direction (left/right)

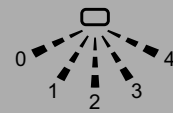
- The air flow direction screen will appear.

**Note**

- Air flow direction appears on the screen as below.



Up/down direction

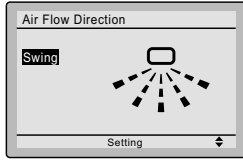


Left/right direction

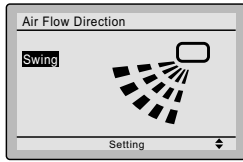
- 0 : Position 0
- 1 : Position 1
- 2 : Position 2
- 3 : Position 3
- 4 : Position 4

# Menu Options

3

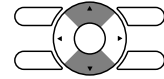


Left/right direction



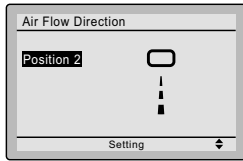
Up/down direction

- Pressing ▼▲ buttons changes the setting to (in order) **Swing**, **Position 0**, **Position 1**, **Position 2**, **Position 3**, and **Position 4**.

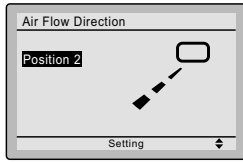


- Selecting **Swing** will cause the air flow direction louver to oscillate back and forth.  
**For the swing setting only, all positions will be displayed.**

4



Left/right direction

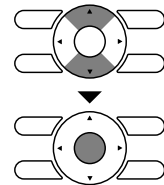


Up/down direction

- When you select positions 0 to 4, the louver will stay in a fixed position.

\* The illustration is an example of the display when position 2 is selected.

- Press ▼▲ buttons to select the desired air flow direction. Press Menu/OK button to return to the basic screen.



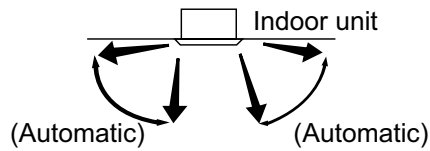
4

**Operational Details and Functions**

There are two types of air flow direction settings.

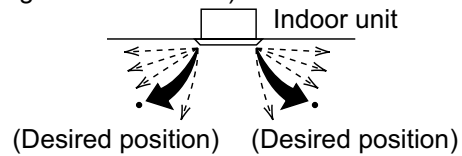
**Air flow direction swing**

The louvers automatically oscillate up and down.



**Air flow direction**

You can select from one of five fixed directions. (This has no relation to the angle of the louvers.)



**Movement of air flow direction louver**

Under the operating conditions shown below, air flow direction is controlled automatically. Actual operation may be different than what is displayed on the remote controller.

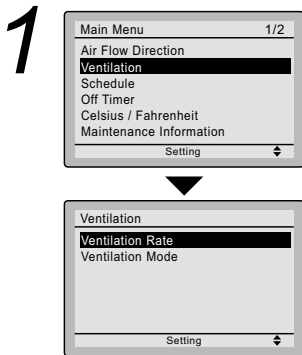
|                            |                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Operating condition</b> | <ul style="list-style-type: none"> <li>• Room temperature is higher than the remote controller's setpoint (in heating operation).</li> <li>• When defrosting (in heating operation).<br/>(The air flow discharges horizontally to avoid creating a draft for the room occupants.)</li> <li>• Under continuous operation with the air flow discharging horizontally.</li> </ul> |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

# Menu Options

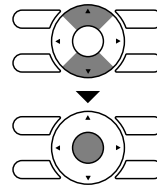
## Ventilation

### ■ Ventilation screen display properties

#### Operation



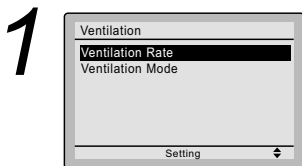
- Display the main menu screen. (See page 22.)
  - Press ▼▲ buttons to select **Ventilation** on the main menu screen. (For models with no ventilation function, **Ventilation** will not be displayed on the main menu screen.)
- Press Menu/OK button to display the ventilation screen.



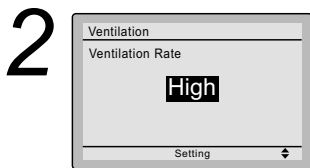
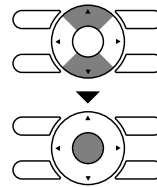
4

### ■ Changing the ventilation rate

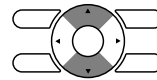
#### Operation



- Navigate to the ventilation screen (see above).
  - Press ▼▲ buttons to select **Ventilation Rate** on the ventilation screen.
- Press Menu/OK button to display the ventilation rate screen.

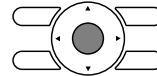


- Press the ▼▲ buttons to toggle between the **Low** and **High** settings.
- \* Only modes that can be set are displayed.



3

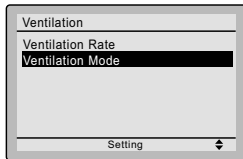
- Selecting and confirming the desired ventilation rate will take you back to the basic screen.  
(Pressing the Cancel button takes you back to the previous screen without changing the ventilation rate.)



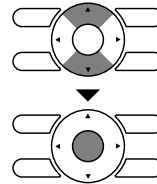
## ■ Changing the ventilation mode

### Operation

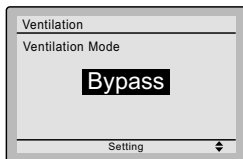
1



- Display the ventilation screen.  
(See page 26.)
- Press ▼▲ buttons to select **Ventilation Mode** on the ventilation screen.  
Press Menu/OK button to display the ventilation mode screen.



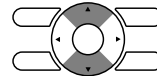
2



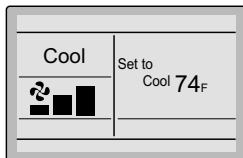
- Pressing the ▼▲ buttons cycles through the settings in the order shown below.



\* Only modes that can be set are displayed.



3



- Selecting and confirming the desired ventilation mode will take you back to the basic screen.  
(Pressing the Cancel button takes you back to the previous screen without changing the ventilation mode.)



## Ventilation Mode

# Menu Options

## Auto mode

Using information from the air conditioner (cool, heat, fan, and setpoint) and the energy recovery ventilator unit (indoor and outdoor temperatures), the ventilation mode is automatically changed between ERV and Bypass.

## ERV mode

Outside air is passed through the ERV core and is supplied to the conditioned space.

## Bypass mode

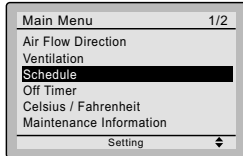
Outside air is supplied to the conditioned space without passing through the ERV core.

# Schedule

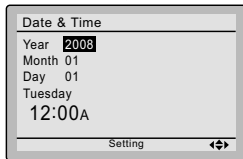
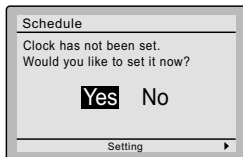
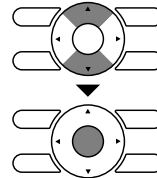
## Setting the schedule

**Operation** The schedule can not be enabled when a multizone controller is connected.

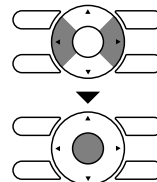
1



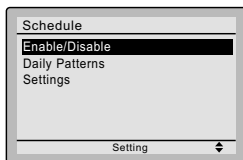
- Display the main menu screen. (See page 22.)
- Press ▼▲ buttons to select **Schedule**. Press Menu/OK button to display the schedule screen.



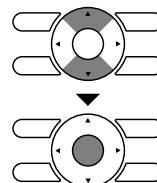
- Before setting the schedule, the clock must be set.
- If the clock has not been set, a screen like the one on the left will appear. Press ◀▶ buttons to select **Yes** and press Menu/OK button.
- The date & time screen will appear.
- Set the current year, month, day, and time. (See clock settings on page 39.)



2



- Press ▼▲ buttons to select the desired function on the schedule screen and press Menu/OK button.

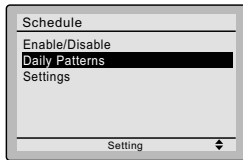




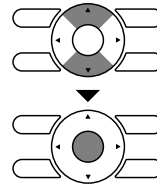
## ■ Daily Patterns

### Operation

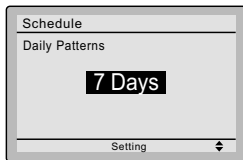
1



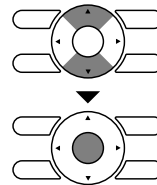
- The schedule screen will appear.
- Press ▼▲ buttons to select **Daily Patterns** on the schedule screen.  
The daily patterns screen will appear when the Menu/OK button is pressed.



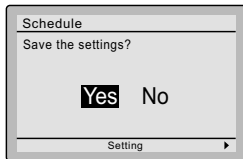
2



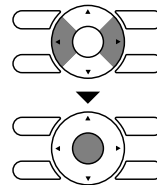
- Press ▼▲ buttons to select **7 Days**, **Weekday/Weekend**, or **Weekday/Sat/Sun** on the daily patterns screen.  
The confirmation screen will appear when the Menu/OK button is pressed.



3



- Press ◀▶ buttons to select **Yes** on the confirmation screen.  
Pressing the Menu/OK button enters the daily patterns in the schedule and takes you back to the main menu screen.

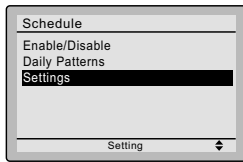


# Menu Options

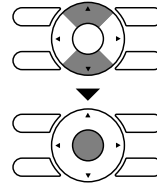
## ■ Settings

### Operation

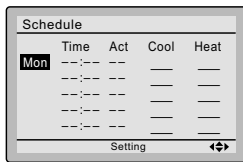
1



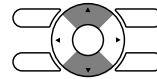
- The schedule screen will appear.
- Press ▼▲ buttons to select **Settings** on the schedule screen. The settings screen will appear when the Menu/OK button is pressed.



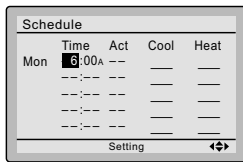
2



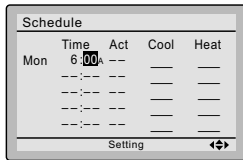
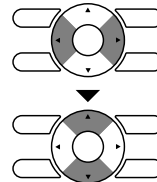
- Press ▼▲ buttons to select the day to be set.



3



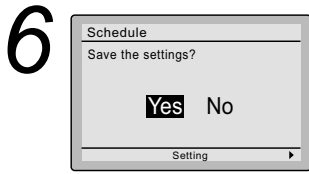
- Input the time for the selected day.
- Press ◀▶ buttons to move the highlighted item and press ▼▲ buttons to input the desired operation start time. Each press of ▼▲ buttons moves the numbers by 1 hour or 1 minute.



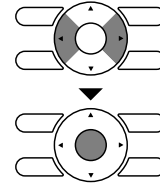
4



# Menu Options

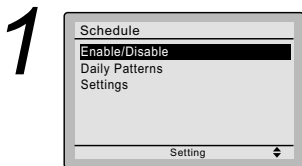


- Press ◀▶ buttons to select “Yes” on the confirmation screen. Pressing the Menu/OK button confirms the settings for each day and takes you back to the main menu screen.

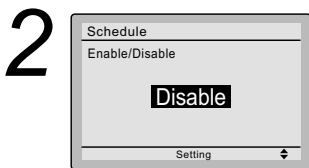
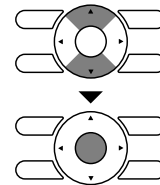


## Enabling or disabling the schedule

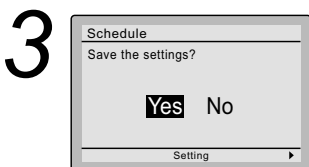
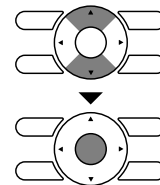
### Operation



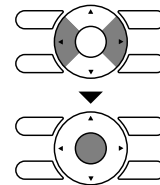
- Display the schedule screen. (See page 28.)
- Press ▼▲ buttons to select **Enable / Disable** on the schedule screen. Press Menu/OK button to display the enable/disable screen.



- Press ▼▲ buttons to select **Enable** or **Disable** on the enable/disable screen. Press Menu/OK button after selecting the item. The confirmation screen will appear.



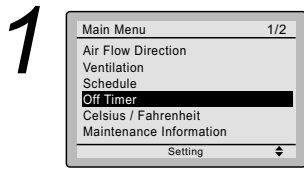
- Press ◀▶ buttons to select **Yes** on the confirmation screen. Pressing Menu/OK button confirms the enable/disable setting for the schedule and takes you back to the basic screen.



# Off Timer

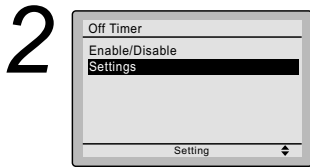
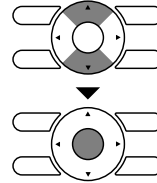
## ■ Configuring and Confirming the Off Timer settings

### Operation



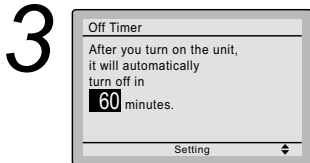
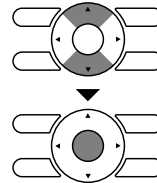
1

- Display the main menu screen. (See page 22.)
- Press ▼▲ buttons to select the **Off Timer** on the main menu screen. Press Menu/OK button to display the off timer screen.



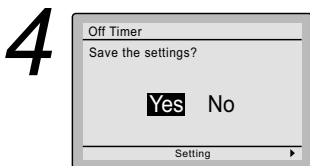
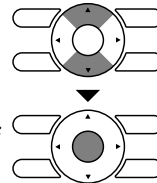
2

- Press ▼▲ buttons to select **Settings** on the off timer screen. Press Menu/OK button to display the configuration screen.



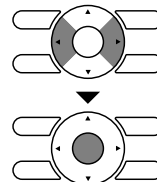
3

- Use ▼▲ buttons to set the time from operation start until the unit automatically stops. Selections can be made in increments of 10 minutes from 30 to 180 minutes. Holding down the button causes the number to change continuously.
- Select the desired time and press Menu/OK button. The confirmation screen will appear.



4

- Press ◀▶ button to select **Yes** on the confirmation screen. Pressing Menu/OK button confirms the off timer and takes you back to the basic screen.



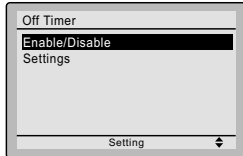
# Menu Options



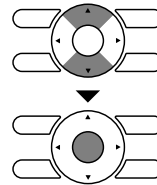
## Enabling or disabling the off timer

### Operation

1



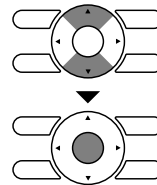
- Navigate to the off timer screen.  
(See page 33.)
- Press ▼▲ buttons to select **Enable/Disable** on the off timer screen. Press Menu/OK button to display the enable/disable screen.



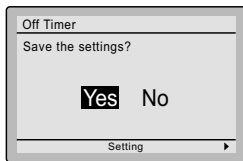
2



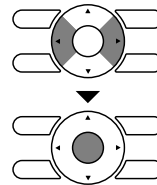
- Press ▼▲ buttons to select **Enable** or **Disable** on the enable/disable screen. Press Menu/OK button after selecting the item. Then the confirmation screen will appear.



3



- Press ◀▶ button to select **Yes** on the confirmation screen. Pressing Menu/OK button confirms the enable/disable for the off timer and takes you back to the basic screen.



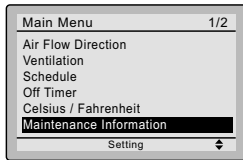
4

# Maintenance Information

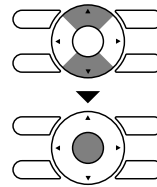
## ■ Displaying the service contact and model information

### Operation

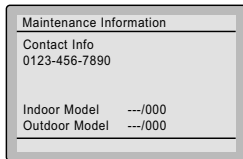
1



- Display the main menu screen.  
(See page 22.)
- Press ▼▲ buttons to select **Maintenance Information** on the main menu screen and press Menu/OK button.



2



- The phone number for the contact will appear at the top of the screen.  
(If it has not yet been entered, it will not appear.)
  - The model information of the indoor and outdoor units for your product will appear on the bottom of the screen.  
(For some models the product code may appear. )
- \* The model name will not appear if the indoor unit PCB has been replaced.

\* The error code history may also appear.  
If the operation lamp is not blinking, the unit is working properly.  
The error code history will disappear if you press On/Off button for more than 4 seconds.



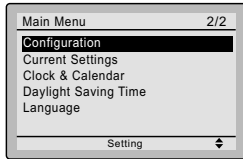
# Menu Options

## Configuration

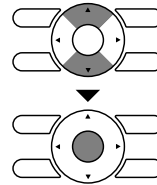
### ■ Contrast Adjustment

#### Operation

1



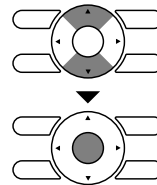
- Display the main menu screen. (See page 22.)
- Press ▼▲ buttons to select **Configuration** on the main menu screen. Press Menu/OK button to display the configuration screen.



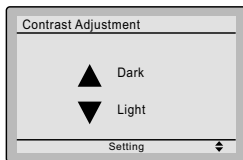
2



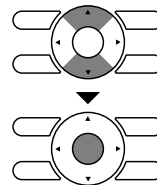
- Navigate to the configuration screen.
- Press ▼▲ buttons to select **Contrast Adjustment** on the configuration screen. Press Menu/OK button to display the contrast adjustment screen.



3



- On the contrast adjustment screen press ▼▲ buttons until you reach the desired contrast. After setting, press Menu/OK button and return to the basic screen.



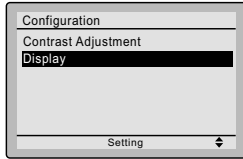
4



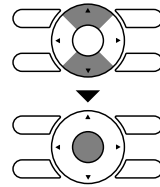
## ■ Display Display Mode

### Operation

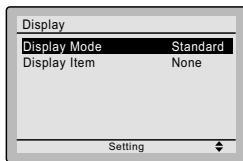
1



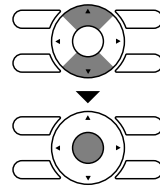
- Navigate to the configuration screen.  
(See page 36.)
- Press ▼▲ buttons to select **Display** on the configuration screen. Press Menu/OK button to display the display screen.



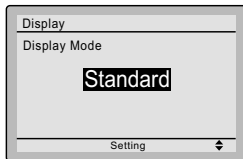
2



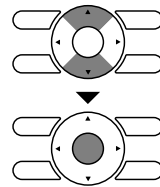
- Press ▼▲ buttons to select **Display Mode** on the display screen. Press Menu/OK button to display the Display Mode screen.



3



- Press ▼▲ buttons to select **Standard** or **Detailed** on the display screen.
  - Press Menu/OK button to confirm the settings and return to the basic screen.
- \* Refer to **Display Item** to change detailed display selection.  
(See page 38.)

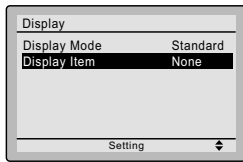


# Menu Options

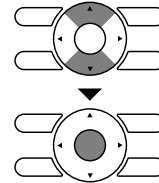
## Display Item

### Operation

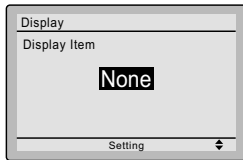
1



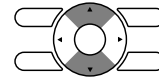
- Navigate to the display screen.  
(See page 37.)
- Press ▼▲ buttons to select **Display Item** on the display screen. Press Menu/OK button to display the display item screen.



2



- Pressing ▼▲ buttons displays the following.



- \* Some models may not display these items even if they are selected.
- Be sure to read the following notes regarding display of room temperature and outside air temperature.

#### Room Temp

..... The temperature at the remote controller.  
The temperature that is detected may be affected by the location of the remote controller.

#### Outside Air Temp

..... The temperature at the outdoor unit.  
The temperature that is detected may be affected by factors such as the location of the unit (for example, if it is in direct sunlight) and unit operation during defrosting.

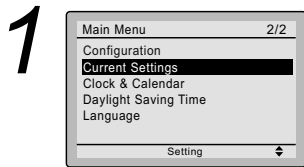
- After setting, press Menu/OK button to confirm settings and return to the basic screen.



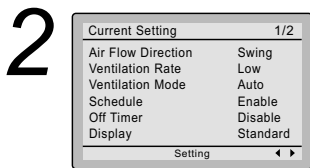
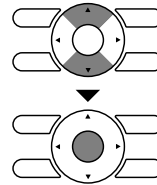
# Current Settings

## Manipulating the current settings

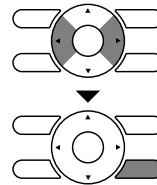
### Operation



- Display the main menu screen. (See page 22.)
- Press ▼▲ buttons to select **Current Settings** on the main menu screen and press Menu/OK button.



- A list showing the current setting status will appear. Press ◀▶ buttons to go to the next item.
- Pressing the Cancel button takes you back to the main menu screen.



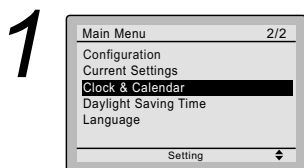
|                    |              |
|--------------------|--------------|
| Display items      |              |
| Air Flow Direction | Off Timer    |
| Ventilation Rate   | Display      |
| Ventilation Mode   | Display item |
| Schedule           |              |

\* Display items may differ depending on the model. Only the items that can be set are displayed.

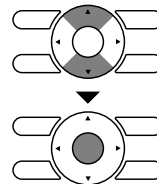
# Clock & Calendar

## Date & Time

### Operation

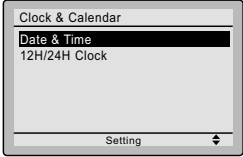


- Display the main menu screen. (See page 22.)
- Press ▼▲ buttons to select **Clock & Calendar** on the main menu screen. Press Menu/OK button to display the clock & calendar screen.

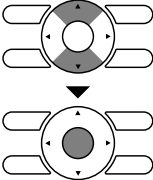


# Menu Options


**2**



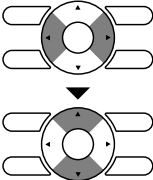
- Press ▼▲ buttons to select **Date & Time** on the clock & calendar screen. Press Menu/OK button to display the date & time screen.




**3**



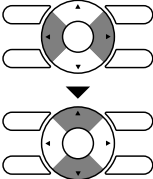
- Select “Year” with ◀▶ buttons. Change the year with ▼▲ buttons. Holding down the button causes the number to change continuously.



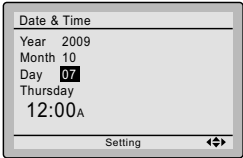
**4**



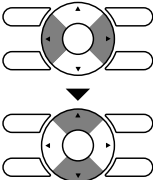
- Select “Month” with ◀▶ buttons. Change the month with ▼▲ buttons. Holding down the button causes the number to change continuously.



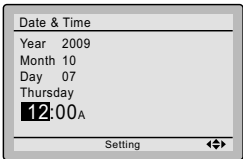
**5**



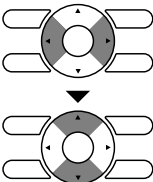
- Select “Day” with ◀▶ buttons. Change the day with ▼▲ buttons. Holding down the button causes the number to change continuously. Days of the week change automatically.



**6**

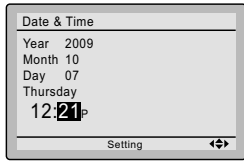


- Select “Hour” with ◀▶ buttons. Change the hour with ▼▲ buttons. Holding down the button causes the number to change continuously.

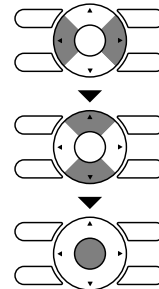


**4**

7



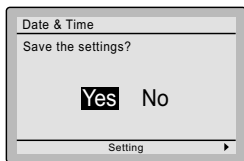
- Select "Minute" with ◀▶ buttons. Change the minute with ▼▲ buttons. Holding down the button causes the number to change continuously.
- Press Menu/OK button. The confirmation screen will appear.



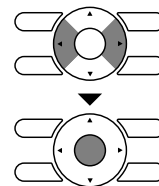
Note:

The date can be set between January 1, 2009 and December 31, 2099.

8



- Press ◀▶ button to select **Yes** on the confirmation screen. Press Menu/OK button to confirm the clock and return to the basic screen.



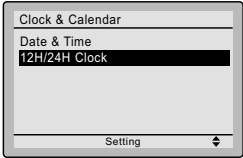
\*When setting the schedule, the display returns to the settings screen.

# Menu Options

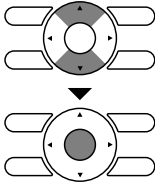
## ■ 12H/24H CLOCK

### Operation

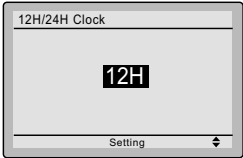
**1**



- Display the clock & calendar screen. (See page 39.)
- Press ▼▲ buttons to select **12H/24H Clock** on the Clock & Calendar screen. The 12H/24H clock screen will appear when the Menu/OK button is pressed.

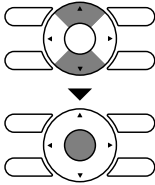


**2**

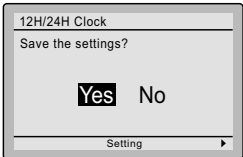


By default, the time display is set to the 12H format.

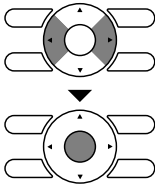
- Press ▼▲ buttons to select **12H** **24H** on the 12H/24H clock screen.
- The confirmation screen will appear when the Menu/OK button is pressed.



**3**



- Press ◀▶ buttons to select **Yes** on the confirmation screen. Pressing the Menu/OK button confirms the 12H or 24H and takes you back to the main menu screen.

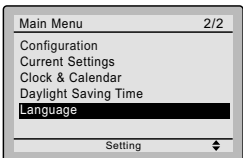


## Language

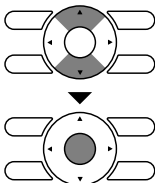
### ■ Selectable Languages

#### Operation

**1**



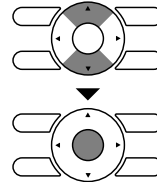
- Display the main menu screen. (See page 22.)
- Press ▼▲ buttons to select **Language** on the main menu screen and press the Menu/OK button.



2



- Press ▼▲ buttons to select the preferred language on the language screen. English/Français/Español are available.
- Press Menu/OK button to confirm the settings and return to the basic screen.

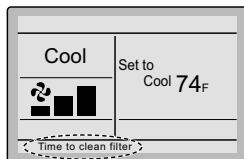


## Maintenance

### Reset Filter Indicator

#### Operation

1

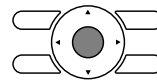


- When it is time to clean or replace the filter, one of the following messages will appear on the bottom of the basic screen.
  - “Time to clean filter”
  - “Time to clean filter & element”
  - “Time to clean element”

- Wash, clean, or replace the filter or element.  
For details, refer to the operation manual supplied with the indoor unit.

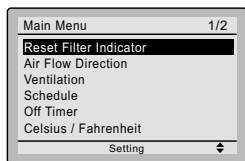
2

- Reset the filter indicator when the filter or element is cleaned or replaced.
- Press Menu/OK button.  
The main menu screen will appear.

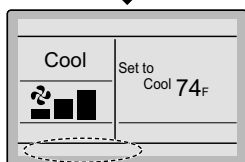
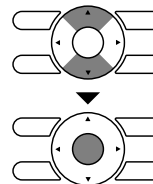


# Maintenance

## 3



- Press ▼▲ buttons to select **Reset Filter Indicator** on the main menu screen and press Menu/Enter button.



- The display shown in illustration 1 will disappear from the basic screen when the filter sign is reset.

## Maintaining the Unit and LCD Display

- Wipe the LCD and surface of the remote controller with a dry cloth when they become dirty.
- If the dirt on the surface cannot be removed, soak the cloth in neutral detergent diluted with water, squeeze the cloth tightly, and clean the surface. Wipe the surface with a dry cloth.

### Note

- Do not use any paint thinner, organic solvent, or strong acid.

# 4



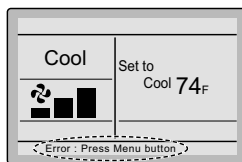
# Reference Information

## Error Code Display

### ■ Contact your Daikin dealer in the following cases

#### Operation

1



- If an error occurs, either one of the following items will flash in the basic screen.

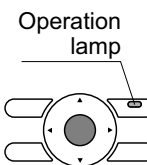
“Error: Push Menu button”

\* The operation lamp will flash.

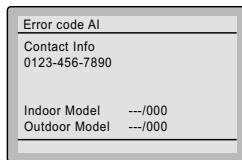
“Warning: Push Menu button”

\* The operation lamp will not flash.

- Press Menu/OK button.



2



- The error code will flash and the service contact and model name or code may appear.
- Notify your Daikin dealer of the Error code and model name or code.

# Reference Information

## After-sale Service

### Warning

- **Do not relocate or reinstall the remote controller by yourself.**  
Improper installation may result in electric shocks or fire.  
Consult your Daikin dealer.



### ■ Advise your Daikin Dealer of the following items

- Model name
- Date of installation
- Failure conditions: As precise as possible.
- Your address, name, and telephone number

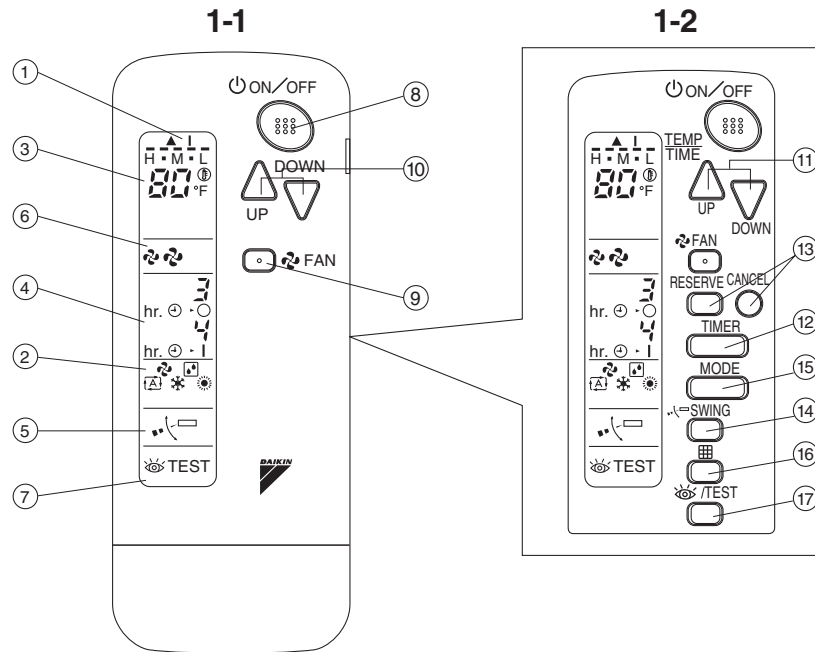
### ■ Repairs after Warranty Period

Consult your Daikin dealer.

### ■ Inquiry about After-sale Service

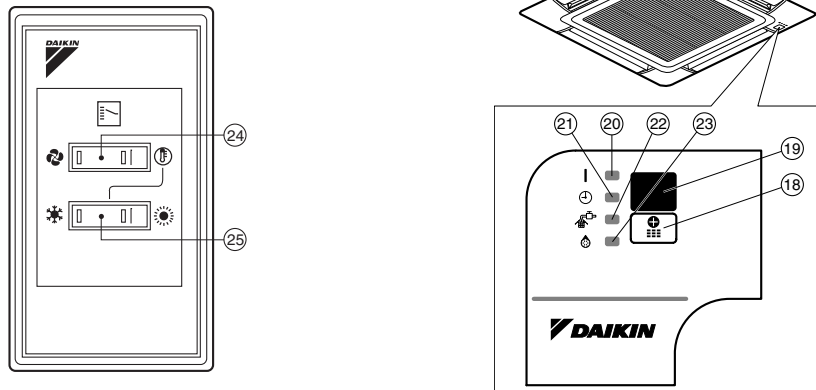
Contact your Daikin dealer.

## 4.2 With <BRC7E830> Wireless Remote Controller



1

### 1-3 COOL/HEAT CHANGEOVER REMOTE CONTROL SWITCH



1

2

#### PRIOR TO USE

This operation manual is exclusively for instructions on how to use the wireless remote controller. Read also the operation manual attached to the indoor unit for safe usage of the system and maintenance.

[1]

### CONTENTS

ILLUSTRATION.....[1]  
 PRIOR TO USE.....[1]

1. SAFETY CONSIDERATIONS ..... 1  
 2. NAMES AND FUNCTIONS OF THE OPERATING SECTION (Fig. 1, 2) .....2  
 3. HANDLING FOR WIRELESS REMOTE CONTROLLER.....3  
 4. OPERATION RANGE ..... 4  
 5. OPERATION PROCEDURE ..... 4  
 6. NOT MALFUNCTION OF THE AIR CONDITIONER.....9  
 7. HOW TO DIAGNOSE TROUBLE SPOTS.. 10

### 1. SAFETY CONSIDERATIONS

Please read these "SAFETY CONSIDERATIONS" carefully before installing air conditioning equipment and be sure to install it correctly. After completing the installation, make sure that the unit operates properly during the test run.

Please instruct the customer on how to operate the unit and keep it maintained.

Also, inform customers that they should store this operation manual along with the installation manual for future reference.

This air conditioner comes under the term "appliances not accessible to the general public". Meaning of warning, caution and note symbols.

**⚠ WARNING** . . . . . Indication a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**⚠ CAUTION** . . . . . Indication a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be sued to alert against unsafe practices.

**⚠ NOTE** . . . . . Indication situation that may result in equipment or property-damage-only accidents.

**Keep these warning sheets handy so that you can refer to them if needed.**

Also, if this equipment is transferred to a new user, make sure to hand over this operation manual to the new user.

— **⚠ WARNING** —

- **It is not good for your health to expose your body to the air flow for a long time.**
- **In order to avoid electric shock, fire or injury, or if you detect any abnormality such as smell of fire, turn off power and call your dealer for instructions.**
- **Ask your dealer for installation of the air conditioner.**

Incomplete installation performed by yourself may result in a water leakage, electric shock, and fire.

- **Ask your dealer for improvement, repair, and maintenance.**

Incomplete improvement, repair, and maintenance may result in a water leakage, electric shock, and fire.

- **Do not put a finger, a rod or other objects into the air inlet or outlet. As the fan is rotating at high speed, it will cause injury.**
- **Ask your dealer to move and reinstall the air conditioner.**

Incomplete installation may result in a water leakage, electric shock, and fire.







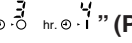




- **Do not touch the switch with wet fingers.**  
Touching a switch with wet fingers can cause electric shock.
- **Do not operate the air conditioner with a wet hand.**  
Otherwise, you could receive an electric shock.

— **⚠ CAUTION** —






- **Do not use the air conditioner for other purposes.**  
In order to avoid any quality deterioration, do not use the unit for cooling precision instruments, food, plants, animals or works of art.
- **To avoid oxygen deficiency, ventilate the room sufficiently if equipment with burner is used together with the air conditioner.**
- **Do not allow a child to mount on the unit or avoid placing any object on it.**  
Falling or tumbling may result in injury.

- **Do not let children play on and around the unit.**  
If they touch the unit carelessly, it may result in injury.
- **Do not place a flower vase and anything containing water.**  
Water may enter the unit, causing an electric shock or fire.
- **Do not operate the air conditioner when using a room fumigation - type insecticide.**  
Failure to observe could cause the chemicals to become deposited in the unit, which could endanger the health of those who are hypersensitive to chemicals.
- **Never use flammable spray such as hair spray, lacquer or paint near the unit.**  
It may cause a fire.

**2. NAMES AND FUNCTIONS OF THE OPERATING SECTION (Fig. 1, 2)**

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | <b>DISPLAY “▲” (SIGNAL TRANSMISSION)</b><br>This lights up when a signal is being transmitted.                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 2 | <b>DISPLAY “” “” “” “” “” (OPERATION MODE)</b><br>This display shows the current OPERATION MODE. |
| 3 | <b>DISPLAY “” (SET TEMPERATURE)</b><br>This display shows the set temperature.                                                                                                                                                                                                                                                                                                                                                               |
| 4 | <b>DISPLAY “” (PROGRAMMED TIME)</b><br>This display shows PROGRAMMED TIME of the system start or stop.                                                                                                                                                                                                                                                                                                                                       |
| 5 | <b>DISPLAY “” (AIR FLOW FLAP)</b><br>Refer to page 6.                                                                                                                                                                                                                                                                                                                                                                                        |
| 6 | <b>DISPLAY “” “” (FAN SPEED)</b><br>The display shows the set fan speed.                                                                                                                                                                                                                                                                                  |
| 7 | <b>DISPLAY “ TEST ” (INSPECTION/TEST RUN)</b><br>When the INSPECTION/TEST RUN BUTTON is pressed, the display shows the system mode is in.                                                                                                                                                                                                                                                                                                    |

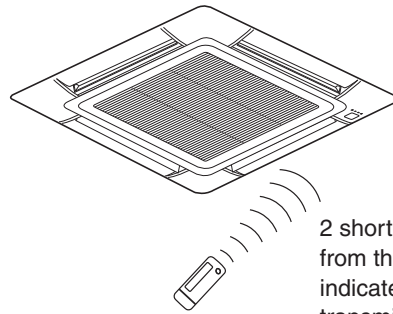
|    |                                                                                                                                                               |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8  | <b>ON/OFF BUTTON</b><br>Press the button and the system will start.<br>Press the button again and the system will stop.                                       |
| 9  | <b>FAN SPEED CONTROL BUTTON</b><br>Press this button to select the fan speed, HIGH or LOW, of your choice.                                                    |
| 10 | <b>TEMPERATURE SETTING BUTTON</b><br>Use this button for SETTING TEMPERATURE (Operates with the front cover of the remote controller closed.)                 |
| 11 | <b>PROGRAMMING TIMER BUTTON</b><br>Use this button for programming “START and/or STOP” time. (Operates with the front cover of the remote controller opened.) |
| 12 | <b>TIMER MODE START/STOP BUTTON</b><br>Refer to page 7.                                                                                                       |
| 13 | <b>TIMER RESERVE/CANCEL BUTTON</b><br>Refer to page 7.                                                                                                        |
| 14 | <b>AIR FLOW DIRECTION ADJUST BUTTON</b><br>Refer to page 6.                                                                                                   |
| 15 | <b>OPERATION MODE SELECTOR BUTTON</b><br>Press this button to select OPERATION MODE.                                                                          |
| 16 | <b>FILTER SIGN RESET BUTTON</b><br>Refer to the section of MAINTENANCE in the operation manual attached to the indoor unit.                                   |
| 17 | <b>INSPECTION/TEST RUN BUTTON</b><br>This button is used only by qualified service persons for maintenance purposes.                                          |
| 18 | <b>EMERGENCY OPERATION SWITCH</b><br>This switch is readily used if the remote controller does not work.                                                      |
| 19 | <b>RECEIVER</b><br>This receives the signals from the remote controller.                                                                                      |
| 20 | <b>OPERATING INDICATOR LAMP (Red)</b><br>This lamp stays lit while the air conditioner runs. It flashes when the unit is in trouble.                          |
| 21 | <b>TIMER INDICATOR LAMP (Green)</b><br>This lamp stays lit while the timer is set.                                                                            |
| 22 | <b>AIR FILTER CLEANING TIME INDICATOR LAMP (Red)</b><br>Lights up when it is time to clean the air filter.                                                    |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>DEFROST LAMP (Orange)</b>                                                                                                                                                                                                            |
| 23                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Lights up when the defrosting operation has started.                                                                                                                                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>FAN/AIR CONDITIONING SELECTOR SWITCH</b>                                                                                                                                                                                             |
| 24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Set the switch to “  ” (FAN) for FAN and “  ” (A/C) for HEAT or COOL. |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>COOL/HEAT CHANGEOVER SWITCH</b>                                                                                                                                                                                                      |
| 25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Set the switch to “  ” (COOL) for COOL and “  ” (HEAT) for HEAT.      |
| <b>NOTE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                         |
| <ul style="list-style-type: none"> <li>• For the sake of explanation, all indications are shown on the display in Fig. 1 contrary to actual running situations.</li> <li>• Fig. 1-2 shows the remote controller with the front cover opened.</li> <li>• If the air filter cleaning time indicator lamp lights up, clean the air filter as explained in the operation manual provided with the indoor unit.</li> <li>• After cleaning and reinstalling the air filter, press the filter sign reset button on the remote controller. The air filter cleaning time indicator lamp on the receiver will go out.</li> <li>• The defrost lamp will flash when the power is turned on. This is not a malfunction.</li> </ul> |                                                                                                                                                                                                                                         |

### 3. HANDLING FOR WIRELESS REMOTE CONTROLLER

**Precautions in handling remote controller**  
**Direct the transmitting part of the remote controller to the receiving part of the air conditioner.**

If something blocks the transmitting and receiving path of the indoor unit and the remote controller as curtains, it will not operate.



2 short beeps from the receiver indicates that the transmission is properly done.

**Transmitting distance is approximately 23 ft.**

**Do not drop or get it wet.**  
 It may be damaged.

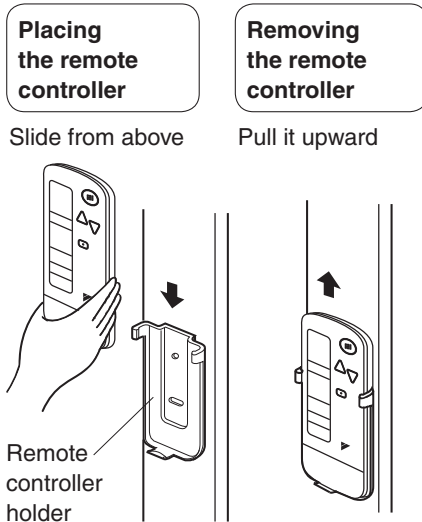
**Never press the button of the remote controller with a hard, pointed object.**  
 The remote controller may be damaged.

**Installation site**

- It is possible that signals will not be received in rooms that have electronic fluorescent lighting. Please consult with your dealer before buying new fluorescent lights.
- If the remote controller operates some other electrical apparatus, move that machine away or consult your dealer.

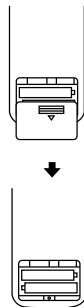
**Placing the remote controller in the remote controller holder**

Install the remote controller holder to a wall or a pillar with the attached screw. (Make sure it transmits.)



**How to put the dry batteries**

- (1) Remove the back cover of the remote controller to the direction pointed by the arrow mark.
- (2) Put the batteries. Use two dry cell batteries (AAA, LR03 (alkaline)). Put dry batteries correctly to fit their (+) and (-).
- (3) Close the cover.



**— When to change batteries —**

Under normal use, batteries last about a year. However, change them whenever the indoor unit doesn't respond or responds slowly to commands, or if the display becomes dark.

**[CAUTIONS]**

- Replace all batteries at the same time, do not use new and old batteries intermixed.
- In case the remote controller is not used for a long time, take out all batteries in order to prevent liquid leak of the battery.

**IN THE CASE OF CENTRALIZED CONTROL SYSTEM**

If the indoor unit is under centralized control, it is necessary to switch the remote controller's setting.

In this case, contact your DAIKIN dealer.

**4. OPERATION RANGE**

See the operation manual provided with the air conditioner.

The setting temperature range of the remote controller is 60 to 90°F.

**5. OPERATION PROCEDURE**

Refer to Fig. 1 on page [1]

- To protect the unit, turn on the main power switch 6 hours before operation.
- If the main power supply is turned off during operation, operation will restart automatically after the power turns back on again.

**COOLING, HEATING, AUTOMATIC, FAN, AND PROGRAM DRY OPERATION**

Operate in the following order.

<<FOR SYSTEMS WITHOUT COOL/HEAT CHANGEOVER REMOTE CONTROL SWITCH>>

Refer to Fig. 1-1, 2 on page [1]

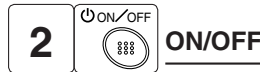


Press **OPERATION MODE SELECTOR** button several times and select the **OPERATION MODE** of your choice as follows.

- COOLING OPERATION ..... “❄️”
- HEATING OPERATION..... “☀️”
- AUTOMATIC OPERATION..... “🔄”
  - In this operation mode, COOL/HEAT changeover is automatically conducted.
- FAN OPERATION ..... “🌀”
- DRY OPERATION..... “💧”
  - The function of this program is to decrease the humidity in your room with the minimum temperature decrease.
  - Micro computer automatically determines TEMPERATURE and FAN SPEED.
  - This system does not go into operation if the room temperature is below 60°F.

- See “FOR SYSTEMS WITHOUT COOL/HEAT CHANGEOVER REMOTE CONTROL SWITCH” for details on dry operation.

**(2) Press OPERATION MODE SELECTOR button several times and select “🔘”**  
(This operation is only available during dry operation.)



**Press ON/OFF button**

OPERATION lamp lights up or goes off and the system starts or stops OPERATION.

**NOTE**

- Do not turn OFF power immediately after the unit stops. Then, wait no less than 5 minutes. Water is leaking or there is something else wrong with the unit.

**[EXPLANATION OF HEATING OPERATION] DEFROST OPERATION**

- As the frost on the coil of an outdoor unit increase, heating effect decreases and the system goes into DEFROST OPERATION.
- The fan operation stops and the DEFROST lamp of the indoor unit goes on.  
After 6 to 8 minutes (maximum 10 minutes) of DEFROST OPERATION, the system returns to HEATING OPERATION.

**Heating capacity & Outdoor air temperature**

- Heating capacity drops as outdoor air temperature lowers. If feeling cold, use another heater at the same time as this air conditioner.
- Hot air is circulated to warm the room. It will take some time from when the air conditioner is first started until the entire room becomes warm. The internal fan automatically turns at low speed until the air conditioner reaches a certain temperature on the inside. In this situation, all you can do is wait.
- If hot air accumulates on the ceiling and feet are left feeling cold, it is recommended to use a circulator. For details, contact your dealer.



**Press ON/OFF button**

OPERATION lamp lights up or goes off and the system starts or stops OPERATION.

**NOTE**

- Do not turn OFF power immediately after the unit stops. Then, wait no less than 5 minutes. Water is leaking or there is something else wrong with the unit.

**<<FOR SYSTEMS WITH COOL/HEAT CHANGEOVER REMOTE CONTROL SWITCH>>**

Refer to Fig. 1-1, 3 on page [1]



**(1) Select OPERATION MODE with the COOL/HEAT CHANGEOVER REMOTE CONTROL SWITCH as follows.**

- COOLING OPERATION ..... “❄️”
- HEATING OPERATION..... “☀️”
- FAN OPERATION ..... “🌀”
- DRY OPERATION..... “💧”



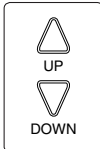
**ADJUSTMENT**

For programming TEMPERATURE, FAN SPEED and AIR FLOW DIRECTION, follow the procedure shown below.



**TEMPERATURE SETTING**

Press TEMPERATURE SETTING button and program the setting temperature.

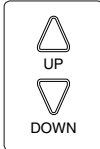


Each time this button is pressed, setting temperature rises 1°F.



Each time this button is pressed, setting temperature lowers 1°F.

**In case of automatic operation**



Each time this button is pressed, setting temperature shifts to "H" side.



Each time this button is pressed, setting temperature shifts to "L" side.

|                     | [°F] |    |      |    |    |
|---------------------|------|----|------|----|----|
|                     | H    | •  | M    | •  | L  |
| Setting temperature | 77   | 73 | 71.5 | 70 | 66 |

- The setting is impossible for fan operation.

**NOTE**

- The setting temperature range of the remote controller is 60 to 90°F.



**FAN SPEED CONTROL**

Press FAN SPEED CONTROL button.

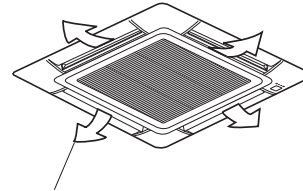
High or Low fan speed can be selected. The micro computer may sometimes control the fan speed in order to protect the unit.



**AIR FLOW DIRECTION ADJUST**

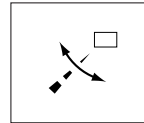
**UP AND DOWN DIRECTION**

- The movable limit of the flap is changeable. Contact your Daikin dealer for details.



Up and down adjustment

Press the AIR FLOW DIRECTION ADJUST button to select the air direction as shown below.



DISPLAY appears and the air flow direction continuously varies. (Automatic swing setting)



Press AIR FLOW DIRECTION ADJUST button to select the air direction of your choice.



DISPLAY vanishes and the air flow direction is fixed (Fixed air flow direction setting).

**MOVEMENT OF THE AIR FLOW FLAP**

For the following conditions, micro computer controls the air flow direction so it may be different from the display.

| Operation mode       | Heating                                                                                                                                                                                                                                                                        |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operation conditions | <ul style="list-style-type: none"> <li>• When starting operation</li> <li>• When room temperature is higher than the set temperature</li> <li>• At defrost operation (The flaps blow horizontally to avoid blowing cold air directly on the occupants of the room.)</li> </ul> |

**NOTE** 

- If you try cooling or programmed drying, while the flaps are facing downward, air flow direction may change unexpectedly. There is nothing wrong with the equipment. This serves to prevent dew formed on parts in the air discharge outlet from dripping.
- Operation mode includes automatic operation.

**PROGRAM TIMER OPERATION**

Operate in the following order.

- The timer is operated in the following two ways.  
Programming the stop time ( ⊕ · ○ )  
.... The system stops operating after the set time has elapsed.  
Programming the start time ( ⊕ · | )  
.... The system starts operating after the set time has elapsed.
- The timer can be programmed a maximum of 72 hours.
- The start and the stop time can be simultaneously programmed.

**1**  **TIMER MODE START/STOP**

**Press the TIMER MODE START/STOP button several times and select the mode on the display.**



The display flashes.

For setting the timer stop .... “ ⊕ · ○ ”

For setting the timer start .... “ ⊕ · | ”

**2**  **PROGRAMMING TIME**

**Press the PROGRAMMING TIME button and set the time for stopping or starting the system.**

-  UP  
When this button is pressed, the time advances by 1 hour.
-  DOWN  
When this button is pressed, the time goes backward by 1 hour.

**3**  **TIMER RESERVE**

**Press the TIMER RESERVE button.**

The timer setting procedure ends.

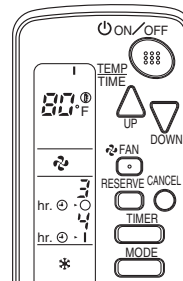
The display is changed from flashing light to a constant light.

**4**  **TIMER CANCEL**

**Press the TIMER OFF button to cancel programming.**

The display vanishes.

**For example.**



When the timer is programmed to stop the system after 3 hours and start the system after 4 hours, the system will stop after 3 hours and then 1 hour later the system will start.

**NOTE** 

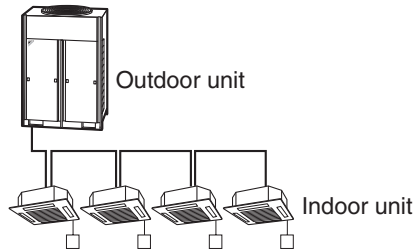
- After the timer is programmed, the display shows the remaining time.

**HOW TO SET MASTER REMOTE CONTROLLER (For VRV system)**

- When the system is installed as shown below, it is necessary to designate the master remote controller.

**■ For Heat pump system**

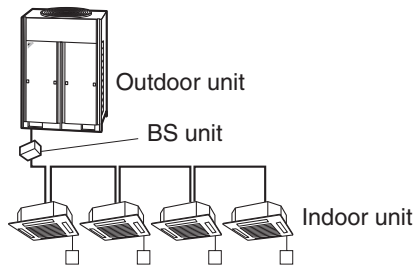
When one outdoor unit is connected with several indoor units.



One of these remote controllers needs to be designated as the master remote controller.

**■ For Heat recovery system**

When one BS unit is connected with several indoor units.



One of these remote controllers needs to be designated as the master remote controller.

- Only the master remote controller can select HEATING, COOLING or AUTOMATIC (only Heat recovery system) OPERATION.

When the indoor unit with master remote controller is set to “COOL”, you can switch over operation mode between “FAN”, “DRY” and “COOL”.

When the indoor unit with master remote controller is set to “HEAT”, you can switch over operation mode between “FAN” and “HEAT”.

When the indoor unit with master remote controller is set to “FAN”, you cannot switch operation mode.

When attempting settings that consented above, a “peep” is emitted as a warning.

Only with Heat recovery system, you can set the indoor unit to AUTOMATIC. Attempting to do so, a “peep” will be emitted as a warning.

**How to designate the master remote controller**  
Operate in the following order.



**Continuously press the OPERATION MODE SELECTOR button for 4 seconds.**

The displays showing “⊕” of all slave indoor units connected to the same outdoor unit or BS unit flash.



**Press the OPERATION MODE SELECTOR button to the indoor unit that you wish to designate as the master remote controller. Then designation is completed. This indoor unit is designated as the master remote controller and the display showing “⊕” vanishes.**

- To change settings, repeat steps ① and ②.

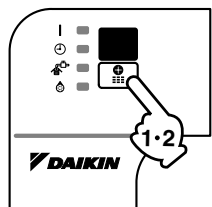
**EMERGENCY OPERATION**

When the remote controller does not work due to battery failure or the absence thereof, use this switch which is located beside the discharge grille on the main unit. When the remote controller does not work, but the battery low indicator on it is not lit, contact your dealer.

**[START]**

- 1** To press the emergency operation switch.

The system runs in the previous mode.  
The system operates with the previously set air flow direction.

**[STOP]**

- 2** Press the EMERGENCY OPERATION switch again.

### PRECAUTIONS FOR GROUP CONTROL SYSTEM OR TWO REMOTE CONTROLLER CONTROL SYSTEM

This system provides two other control systems beside individual control (one remote controller controls one indoor unit) system. Confirm the following if your unit is of the following control system type.

#### ■ Group control system

One remote controller controls up to 16 indoor units.  
All indoor units are equally set.

#### ■ Two remote controller control system

Two remote controllers control one indoor unit. (In case of group control system, one group of indoor units)  
The unit follows individual operation.

#### NOTE

- Cannot have two remote controller control system with only wireless remote controllers. (It will be a two remote controller control system having one wired and one wireless remote controllers.)
- Under two remote controller control system, wireless remote controller cannot control timer operation.

- Only the operating indicator lamp out of 3 other lamps on the indoor unit display functions.

#### NOTE

- Contact your Daikin dealer in case of changing the combination or setting of group control and two remote controller control systems.

## 6. NOT MALFUNCTION OF THE AIR CONDITIONER

The following symptoms do not indicate air conditioner malfunction

### I. THE SYSTEM DOES NOT OPERATE

- **The system does not restart immediately after the ON/OFF button is pressed.**  
If the OPERATION lamp lights, the system is in normal condition. It does not restart immediately because a safety device operates to prevent overload of the system. After 3 minutes, the system will turn on again automatically.
- **The system does not restart immediately when TEMPERATURE SETTING button is returned to the former position after pushing the button.**  
It does not restart immediately because a safety device operates to prevent overload of the system. After 3 minutes, the system will turn on again automatically.
- **If the reception beep is rapidly repeated 3 times (It sounds only twice when operating normally.)**  
Control is set to the optional controller for centralized control.
- **If the defrost lamp on the indoor unit's display is lit when heating is started.**  
This indication is to warn against cold air being blown from the unit. There is nothing wrong with the equipment.

## 7. HOW TO DIAGNOSE TROUBLE SPOTS

### I. EMERGENCY STOP

When the air conditioner stops in emergency, the operating indicator lamp on the indoor unit starts blinking. Take the following steps yourself to read the malfunction code that appears on the display. Contact your dealer with this code. It will help pinpoint the cause of the trouble, speeding up the repair.



**Press the INSPECTION/TEST button to select the inspection mode “E”.**

“E” appears on display and blinks. “UNIT” lights up.



**Press PROGRAMMING TIMER BUTTON and change the unit number.**

Press to change the unit number until the indoor unit beeps and perform the following operation according to the number of beeps.

#### Number of beeps

3 short beeps..... Perform all steps from (3) to (6).

1 short beep ..... Perform (3) and (6) steps.

1 long beep..... Normal state



**Press OPERATION MODE SELECTOR BUTTON**

“E” on the left-hand of the malfunction code blinks.



**Press PROGRAMMING TIMER BUTTON and change the malfunction code.**

Press until the indoor unit beeps twice.



**Press OPERATION MODE SELECTOR BUTTON**

“E” on the right-hand of the malfunction code blinks.



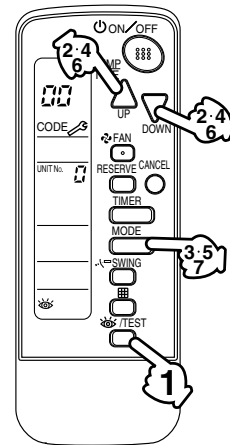
**Press PROGRAMMING TIMER BUTTON and change the malfunction code.**

Press until the indoor unit makes a long beep. The malfunction code is fixed when the indoor unit makes a long beep.



**Reset of the display**

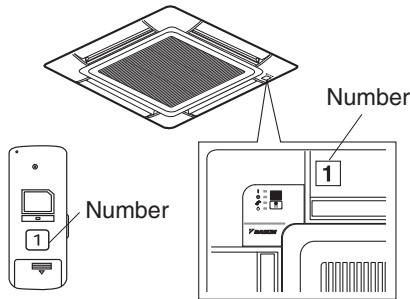
**Press OPERATION MODE SELECTOR BUTTON to get the display back to the normal state.**



**II. IN CASE BESIDES EMERGENCY STOP**

**1. The unit does not operate at all.**

- Check if the receiver is exposed of sunlight or strong light. Keep receiver away from light.
- Check if there are batteries in the remote controller. Place the batteries.
- Check if the indoor unit number and wireless remote controller number are equal.



Operate the indoor unit with the remote controller of the same number.

Signal transmitted from a remote controller of a different number cannot be accepted. (If the number is not mentioned, it is considered as "1".)

**2. The system operates but it does not sufficiently cool or heat.**

- If the set temperature is not proper.
- If the FAN SPEED is set to LOW SPEED.
- If the air flow angle is not proper.

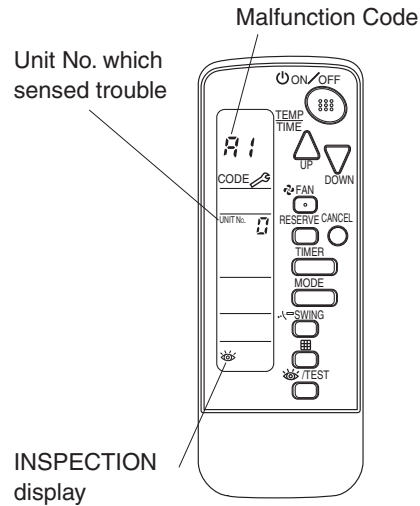
Contact your dealer in the following case.

**— ⚠ WARNING —**

When you detect a burning odor, shut OFF power immediately and contact your dealer. Using the equipment in anything but proper working condition can result in equipment damage, electric shock and/or fire.

**[Trouble]**

The operating indicator lamp of the indoor unit is flashing and the unit does not work at all.



**[Remedial action]**

Check the malfunction code (A1 - UF) on the remote controller.

Notify and inform the model name and what the malfunction code indicates to your Daikin dealer.



# Part 5

## Options

|                                                                                                                         |     |
|-------------------------------------------------------------------------------------------------------------------------|-----|
| 1. Option List .....                                                                                                    | 320 |
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# 1. Option List

## 1.1 Outdoor Unit

|   | Option Name | Model Name |
|---|-------------|------------|
| 1 | Drain Plug  | KKPJ5F180  |

## 1.2 BP Unit

|   | Option Name  | Model Name |
|---|--------------|------------|
| 1 | REFNET Joint | KHRP26A22T |

## 1.3 Indoor Unit

### CTXS, FTXS Series

|    | Option Name                                                                                                | CTXS07JVJU<br>CTXS09/12HVJU | CTXS07LVJU<br>FTXS15/18/24LVJU |
|----|------------------------------------------------------------------------------------------------------------|-----------------------------|--------------------------------|
| 1  | Wired remote controller ★1                                                                                 | BRC944B2                    |                                |
| 2  | Wired remote controller cord                                                                               | Length 3 m (shielded wire)  | BRCW901A03                     |
|    |                                                                                                            | Length 8 m (shielded wire)  | BRCW901A08                     |
| 3  | Centralized Control Board-up to 5 Rooms ★2                                                                 | KRC72                       |                                |
| 4  | Wiring Adaptor for Timer Clock / Remote Controller ★3<br>(Normal Open Pulse Contact / Normal Open Contact) | KRP413AB1S                  |                                |
| 5  | Central Remote Controller ★4                                                                               | DCS302C71                   |                                |
| 6  | Unified ON/OFF Controller ★4                                                                               | DCS301C71                   |                                |
| 7  | Schedule Timer ★4                                                                                          | DST301BA61                  |                                |
| 8  | Interface Adaptor for DIII-NET (Residential Air Conditioner)                                               | KRP928BB2S                  |                                |
| 9  | Air-Purifying Filter with Photocatalytic Deodorizing Function<br>(without Frame) ★5                        | KAF952A42                   | —                              |
| 10 | Titanium Apatite Photocatalytic Air-purifying Filter<br>(without Frame) ★5                                 | —                           | KAF970A46                      |
| 11 | Remote Controller Loss Prevention with Chain                                                               | KKF910A4                    |                                |

- Note:**
- ★1 3 m (BRCW901A03) or 8 m (BRCW901A08) length wired remote controller cord is necessary.
  - ★2 A wiring adaptor (KRP413AB1S) is also required for each indoor unit.
  - ★3 Timer clock and other devices ; obtained locally.
  - ★4 An interface adaptor (KRP928BB2S) is also required for each indoor unit.
  - ★5 Standard accessory

## CDXS, FDXS Series

|    | Option Name                                                                                                | 09/12 Class                | 15/18 Class | 24 Class |
|----|------------------------------------------------------------------------------------------------------------|----------------------------|-------------|----------|
| 1  | Wired remote controller ★1                                                                                 | BRC944B2                   |             |          |
| 2  | Wired remote controller cord                                                                               | Length 3 m (shielded wire) | BRCW901A03  |          |
|    |                                                                                                            | Length 8 m (shielded wire) | BRCW901A08  |          |
| 3  | Centralized Control Board-up to 5 Rooms ★2                                                                 | KRC72                      |             |          |
| 4  | Wiring Adaptor for Timer Clock / Remote Controller ★3<br>(Normal Open Pulse Contact / Normal Open Contact) | KRP413AB1S                 |             |          |
| 5  | Central Remote Controller ★4                                                                               | DCS302C71                  |             |          |
| 6  | Unified ON/OFF Controller ★4                                                                               | DCS301C71                  |             |          |
| 7  | Schedule Timer ★4                                                                                          | DST301BA61                 |             |          |
| 8  | Interface Adaptor for DIII-NET (Residential Air Conditioner)                                               | KRP928BB2S                 |             |          |
| 9  | Suction Grille                                                                                             | KDG19A45                   |             |          |
| 10 | Insulation Kit for High Humidity                                                                           | KDT25N32                   | KDT25N50    | KDT25N63 |
| 11 | Remote Controller Loss Prevention with Chain                                                               | KKF910A4                   |             |          |

- Note:**
- ★1 3 m (BRCW901A03) or 8 m (BRCW901A08) length wired remote controller cord is necessary.
  - ★2 A wiring adaptor (KRP413AB1S) is also required for each indoor unit.
  - ★3 Timer clock and other devices ; obtained locally.
  - ★4 An interface adaptor (KRP928BB2S) is also required for each indoor unit.

## FFQ Series

|    | Option Name                                 | Model Name               |
|----|---------------------------------------------|--------------------------|
| 1  | Decoration Panel (required)                 | BYFQ60B8W1U              |
| 2  | Remote Controller (required)                | Wired Type ★1            |
|    |                                             | Wireless Type            |
| 3  | Sealing Member of Air Discharge Outlet      | KDBH44BA60               |
| 4  | Panel Spacer                                | KDBQ44BA60A              |
| 5  | Fresh Air Intake Kit                        | Direct Installation Type |
| 6  | Longlife Filter                             | KAFQ441BA60              |
| 7  | Central Remote Controller ★2                | DCS302C71                |
| 8  | Unified ON/OFF Controller ★2                | DCS301C71                |
| 9  | Schedule Timer ★2                           | DST301BA61               |
| 10 | Interface Adaptor for DIII-NET (SkyAir)     | DTA112BA51               |
| 11 | Adaptor for Wiring ★3                       | KRP1C75                  |
| 12 | Wiring Adaptor for Electrical Appendices ★3 | KRP4A74                  |
| 13 | Installation Box for Adaptor PCB            | KRP1BA101                |
| 14 | Remote Sensor                               | KRCS01-1B                |

- Note:**
- ★1 Wiring for wired remote controller should be obtained locally.
  - ★2 An interface adaptor (DTA112BA51) is also required for each indoor unit.
  - ★3 Installation box for adaptor PCB (KRP1BA101) is necessary.

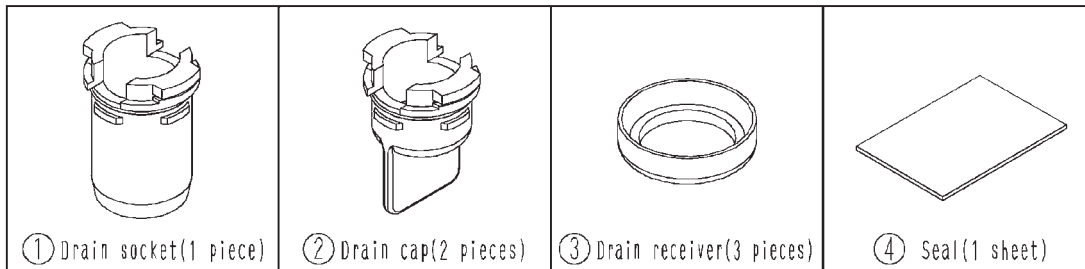
## 2. Options for Outdoor Unit

### 2.1 <KKPJ5F180> Drain Plug

#### Installation

- Use this plug to connect a drain hose to dispose the drain from the outdoor unit.

**1** Before Installation Check that this Kit contains the following parts.

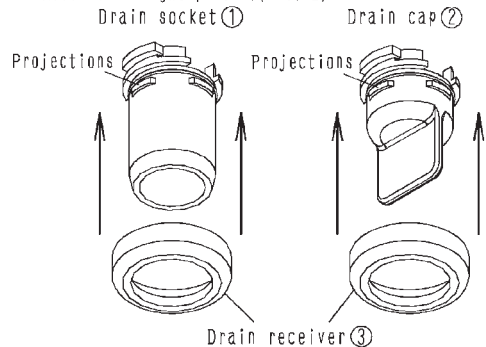


#### 2 Installation Procedure

• Please refer to the installation manual of outdoor unit.

1. Insert drain receiver③ onto drain socket① and drain cap② beyond 4 projections around drain socket and drain cap.

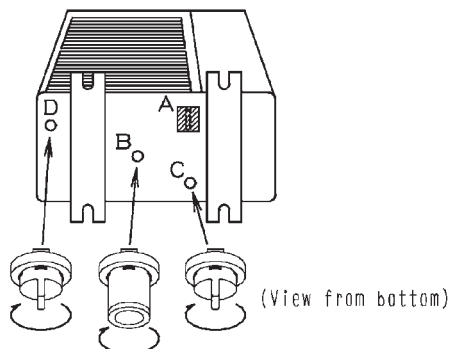
Refer to a right picture(Notes:2)



2. Insert drain socket and drain caps into their matching drain hole; Drain socket ① into drain hole B and drain caps ② into drain hole C and D. After insertion, turn them about 40° clockwise.

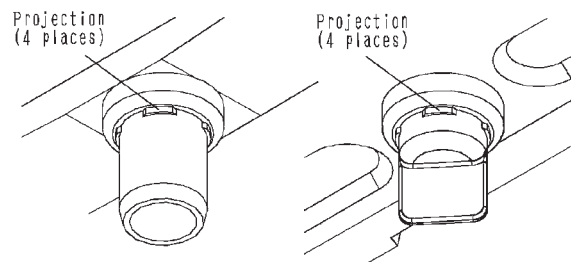
##### Note:1

Be sure to insert them into the correct drain holes or it will cause water leakage.



##### Note:2

Please check whether drain receiver③ is caught in four projections of drain socket① and drain cap② correctly. It will cause leakage if they are not attached correctly.



3. Connect vinyl hose on the market (internal diameter of 25mm) to drain socket ①. (If the hose is too long and hangs down, fix it carefully to prevent the kinks.)
4. Affix seals ④ to part A as shown on the above drawing. (It is unnecessary when it is the model which does not have opening in A.)
5. After join drain socket ① and drain cap ②, check if there are any leaks to A or other parts by pouring water.

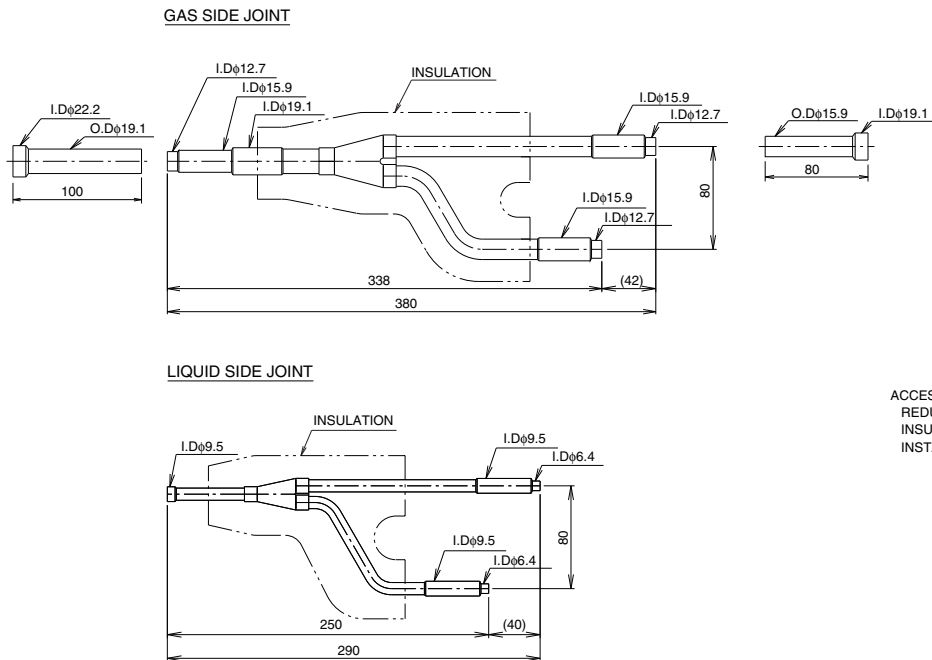
##### Note:3

1. If the drain holes of the outdoor unit are covered with the mounting bracket or the floor, raise the unit to provide a space of more than 100mm under the leg of the outdoor unit.
2. Do not use this option in the cold latitudes. At bottom frame, drained water is frozen.

### 3. Options for BP Unit

#### 3.1 <KHRP26A22T> REFNET Joint

##### Dimensions



ACCESSORY  
REDUCER : GAS SIDE : 2pcs  
INSULATION : 2pcs  
INSTALLATION MANUAL

D3K03622D

##### Installation

■ THIS KIT INCLUDES THE FOLLOWING PARTS.

| KIT NAME       | S H A P E      |                   |            |                                               |                            |
|----------------|----------------|-------------------|------------|-----------------------------------------------|----------------------------|
|                | GAS SIDE JOINT | LIQUID SIDE JOINT | INSULATION | REDUCER (FOR GAS PIPE)                        | REDUCER (FOR LIQUID PIPE)  |
| KHRP26M<br>22T |                |                   | <br>2 pcs. | <br>φ19.1    φ22.2                            |                            |
| KHRP26M<br>33T |                |                   | <br>2 pcs. | <br>φ22.2    φ25.4                            |                            |
| KHRP26M<br>72T |                |                   | <br>2 pcs. | <br>φ22.2    φ25.4/φ22.2    φ28.6x2 pcs.      | <br>φ15.9    φ19.1         |
| KHRP26M<br>73T |                |                   | <br>2 pcs. | <br>φ12.7    φ22.2    φ28.6    φ31.8    φ38.1 | <br>φ6.4    φ19.1    φ22.2 |

\*...Make sure gas side joint and liquid side joint are for R410A. (Label for R410A is attached on each part.)

**SELECTION PROCEDURE**

According to the INSTALLATION MANUAL of outdoor unit.

**INSTALLATION PROCEDURE**

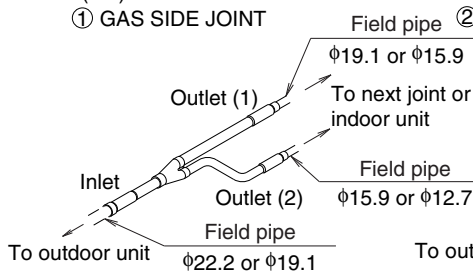
**1** The pipe size of each parts are shown below.

| KIT NAME       | GAS SIDE JOINT | LIQUID SIDE JOINT |
|----------------|----------------|-------------------|
| KHRP26M<br>22T |                |                   |
| KHRP26M<br>33T |                |                   |
| KHRP26M<br>72T |                |                   |
| KHRP26M<br>73T |                |                   |

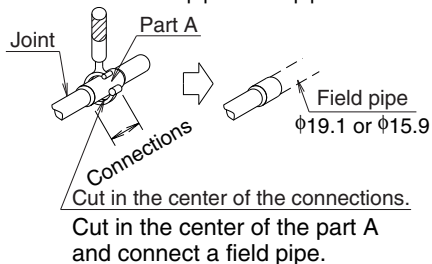
**2** According to SELECTION PROCEDURE, cut the pipe with a pipe cutter for use.

· (Ex.) FOR KHRP26M33T

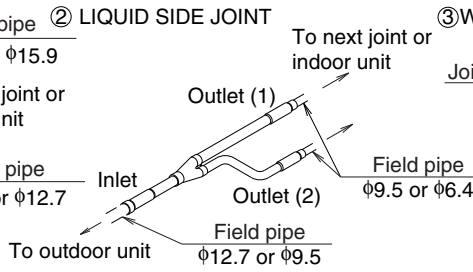
① GAS SIDE JOINT



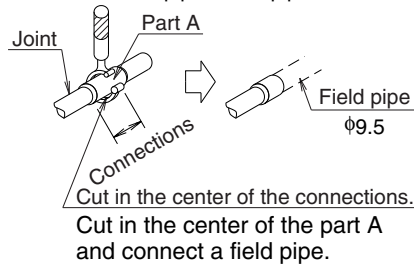
Note) For the size of inlet is φ19.1 or the size of outlet (1) is φ19.1, the size of outlet (2) is φ15.9.  
· Cut the pipe with a pipe cutter.



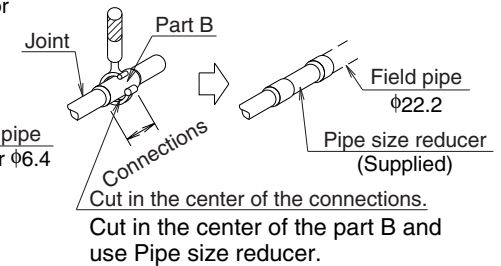
② LIQUID SIDE JOINT



Note) For the size of inlet is φ9.5 or the size of outlet (1) is φ9.5, the size of outlet (2) is φ9.5.  
· Cut the pipe with a pipe cutter.



③ When the gas side pipe size of outlet (1) is φ22.2.



· Make sure to flow nitrogen gas through the pipe when brazing.

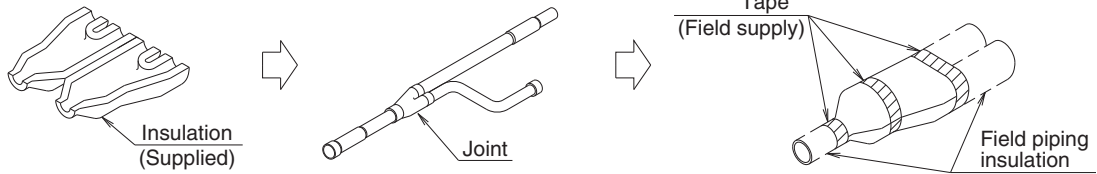
**3** Insulation of Joint

Be sure to insulate the gas side and liquid side Joint.

Note) The insulation of the refrigerant piping must be reinforced based on the environment of installation.

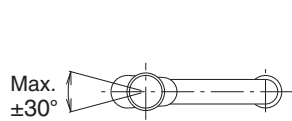
Otherwise, dew may condensate on the surface of the insulation. For details, see Engineering Data.

Seal the insulation and field piping insulation joint with the field supplied tape.

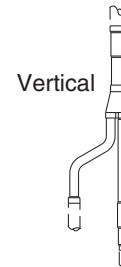
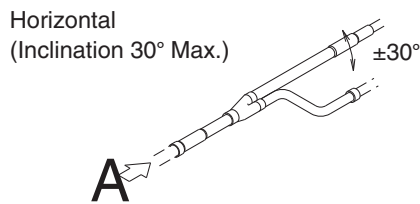


**INSTALLATION PRECAUTIONS**

- Install the Joint so that it is branched vertically or horizontally.



"A" ARROW VIEW



- Do not apply extra force on the piping part. The brazed part may be damaged and it may result in gas leakage.

# 4. Options for Indoor Unit

## 4.1 <KDT25N32/50/63> Insulation Kit for High Humidity

**Caution**

- This kit can be installed to the Ceiling mounted Built-in Type Air Conditioners. <Slim duct type>
- When the Installation box for adapter PCB(KPP1B101) is used together, mount this kit before Installation box.
- It is recommended to mount this kit before installing the indoor unit.

**Combination table**

| Kit name      |               |          |
|---------------|---------------|----------|
| KDT25N32      | KDT25N50      | KDT25N63 |
| FDXS09/12LVJU | CDXS15/18LVJU |          |

**Details of parts**

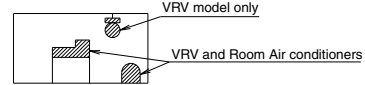
| Designation      | ① Top plate insulation (T-1)      | ② Top plate insulation (T-2)     | ③ Side plate insulation (S-1) | ④ Side plate insulation (S-2) |
|------------------|-----------------------------------|----------------------------------|-------------------------------|-------------------------------|
| Shape            |                                   |                                  |                               |                               |
| Number of pieces | 1 pc.                             | 1 pc.                            | 2 pcs.                        | 1 pc.                         |
| Designation      | ⑤ Bottom plate insulation (B-1)   | ⑥ Chamber cover insulation (C-1) |                               |                               |
| Shape            |                                   |                                  |                               |                               |
| Number of pieces | 1 pc.                             | 1 pc.                            |                               |                               |
| Designation      | ⑦ Hanger (right) insulation (H-1) | ⑧ Hanger (left) insulation (H-2) | ⑨ Installation manual         |                               |
| Shape            |                                   |                                  |                               |                               |
| Number of pieces | 1 pc.                             | 1 pc.                            | 1 pc. (This instruction)      |                               |

**① How to attach** ⚠ When moving the unit at or after opening, hold the unit by the hanger brackets. ⚠ Do not apply force to the refrigerant piping, drain piping or flange parts.

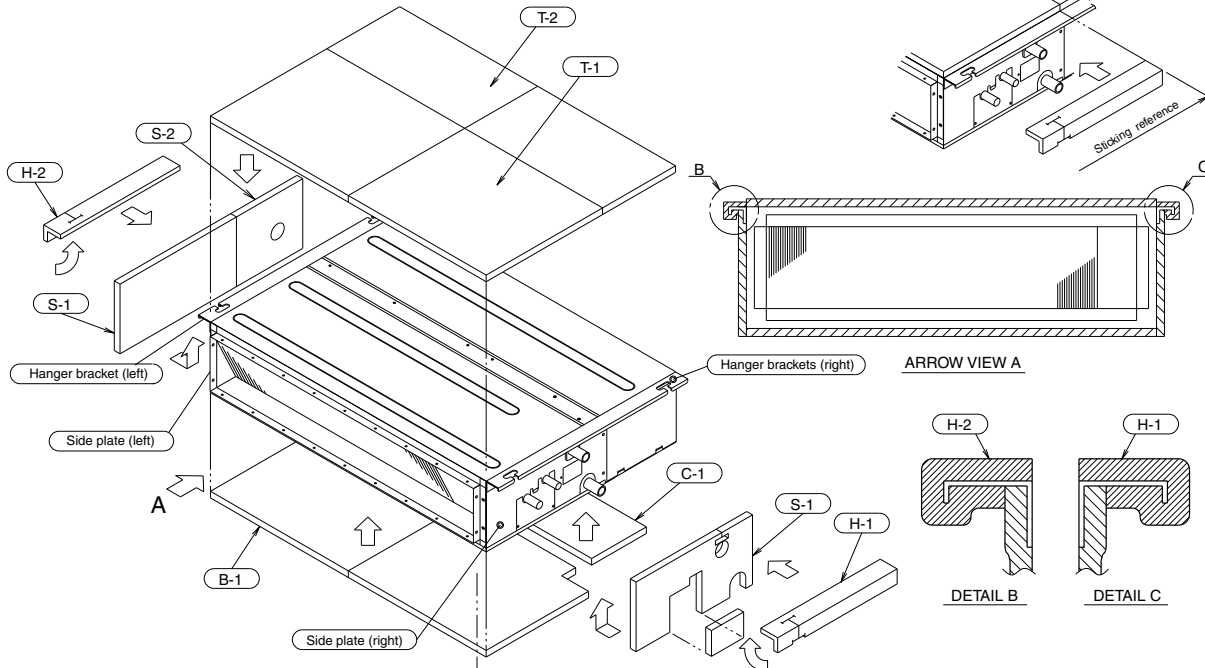
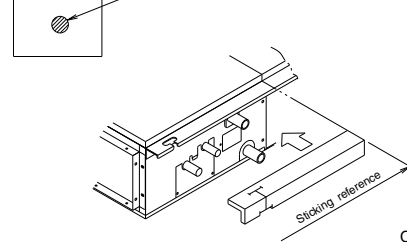
<Procedure> Stick the insulations carefully according to the following procedures and do not make a gap between the adjacent thermal insulations.

- (1) Stick the top plate insulation (T-1) . (T-2) to the indoor unit top plate.
- (2) Cut off the side plate insulation (S-1) following the score. (See the right figure)
- (3) Stick the side plate insulation (S-1) to the indoor unit right side plate.
- (4) Stick the side plate insulation (S-1) to the indoor unit left side plate without cutting off the area surrounded by the score.
- (5) Stick the side plate insulation (S-2) to the indoor unit left side plate.
- (6) Stick the bottom plate insulation (B-1) to the indoor unit bottom plate.
- (7) Stick the chamber cover insulation (C-1) to the indoor unit chamber cover.
- (8) Stick the hanger (left) insulation (H-2) and the hanger (right) insulation (H-1) to the left and right hangers respectively. (See the right figure for the sticking reference.)

Cut off the area shown with oblique lines and throw it away.



KDT25N50, KDT25N63 model only.



C: 3P131323-1E







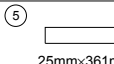
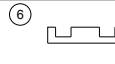



## 4.2 <KDBH44BA60> Sealing Member of Air Discharge Outlet

**Caution**

● Refer to the installation manual for both indoor unit and the decoration panel.

**Contents of kit**

Check the following parts are include with your kit.

| Name     | Sealing material                                                                  | Tape for fixing the sealing material                                                           | Insulation for side plate                                                                        |                                                                                                  |                                                                                                   | Moisture absorber for bell-mouth                                                    | Moisture absorber for swing flap                                                                  |
|----------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
|          |                                                                                   |                                                                                                | 1 piece                                                                                          | 1 piece                                                                                          | 1 piece                                                                                           |                                                                                     |                                                                                                   |
| Quantity | 2 pieces                                                                          | 2 pieces                                                                                       | 1 piece                                                                                          | 1 piece                                                                                          | 1 piece                                                                                           | 1 piece                                                                             | 3 pieces                                                                                          |
| Shape    |  |               | <br>100mm×179mm | <br>100mm×370mm | <br>100mm×1538mm |  | <br>25mm×361mm |
| Name     | Moisture absorber for swing flap                                                  | Moisture absorber for panel edge                                                               | Moisture absorber for attached point                                                             | Moisture absorber for flesh air intake                                                           |                                                                                                   |                                                                                     |                                                                                                   |
| Quantity | 3 pieces                                                                          | 3 pieces                                                                                       | 1 piece                                                                                          | 2 pieces                                                                                         |                                                                                                   |                                                                                     |                                                                                                   |
| Shape    |  | <br>8mm×450mm |                 | <br>50mm×20mm   |                                                                                                   |                                                                                     |                                                                                                   |

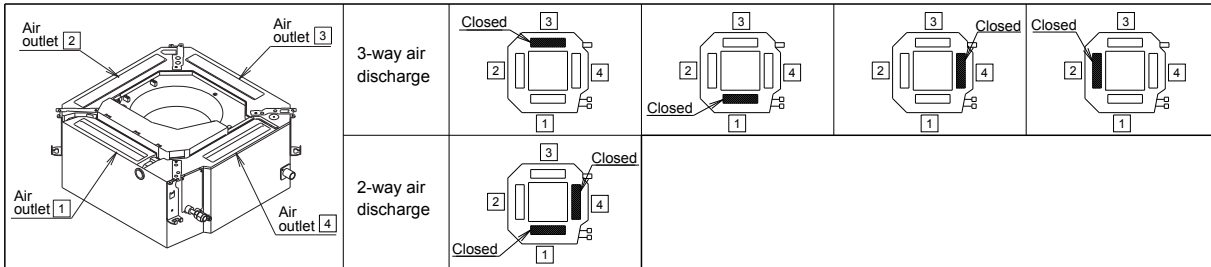
**1 The direction of air discharge and the positioning of sealing material**

(1) Selection of the air outlet

- Select the direction of air discharge from the following table according to the location of the indoor unit.
- Refer to **2 Setting for indoor unit** for setting position number.
- Refer to the installation manual attached to the indoor unit for selection of installation location.

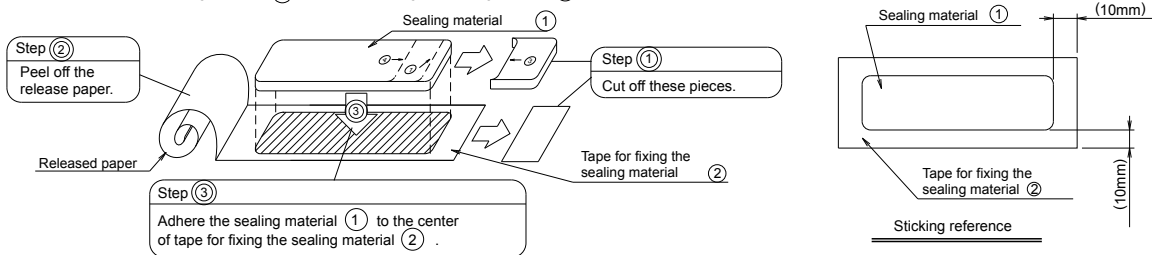
**Caution**

Never select the direction of air discharge other than the following pattern.  
(You may have a condensation problem.)



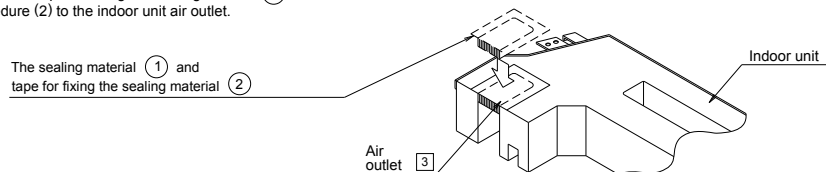
- (2) Prepare the sealing material **1** and the tape for fixing the sealing material **2** according to the air outlet No. to be closed.
- Cut off the sealing material **1** and the tape for fixing the sealing material **2** along the perforated lines (marked--).
  - Adhere the sealing material **1** to tape for fixing the sealing material **2**.
  - (Make sure that the sealing material **1** is placed at the center of the tape for fixing the sealing material **2**.)

Example) For closing the air outlet **3**  
□-<How to prepare the sealing material **1** and tape for fixing the sealing material **2** >



\*When closing the air outlet **2**, it is not required to cut off the sealing material **1** and tape for fixing the sealing material **2**.

- (3) Adhere the sealing material **1** and tape for fixing the sealing material **2** prepared according to the procedure (2) to the indoor unit air outlet.



Adhering the sealing material for air outlet



**2** Setting for indoor unit

It is required to make a field setting from the remote controller according to how the indoor units are installed. The direction of air discharge must also be set by the remote controller.

- The 3 different kinds of setting such as "Mode number", "The setting switch number" and "The setting position number" must be made by the remote controller.
- Refer to the item of "Field setting" in the operation manual of the remote controller for the setting procedure.  
Setting according to number of use of the air discharge.  
Check the setting position number corresponding to the direction of air discharge in a table, below.

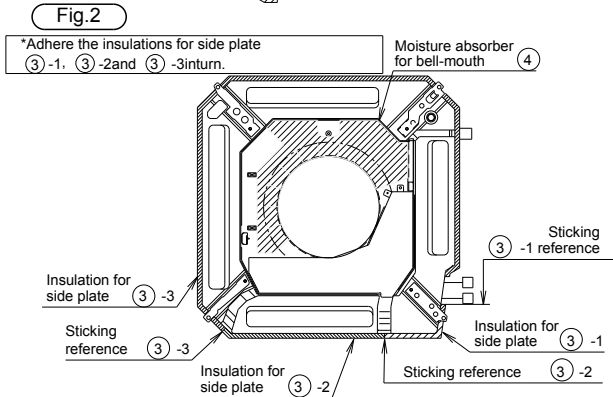
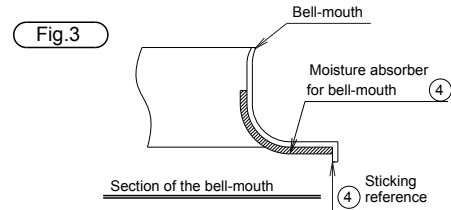
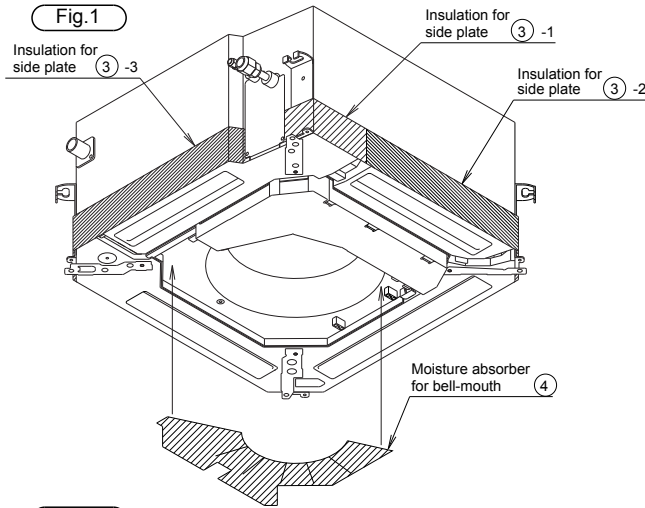
(Content of setting)

| (Number of use of air outlets) | Mode number | The setting switch number | The setting position number |
|--------------------------------|-------------|---------------------------|-----------------------------|
| 3-way air discharge            | 13(23)      | 1                         | 02                          |
| 2-way air discharge            |             |                           | 03                          |

**3** Installation of the insulation

Please turn off the power supply for safety absolutely, before you do installation of the decoration panel and affixation of insulation and connected work of swing connector.

- (1) Adhere the insulations for side plate (3) in position, referring (Fig.1) (Fig.2).
- (2) Adhere the moisture absorber for bell-mouth (4) on the inner surface of the bell-mouth.  
See (Fig.1) (Fig.2) (Fig.3).



- (4) Confirm the air outlet and number to remain open on the panel. See (Fig.4).
- (3) Confirm the air outlet and number to remain open on the panel. See (5) (6) aligning with the upper edge of the swing flap on the air outlet. And, adhere the moisture absorbers for panel edge (7) with the panel edge on the air outlet. See (Fig.5).
- (5) Confirm the air outlet and number to remain open on the panel. See (8) with the attached point to indoor unit between the air outlet (2) and (3). And, adhere the moisture absorbers for flesh air intake (9) with the flesh air intake hole. See (Fig.6).

Fig.4

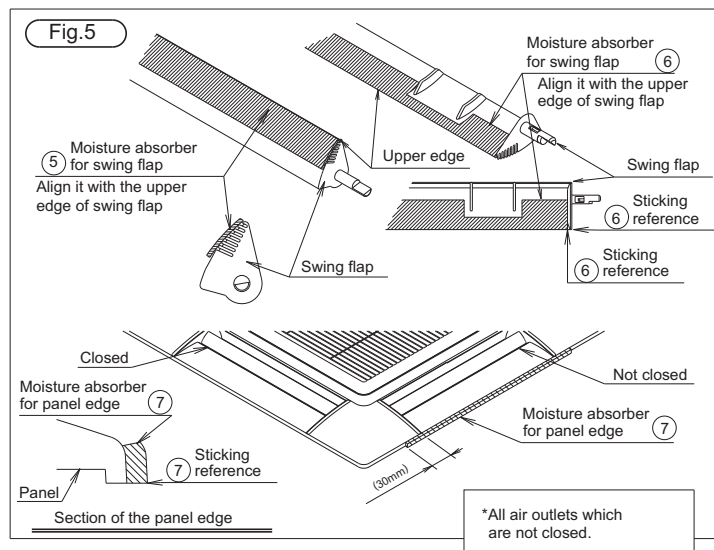
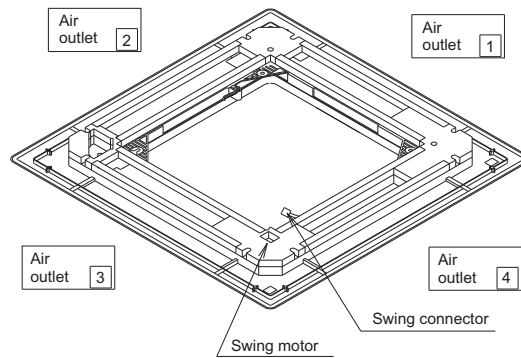
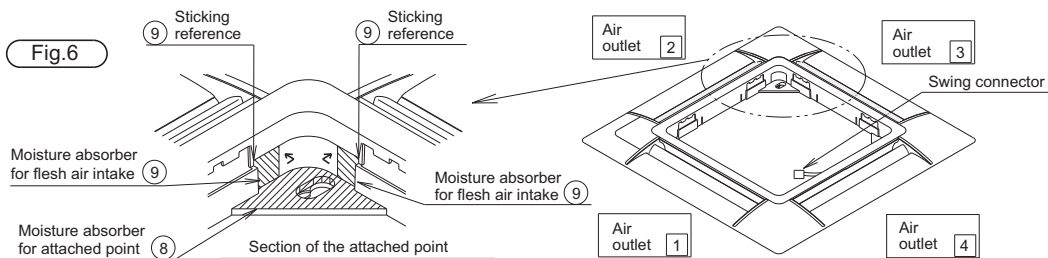


Fig.6



1P109292-1B

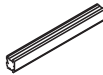



## 4.3 <KDBQ44BA60A> Panel Spacer

**Caution**

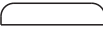
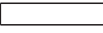
- When the Panel Spacer is installed, it is not possible to have 2-way air outlet.
- Refer to the installation manual for both indoor unit and the Panel spacer for its installation.

**Contents of kit**

Check if following parts are included with your kit.

| Name           | Panel spacer frame                                                                     | Resin corner part                                                                       | Fixing metal                                                                             | Screw                                                                                                                           |
|----------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Quantity       | 4 PCS.                                                                                 | 4 PCS.                                                                                  | 4 PCS.                                                                                   | 28 PCS.                                                                                                                         |
| Shape · number | ①<br> | ②<br> | ③<br> | ④<br><br>M4 12<br>Tapping screw<br>(Class 2) |

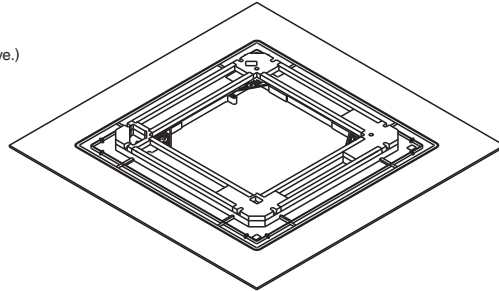
| Name           | Sealing material                                                                       |                                                                                         |
|----------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Quantity       | 2 PCS.                                                                                 | 2 PCS.                                                                                  |
| Shape · number | ⑤<br> | ⑥<br> |

### 1 Preparation of the decoration panel

Handle the decoration panel with care.

Never place the panel face down, or lean the panel against wall or place on the object.  
(It causes the dent or damage of the surface of the panel or damage of swing motor.)

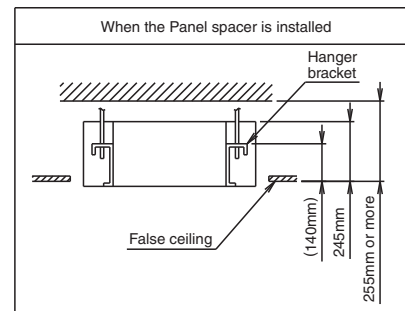
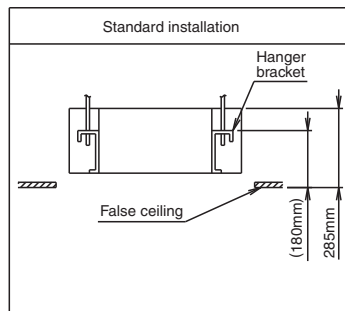
- (1) Remove the suction grill from the decoration panel.  
(Refer to the installation manual of the decoration panel how to remove.)
- (2) Place the panel face down on the corrugated board or the vinyl sheet to protect the surface of the panel.



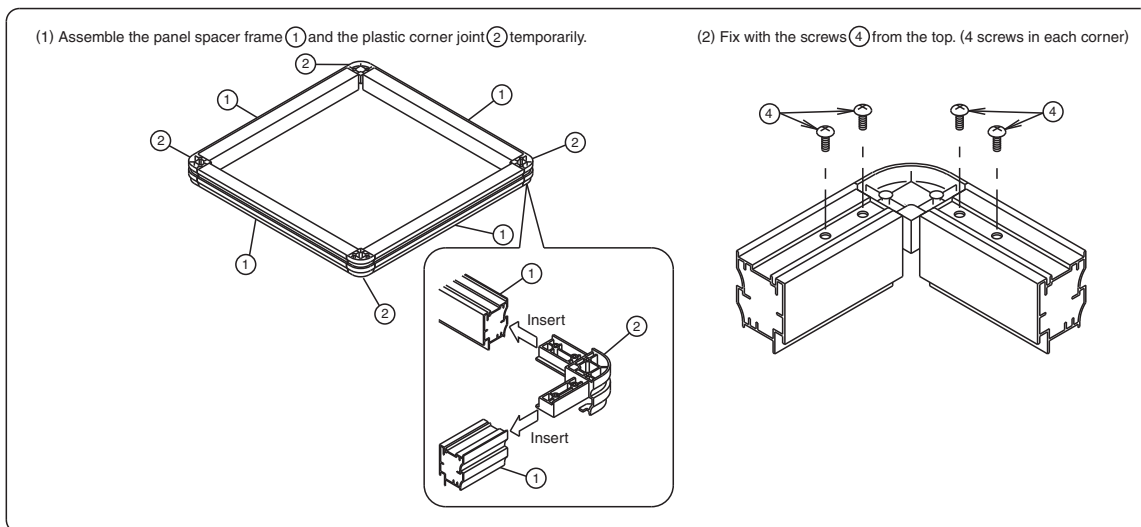
### 2 Installation of the indoor unit

Adjust the height of the indoor unit.

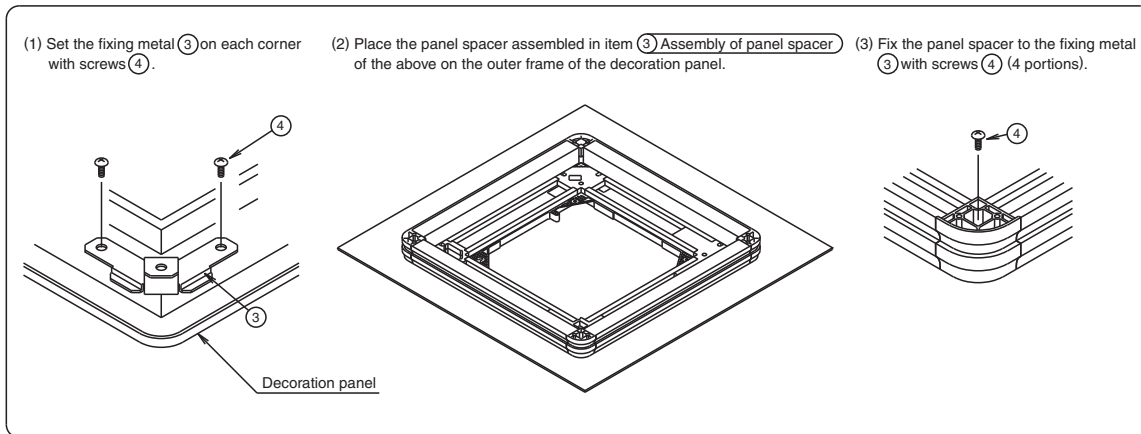
Be sure the piping will not contact with the ceiling joist etc. after adjusting the height.



**3** Assembly of panel spacer

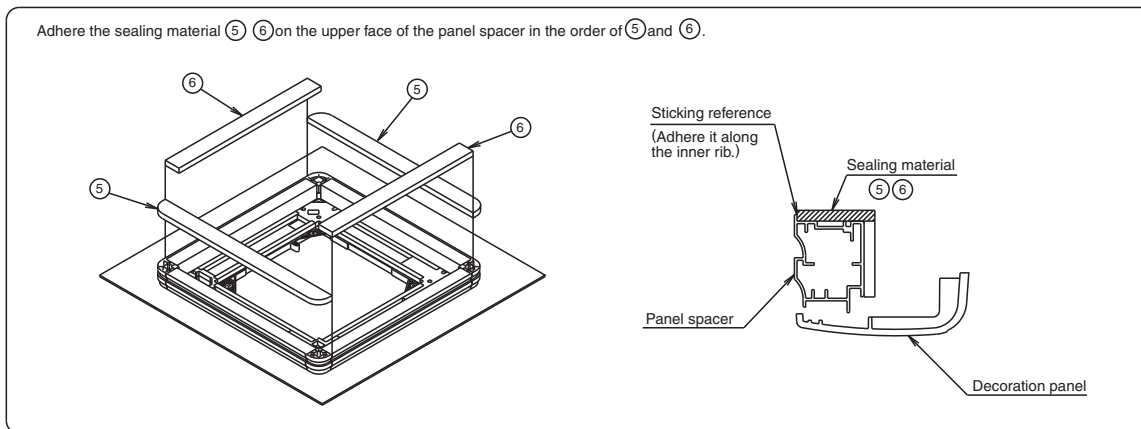


**4** Fixing to the decoration panel



**5**

**5** Adhesion of the sealing material



**6** Installation of the decoration panel

Install the decoration panel to the indoor unit according to the installation manual of decoration panel.

The panel spacer is not firmly fixed to the decoration panel, so never hold the panel spacer directly or lean

## 4.4 <KDDQ44XA60> Fresh Air Intake Kit






### Remarks :

1. This kit can be installed to the Ceiling mounted cassette type (Multi-flow).
2. When installing this kit, duct (Nominal dia. :  $\phi 100$ ) is required on site.

- In case that metal duct is penetrated through wooden walls, make sure the duct and the wall are electrically insulated.
- Install the duct inclined downwardly to outdoor so that the rain cannot get into the duct. (Inclination 1/100 to 1/50)
- To avoid birds, small animals or insects getting inside the duct, make sure to install net where it contacts the outside air.

### Contents

Prior to installation, make sure you have the complete kit of parts.

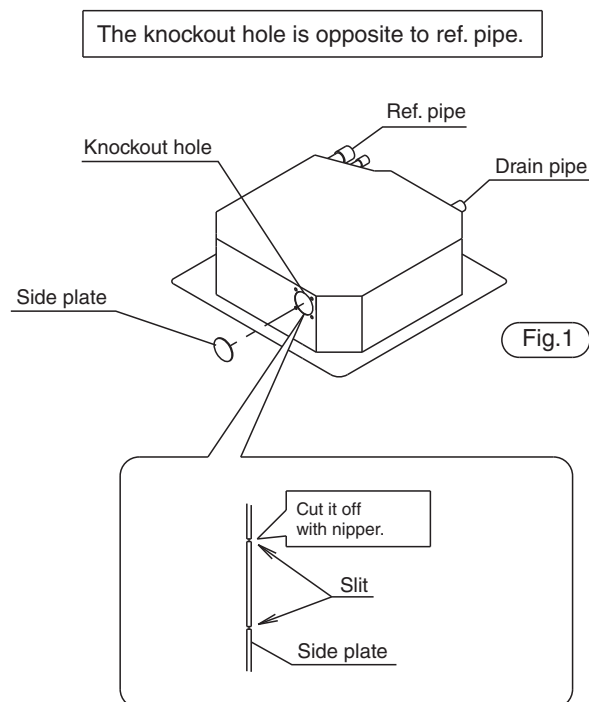
| Name  | ① Duct flange                                                                     | ② Screws                                                                                   | ③ Insulation for duct flange                                                      | ④ Insulation for opening of unit                                                    | ⑤ Installation manual                                                               |
|-------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Q'ty  | 1 piece                                                                           | 4 pieces                                                                                   | 1 piece                                                                           | 1 piece                                                                             | 1 piece                                                                             |
| Shape |  | <br>M4 12 |  |  |  |

### Necessary tools

Philips head screw driver, nipper, cutter etc.

## 1 Installation procedures of duct flange

1. Cut off the knockout hole on the side plate. (Fig.1)



2. Adhere the insulation ④ for opening of unit to the opening. (Fig. 2)

Attach the insulation ④ designed to fit the hole in the indoor unit.

Attach the insulation ④ without concealing the screw hole of the indoor unit.

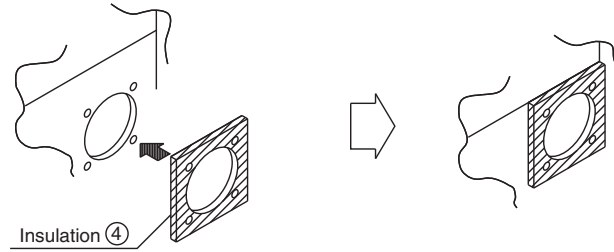


Fig. 2

3. Install the duct flange ① with screws ② (M4\*12, 4 screws) to the opening and adhere the insulation ③ (Fig. 3)

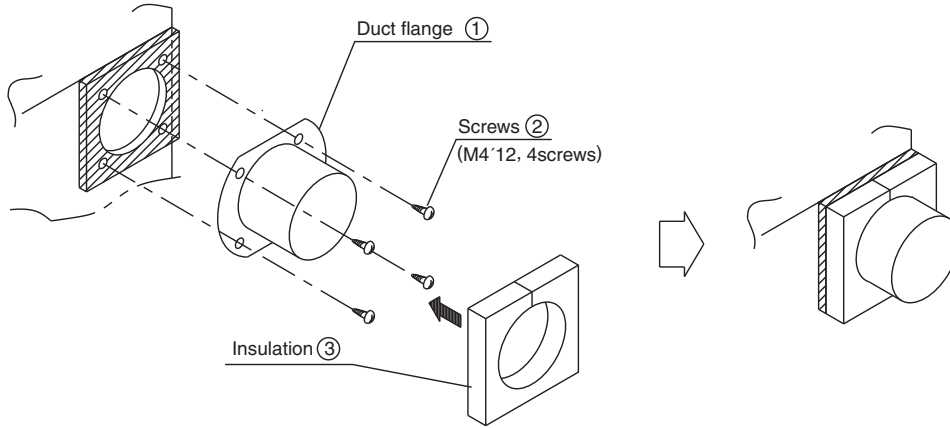


Fig. 3

2 Installation procedures of duct <Nominal diameter of duct :  $\phi 100$ >

1. Connect the duct to the duct flange. (Flange fits inside the duct.) (Fig. 4)

2. After connection, wrap vinyl tape (field supply) around the duct connection to prevent air leak.

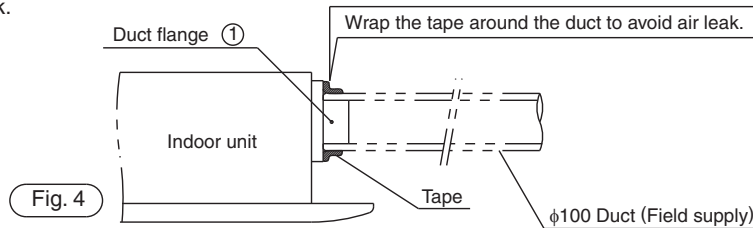


Fig. 4

Precaution

- All ducts must be completely insulated.
- Never do the following when installing duct:

- A) Never bend the duct excessively    B) Never bend the duct too many times    C) Never reduce the duct diameter



WRONG



WRONG



WRONG

## 5. Control Devices

### 5.1 <DCS302C71> Central Remote Controller

#### 5.1.1 Installation Manual

Please read these "SAFETY CONSIDERATIONS" carefully before installing air conditioning equipment and be sure to install it correctly. After completing the installation, make sure that the unit operates properly during the start-up operation. Please instruct the customer on how to operate the unit and keep it maintained. Also, inform customers that they should store this installation manual along with the operation manual for future reference. This air conditioner comes under the term "appliances not accessible to the general public".

Meaning of warning, caution and note symbols.

- ⚠ WARNING** ..... Indication a potentially hazardous situation which, if not avoided, could result in death or serious injury.  
**⚠ CAUTION** ..... Indication a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.  
**⚠ NOTE** ..... Indication situation that may result in equipment or property-damage-only accidents.

### ⚠ WARNING

**Ask your dealer or qualified personnel to carry out installation work. Do not try to install the machine by yourself.**  
 Improper installation may result in water leakage, electric shocks or fire.

**Perform installation work in accordance with this installation manual.**  
 Improper installation may result in water leakage, electric shocks or fire.

**Be sure to use only the specified accessories and parts for installation work.**  
 Failure to use the specified parts may result in water leakage, electric shocks, fire or the unit falling.

**Carry out the specified installation work after taking into account strong winds, typhoons or earthquakes.**  
 Improper installation work may result in the equipment falling and causing accidents.

**Make sure that a separate power supply circuit is provided for this unit and that all electrical work is carried out by qualified personnel according to local laws and regulations and this installation manual.**  
 An insufficient power supply capacity or improper electrical construction may lead to electric shocks or fire.

**Make sure that all wiring is secured, the specified wires and used, and no external forces act on the terminal connections or wires.**  
 Improper connections or installation may result in fire.

**When wiring the power supply and connecting the remote controller wiring and transmission wiring, position the wires so that the electric parts box lid can be securely fastened.**  
 Improper positioning of the electric parts box lid may result in electric shocks, fire or the terminals overheating.

**Before touching electrical parts, turn off the unit.**

**Ground the air conditioner. Do not connect the ground wire to gas or water pipes, lightning rod or a telephone ground wire.**  
 Incomplete grounding may result in electric shocks.

**When installing or relocating the system, be sure to keep the refrigerant circuit free from substances other than the specified refrigerant (R410A), such as air.**

**Do not reconstruct or change the settings of the protection devices.**  
 If the pressure switch, thermal switch, or other protection device is shorted and operated forcibly, or parts other than those specified by Daikin are used, fire or explosion may result.

**Do not touch the switch with wet fingers.**  
 Touching a switch with wet fingers can cause electric shock.

**Install a leak circuit breaker, as required.**  
 If a leak circuit breaker is not installed, electric shock may result.

**Do not install the air conditioner or the remote controller in the following locations:**

- (a) where a mineral oil mist or an oil spray or vapor is produced, for example in a kitchen  
 Plastic parts may deteriorate and fall off or result in water leakage.
- (b) where corrosive gas, such as sulfurous acid gas, is produced  
 Corroding copper pipes or soldered parts may result in refrigerant leakage.
- (c) near machinery emitting electromagnetic waves  
 Electromagnetic waves may disturb the operation of the control system and result in a malfunction of the equipment.
- (d) where flammable gases may leak, where there are carbon fiber or ignitable dust suspensions in the air, or where volatile flammables such as thinner or gasoline are handled.  
 Operating the unit in such conditions may result in fire.

### ⚠ CAUTION

**Be very careful about product transportation.**

**Safely dispose of the packing materials.**  
 Packing materials, such as nails and other metal or wooden parts, may cause stabs or other injuries.  
 Tear apart and throw away plastic packaging bags so that children will not play with them. If children play with a plastic bag which was not torn apart, they face the risk of suffocation.

**Do not turn off the power immediately after stopping operation.**  
 Always wait at least five minutes before turning off the power. Otherwise, water leakage and trouble may occur.

### ⚠ NOTE

**Install the indoor and outdoor units, power supply wiring and connecting wires at least 3.5ft. away from televisions or radios in order to prevent image interference or noise.**  
 (Depending on the radio waves, a distance of 3.5ft. may not be sufficient enough to eliminate the noise.)

**Remote controller (wireless kit) transmitting distance can result shorter than expected in rooms with electronic fluorescent lamps.(inverter or rapid start types)**  
 Install the indoor unit as far away from fluorescent lamps as possible.

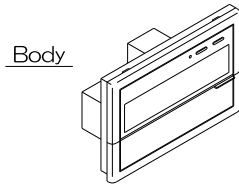
**This unit is a class A product.**  
 In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

**Dismantling of the unit, treatment of the refrigerant, oil and eventual other parts, should be done in accordance with the relevant local and national regulations.**

# 1 COMPONENTS

Check the following components are included in this optional accessory before installation.

|                              |   |
|------------------------------|---|
| Installation screw (M4 x 16) | 4 |
| Operation manual             | 1 |
| Installation manual          | 1 |
| Installation table           | 1 |

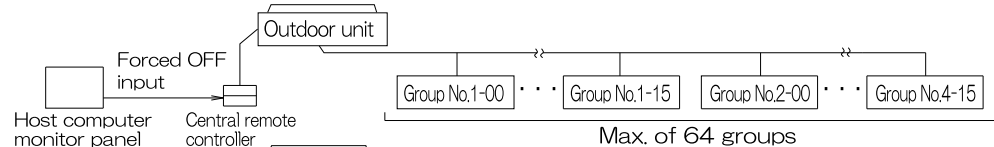


When using this optional accessory an electric parts box of KJB31 1A is required. For installation, a steel electric parts box to be embedded is mandatory.

# 2 SYSTEM CONFIGURATION

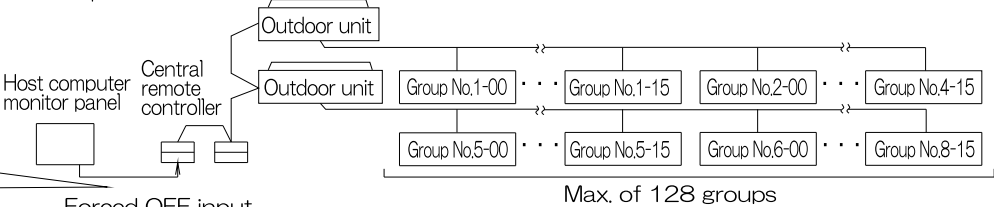
With the central remote controller, unified operation/stop is possible with up to a maximum 64 groups of indoor units. When using 2 central remote controllers, unified operation is possible with up to a maximum 128 groups. With this optional accessory, setting of control modes including operation, stop, operation controlled by timer, and ON/OFF control possible/impossible by remote controller can be set individually by zones while it enables to control and display the operation state such as set temperature. It can be connected with the external key system, host computer monitor panel, etc., through forced OFF input (no-voltage normally open contactor). A zone is a one or more groups together. In general, the same settings are used throughout a zone.

- When using 1 central remote controller



- When using 2 central remote controller

Forced ON/OFF command should be connected to one of the two units.

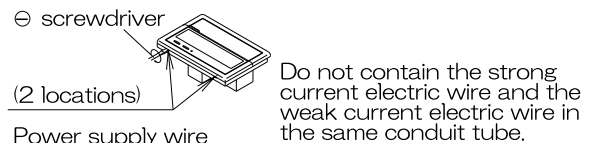


The central remote controller and the separately sold remote control adapter circuit board or group remote control adapter cannot be used together. See the D-BACS design guide for details.

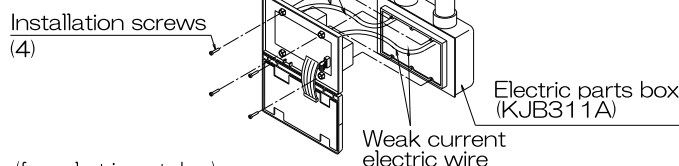
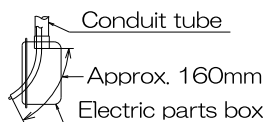
# 3 INSTALLATION

- (1) Open the upper part of remote controller. Insert a ⊖ screwdriver (2 locations) into the recess between the upper part and the lower part of remote controller and twist the screwdriver lightly.

PC board is attached with both the upper and lower part of remote controller. Do not damage the board with the screwdriver.



- (2) Open the upper part of remote controller and install the Electric parts box with the attached installation screws (M4 x 16).



NOTE) Suitable length of the electric wire is about 160mm. (from electric parts box) If it is difficult to contain a long wiring, strip the sheathed part of the wiring.



# 4 INITIAL SETTING

Setting (1) through (3) are initialized when power is turned ON, therefore complete settings BEFORE activating the power. (The positions of connectors and switches used for settings in this section are shown in Fig. 1.)

- Connector for setting master controller (X1A) (Provided with connector at factory set)
  - When using only 1 central remote controller, do not disconnect the connector for setting master controller. (Use the unit with the connector in the state in which it was delivered.)
  - When using multiple central remote controllers, or using the central remote controller in conjunction with the optional controllers for centralized control, makes settings as indicated in the below table.

| Pattern of connection of optional controllers for centralized control |                           |                | Connector for setting master controller (X1A) Setting, Removed |                           |                |
|-----------------------------------------------------------------------|---------------------------|----------------|----------------------------------------------------------------|---------------------------|----------------|
| Central remote controller                                             | Unified ON/OFF controller | Schedule timer | Central remote controller                                      | Unified ON/OFF controller | Schedule timer |
| 1 to 4                                                                | 1 to 16                   | 1              | Set one to "Used" and all the rest to "Not used"               | Set all to "Not used"     | "Not used"     |
|                                                                       |                           | 1              |                                                                |                           | "Not used"     |

(Remove all the connectors for the central remote controller, the on/off controller, and the schedule timer when using the unit together with the Ve-UP controller, the master station II, the DMS interface, the payment management unit, or the parallel interface station.)

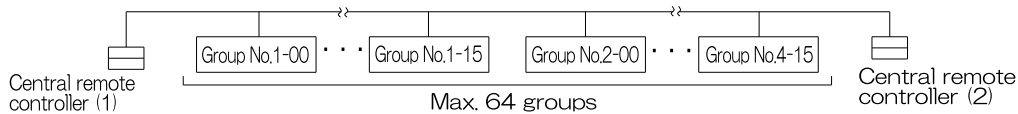
- Address setting

Two central remote controllers can be used as shown in **2 SYSTEM CONFIGURATION**, to control anywhere up to a max. 128 groups of indoor units. In this case, group address must be set. This is done with the switch for setting each address (SS3).

| SS3 setting                         | Indoor unit address                                       | SS3 setting                         | Indoor unit address                                       |
|-------------------------------------|-----------------------------------------------------------|-------------------------------------|-----------------------------------------------------------|
| SETTING EACH ADDRESS<br>5-00 ~ 8-15 | To control indoor units from group Nos. 1-00 through 4-15 | SETTING EACH ADDRESS<br>5-00 ~ 8-15 | To control indoor units from group Nos. 5-00 through 8-15 |

- MAIN/SUB changeover switch setting

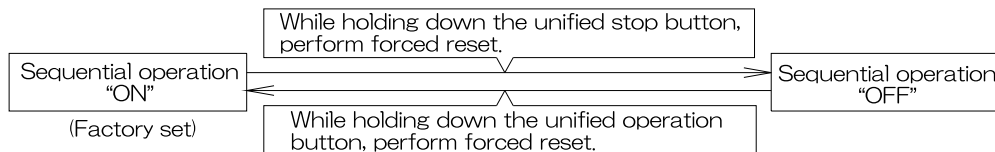
With two central remote controllers, centralized control (indoor units) is possible from different locations. In this kind of set-up, it is necessary to set the MAIN/SUB changeover switch.



One of the two central remote controllers (1) . (2) is set to "MAIN" while the other is set to "SUB".

- Setting of the sequential operation function

The central remote controller is equipped with a sequential operation function that sequentially turns indoor units on in 2-second intervals during unified operation. (Sequential operation is factory set to "ON.") To switch sequential operation ON or OFF, set as follows.



NOTE: The sequential operation function is designed to reduce the load on the power supply equipment, but does not guarantee that compressors will not be started simultaneously. You cannot therefore count on a capacity reduction effect by power supply equipment breaker selection.

- Forced reset switch

When changing the setting of the connector for setting master controller, etc., you can reset simply by setting it to the reset side once and returning to the normal side, without turning the power OFF. (For normal operation, set the switch to the normal side.)

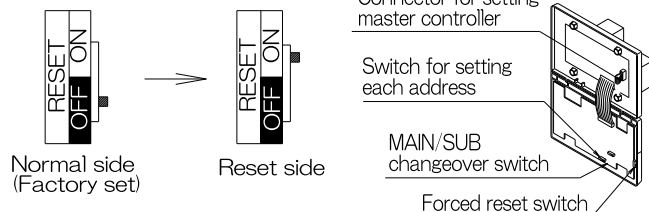
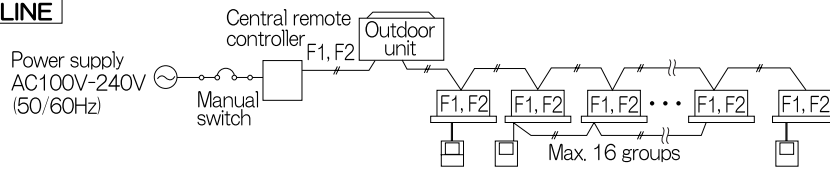


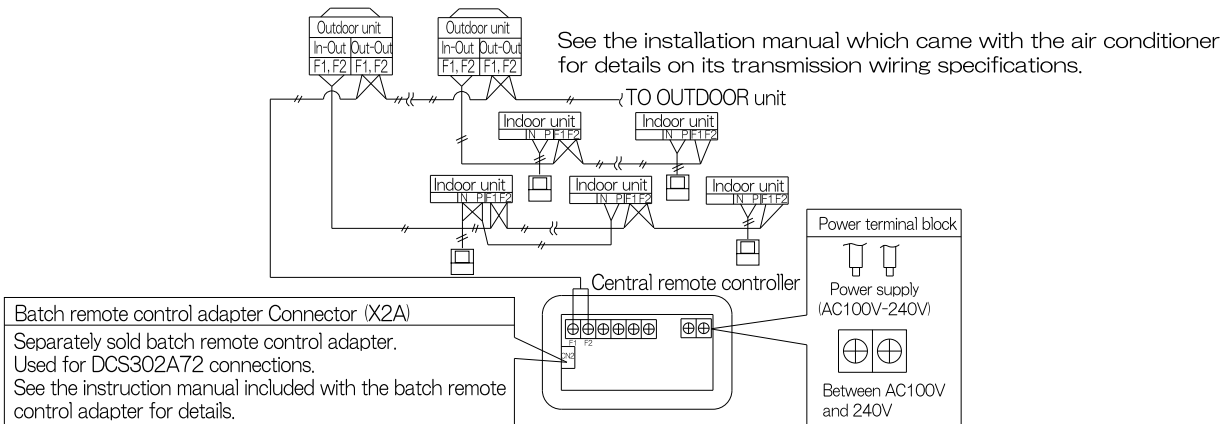
Fig. 1

# 5 ELECTRIC WIRING

## WIRING OUTLINE



## WIRING TO THE INDOOR UNIT AND OUTDOOR UNIT



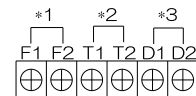
### Wiring specifications

|                                 |                                                                                                                                       |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Power supply wiring             | 2mm <sup>2</sup>                                                                                                                      |
| Transmission wiring for control | 0.75 – 1.25 mm <sup>2</sup> sheathed vinyl cord or cable (balanced type) – maximum length 1000 m (total overall wiring length 2000 m) |
| Manual switch                   | 10A or 15A                                                                                                                            |

Wire the indoor units to the outdoor units and between all power, indoor units, and remote controllers. See the instruction manual included with the indoor and outdoor units for details.

### CONTROL TERMINAL STRIP

- \*1 For connecting Indoor unit (F1, F2)
- \*2 Forced OFF input (T1, T2)  
 None of the indoor units connected to the forced OFF input contact (non-voltage contact with minimal current) will operate when it is shut off.  
 Use only contactors which guarantee the minimum applicable load DC 16V, 10mA.  
 T1 → | DC16V      NOTE) Use instantaneous contactor of over 200m sec. energizing time, when necessary.  
 T2 → |
- \*3 For schedule timer (D1, D2)  
 Power can be supplied to the schedule timer (DST301B61) separately sold. For details, refer to the installation manual of the schedule timer.  
 Wire \*2 and \*3 only when necessary.



### (NOTE)

Do not connect the power supply wiring (100 to 240V) to the control terminal strip. If connected by mistake, it may damage or burn electrical parts of optional controllers for centralized control and indoor unit. It may result in serious danger. Be sure to check wirings before turning the power ON.

## 6 SETTING GROUP NO. FOR CENTRALIZED CONTROL

Set the group number of each group of the indoor unit from the remote controller. (In case of no remote controller, also connect the remote controller and set the group No. Then, remove the remote controller.)

(1) Turn ON the power of the indoor unit and central remote controller.

(Unless the power is ON, no setting can be made.)

Check that the installation and electrical wiring are correct before turning the power supply ON.

(When the power supply is turned ON, all LCD appear once and the unit may not accept the operation for about one minute with the display of "gg".)

(2) While in the normal mode, hold down the "TEST" button for a minimum of 4 seconds.

The remote controller will enter the FIELD SET MODE.

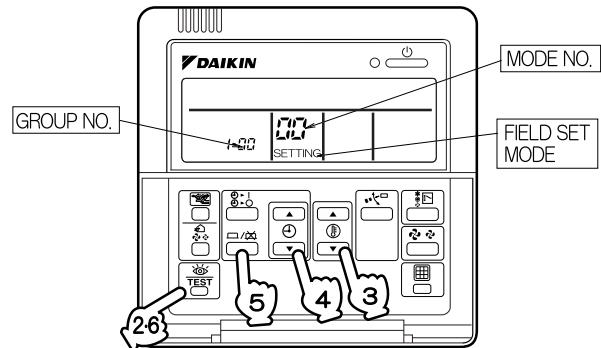
(3) Select the MODE No. "00" with the "MODE" button.

(4) Use the "GROUP" button to select the group No. for each group.

(Group numbers increase in the order of 1-00,1-01,...1-15, 2-00,...8-15.)

(5) Press "OK" to set the selected group No.

(6) Press "EXIT" to return to the NORMAL MODE.



NOTES) • For simplified remote controller, see the installation table.

- See the instruction manuals which came with the Ventiair and adapters (i.e., multi-purpose adapters) for details on their Group No. settings.

NOTICE Enter the group No. and installation place of the indoor unit into the installation table in the operation manual. Be sure to keep the operation manual for maintenance.

## 7 TEST OPERATION (Perform a test operation in the individual screen before registering zones.)

Before starting test operation, check that the power is supplied to the indoor and outdoor units, and central remote controller.

(1) Select the display "INDIVIDUALLY"

Press "INDIVIDUAL" button to display "INDIVIDUALLY"

(2) Select the group to be tested.

Select the group No. with "←" "→" "↑" "↓" button.

(3) Press "TEST" button to select the test operation mode.

"TEST" is displayed.

"HOST" is displayed on the remote controller.

(4) Press "TEST" button within 10 seconds after entering into the test operation mode.

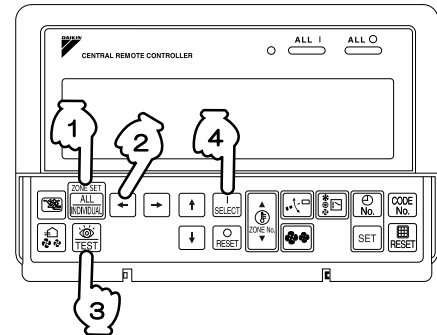
Operation the unit for 30 minutes.

When pressing the "TEST" button, the unit stops operating.

If the operation lamp flashes, it indicates a malfunction.

Call the group of flashing display, confirm malfunction code, and check the source of malfunction.

(The operation manual lists all error codes, so refer to it.)



NOTES) • For test operation, refer to the installation manual of the outdoor unit.

- After turning the power supply ON, if the unit does not accept operation for two minutes or more with the display of "gg", check the following points.
  - Check that setting of the connector for setting master controller is correct.
  - Check that the group No. for centralized control has been set.

5.1.2 Operation Manual

**BEFORE USE**

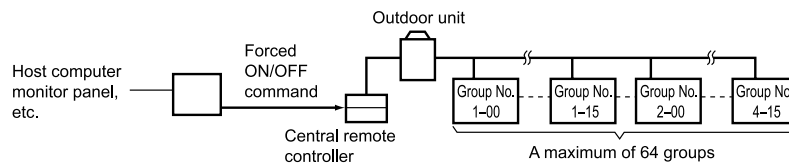
**■ GENERAL DESCRIPTION OF SYSTEM**

This central remote controller can monitor and control up to 64 indoor unit groups.  
Using two central remote controllers allows monitoring and controlling of up to 128 indoor unit groups.

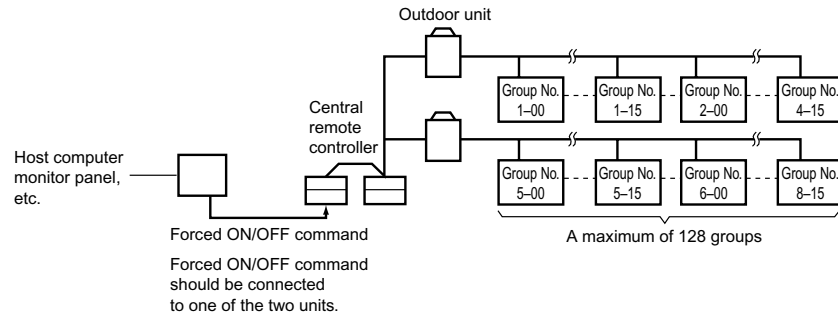
Main Functions

1. Batch starting and stopping of indoor units connected to the central remote controller.
2. Handling of operation settings such as start/stop, timer operation, remote controller prohibition/permission, etc., and operation status settings such as temperature.
3. Operation status monitoring of operation mode, set temperature, etc.
4. Can be connected to an external central monitor panel and key system using the forced stop input (non-voltage a connector).

- When using 1 central remote controller



- When using 2 central remote controllers

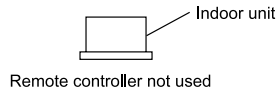


(The central remote controller and the separately sold remote control adapter circuit board or group remote control adapter cannot be used together.)

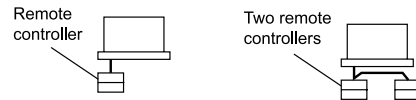
\* GROUP OF INDOOR UNIT refers to the below.

1. A single indoor unit without remote controller

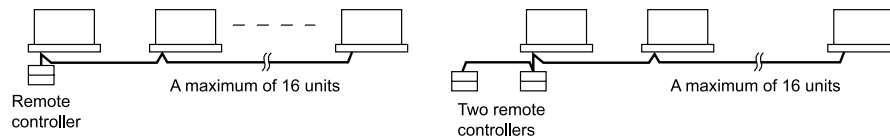
1. A single indoor unit without remote controller



2. A single indoor unit controlled by one or two remote controllers

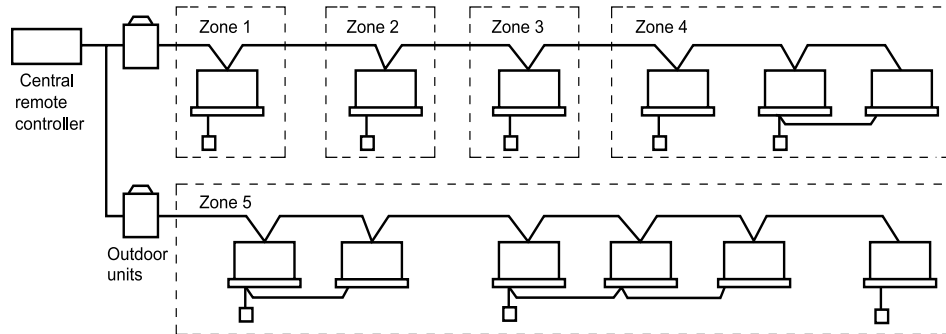


3. Maximum of 16 indoor units, group-controlled by one or two remote controllers



\* Zone control from the central remote controller

Zone control is available from the central remote controller. With it, it is possible to make unified settings for multiple groups, so setting operations are greatly simplified.



- Any setting you make within a given zone will apply to all groups in the said zone.
- A maximum of 64 zones can be set from a single central remote controller. (Each zone contains a maximum of 64 groups.)
- Zones can be set randomly from the central remote controller.

## SAFETY CONSIDERATIONS

Please read these "SAFETY CONSIDERATIONS" carefully before installing air conditioning equipment and be sure to install it correctly.

After completing the installation, make sure that the unit operates properly during the start-up operation. Please instruct the customer on how to operate the unit and keep it maintained.

Also, inform customers that they should store this installation manual along with the operation manual for future reference. This air conditioner comes under the term "appliances not accessible to the general public".

Meaning of danger, warning, caution and note symbols.

**! DANGER** ..... Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

**! WARNING** .... Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**! CAUTION** .... Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

**! NOTE** ..... Indicates situation that may result in equipment or property-damage-only accidents.

**Keep these warning sheets handy so that you can refer to them if needed.**

Also, if this equipment is transferred to a new user, make sure to hand over this operation manual to the new user.

### **! DANGER**

- Any abnormalities in the operation of the air conditioner such as smoke or fire could result in severe injury or death. Turn off the power and contact your dealer immediately for instructions.
- Do not install the unit in an area where flammable materials are present due to risk of explosion resulting in serious injury or death.
- Safely dispose of the packing materials. Packing materials, such as nails and other metal or wooden parts, may cause stabs or other injuries. Tear apart and throw away plastic packaging bags so that children will not play with them. Children playing with plastic bags face the danger of death due to suffocation.

### **! WARNING**

- Ask your dealer for installation of the air conditioner. Incomplete installation performed by yourself may result in a water leakage, electric shock, and fire.
- Ask your dealer for improvement, repair, and maintenance. Incomplete improvement, repair, and maintenance may result in a water leakage, electric shock, and fire.
- Improper installation or attachment of equipment or accessories could result in electric shock, short-circuit, leaks, fire or other damage to the equipment. Be sure only to use accessories made by Daikin which are specifically designed for use with the equipment and have them installed by a professional.
- Ask your dealer to move and reinstall the air conditioner or the remote controller. Incomplete installation may result in a water leakage, electric shock, and fire.
- Never let the indoor unit or the remote controller get wet. It may cause an electric shock or a fire.

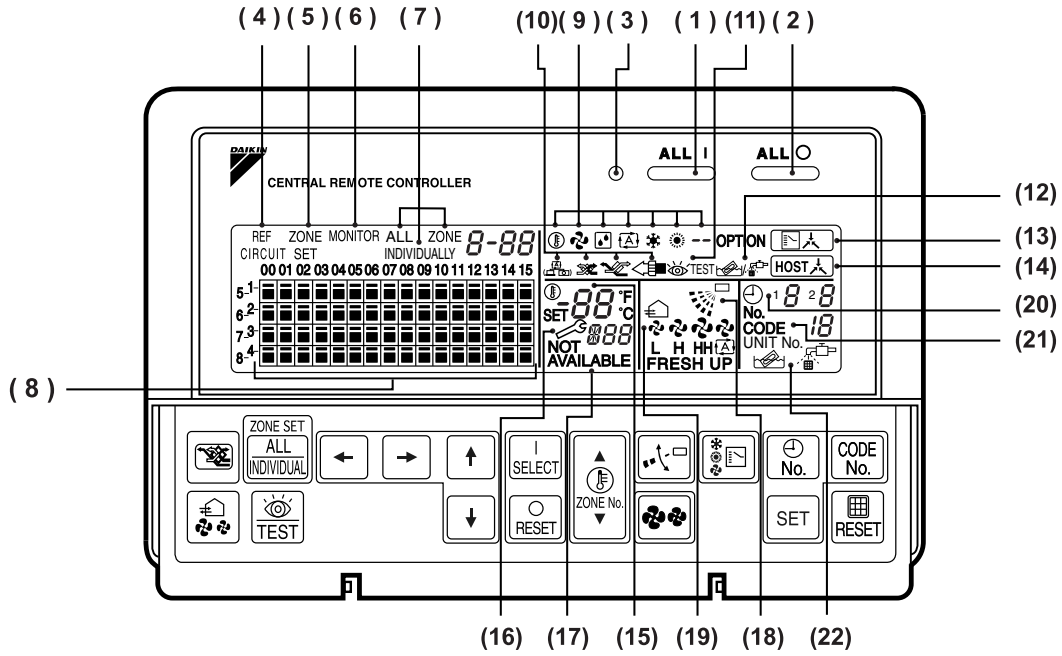


Fig. 1

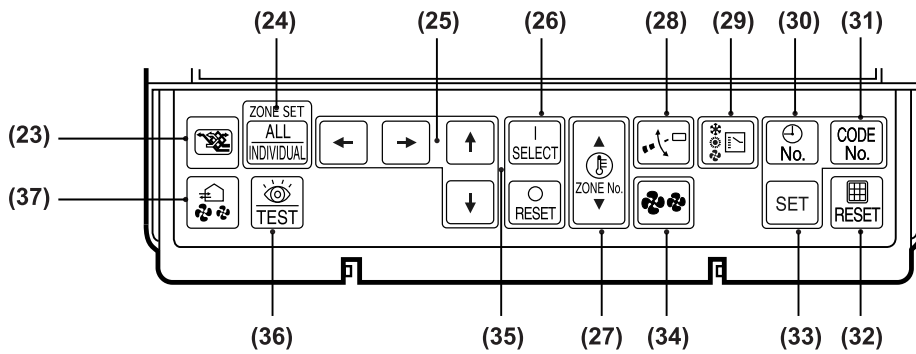


Fig. 2

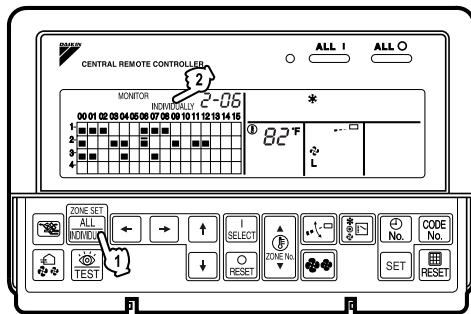


Fig. 3

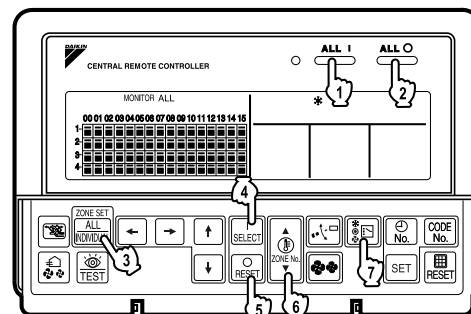


Fig. 4

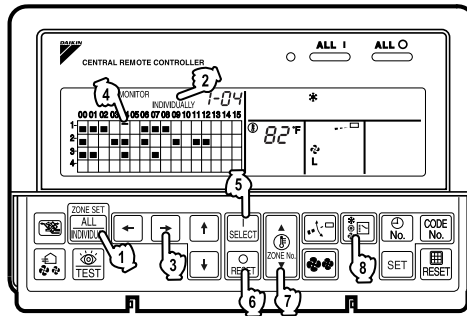


Fig. 5

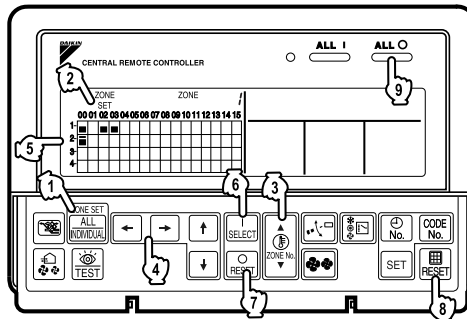


Fig. 6

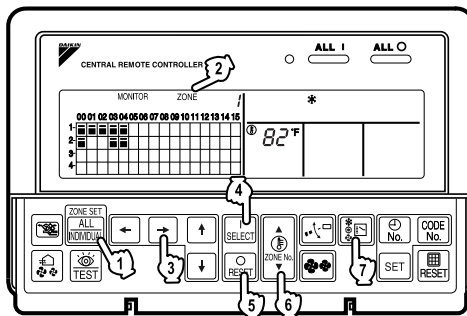


Fig. 7

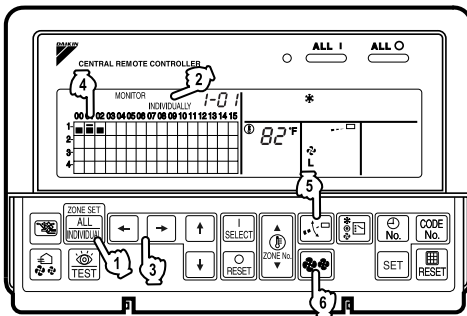


Fig. 8

- **Never use flammable spray such as hair spray, lacquer or paint near the unit.**  
It may cause a fire.
- **Do not allow children to play on or around the unit as they could be injured.**
- **Never replace a fuse with that of wrong ampere ratings or other wires when a fuse blows out.**  
Use of wire or copper wire may cause the unit to break down or cause a fire.
- **Never inspect or service the unit by yourself.**  
Ask a qualified service person to perform this work.
- **Cut off all electric waves before maintenance.**
- **Do not wash the air conditioner or the remote controller with excessive water.**  
Electric shock or fire may result.
- **Do not touch the switch with wet fingers.**  
Touching a switch with wet fingers can cause electric shock.
- **Never touch the internal parts of the controller.**  
Do not remove the front panel because some parts inside are dangerous to touch. In addition, some parts may be damaged by touching. For checking and adjusting internal parts, contact your dealer.
- **Check the unit stand for damage on a continuous basis, especially if it had been in use for a long time.**  
If left in a damaged condition the unit may fall and cause injury.
- **Placing a flower vase or other containers with water or other liquids on the unit could result in a shock hazard or fire if a spill occurs.**

**CAUTION**

- **Avoid placing the controller in a spot splashed with water.**  
Water coming inside the machine may cause an electric leak or may damage the internal electronic parts.

- **Do not operate the air conditioner when using a room fumigation - type insecticide.**  
Failure to observe could cause the chemicals to become deposited in the unit, which could endanger the health of those who are hypersensitive to chemicals.
- **Do not turn off the power immediately after stopping operation.**  
Always wait at least five minutes before turning off the power. Otherwise, water leakage and trouble may occur.
- **The appliance is not intended for use by young children or infirm persons without supervision.**
- **The remote controller should be installed in such a way that children cannot play with it.**

**NOTE**

- **Never press the button of the remote controller with a hard, pointed object.**  
The remote controller may be damaged.
- **Never pull or twist the electric wire of the remote controller.**  
It may cause the unit to malfunction.
- **Do not place the controller exposed to direct sunlight.**  
The LCD display may get discolored, failing to display the data.
- **Do not wipe the controller operation panel with benzine, thinner, chemical dustcloth, etc.**  
The panel may get discolored or the coating peeled off. If it is heavily dirty, soak a cloth in water-diluted neutral detergent, squeeze it well and wipe the panel clean. And wipe it with another dry cloth.
- **Dismantling of the unit, treatment of the refrigerant, oil and eventual other parts, should be done in accordance with the relevant local and national regulations.**

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## FEATURES AND FUNCTIONS

### ■ Operation menu

This central remote controller can operate and stop machines by either group or zone.  
Batch operation and batch stop functions are also available. When used in combination with the schedule timer (optional accessory), timer operation and stop functions are available.



See page  
8—12.

### ■ Various operation modes.

You can operate the system from both this unit and the remote controller, so to enable various operation control patterns. Twenty different operation modes are available including five operation patterns:

1. Start/stop: remote controller prohibition, remote controller stop-only permission, central priority, after-press priority, remote controller permission timer
2. Operation modes: remote controller prohibition, remote controller permission
3. Set temperature: remote controller prohibition, remote controller permission



See page  
13—15.

### ■ Zone control for simpler setting procedures

You can control a maximum of 64 groups of indoor units by using this central remote controller. You don't have to repeat the same setting operations by group because you can make each of the following settings by zone.

A functions is available for setting all groups in one batch.

- Operation mode
- Control mode
- Setting temperature
- Programming time No. (Used in conjunction with the schedule timer)



See page  
8—16.

### ■ Monitoring all indoor unit information

The following information can be displayed by group.

- Operation information such as operation mode, set temperature, etc., for indoor units
- Maintenance information such as cleaning signs for filters or elements
- Error codes and other malfunction diagnosis information



See page  
16—21.

### ■ Function of refrigerant system display























This display helps you understand, at a glance, the indoor units sharing the same outdoor unit and the particular indoor unit among them that is set as the master remote controller.





See page 20.

- Room air conditioners and multi-purpose air conditioners may also be connected by using separately-sold adapter boards.  
This may limit functionality, so consult the manuals that come with each adapter board.

**NAMES AND FUNCTIONS OF THE OPERATING SECTION (Fig. 1, 2)**

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                        |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | <b>UNIFIED OPERATION BUTTON</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Press to operate all indoor units.                                                                                                                     |
|    | <b>UNIFIED STOP BUTTON</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Press to stop all indoor units.                                                                                                                        |
| 3  | <b>OPERATION LAMP (RED)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Lit white any of the indoor units under control is in operation.                                                                                       |
|    | <b>“<sup>REF</sup><sub>CIRCUIT</sub>” DISPLAY (REFRIGERANT SYSTEM DISPLAY)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | This indication in the square is lit while the refrigerant system is being displayed.                                                                  |
| 5  | <b>“<sup>ZONE</sup><sub>SET</sub>” DISPLAY (ZONE SETTING)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | The lamp is lit while setting zones.                                                                                                                   |
|    | <b>“MONITOR” DISPLAY (OPERATION MONITOR)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | The lamp is lit while operation is being monitored.                                                                                                    |
| 7  | <b>“ALL” “ZONE” “INDIVIDUALLY” DISPLAY</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | The status displays indicates either batch functions or which zone or individual unit (or group) are being used.                                       |
|    | <b>OPERATION MONITOR</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Each square displays the state corresponding to each group.                                                                                            |
| 9  | <b>“” “” “” “” “” “” “--”</b> | <b>DISPLAY (OPERATION MODE)</b><br>Displays operating state.                                                                                           |
|    | <b>“” “” “” “”</b>                                                                                                                                                                                  | <b>DISPLAY (VENTILATION CLEANING DISPLAY)</b><br>This is displayed when a Ventiair total enthalpy heat exchanger unit or other such unit is connected. |
| 11 | <b>“TEST” DISPLAY (INSPECTION/TEST)</b>                                                                                                                                                                                                                                                                                                                                                                                                                      | Pressing the maintenance/test run button (for service) displays this. This button should not normally be used.                                         |
|    | <b>“/” “”</b>                                                                                                                                                                                                                                                                                                                                                             | <b>DISPLAY (TIME TO CLEAN)</b><br>It lights up when any individual unit (group) has reached the time for the filter or element to be cleaned.          |
| 13 | <b>“” DISPLAY (COOLING/HEATING SELECTION PRIVILEGE NOT SHOWN)</b>                                                                                                                                                                                                                                                                                                                                                                                              | For zones or individual units (groups) for which this is displayed, cooling and heating cannot be selected.                                            |
|    | <b>“HOST” DISPLAY (UNDER HOST COMPUTER INTEGRATED CONTROL)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | While this display is lit up, no settings can be made. It lights up when the upper central machines are present on the same air conditioning network.  |
| 15 | <b>“<sup>SET</sup>88°F” DISPLAY (PRESET TEMPERATURE)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Displays the preset temperature.                                                                                                                       |
|    | <b>“ 114” DISPLAY (MALFUNCTION CODE)</b>                                                                                                                                                                                                                                                                                                                                                                                                                       | This displays (flashes) the content of errors when an error failure has occurred. In maintenance mode, it displays the latest error content.           |
| 17 | <b>“NOT AVAILABLE” DISPLAY (NO FUNCTION DISPLAY)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | If a function is not available in the indoor unit even if the button is pressed, “NOT AVAILABLE” is may be displayed for a few seconds.                |
|    | <b>“” DISPLAY (FAN DIRECTION SWING DISPLAY)</b>                                                                                                                                                                                                                                                                                                                                                                                                              | This displays whether the fan direction is fixed or set to swing.                                                                                      |
| 19 | <b>“” “” “” “” “” “FRESH UP”</b>                                                                           | <b>DISPLAY (VENTILATION STRENGTH/SET FAN STRENGTH DISPLAY)</b><br>This displays the set fan strength.                                                  |
|    | <b>“ No.” DISPLAY (TIME NO.)</b>                                                                                                                                                                                                                                                                                                                                                                                                                             | Displays the operation timer No. when used in conjunction with the schedule timer.                                                                     |

|    |                                                                                                                                                                                                                                                                                            |  |  |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
|    | “ <b>CODE UNIT No. 18</b> ” <b>DISPLAY (OPERATION CODE AND UNIT NUMBER DISPLAY)</b>                                                                                                                                                                                                        |  |  |
| 21 | The method of operation (remote controller prohibited, central operation priority after-press operation priority, etc.) is displayed by the corresponding code. This displays the numbers of any indoor units which have stopped due to an error.                                          |  |  |
| 22 | “  ” “  ” <b>DISPLAY (TIME TO CLEAN AIR CLEANER ELEMENT/ TIME TO CLEAN AIR FILTER)</b>                                   |  |  |
|    | Displayed to notify the user it is time to clean the air filter or air cleaner element of the group displayed.                                                                                                                                                                             |  |  |
| 23 | <b>VENTILATION MODE BUTTON</b>                                                                                                                                                                                                                                                             |  |  |
|    | This is pressed to switch the ventilation mode of the total enthalpy heat exchanger.                                                                                                                                                                                                       |  |  |
| 24 | <b>ALL/INDIVIDUAL BUTTON</b>                                                                                                                                                                                                                                                               |  |  |
|    | Pressing this button scrolls through the “all screen”, “zone screen”, and “individual screen”.                                                                                                                                                                                             |  |  |
| 25 | <b>ARROW KEY BUTTON</b>                                                                                                                                                                                                                                                                    |  |  |
|    | This button is pressed when calling an individual indoor unit or a zone.                                                                                                                                                                                                                   |  |  |
| 26 | <b>ON/OFF BUTTON</b>                                                                                                                                                                                                                                                                       |  |  |
|    | Starts and stops ALL, ZONE, and INDIVIDUAL units.                                                                                                                                                                                                                                          |  |  |
| 27 | <b>TEMPERATURE ADJUSTMENT BUTTON (ZONE NUMBER BUTTON)</b>                                                                                                                                                                                                                                  |  |  |
|    | This button is pressed when setting the temperature. Select the zone number if any zones have been registered.                                                                                                                                                                             |  |  |
| 28 | <b>FAN DIRECTION ADJUSTMENT BUTTON</b>                                                                                                                                                                                                                                                     |  |  |
|    | This button is pressed when setting the fan direction to “fixed” or “swing”.                                                                                                                                                                                                               |  |  |
| 29 | <b>OPERATION MODE SELECTOR BUTTON</b>                                                                                                                                                                                                                                                      |  |  |
|    | This sets the operation mode. The dry setting cannot be done.                                                                                                                                                                                                                              |  |  |
| 30 | <b>TIME NO. BUTTON</b>                                                                                                                                                                                                                                                                     |  |  |
|    | Selects time No. (Use in conjunction with the schedule timer only).                                                                                                                                                                                                                        |  |  |
| 31 | <b>CONTROL MODE BUTTON</b>                                                                                                                                                                                                                                                                 |  |  |
|    | Selects control mode.                                                                                                                                                                                                                                                                      |  |  |
| 32 | <b>FILTER SIGN RESET BUTTON</b>                                                                                                                                                                                                                                                            |  |  |
|    | This button is pressed to erase the “clean filter” display after cleaning or replacement.                                                                                                                                                                                                  |  |  |
| 33 | <b>SET BUTTON</b>                                                                                                                                                                                                                                                                          |  |  |
|    | Sets control mode and time No.                                                                                                                                                                                                                                                             |  |  |
| 34 | <b>FAN STRENGTH ADJUSTMENT BUTTON</b>                                                                                                                                                                                                                                                      |  |  |
|    | Pressing this button scrolls through “weak”, “strong”, and “fast”.                                                                                                                                                                                                                         |  |  |
| 35 | <b>ZONE SETTING BUTTON</b>                                                                                                                                                                                                                                                                 |  |  |
|    | Zone registration mode can be turned on and off by pressing the start and stop buttons simultaneously for at least four seconds.                                                                                                                                                           |  |  |
| 36 | <b>INSPECTION/TEST RUN BUTTON (FOR SERVICE)</b>                                                                                                                                                                                                                                            |  |  |
|    | Pressing this button scrolls through “inspection”, “test run”, and “system display”. This button is not normally used.                                                                                                                                                                     |  |  |
| 37 | <b>VENTILATION STRENGTH ADJUSTMENT BUTTON</b>                                                                                                                                                                                                                                              |  |  |
|    | This button is pressed to switch the ventilation strength (“fresh up”) of the total enthalpy heat exchanger.                                                                                                                                                                               |  |  |
|    | (Notes)                                                                                                                                                                                                                                                                                    |  |  |
|    | 1. Please note that all the displays in the figure appear for explanation purposes or when the cover is open.                                                                                                                                                                              |  |  |
|    | 2. If the unit is used in conjunction with other optional central controllers, the OPERATION LAMP of the unit that is not under operation control may light up and go out a few minutes behind schedule. This shows that the signal is being exchanged, and does not indicate any failure. |  |  |


## OPERATION

### ■ Individual screen, all screen, zone screen (Fig. 3)

This controller can perform operations in the individual screen, all screen, or zone screen.

- Individual screen The individual screen is used when performing group operations.
- All screen The all screen is used when performing operations for all units at once.
- Zone screen The zone screen is used when performing zone operations.

#### 1. Select the screen by pressing the “ALL/INDIVIDUAL” button.

 Every time the “ALL/INDIVIDUAL” button is pressed, the selection scrolls through INDIVIDUAL → ALL → ZONE.

If nothing is done in the all or zone screens for one minute, it automatically goes to the individual screen.

- If the zone number in the zone screen is displayed as "--," this indicates that no units are registered in a zone.  
Please perform zone registration before proceeding in the zone screen. (See page 9)

### ■ Batch operation and stop method (Fig. 4)

This is for operating or stopping all connected units at once.

#### A. What to do when operating or stopping all connected units at once.


##### 1. Press either "ALL I" or

 "ALL O".


- Operation can be performed from the individual screen, the all screen, or the zone screen.
- The "TEMPERATURE ADJUSTMENT" and "OPERATION MODE SELECTOR" buttons cannot be used.  
To set the temperature and operation mode, use B. batch operation.

#### B. Batch Operation


##### 1. Press the "ALL/INDIVIDUAL button" to enter the all screen.

The "

##### 2. Press the "SELECT" button.



The "

 Press the "RESET" button.

The "

Operation and stop in the batch screen are done the same as with the batch operation and batch stop buttons.

##### 3. Press the "TEMPERATURE ADJUSTMENT" button.

The temperature rises 1° every time the () button is pressed.  
The temperature drops 1° every time the () button is pressed.

Set to "--" when you do not wish to use batch setting for the temperature setting.

Setting to 1° above or below the temperature setting range displays "--".

##### 4. Call up the desired mode by pressing the "OPERATION MODE SELECTOR" button.

Set to "--" when you do not wish to use batch setting for the operation setting.

### ■ Group operation and stop method (Fig. 5)

This is for operating or stopping connected units in groups.

#### [Group operation]

##### 1. Press the "ALL/INDIVIDUAL button"

to enter the  individual screen.

The unit will enter the individual screen automatically if nothing is done for one minute.


##### 2. Using the arrow keys, move the

"


to select the units to operate or stop. Keeping the button pressed down will move it rapidly.

The "


##### 3. Press the "SELECT" button.


The "

 Press the "RESET" button.

The "

##### 4. Press the "TEMPERATURE ADJUSTMENT" button.

The temperature rises 1° every time the () button is pressed.

The temperature drops 1° every time the () button is pressed.

Temperature adjustment cannot be done if the selected group's air conditioners are in fan mode.

##### 5. Call up the desired mode by pressing the "OPERATION MODE SELECTOR" button.

### ■ Registering zones (Fig. 6)

It is possible to set multiple groups as one zone and control each zone separately.


No zones are registered when the unit is shipped from the factory.

Zone registration can be done in the individual screen, all screen, or zone screen.

#### [Registration]

##### 1. Pressing the "ALL/INDIVIDUAL" button for four seconds. Displays ZONE SET.

Zone Number 1 will be displayed, and if there are any groups already registered in the displayed

zone, a "

2. Select the Zone Number to be registered using the “ZONE NUMBER” button. Keeping the button pressed down will move it rapidly.
3. “” to the group you wish to register using the arrow keys. Keeping the button pressed down will move it rapidly.
4. Press the “SELECT” button to register that group to the zone.

The “” display lights up on all the selected units.

Pressing the “RESET” button removes the group from that zone, and “” goes off.

Repeat steps 3 and 4 until all the units you wish to register to the zone have been added.

|    | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1- | ■  |    | ■  | ■  |    |    |    |    |    |    |    |    |    |    |    |    |
| 2- | ■  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 3- |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 4- |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

In this example, a screen is shown with units 1-00, 1-02, 1-03, and 2-00 registered to Zone Number 1.

5. Repeat steps 2 to 4 to register to the next zone.
6. Once zone registration is complete, press the “ALL/INDIVIDUAL” button to turn off “ZONE SET” display and return to the individual screen.

The display returns to the normal screen if nothing is done for one minute when in zone registration mode.

(NOTE)

- It is impossible to register one group to several different zones. If this is done, the last zone registered to will be valid.

#### [Batch deletion of zone registration]

1. Pressing the “ALL ○” for at least four seconds while pressing the “FILTER SIGN RESET” button when “ZONE SET” is displayed will delete all zone registrations. The zone registrations for all units will be lost.

#### ■ Zone operation and stop method (Fig. 7)

This is for operating or stopping connected units in zones.

#### [Zone operation]

1. Press the “ALL/INDIVIDUAL button” to enter the zone screen.
2. Using the arrow keys, select the zone number to operate or stop.

Pressing and reduces the zone number

while and raise the number.

Keeping the button pressed down will move it rapidly.

- If the zone number is displayed as “---,” this indicates that no units are registered in a zone. Please perform zone registration before using a zone. (See page 9)

3. Press the “SELECT” button.

The “” display lights up in the group.

Press the “RESET” button.

The “” display goes off in the group.

4. Press the “TEMPERATURE ADJUSTMENT” button.

The temperature rises 1° every time the (▲) button is pressed.

The temperature drops 1° every time the (▼) button is pressed.

Set to “--” when you do not wish to use zone setting for the temperature setting.

Setting to 1° above or below the temperature setting range displays “--”.

5. Call up the desired mode by pressing the “OPERATION MODE SELECTOR” button.

Set to “--” when you do not wish to use zone setting for the operation mode.

**■ Changing the fan direction and fan strength (Fig. 8)**

This changes the fan direction and strength settings in the air conditioner.

Changing the fan direction and strength is done in the individual screen.

**[Registration]**

1. Press the “ALL/INDIVIDUAL button”

to enter the individual screen.

The unit will enter the individual screen automatically if nothing is done for one minute.

2. Using the arrow keys, move the “” to select the units to fan direction adjustment or fan strength adjustment.

Keeping the button pressed down will move it rapidly.

3. Press the “FAN DIRECTION ADJUSTMENT” button.

This sets “fixed” or “swing” for the fan direction.

4. Press the “FAN STRENGTH ADJUSTMENT” button.

Pressing this button scrolls through “”, “”, and “”.

Depending on the indoor unit, only “” and “” may be available.

The functions included in the indoor units may vary. Pressing a button for a function which is not available will cause “NOT AVAILABLE” to be displayed.

**■ Changing the ventilation mode and ventilation strength (Fig. 9)**

This changes the ventilation mode and strength settings in the total enthalpy heat exchanger. Changing the ventilation mode and strength is done in the individual screen.

**[Registration]**

1. Press the “ALL/INDIVIDUAL button” to enter the individual screen.

The unit will enter the individual screen automatically if nothing is done for one minute.

2. Using the arrow keys, move the “” to select the units to ventilation mode or ventilation strength adjustment.

Keeping the button pressed down will move it rapidly.

3. Press the “VENTILATION MODE” button.

It will scroll through “” → “” → “” → “”.

4. Press the “VENTILATION STRENGTH ADJUSTMENT” button.

It will scroll through “” → “” → “” →

“” → “”.

The fresh up function may not be available depending on the connected unit model.

The functions included in the indoor units may vary. Pressing a button for a function which is not available will cause “NOT AVAILABLE” to be displayed.

**• Ventilation Mode and Amount**

If these are changed using the remote controller depending on the unit model, they cannot be displayed on the central remote controller.

To monitor the ventilation mode and amount, check the values on the remote controller.

**■ Timer Number Setting (Fig. 10)**

(Only when used with the schedule timer)

Using this together with the schedule timer makes it possible to set on and off times four times a day.

**[Registration]**

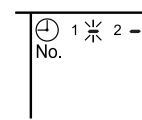
1. Pressing the “TIMER NO.” button causes the number set for timer number 1 to blink.

If no timer setting has been made

“ - ” will be displayed.

Select the desired timer number

by pressing the “TIMER NO.” button.



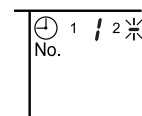
2. Once the desired timer number is displayed, press the “SET” button.

Press the “SET” button within 10 seconds after the timer number is displayed.


The display will return to how it was after 10 seconds.

The display for timer number 1

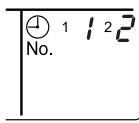
will stop blinking and then timer number 2 will start blinking.




### 3. Select the desired timer number by pressing the “TIMER NO.” button.

Once the desired timer number is displayed,  press the “SET” button.

The display for timer number 2 will stop blinking.



The “ No.” display will disappear after 3 seconds.

Select “-” in the timer number when you do not wish to set a timer number.

It is possible to set only one timer number.

(The times for turning the unit(s) on and off twice a day can be set with a single timer number.)

#### • **Timer Number Setting**

Group control: select the unit in the individual screen and set the timer number.

Batch control: set the timer numbers for all connected units.

Zone control: set the timer numbers for all zone-registered units.  
Call up the zones which you wish to set in the zone screen and set the timer numbers.

#### • **Since the timer number will be set to after-press priority, the timer number in the last screen set will be valid for the connected units.**

##### Example 1

Setting timer number 1 for unit 1-00 to “1” and timer number 2 to “2” in the individual screen and then setting timer number 1 to “3” and timer number 2 to “4” in the batch screen causes the timer numbers for all units to be set, so timer number 1 for unit 1-00 will be “3” and timer number 2 will be “4”.

##### Example 2

To prevent leaving units on, timer number 1 is set to “5” in the batch screen.

Setting timer number 1 in zone number 1 to “-” in the zone screen after that will change the timer number for zone number 1, so the setting to prevent leaving the units on will be lost for zone number 1 only.

If a timer number is set incorrectly by accident, redo the setting in the desired screen.

#### • **What happens when the timer number on time and off time are set to the same time**

When the on time and off time are set to the same time for the same timer number, operation does not change.

When the on time and off time are set to the same time for different timer numbers, the off time is given priority.

When using timer operation, make sure the times do not overlap when setting the program of the schedule timer.

### ■ **Setting the Operation Code (Fig. 11)**

#### [Registration]

#### 1. Pressing the “CONTROL MODE” button causes the currently set operation code to blink.

Call up the desired code number by pressing the

 “CONTROL MODE” button.

Scroll through the code numbers.

#### 2. Once the code number is displayed, press the “SET” button.

The display will stop blinking.

The operation code display will disappear after 3 seconds.

#### [The Operation Code Setting]

Group control: select the unit in the individual screen and set the operation code.

Batch control: set the operation code for all connected units.

Zone control: set the operation code for all zone-registered units.

Call up the zones which you wish to set in the zone screen and set the operation code.

Since the operation code will be set for after-press priority, setting the operation code in the zone and individual screens after setting the operation code in the batch screen, will cause the operation codes set afterwards to be valid.

## OPERATION MODE

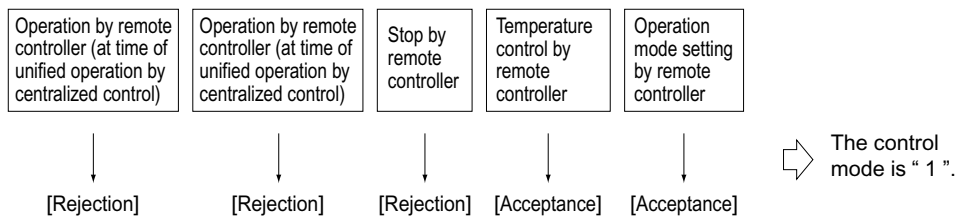
The following five operation control modes can be selected along with the temperature setting and operation mode by remote controller, for a total of twenty different modes. These twenty modes are set and displayed with control modes of 0 to 19. (For further details, see **EXAMPLE OF OPERATION SCHEDULE** on the next page.)

- ON/OFF control impossible by remote controller..... Use this mode when operating and stopping from the central remote controller only. (ON/OFF control by the remote controller is disabled.)
- Only OFF control possible by remote controller ..... Use this mode when executing the operation only by the central remote controller, and executing only the stop by remote controller.
- Centralized ..... Use this mode when executing the operation only by the central remote controller, and executing start/stop freely by remote controller during the preset hours.
- Individual ..... Use this mode when executing start/stop both by central remote controller and remote controller.
- Timer operation possible by remote controller ..... Use this mode when executing start/stop by remote controller during the preset hours, and not starting operation by the central remote controller at the programmed time of system start.

### [HOW TO SELECT THE CONTROL MODE]

- Select whether to accept or to reject the operation from the remote controller regarding the operation, stop, temperature setting and operation mode setting, respectively, and determine the particular control mode from the rightmost column of the table below.

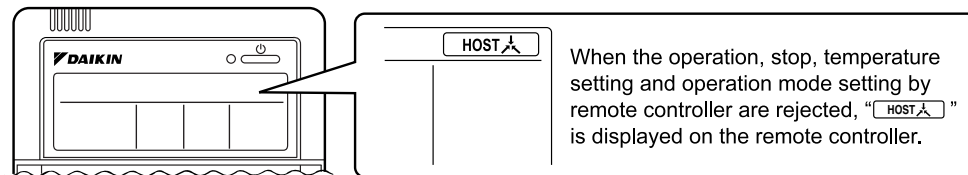
Example





| Operation mode                                 | Control by remote controller                                                                           |                                                                           |                        |                         |                        | Control mode |   |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------|-------------------------|------------------------|--------------|---|
|                                                | Operation                                                                                              |                                                                           | Stop                   | Temperature control     | Operation mode setting |              |   |
|                                                | Unified operation, individual operation by central remote controller, or operation controlled by timer | Unified stop, individual stop by central remote controller, or timer stop |                        |                         |                        |              |   |
| ON/OFF control impossible by remote controller | Rejection<br>(Example)                                                                                 | Rejection<br>(Example)                                                    | Rejection<br>(Example) | Rejection               | Acceptance             | 0            |   |
| Only OFF control possible by remote controller |                                                                                                        |                                                                           |                        | Acceptance<br>(Example) | Rejection              | 10           |   |
| Centralized                                    | Acceptance                                                                                             | Acceptance                                                                | Acceptance             | Rejection               | Acceptance             | 1 (Example)  |   |
| Individual                                     |                                                                                                        |                                                                           |                        | Rejection               | Rejection              | 2            |   |
| Timer operation possible by remote controller  |                                                                                                        |                                                                           |                        | Acceptance              | Acceptance             | Acceptance   | 3 |
|                                                |                                                                                                        |                                                                           |                        | Rejection               | Rejection              | Rejection    | 4 |
|                                                |                                                                                                        |                                                                           |                        | Acceptance              | Acceptance             | 5            |   |
|                                                |                                                                                                        |                                                                           |                        | Rejection               | Rejection              | 6            |   |
|                                                |                                                                                                        |                                                                           |                        | Acceptance              | Acceptance             | 7            |   |
|                                                |                                                                                                        |                                                                           |                        | Rejection               | Rejection              | 8            |   |
|                                                |                                                                                                        |                                                                           |                        | Acceptance              | Acceptance             | 9            |   |
|                                                |                                                                                                        |                                                                           |                        | Rejection               | Rejection              | 10           |   |
|                                                |                                                                                                        |                                                                           |                        | Acceptance              | Acceptance             | 11           |   |
|                                                |                                                                                                        |                                                                           |                        | Rejection               | Rejection              | 12           |   |
|                                                |                                                                                                        |                                                                           |                        | Acceptance              | Acceptance             | 13           |   |
|                                                |                                                                                                        |                                                                           |                        | Rejection               | Rejection              | 14           |   |
|                                                |                                                                                                        |                                                                           |                        | Acceptance              | Acceptance             | 15           |   |
|                                                |                                                                                                        |                                                                           |                        | Rejection               | Rejection              | 16           |   |
|                                                |                                                                                                        |                                                                           |                        | Acceptance              | Acceptance             | 17           |   |
|                                                |                                                                                                        |                                                                           |                        | Rejection               | Rejection              | 18           |   |
|                                                |                                                                                                        |                                                                           |                        | Acceptance              | Acceptance             | 19           |   |

Note) Do not select the timer operation possible without the remote controller. In this case, timer operation is disabled.

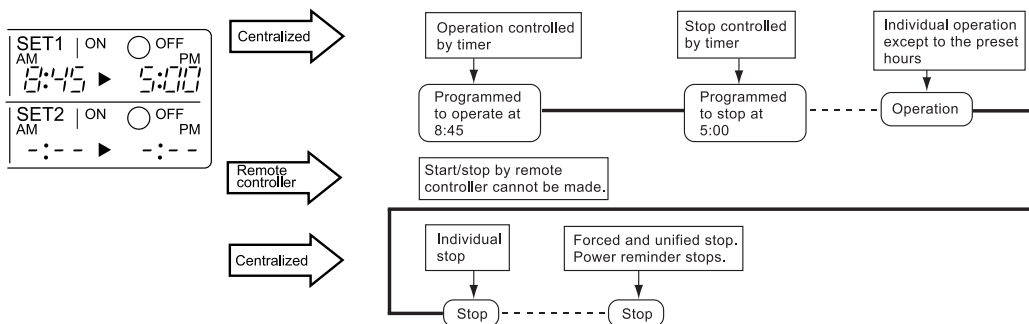


**EXAMPLE OF OPERATION SCHEDULE**

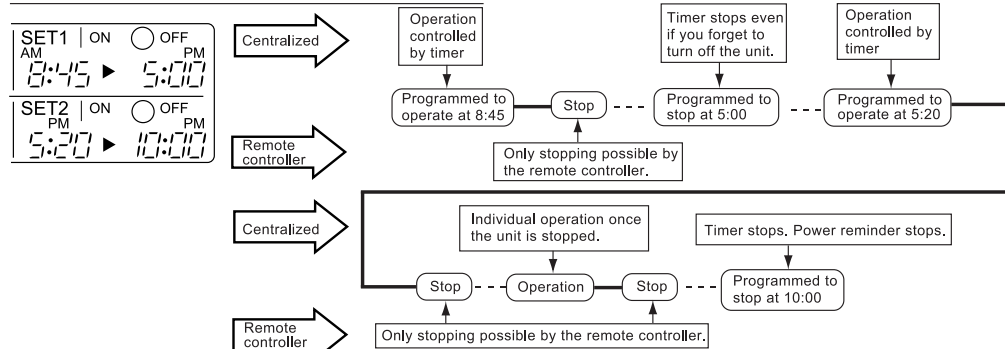
Operation schedule is possible only in conjunction with the schedule timer (optional accessory).

**Liquid crystal display of schedule timer**

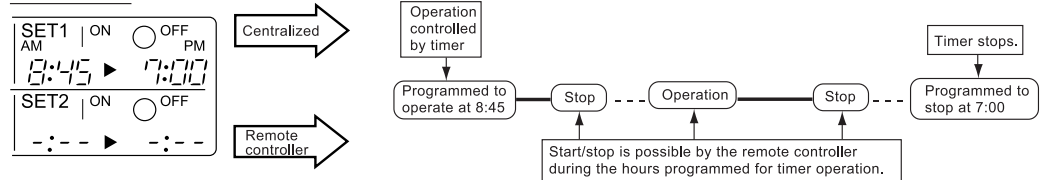
ON/OFF control impossible by remote controller



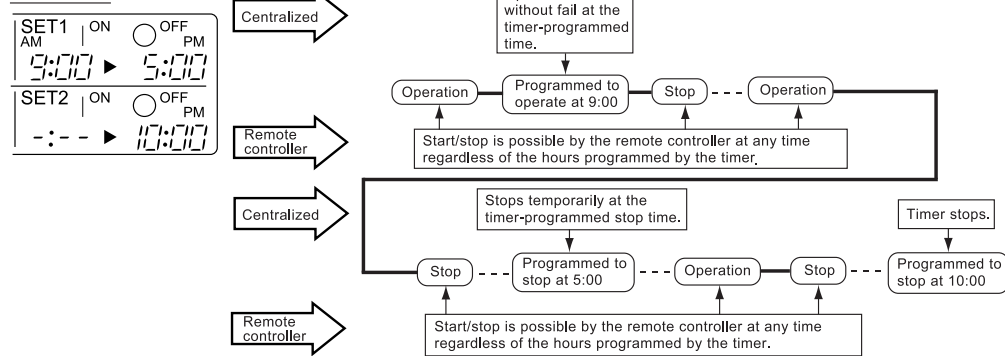
Only OFF control possible by remote controller



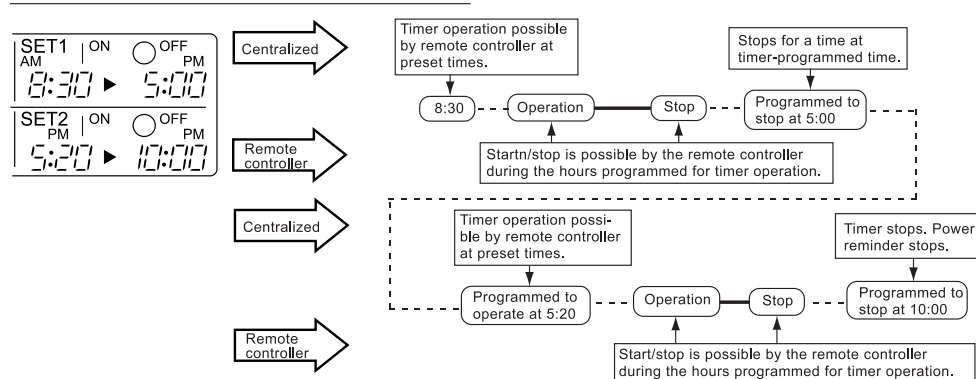
Centralized



Individual



Timer operation possible by remote controller



- Air conditioner now operating.
- - - - Air conditioner now stopping.
- ▭ Command by central remote controller
- Command by remote controller

■ Setting operation mode (Fig. 12)

[Registration]

1. Press the OPERATION MODE SELECTOR BUTTON. Each time you press this button, the display rotates as shown on the below list.

• List of operations which can be set

In the below list, “○” refers to the acceptable setting, while “×” refers to the not acceptable setting.

| Display | A: Zones and groups with no “ ” display. |                                                       |
|---------|------------------------------------------|-------------------------------------------------------|
|         | Setting                                  | Contents of setting                                   |
|         | ×                                        |                                                       |
|         | ○                                        | Can be set in individual zones or groups              |
|         | ○<br>* 1                                 | Can be set in individual zones or groups              |
|         | ○                                        | Can be set in individual zones or groups              |
|         | ○                                        | Can be set in individual zones or groups              |
|         | ○<br>* 1                                 | Can be set in individual zones or groups * 3          |
|         | ○<br>* 1                                 | Can be set in individual zones or groups              |
|         | ○                                        | Select this display if you don't wish to set by zone. |

| Display | B: Zones and groups with a “ ” display. |                                                       |
|---------|-----------------------------------------|-------------------------------------------------------|
|         | Setting                                 | Contents of setting                                   |
|         | ○                                       | To be set by zone * 2                                 |
|         | ○                                       | Can be set in individual zones or groups              |
|         | ×                                       |                                                       |
|         | ×                                       | The displays are shown by group * 4                   |
|         | ×                                       | The displays are shown by group * 4                   |
|         | ○<br>* 1                                | Can be set in individual zones or groups * 3          |
|         | ○<br>* 1                                | Can be set in individual zones or groups              |
|         | ○                                       | Select this display if you don't wish to set by zone. |

- \*1: Setting may not be acceptable depending on the type of indoor unit with which this unit is connected.
- \*2: In zone control, the units run in temperature adjustment mode (heating or cooling) for the outdoor system for the groups registered to those zones. Heating or cooling selection is not available.
- \*3: or or Changing the ventilation mode cannot be done in the zone screen. Changing the ventilation mode should be done in the individual screen.
- \*4: In group control, the units run in temperature adjustment mode (heating or cooling) for the group outdoor system. Heating or cooling selection is not available.

• The Zone consists of the following two cases.

**A. Zone without display“ ”**  
 The group with master remote controller setting exists in this zone. Setting the master remote controller enables cool/heat selection. Operations other than cool/heat operations can also be set for some operations. For further details, see the list on the left.

**B. Zone with display“ ”**  
 No group with master remote controller setting exists in this zone. The cool/heat selection is not available because the master remote controller has not been set. Some operations other than cool/heat operations can be set. For further details, see the list in the left.

See page 20 if the display“ ” is flashing.

- Fan operation can be performed for each zone using the central remote controller even if there is no cooling/heating selection right during cooling or heating. Also, if a VentiAir is connected in the zone, ventilation and ventilation cleaning operation is possible. See the included operating manuals for details.
- When the indoor unit is in heat operation, change the setting to FAN operation through the central remote controller; then, you can switch the fan speed to the extremely low fan speed. Warm air may blow if any other indoor unit belonging to the same system is in heat operation.
- The indoor fan stops during defrost/hot start.
- DRY cannot be set from the central remote controller.

■ Group monitoring (Fig. 13)

Utilize the group monitor function in each of the following cases:

1. Check the malfunction code. (See the next page.)
2. Check the group that requires cleaning of the air filter and air cleaner element. (See page 21.)
3. Change the setting of the master remote controller. (See page 20.)
4. Check the group(s) sharing the same outdoor unit. Or, check the particular group(s) with the master remote controller setting. (See page 20.)
5. Check the conditions of other individual groups.

**When in zone screen**

The zone screen will revert to the individual screen automatically if nothing is done in it for one minute.

**[Registration]**

1. Press the “ALL/INDIVIDUAL” button to switch to the “INDIVIDUAL” screen.

2. Using the arrow key, move the “ ” to select the unit to be monitored.

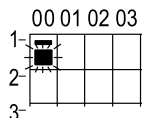
Keeping the button pressed down will move it rapidly.

The “ ” lights up and the status of that unit is displayed in the LCD. The cursor in the screen Fig. 13 has selected unit 2-06.

**■ Error diagnosing function (Fig. 14)**

This central remote controller is provided with a diagnosing function, for when an indoor unit stops due to malfunction. In case of actuation of a safety device, disconnection in transmission wiring for control or failure of some parts, the operation lamp, inspection display and unit No. start to flash; then, the malfunction

code is displayed. Check the contents of the display, and contact your DAIKIN dealer because the above signs can give you the idea on the trouble area.

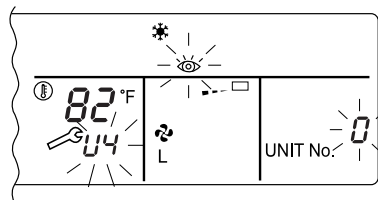


The display “ ” flashes under the group No. where the indoor unit that has stopped due to malfunction.

**[Registration]**

1. Press the ARROW KEY BUTTON to call up the group that has stopped due to malfunction.

The unit No. the malfunction code is flashing because of an error failure.



| Operation lamp | Maintenance display | Unit No. | Malfunction code | Error content                                                                                               |
|----------------|---------------------|----------|------------------|-------------------------------------------------------------------------------------------------------------|
| ☀              | ●                   | ⌘        | 64               | Indoor air thermistor error                                                                                 |
| ☀              | ●                   | ⌘        | 65               | Outdoor air thermistor error                                                                                |
| ☀              | ●                   | ⌘        | 68               | HVU error (Ventiair dust-collecting unit)                                                                   |
| ☀              | ●                   | ⌘        | 6A               | Dumper system error                                                                                         |
| ⌘              | ⌘                   | ⌘        | 6A               | Dumper system error + Thermistor error                                                                      |
| ☀              | ●                   | ⌘        | 6F               | Simple remote controller error                                                                              |
| ☀              | ●                   | ⌘        | 6H               | Door switch (Ventiair dust-collecting unit), relay harness fault (Ventiair dust-collecting/humidifier unit) |
| ⌘              | ⌘                   | ⌘        | 94               | Ventiair internal transmission error (between total enthalpy – fan unit)                                    |
| ⌘              | ⌘                   | ⌘        | A0               | Indoor unit · external safety device error                                                                  |
| ⌘              | ⌘                   | ⌘        | A1               | Indoor unit · BEV unit (Sky-Air connection unit) PC board assembly fault                                    |
| ☀              | ●                   | ⌘        | A1               | Indoor unit · PC board assembly fault                                                                       |
| ⌘              | ⌘                   | ⌘        | A3               | Indoor unit · Drain level error (33H)                                                                       |
| ⌘              | ⌘                   | ⌘        | A6               | Indoor unit · Fan motor (51F) lock, overload                                                                |
| ☀              | ●                   | ⌘        | A7               | Indoor unit · Fan direction adjustment motor (MA) error                                                     |
| ⌘              | ⌘                   | ⌘        | A9               | Indoor unit · BEV unit, electric expansion valve motor (20E) error                                          |
| ☀              | ●                   | ⌘        | AF               | Indoor unit · Malfunctioning drain                                                                          |
| ☀              | ●                   | ⌘        | AH               | Indoor unit · Dust-collector error                                                                          |
| ⌘              | ⌘                   | ⌘        | AJ               | Indoor unit · Insufficient capacity setting, address setting fault                                          |

|   |   |   |           |                                                                                                                                  |
|---|---|---|-----------|----------------------------------------------------------------------------------------------------------------------------------|
| ☼ | ☼ | ☼ | C4        | Indoor unit · Liquid piping thermistor (Th2) Error (faulty connection, cut wire, short circuit, fault)                           |
| ☼ | ☼ | ☼ | C5        | Indoor unit · BEV unit, gas piping thermistor (Th3) Error (faulty connection, cut wire, short circuit, fault)                    |
| ☼ | ☼ | ☼ | C9        | Indoor unit · Intake air thermistor (Th1) Error (faulty connection, cut wire, short circuit, fault)                              |
| ☼ | ☼ | ☼ | CA        | Indoor unit · Outlet air thermistor (Th4) Error (faulty connection, cut wire, short circuit, fault)                              |
| ☼ | ● | ☼ | <b>CJ</b> | Indoor unit · remote controller sensor error                                                                                     |
| ☼ | ☼ | ☼ | E0        | Outdoor unit · Safety device operation                                                                                           |
| ☼ | ☼ | ☼ | E1        | Outdoor unit · PC board assembly fault                                                                                           |
| ☼ | ● | ☼ | <b>E1</b> | Outdoor unit · PC board assembly fault                                                                                           |
| ☼ | ☼ | ☼ | E3        | Outdoor unit · High-pressure switch fault                                                                                        |
| ☼ | ☼ | ☼ | E4        | Outdoor unit · Low-pressure switch fault                                                                                         |
| ☼ | ☼ | ☼ | E9        | Outdoor unit · Electric expansion valve motor (20E) error                                                                        |
| ☼ | ● | ☼ | <b>EC</b> | Heat source unit · Intake water temperature inter-lock operation (fan operation)                                                 |
| ☼ | ☼ | ☼ | EF        | Outdoor unit · Ice thermal storage unit error                                                                                    |
| ☼ | ☼ | ☼ | F3        | Outdoor unit · Discharge piping temperature error                                                                                |
| ☼ | ● | ☼ | <b>H3</b> | Outdoor unit · High-pressure switch operation                                                                                    |
| ☼ | ☼ | ☼ | H4        | Outdoor unit · Low-pressure switch operation                                                                                     |
| ☼ | ☼ | ☼ | H9        | Outdoor unit · Outdoor air thermistor (Th1) Error (faulty connection, cut wire, short circuit, fault)                            |
| ☼ | ● | ☼ | <b>H9</b> | Outdoor unit · Outdoor air thermistor (Th1) Error (faulty connection, cut wire, short circuit, fault)                            |
| ☼ | ● | ☼ | <b>HC</b> | Outdoor unit · Water temperature sensor system error                                                                             |
| ☼ | ● | ☼ | <b>HF</b> | Ice thermal storage unit error, ice thermal storage controller error, error in outdoor unit during ice thermal storage operation |
| ☼ | ☼ | ☼ | HJ        | Outdoor unit · water system fault                                                                                                |
| ☼ | ☼ | ☼ | J1        | Outdoor unit · pressure sensor error                                                                                             |
| ☼ | ☼ | ☼ | J3        | Outdoor unit · Discharge piping thermistor (Th3) Error (faulty connection, cut wire, short circuit, fault)                       |
| ☼ | ● | ☼ | <b>J3</b> | Outdoor unit · Discharge piping thermistor (Th3) Error (faulty connection, cut wire, short circuit, fault)                       |
| ☼ | ☼ | ☼ | J5        | Outdoor unit · Intake piping thermistor (Th4) Error (faulty connection, cut wire, short circuit, fault)                          |
| ☼ | ☼ | ☼ | J6        | Outdoor unit · Heat exchange thermistor (Th2) error                                                                              |
| ☼ | ● | ☼ | <b>J6</b> | Outdoor unit · Heat exchange thermistor (Th2) error Error (faulty connection, cut wire, short circuit, fault)                    |
| ☼ | ☼ | ☼ | J7        | Outdoor unit · Header thermistor (Th6) error                                                                                     |
| ☼ | ☼ | ☼ | JA        | Outdoor unit · Discharge piping pressure sensor error                                                                            |
| ☼ | ☼ | ☼ | JC        | Outdoor unit · Intake piping pressure sensor error                                                                               |
| ☼ | ☼ | ☼ | JF        | Outdoor unit · Oil temperature sensor (Th5) system error                                                                         |
| ☼ | ● | ☼ | <b>JH</b> | Outdoor unit · Oil temperature sensor (Th5) system error                                                                         |
| ☼ | ☼ | ☼ | L0        | Outdoor unit · Inverter system fault                                                                                             |
| ☼ | ☼ | ☼ | L4        | Outdoor unit · Inverter cooler fault                                                                                             |
| ☼ | ☼ | ☼ | L5        | Outdoor unit · Ground circuit for compressor motor, short circuit, or power unit short circuit                                   |

|        |   |   |           |                                                                                                                                                                                                                                                                      |
|--------|---|---|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ☼      | ☼ | ☼ | L6        | Outdoor unit · Ground circuit for compressor motor, short circuit                                                                                                                                                                                                    |
| ☼      | ☼ | ☼ | L8        | Outdoor unit · Compressor overload, compressor motor wire disconnection                                                                                                                                                                                              |
| ☼      | ☼ | ☼ | L9        | Outdoor unit · Compressor lock                                                                                                                                                                                                                                       |
| ☼      | ☼ | ☼ | LA        | Outdoor unit · Power unit error                                                                                                                                                                                                                                      |
| ☼      | ☼ | ☼ | LC        | Outdoor unit · Transmission error between inverter and outdoor control unit                                                                                                                                                                                          |
| ☼ or ● | ☼ | ☼ | M1        | Central controller: PC board fault                                                                                                                                                                                                                                   |
| ☼ or ● | ☼ | ☼ | M8        | Transmission error between central controllers                                                                                                                                                                                                                       |
| ☼ or ● | ☼ | ☼ | MA        | Central controller: Incorrect combination                                                                                                                                                                                                                            |
| ☼ or ● | ☼ | ☼ | MC        | Central controller: Address setting fault                                                                                                                                                                                                                            |
| ☼      | ● | ☼ | <b>P0</b> | Insufficient gas (thermal storage)                                                                                                                                                                                                                                   |
| ☼      | ☼ | ☼ | P1        | Outdoor unit · Power voltage imbalance, phase loss                                                                                                                                                                                                                   |
| ☼      | ☼ | ☼ | P4        | Outdoor unit · Power unit temperature sensor error                                                                                                                                                                                                                   |
| ☼      | ● | ☼ | <b>U0</b> | Pressure drop due to insufficient refrigerant, electric expansion valve fault, etc.                                                                                                                                                                                  |
| ☼      | ☼ | ☼ | U1        | Reversed or lost phase                                                                                                                                                                                                                                               |
| ☼      | ☼ | ☼ | U2        | Power voltage error, momentary electrical stoppage                                                                                                                                                                                                                   |
| ☼      | ☼ | ☼ | U4        | Transmission error between indoor unit/BEV unit and outdoor/ Branch Selector unit, Transmission error between outdoor unit & BS unit                                                                                                                                 |
| ☼      | ☼ | ☼ | U5        | Transmission error between remote controller and indoor control unit                                                                                                                                                                                                 |
| ●      | ☼ | ● | U5        | Remote controller board fault or remote controller setting fault                                                                                                                                                                                                     |
| ☼      | ☼ | ☼ | U6        | Transmission error between indoor units                                                                                                                                                                                                                              |
| ☼      | ☼ | ☼ | U7        | Transmission error between outdoor units<br>Transmission error between outdoor unit and ice thermal storage unit                                                                                                                                                     |
| ☼      | ● | ☼ | <b>U7</b> | Transmission error between outdoor units (cooling/heating batch, low-noise operation)                                                                                                                                                                                |
| ☼      | ☼ | ● | U8        | Transmission error between master remote controller and slave remote controller (slave remote controller error)<br>Incorrect combination of indoor unit and remote controller within a single system (model)                                                         |
| ☼      | ☼ | ☼ | U9        | Transmission error between indoor unit/BEV unit and outdoor unit within a single system<br>Transmission error between Branch Selector unit and indoor unit /BEV unit and outdoor unit within a single system                                                         |
| ☼      | ☼ | ☼ | UA        | Incorrect combination of indoor, Branch Selector, and outdoor units within a single system (model, number of units, etc.)<br>Incorrect combination of indoor unit & remote controller (remote controller in question) Branch Selector unit connection position fault |
| ☼      | ● | ☼ | <b>UC</b> | Central control group numbers overlap                                                                                                                                                                                                                                |
| ☼      | ☼ | ☼ | UE        | Transmission error between indoor unit and central controller                                                                                                                                                                                                        |
| ☼      | ☼ | ☼ | UF        | Unset system, incorrect settings between BEV unit and indoor unit                                                                                                                                                                                                    |
| ☼      | ☼ | ☼ | UH        | System fault                                                                                                                                                                                                                                                         |

■ error codes (in outline font) do not display "maintenance" and the system will run, but please check the content of the display and contact your dealer.

**■ Setting master remote controller (Fig. 15)**


You must set the master remote controller of the operation mode for one of the indoor units, if two or more such indoor units with the remote controller are connected with the outdoor unit where the operation modes such as cool/heat operation and FAN operation can be set by remote controller and central remote controller.

**1. Preparations**


**When you want to fix settings**


- Check the particular group with the master remote controller setting for the refrigerant system you wish to reset. (See the below.)

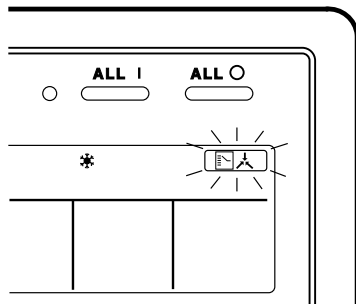
- Call up the group without the display

“” (See page 16.)



☞ Hold the OPERATION MODE SELECTOR BUTTON down for about four seconds while the above group is being called up.

The display “” flashes on the liquid crystal display of the remote controller for all the groups sharing the same outdoor unit or BS unit.

When you turn on the power switch for the first time, the display “” flashes.



**2. Setting selection right**

Call up the desired group to set the master remote controller, and ☞ press the OPERATION MODE SELECTOR BUTTON. The master remote controller is set for this group, and the display “” goes out. The display “” appears for the other groups. Setting is finished now.




**When switching operation**

- In case of operation switch



Call up the zone including the group with the setting of master remote controller.

(Zone without the display “”)

☞ Press the OPERATION MODE SELECTOR BUTTON several times, and switch to the desired operation mode.

Each time you press it, the display is switched to “” “” “” and “--” in sequence.

**NOTE**

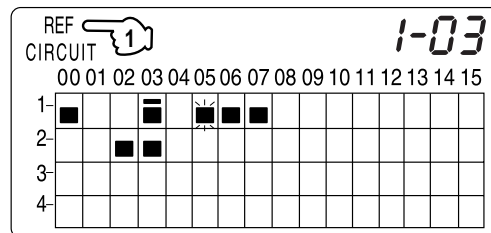
- However, the displays “” “” and “VENTILATION MODE” may appear in some zones, depending on the type on indoor unit with which they are connected.

(VENTILATION MODE)



**[System Display]**

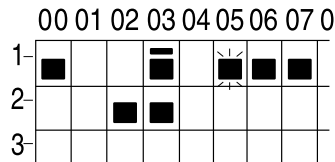
1. Test run mode is necessary to display the system display.
2. In order to turn on test run mode, select the appropriate air conditioner on the individual screen with the cursor and then set its operation mode to either cooling or heating. (It makes no difference if the air conditioner is running or not running while this operator is being performed.)
3. Press the “inspection/test run” button twice to put it into test run mode.
4. Pressing the “inspection/test run” button for four or more seconds in test run mode will display ☞ the “REF CIRCUIT.”



Call the unit whose system you wish to look up using the arrow keys.

The “■” on all groups in the same system as the displayed group will light up.

Of those, the “■” display in all groups which have cooling/heating selection privilege will blink.



**In this example, individual units 1-00, 1-03, 1-05, 1-06, 1-07, 2-02, and 2-03 are in the same system, and 1-05 has the cooling/heating selection privilege.**


To look up other systems, call up all the units you wish to look up using the arrow keys.

Pressing the inspection/test run button one more time gets rid of the system display and ends it.

The unit will enter the individual screen automatically if nothing is done for one minute in the system display screen.




This function may not be available for all connected outdoor units, in which case “REF CIRCUIT” will blink. It will also not be correctly displayed if DIII-NET extension ADP is used.



**■ Display of time to clean (Fig. 16)**

This central remote controller displays the time to clean the air filter or air cleaner element for each group or any given group by utilizing two types of signs. The display “” tells the time to clean the air filter or the air cleaner element of some group.

**If a cleaning sign is displayed**



A filter or element in some group is ready to be cleaned.

1.  Press the **ARROW KEY BUTTON**, and search the groups displaying “” or “” (The group may be plural.)

**Clean or change the air filter or air cleaner element.**  
 For further details, see the operation manual attached to each indoor unit. (Clean or change the air filter or air cleaner element of all the groups displaying “” or “”.)

2.  Press the **FILTER SIGN RESET BUTTON**, and the display “” disappears. (Including all the groups where the air filter has been cleaned.)

**NOTE**

Be sure to check the display  “” has disappeared at this point. The appearance of the above display is a sign that the air filter or air cleaner element of some group still needs cleaning.









## INSTALLATION TABLE

When installing the equipment, mark the zone No. of each group and installation location in the below table.


### Setting group No.

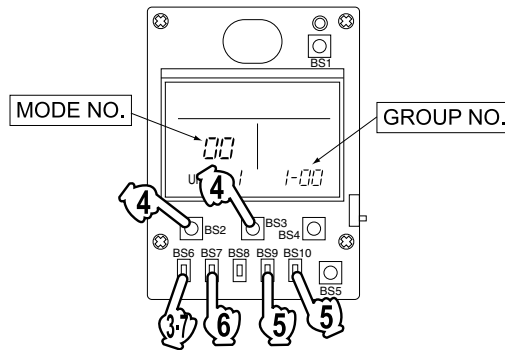
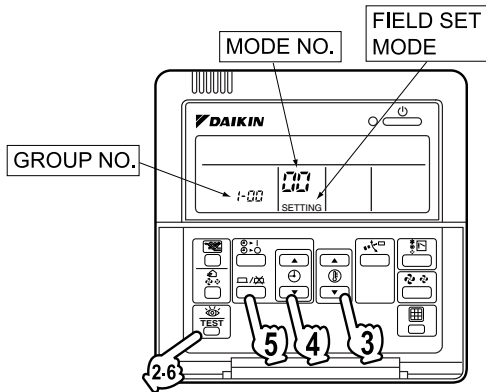
(Setting is not possible unless power is activated to both the central remote controller and indoor unit.)

### Operated by remote controller

1. Activate power to both the central remote controller and indoor unit.
2. While in the normal mode, hold down the “” button for a minimum of 4 seconds. The unified ON/OFF controller will enter the FIELD SET MODE.
3. Select the MODE No. “” with the “” button.
4. Use the “” button to select the group No. for each group. (Group No. increases in the order of 1-00, 1-01 ... 1-15, 2-00, ... 8-15.)
5. Press “” to set the selected group No.
6. Press “” to return to the NORMAL MODE.

### Operated by simplified remote controller

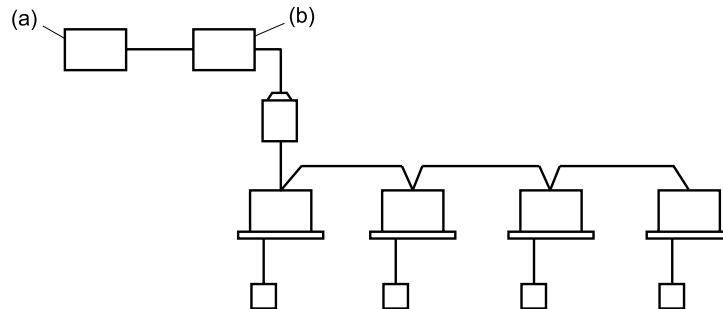
1. Activate power to both the central remote controller and indoor unit.
2. Remove the upper part of the remote controller.
3. Press the **BS6** BUTTON (field set) on the PC board. The controller will enter the FIELD SET MODE.
4. Select the MODE No. “” with the **BS2** BUTTON and **BS3** BUTTON (temperature setting).
5. Use the **BS9** BUTTON (set A) and **BS10** BUTTON (set B) to select the group No. for each group. (Group No. increases in the order of 1-00, 1-01 ... 1-15, 2-00, ... 8-15.)
6. Press **BS7** BUTTON (set/cancel) to set the selected group No.
7. Press **BS6** BUTTON (field set) to return to the NORMAL MODE.



|                                                   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|---------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Zone No.                                          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Group No.                                         | -00 | -01 | -02 | -03 | -04 | -05 | -06 | -07 | -08 | -09 | -10 | -11 | -12 | -13 | -14 | -15 |
| Indoor unit<br>Quantity of units<br>Controlled by |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Location                                          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Zone No.                                          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Group No.                                         | -00 | -01 | -02 | -03 | -04 | -05 | -06 | -07 | -08 | -09 | -10 | -11 | -12 | -13 | -14 | -15 |
| Indoor unit<br>Quantity of units<br>Controlled by |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Location                                          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

|                                                   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|---------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Zone No.                                          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Group No.                                         | -00 | -01 | -02 | -03 | -04 | -05 | -06 | -07 | -08 | -09 | -10 | -11 | -12 | -13 | -14 | -15 |
| Indoor unit<br>Quantity of units<br>Controlled by |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Location                                          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Zone No.                                          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Group No.                                         | -00 | -01 | -02 | -03 | -04 | -05 | -06 | -07 | -08 | -09 | -10 | -11 | -12 | -13 | -14 | -15 |
| Indoor unit<br>Quantity of units<br>Controlled by |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Location                                          |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |

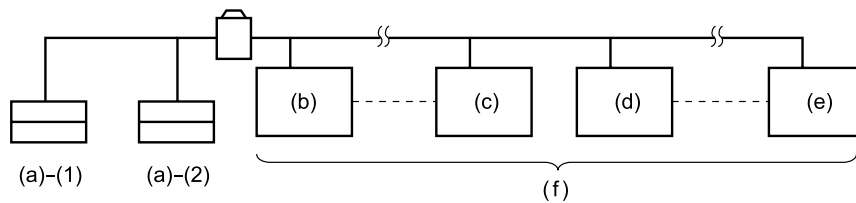
**OPTIONAL ACCESSORIES**



You can perform the normal operation, take off the malfunction contact point and unified start/stop by contact point, all by connecting this unit with the unification adaptor for computerized control. For further details, ask your DAIKIN dealer.

(a) Unification adaptor for computerized control    (b) Central remote controller

**DOUBLE CENTRAL REMOTE CONTROLLERS**



With two central remote controllers, centralized control (indoor units) is possible from different locations.

(a) Central remote controller    (b) Group No. 1 - 00    (c) Group No. 1 - 15    (d) Group No. 2 - 00  
 (e) Group No. 4 - 15    (f) A maximum of 64 groups

Note)

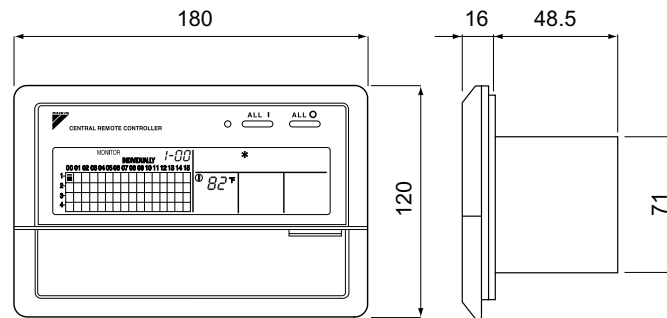
- For control alignment and settings for double central remote controllers, contact your dealer.

## SPECIFICATIONS

### ■ Specifications

|                     |                                                               |
|---------------------|---------------------------------------------------------------|
| Power supply        | 1 ~ 50/60Hz, 100V – 240V                                      |
| Power consumption   | Max. 8W                                                       |
| Forced ON/OFF input | Continuous "a" contact<br>Contact current: approximately 10mA |
| Size                | 180 (W) × 120 (H) × 64.5 (D)                                  |
| Weight              | 420g                                                          |

### ■ Outline drawings



When using this unit an electric parts box of KJB311A is required.  
For installation, a steel electric parts box to be embedded is mandatory.

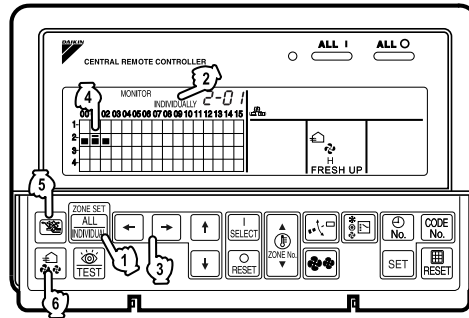


Fig. 9

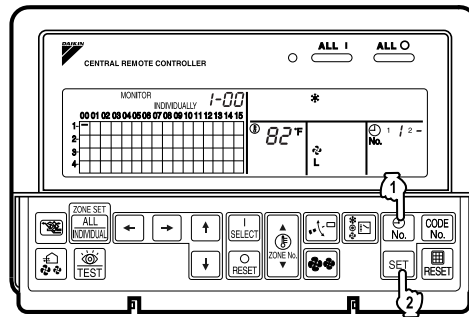


Fig. 10

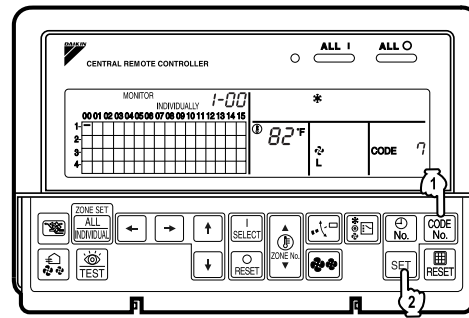


Fig. 11

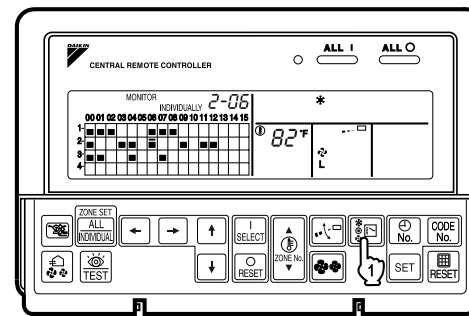


Fig. 12

5

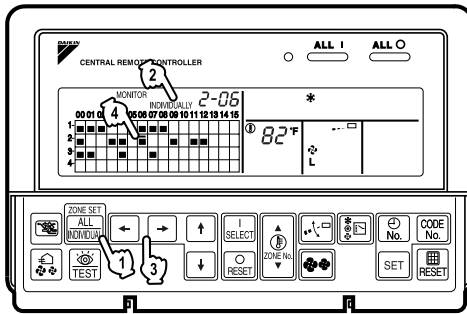


Fig. 13

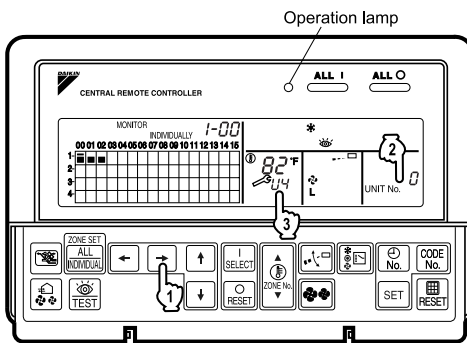


Fig. 14

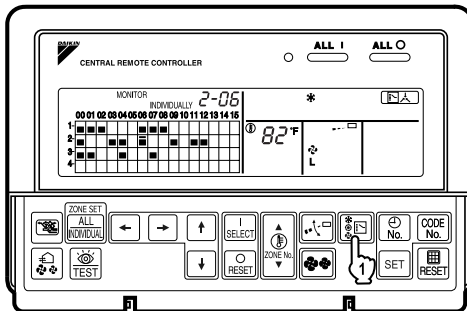


Fig. 15

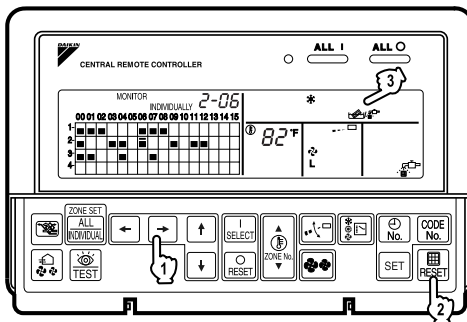


Fig. 16

## 5.2 <DCS301C71> Unified ON/OFF Controller

### 5.2.1 Installation Manual

Please read these "SAFETY CONSIDERATIONS" carefully before installing air conditioning equipment and be sure to install it correctly. After completing the installation, make sure that the unit operates properly during the start-up operation.  
Please instruct the customer on how to operate the unit and keep it maintained.  
Also, inform customers that they should store this installation manual along with the operation manual for future reference.  
This air conditioner comes under the term "appliances not accessible to the general public".

Meaning of warning, caution and note symbols.

**⚠ WARNING**..... Indication a potentially hazardous situation which, if not avoided, could result in death or serious injury.  
**⚠ CAUTION**..... Indication a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.  
**⚠ NOTE**..... Indication situation that may result in equipment or property-damage-only accidents.

**⚠ WARNING**

**Ask your dealer or qualified personnel to carry out installation work. Do not try to install the machine by yourself.**  
Improper installation may result in water leakage, electric shocks or fire.

**Perform installation work in accordance with this installation manual.**  
Improper installation may result in water leakage, electric shocks or fire.

**Be sure to use only the specified accessories and parts for installation work.**  
Failure to use the specified parts may result in water leakage, electric shocks, fire or the unit falling.

**Carry out the specified installation work after taking into account strong winds, typhoons or earthquakes.**  
Improper installation work may result in the equipment falling and causing accidents.

**Make sure that a separate power supply circuit is provided for this unit and that all electrical work is carried out by qualified personnel according to local laws and regulations and this installation manual.**  
An insufficient power supply capacity or improper electrical construction may lead to electric shocks or fire.

**Make sure that all wiring is secured, the specified wires are used, and no external forces act on the terminal connections or wires.**  
Improper connections or installation may result in fire.

**When wiring the power supply and connecting the remote controller wiring and transmission wiring, position the wires so that the electric parts box lid can be securely fastened.**  
Improper positioning of the electric parts box lid may result in electric shocks, fire or the terminals overheating.

**Before touching electrical parts, turn off the unit.**

**Ground the air conditioner. Do not connect the ground wire to gas or water pipes, lightning rod or a telephone ground wire.**  
Incomplete grounding may result in electric shocks.

**When installing or relocating the system, be sure to keep the refrigerant circuit free from substances other than the specified refrigerant (R410A), such as air.**

**Do not reconstruct or change the settings of the protection devices.**  
If the pressure switch, thermal switch, or other protection device is shorted and operated forcibly, or parts other than those specified by Daikin are used, fire or explosion may result.

**Do not touch the switch with wet fingers.**  
Touching a switch with wet fingers can cause electric shock.

**Install an leak circuit breaker, as required.**  
If an leak circuit breaker is not installed, electric shock may result.

**Do not install the air conditioner or the remote controller in the following locations:**

- (a) where a mineral oil mist or an oil spray or vapor is produced, for example in a kitchen  
Plastic parts may deteriorate and fall off or result in water leakage.
- (b) where corrosive gas, such as sulfurous acid gas, is produced  
Corroding copper pipes or soldered parts may result in refrigerant leakage.
- (c) near machinery emitting electromagnetic waves  
Electromagnetic waves may disturb the operation of the control system and result in a malfunction of the equipment.
- (d) where flammable gases may leak, where there are carbon fiber or ignitable dust suspensions in the air, or where volatile flammables such as thinner or gasoline are handled.  
Operating the unit in such conditions may result in fire.

**⚠ CAUTION**

**Be very careful about product transportation.**

**Safely dispose of the packing materials.**  
Packing materials, such as nails and other metal or wooden parts, may cause stabs or other injuries.  
Tear apart and throw away plastic packaging bags so that children will not play with them. If children play with a plastic bag which was not torn apart, they face the risk of suffocation.

**Do not turn off the power immediately after stopping operation.**  
Always wait at least five minutes before turning off the power. Otherwise, water leakage and trouble may occur.

**⚠ NOTE**

**Install the indoor and outdoor units, power supply wiring and connecting wires at least 3.5ft. away from televisions or radios in order to prevent image interference or noise.**  
(Depending on the radio waves, a distance of 3.5ft. may not be sufficient enough to eliminate the noise.)

**Remote controller (wireless kit) transmitting distance can result shorter than expected in rooms with electronic fluorescent lamps. (inverter or rapid start types)**  
Install the indoor unit as far away from fluorescent lamps as possible.

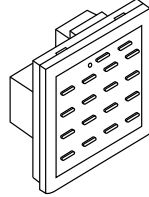
**This unit is a class A product.**  
In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

**Dismantling of the unit, treatment of the refrigerant, oil and eventual other parts, should be done in accordance with the relevant local and national regulations.**

### 1 COMPONENTS

Check the following components are included in this optional accessory before installation.

Body



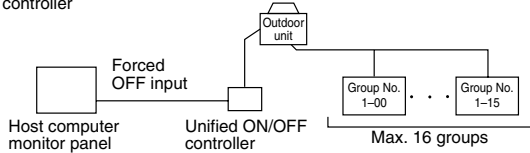
|                              |   |
|------------------------------|---|
| Installation screw (M4 x 16) | 2 |
| Operation manual             | 1 |
| Installation manual          | 4 |
| Installation table           | 4 |
| Switch display sticker       | 1 |

When using this optional accessory an electric parts box of KJB212A is required. For installation, a steel electric parts box to be embedded is mandatory.

### 2 SYSTEM CONFIGURATION

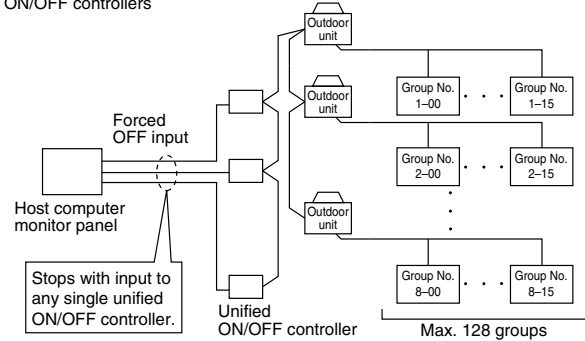
This unified ON/OFF controller enables individual and unified operation/stop for a maximum of 16 groups of indoor units. With 2 to 8 unified ON/OFF controllers, individual and unified control is possible with up to a maximum 128 groups of indoor units.

- When using 1 unified ON/OFF controller



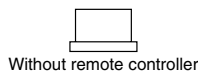
(This optional accessory can not be used in conjunction with wiring adapter for electrical appliances (optional accessory).)

- When using 2 to 8 unified ON/OFF controllers

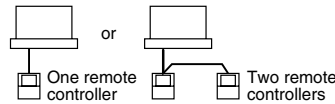


The groups of indoor units are as follows:

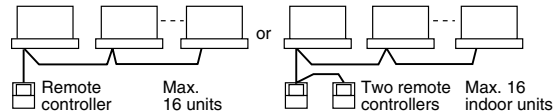
- 1 One indoor unit without remote controller



- 2 One indoor unit controlled by one or two remote controllers



- 3 A maximum of 16 indoor units controlled in groups by one or two remote controllers



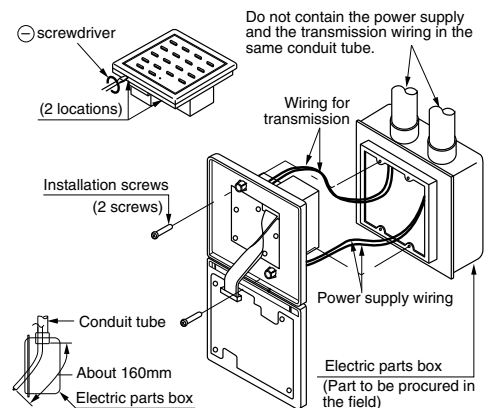
### 3 INSTALLATION

- 1 Open the upper part of remote controller. Insert a ⊖ screwdriver (2 locations) into the recess between the upper part and the lower part of remote controller and twist the screwdriver lightly.

PC board is attached with both the upper and lower part of remote controller. Do not damage the board with the screwdriver.

- 2 Open the upper part of remote controller and install the electric parts box (part to be procured in the field) with the attached installation screws (M4 x 16).

(NOTE) Suitable length of the electric wire is about 160mm from the inlet of the electric parts box. If it is difficult to contain a long wiring, strip the sheathed part of the wiring.



# 4 INITIAL SETTING

Setting ① through ③ are initialized when power is turned ON, therefore complete settings BEFORE activating the power.

- Connector for setting master controller (X1A) (Provided with connector at factory set)
  - When using 1 unified ON/OFF controller, do not disconnect the connector for setting master controller. (Use the unit with the connector in the state in which it was delivered.)
  - When using multiple unified ON/OFF controllers, or using the unified ON/OFF controller in conjunction with other optional controllers for centralized control, makes settings as indicated in the right table.

| Pattern of connection of optional controllers for centralized control |                           |                | Connector for setting master controller (X1A) Settings |                           |                |
|-----------------------------------------------------------------------|---------------------------|----------------|--------------------------------------------------------|---------------------------|----------------|
| Unified ON/OFF controller                                             | Central remote controller | Schedule timer | Unified ON/OFF controller                              | Central remote controller | Schedule timer |
| 1 to 16                                                               | 1 to 4                    | 1              | Set one to "Used" and all the rest to "Not used".      |                           |                |
|                                                                       |                           |                | Set all to "Not used".                                 | (Note)                    |                |
|                                                                       |                           |                | Set one to "Used" and all the rest to "Not used".      |                           | "Not used"     |
|                                                                       | 1 to 4                    | 1              | Set all to "Not used".                                 | (Note)                    | "Not used"     |

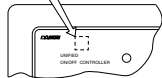
(Note) For instructions on how to set the connector for setting master controller on the central remote controller, see the installation manual provided with the central remote controller.

- Switch for setting each address (DS1)  
These switches are used to set group control address.  
Groups Nos. 1-00 through 1-15 are grouped in the same control group when the unit is shipped from the factory.

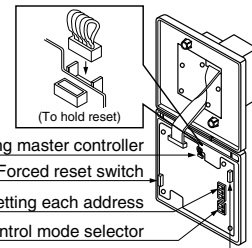
| Each Address | 1-00 - 1-15       | 2-00 - 2-15 | 3-00 - 3-15 | 4-00 - 4-15 | 5-00 - 5-15 | 6-00 - 6-15 | 7-00 - 7-15 | 8-00 - 8-15 |
|--------------|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| DS1 setting  |                   |             |             |             |             |             |             |             |
|              | (Factory setting) |             |             |             |             |             |             |             |

(NOTE) ■ indicates the position of switches.

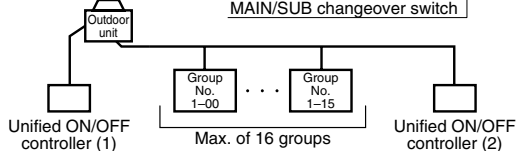
After setting, attach the number seal applicable to respective control range of the attached switch display sticker, as shown in the diagram below.



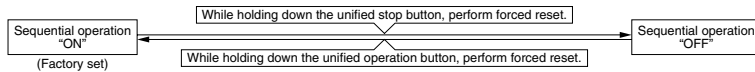
(Example)  
In the case of 1-00 to 1-15, attach ①.



- MAIN/SUB changeover switch setting  
With two unified ON/OFF controllers, centralized control (indoor units) is possible from different locations. In this kind of set-up, it is necessary to set the MAIN/SUB changeover switch.  
One of the two unified ON/OFF controllers (1)-(2) is set to "MAIN" while the other is set to "SUB".



- Setting of the sequential operation function  
The unified ON/OFF controller is equipped with a sequential operation function that sequentially turns indoor units on in 2-second intervals during unified operation. (Sequential operation is factory set to "ON.")  
To switch sequential operation ON or OFF, set as follows.



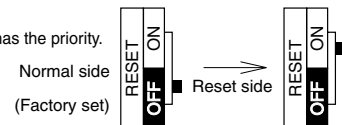
NOTE: The sequential operation function is designed to reduce the load on the power supply equipment, but does not guarantee that compressors will not be started simultaneously. You cannot therefore count on a capacity reduction effect by power supply equipment breaker selection.

- Control mode selector (DS2)  
The following four patterns of control mode can be set.

| Control mode | Individual                                                                            | Centralized                                                                                                                                       | Timer operation possible by remote controller                                                                                                                                        | ON/OFF control impossible by remote controller                                                                                |
|--------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Content      | Operation/stop is controlled by both unified ON/OFF controller and remote controller. | After operated by unified ON/OFF controller, operation/stop is freely controlled by remote controller until stopped by unified ON/OFF controller. | When used in conjunction with schedule timer, operation/stop is controlled freely by remote controller during the set time but operation is not available when schedule timer is ON. | Operation/stop is controlled by unified ON/OFF controller only. (This unit can not be operated/stopped by remote controller.) |
| DS2 setting  | (Factory set)                                                                         |                                                                                                                                                   |                                                                                                                                                                                      |                                                                                                                               |

- NOTES)
- indicates the position of switches.
  - Set control mode before turning power supply ON.
  - When used in conjunction with central remote controller, the control modes of the central remote controller has the priority.

- Forced reset switch (SS1)  
When changing the setting of the connector for setting master controller, etc., you can reset simply by setting it to the reset side once and returning to the normal side, without turning the power OFF.  
(For normal operation, set the switch to the normal side.)



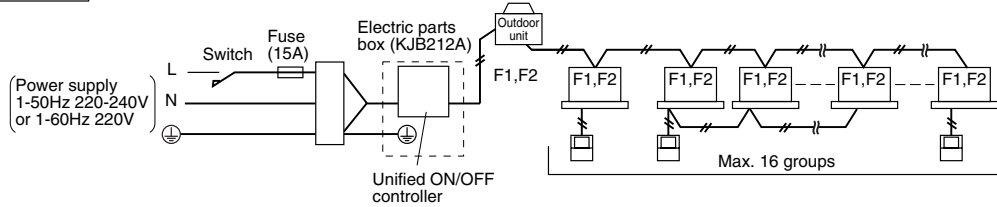


## 5 ELECTRIC WIRING

### GENERAL INSTRUCTIONS

- All wiring, components and materials to be procured on the site must comply with the applicable local and national codes.
- Use copper conductors only.
- All field wiring and components must be provided by licensed electrician.
- Unit shall be grounded in compliance with the applicable local and national codes.
- Fit the power supply wiring with a fuse and a switch.
- After wiring work, check power to the equipment shuts OFF when switch is shut OFF.

### WIRING OUTLINE



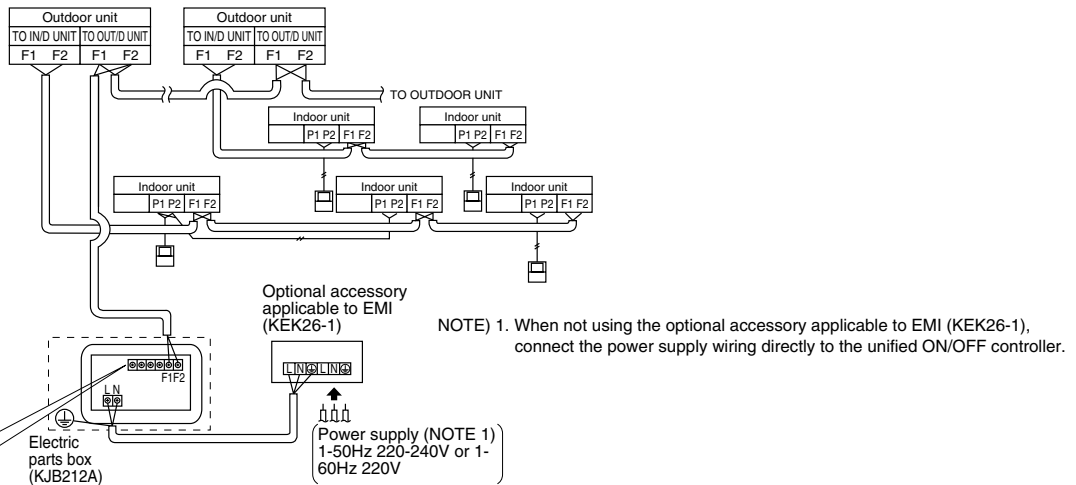
### Wiring specification

|                     | Type                            | Size                       |
|---------------------|---------------------------------|----------------------------|
| Power supply wiring | H05VV-U3G                       | (NOTE 1)                   |
| Transmission wiring | Sheathed wire (2 wire) (NOTE 2) | 0.75 – 1.25mm <sup>2</sup> |

- NOTES
1. The size of power supply wiring must comply with the applicable national and local codes.
  2. Allowable length of transmission wiring is as follows.  
Max. 1000m (Total wiring length: 2000m)

Connect the wiring between indoor and outdoor units, indoor/outdoor units and power supply, and indoor units and remote controllers. For details, refer to the installation manuals of indoor and outdoor units.

### WIRING TO THE INDOOR UNIT AND OUTDOOR UNIT



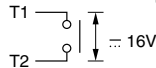
### CONTROL TERMINAL STRIP

\*1 For connecting indoor unit (F1, F2)

\*2 Forced OFF input (T1, T2)

While the forced OFF input (no voltage contactor, for micro current) is ON (energized), all the connected indoor units are stopped and can not be operated.

Use only contactors which guarantee the minimum applicable load ≧ 16V, 10mA.

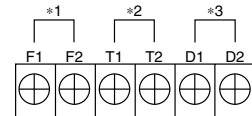


NOTE) Use instantaneous contactor of over 200msec. energizing time, when necessary.

\*3 For schedule timer (D1, D2)

Power can be supplied to the schedule timer (DST301B51\*61 optional accessory). For details, refer to the installation manual of the schedule timer.

Wire \*2 and \*3 only when necessary.



(NOTE)

Do not connect the power supply wiring (220 to 240V) to the control terminal strip. If connected by mistake, it may damage or burn electrical parts of optional controllers for centralized control and indoor unit. It may result in serious danger. Be sure to check wirings before turning the power ON.

## 6 SETTING GROUP NO. FOR CENTRALIZED CONTROL

Set the group number of each group of the indoor unit from the remote controller. (In case of no remote controller, also connect the remote controller and set the group No. Then, remove the remote controller.)

- 1 Turn ON the power of the indoor unit and unified ON/OFF controller. (Unless the power is ON, no setting can be made.)

Check that the installation and electrical wiring are correct before turning the power supply ON.

When the power supply is turned ON, all LCD appear once and the unit may not accept the operation for about one minute with the display of " " flashing (an interval of ON, ON, and OFF).

- 2 While in the normal mode, hold down the " " button for a minimum of 4 seconds.

The remote controller will enter the FIELD SET MODE.

- 3 Select the MODE No. " " with the " " button.

- 4 Use the " " button to select the group No. for each group.

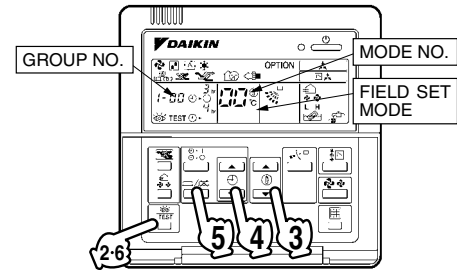
(Group numbers increase in the order of 1-00, 1-01, ... 1-15, 2-00, ... 8-15.)

- 5 Press " " to set the selected group No.

- 6 Press " " to return to the NORMAL MODE.

- NOTES
- For simplified remote controller, see the installation table.
  - For setting group No. of HRV and wiring adaptor for other air conditioners, etc., refer to the instruction manual attached.

**NOTICE** Enter the group No. and installation place of the indoor unit into the attached installation table. Be sure to keep the installation table with the operation manual for maintenance.



## 7 CONFIRMING OPERATION

Before starting test operation, supply power to the indoor units, outdoor units, and unified ON/OFF controller and press the ON/OFF BUTTON.

If the operation lamp flashes, it indicates a malfunction in the indoor unit of the applicable group.




If the display of " " flashes, it indicates a malfunction in the optional controllers for centralized control. Check for such malfunctions.

- NOTES
- For test operation of indoor and outdoor units, refer to the installation manual attached with the outdoor unit.
  - After turning the power supply ON, if the unit does not accept operation for two minutes or more with the display of " " flashing, check the following points.
    - Check that setting of the connector for setting master controller is correct.
    - Check that the group No. for centralized control has been set.

## 5.2.2 Operation Manual

Please read these "SAFETY CONSIDERATIONS" carefully before installing air conditioning equipment and be sure to install it correctly. After completing the installation, make sure that the unit operates properly during the start-up operation.  
Please instruct the customer on how to operate the unit and keep it maintained.  
Also, inform customers that they should store this installation manual along with the operation manual for future reference.  
This air conditioner comes under the term "appliances not accessible to the general public"

Meaning of warning, caution and note symbols.

-  **WARNING** ..... Indication a potentially hazardous situation which, if not avoided, could result in death or serious injury.
-  **CAUTION** ..... Indication a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.
-  **NOTE** ..... Indication situation that may result in equipment or property-damage-only accidents.

Keep these warning sheets handy so that you can refer to them if needed.  
Also, if this equipment is transferred to a new user, make sure to hand over this operation manual to the new user.

### WARNING

**In order to avoid electric shock, fire or injury, or if you detect any abnormality such as smell of fire, turn off power and call your dealer for instructions.**

**Ask your dealer for installation of the air conditioner.**

Incomplete installation performed by yourself may result in a water leakage, electric shock, and fire.

**Ask your dealer for improvement, repair, and maintenance.**

Incomplete improvement, repair, and maintenance may result in a water leakage, electric shock, and fire.

**Improper installation or attachment of equipment or accessories could result in electric shock, short-circuit, leaks, fire or other damage to the equipment.**

**Be sure only to use accessories made by Daikin which are specifically designed for use with the equipment and have them installed by a professional.**

**Ask your dealer to move and reinstall the air conditioner or the remote controller.**

Incomplete installation may result in a water leakage, electric shock, and fire.

**Never let the indoor unit or the remote controller get wet.**

It may cause an electric shock or a fire.

**Never use flammable spray such as hair spray, lacquer or paint near the unit.**

It may cause a fire.

**Never replace a fuse with that of wrong ampere ratings or other wires when a fuse blows out.**

Use of wire or copper wire may cause the unit to break down or cause a fire.

**Never inspect or service the unit by yourself.**

Ask a qualified service person to perform this work.

**Cut off all electric waves before maintenance.**

**Do not wash the air conditioner or the remote controller with excessive water.**

Electric shock or fire may result.

**Do not install the air conditioner or the remote controller at any place where flammable gas may leak out.**

If the gas leaks out and stays around the air conditioner, a fire may break out.

**Do not touch the switch with wet fingers.**

Touching a switch with wet fingers can cause electric shock.

### CAUTION

**After a long use, check the unit stand and fitting for damage.**

If they are left in a damaged condition, the unit may fall and result in injury.

**Do not allow a child to mount on the unit or avoid placing any object on it.**

Falling or tumbling may result in injury.

**Do not let children play on and around the unit.**

If they touch the unit carelessly, it may result in injury.

**Do not place a flower vase and anything containing water.**

Water may enter the unit, causing an electric shock or fire.

**Never touch the internal parts of the controller.**

Do not remove the front panel. Some parts inside are dangerous to touch, and a machine trouble may happen.

For checking and adjusting the internal parts, contact your dealer.

**Avoid placing the controller in a spot splashed with water.**

Water coming inside the machine may cause an electric leak or may damage the internal electronic parts.

**Do not operate the air conditioner when using a room fumigation - type insecticide.**

Failure to observe could cause the chemicals to become deposited in the unit, which could endanger the health of those who are hypersensitive to chemicals.

**Safely dispose of the packing materials.**

Packing materials, such as nails and other metal or wooden parts, may cause stabs or other injuries.

Tear apart and throw away plastic packaging bags so that children will not play with them. If children play with a plastic bag which was not torn apart, they face the risk of suffocation.

**Do not turn off the power immediately after stopping operation.**

Always wait at least five minutes before turning off the power. Otherwise, water leakage and trouble may occur.

**The appliance is not intended for use by young children or infirm persons without supervision.**

**The remote controller should be installed in such away that children cannot play with it.**

### NOTE

**Never press the button of the remote controller with a hard, pointed object.**

The remote controller may be damaged.

**Never pull or twist the electric wire of the remote controller.**

It may cause the unit to malfunction.

**Do not place the controller exposed to direct sunlight.**

The LCD display may get discolored, failing to display the data.

**Do not wipe the controller operation panel with benzine, thinner, chemical dustcloth, etc.**

The panel may get discolored or the coating peeled off. If it is heavily dirty, soak a cloth in water-diluted neutral detergent, squeeze it well and wipe the panel clean. And wipe it with another dry cloth.

**Dismantling of the unit, treatment of the refrigerant, oil and eventual other parts, should be done in accordance with the relevant local and national regulations.**



### 5.3 <DST301BA61> Schedule Timer

Enables you to connect and control weekly schedule for up to 128 indoor units all together.



- Simultaneous control of up to 128 indoor units is managed by a week schedule.
- The start and stop time for twice a day can be set for the week in increments of 1 minute.
- By combining with a central remote controller and schedule timer, you can construct a system that matches the size and use of the building.
- If used together with a central remote controller, you can set up to 8 schedule patterns which can be distributed among zones as desired using the central remote controller.
- Is equipped with a compensation function for power failure up to 48 hours.
- Features thin design of a mere 16 mm in thickness. (Uses JIS recessed box for 2.)
- Wiring can be up to 1 km in length. Applicable wiring methods include bus and star in addition to crossover type.
- Can be used in combination with other D-BACS equipment.

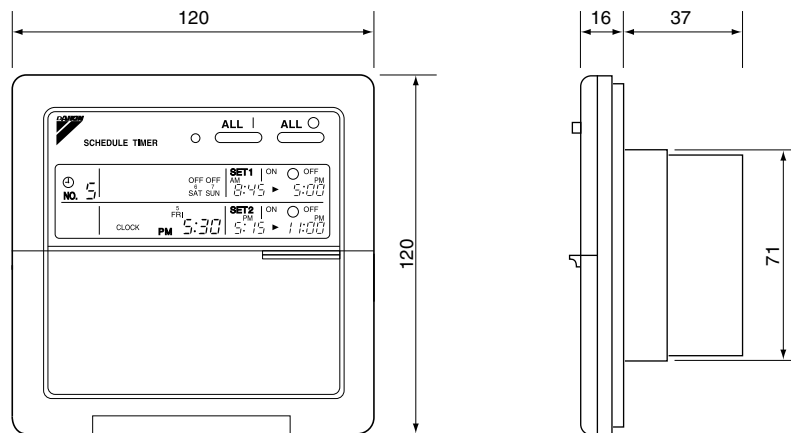
#### 5.3.1 Specifications / Dimensions

##### SPECIFICATIONS

###### ■ Specifications

|                                 |                                                                                                                          |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Display of time                 | 12-hour digital display                                                                                                  |
| Clock cycle type                | Quartz clock type                                                                                                        |
| Clock accuracy                  | Within $\pm 30$ sec./month (environmental temperature from 15°C to 35°C)                                                 |
| Timer programming               | Two pairs of programmed time for both system start and system off can be set in units of minute for each day of the week |
| Power failure compensation time | Approximately 48 hours for a single occurrence of power failure (clock with No. of programmed time)                      |
| Size                            | 120 (W) $\times$ 120 (H) $\times$ 53 (D) mm (Width/Height/Depth)                                                         |
| Weight                          | Approximately 210g                                                                                                       |

###### ■ Outline drawings



Specifications and appearance subject to change without notice.

5.3.2 Installation Manual

Please read these "SAFETY CONSIDERATIONS" carefully before installing air conditioning equipment and be sure to install it correctly. After completing the installation, make sure that the unit operates properly during the start-up operation. Please instruct the customer on how to operate the unit and keep it maintained. Also, inform customers that they should store this installation manual along with the operation manual for future reference. This air conditioner comes under the term "appliances not accessible to the general public".

Meaning of warning, caution and note symbols.

- ⚠ **WARNING** .....Indication a potentially hazardous situation which, if not avoided, could result in death or serious injury.
- ⚠ **CAUTION** .....Indication a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.
- ⚠ **NOTE** ..... Indication situation that may result in equipment or property-damage-only accidents.

**⚠ WARNING**

**Ask your dealer or qualified personnel to carry out installation work. Do not try to install the machine by yourself.**  
Improper installation may result in water leakage, electric shocks or fire.

**Perform installation work in accordance with this installation manual.**  
Improper installation may result in water leakage, electric shocks or fire.

**Be sure to use only the specified accessories and parts for installation work.**  
Failure to use the specified parts may result in water leakage, electric shocks, fire or the unit falling.

**Carry out the specified installation work after taking into account strong winds, typhoons or earthquakes.**  
Improper installation work may result in the equipment falling and causing accidents.

**Make sure that a separate power supply circuit is provided for this unit and that all electrical work is carried out by qualified personnel according to local laws and regulations and this installation manual.**  
An insufficient power supply capacity or improper electrical construction may lead to electric shocks or fire.

**Make sure that all wiring is secured, the specified wires are used, and no external forces act on the terminal connections or wires.**  
Improper connections or installation may result in fire.

**When wiring the power supply and connecting the remote controller wiring and transmission wiring, position the wires so that the electric parts box lid can be securely fastened.**  
Improper positioning of the electric parts box lid may result in electric shocks, fire or the terminals overheating.

**Before touching electrical parts, turn off the unit.**

**Ground the air conditioner. Do not connect the ground wire to gas or water pipes, lightning rod or a telephone ground wire.**  
Incomplete grounding may result in electric shocks.

**When installing or relocating the system, be sure to keep the refrigerant circuit free from substances other than the specified refrigerant (R410A), such as air.**

**Do not reconstruct or change the settings of the protection devices.**  
If the pressure switch, thermal switch, or other protection device is shorted and operated forcibly, or parts other than those specified by Daikin are used, fire or explosion may result.

**Do not touch the switch with wet fingers.**  
Touching a switch with wet fingers can cause electric shock.

**Install an earth leak circuit breaker, as required.**  
If an earth leak circuit breaker is not installed, electric shock may result.

- Do not install the air conditioner or the remote controller in the following locations:**
- (a) where a mineral oil mist or an oil spray or vapor is produced, for example in a kitchen  
Plastic parts may deteriorate and fall off or result in water leakage.
  - (b) where corrosive gas, such as sulfurous acid gas, is produced  
Corroding copper pipes or soldered parts may result in refrigerant leakage.
  - (c) near machinery emitting electromagnetic waves  
Electromagnetic waves may disturb the operation of the control system and result in a malfunction of the equipment.
  - (d) where flammable gases may leak, where there are carbon fiber or ignitable dust suspensions in the air, or where volatile flammables such as thinner or gasoline are handled.  
Operating the unit in such conditions may result in fire.

**CISPR 22 Class A Warning.**  
This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

 **CAUTION**

**Be very careful about product transportation.**

**Safely dispose of the packing materials.**

Packing materials, such as nails and other metal or wooden parts, may cause stabs or other injuries. Tear apart and throw away plastic packaging bags so that children will not play with them. If children play with a plastic bag which was not torn apart, they face the risk of suffocation.

**Do not turn off the power immediately after stopping operation.**

Always wait at least five minutes before turning off the power. Otherwise, water leakage and trouble may occur.

 **NOTE**

**Install the indoor and outdoor units, power supply wiring and connecting wires at least 3.5ft. away from televisions or radios in order to prevent image interference or noise.**

(Depending on the radio waves, a distance of 3.5ft. may not be sufficient enough to eliminate the noise.)

**Remote controller (wireless kit) transmitting distance can result shorter than expected in rooms with electronic fluorescent lamps. (inverter or rapid start types)**

Install the indoor unit as far away from fluorescent lamps as possible.

**This unit is a class A product.**

In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

**Dismantling of the unit, treatment of the refrigerant, oil and eventual other parts, should be done in accordance with the relevant local and national regulations.**

# 1 ACCESSORIES

Check the following accessories are included in the kit before installation.

|                      |   |                                             |   |
|----------------------|---|---------------------------------------------|---|
| Body                 | 1 | Installation screws (M4 × 16)               | 2 |
| Operation manual     | 1 | Attached electric wire (for individual use) | 1 |
| Installation manual* | 4 | Crimp style terminal (for individual use)   | 2 |

For Installation, a electrical box to be embedded is necessary (part to be procured in the field/with covers).

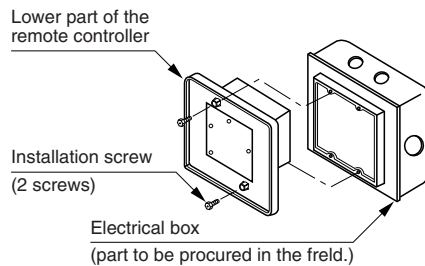
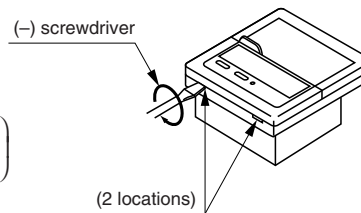
\* DST301BA61 includes only one installation manual.

# 2 INSTALLATION AND INITIAL SETTING

## 1. Remove the upper part of the remote controller.

- Insert a (-) screwdriver (2 locations) into the recess between the upper part and the lower part of the remote controller and twist the screwdriver lightly.

(The PC board is attached with the upper part of the remote controller. Do not damage electric parts with a screwdriver, etc.)



- Attach the lower part to the electrical box (part to be procured in the field) with the provided installation screws.

(Select a flat face as a installation place. Do not tighten the installation screws excessively not to damage the lower part of the remote controller.)

For part to be procured in the field electrical box, use KJB212AA (optional accessory).

## 2. Initial setting

- ① Setting connector for individual use (X1A) (Factory set : OFF) (Set for individual use only)

- For individual use of schedule timer  
Insert the connector attached with the body case on the PC board.
- For combined use with other optional controllers for centralized control  
Do not change the factory setting.

- ② Control mode selector (SS2) (Set for individual use only)

By changing the switch, setting mode of individual and centralized operation is available.

Note) When used with other optional controllers, control mode of central remote controller and unified ON/OFF controller have the priority.

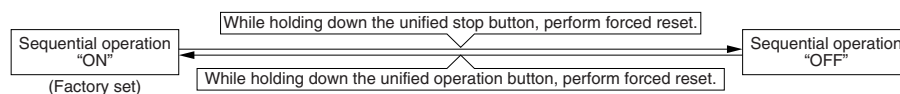


- ③ Setting of the sequential operation function

The schedule timer is equipped with a sequential operation function that sequentially turns indoor units on in 2-second intervals during unified operation.

(Sequential operation is factory set to "ON.")

To switch sequential operation ON or OFF, set as follows.

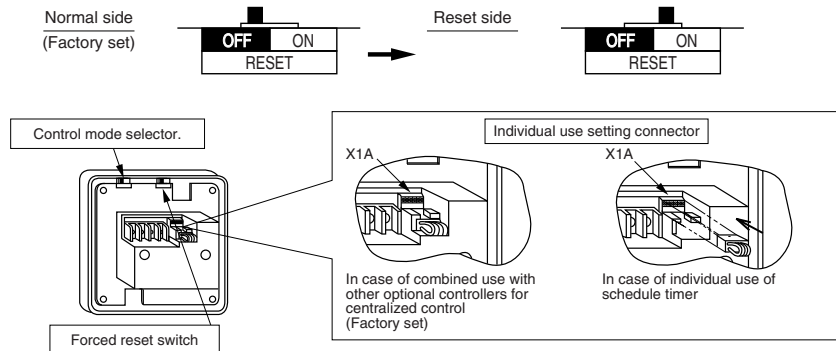


Note) The sequential operation function is designed to reduce the load on the power supply equipment, but does not guarantee that compressors will not be started simultaneously. You cannot therefore count on a capacity reduction effect by power supply equipment breaker selection.



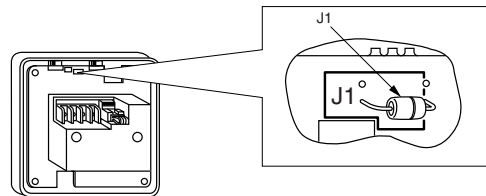
④ Forced reset switch (SS1)

When changing the setting of the connector for individual use, etc., the switch can be reset simply by setting it to the reset side once and returning to the normal side. This procedure enables to reset without turning off the power. (Set the normal side at normal operation.)



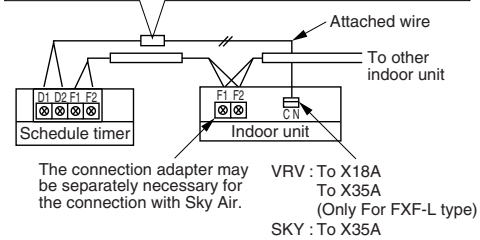
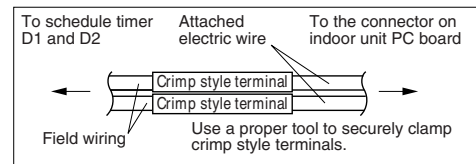
⑤ Setting for special function

When you want to have a programmed operation of a part of indoor units by using only schedule timer, cut off JP1 and supply the power again. You can have a programmed operation of the indoor units set the address for central control by local remote controller.



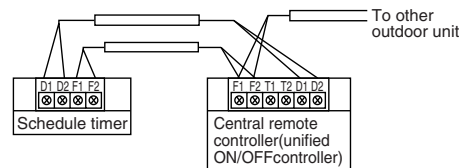
3. Transmission wiring

- In case of individual use of schedule timer**  
Connect terminals of the schedule timer (F1, F2) with terminals of the indoor unit (F1, F2). Connect terminals of the schedule timer (D1, D2) and the connector on the indoor unit PC board, using the attached electric wire and crimp style terminals. Prevent the connection part of crimp style terminal from getting out of the electric parts box of indoor unit.
- In case of combined use with other optional controllers for centralized control**  
Connect terminals of the schedule timer (F1, F2, D1, D2) and the terminals of the central remote controller (or unified ON/OFF controller).



Wiring specifications

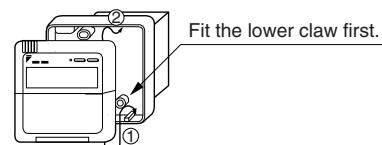
|        | F1, F2                     | D1, D2                     |
|--------|----------------------------|----------------------------|
| Wiring | Sheathed wire (2-wire)     | Sheathed wire (2-wire)     |
| Gauge  | 0.75 ~ 1.25mm <sup>2</sup> | 0.75 ~ 1.25mm <sup>2</sup> |
| Length | Max. 1000m                 | Max. 150m                  |



NOTES:

- Electrical box and transmission wiring are not attached.
- Do not touch the PC board with your hand.
- Keep transmission wiring at least 50 mm away from power supply wiring to avoid malfunctions.

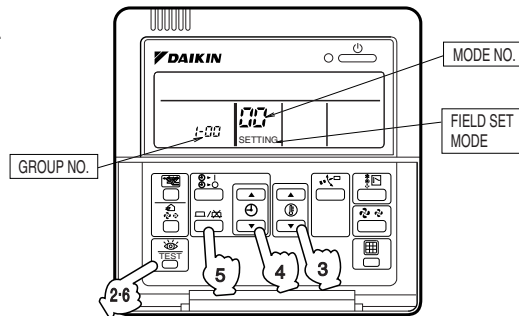
4. Install the upper part of the remote controller as before.



### 3 SETTING GROUP NO. FOR CENTRALIZED CONTROL

Set the group number of each group of the indoor unit from the remote controller. (In case of no remote controller, also connect the remote controller and set the group No. Then, remove the remote controller.)

- (1) Turn ON the power of the indoor unit and SCHEDULE TIMER.  
(Unless the power is ON, no setting can be made.)  
Check that the installation and electrical wiring are correct before turning the power supply ON.  
(When the power supply is turned ON, all LCD appear once and the unit may not accept the operation for about one minute with the display of "SS".)
- (2) While in the normal mode, hold down the " " button for a minimum of 4 seconds.  
The remote controller will enter the FIELD SET MODE.
- (3) Select the MODE No. " " with the " " button.
- (4) Use the " " button to select the group No. for each group.  
(Group numbers increase in the order of 1-00,1-01,...1-15, 2-00,...8-15.)
- (5) Press " " to set the selected group No.
- (6) Press " " to return to the NORMAL MODE.



- NOTES)
- In case of individual use of schedule timer  
Group number setting is not necessary. It is automatically set when turning power supply ON.
  - See the instruction manuals which came with the Ventiair and adapters (i.e., multi-purpose adapters) for details on their Group No. settings.

NOTICE Be sure to keep the operation manual for maintenance.

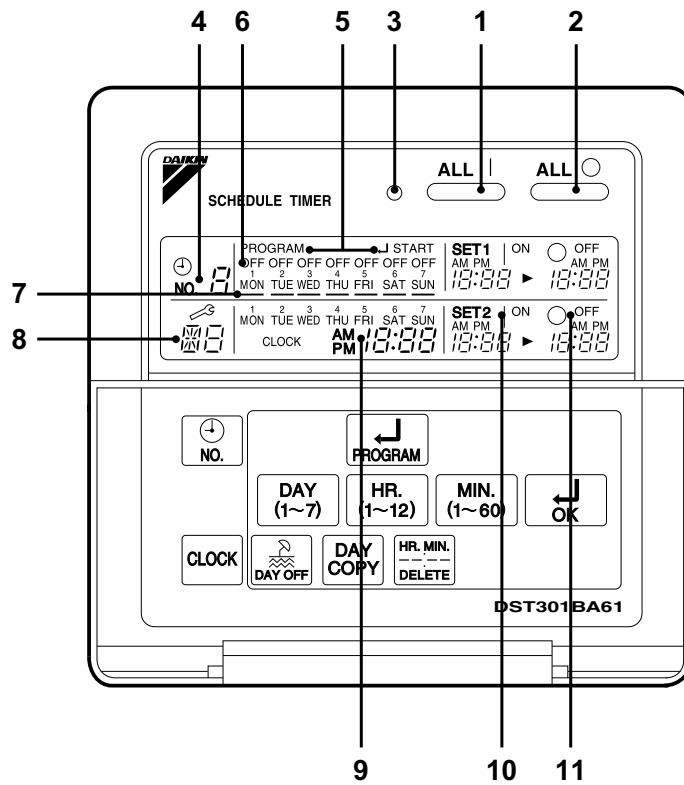
### 4 TEST OPERATION

Refer to the installation manual attached to the outdoor unit.

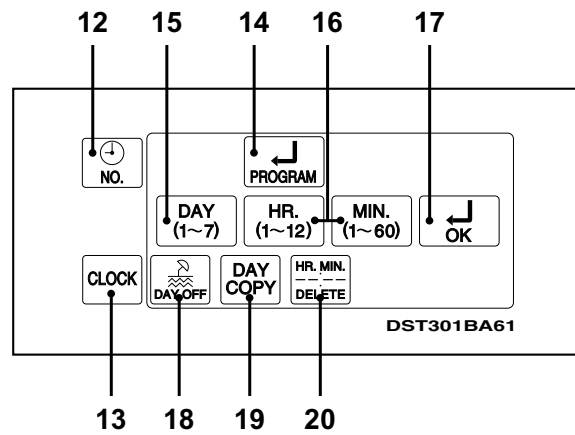
In case the schedule timer is used individually and the wiring is changed after the system has been operated, reset the power after energizing for more than five minutes.  
It may not be possible to control the unit from the schedule timer.

3P162015-1A

5.3.3 Operation Manual

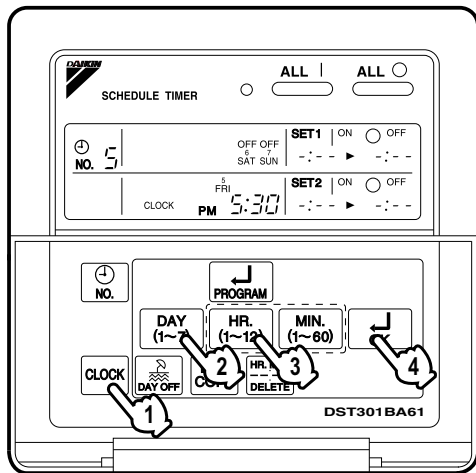


1

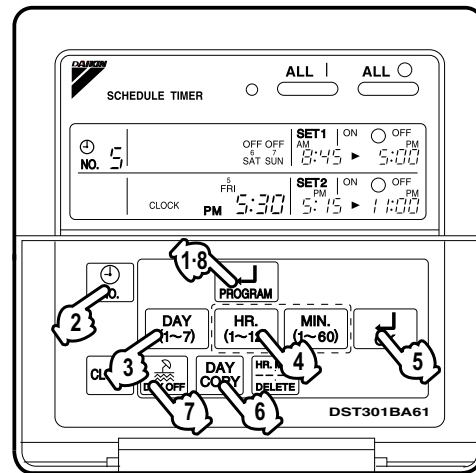


2

[1]

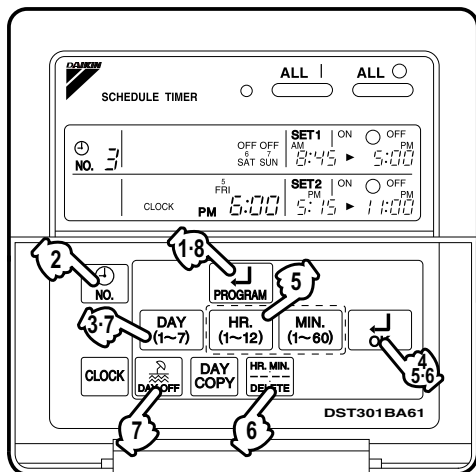


3

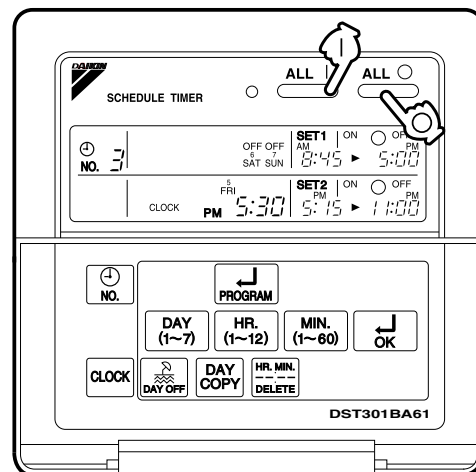


4

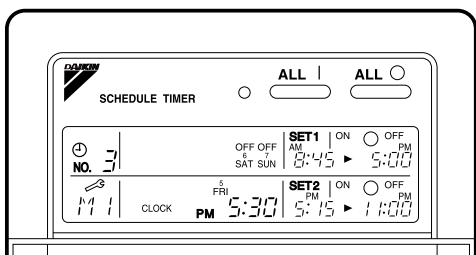
5



5



6



7

[2]

## SAFETY CONSIDERATIONS


Please read these "SAFETY CONSIDERATIONS" carefully before installing air conditioning equipment and be sure to install it correctly. After completing the installation, make sure that the unit operates properly during the start-up operation.


Please instruct the customer on how to operate the unit and keep it maintained.


Also, inform customers that they should store this installation manual along with the operation manual for future reference.

This air conditioner comes under the term "appliances not accessible to the general public".

Meaning of warning, caution and note symbols.


 **WARNING** ..... Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

 **CAUTION** ..... Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

 **NOTE** ..... Indicates situation that may result in equipment or property-damage-only accidents.

**Keep these warning sheets handy so that you can refer to them if needed.**

Also, if this equipment is transferred to a new user, make sure to hand over this operation manual to the new user.

 **WARNING** —————

**In order to avoid electric shock, fire or injury, or if you detect any abnormality such as smell of fire, turn off power and call your dealer for instructions.**

**Ask your dealer for installation of the air conditioner.**

Incomplete installation performed by yourself may result in a water leakage, electric shock, and fire.

**Ask your dealer for improvement, repair, and maintenance.**

Incomplete improvement, repair, and maintenance may result in a water leakage, electric shock, and fire.

**Improper installation or attachment of equipment or accessories could result in electric shock, short-circuit, leaks, fire or other damage to the equipment. Be sure only to use accessories made by Daikin which are specifically designed for use with the equipment and have them installed by a professional.**

**Ask your dealer to move and reinstall the air conditioner or the remote controller.**

Incomplete installation may result in a water leakage, electric shock, and fire.

**Never let the indoor unit or the remote controller get wet.**

It may cause an electric shock or a fire.

**Never use flammable spray such as hair spray, lacquer or paint near the unit.**

It may cause a fire.

**Never replace a fuse with that of wrong ampere ratings or other wires when a fuse blows out.**

Use of wire or copper wire may cause the unit to break down or cause a fire.

**Never inspect or service the unit by yourself.**

Ask a qualified service person to perform this work.

**Cut off all electric waves before maintenance.**

**Do not wash the air conditioner or the remote controller with excessive water.**

Electric shock or fire may result.

**Do not install the air conditioner or the remote controller at any place where flammable gas may leak out.**

If the gas leaks out and stays around the air conditioner, a fire may break out.

**Do not touch the switch with wet fingers.**

Touching a switch with wet fingers can cause electric shock.

**CISPR 22 Class A Warning:**

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

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**⚠ CAUTION**


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**After a long use, check the unit stand and fitting for damage.**

If they are left in a damaged condition, the unit may fall and result in injury.

**Do not allow a child to mount on the unit or avoid placing any object on it.**

Falling or tumbling may result in injury.

**Do not let children play on and around the unit.**

If they touch the unit carelessly, it may result in injury.

**Do not place a flower vase and anything containing water.**

Water may enter the unit, causing an electric shock or fire.

**Never touch the internal parts of the controller.**

Do not remove the front panel. Some parts inside are dangerous to touch, and a machine trouble may happen.

For checking and adjusting the internal parts, contact your dealer.

**Avoid placing the controller in a spot splashed with water.**

Water coming inside the machine may cause an electric leak or may damage the internal electronic parts.

**Do not operate the air conditioner when using a room fumigation - type insecticide.**

Failure to observe could cause the chemicals to become deposited in the unit, which could endanger the health of those who are hypersensitive to chemicals.

**Safely dispose of the packing materials.**

Packing materials, such as nails and other metal or wooden parts, may cause stabs or other injuries.

Tear apart and throw away plastic packaging bags so that children will not play with them. If children play with a plastic bag which was not torn apart, they face the risk of suffocation.

**Do not turn off the power immediately after stopping operation.**

Always wait at least five minutes before turning off the power. Otherwise, water leakage and trouble may occur.

**The appliance is not intended for use by young children or infirm persons without supervision.**

**The remote controller should be installed in such away that children cannot play with it.**

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**⚠ NOTE**


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**Never press the button of the remote controller with a hard, pointed object.**

The remote controller may be damaged.

**Never pull or twist the electric wire of the remote controller.**

It may cause the unit to malfunction.

**Do not place the controller exposed to direct sunlight.**

The LCD display may get discolored, failing to display the data.

**Do not wipe the controller operation panel with benzine, thinner, chemical dustcloth, etc.**

The panel may get discolored or the coating peeled off. If it is heavily dirty, soak a cloth in water-diluted neutral detergent, squeeze it well and wipe the panel clean. And wipe it with another dry cloth.

**Dismantling of the unit, treatment of the refrigerant, oil and eventual other parts, should be done in accordance with the relevant local and national regulations.**

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## FEATURES AND FUNCTIONS

### ■ Operation controlled by programmed time

Operating time and stopping time can be set to the minute by each day of the week. The operating and stopping patterns can also be set in schedule according to the time slot given twice a day in tune with the uses.



See page  
5—9.

### ■ Unified Operation/Stop

By using this schedule timer, the unified operation/stop of the indoor unit can be executed manually regardless of the No. of programmed time in operation.



See page  
9.





### • When used in conjunction with central remote controller (Optional Accessory)

The operation controlled by programmed time can be set for up to eight different patterns (timer No. 1 – 8). Each schedule pattern can be also selected.

## NAMES AND FUNCTIONS OF OPERATING SECTION (Fig. 1, 2)

|   |                                                                                                                  |                     |                     |                             |                                    |                                      |                                                 |                                        |
|---|------------------------------------------------------------------------------------------------------------------|---------------------|---------------------|-----------------------------|------------------------------------|--------------------------------------|-------------------------------------------------|----------------------------------------|
| 1 | <b>UNIFIED OPERATION BUTTON</b> “ ALL   ”<br>                                                                    |                     |                     |                             |                                    |                                      |                                                 |                                        |
|   | Press this button to perform the unified operation regardless of the No. of programmed time.                     |                     |                     |                             |                                    |                                      |                                                 |                                        |
| 2 | <b>UNIFIED STOP BUTTON</b> “ ALL ○ ”<br>                                                                         |                     |                     |                             |                                    |                                      |                                                 |                                        |
|   | Press this button to perform the unified stop regardless of the No. of programmed time.                          |                     |                     |                             |                                    |                                      |                                                 |                                        |
| 3 | <b>OPERATION LAMP (RED)</b>                                                                                      |                     |                     |                             |                                    |                                      |                                                 |                                        |
|   | The light turns on during the operation of the indoor unit.                                                      |                     |                     |                             |                                    |                                      |                                                 |                                        |
| 4 | <b>DISPLAY “  ” (TIME NO.)</b>                                                                                   |                     |                     |                             |                                    |                                      |                                                 |                                        |
|   | Displays the time No. only when used in conjunction with the central remote controller.                          |                     |                     |                             |                                    |                                      |                                                 |                                        |
| 5 | <b>DISPLAY “PROGRAM  START.” (PROGRAMMING START)</b>                                                             |                     |                     |                             |                                    |                                      |                                                 |                                        |
|   | The light turns on when the timer is programmed.                                                                 |                     |                     |                             |                                    |                                      |                                                 |                                        |
| 6 | <b>DISPLAY “ OFF ” (HOLIDAY SETTING)</b>                                                                         |                     |                     |                             |                                    |                                      |                                                 |                                        |
|   | Lights above the day of the week set as holiday. The operation controlled by timer is not available on that day. |                     |                     |                             |                                    |                                      |                                                 |                                        |
| 7 | <b>DISPLAY “ — ” (SETTING OF DAYS OF A WEEK)</b>                                                                 |                     |                     |                             |                                    |                                      |                                                 |                                        |
|   | Flashes below the day of the week programmed.                                                                    |                     |                     |                             |                                    |                                      |                                                 |                                        |
| 8 | <b>DISPLAY “  ” (MALFUNCTION CODE)</b>                                                                           |                     |                     |                             |                                    |                                      |                                                 |                                        |
|   | Displays the contents of malfunction during the stop due to malfunction.                                         |                     |                     |                             |                                    |                                      |                                                 |                                        |
| 9 | <b>DISPLAY “ 10</b>                                                                                              | <b>DISPLAY “ 11</b> | <b>DISPLAY “ 12</b> | <b>TIME NO. BUTTON “ 13</b> | <b>CLOCK ADJUSTING BUTTON “ 14</b> | <b>PROGRAMMING START BUTTON “ 15</b> | <b>BUTTON FOR SELECTING DAYS OF A WEEK “ 16</b> | <b>HOUR/MINUTE BUTTON “  <p>5</p> </b> |




|                                                                                                                        |                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 17                                                                                                                     | <b>TIMER ON BUTTON</b> “  ”                            |
|                                                                                                                        | Press this button to set the present time and the programmed time.                                                                      |
| 18                                                                                                                     | <b>HOLIDAY SETTING</b><br><b>BUTTON</b> “  ”           |
|                                                                                                                        | Press this button to set holidays.                                                                                                      |
| 19                                                                                                                     | <b>BUTTON FOR COPYING PROGRAM OF PREVIOUS DAY</b> “  ” |
|                                                                                                                        | Use this button to set the No. of programmed time same as that of the previous day.                                                     |
| 20                                                                                                                     | <b>PROGRAM CANCELING</b><br><b>BUTTON</b> “  ”         |
|                                                                                                                        | Use this button to set the programmed time to cancel. The display shows “ - ; - - ”.                                                    |
| (Note)<br>1. Please note that all the displays in the figure appear for explanation purpose or when the cover is open. |                                                                                                                                         |

## OPERATION

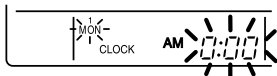
### ■ Setting present time (Fig. 3)

(Example) In case of setting Friday, 5:30 p.m.

1.  Press the **CLOCK ADJUSTING BUTTON**. The present time display flashes.

(NOTE)

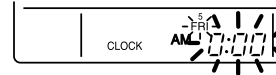
- The present time needs adjusting in case of turning power supply on for the first time or the occurrence of power failure over the period of 48 hours or more.




2.  Press the **BUTTON FOR SELECTING DAYS OF A WEEK**. Each time the button is pressed, the day display shifts to the right.

(NOTE)

- The display “ MON ” follows the display “ SUN. ”

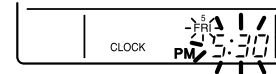


Set the day to Friday.


3.  Set the time with the **HOUR/MINUTE BUTTON**. Each time the HOUR/MINUTE BUTTON is pressed, the display is put forward minute by minute and hour by hour. When the button is kept pressed, the display is put forward continuously.

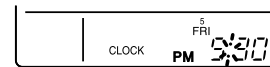
(NOTES)

- After becoming “ AM 11:00 ”, when the button is pressed, the display becomes “ PM 0:00 ”.
- After becoming “ 59 ” (minute), when the button is pressed, the display becomes “ 00 ” (minute).



Set the time to 5:30 p.m.

4.  Press the **TIMER ON BUTTON** the moment the time signal of TV, radio, telephone, etc. is heard. The mark “ : ” flashes, and the clock starts.



Press the **TIMER ON BUTTON** in tune with the time signal at 5:30 p.m.

(NOTES)

- The clock used is of 12-hour type.
- When you turn power supply on, the system may display “ 88 ” for about one minute and not start to operate after all the liquid crystal displays appear at a time.
- If the **CLOCK ADJUSTING BUTTON** is pressed by mistake, press it again to return to the original state. As the clock does not stop, the time indicated by the clock is kept correct. In case of power failure within 48 hours, the clock keeps operating by utilizing the built-in battery.

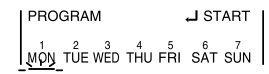
**■ Setting no. of programmed time (Fig. 4)**

(Example) Time No. 5 (to be programmed only when used in conjunction with the central remote controller)

**Monday to Friday:**  
 Operating from 8:45 a.m. till 5:00 p.m.  
 Operating from 5:15 p.m. till 11:00 p.m.

**Saturday and Sunday:**  
 Setting the whole day stop operation (application for holidays) controlled by programmed time.

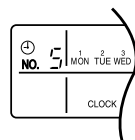
1. Press the **PROGRAMMING START BUTTON**. Programming is available. The display “PROGRAM J START” appears, and the display of days of a week flashes.



2. Press the **TIME No. BUTTON**, and select the desired number.

(NOTE)  
 • Unless used in conjunction with the central remote controller, The TIME No. is not displayed and can not be selected.

Select the TIME No. 5.



3. Press the **BUTTON FOR SELECTING DAYS OF A WEEK**, and set the proper day of the week. Each time you press it, the flashing display of days of a week shifts to the right.



Set to Monday.

**(1) Setting programmed time**

4. Set the programmed time of system start 1 by using the **HOURLY/MINUTE BUTTON**. Each time the **HOURLY/MINUTE BUTTON** is pressed, the display is put forward minute by minute and hour by hour. When the button is kept pressed, the display is put forward continuously.



Set the “PROGRAMMED TIME OF SYSTEM START 1” at 8:45 a.m.

5. Press the **TIMER ON BUTTON**, and set the programmed time of system start 1. Each time you press it, the next area to be set flashes.

(NOTE)  
 • Set the other programmed time in the same procedure.



- (2) **Set the next day of the week.**  
Set the day of the week to Tuesday, and copy the program of the previous day (Monday). In the same procedure, set the day of the week to Wednesday through Friday in sequence.

- 6. **Press the BUTTON FOR SELECTING DAYS OF A WEEK and set the following day. Press the BUTTON FOR COPYING PROGRAM OF PREVIOUS DAY. The same program as that of the immediately preceding day of the week is set.**

(NOTE)

- Repeat each procedure 3 – 5 in the above when not copying the contents of the previous day.

- (3) **Holiday setting**

- 7. **Press the BUTTON FOR SELECTING DAYS OF A WEEK and set one or more days of the week as holiday. Press the HOLIDAY SETTING BUTTON, and the display “ OFF ” is displayed at the top of the day of the week. If you press it again, the display returns to the original state.**



Set Saturday and Sunday as holidays.

- 8. **Press the PROGRAMMING START BUTTON, and finish the program setting.**

(NOTES)

- Unless the button is pressed within 20 minutes, the display will automatically revert back to the original state. In this case, setting contents up to the point where the TIMER ON BUTTON (or HOLIDAY SETTING BUTTON or BUTTON FOR COPYING PROGRAM OF PREVIOUS DAY) is pressed will only take effect.
- The display “ PROGRAM ↵ START ” and the display of days of a week “ — ” disappears.

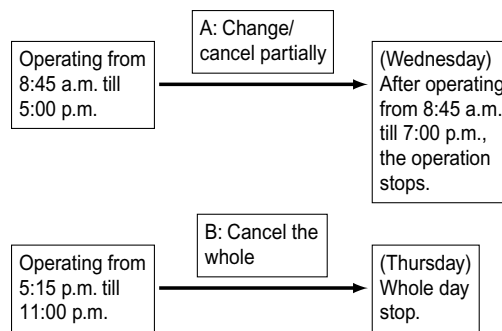
- The flashing display goes off, and the No. of programmed time of the present day is displayed. Then the operation controlled by timer starts.
- The operation controlled by timer is executed even while the program is being set.



This is the end of the setting example.

### ■ Change and cancellation of no. of programmed time (Fig. 5)


(Example) **Time No. 3 (to be set only when used in conjunction with the central remote controller)**

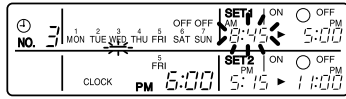


- Press the PROGRAMMING START BUTTON. The program setting is ready. The display “ PROGRAM ↵ START ” appears, and the display of days of a week flashes.**
- Press the TIME No. BUTTON, and select the desired No.**




Select the time No. 3.

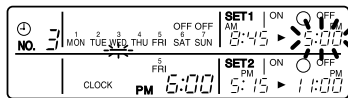
3.  Press the **BUTTON FOR SELECTING DAYS OF A WEEK**, and set the day of the week to be changed. The set No. of programmed time of the day of the week is displayed.




Set the day to Wednesday.

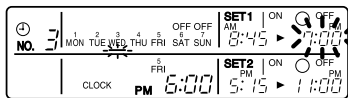
**A. Change/cancel partially**

4.  Press the **TIMER ON BUTTON** and change, and the display of programmed time flashes. Each time you press it, the next area to be set flashes.




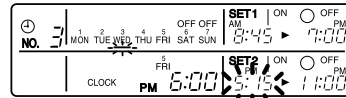
Shift to the display "PROGRAMMED TIME OF SYSTEM OFF 1".

5.  Press the **HOUR/MINUTE BUTTON** and change the programmed time. Press the **TIMER ON BUTTON**, and finalize the setting of change.

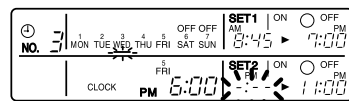


Change the "PROGRAMMED TIME OF SYSTEM OFF 1" to 7:00 p.m.

6.  Press the **PROGRAM CANCELING BUTTON**, and cancel the programmed time. If you press it again, display returns to the original state. Press the **TIMER ON BUTTON** to finalize the cancellation.




Shift to the "PROGRAMMED TIME OF SYSTEM START 2".

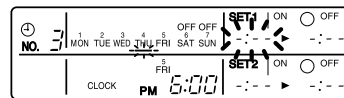


Set the "PROGRAMMED TIME OF SYSTEM START 2" to program cancellation.

In the same procedure, cancel the programmed time of system off 2.

**B. Cancel the whole**

7.  Press the **BUTTON FOR SELECTING DAYS OF A WEEK**, and shift to the day of the week to be canceled. Then, press the **HOLIDAY SETTING BUTTON**, the display "OFF" appears at the top of the particular day of the week. The programmed time is canceled. If you press the button again, the display returns to the original state.



Shift the day of the week to Thursday to set as a holiday.



8.  **Press the PROGRAMMING START BUTTON. The program setting is now finished.**

(NOTES)

- Unless the button is pressed within 20 minutes, the display will automatically revert back to the original state. In this case, setting contents to the point where the TIMER ON BUTTON (or HOLIDAY SETTING BUTTON or BUTTON FOR COPYING PROGRAM OF PREVIOUS DAY) is pressed will only take effect.
- To continue the change/cancellation, do not press the PROGRAMMING START BUTTON until all change/cancellation are completed.
- The operation controlled by timer is executed even while the program is being set.

■ **Manual operation (Fig. 6)**

This schedule timer enables the operation/stop by pressing the UNIFIED OPERATION/STOP BUTTON in addition to the operation controlled by timer (operation/stop according to the programmed time) at any time.

1.  **Press the UNIFIED OPERATION BUTTON, and the OPERATION LAMP turns on.**
2.  **Press the UNIFIED STOP BUTTON, and the OPERATION LAMP is turned off.**

(NOTES)

- The operation automatically stops according to the programmed time of system off even during the manual operation. In the meantime, the operation starts automatically according to the programmed time of system start even during the stop of operation.
- If the unit is used in conjunction with other optional controllers for centralized control, the OPERATION LAMP of the unit that is not under operation control may be turned on or off a few minutes behind schedule. This shows that the signal is being exchanged, and does not indicate any failure.

Operation lamp

- Turn on: The light turns on when any of the indoor units is in operation whether the operation is controlled by timer or by hand.
- Turn off: The light turns off when all the indoor units stop.

■ **Operation control code**

Two different types of operation control codes can be selected when this kit is used independently (when not used in conjunction with the central remote controller, unified ON/OFF controller, etc.).

**Individual**

In case where the operation/stop is controlled by both schedule timer and remote controller.

**Centralized**

The operation is controlled by the schedule timer alone, and the operation/stop is controlled freely with the remote controller during the programmed time.

(NOTES)

- For current settings, contact your DAIKIN dealer.
- To change settings, contact your DAIKIN dealer.  
Do not change settings yourself.

■ **Error diagnosing function (Fig. 7)**

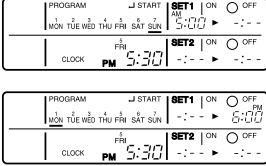

This schedule timer is provided with the malfunction diagnosing function. The malfunction code flashes if there occurs any malfunction in communication, etc. between and among the optional controllers for centralized control. In addition, the operation lamp also flashes if there occurs any malfunction in communication with the indoor unit. Check the contents of the display and contact your DAIKIN dealer because the signals give you the idea of the trouble area.

| Operation lamp | Malfunction code | Contents of malfunction                                                                                                                                                                                                                                                                                                          |
|----------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Turn off       | M1               | Failure of PC board of schedule timer.<br><b>Fixes</b><br>The following causes are possible. Check each one.<br>1. PC board problems                                                                                                                                                                                             |
| Turn on or off | M8               | Malfunction of transmission between each optional controllers for centralized control.<br><b>Fixes</b><br>Check all central devices which are connected (e.g., power supply, transmission wiring, etc.).                                                                                                                         |
| Turn on or off | MA               | Improper combination of optional controllers for centralized control.<br><b>Fixes</b><br>The following causes are possible. Check each one.<br>1. Are all central devices combined correctly?<br>2. Is the master central connector attached to two or more central devices?<br>3. Are there 128 or more indoor units connected? |

|                |    |                                                                                                                                                                                                                                                                                                                     |
|----------------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Turn on or off | MC | Address failure of schedule timer.<br><b>Fixes</b><br>The following causes are possible. Check each one.<br>1. Do the control range addresses in the central remote controller overlap?<br>2. Do the control range addresses in the on/off controller overlap?<br>3. Are there 2 or more schedule timers connected? |
| Flash          | UE | Malfunction of transmission between indoor unit and optional controllers for centralized control.<br><b>Fixes</b><br>Inspect all indoor units which are displaying an error (e.g., power supply, transmission wiring, etc.).                                                                                        |
| Flash          | —  | Malfunction in indoor unit (Refer to the malfunction codes of the indoor remote controller, while also read the “CAUTION FOR SERVICING” attached to the indoor unit.)                                                                                                                                               |

### QUESTION AND ANSWER

| Question                                                                                                                                    | Answer                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| It is possible to make settings twice a day, but is it possible to make only the “off” setting? (To avoid forgetting to turn the unit off.) | Yes. Press the PROGRAM CANCELING BUTTON in the “ <sup>AM PM</sup> 12:88 <sup>ON</sup> ” section in order to set it to “OFF”. |

|                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Is it possible to set times which straddle days?</p>                                                                             | <p>Yes, it is possible.<br/>Example:<br/>Start operation at 5:00 a.m. on Sunday<br/>Stop operation at 6:00 p.m. on Monday</p>                                                                                                                                                                                              | <p>The TIME NO. is not displayed.</p>                                                                                                                                                        | <p>The following causes are possible.<br/>1. The TIME NO. is not displayed when using the schedule timer alone.<br/>(It can be set if using the central remote controller at the same time.)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p>The unit does not turn on even though the set "on" time has come.<br/>(When using the schedule timer alone)</p>                  | <p>The following causes are possible.<br/>1. Are the "on" time and the "off" time set to the same time?</p>                                                                                                                                                                                                                                                                                                 | <p>The display remains</p>  <p>even though I push the HOUR/MINUTE BUTTON in the timer program settings.</p> | <p>The following causes are possible.<br/>1. Is the day set to a holiday?</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <p>The unit does not turn on even though the set "on" time has come.<br/>(When using the unit with a central remote controller)</p> | <p>The following causes are possible. Check each one.<br/>1. Was the timer number set with the central remote controller?<br/>Was an incorrect timer number set?<br/>2. Is another timer no. set with the central remote controller set for "off" at the same time?<br/>3. Is the operation code set to "remote control permission timer" using the central remote controller or the on/off controller?</p> | <p>I cannot set "central management priority" or "after-push priority" with the schedule timer.</p>                                                                                          | <p>The following causes are possible.<br/>1. Is a central remote controller or on/off controller also installed?<br/><b>* The priority order of the operation codes depends on the central devices which are installed.</b><br/>The below operation codes are set.<br/>• Schedule timer<br/>Central remote controller is used as well<br/>Operation code of the central remote controller<br/>• Schedule timer<br/>On/off controller is used as well<br/>Operation code of the on/off controller<br/>• Schedule timer<br/>Central remote controller<br/>On/off controller is used as well<br/>Operation code of the central remote controller</p> |
| <p>The unit operates even though that day is set as a holiday.<br/>(When using the unit with a central remote controller)</p>       | <p>The following causes are possible.<br/>1. Is another timer number set with the central remote controller set for "on" at the same time?<br/>(If two timer numbers are set, make sure that the settings for holidays and working days do not overlap between the different timer numbers.)</p>                                                                                                            |                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

## 5.4 Combination of <DCS302C71 / DCS301C71 / DST301BA61> Combinations of Optional Controllers for Centralised Control

Besides using the various optional controllers for centralised control by themselves, a schedule timer or unified ON/OFF controller can be combined with and connected to the central remote controller. By devising a component system such as this, you can freely construct the ideal central control system according to use and scale.

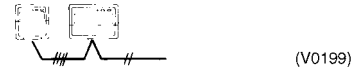
### 5.4.1 System Example

#### ■ Unified ON/OFF controller



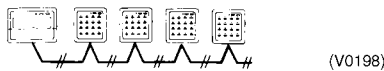
Connect a unified ON/OFF controller according to the number of indoor units. A network consisting of up to 16 groups×8 units=128 groups can be constructed using a single line.

#### ■ Schedule timer + central remote controller



Lets you set up to 8 patterns of weekly schedule for turning air-conditioning equipment ON/OFF twice a day. Operates up to 128 groups of indoor units individually or by zone according to a programmed schedule.

#### ■ Central remote controller + unified ON/OFF controller

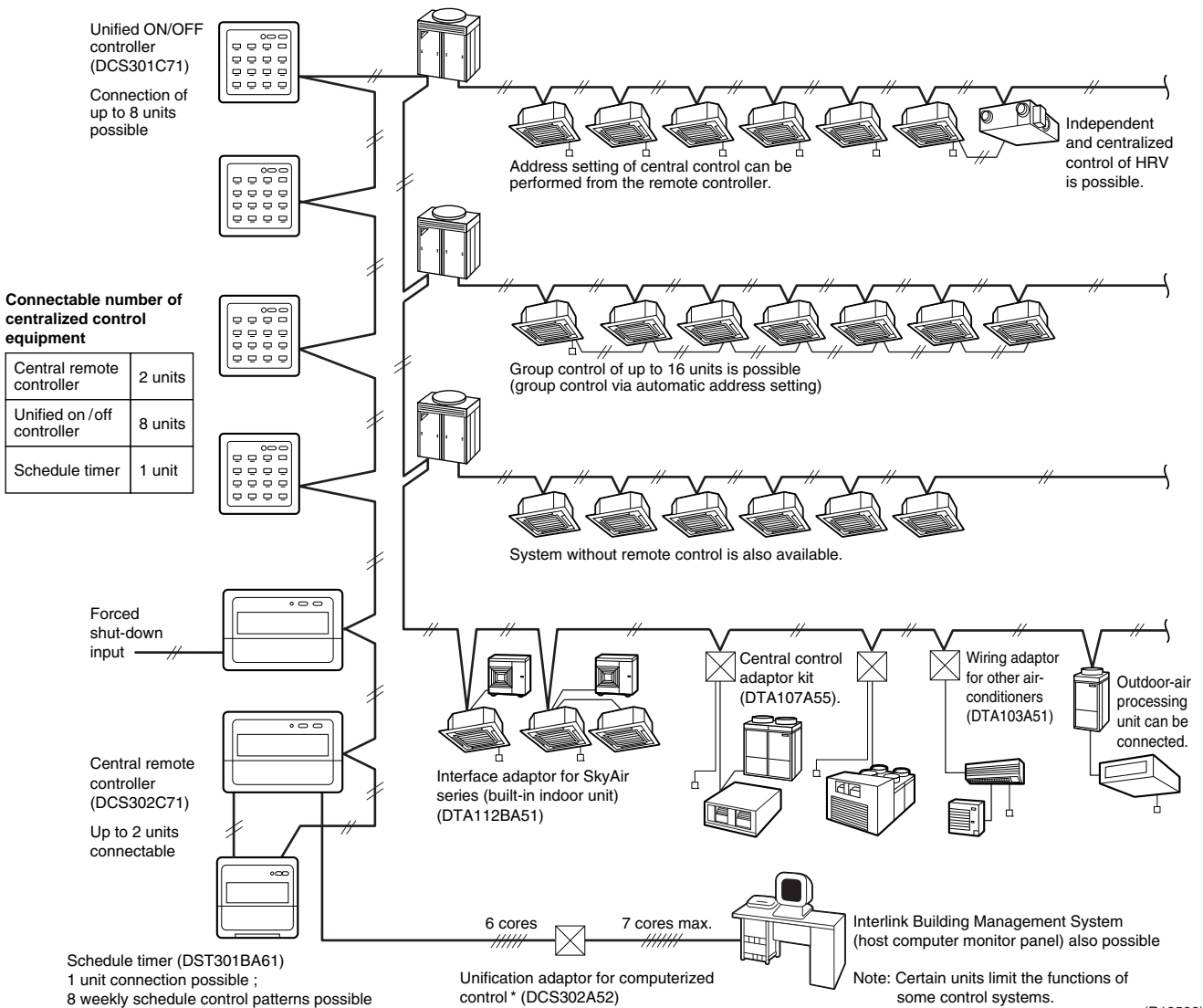


Combines the high functionality of a central remote controller and the easy operation of a unified ON/OFF controller. Centrally controls up to 128 groups of indoor units.

#### ■ Schedule timer + unified ON/OFF controller



Lets you set ON/OFF for twice a day. Operates up to 128 groups of indoor units all together according to a programmed schedule.





You can freely combine the central controllers within the limitation of the following number of each controller; 1~4 units of central remote controllers, one unit of schedule timer and 1~16 units of unified ON/OFF controllers. However, the maximum number of the indoor units to be controlled is 128 units for one system in any combination of the central controllers.

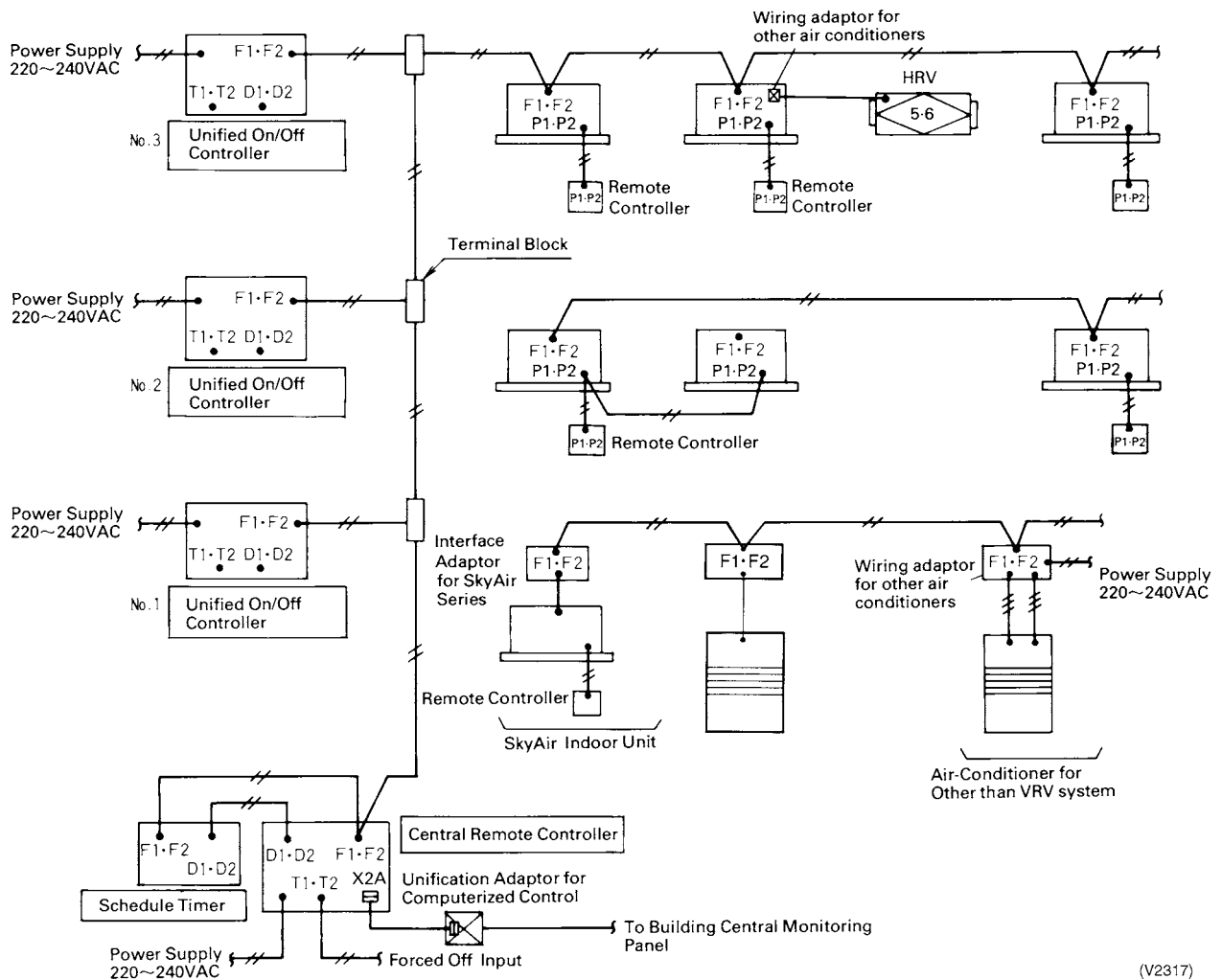
■ Connection Pattern for Optional Controller for Centralised Control

| Central Remote Controller DCS302C71 | Unified ON/OFF Controllers DCS301C71 | Schedule Timer DST301BA61 |
|-------------------------------------|--------------------------------------|---------------------------|
| 1~4                                 | —                                    | —                         |
|                                     | 1~16                                 | 1                         |
|                                     | —                                    | 1                         |

The maximum number of indoor units is based on one unit in each zone and is also under the double central control system.

5.4.2 Electric Wiring

Combination of 1 Central Remote Controller, 1 Schedule Timer, 3 Unified ON/OFF Controllers



(V2317)

### 5.4.3 Initial Settings for Central Control Equipment

#### 1. Central Remote Controller

- Leave the master control connector (X1A) connected.  
(Connected when shipped from the factory)  
The connector is to be connected to only 1 central line.
- Operation control setting  
Sets the priority ranking of control for the central remote controller and remote controller for indoor units.
- Zone setting  
Sets the zones when several groups are controlled as one group.

#### 2. Unified On/Off Controller (No.s 1, 2, and 3 in the figure above)

- Remove the master control connector (X1A).
- Control range setting switch (DS1)  
Sets the range of group No.s for each group of indoor units to be controlled by unified ON/OFF controllers no.1,2 and 3 in the figure above. 16 units (16 groups) can be set by 1 unified ON/OFF controller.
- Control mode switch (DS2)  
Sets priority ranking of control for unified ON/OFF controllers and remote controllers for indoor units. If using in combination with a central remote controller, the central remote controllers control mode is given priority.

#### 3. Schedule Timer

- Leave the setting connector for individual use (X1A) disconnected. (Disconnected when shipped from the factory)
- Control mode switch (SS2)  
Sets the priority ranking of control for the schedule timer and remote controllers for indoor units. If using in combination with a central remote controller, the central remote controllers control mode is given priority.

### 5.4.4 Group No. Setting for Central Control

#### 1. Setting by Remote Controller for Indoor Units

- Sets group No.s in local setting mode by remote controller. (Group No.s are 1-00-1-15, 2-00-2-15 up to 8-00-8-15)

#### 2. Adaptor PC Board Setting

Sets group No. setting switches RS1 and RS2 for central control on PC board when using an interface adaptor for SkyAir series, or wiring adaptor for other air-conditioners.  
RS1 (Upper): 1~4 (1~8 in case of interface adaptor for SkyAir Series)  
RS2 (Lower): 0~F

## 5.5 <KRP928BB2S> Interface Adaptor for DIII-NET (Residential Air Conditioner)

### Safety Precautions

- Read these Safety Precautions carefully to ensure correct installation. This manual classifies precautions into WARNING and CAUTION.

**⚠ WARNING** : Failure to follow WARNING is very likely to result in such grave consequences as death or serious injury.

**⚠ CAUTION** : Failure to follow CAUTION may result in serious injury or property damage, and in certain circumstances, may result in a grave consequence.

Be sure to follow all the precautions below ; they are all important for ensuring safety.

#### ⚠ WARNING

- Installation should be left to the dealer or another qualified professional.**  
Improper installation by yourself may cause malfunction, electrical shock, or fire.
- Install the set according to the instructions given in this manual.**  
Incomplete or improper installation may cause malfunction, electrical shock, or fire.
- Be sure to use the standard attachments or the genuine parts.**  
Use of other parts may cause malfunction, electrical shock, or fire.
- Disconnect power to the connected equipment before starting installation.**  
Failure to do so may cause malfunction, electrical shock, or fire.

#### ⚠ CAUTION

- A ground fault circuit interrupter / an earth leakage circuit breaker should be installed.**  
If the breaker is not installed, electrical shock may occur.
- Do not install the set in a location where there is danger of exposure to inflammable gas.**  
Gas accumulated around the unit at the worst may cause fire.
- To prevent damage due to electrostatic discharge, touch your hand to a nearby metal object (doorknob, aluminum sash, etc.) to discharge static electricity from your body before touching this kit.**  
Static electricity can damage this kit.
- Lay this cable separately from other power cables to avoid external electrical noises.**

- After installation is complete, test the operation of the PCB set to check for problems, and explain how to use the set to the end-user.

### 1. Overview, Features and Compatible Models

This kit is the interface required when connecting the central controller and a Room Air Conditioner. Use of the central controller makes it possible to perform the following monitoring and operations. It is compatible with room air conditioners which have an HA connector S21.


- Run / stop for the central controller and wired remote controller, operating mode selection, and temperature can be set.
- The operating status, any errors, and the content of those errors can be monitored from the central controller and wired remote controller.
- Run / stop for the central controller and wireless remote controller, operating mode selection, and the temperature setting can be limited by the central controller.
- Zone control can be performed from the central controller.
- The unit can remember the operating status of the air conditioner before a power outage and then start operating in the same status when the power comes back on.
- Card keys, operating control panels, and other constant / instantaneous connection-compatible equipment can be connected.
- The Operating / error signals can be read.
- The indoor temperature can be monitored from the Intelligent Touch Controller.

#### Precaution

- When reading the Operating / error signals, a separate external power source (12 V DC) is needed.
- A separate timer power source (16 V DC) is needed when using the schedule timer independently, and not in conjunction with other central controllers.
- The range of temperatures that can be set from the central controller is 18°C to 32°C in cooling and 14°C to 28°C in heating.
- Fan operation cannot be selected from the central controller or wired remote controller.
- Group control (i.e., control of multiple indoor units with a single remote controller) is not available.
- Monitoring is not available of the thermo status, compressor operating status, indoor fan operating status, electric heater, or humidifier operating status.
- Forced thermo off, filter sign display and reset, fan direction and speed settings, air conditioning fee management, energy savings instructions, low-noise instructions, and demand instructions cannot be made.

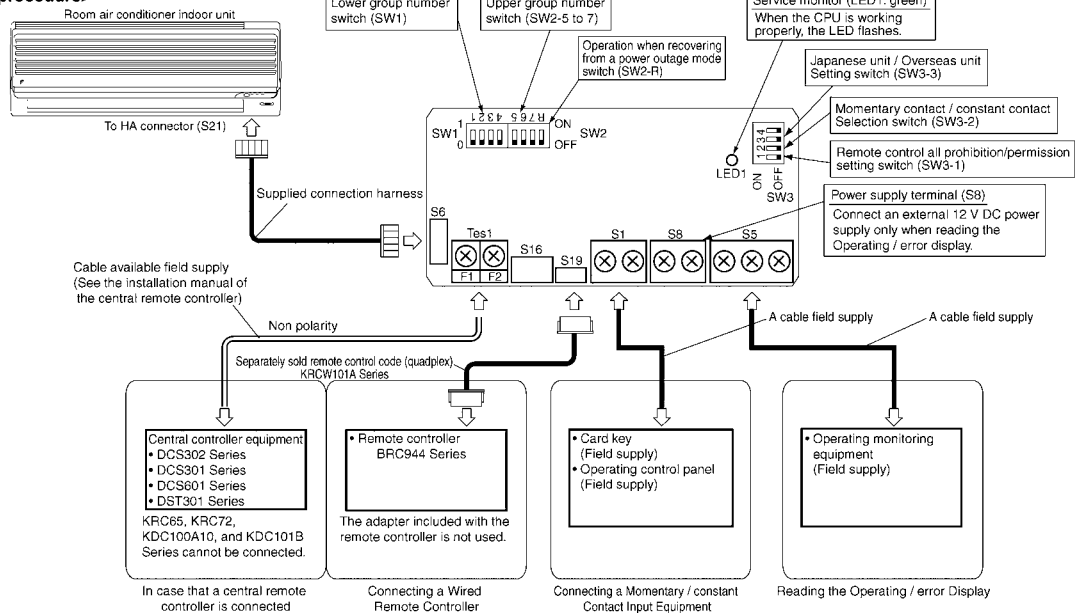
### 2. Component Parts

This kit includes the following components. Check to ensure that none of these are missing.

| Parts                                                                               | Q'ty | Parts                           | Q'ty  |
|-------------------------------------------------------------------------------------|------|---------------------------------|-------|
| Kit assy<br>PCB is in the housing.                                                  | 1    | Connection harness (about 1.6m) | 1set  |
|  |      | Mounting screws                 | 3pcs. |
|                                                                                     |      | Binding band                    | 6pc.  |
|                                                                                     |      | Installation manual             | 2set  |

### 3. Names of Parts and Electric Wiring

#### <Wiring procedure>



4.Switch Settings

**NOTE** Turn the power on after all the switches have been set. Settings made while the power is on are invalid.

Open the Kit's case and set the switches on the circuit board.  
 (1) For Overseas / Japanese unit setting (SW3-3)  
 Room air conditioners, different methods are used for setting the temperature in automatic mode, so this switch needs to be set.

| Destination | SW3-3 setting         | What Happens                                                                                                                                                                                                                                                                                 |
|-------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Japan       | OFF (Factory setting) | • "Automatic" operation is not available from the central controller. When using "automatic" operation using the wireless remote controller, the central controller displays automatic cooling (heating) and 25°C. Even if the temperature is changed, it will return to 25°C after a while. |
| Overseas    | ON                    | • "Automatic" operation is available from the central controller.                                                                                                                                                                                                                            |

(2) Group number settings (SW1 and SW2-5 to SW2-7)  
 Set these when using the central controller. (Set to the side.) Do not set more than one unit to the same number.  
 Use SW2-R for (3) Settings when recovering from a power outage.

However, these settings do not need to be made when using the schedule timer independently. (The settings are needed when used in conjunction with another DCS Series central controller.)  
 In this case, the schedule timer performs an auto address after the power is turned on, so new group numbers are automatically set. Settings made using the switches will be overwritten.

| Upper group NO. | Knob position | 1— | 2— | 3— | 4— | 5— | 6— | 7— | 8— |
|-----------------|---------------|----|----|----|----|----|----|----|----|
| SW2 setting     | OFF           |    |    |    |    |    |    |    |    |
| Lower group NO. |               | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 |
| SW1 setting     | OFF           |    |    |    |    |    |    |    |    |
| Lower group NO. |               | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 |
| SW1 setting     | OFF           |    |    |    |    |    |    |    |    |

NOTE also that a separate timer power source is needed when using the schedule timer independently.  
 Power source specs: 16 V DC, +10%, -15%, 200mA.

(3) Settings when recovering from a power outage (SW2-R)  
 This selects whether to restart operation when the power comes back on after a power outage occurred during operation. This setting is given priority in cases where the indoor unit has an auto start ON / OFF jumper. Note also that regardless of whether switch SW2-R is on or off, the operating mode (NOTE), set temperature, fan direction and speed settings, and remote control prohibition status are stored.

| SW2-R setting         | What Happens                                                                      |
|-----------------------|-----------------------------------------------------------------------------------|
| OFF (Factory setting) | Stops after recovering from a power outage                                        |
| ON                    | Stops if the unit was stopped before the power outage and runs if it was running. |

(NOTE) The following settings apply to the models below.

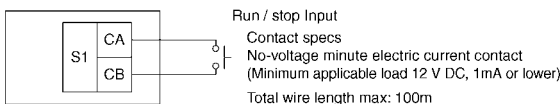
| Mode before the power outage                                     | COOLING     | HEATING       |
|------------------------------------------------------------------|-------------|---------------|
| Room air conditioner                                             |             |               |
| Models with Humid heating and Reheating dehumidifying functions. | DRY COOLING | HUMID HEATING |
| Models with Reheating dehumidifying function.                    |             | HEATING       |

(4) Contact input function settings (SW3-1 to SW3-2)  
 When using contact input (S1), choose one of the following functions.

| S1 operating mode                               | SW3-1 setting | SW3-2 setting | What Happens                                                                                           | Control mode                                                                      |
|-------------------------------------------------|---------------|---------------|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Instantaneous contact input (factory setting)   | OFF           | OFF           | The operating status of the air conditioner is reversed by an instantaneous input of 100 msec or more. | Last command priority                                                             |
| Constant contact input                          | OFF           | ON            | Contact - Open to close: air condition runs. Close to open: air conditioner is stopped (NOTE 1).       | ON / OFF control is rejected (operate / stop / timer prohibition) (NOTE 2).       |
| Remote control all prohibition/permission input | ON            | Invalid       | Contact - Open to close: air condition stops. Close to open: no change in operating status.            | All remote controller actions are prohibited when the contact is closed. (NOTE 3) |

NOTE1: Since central equipment uses last command priority, the contact status and operating status of the air conditioner might not match sometimes.  
 Example: If the unit is run from the central controller while the air conditioner is stopped with an open contact, the contact will be open and the unit will be running.

NOTE2: Operating mode and fan direction and speed settings can be changed.  
 NOTE3: If the contact is closed while the ON timer is set, as the power ON timer function is still operating, the operation starts at the time specified by the timer. To prevent operation of the power ON timer, use of the (KRP413AB1S) remote control PC-board set is recommended. However, note that it cannot be used in tandem with the central controller.



5.Control Codes

When using a central remote controller, the operating codes can be used to limit operation from wireless remote controllers. Three beeps for signal reception will be heard continuously when the wireless remote controller is operated while in central control.  
 ○ : permitted; × : prohibited

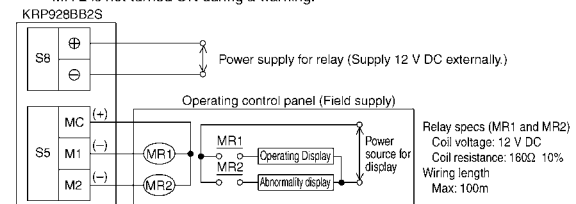
| S1 operating mode                            | Control mode                                     | Control code   | Operations from the remote controller |      |                            |                             |             |      | Operations from central controller and contact input |   |
|----------------------------------------------|--------------------------------------------------|----------------|---------------------------------------|------|----------------------------|-----------------------------|-------------|------|------------------------------------------------------|---|
|                                              |                                                  |                | Run / timer                           | Stop | Operating mode temperature | Fan direction and fan speed | Run / timer | Stop |                                                      |   |
| Instantaneous contact mode                   | ON / OFF control is rejected                     | 0,1,3<br>10,11 | ×                                     | ×    | ○                          |                             |             | ×    | ×                                                    | ○ |
|                                              | Only OFF control is accepted                     | 2<br>12-19     |                                       | ×    | ○                          | ×                           |             | ×    | ○                                                    | × |
|                                              | Central priority                                 | 4<br>5         | ○                                     | ○    | ○                          |                             |             | ×    | ×                                                    | ○ |
|                                              | Last command priority                            | 6,7            | ○                                     | ○    | ○                          |                             |             | ×    | ×                                                    | ○ |
|                                              | Timer operation is accepted by remote controller | 8<br>9         | ○*                                    | ○*   | ○*                         | ○                           |             | ×    | ×                                                    | ○ |
| Constant contact mode                        | 2,10-19<br>0,1,3,5-7                             | 4              | ×                                     | ×    | ○                          |                             |             | ×    | ×                                                    | ○ |
|                                              |                                                  | 8              |                                       |      | ○*                         |                             |             | ×    | ×                                                    | ○ |
|                                              |                                                  | 9              |                                       |      | ○*                         |                             |             | ×    | ×                                                    | ○ |
|                                              |                                                  | ○              |                                       |      | ○                          |                             |             | ×    | ×                                                    | ○ |
| All remote controller actions are prohibited |                                                  |                | ×                                     | ×    | ×                          | ×                           | ×           | ×    | ×                                                    |   |

\*Only during timer operation  
 The remote controller permission / prohibition settings using the Intelligent Touch Controller are as follows.  
 ○ : permitted; × : prohibited

| S1 pin operating mode                        | Intelligent Touch Controller settings |                       |                        | Operations from the remote controller |      |                            |                             | Operations from central controller and contact input |
|----------------------------------------------|---------------------------------------|-----------------------|------------------------|---------------------------------------|------|----------------------------|-----------------------------|------------------------------------------------------|
|                                              | Start / stop                          | Change operating mode | Change set temperature | Run / timer                           | Stop | Operating mode temperature | Fan direction and fan speed |                                                      |
| Instantaneous contact mode                   | ON / OFF control is rejected          | permitted             | permitted/prohibited   | ×                                     | ×    | ○                          |                             |                                                      |
| Constant contact mode                        |                                       | prohibited            | permitted/prohibited   | ×                                     | ×    | ×                          |                             |                                                      |
| Instantaneous contact mode                   | Only OFF control is accepted          | permitted             | permitted              | ×                                     | ×    | ○                          |                             |                                                      |
|                                              |                                       | prohibited            | permitted/prohibited   | ×                                     | ×    | ×                          |                             | ○                                                    |
| Constant contact mode                        |                                       | permitted             | permitted              | ×                                     | ×    | ○                          |                             |                                                      |
|                                              |                                       | prohibited            | permitted/prohibited   | ×                                     | ×    | ×                          |                             |                                                      |
| Instantaneous contact mode                   | Last command priority                 | permitted             | permitted/prohibited   | ×                                     | ×    | ×                          |                             |                                                      |
|                                              |                                       | prohibited            | permitted/prohibited   | ×                                     | ×    | ×                          |                             |                                                      |
| Constant contact mode                        |                                       | permitted             | permitted/prohibited   | ×                                     | ×    | ×                          |                             |                                                      |
|                                              |                                       | prohibited            | permitted/prohibited   | ×                                     | ×    | ×                          |                             |                                                      |
| All remote controller actions are prohibited | Does not affect settings              |                       |                        | ×                                     | ×    | ×                          | ×                           |                                                      |

6.Read Operating / Error Display Signal

The Operating / error signals can be read from the contact output (S5).  
 Output specs  
 M1: Turn MR 1 ON when the air conditioner is running.  
 M2: Turn MR 2 when a communication error has occurred between the KRP928BB2S and the air conditioner, or MR 1 is ON and the unit has stopped after an error.  
 MR 2 is not turned ON during a warning.



7.Combining Equipment

The central controller can be combined with the following devices.

|                            | Central Remote Controller | ON / OFF controller | Schedule timer | D-BIPS | Contact input | Wired Remote Controller | Wireless Remote Controller |
|----------------------------|---------------------------|---------------------|----------------|--------|---------------|-------------------------|----------------------------|
| Central Remote Controller  | ○                         | ○                   | ○              | ○      | ○             | ○                       | ○                          |
| ON / OFF controller        | ○                         | ○                   | ○              | ○      | ○             | ○                       | ○                          |
| Schedule timer             | ○                         | ○                   | ×              | ×      | ○             | ○                       | ○                          |
| D-BIPS                     | ○                         | ○                   | ×              | ×      | ○             | ○                       | ○                          |
| Contact input              | ○                         | ○                   | ○              | ○      | ×             | ○                       | ○                          |
| Wired Remote Controller    | ○                         | ○                   | ○              | ○      | ○             | ×                       | ×                          |
| Wireless Remote Controller | ○                         | ○                   | ○              | ○      | ○             | ×                       | ○                          |

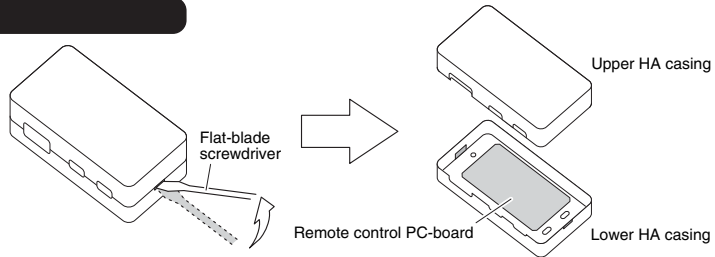
3P248024-1C

Connection to Remote Control PC-board

**Connection to Remote Control PC-board**

**1. Removal of upper HA casing**

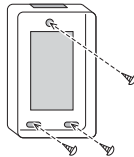
Insert a flat-blade screwdriver into the groove between the upper and lower casings.



Lift the handle of the screwdriver upward.

**2. Securing of lower HA casing**

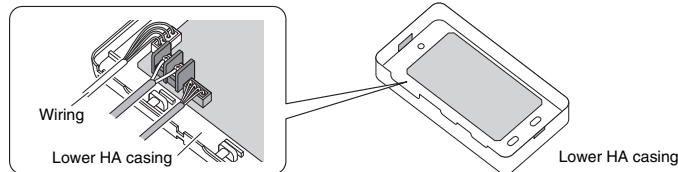
Mount and secure the lower HA casing directly on the wall with the provided screws inserted into the screw holes (a round hole and two ellipse holes) of the casing.



**NOTE** Mount the HA casing in a direction where the wiring through-holes will be hidden in order to prevent infants from putting their fingers into the HA casing and the LED light on the internal PC board from leaking outside.

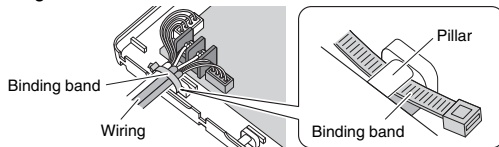
**3. Connection of wiring**

Connect the wiring to the connector terminals.

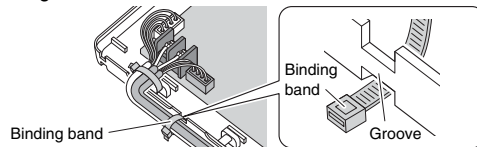


**4. Fixation of wiring**

Insert the provided binding band under the pillar of the HA casing and secure the covers of the wiring with the binding band.



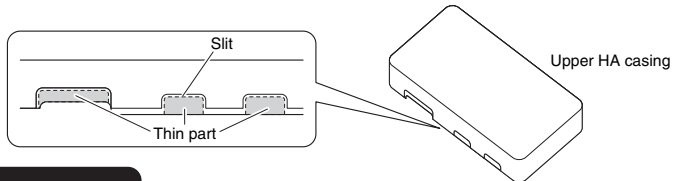
Insert the second binding band into the groove on the side of the HA casing and fix the wiring securely so that the wiring will not be disconnected.



**A large number of wires**

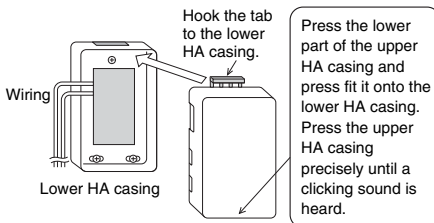
Make a slit with an appropriate tool, such as a cutter knife, on the thin part of the upper HA casing along the frame. Then cut the part with an appropriate tool, such as a pair of nippers.

(NOTE) Cut off only the thin part required for wiring.



**5. Finishing**

Mount the upper HA casing to the original position.



**Information**

**When the contact input device (such as card keys) and central controller are used in tandem:**

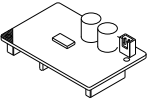
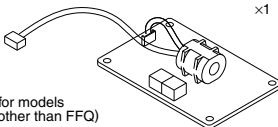
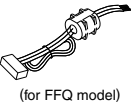
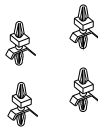
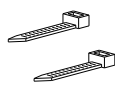
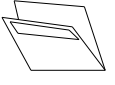
Even when the operating mode of the S1 pin is set to prohibit all remote controller actions, run/stop operation from the central controller is possible. The operation also starts when the power ON timer of the indoor unit is up while all remote controller actions are prohibited. In this case, stop the operation from the central controller.

For the compatible models of the (KRC944 series) remote controller, the operation can be prohibited by using the remote controller in tandem with the central controller.

3P248024-3C

## 5.6 <DTA112BA51> Interface Adaptor for DIII-NET (SkyAir)

**Accessories** Check if the following accessories are included in the kit.

| ① Adaptor                                                                            | ② Relay PCB                                                                                                         | ③ Relay harness                                                                                         | ④ PC board support                                                                   | ⑤ Clamp material                                                                       | ⑥ Installation manual                                                                  |
|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
|  ×1 |  ×1<br>(for models other than FFQ) |  ×1<br>(for FFQ model) |  ×4 |  ×2 |  ×1 |

**Note** Before opening control box lid, be sure cut off the all air conditioner power of indoor unit and outdoor unit, or you may get an electric shock..

### 1 SYSTEM OUTLINE

- By connecting this kit to an optional controller for centralized control, all units of the SKY AIR Series in the system can be controlled as a group from the optional controller.
- One kit must be installed onto the master unit of each group.

### 2 ELECTRIC WIRING for FFQ model

- Mount the Adaptor ① on the indoor unit PCB by setting the triangle marks together.(Fig.1)
- Insert the Relay harness ③ into the connector of the Adaptor ① (Fig.2)
- Remove the remote control terminal block(X1M) from the control box mounted inside the indoor unit.
- Connect the Relay harness ③ with the terminals F1 and F2 on the terminal block(X1M). (Fig.2)
- Mount the remote control terminal block(X1M) on the inside of the control box as it was before removing it.
- Bind the extra wires with the attached Clamp material ⑤ so that the wires do not go over the indoor unit PCB. (Fig.3)
- Connect the wires from the terminals F1 and F2 to the centralized control. (Fig.2)

**Fig.1**

5

**Fig.2**

**Fig.3**

**Note 1.** Wiring specifications ... Use a 0.75-1.25mm sheathed vinyl cord or cable (2 wires).  
**Note 2.** For details on compatible systems and how to connect to optional controllers, see the instruction manual of the optional controller and technical reference materials.

## 5.7 <KRP413AB1S> Wiring Adaptor for Timer Clock / Remote Controller

### Safety Precautions

- Read these safety precautions carefully before installing the unit, and be sure to install the unit properly.
- This manual classifies precautions to the user into the following two categories. These warnings and cautions are for your safety. Follow them.

|                  |                                                                                                      |
|------------------|------------------------------------------------------------------------------------------------------|
| <b>⚠ WARNING</b> | Faulty installation can result in death or serious injury.                                           |
| <b>⚠ CAUTION</b> | Faulty installation can result in serious injury, damage to property, or other serious consequences. |

- After installation is complete, test the unit to confirm that it is working properly, and instruct the owner its proper use.

### ⚠ WARNING

- Installation should be left to the dealer from whom you purchased the unit, or another qualified professionals.
- Install the unit securely according to the installation manual. Faulty installation may lead to electric shock or fire.
- Be sure to use the supplied or specified parts. Using other parts may lead to electric shock or fire.
- Install the unit securely in a location that will support its weight. If installed in a poor location or improperly installed, the unit may not work as intended.
- For electrical work, follow local electric standards and the installation manual. Faulty installation may lead to fire or electric shock.
- Do not bundle the power cord, or attempt to extend it by splicing it with another cord or by using an extension cord. Do not place any other load on the power circuit used for the unit. Improper wiring may lead to electric shock, heat generation or fire.
- Use dedicated wiring for all electrical connections, and be sure to arrange the wiring so that force applied to the wiring will not damage the terminals. Poor wiring or installation may cause electric shock, heat generation or fire.

### ⚠ CAUTION

- Before installation, unplug the air conditioner to ensure safety. Failure to do so may cause electric shock.
- Static electricity may damage electric components. Before connecting cables and communication lines, and operating the switches, be sure to discharge any electrical charge from your body (by, for example, touching the earth line)
- Do not install the unit in a location where it may be exposed to flammable gases. If gas leaks and build up around the unit, it may catch fire.
- Do not place the wiring close to the power cord, inter-unit cable, or pipes which generate noise. Treat the wiring with care.

### 1. Functions and Features

- On/Off setting
- Switching between Instantaneous Contact/Normal Contact
- Connection with five-room central controller (KRC72 for oversea model)
- Connection with fan coil remote controller
- Automatic reset after power failure
- Output of normal operation signals/malfunction signals

### 2. Field Wiring

For interconnecting wiring, use Daikin KDC100A12 cable (not supplied) or other similar cable. Use a vinyl-covered wire or cable with four conductors each with a thickness of 0.2 to 1.25 mm<sup>2</sup>.

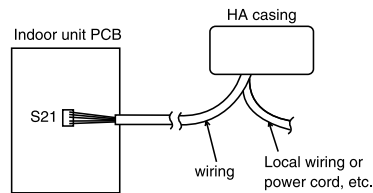
#### ■ Optional cable KDC100A12 (without connectors)

Specifications: 0.2 mm<sup>2</sup> × 4 core (sheathed)  
 Outer diameter: φ5.3  
 Length: 100 m  
 Colour: Grey

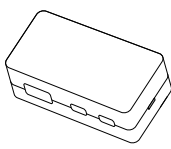
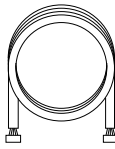
Note : Keep any wiring for the control unit away from the power cord to prevent electrical noise.

## Installation ①

### 1 Installation diagram



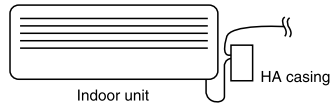
### 2 Components

|                                                                                                                                                               |                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| ①HA casing ASSY<br>(Remote Control PCB is attached in the HA casing.)<br> | ②Wiring (approx. 0.8 m)<br> |
| ③Accessories<br>Binding band (6 pcs.)<br>• Screws for attaching to the wall (3 pcs.)                                                                          |                                                                                                                  |
| ④Installation manual                                                                                                                                          |                                                                                                                  |

## Installation ②

### Attaching HA Case ASSY

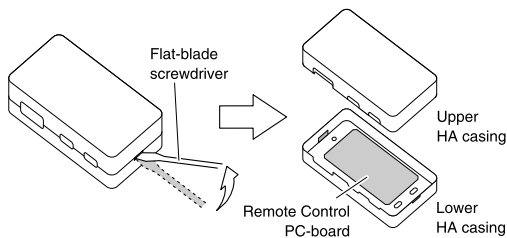
- Use the 3 supplied screws to attach the HA casing ASSY.



Install the HA casing ASSY as close to the indoor unit as possible.

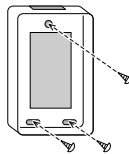
#### ① Removal of upper HA casing

- (1) Insert a flat-blade screwdriver into the groove between the upper and lower HA casings.



- (2) Lift the handle of the screwdriver upward.

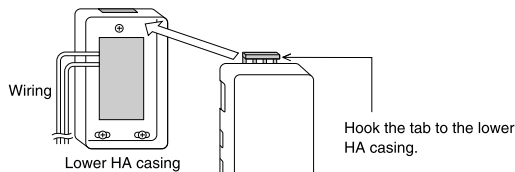
- ② Mount and secure the lower HA casing directly on the wall with the provided screws inserted into the screw holes (a round hole and two ellipse holes) of the casing.



#### NOTE

Mount the HA casing in a direction where the wiring through-holes will be hidden in order to prevent infants from putting their fingers into the HA casing and the LED light on the internal PC-board from leaking outside.

- ③ After connecting the cables (refer to the following sections), replace the case front. Be careful not to damage the wiring in the case.



Press the lower part of the upper HA casing and press fit it onto the lower HA casing.  
Press the upper HA casing precisely until a clicking sound is heard.

## Wiring ①

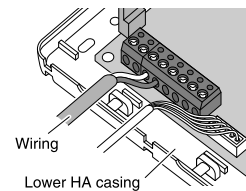
### 1. Wiring

- ① Connect one end of the wiring to connector S21 of the PCB in the indoor unit.
- ② Connect the other end of the wiring to connector S6 of the Remote Control PCB.
- ③ Connect field wiring according to the functions assigned to each connection terminal of the Remote Control PCB.
- ④ Secure all wires.

#### 1 Securing wires in the HA casing ASSY

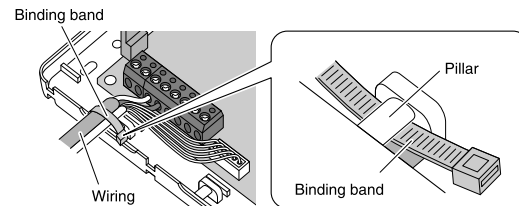
##### ① Connection of wiring

Connect the wiring to the connector terminals.

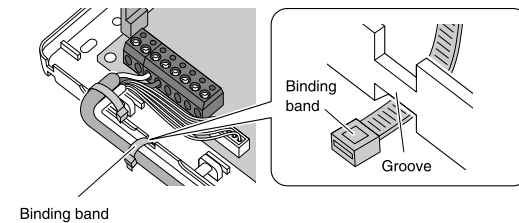


##### ② Fixation of wiring

- (1) Insert the provided binding band under the pillar of the HA casing and secure the covers of the wiring with the binding band.



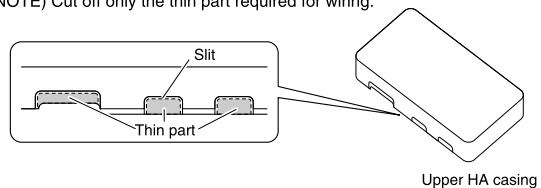
- (2) Insert the second binding band into the groove on the side of the HA casing and fix the wiring securely so that the wiring will not be disconnected.



#### A large number of wires

Make a slit with an appropriate tool, such as a cutter knife, on the thin part of the upper HA casing along the frame. Then cut the part with an appropriate tool, such as a pair of nippers.

(NOTE) Cut off only the thin part required for wiring.



#### 2 Securing wires in the indoor unit

- The method for securing wire varies depending on the model of the air conditioner. See your air conditioner installation manual for details.



## Wiring ②

### 2. Automatic Reset After Power Failure

- This PCB stores the following data in the event of a power failure (the storage period is limitless).
  - ① On/Off (see Note 1)
  - ② Operation modes (see Note 2)
  - ③ Temperature setting
  - ④ Air flow rate
  - ⑤ On/Off status of remote controller
 (Note 1 When SW1-2 is in Off mode, the unit will not be activated.)  
 (Note 2 The following settings apply to the models below.)

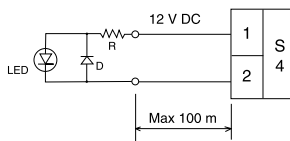
| Mode before the power outage                                     | COOLING     | HEATING       |
|------------------------------------------------------------------|-------------|---------------|
| Room air conditioner                                             |             |               |
| Models with Humid heating and Reheating dehumidifying functions. | DRY COOLING | HUMID HEATING |
| Models with Reheating dehumidifying function.                    |             | HEATING       |

(Note 3 Not all settings will be saved (e.g., humidity or swing settings will not be saved).)

### 3. Monitor Signal Output (normal operation and malfunction)

- Maximum length of the wiring is 100 m. No external power supply is required.

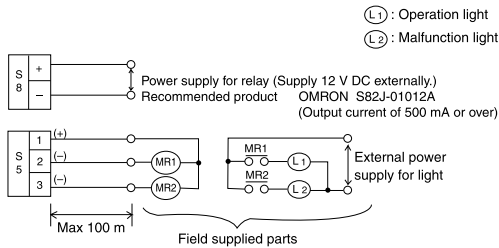
#### 1 Monitor signal output for LED



#### Locally procured parts

| Item | Manufacturer | Type         |
|------|--------------|--------------|
| LED  | Rohm         | SLR-342      |
| D    | Rohm         | 1SS133       |
| R    |              | 510 ohm 1/4W |

#### 2 Monitor signal output (normal operation and malfunction) using external relay contacts



#### Field procured parts (Recommended external relay contacts)

| Manufacturer | Type     | Coil rated voltage | Coil resistance |
|--------------|----------|--------------------|-----------------|
| Omron        | MY relay | 12 V DC            | 160 ohm ± 10%   |
| Panasonic    | HC relay | 12 V DC            | 160 ohm ± 10%   |

### 4. Connection with Remote Controller

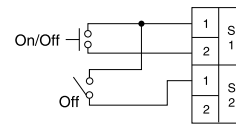
Example connections with three kinds of remote controllers are shown below. Note: These connections cannot be used in combination.

#### 1 Remote control with switch (field supply)

- Set SW1-1 to Off and select Operation Mode 1.

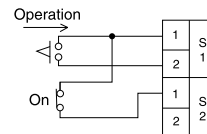


##### <Instantaneous Contact>



- The remote controller most recently used (local or air conditioner) takes precedence.
- Use a remote controller with a pulse width of 100 msec or more.

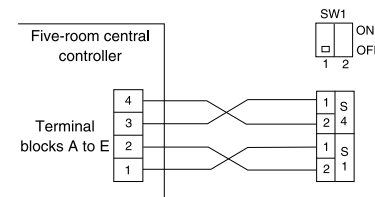
##### <Normal Contact>



- Power On/Off cannot be controlled from the unit's remote controller. (Three beeps for signal reception will be heard continuously when the wireless remote controller is operated.)
- When power is restored after a power failure in this mode, On or Off is determined according to the current settings of the remote controller.

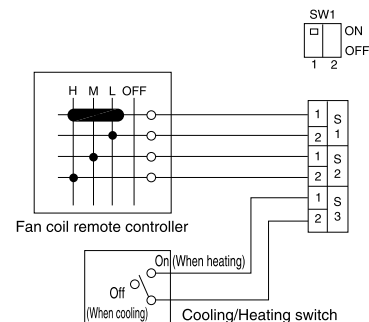
#### 2 Five-room central controller (KRC72)

- Set SW1-1 to Off and select Operation Mode 1.
- The remote controller most recently used takes precedence.



#### 3 Fan coil remote controller

- Set SW1-1 to On and select Operation Mode 2.
- Most settings (power On/Off, air flow rate, mode change) cannot be made using the air conditioner's remote controller.
- When power is restored after a power failure in this mode, On or Off is determined according to the current settings of the remote controller.
- When the Cooling/Heating mode is changed, use the air conditioner's remote controller to adjust the temperature.

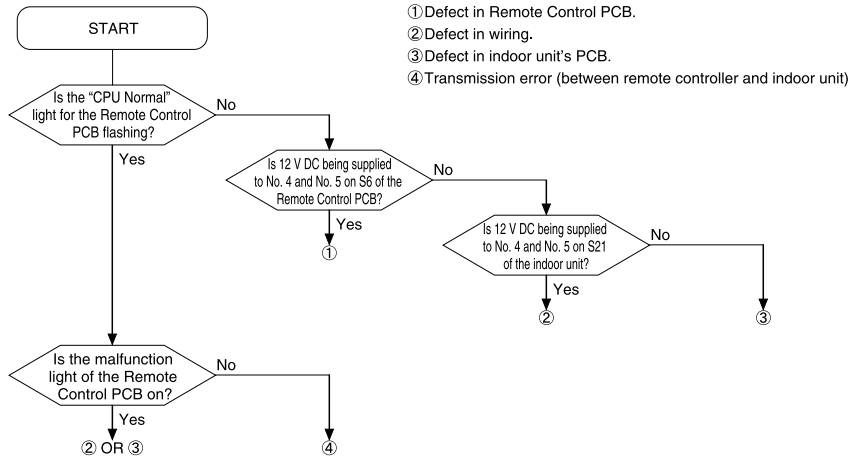


## Test Operation and Confirmation

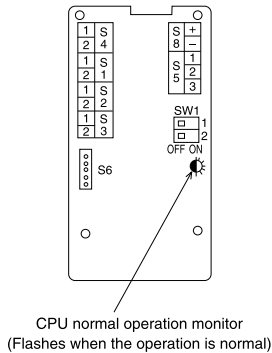
### 1. When the System is Not Working

- Is the air conditioner working properly?
- Are the connectors of the wiring properly connected?
- Are the remote controller and field wiring properly connected?
- Are all switch settings correct?
- If there is nothing apparently wrong, conduct a diagnostic check using the following procedure.

■ Diagnostic check



### 2. Switch Settings and Connection Terminals



|                |                                                               |                                                            |                                                                                                            |                       |                                         |  |
|----------------|---------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------------|--|
| SW1-1          | Selecting the operation mode                                  | OFF                                                        | Operation mode 1 (Used with the exception of fan coil remote controller settings)                          |                       |                                         |  |
|                |                                                               | ON                                                         | Operation mode 2 (Used with fan coil remote controller settings)                                           |                       |                                         |  |
| SW1-2          | Selecting On/Off when power is restored after a power failure | OFF                                                        | Always Off                                                                                                 |                       |                                         |  |
|                |                                                               | ON                                                         | Off if operation was in Off mode before power failure; On if operation was in On mode before power failure |                       |                                         |  |
| S1<br>S2<br>S3 | SW1-1: OFF<br>(Operation mode 1)                              |                                                            |                                                                                                            | Instantaneous contact | Normal contact                          |  |
|                |                                                               | S1 (1) - S2 (1)                                            | OPEN                                                                                                       | CLOSE                 |                                         |  |
|                |                                                               | S1 (1) - S1 (2)                                            | Pulse input<br>On/Off switching                                                                            |                       | OPEN, Not activated<br>CLOSE, Activated |  |
|                |                                                               | S2 (2), S3                                                 | Not used                                                                                                   |                       |                                         |  |
|                |                                                               | S1, S2 OPEN                                                | Not activated                                                                                              |                       |                                         |  |
|                | SW1-1: ON<br>(Operation mode 2)                               | S1 (1) - S1 (2) CLOSE                                      | On, airflow: L tap                                                                                         |                       |                                         |  |
|                |                                                               | S1 (1) - S2 (1) CLOSE                                      | On, airflow: M tap                                                                                         |                       |                                         |  |
|                |                                                               | S1 (1) - S2 (2) CLOSE                                      | On, airflow: H tap                                                                                         |                       |                                         |  |
|                |                                                               | S3 (With the remote controller only)                       | OPEN                                                                                                       | Cooling               |                                         |  |
|                |                                                               |                                                            | CLOSE                                                                                                      | Heating               |                                         |  |
| S4             | (1) - (2)                                                     | Voltage on (12 V DC), normal operation light output        |                                                                                                            |                       |                                         |  |
| S5             | (1) - (2)                                                     | Normal operation light output (power for light required)   |                                                                                                            |                       |                                         |  |
|                | (1) - (3)                                                     | Malfunction light output (power for light required)        |                                                                                                            |                       |                                         |  |
| S6 connector   |                                                               | Connect with connector S21 on the PCB of the indoor unit   |                                                                                                            |                       |                                         |  |
| S8             | (+ ) - (- )                                                   | Relay 12 V DC power supply terminal (Field supplied parts) |                                                                                                            |                       |                                         |  |

## 5.8 <BRC944B2> Wired Remote Controller for Residential Air Conditioner

### 5.8.1 Installation Manual

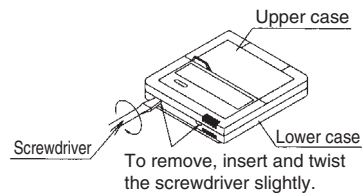
#### **⚠ CAUTION**

1. No switch box or staple is supplied. Prepare them locally.
2. No remote controller cord is supplied. Prepare the optional remote controller cord 4 wire.
3. Be sure to turn off the power to any apparatus connected prior to mounting.
4. Prior to mounting equipment, touch something metallic such as a doorknob to remove static electricity from your body. Never touch the remote controller board or the adapter board.
5. Keep the wiring away from any other power source lines to avoid electric noise (external noise).
6. Select a flat surface, wherever possible, to mount the remote controller. To prevent deformation of the cases, do not overtighten the mounting screws.

#### 1. Securing the remote controller lower case

Insert a bladed screwdriver into the concave (凹) in the remote controller lower case to remove the upper case assembly (two locations).

The remote controller board is located on the upper case. Take care not to scratch the board with the screwdriver.



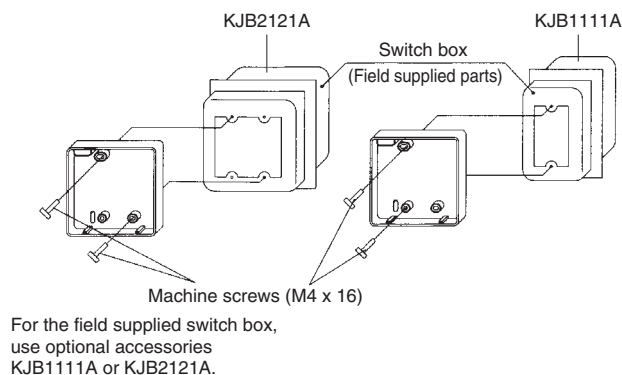
#### (1) Exposed mounting

Secure the remote controller lower case with the two supplied wood screws.



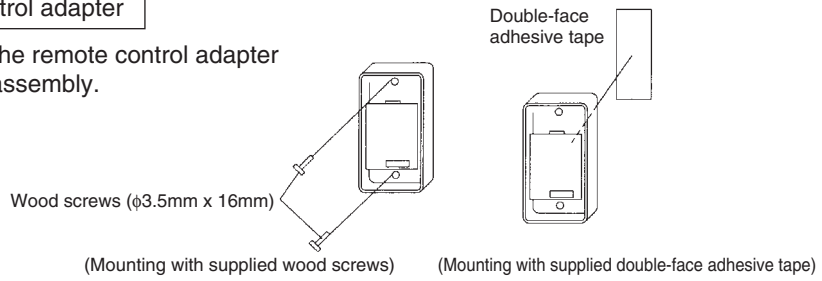
#### (2) Embedded mounting

Secure the remote controller lower case with the two supplied machine screws.

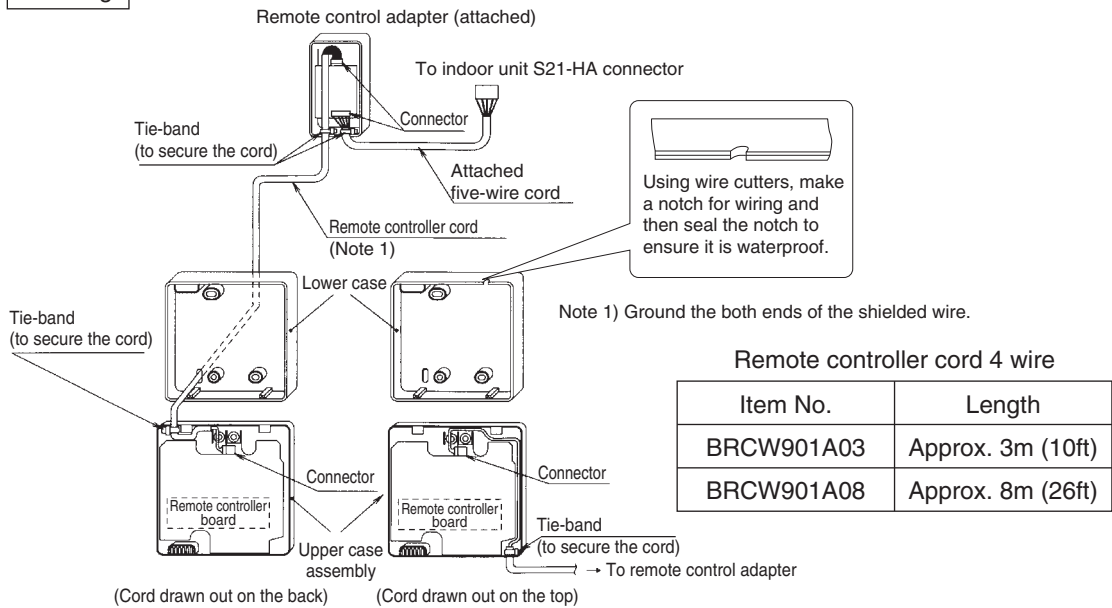


**2. Securing the remote control adapter**

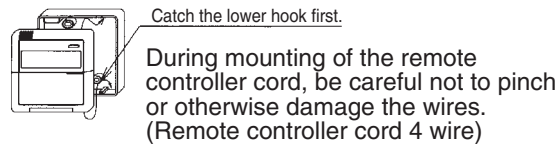
Remove the upper case of the remote control adapter and secure the lower case assembly.



**3. Wiring**



**4. Placing the upper case assembly of the remote controller and the upper case of the remote controller adapter back into their original positions**

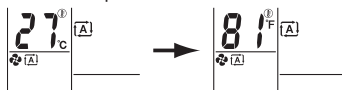


**5. Temperature indication change**

To change from Celsius temperature indication to Fahrenheit one

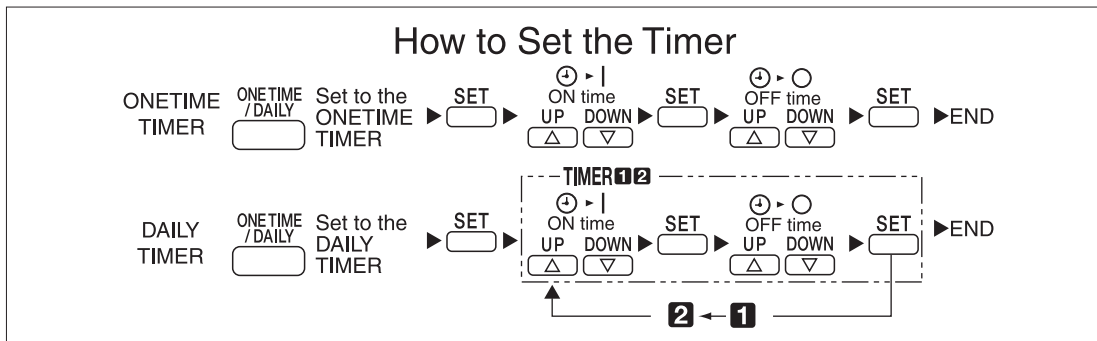
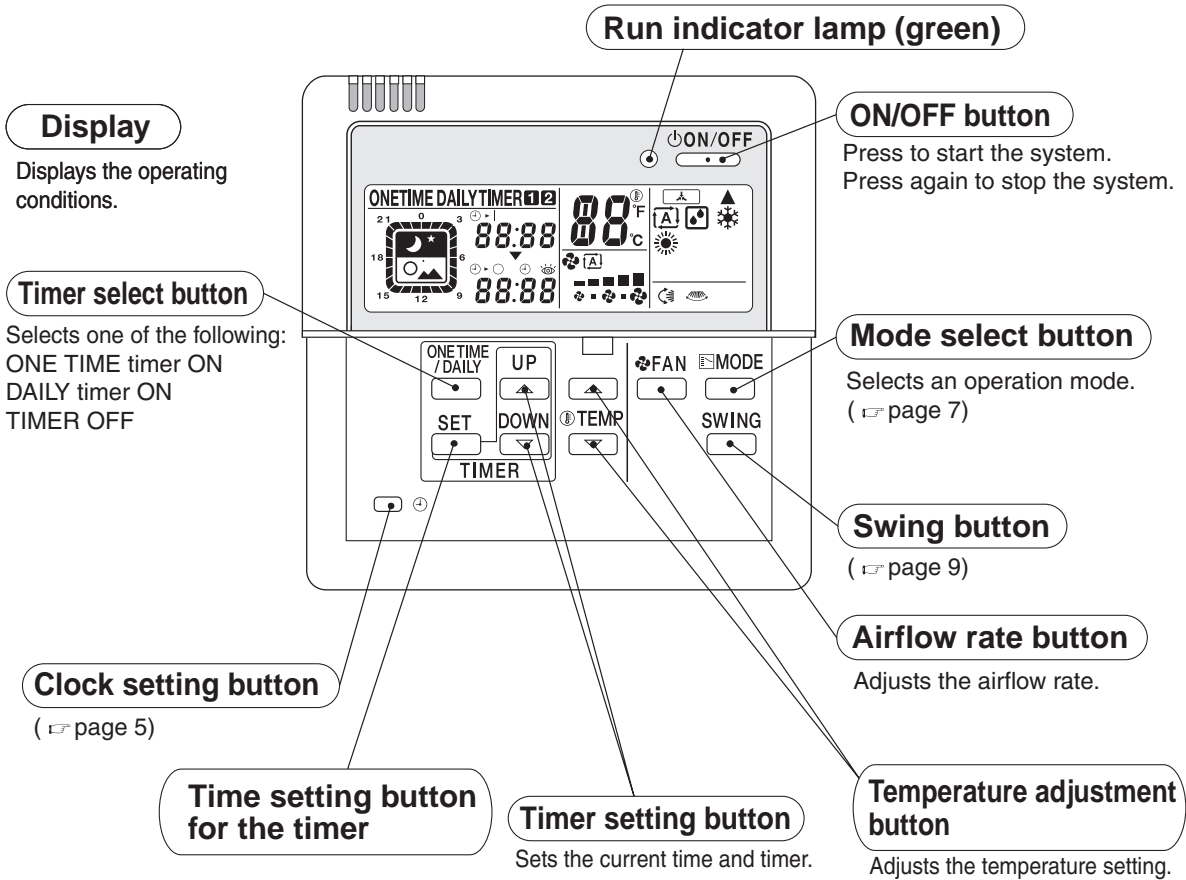
Press and hold down at the same time for 5 seconds while the Celsius temperature is indicated.

← See Operation Manual



5.8.2 Operation Manual

# Controller Commands and their Corresponding Functions



**CAUTION**

• This remote controller cannot be used together with a standard wireless remote controller. Otherwise, what appears on this remote controller's display may fail to correspond to actual operating conditions.

# Preparation before Operation

## ■ Checking the power

If nothing appears on the remote controller's display, turn on the circuit breaker.

## ■ Setting the current time

1 Press .



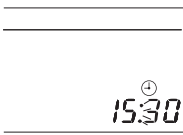
The current time starts blinking.  
0:00 lights up.

2 Press and and set the current time.



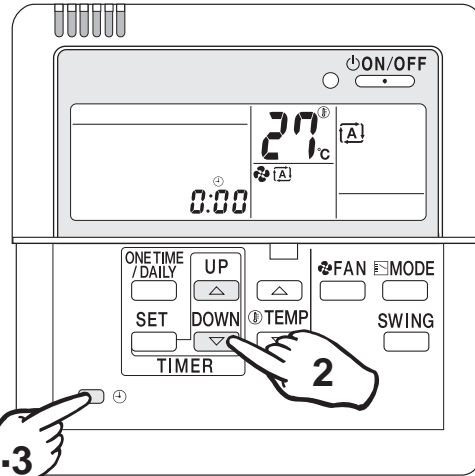
- Hold the button down to rapidly advance the time.

3 Press .



: blinks.  
(This completes the current time setting)

- The clock's accuracy is ±30 seconds per month.



## Notes

### To use the unit efficiently

- Avoid overcooling or overheating. Moderate room temperature setting contributes to power saving.
 

Recommended temperature setting

For cooling ..... 26~28°C (79°F~82°F)

For heating ..... 20~22°C (68°F~72°F)
- Hang a blind or a curtain on the window. This will enhance the cooling/heating effect by intercepting direct sunlight and drafts.
- A clogged air filter reduces the cooling/heating effect and wastes energy. Clean the air filter monthly (every two weeks as required) or so.

### Please take note of the following points

- Electric power is consumed even when the air conditioner is not in operation.
- When the unit is not used for a long period of time such as during off-season, turn off the breaker.

### Operating conditions

- If the operation is continued under any conditions other than the following, the safety device may work to stop the operation. Also, dew may form on the indoor unit and drip from it. (Cooling/DRY)

|         |                 |                             |
|---------|-----------------|-----------------------------|
| Cooling | Outdoor temp.   | -10 to 46°C (14°F to 115°F) |
|         | Room temp.      | 18 to 32°C (64°F to 90°F)   |
|         | Indoor humidity | Less than 80%               |
| DRY     | Outdoor temp.   | -10 to 46°C (14°F to 115°F) |
|         | Room temp.      | 18 to 32°C (64°F to 90°F)   |
|         | Indoor humidity | Less than 80%               |
| Heating | Outdoor temp.   | -15 to 20°C (5°F to 68°F)   |
|         | Room temp.      | Less than 27°C              |


- Operation limit differ according to the model.

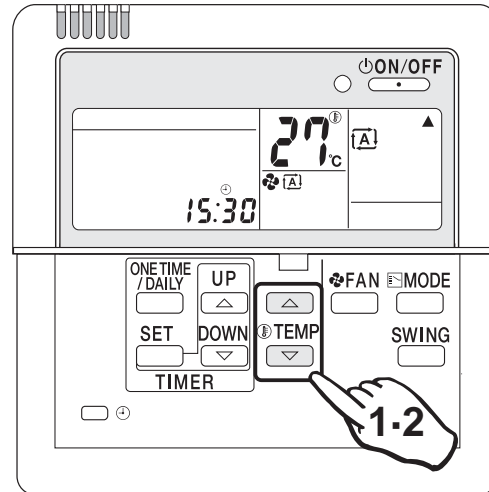
# Preparation before Operation

## ■ Setting Temperature Indication change


Temperature indication can be changed between Celsius and Fahrenheit before use.

### To change from Celsius temperature indication to Fahrenheit one

- 1 Press and hold down  at the same time for 5 seconds while the Celsius temperature is indicated.



### To change from Fahrenheit temperature indication to Celsius one

- 2 Press and hold down  at the same time for 5 seconds while the Fahrenheit temperature is indicated.



## Notes

### ■ Temperature indication change between Celsius and Fahrenheit on the remote controller

- Change the temperature indication in the modes other than the DRY mode.  
In the DRY mode, temperature indication setting cannot be changed because the temperature is not indicated.
- When the Fahrenheit temperature indication is changed to Celsius one, the temperature value (0.5°C) will be rounded up. Thus, the preset temperature may be changed.

#### Example:


A preset temperature of 65°F (equivalent to 18.5°C) will be changed to 19°C (66°F) by changing the temperature indication. In this case, if you change the Celsius temperature indication again to the Fahrenheit one, the preset temperature is shown not as 65°F but as 66°F (equivalent to 19°C). If the preset temperature is 66°F (equivalent to 19°C) and is changed to the Celsius temperature indication, the indication becomes 19°C (66°F). In this case, no change by the temperature indication change is observed.

- When the temperature indication change is set, the preset temperature is transmitted to the indoor unit so that the reception sound will be heard from the indoor unit.

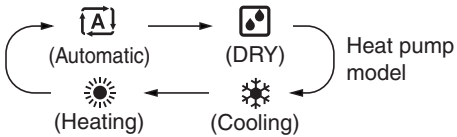
# Automatic-DRY-Cooling-Heating Operation

Select your desired operation mode.

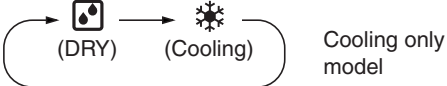
Once preset, the system can get restarted in the same operation mode.

- Press  to select your desired operation mode.

  - Each time the button is pressed, the mode changes as follows.

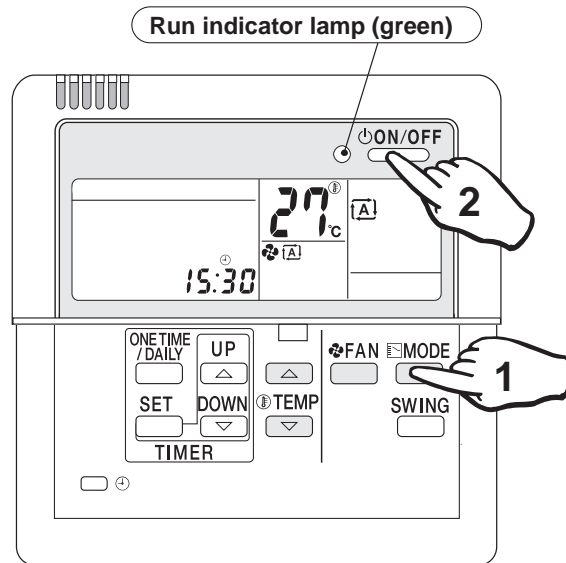


Heat pump model



Cooling only model


  - The system does not have the FAN mode.



- Press  .

The run indicator lamp lights up.

■ **To stop the operation:**

- Press  again.
- The run indicator lamp goes out.

**Automatic operation**

- In Automatic, the temperature setting and operation mode (DRY, Cooling or Heating) are automatically selected according to the room temperature and outdoor temperature at the time of starting operation.

**DRY operation**

- In this mode, humidity is removed from the air.











**Note**

- While running in the DRY mode, you may feel cool or warm air from the air outlet. In this case, readjust the airflow direction with the vertical airflow direction louvers. (except Duct Connected type)



■ To adjust the temperature and airflow rate:

| Setting to be adjusted / Operation mode                                                                                                                                                          | Automatic                                                                                                                                                                                                                                                                                                                                                                                                              | Cooling | Heating | DRY                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|----------------------------------|
| <br>ⓂTEMP<br><br>(Temperature) | Temperature is adjustable.<br>Recommended temperature<br>Cooling : 26°C-28°C (79°F~82°F)<br>Heating : 20°C-22°C (68°F~72°F)                                                                                                                                                                                                                                                                                            |         |         | Temperature cannot be adjusted.  |
| <br><br>(Airflow rate)         | Five levels of airflow rate setting from "  " to "  " plus "  " are available.<br> |         |         | Airflow rate cannot be adjusted. |

- When the unit runs in the cooling or heating mode at a low airflow rate, the cooling or heating effect may be insufficient.

■ To adjust the airflow direction:

(  page 9)


**Heating operation**

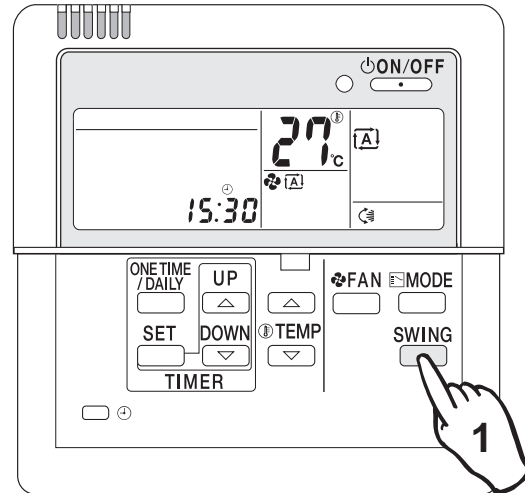
- Since the heating operation is performed by taking the heat from outdoor into the room, the heating capacity decreases as the outdoor temperature lowers. If the room is not heated sufficiently, it is recommended to use other heating appliance at the same time.
- Since the air conditioner heats the whole room by circulating hot air, it takes some time to heat the entire room completely.
- If the outdoor unit gets frosted during heating operation, the heating capacity is decreased. In this case, the unit starts defrosting operation.
- No hot air comes out of the indoor unit during defrosting operation.

# Adjusting Airflow Direction

Adjust the airflow direction for maximum comfort.

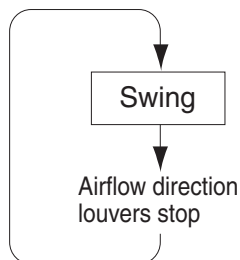
## To adjust the Airflow Direction

- 1 Press  during operation.
  - Each time the button is pressed, the airflow direction louvers change their movement.



5

## ■ Wall Mounted Types (without horizontal swing function)



The horizontal airflow direction louvers move up and down.

The louvers stop just when the button is pressed.

### Adjustment of horizontal airflow direction

- The automatic moving range of the horizontal airflow direction louvers varies depending on the operation mode.

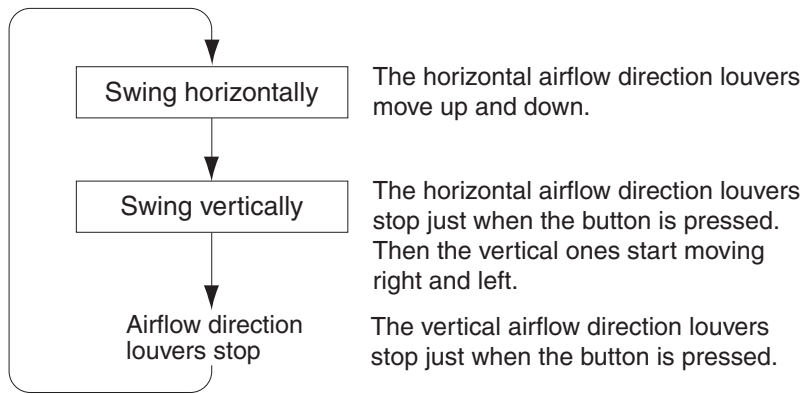


#### Notes

- In fixing the horizontal airflow direction, keep the horizontal airflow direction louvers tilted downward in the heating mode, and keep them nearly horizontal level in the cooling or DRY mode. This will enhance the cooling and heating effect.
- On the air conditioners with vertical and horizontal swing function, be sure to adjust the airflow directions using the remote controller. Do not forcibly adjust louvers by hand or a malfunction may occur.

9

## ■ Wall Mounted Type (with horizontal swing function)



- The vertical and horizontal louvers cannot move at the same time.

## ■ Duct Connected Type (without swing function)

This function cannot be used.



### Note


- The operating procedure and remote controller display are different depending on the indoor unit being connected. Read **How to Adjust the Airflow Direction** in the air conditioner's Operation Manual.

# Timer Operation

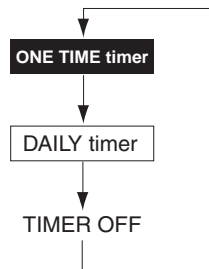
The Timer Operation feature automatically turns off operation when you go to sleep and turns it back on when you wake up.

Use the DAILY Timer mode on weekdays, and the ONE TIME timer mode on weekends.

## ■ To select the ONE TIME timer mode:


1 Press  to select the ONE TIME timer mode.

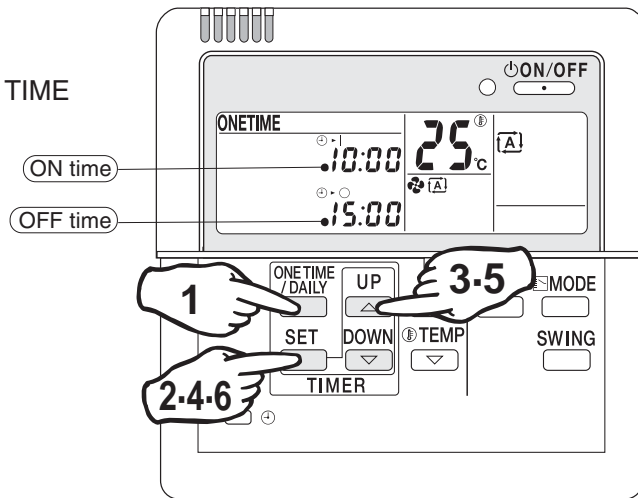
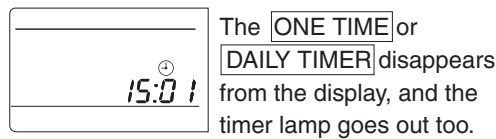
- Each time the button is pressed, the modes change as follows.



The timer lamp lights up.

## ■ To cancel the timer settings:

1 Press  to clear the timer settings.



(Timer settings displayed)



### Notes

- Even when the timer has been off, its programmed settings are still in memory.
- If the system has the timer control ON but you start and stop it manually using the ON/OFF button before the designated ON time, the system will restart again at the programmed ON time.

### Precautions in setting the timer

- Before starting the timer operation, make sure the current time is correct. If not, set the clock correctly. (☞ page 5)
- In making time settings, --:-- is displayed to make it easy to disable the timer too.
- If one minute has passed before making any timer setting, the previous timer settings are reintroduced and the timer is on standby.



In this case, use the  (time setting) button and make your desired timer settings.

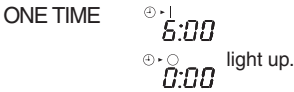
### Timer operation


- When the ON timer is programmed, the system starts one hour (maximum) earlier so that the temperature set by the remote controller is reached just in time.
- When the ONE TIME timer is programmed, the current time is no longer displayed.

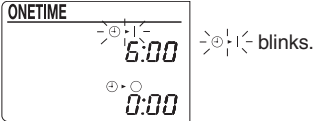
■ ONE TIME timer


Once the timer has been activated and then deactivated, it is in the OFF mode. The ON or OFF timers can be programmed.

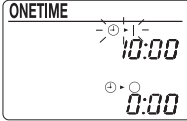
**1** Press  to select the ONE TIME timer. **4** Press  .

 light up.


**2** Press  .

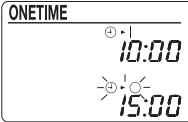
 blinks.


**3** Press  to make the ON timer setting.

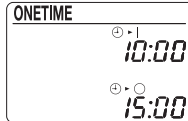
 When the ON timer is not used, save the setting as ①-①--:--

- Each time the button is pressed, the setting changes in a 10-minute increment or decrement. Hold the button down to advance quickly.

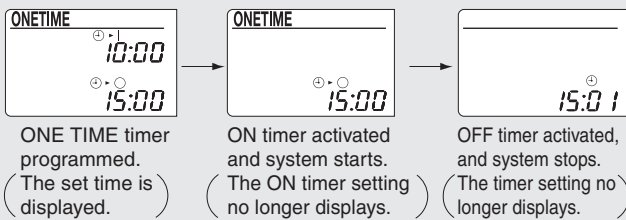
**5** Press  to make the OFF timer setting.

 When the OFF timer is not used, save the setting as ①-①--:--

**6** Press  .  
(The ONE TIME timer is now programmed.)

 Both of the ON and OFF time cannot be set as --:--

Example of display with the ONE TIME timer programmed




Notes

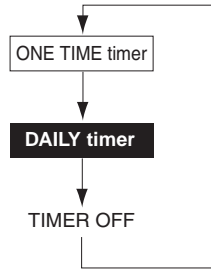
- In the following cases, reset the clock (the time setting is kept in the memory).
  - The circuit breaker has been activated.
  - The power fails.

# Timer Operation

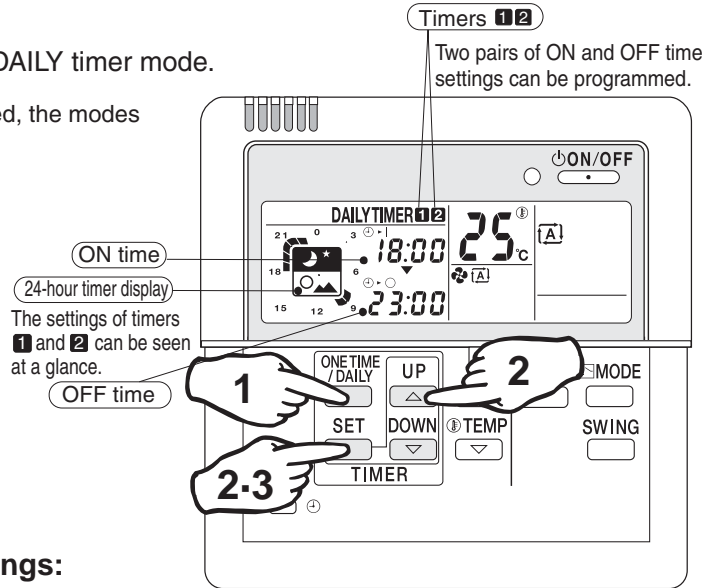
## ■ To select the DAILY timer mode:

1 Press  to select the DAILY timer mode.

- Each time the button is pressed, the modes change as follows.




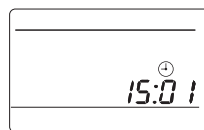
The timer lamp lights up.



(Timer settings displayed)

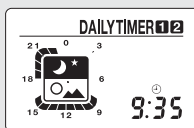
## ■ To cancel the timer settings:

1 Press  to clear the timer settings.

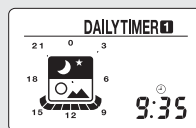


The **ONE TIME** or **DAILY TIMER**, and the timer lamp are no longer displayed.

### Example of display with DAILY timer programmed



Timers **1** and **2** programmed.



Timer **1** alone programmed.





### Note




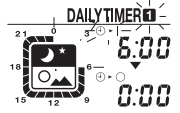
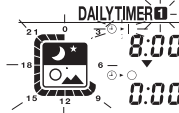
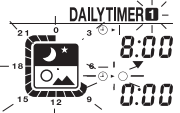
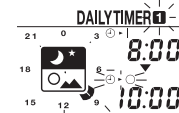
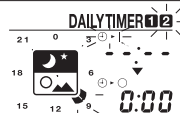
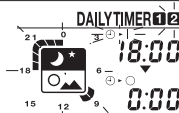
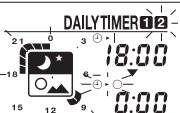
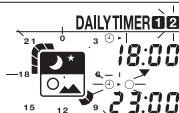
- The system starts and stops repeatedly until the DAILY timer is set off. Before you leave home for a long time, set the DAILY timer off.

■ **DAILY timer**

After programming, the system starts and stops each day at the preset times. Two pairs of time settings can be programmed.

(Example: 8:00 ~ 10:00, and 18:00 ~ 23:00)

- 1 Press  to select the DAILY timer.  lights up. DAILY timer indication appears.
- 2 Make the ON and OFF time settings. • Take the steps from ① to ⑧.  
Program example: 8:00 ~ 10:00, and 18:00 ~ 23:00

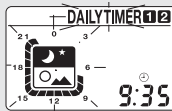
| Settings |                                                                                  | Procedure                                                                               |                                                                                                                                                                                                             |
|----------|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |                                                                                  | Press  | Press  to make the timer setting.<br> |
| Timer 1  | ON time setting<br>• When the timer 1 is not used, save the setting as ①· ---:-- | ①      | ②                                                                                                                        |
|          | OFF time setting                                                                 | ③     | ④                                                                                                                       |
| Timer 2  | ON time setting<br>• When the timer 2 is not used, save the setting as ⑤· ---:-- | ⑤    | ⑥                                                                                                                      |
|          | OFF time setting                                                                 | ⑦    | ⑧                                                                                                                      |

- 3 Press  . The DAILY timer is now programmed.



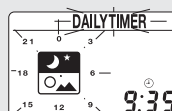
**Note**

- If the following appears on the display, the timer must be reprogrammed.



The 24-hour timer display is blinking.

This means that Timers 1 and 2 are programmed for the same time settings. New time settings must be made.



The 24-hour timer display is blinking.

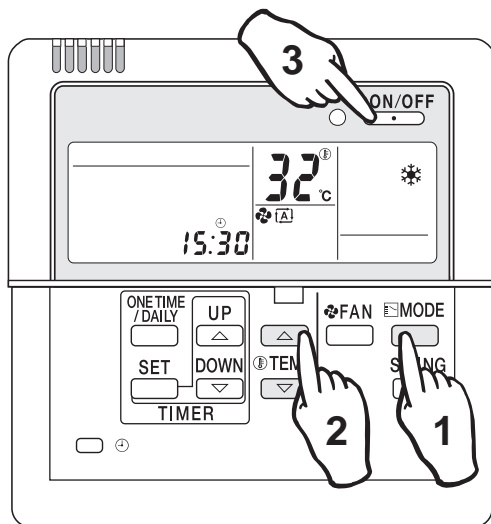
This means that the timer has not been programmed yet.

# Cleaning

## Cleaning the remote controller




- Wipe it clean with soft, dry cloth.  
Do not use any water hotter than 40°C (104°F), or volatile liquids such as benzine, gasoline and thinner, polishing powder, or anything hard such as a scrub brush.

## When the unit is not used for a long time



- ① On a sunny day, keep the system running for half a day in the FAN mode to dry it up inside.

### FAN mode

- 1 Press  to select the cooling mode.
  - 2 Press  to adjust the set temperature to 32°C (90°F).
  - 3 Press  .
    - The airflow rate remains the same, and is not adjustable.
    - Run the system when the room temperature is below 28°C (82°F).
- ② Finally turn off the circuit breaker dedicated for the room air conditioner.
  - ③ Clean the air filter and place it back into position.



## 5.9 <KRP1C75> Adaptor for Wiring

### Accessories

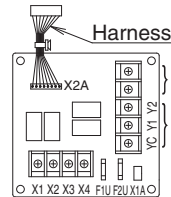
Check if the following accessories are included in the kit.

| Name     | Adaptor for wiring | Harness | PCB support | Clamp | Installation manual |
|----------|--------------------|---------|-------------|-------|---------------------|
| Shape    |                    |         |             |       |                     |
| Quantity | ×1                 | ×1      | ×4          | ×3    | ×1                  |

### <Caution>

- All wiring must be performed by an authorized electrician.
- For electric wiring work, refer to also "Wiring diagram" attached to the control box lid and this manual.
- All wiring must be worked after shutting down power supply.
- All field supplied parts and materials and electric works must conform to local codes.
- A circuit breaker capable of shutting down power supply to the entire system must be installed.

### 1 Names of parts

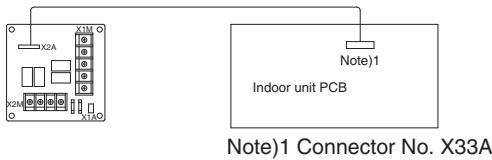


Terminals for operation status

This function can not be used.  
Terminals for controlling external heater, humidifier, and other equipment.

### 2 Electric wiring

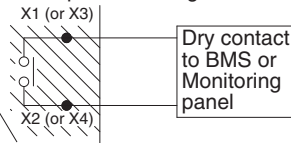
- Refer to the wiring diagram attached to the indoor unit before attempting to wire.
- **[Make sure wires to units do not pass over the PCB when wiring.]**
- Wire the adaptor to the indoor unit as shown below.



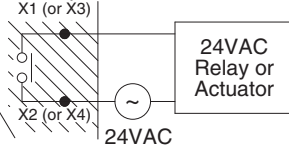
#### 1 Thermo-ON and Fan ON status

- Thermo-ON status  
Contact terminals X1 and X2 close while the indoor unit is Thermo-ON (call for cooling or heating)
- Fan ON status  
Contact terminals X3 and X4 close when indoor unit fan is ON

#### Example: Obtaining status

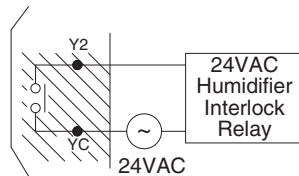
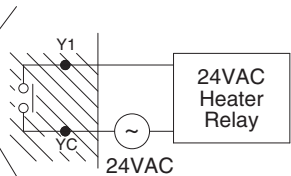


#### Example: Interlock



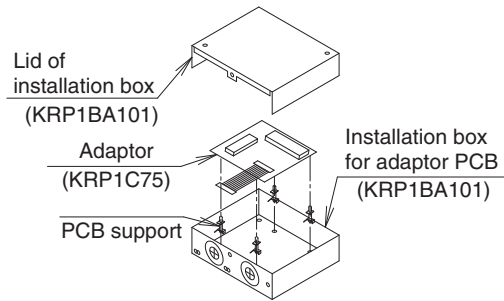
#### 2 Interlocking Heater and Humidifier

- Heater output  
• Auxiliary heater output with heat pump heating  
• Primary heater output when heat pump lockout enabled
- Humidifier output  
• Energized while heating Thermo-ON (call for heating)



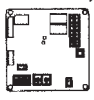

### 3 Installation

- Installation differs according to models as shown below.
- Do not bundle low and high voltage wires together.
- Bundle any excess wires with the attached clamps so as to keep loose wires off the indoor unit PCB.



### 5.10 <KRP4A74> Wiring Adaptor for Electrical Appendices

**Accessories** Check if the following accessories are included in the kit.

|                                                                                   |                                                                                       |                     |    |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------|----|
| Adaptor                                                                           | Relay harness                                                                         | PCB support         | ×4 |
| ×1                                                                                | (1) ×1 each                                                                           | Clamp               | ×3 |
|  | (2)  | Installation manual | ×1 |

**1 System outline**

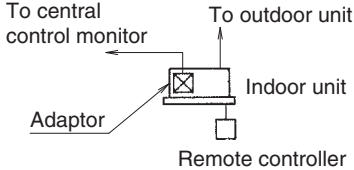
This kit enables remote control (ON/OFF control, temperature setting, operation display, error display) and can be used with the following systems though it cannot be used in conjunction with other optional controllers for centralized control.

1. Individual control (Each indoor unit is controlled individually.)

This system requires the following parts.

- Adaptor.....KRP4A74
- Remote controller (For operation control).....BRC1E71

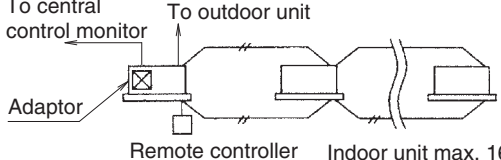
(Ex.)When individually controlling 8 units  
KRP4A74 ×8 kits  
BRC1E71 ×8 kits



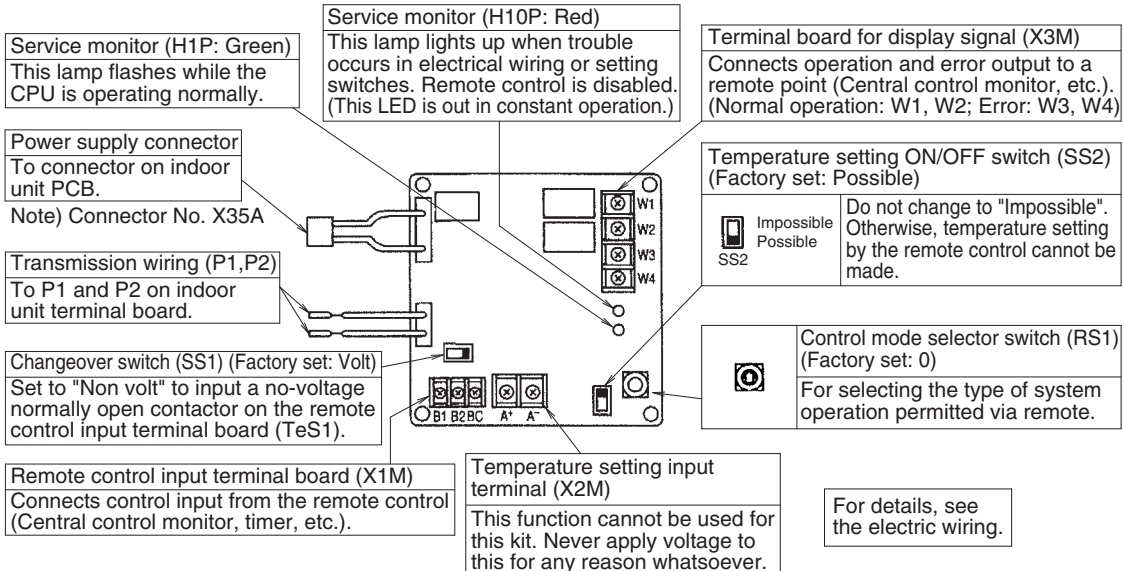
2. Group control (Multiple indoor units are controlled as a group.)

This system requires the following parts.

- Adaptor.....KRP4A74
- Remote controller (For operation control).....BRC1E71



**2 Names of parts and function**



**Service monitor (H1P: Green)**  
This lamp flashes while the CPU is operating normally.

**Service monitor (H10P: Red)**  
This lamp lights up when trouble occurs in electrical wiring or setting switches. Remote control is disabled. (This LED is out in constant operation.)

**Terminal board for display signal (X3M)**  
Connects operation and error output to a remote point (Central control monitor, etc.). (Normal operation: W1, W2; Error: W3, W4)

**Temperature setting ON/OFF switch (SS2)**  
(Factory set: Possible)

Impossible  
Possible  
SS2

Do not change to "Impossible". Otherwise, temperature setting by the remote control cannot be made.

**Control mode selector switch (RS1)**  
(Factory set: 0)  
For selecting the type of system operation permitted via remote.

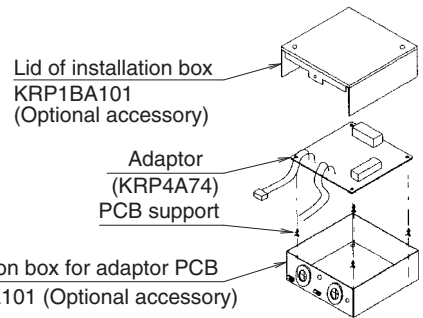
**Changeover switch (SS1)** (Factory set: Volt)  
Set to "Non volt" to input a no-voltage normally open contactor on the remote control input terminal board (TeS1).

**Remote control input terminal board (X1M)**  
Connects control input from the remote control (Central control monitor, timer, etc.).

**Temperature setting input terminal (X2M)**  
This function cannot be used for this kit. Never apply voltage to this for any reason whatsoever.

For details, see the electric wiring.

**3 Installation**



Lid of installation box  
KRP1BA101  
(Optional accessory)

Adaptor  
(KRP4A74)

PCB support

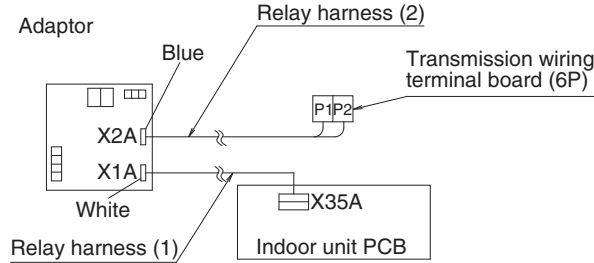
Installation box for adaptor PCB  
KRP1BA101 (Optional accessory)

Note: Installation box for adaptor PCB is required to install the adaptor.

**4 Electric wiring**

- ① First, wire between the indoor and outdoor units, and then to the separate power sources, and finally between the indoor units and the remote controllers. Then, check if they operate properly.  
(If wiring for group control by remote controller, check crosswires.)  
For details, see the installation manual of the indoor and outdoor units.
- ② Next, wire between outside units such as the central control monitor, etc. and make the necessary settings.  
For details, see [Wiring to outside units (Central control monitor)].

**Wiring to indoor units**

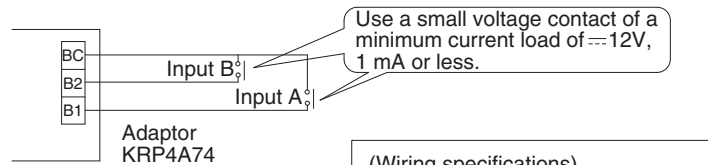
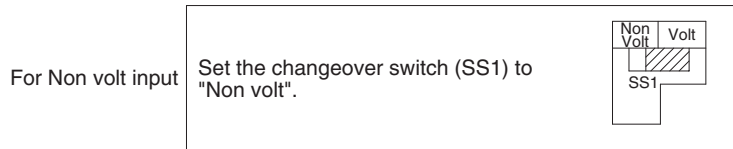
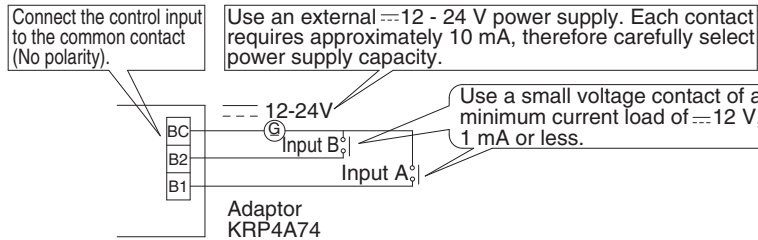


Make connections as shown above, using the attached relay harnesses (1) and (2).

- Connect relay harness (1) to the connector on the indoor unit PCB.
- Relay harness (2) has no polarity. Connect it to terminals P1 and P2 on the transmission wiring terminal board inside the indoor unit electric parts box.

**Wiring to outside units (Central control monitor)**

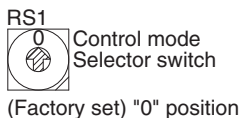
1. Remote control input (Operation control)  
Wire as described below. Wiring differs depending on whether using a voltage or no-voltage input.



(Wiring specifications)  
 Wiring... Sheathed vinyl cord or cable  
 Gauge... AWG24-16  
 Length... Max.490ft  
 <Note>  
 Keep transmission wiring away from power supply wiring to avoid malfunctions.

2. Setting the control mode selector switch (RS1)

Using the control mode selector switch (RS1), select the control mode as described below.



① For specifying individual display

| Position | Function                           |
|----------|------------------------------------|
| 0        | Individual display (Input ignored) |

② When operating the unit with constant input at input A

| Position | Function                                       | When input A is ON                                                                                 | When input A is OFF                                  |
|----------|------------------------------------------------|----------------------------------------------------------------------------------------------------|------------------------------------------------------|
| 1        | ON/OFF control impossible by remote controller | Operation (Normally ON/OFF control impossible by remote controller)                                | OFF + ON/OFF control impossible by remote controller |
| 2        | Centralized                                    | Operation + ON/OFF control possible by remote controller                                           |                                                      |
| 3        | OFF control possible by remote controller      | Operation + OFF control possible by remote controller (ON control impossible by remote controller) |                                                      |
| 4        | ON/OFF control possible by remote controller   | ON/OFF control possible by remote controller (Operation impossible by optional controller)         |                                                      |

<Note>

- Input B is for forced ON/OFF input. When input B is ON, OFF control is possible but ON/OFF control by the remote controller is impossible, and input A is ignored. When it is OFF, input A is ignored even if selected. It is necessary to reselect input A.

③ When operating the unit using instantaneous input at input A  
(Use an instantaneous input of 200 msec or longer ON time).

| Position | Function                                       | Input A                                                                                                                 | Input B capacity                                                                                                                                 |
|----------|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 5        | ON/OFF control impossible by remote controller | Turns OFF system with ON input<br>Turns ON system with ON input                                                         | Input B is for forced OFF input (when ON, OFF control is possible but ON/OFF control by remote controller is impossible, and input A is ignored) |
| 6        | Individual                                     | Turns OFF system with ON input<br>Turns ON system with ON input (Normally ON/OFF control possible by remote controller) |                                                                                                                                                  |

★ For thermostat control using input B

| Position | When input A is ON                                                  | When input B is ON            |
|----------|---------------------------------------------------------------------|-------------------------------|
| C        | ON/OFF control impossible by remote controller (Same as position 5) | Forced thermostat OFF command |
| D        |                                                                     | Energy saving command (*)     |
| E        | Individual (Same as position 6)                                     | Forced thermostat OFF command |
| F        |                                                                     | Energy saving command (*)     |

- Forced thermostat OFF command indoor unit fan only operates.
- Energy saving command (\*)  
The indoor unit operates at 4°F higher (cooling)/lower (heating) the set temperature.

<Note>

- In such case, even if input A is ON, thermostat control is turned OFF, and all units in the same group will stop.

④ When operating the unit using instantaneous input at input A and B  
(Use an instantaneous input of 200 msec or longer ON time).

| Position | Function                                       | When input A is ON                                                                                 | When input A is OFF                                         |
|----------|------------------------------------------------|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| 7        | ON/OFF control impossible by remote controller | Operation (Normally ON/OFF control impossible by remote controller)                                | OFF + ON/OFF control impossible by remote controller        |
| 8        | Centralized                                    | Operation + ON/OFF control possible by remote controller                                           |                                                             |
| 9        | OFF control possible by remote controller      | Operation + OFF control possible by remote controller (ON control impossible by remote controller) |                                                             |
| A        | ON/OFF control possible by remote controller   | ON/OFF control possible by remote controller (Operation impossible by optional controller)         |                                                             |
| B        | Individual                                     | Operation (Normally ON/OFF control possible by remote controller)                                  | OFF (Normally ON/OFF control possible by remote controller) |

<Note>

- When set to position 7-A, and using the constant mode for input B, forced stop capacity is enabled (Input A is ignored).
- At position B, the constant mode for input B is not used.

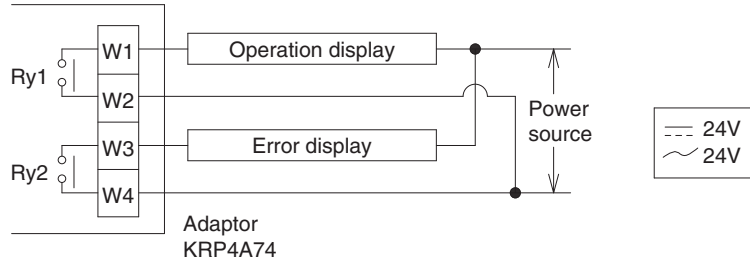
3. Cancelling display signals

Operation output terminals (W1 and W2) and error output terminals (W3 and W4) are no-voltage normally constant contacts.

(Allowed electric current per contact is between 10 mA and 3 A.)

Normal operation output (Ry1)  
ON when the indoor unit is operating normally.

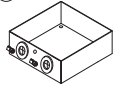
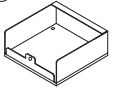



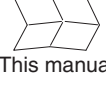

Error output (Ry2)  
ON when the indoor unit stops because of malfunction or when a transmission error occurs between the adaptor and the indoor unit.



Display output is as described below.

| Output  | Both Ry1 and Ry2 OFF | Only Ry1 ON      | Only Ry2 ON                                                                                       |
|---------|----------------------|------------------|---------------------------------------------------------------------------------------------------|
| Display | OFF                  | Normal operation | System stopped due to malfunction or transmission error generated between adaptor and indoor unit |

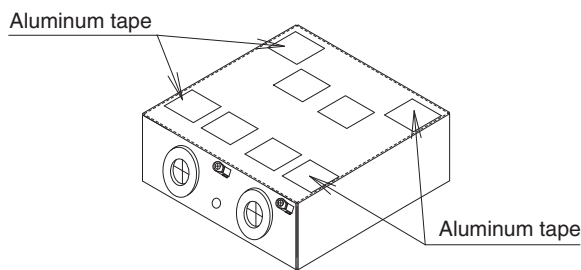
### 5.11 <KRP1BA101> Installation Box for Adaptor PCB

| Accessories                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                                        |                                                                                       |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Check the following accessories are included in this kit. |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                                        |                                                                                       |
| Name                                                      | Installation box                                                                    | Lid of installation box                                                             | Clamp                                                                               | Screw                                                                               | Cord sticker                                                                        | Installation manual                                                                                    | Screw                                                                                 |
| Quantity                                                  | x1                                                                                  | x1                                                                                  | x3                                                                                  | x3                                                                                  | x3                                                                                  | KRP1B101 English<br>KRP1BA101 Englishx1, Japanesex1                                                    | x2                                                                                    |
| Shape                                                     | ①  | ②  | ③  | ④  | ⑤  | ⑥ <br>(This manual) | ⑦  |

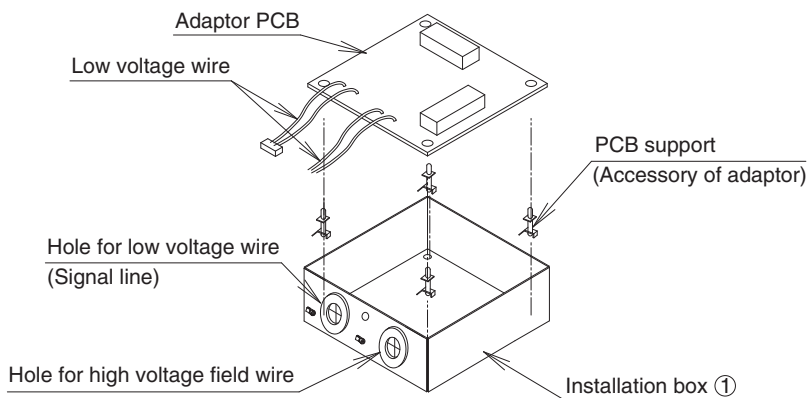
#### 1 Method of attaching the adaptor

##### Attach the adaptor

- Attach the adaptor in the installation box ① by the PCB supports.  
(PCB supports are accessories of adaptor.)
- Detach the aluminum tapes of the installation box ① to insert the PCB

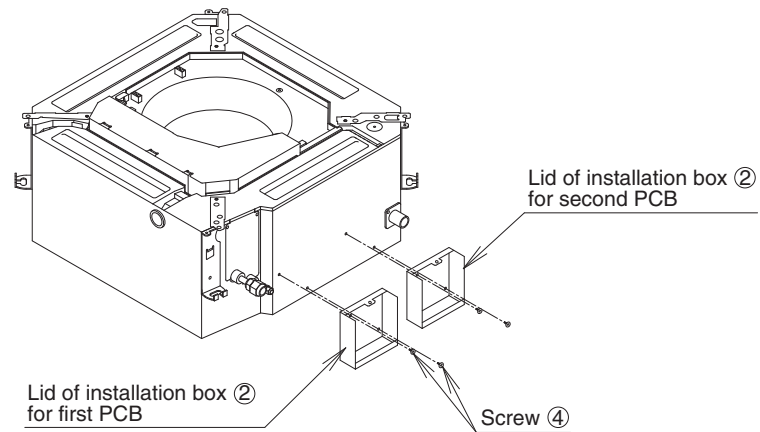


- Connect wires with the adaptor before attaching to the installation box ①.
- Low voltage wires and high voltage wires should be kept space at least 50 mm from each other.



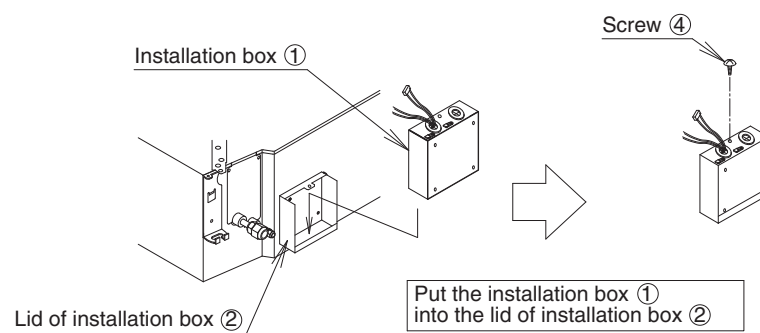
### Attach the lid of installation box

Attach the lid of installation box ② to indoor unit with two screws. If two adaptors are installed, the second adaptor is attached to side of first one.



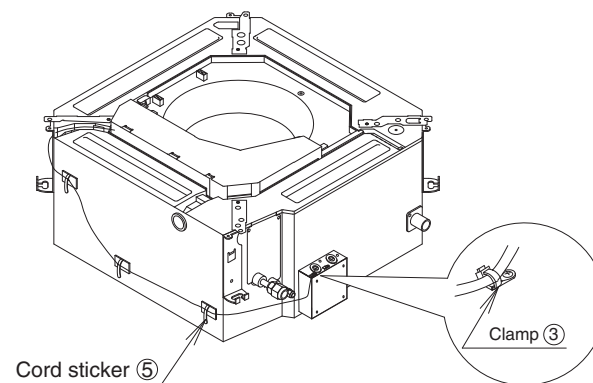
### Attach the installation box

Attach the installation box ① into the lid of installation box ② with the screw.



## 2 Method of wiring processing

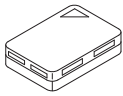




- Connect wires with the control box. (Refer to the installation manual attached to the adaptor.)
- After connecting wires with the control box, clamp wires by using the cord stickers ⑤ and the clamp ③ as shown in the below drawing.



## 5.12 <KRCS01-1B> Remote Sensor

### Components

Check the following components.

| Designation | Remote sensor (sensor box)                                                        | Extension cable (2-core, 12m)                                                     | Clamps                                                                            | Installation manual (this drawing)                                                | Sensor box mounting screws (M4x16)                                                |
|-------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| shape       |  |  |  |  |  |
| Pieces      | 1 Piece                                                                           | 1 Piece                                                                           | 2 Pieces                                                                          | 1 sheet                                                                           | 2 Pieces                                                                          |

### 1 Mounting

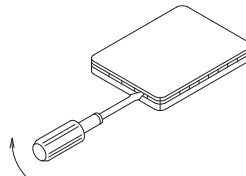
#### 1) Selecting the mounting location

The thermistor for temperature detection is incorporated into the remote sensor. Select the mounting location taking the following cautions into account.

- ① where the average temperature of an air conditioned room can be detected.
- ② where it is not exposed to the direct sunlight.
- ③ where it is not influenced by other heat sources.
- ④ where it is not exposed to the direct discharge air from the air conditioner.
- ⑤ where it is not exposed to the outdoor air infiltrated into the room by opening the door.

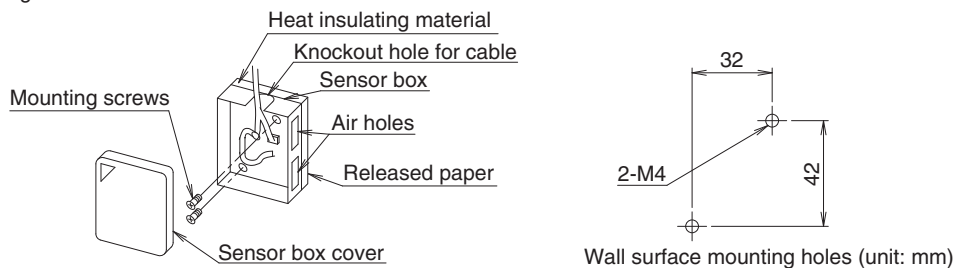
#### 2) Mounting

- Remove the cover of the sensor box.

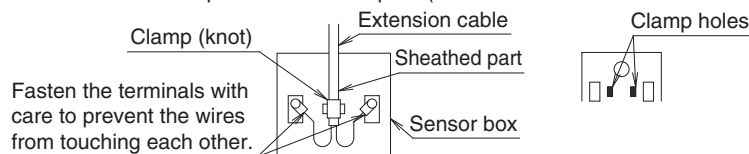


Insert a flat blade screw driver into the clearance between the sensor box concave part and the upper case, and remove the cover.

#### ① When mounting on the wall



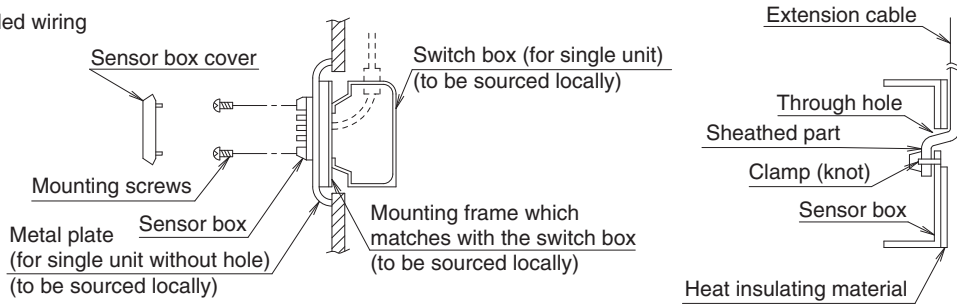
- Break open the knockout hole in the sensor box with a nipper or a similar tool. Pass the extension wires through the hole and fasten the wires to the terminals with screws.
- To avoid tensile force on the terminals, pass the attached clamp through the holes shown in the below right figure and tighten the extension cable with the attached clamp at the sheathed part. (The knot must come to the box inside.)



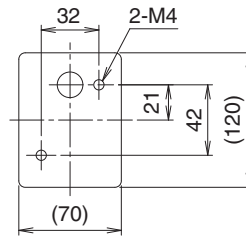
- Screw the sensor box securely to the wall surface with screws M4x16 (2places). Tighten the screws so that the thickness of the insulating material will become around 4mm. If tightened too hard, the box may be distorted or the heat insulating performance may drop and, as a result, the room temperature may not be correctly detected. If the sensor box cannot be screwed to wall surface, tear off the released paper and mount it on the wall surface.



②For embedded wiring



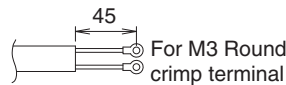
- Pass the extension cable through the switch box cable hole and carry out the wiring.
- Pass the attached clamp through the clamp holes and tighten the extension cable at the sheathed part as shown in the upper right drawing.
- Tap M4 screw holes in the metal plate (to be sourced locally) as shown in the right drawing and mount the switch box on the metal plate.



Holes to be tapped in the metal plate on site (unit: mm)

<Cautions>

- Give caution when wiring so that the air holes will not be blocked.
- When the extension cable is longer than necessary, cut it to the appropriate length, peel the insulation, attach the round crimp terminal for M3 (to be sourced locally) and carry out the wiring. The length of insulation to be peeled off is as shown. (Work carefully so that the connector side may not be cut.)



## 2 Wiring method

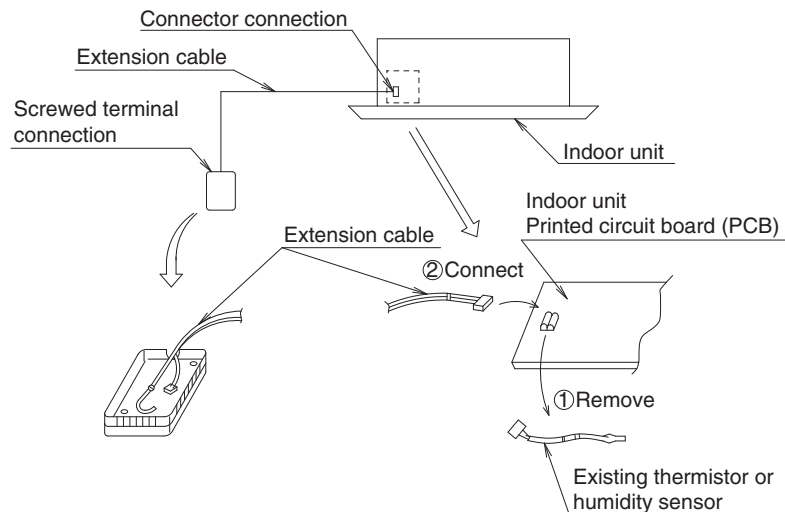
Connect the extension cable connector side to the indoor unit PCB (printed circuit board)  
For connection to the indoor unit, follow the procedure shown below.

### ⚠ Caution

- 1) Make sure to turn off the power supply before starting the wiring work and do not turn on until all the work is completed.  
Read also the wiring diagram of the indoor unit when carrying out the work.
- 2) When wiring the extension cable, do not pass where the extension cable may be affected by the power line or noise.
- 3) Make sure to securely connect the connectors.  
Defective connection may result in incorrect detection of room temperature or malfunction.
- 4) Do not splice wires.
- 5) Since the connector marking of the thermistor for detection of inlet air temperature differ depending on the indoor unit type, make sure to check the indoor unit wiring diagram and follow it correctly.

### <Procedure>

1. When wiring to the indoor unit PCB, remove the existing thermistor (for detection of inlet air temperature) and then connect the extension cable.



2. Lay and clamp the extension cable inside the indoor unit switch box just like the existing thermistor.  
Provide protection of the existing cable for thermistor without affecting other components.
3. Fit the sensor box cover into the sensor box.

## 3 Operation test after mounting the sensor

Conduct cooling and heating operation test after the sensor is mounted and the wiring is completed.





**Warning**



- Ask a qualified installer or contractor to install this product. Do not try to install the product yourself. Improper installation can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Use only those parts and accessories supplied or specified by Daikin. Ask a qualified installer or contractor to install those parts and accessories. Use of unauthorized parts and accessories or improper installation of parts and accessories can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Read the User's Manual carefully before using this product. The User's Manual provides important safety instructions and warnings. Be sure to follow these instructions and warnings.

If you have any enquiries, please contact your local importer, distributor and/or retailer.

**Cautions on product corrosion**

1. Air conditioners should not be installed in areas where corrosive gases, such as acid gas or alkaline gas, are produced.
2. If the outdoor unit is to be installed close to the sea shore, direct exposure to the sea breeze should be avoided. If you need to install the outdoor unit close to the sea shore, contact your local distributor.