

AVZC18 Heat Pump Inverter

AVZC180241AA
AVZC180241AB
AVZC180241AC
AVZC180241AD
AVZC180361AA
AVZC180361AB
AVZC180361AC
AVZC180481AA
AVZC180481AB
AVZC180481AC
AVZC180601AA
AVZC180601AB
AVZC180601AC



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This manual is to be used by qualified technicians only.

This manual replaces RP-A4303B.

Important Information

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Views shown are for parts illustrations only, not servicing procedures.

Text Codes:

AR - As Required

NA - Not Available

NS - Not Shown

00000000 - See Note

QTY - Quantity Example (QTY 3) (If Quantity not shown, Quantity = 1)

M - Model Example (M1) (If M Code not shown, then part is used on all Models)

Expanded Model Nomenclature:

Example M1 - Model#1 M2 - Model#2 M3 - Model#3

Goodman Company, L.P. is not responsible for personal injury or property damage resulting from improper service. Review all service information before beginning repairs.

Warranty service must be performed by an authorized technician, using authorized factory parts. If service is required after the warranty expires, Goodman Company, L.P. also recommends contacting an authorized technician and using authorized factory parts.

Goodman Company, L.P. reserves the right to discontinue, or change at any time, specifications or designs without notice or without incurring obligations.

For assistance within the U.S.A. contact:

Homeowner Support
Goodman Company, L.P.
19001 Kermier Road
Waller, Texas 77484
877-254-4729-Telephone
713-863-2382-Facsimile

For assistance outside the U.S.A. contact:

International Division
Goodman Company, L.P.
19001 Kermier Road
Waller, Texas 77484
713-861-2500-Telephone
713-863-2382-Facsimile

Functional Parts

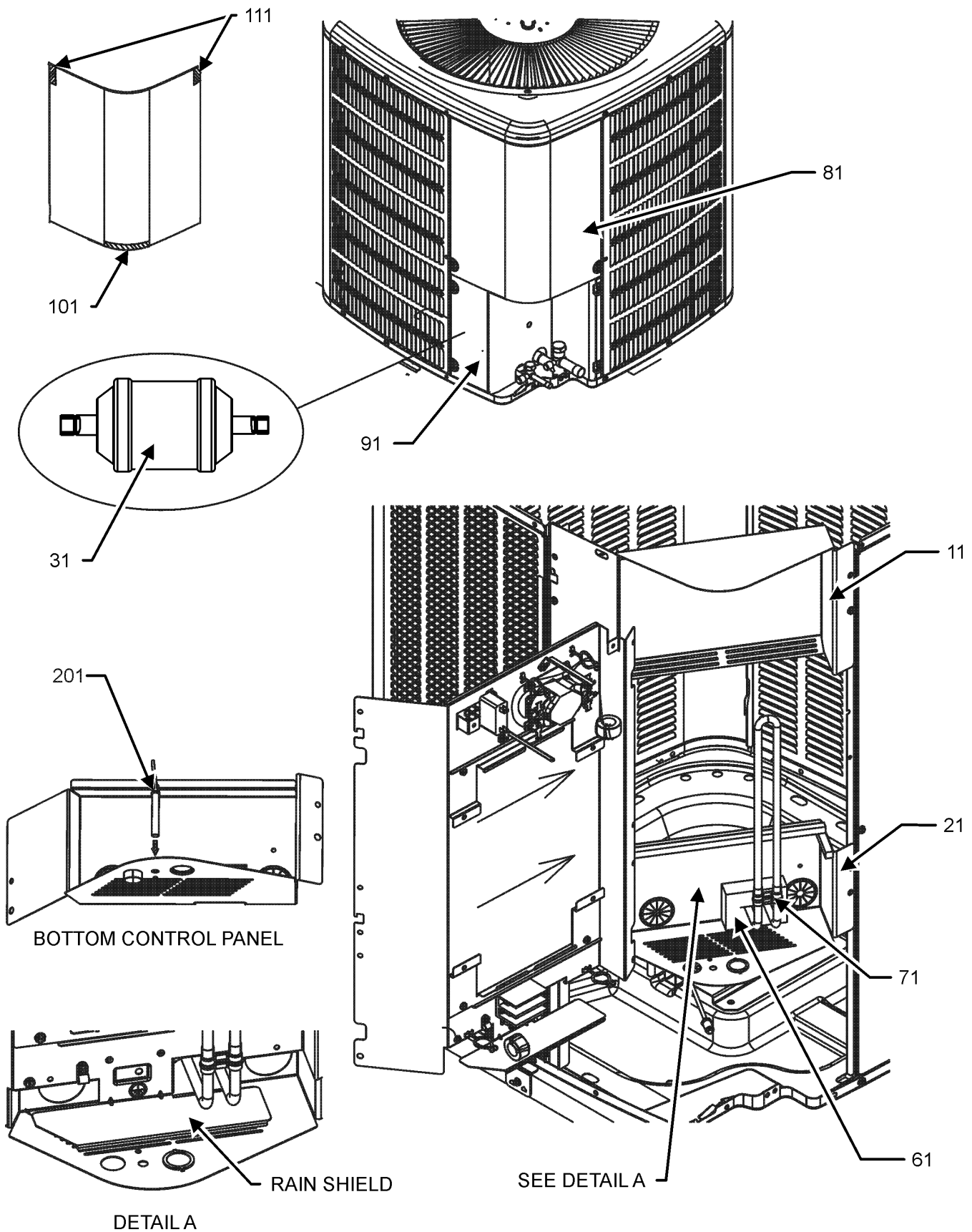
Part No: **Description:**

Part No:	Description:	Expanded Model Nomenclature
0151L00017	ACCUMULATOR (M8, M9, M10, M11, M12, M13)	M1 - AVZC180241AA
0151L00016	ACCUMULATOR, 2T/3T (M1, M2, M3, M4, M5, M6, M7)	M2 - AVZC180241AB
0151R00079	BASE VALVE 3/4" (M1, M2, M3, M4)	M3 - AVZC180241AC
0151R00167	BASE VALVE 3/8"	M4 - AVZC180241AD
0151R00080	BASE VALVE 7/8" (M5, M6, M7, M8, M9, M10, M11, M12, M13)	M5 - AVZC180361AA
4SA27011-1	CHECK VALVE (M5, M6, M7, M8, M9, M10, M11, M12, M13)	M6 - AVZC180361AB
4SA27006-1	CHECK VALVE (M1, M2, M3, M4, M8, M9, M10, M11, M12, M13)	M7 - AVZC180361AC
3SA27018-1	CHECK VALVE (M1, M2, M3, M4, M5, M6, M7)	M8 - AVZC180481AA
0156R00006	COMPRESSOR 2YC36MXD (M1, M2, M3, M4)	M9 - AVZC180481AB
0156R00007	COMPRESSOR 2YC63TXD (M5, M6, M7)	M10 - AVZC180481AC
0156R00008	COMPRESSOR 2YC90FXD (M8, M9, M10, M11, M12, M13)	M11 - AVZC180601AA
3S463002-5	FAN CAPACITOR (M1, M2, M3, M4, M5, M6, M7, M8, M9, M10)	M12 - AVZC180601AB
3S463002-5	FAN CAPICITOR (M1, M2, M3, M4, M5, M6, M7, M8, M9, M10)	M13 - AVZC180601AC
3S463002-10	FAN CAPICITOR (M11, M12, M13)	
3P381424-2	HIGH PRESSURE SWITCH	
0272R01042	PCB ASSY (M1, M2, M3, M4)	
0272R01043	PCB ASSY (M5, M6, M7)	
0272R01044	PCB ASSY (M8, M9, M10)	
0272R01045	PCB ASSY (M11, M12, M13)	
3E750074-1	POWER CONDITIONER (M1, M2, M3, M4, M5, M6, M7, M8, M9, M10)	
3E750138-1	POWER CONDITIONER (M11, M12, M13)	
3S481010-1	PRESSURE SENSOR	
3S500031-1	Pulse Motor Expans EEV (M8, M9, M10, M11, M12, M13)	
3S500032-1	Pulse Motor Expans EEV (M1, M2, M3, M4, M5, M6, M7)	
0151R00110	REVERSING VALVE (M5, M6, M7)	
0151R00111	REVERSING VALVE (M8, M9, M10, M11, M12, M13)	
0151R00109	REVERSING VALVE (M1, M2, M3, M4)	
3P387735-1	SINGLE PHASE AC FAN MOTOR (M11, M12, M13)	
3P387730-1	SINGLE PHASE AC FAN MOTOR (M1, M2, M3, M4, M5, M6, M7)	
3P387731-1	SINGLE PHASE AC FAN MOTOR (M8, M9, M10)	
B1225022	Solenoid Coil	
0130M00186	TERMINAL BLOCK	
3P381576-1	THERMISTOR AMBIENT	
4P387458-1	THERMISTOR ASSY	
3P381575-1	THERMISTOR ASSY	

SPECIAL PARTS

0161R00086	CAP, GRILL
0161R00087	NAMEPLATE, AMANA LOGO
0361R00000	THERMAL GREASE

Control Assembly



Control Assembly

Ref. Part No:	No:	Description:	Ref. Part No:	No:	Description:
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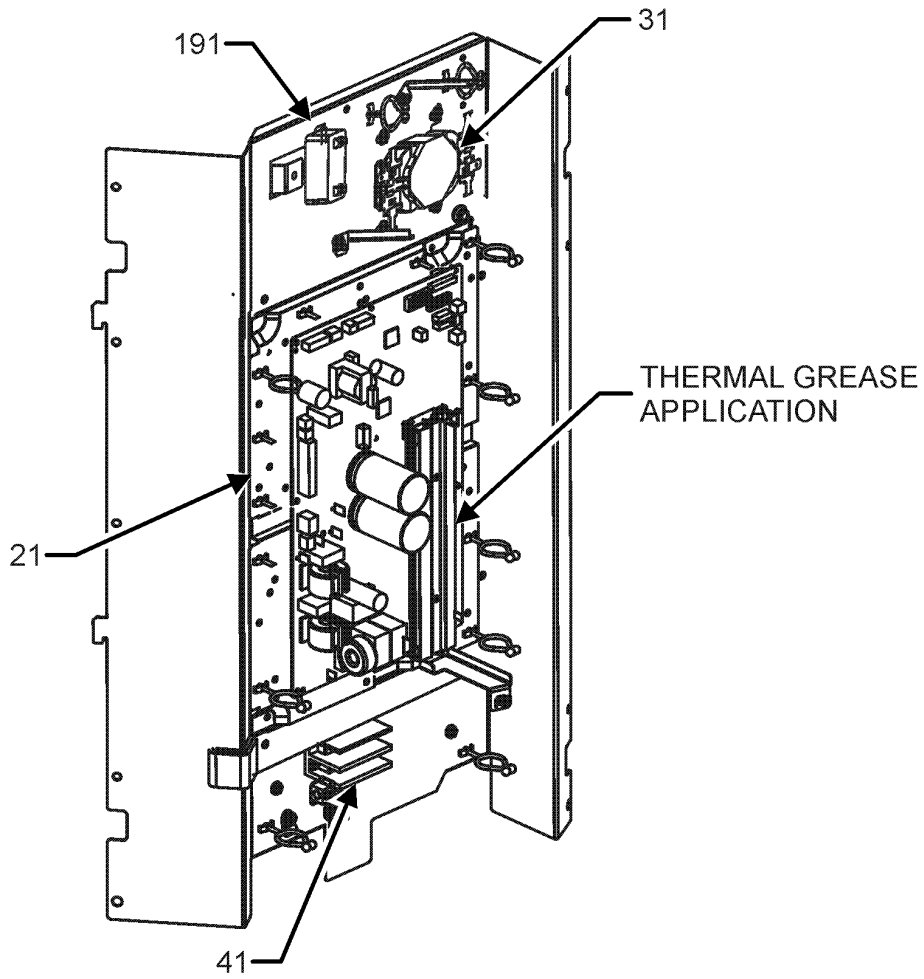
Image 1:

11	0121R00649	TOP CONTROL PANEL
21	0121R00653	BOTTOM CONTROL PANEL
31	20485201	BI-FLOW FILTER DRIER
61	0154R00016	GASKET - CONTROL PANEL
71	4P305027-1	COOLING LOOP SEPARATOR
81	0121R00639PDG	CONTROL COVER
91	0121R00637PDG	PANEL, LOWER ACCESS
101	0154R00023	GASKET, CONTROL PANEL COVER
111	0154R00017	GASKET - CONTROL PANEL (QTY 2)
201	3P381576-1	THERMISTOR AMBIENT
NS	0161R00086	CAP, GRILL
NS	0154R00015	GASKET - TOP CONTROL PANEL
NS	0161R00087	NAMEPLATE, AMANA LOGO

Expanded Model Nomenclature

M1 - AVZC180241AA
M2 - AVZC180241AB
M3 - AVZC180241AC
M4 - AVZC180241AD
M5 - AVZC180361AA
M6 - AVZC180361AB
M7 - AVZC180361AC
M8 - AVZC180481AA
M9 - AVZC180481AB
M10 - AVZC180481AC
M11 - AVZC180601AA
M12 - AVZC180601AB
M13 - AVZC180601AC

Control Panel Assembly



Control Panel Assembly

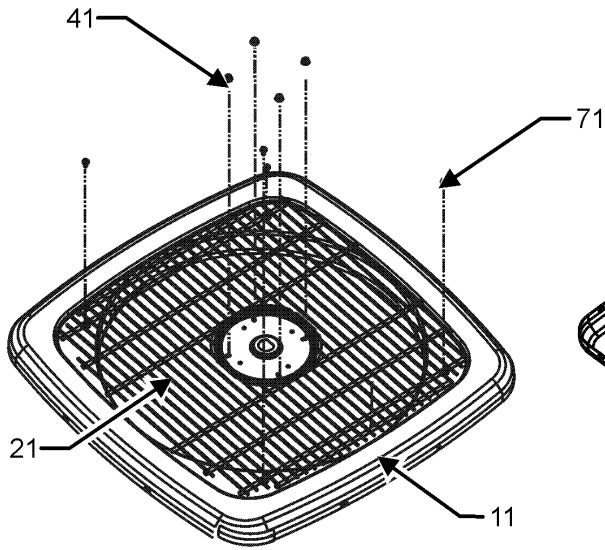
Ref. Part No:	Ref. Part No:	Description:	Description:
Image 1:			
21	0272R01042	PCB ASSY (M1, M2, M3, M4)	
21	0272R01043	PCB ASSY (M5, M6, M7)	
21	0272R01044	PCB ASSY (M8, M9, M10)	
21	0272R01045	PCB ASSY (M11, M12, M13)	
31	3E750074-1	POWER CONDITIONER (M1, M2, M3, M4, M5, M6, M7, M8, M9, M10)	
31	3E750138-1	POWER CONDITIONER (M11, M12, M13)	
41	0130M00186	TERMINAL BLOCK	
191	3S463002-5	FAN CAPACITOR (M1, M2, M3, M4, M5, M6, M7, M8, M9, M10)	
191	3S463002-10	FAN CAPICITOR (M11, M12, M13)	
191	3S463002-5	FAN CAPICITOR (M1, M2, M3, M4, M5, M6, M7, M8, M9, M10)	
NS	0163M00075	FLANGE NUT, SERRATED	
NS	0163M00092	SCREW, HWH, 10-24X.500,BZ,SLOT	
NS	0130M00575	SHARED DATA (M1, M2, M3, M4)	
NS	0130M00576	SHARED DATA (M5, M6, M7)	
NS	0130M00577	SHARED DATA (M8, M9, M10)	
NS	0130M00578	SHARED DATA (M11, M12, M13)	
NS	0361R00000	THERMAL GREASE	
NS	3P381575-1	THERMISTOR ASSY	
NS	0130M00220	WIRE HARNESS	
NS	0130M00221	WIRE HARNESS	
NS	0130M00222	WIRE HARNESS	
NS	0130M00227	WIRE HARNESS	
NS	0130M00194	WIRE HARNESS ASSY	
NS	0130M00194	WIRE HARNESS ASSY	
NS	0130M00206	WIRE HARNESS ASSY (M1, M2, M3, M4, M5, M6, M7)	
NS	0130M00248	WIRE HARNESS ASSY (M8, M9, M10, M11, M12, M13)	

Expanded Model Nomenclature

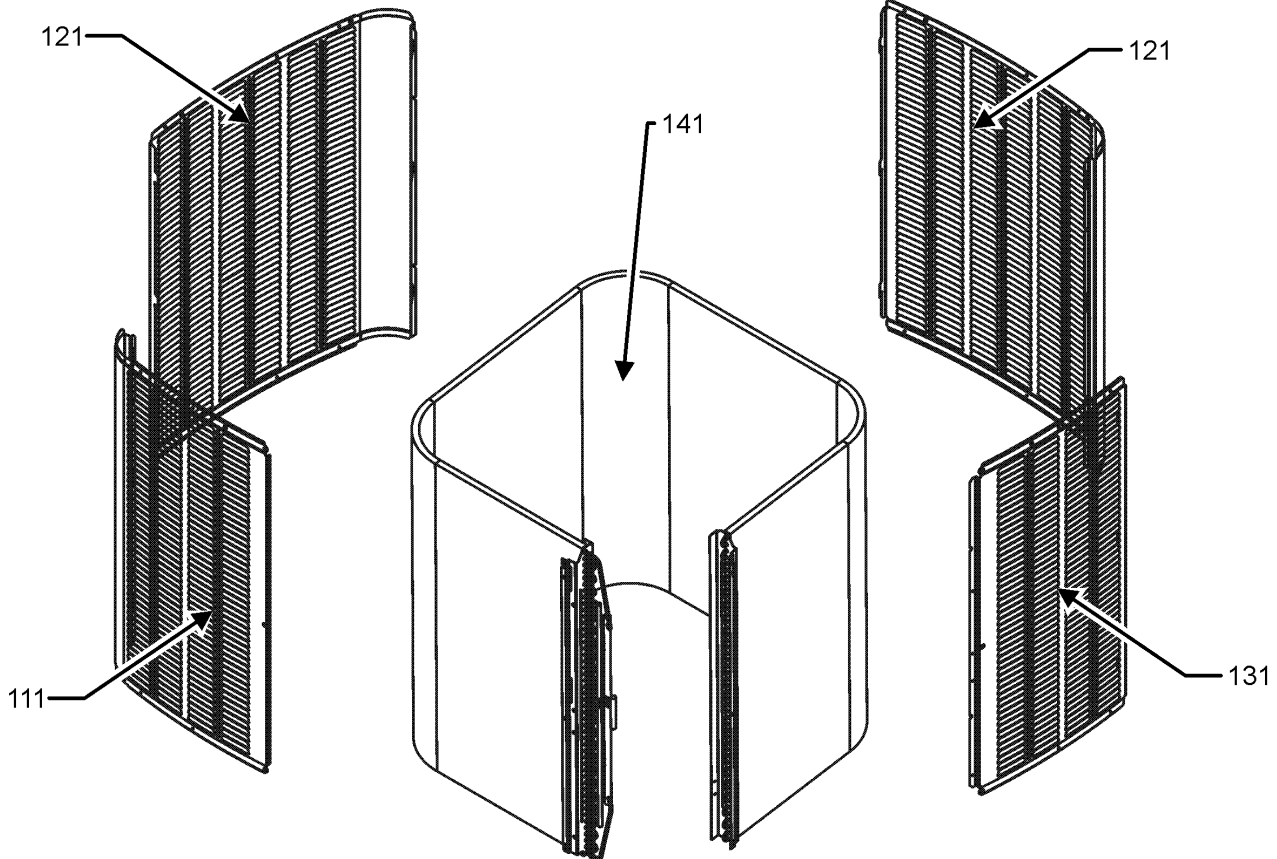
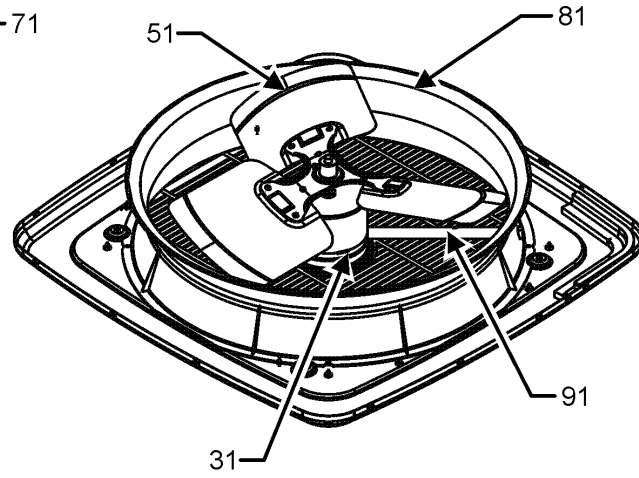
M1 - AVZC180241AA
M2 - AVZC180241AB
M3 - AVZC180241AC
M4 - AVZC180241AD
M5 - AVZC180361AA
M6 - AVZC180361AB
M7 - AVZC180361AC
M8 - AVZC180481AA
M9 - AVZC180481AB
M10 - AVZC180481AC
M11 - AVZC180601AA
M12 - AVZC180601AB
M13 - AVZC180601AC

Top and Side Panel Assembly

TOP PANEL ASSEMBLY
TOP VIEW



TOP PANEL ASSEMBLY
BOTTOM VIEW



Top and Side Panel Assembly

Ref. Part No:	Part No:	Description:	Ref. Part No:	Part No:	Description:
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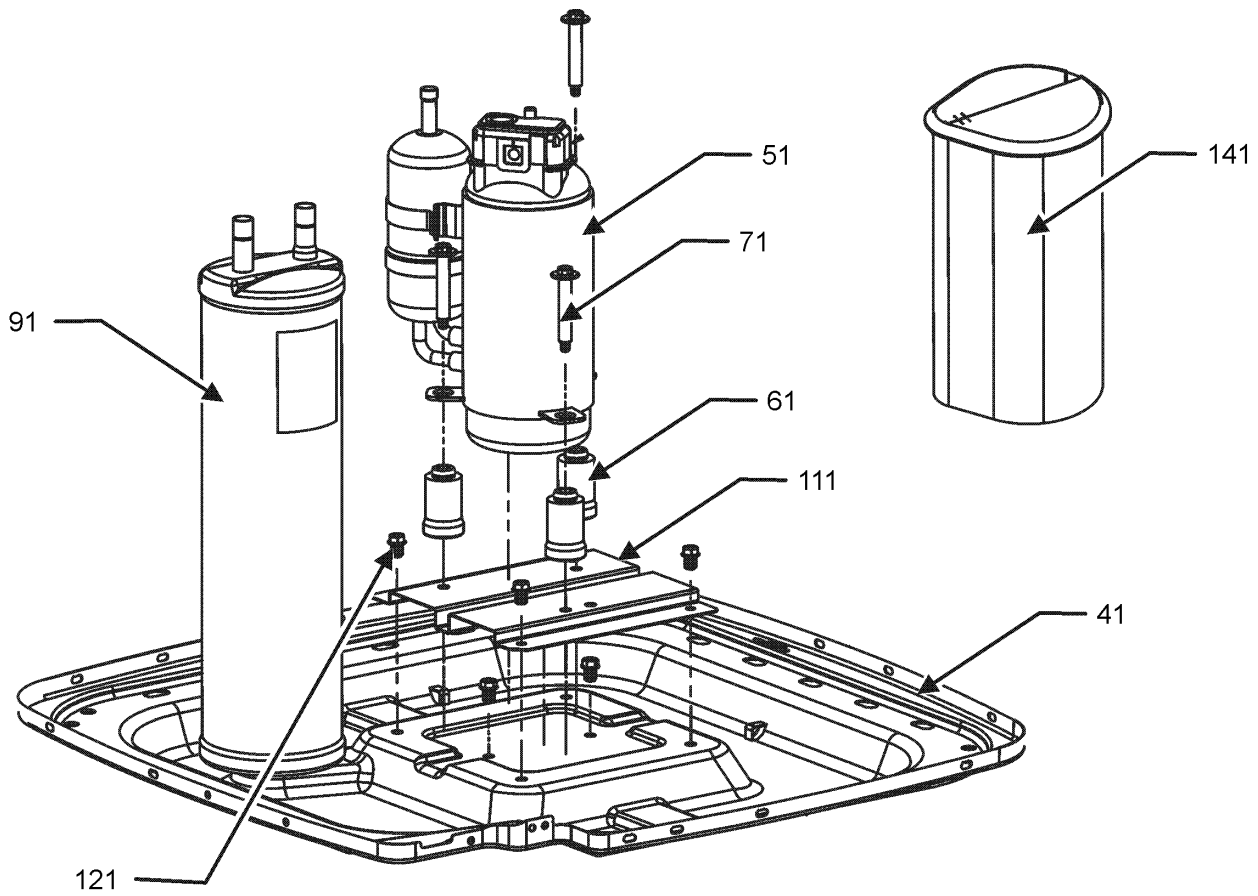
Image 1:

11	0121R00576PDG	TOP PANEL 29" (M1, M2, M3, M4, M5, M6, M7)
11	0121R00577PDG	TOP PANEL 35" (M8, M9, M10, M11, M12, M13)
21	0152R00019	GRILL, WIRE 35" TOP (M11, M12, M13)
21	0152R00015	GRILLE, WIRE 29" TOP (M1, M2, M3, M4, M5, M6, M7)
21	0152R00016	GRILLE, WIRE 35" TOP (M8, M9, M10)
31	3P387730-1	SINGLE PHASE AC FAN MOTOR (M1, M2, M3, M4, M5, M6, M7)
31	3P387731-1	SINGLE PHASE AC FAN MOTOR (M8, M9, M10)
31	3P387735-1	SINGLE PHASE AC FAN MOTOR (M11, M12, M13)
41	M0280801	HEX NUT (QTY 4)
51	10625738	FAN BLADE 26" ALUM CCW (M8, M9, M10, M11, M12, M13)
51	B1086765	FAN BLADE TYPE 3 (M1, M2, M3, M4, M5, M6, M7)
71	0163M00003P	SCREW #10 X 1/2, A, SLOT, SR, BLACK (QTY 8)
81	0161R00049	MOLDED RING-VENTURI 26" (M8, M9, M10, M11, M12, M13)
81	0161R00081	VENTURI RING, 22IN (M1, M2, M3, M4, M5, M6, M7)
91	0161R00002P	CONDUIT (M1, M2, M3, M4, M5, M6, M7)
91	0161R00004P	CONDUIT (M8, M9, M10, M11, M12, M13)
111	0121R00363LG	PANEL 1, BENT LOUVER ASSY (M8, M9, M10, M11, M12, M13)
111	0121R00369LG	PANEL 1, BENT, LOUVER ASSY (M1, M2, M3, M4, M5, M6, M7)
121	0121R00590PLG	PANEL 2, BENT LOUVER 29_36.38 (M1, M2, M3, M4, M5, M6, M7)
121	0121R00364LG	PANEL 2, BENT LOUVER ASSY (M8, M9, M10, M11, M12, M13)
131	0121R00365LG	PANEL 3, LOUVER PAINTED (M8, M9, M10, M11, M12, M13)
131	0121R00371LG	PANEL 3, LOUVER PAINTED (M1, M2, M3, M4, M5, M6, M7)
141	0201R00584	COIL TUBING ASSY (M1, M2, M3, M4, M5, M6, M7)
141	0201R00585	COIL TUBING ASSY (M11, M12, M13)
141	0201R00602	COIL TUBING ASSY (M8, M9, M10)
NS	0154R00032	GASKET

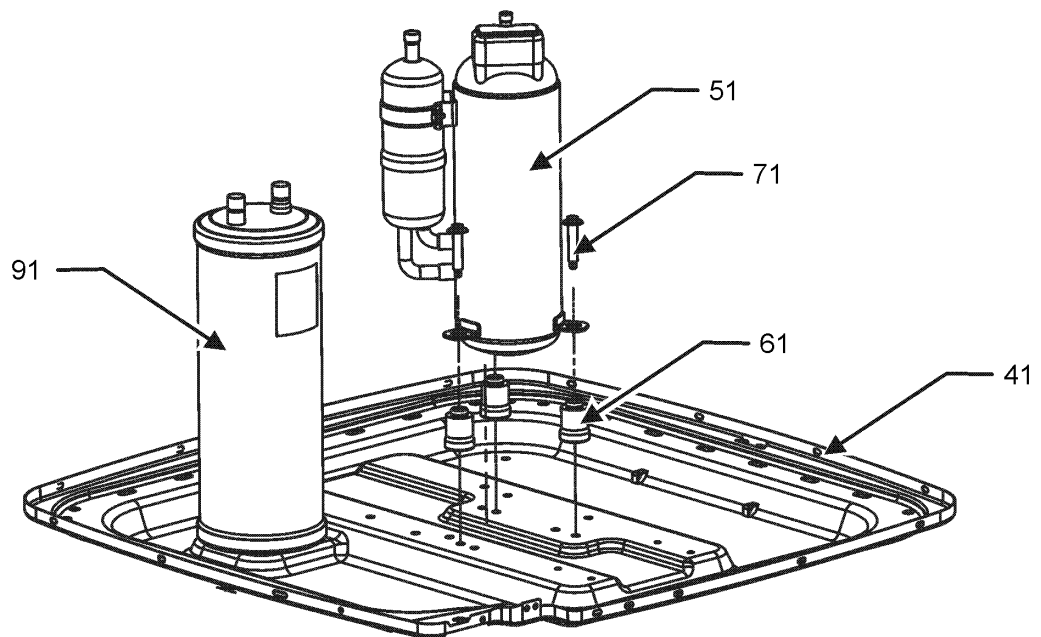
Expanded Model Nomenclature

M1 - AVZC180241AA
M2 - AVZC180241AB
M3 - AVZC180241AC
M4 - AVZC180241AD
M5 - AVZC180361AA
M6 - AVZC180361AB
M7 - AVZC180361AC
M8 - AVZC180481AA
M9 - AVZC180481AB
M10 - AVZC180481AC
M11 - AVZC180601AA
M12 - AVZC180601AB
M13 - AVZC180601AC

Compressor and Base Pan Assembly



2 & 3 TON MODELS



4 & 5 TON MODELS

Compressor and Base Pan Assembly

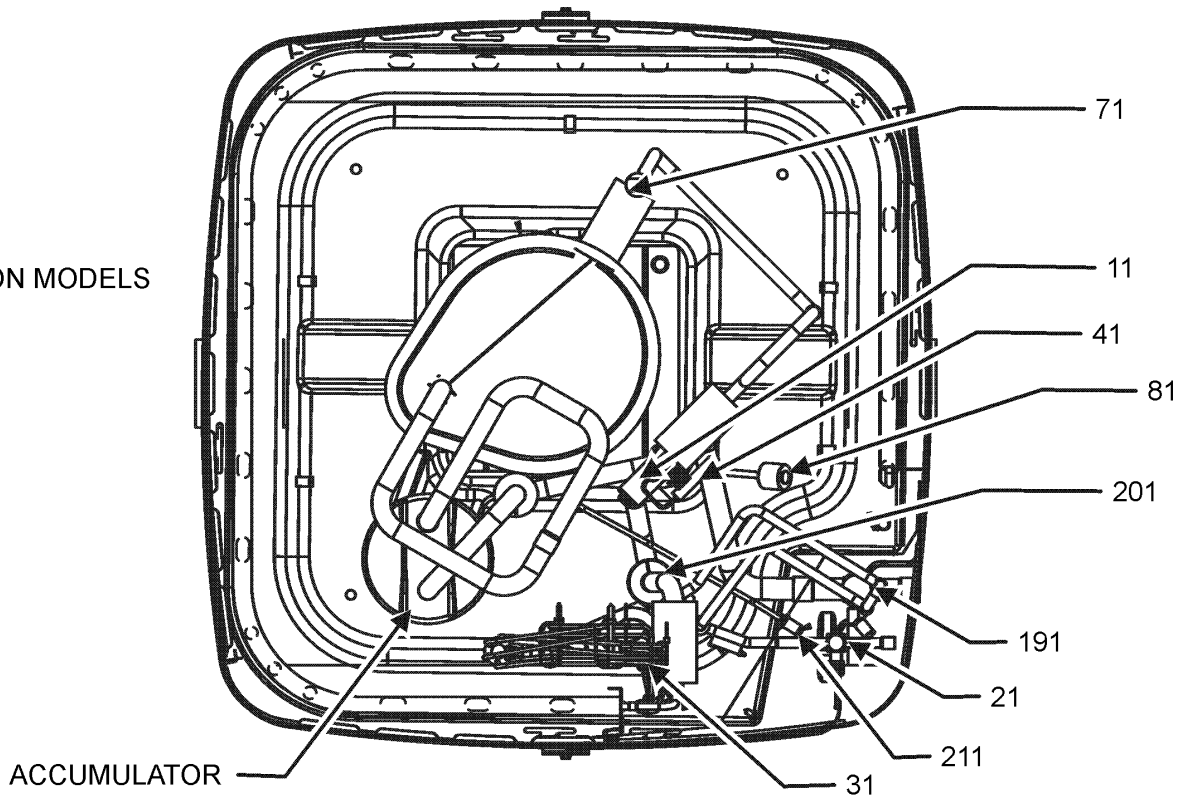
Ref. Part No:	No:	Description:	Ref. Part No:	No:	Description:
Image 1:					
41	0121R00006	PDG	BASE PAN 29"	(M1, M2, M3, M4, M5, M6, M7)	
41	0121R00007	PDG	BASE PAN 35"	(M8, M9, M10, M11, M12, M13)	
51	0156R00006		COMPRESSOR 2YC36MXD	(M1, M2, M3, M4)	
51	0156R00007		COMPRESSOR 2YC63TXD	(M5, M6, M7)	
51	0156R00008		COMPRESSOR 2YC90FXD	(M8, M9, M10, M11, M12, M13)	
61	0164M00027		RUBBER GROMMET	(M5, M6, M7, M8, M9, M10, M11, M12, M13)	
61	0164M00028		RUBBER GROMMET	(M1, M2, M3, M4)	
71	0163R00018		SCREW-SHOULDER TF	(M5, M6, M7, M8, M9, M10, M11, M12, M13)	
71	0163R00020		SCREW-SHOULDER TF	(M1, M2, M3, M4)	
91	0151L00017		ACCUMULATOR	(M8, M9, M10, M11, M12, M13)	
91	0151L00016		ACCUMULATOR, 2T/3T	(M1, M2, M3, M4, M5, M6, M7)	
111	0121R00651		COMPRESSOR MOUNTING PLATE	(M1, M2, M3, M4, M5, M6, M7)	
121	0163R00025		SCREW	(M1, M2, M3, M4, M5, M6, M7)	
141	0160M00007		COMPRESSOR BLANKET	(M1, M2, M3, M4)	
141	0160M00008		COMPRESSOR BLANKET	(M8, M9, M10, M11, M12, M13)	
141	0160M00010		COMPRESSOR BLANKET	(M5, M6, M7)	
NS	0159R00012		COMPRESSOR WIRE HARNESS	(M1, M2, M3, M4, M5, M6, M7)	
NS	0159R00015		COMPRESSOR WIRE HARNESS	(M8, M9, M10, M11, M12, M13)	

Expanded Model Nomenclature

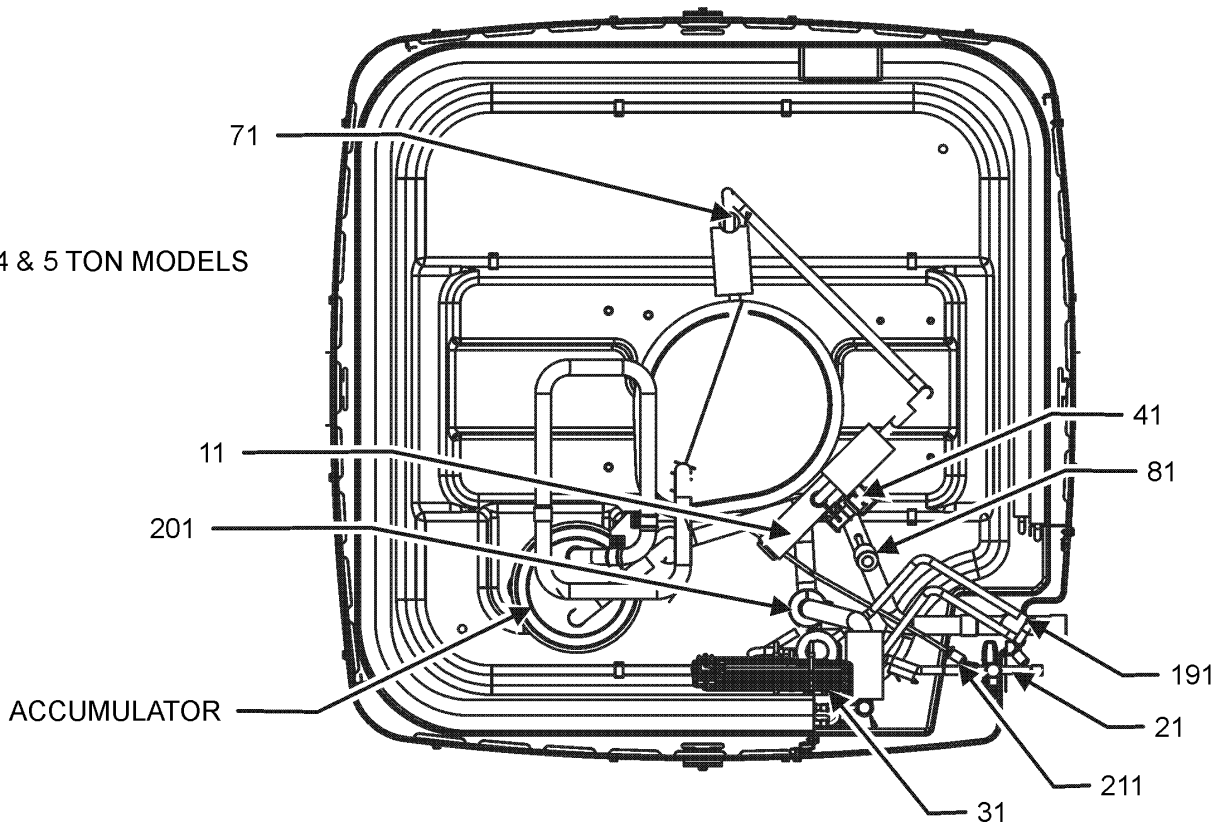
M1 - AVZC180241AA
M2 - AVZC180241AB
M3 - AVZC180241AC
M4 - AVZC180241AD
M5 - AVZC180361AA
M6 - AVZC180361AB
M7 - AVZC180361AC
M8 - AVZC180481AA
M9 - AVZC180481AB
M10 - AVZC180481AC
M11 - AVZC180601AA
M12 - AVZC180601AB
M13 - AVZC180601AC

Tubing Assembly

2 & 3 TON MODELS



4 & 5 TON MODELS



Tubing Assembly

Ref. Part No:	No:	Description:	Ref. Part No:	No:	Description:
Image 1:					
11	0151R00109	REVERSING VALVE (M1, M2, M3, M4)			
11	0151R00110	REVERSING VALVE (M5, M6, M7)			
11	0151R00111	REVERSING VALVE (M8, M9, M10, M11, M12, M13)			
21	0151R00167	BASE VALVE 3/8"			
31	3S500031-1	MOTOR OPERATED VALVE BODY (M8, M9, M10, M11, M12, M13)			
31	3S500032-1	PULSE MOTOR EXPANS EEV (M1, M2, M3, M4, M5, M6, M7)			
41	B1225022	Solenoid Coil			
71	3P381424-2	HIGH PRESSURE SWITCH			
81	3S481010-1	PRESSURE SENSOR			
191	0151R00079	BASE VALVE 3/4" (M1, M2, M3, M4)			
191	0151R00080	BASE VALVE 7/8" (M5, M6, M7, M8, M9, M10, M11, M12, M13)			
201	4PA55176-1	WATER PROOF CAP			
211	B1787000	VALVE CORE			
NS	3SA27018-1	CHECK VALVE (M1, M2, M3, M4, M5, M6, M7)			
NS	4SA27006-1	CHECK VALVE (M1, M2, M3, M4, M8, M9, M10, M11, M12, M13)			
NS	4SA27011-1	CHECK VALVE (M5, M6, M7, M8, M9, M10, M11, M12, M13)			
NS	4PA38890-1	MOUNTING SPRING, THERMISTOR (QTY 5)			
NS	R3269031-7	OIL RETURN FILTER			
NS	3S500031-1	Pulse Motor Expans EEV (M8, M9, M10, M11, M12, M13)			
NS	3S500032-1	Pulse Motor Expans EEV (M1, M2, M3, M4, M5, M6, M7)			
NS	4P387458-1	THERMISTOR ASSY			

Expanded Model Nomenclature

M1 - AVZC180241AA
M2 - AVZC180241AB
M3 - AVZC180241AC
M4 - AVZC180241AD
M5 - AVZC180361AA
M6 - AVZC180361AB
M7 - AVZC180361AC
M8 - AVZC180481AA
M9 - AVZC180481AB
M10 - AVZC180481AC
M11 - AVZC180601AA
M12 - AVZC180601AB
M13 - AVZC180601AC