



Air Conditioning & Heating

GSH COMMERCIAL

SPLIT SYSTEM HEAT PUMPS

GSH13: 13 SEER, 3-5 TONS

GSH10: 11 EER, 7½ & 10 TONS

Standard Features

- Energy-efficient compressor with internal pressure relief valve
- High-capacity, steel-cased, bi-flow heat pump filter drier
- Factory-installed suction line accumulator
- For use with R-22 refrigerant and charged with inert gas for shipping
- Liquid refrigerant return protection
- Check flowrater heating mode expansion device
- Reliable, time-initiated, temperature-terminated defrost control
- Low-pressure switch
- Discharge line muffler
- Brass liquid and suction line service valves mounted at a 90° angle with sweat connections and service ports
- High-efficiency copper tube/aluminum fin coil
- ETL Listed

Cabinet Features

- Goodman® brand sound control top design
- Steel louver coil guard protects coil from damage and adds strength to the unit
- Heavy-gauge, galvanized-steel cabinet
- Attractive Architectural Gray powder-paint finish with 500-hour salt-spray approval
- When properly anchored, meets the 2001 Florida Building Code unit integrity requirements for hurricane-type winds (Anchor bracket kits available.)



Contents

Nomenclature	2
Product Specifications	3
Performance Data	5
Wiring Diagrams	6
Dimensions	8
Accessories	8



* Complete warranty details available from your local dealer or at www.goodmanmfg.com.



NOMENCLATURE

	G	S	H	13	060	3	A	A		
	1	2	3	4,5	6,7,8	9	10	11		
Brand	G Goodman® brand								Engineering *	Minor Revision
Product Category	S Split System							Engineering *	Major Revision	
Unit Type	C Condenser R-22						3 = 208/230 V, 3 Phase, 60 Hz		Electrical	
	H Heat Pump R-22						4 = 460 V, 3 Phase, 60 Hz			
Efficiency	13 13 SEER								Nominal Capacity	
	10 11 EER				036 3 Tons		090 7½ Tons			
					048 4 Tons		120 10 Tons			
					060 5 Tons					



GSH13 SPECIFICATIONS

	GSH13 0363B*	GSH13 0483B*	GSH13 0484A*	GSH13 0603A*	GSH13 0604A*
NOMINAL CAPACITIES					
Tonnage	3	4	4	5	5
Heating (BTU/h)	32,000	45,000	45,000	55,500	55,500
SEER	13	13	13	13	13
Decibels	80	76	76	77	77
COMPRESSOR					
RLA	9.9	12.8	5.8	17.3	6.7
LRA	73.0	93.0	48.0	123.0	49.5
CONDENSER FAN MOTOR					
Horsepower	¼	¼	¼	1/6	1/6
FLA	1.5	1.5	0.8	1.1	0.6
REFRIGERATION SYSTEM					
Liquid Valve Size ("O.D.)	⅜"	⅜"	⅜"	⅜"	⅜"
Suction Valve Size ("O.D.)	1⅝"	1⅝"	7⁄8"	1⅝"	7⁄8"
Valve Type	Sweat	Sweat	Sweat	Sweat	Sweat
Refrigerant Charge	188	268	268	233	233
ELECTRICAL DATA					
Voltage-Phase-Frequency	208/230-3-60	208/230-3-60	460-3-60	208/230-3-60	460-3-60
Minimum Circuit Ampacity ¹	13.9	17.5	8.1	22.7	9.0
Max. Overcurrent Protection ²	20	30	15	40	15
Min / Max Volts	197/253	197/253	414/506	197/253	414/506
Electrical Conduit Size	½" or ¾"	½" or ¾"	½" or ¾"	½" or ¾"	½" or ¾"
SHIP WEIGHT (LBS)	207	225	225	266	266

¹ Wire size should be determined in accordance with National Electrical Codes; extensive wire runs will require larger wire sizes

² May use fuses or HACR type Circuit Breakers of the same size as noted

NOTES

- Always check the S&R plate for electrical data on the unit being installed.
- Installer will need to supply 1⅝" to 1¾" or 1⅝" to 1¾" as appropriate.
- Unit charge with dry nitrogen/helium; must safely dispel holding charge from unit. Evacuate and charge with R-22 per Installation Manual.
- Installation of these units requires the specified TXV Kit to be installed on the indoor coil. THE SPECIFIED TXV IS DETERMINED BY THE OUTDOOR UNIT NOT THE INDOOR COIL.

GSH10 SPECIFICATIONS

	GSH10 0903A*/B*	GSH10 0904B*	GSH10 1203A*	GSH10 1204A*
NOMINAL CAPACITIES				
Tonnage	7½	7½	10	10
Heating (BTU/h)	84,000	84,000	100,000	100,000
EER/IEER	11/11	11/11	11/11.5	11/11.5
Decibels	76	76	77	77
COMPRESSOR				
RLA	25.6	12.8	30.1	15.5
LRA	196	100	225	114
CONDENSER FAN MOTOR				
Horsepower	1	1	1	1
FLA	5.6	3.5	5.6	3.5
REFRIGERATION SYSTEM				
Liquid Valve Size ("O.D.)	¾"	¾"	¾"	¾"
Suction Valve Size ("O.D.) (7½ tons)	1⅜"	1⅜"	---	---
Suction Valve Size ("O.D.) (10 tons)	---	---	1⅝"	1⅝"
Valve Type	Sweat	Sweat	Sweat	Sweat
Refrigerant Charge	30	30	30	30
ELECTRICAL DATA				
Voltage-Phase-Frequency	208-230/3	460-3	208-230/3	460-3
Minimum Circuit Ampacity ¹	37.6	19.5	43.2	22.9
Max. Overcurrent Protection ²	60	30	70	35
Min / Max Volts	197/253	414/506	197/253	414/506
Electrical Conduit Size	½" or ¾"	½" or ¾"	½" or ¾"	½" or ¾"
SHIP WEIGHT (LBS)	254	254	315	296

¹ Wire size should be determined in accordance with National Electrical Codes; extensive wire runs will require larger wire sizes

² May use fuses or HACR type Circuit Breakers of the same size as noted

NOTES

- Always check the S&R plate for electrical data on the unit being installed.
- Installer will need to supply 1½" to 1¾" or 1⅝" to 1⅞" as appropriate.
- Unit charge with dry nitrogen/helium; must safely dispel holding charge from unit. Evacuate and charge with R-22 per Installation Manual.
- Installation of these units requires the specified TXV Kit to be installed on the indoor coil. THE SPECIFIED TXV IS DETERMINED BY THE OUTDOOR UNIT NOT THE INDOOR COIL.

GSH13 PERFORMANCE DATA

OUTDOOR UNIT	INDOOR UNIT	COOLING CAPACITY (BTU/H)				TVA RATINGS ³		HEATING CAPACITY (BTU/H)			CFM	AHRI #
		COILS/AIR HANDLERS	TOTAL	SENS.	SEER ¹	EER ²	TOTAL	SENS.	HI	HSPF ⁴		
GSH13 0363A*	AR*F374316B*	33,600	26,200	13.0	11.0	31,000	23,400	31,400	7.7	16,000	1,260	5528484
GSH13 0483B*	AR*F486016B*	45,000	33,800	13.0	11.0	41,500	31,800	43,000	8.2	27,000	1,600	5528481
GSH13 0484AD	AR*F486016B*	45,000	33,800	13.0	11.0	41,500	31,800	43,000	8.2	27,000	1,600	5528482
GSH13 0603A*	AR*F486016B*	55,500	41,000	13.0	11.0	51,500	37,000	55,500	8.5	35,000	1,800	1492581
GSH13 0604AC	AR*F486016B*	55,500	41,000	13.0	11.0	51,500	37,000	55,500	8.5	35,000	1,800	4982919

¹ Seasonal Energy Efficiency Ratio; Certified per ARI 210/240 @ 80°F/ 67°F/ 95°F

² Energy Efficiency Ratio @ 80°F/ 67°F/ 95°F

³ TVA Rating: BTU/h @ 75°F/ 63°F - 95°F

⁴ HSPF = Heating Seasonal Performance Factor

NOTES

- Always check the S&R plate for electrical data on the unit being installed.
- When matching outdoor unit to indoor unit, use the piston supplied with outdoor unit or that specified on the piston kit chart supplied with the indoor unit.
- EEP - Order from Service Dept. Part No. B13707-38 or new Solid State Board B13707-35S. Part No. B13707-38 is not interchangeable with B13707-35S. The Goodman Gas Furnace contains the EEP cooling time delay

GSH10 PERFORMANCE DATA

OUTDOOR UNIT	INDOOR UNIT	COOLING CAPACITY				TVA RATINGS ⁴		HEATING PERFORMANCE			
		TOTAL ¹	SENS. ¹	EER ²	IEER ³	TOTAL	SENS.	47°F ¹	47°F COP	17°F ¹	17°F COP
GSH100903B*	AR090	90,000	63,900	11	11	83,340	63,340	84,000	3.3	51,000	2.42
GSH100904B*	AR090	90,000	65,700	11	11	83,340	65,010	84,000	3.3	51,000	2.42
GSH101203A*	AR120	110,000	79,200	11	11.5	101,860	78,430	100,000	3.3	63,000	2.2
GSH101204A*	AR120	110,000	79,200	11	11.5	101,860	78,430	100,000	3.3	63,000	2.2

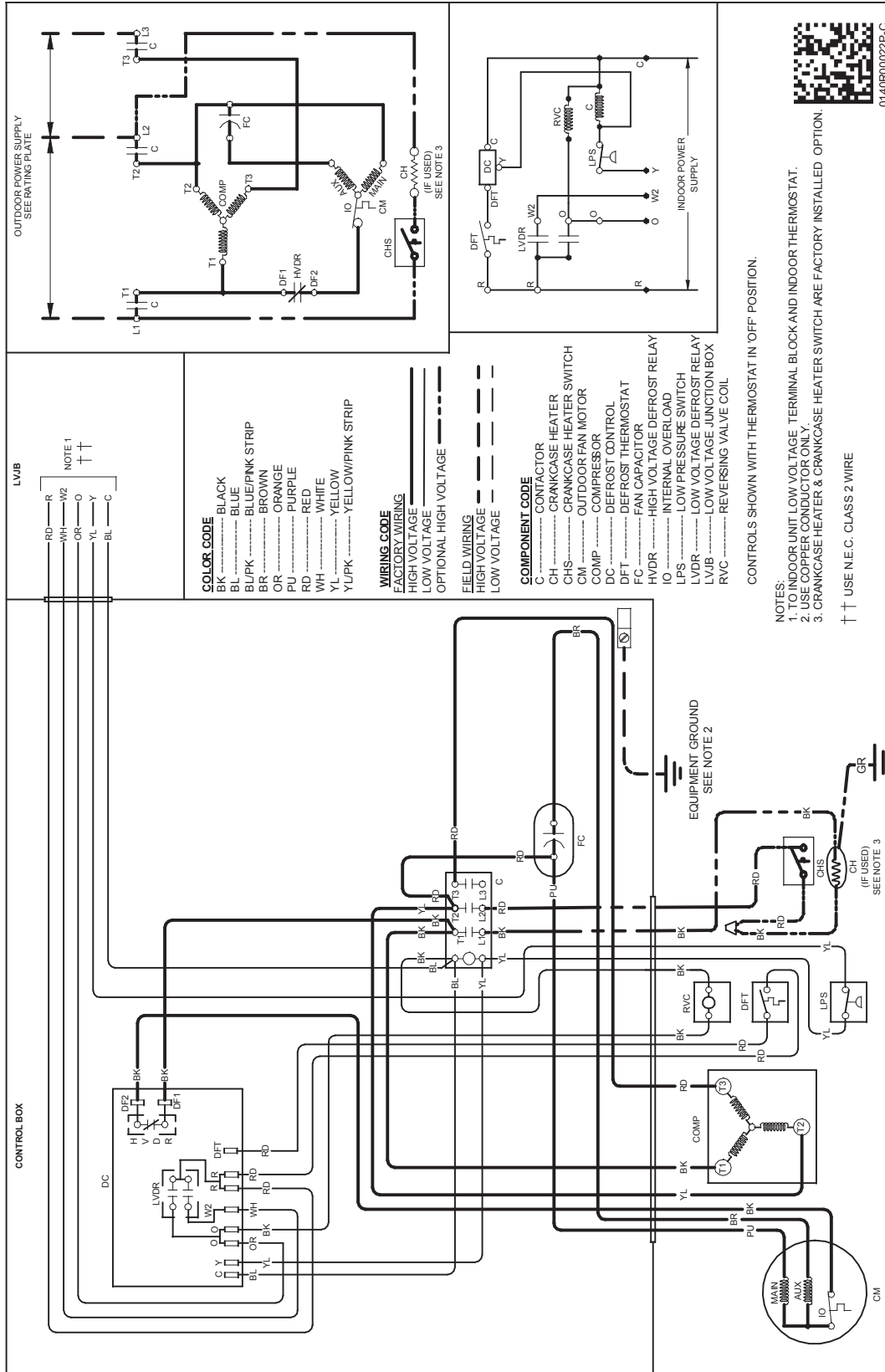
¹ BTU/h

² Energy Efficiency Ratio @ 80°F/ 67°F/ 95°F

³ Integrated Energy Efficiency Ratio

⁴ TVA Rating: BTU/h @ 75°F/ 63°F - 95°F

GSH13 WIRING DIAGRAM



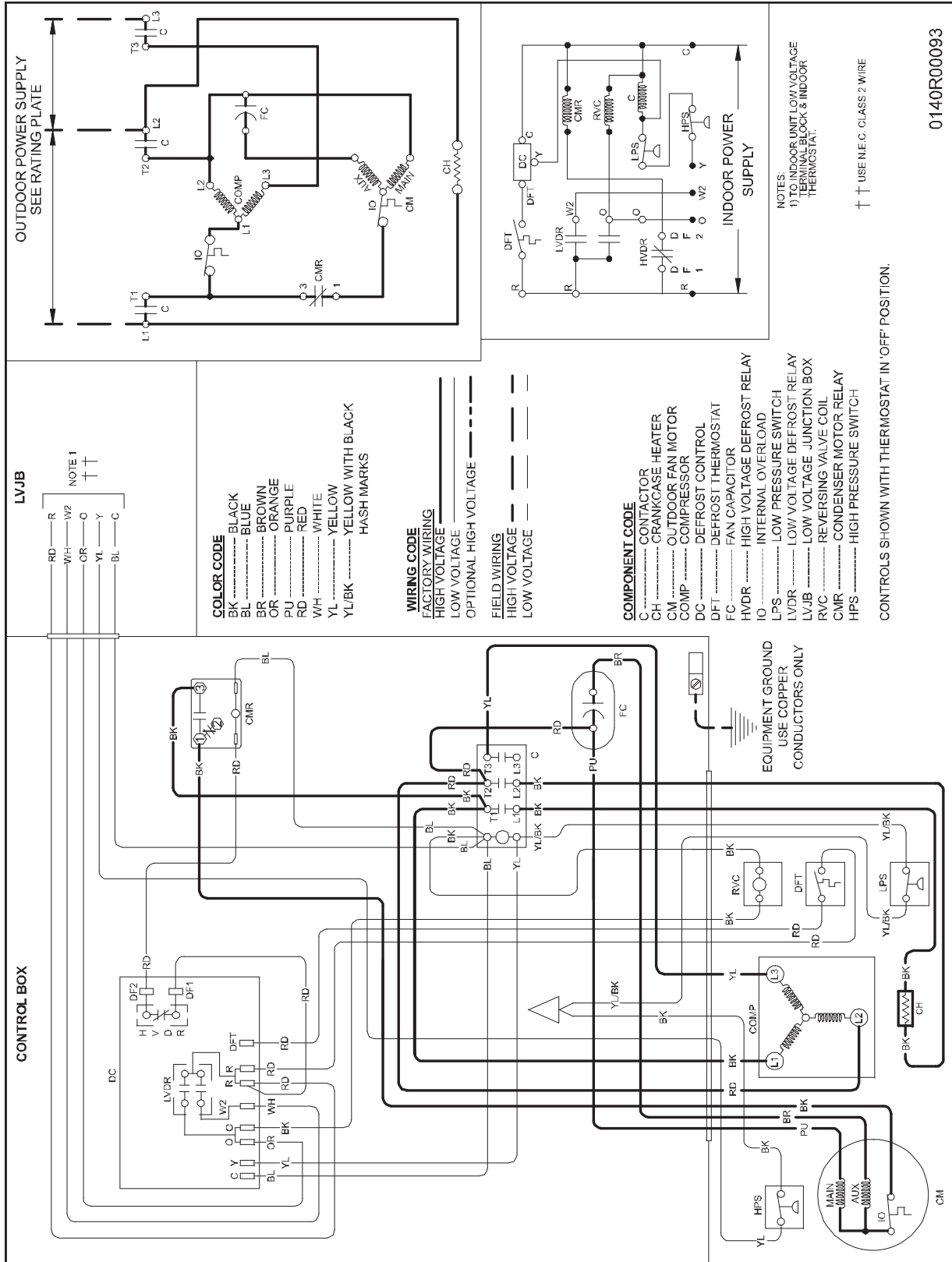
0140R0022P-C

⚡ **WARNING**

High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.

Wiring is subject to change. Always refer to the wiring diagram or the unit for the most up-to-date wiring.

GSH10 WIRING DIAGRAM

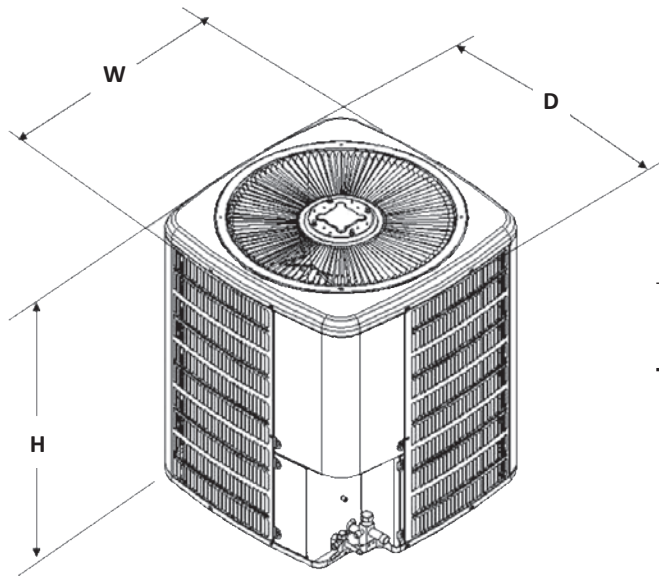


WARNING

⚡

High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.

DIMENSIONS



MODEL	DIMENSIONS		
	W"	D"	H"
GSH130363**	29	29	38 $\frac{1}{4}$
GSH130483**	29	29	34 $\frac{3}{4}$
GSH130484**	29	29	34 $\frac{3}{4}$
GSH130603**	35 $\frac{1}{2}$	35 $\frac{1}{2}$	34 $\frac{3}{4}$
GSH130604**	35 $\frac{1}{2}$	35 $\frac{1}{2}$	34 $\frac{3}{4}$
GSH100903**	35 $\frac{1}{2}$	35 $\frac{1}{2}$	37 $\frac{1}{2}$
GSH100904**	35 $\frac{1}{2}$	35 $\frac{1}{2}$	37 $\frac{1}{2}$
GSH101203**	35 $\frac{1}{2}$	35 $\frac{1}{2}$	37 $\frac{1}{2}$
GSH101204**	35 $\frac{1}{2}$	35 $\frac{1}{2}$	37 $\frac{1}{2}$

ACCESSORIES

MODEL	DESCRIPTION	GSH13 036	GSH13 048	GSH13 060	GSH10 090	GSH10 120
ABK-20	Anchor Bracket Kit [◇]	X	X	X	X	X
AFE18-60A	All-fuel Kit	X	X	X	X	X
ASC01	Anti-Short Cycle Kit	X	X	X		
FSK01A ¹	Freeze Protection Kit	X	X	X	X	X
LAKT01	Low-Ambient Kit				X	X
OT/EHR18-60	Emergency Heat Relay kit	X	X	X		
OT18-60A ²	Outdoor Thermostat with Lockout Stat	X	X	X	X	X
TX5N2 ³	TXV Kit	X	X			

[◇] Contains 20 brackets; four brackets needed to anchor unit to pad

¹ Installed on indoor coil

² Required for heat pump applications where ambient temperatures fall below 0 °F with 50% or higher relative humidity.

³ Condensing units and heat pumps with reciprocating compressors require the use of start-assist components when used in conjunction with an indoor coil using a non-bleed thermal expansion valve refrigerant metering device.