Goodman
Air Conditioning & Heating

GMVC96

Heating Input: 40,000–120,000 BTU/h

Two-Stage, Variable-Speed ECM Gas Furnace Up to 96% AFUE

ComfortNet™ CONTROL SYSTEM

Contents

Standard Features

- ComfortNet™ Communicating System compatible
- Heavy-duty aluminized-steel tubular heat exchanger
- Stainless-steel secondary heat exchanger
- Two-stage gas valve provides quiet, economical heating
- Durable Silicon Nitride igniter
- Quiet two-speed induced draft blower
- Utilizes ComfortNet™ communicating, two-stage or single-stage thermostats
- Self-diagnostic control board with constant memory fault code history output to a dual 7-segment display
- Color-coded low-voltage terminals with provisions for electronic air cleaner and humidifier
- Efficient and quiet variable-speed airflow system gently ramps up or down according to heating or cooling demand
- Multiple continuous fan speed options offer quiet air circulation
- Auto-Comfort and enhanced dehumidification modes available
- All models comply with California 40 ng/J Low NOx emissions standard

Cabinet Features

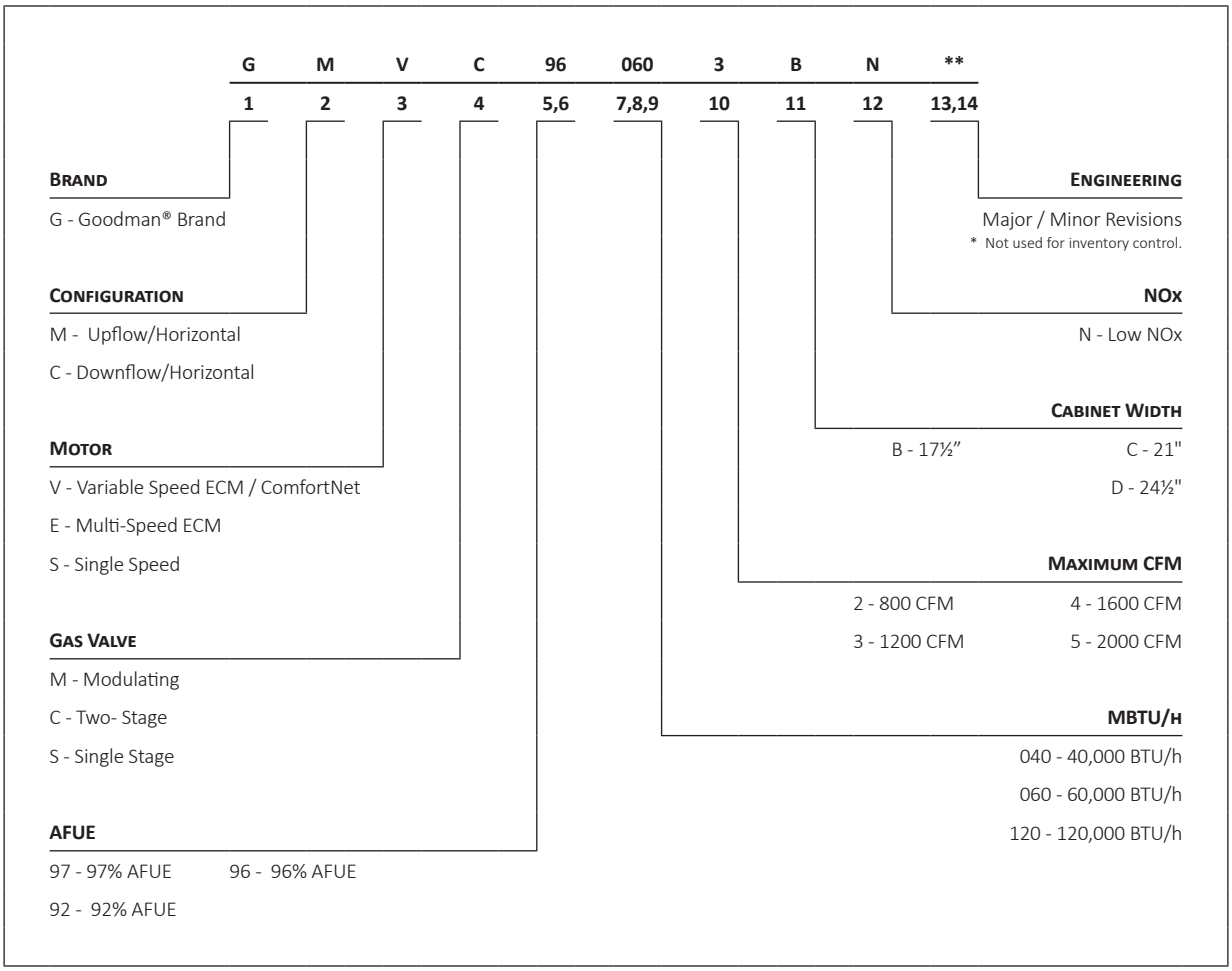
- Designed for multi-position installation — upflow, horizontal left or right
- Certified for direct vent (2-pipe) or non-direct vent (1-pipe)
- Easy to install top venting with optional side venting
- Convenient left or right connection for gas and electrical service
- Cabinet air leakage (Q_{Leak}) ≤ 2%
- Heavy-gauge steel cabinet with durable baked-enamel finish
- Fully insulated heat exchanger and blower section
- Airtight solid bottom or side-return with easy-cut tabs for effortless removal in bottom air-inlet applications

ENERGY STAR

LIFETIME HEAT EXCHANGER LIMITED WARRANTY* | 10 YEAR UNIT REPLACEMENT LIMITED WARRANTY* | 10 YEAR PARTS LIMITED WARRANTY*

Intertek | AHRI CERTIFIED | ISO 9001 | ISO 14001 CERTIFIED | BBB ACCREDITED BUSINESS

* Complete warranty details available from your local dealer or at www.goodmanmfg.com. To receive the Lifetime Heat Exchanger Limited Warranty (good for as long as you own your home), 10-Year Unit Replacement Limited Warranty and 10-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Online registration is not required in California or Québec.



ACCESSORIES

MODEL	DESCRIPTION	GMVC96 0403BNA	GMVC96 0603BNA	GMVC96 0803BNA	GMVC96 0804CNA	GMVC96 1005CNA	GMVC96 1005DNA	GMVC96 1205DNA
CTK04	ComfortNet-compatible Control	√	√	√	√	√	√	√
CVENT-2	Concentric Vent Kit (2")	√	√	√	√	√	√	√
CVENT-3	Concentric Vent Kit (3")	√	√	√	√	√	√	√
CFSB17	Downflow Sub-Base 17.5"	---	---	---	---	---	---	---
CFSB21	Downflow Sub-Base 21"	---	---	---	---	---	---	---
CFSB24	Downflow Sub-Base 24"	---	---	---	---	---	---	---
RF000142	Drain Kit -Horizontal Left Vertical Flue	√	√	√	√	√	√	√
EFR02	External Filter Rack with 16"x25" Permanent Filter	√	√	√	√	---	---	---
0170K00000S	Flush Mount Vent Kit - 3" or 2"	√	√	√	√	√	√	√
0170K00001S	Flush Mount Vent Kit - 2"	√	√	√	√	√	√	√
AFE18-60A	Fossil Fuel (Dual Fuel) Kit	√	√	√	√	√	√	√
HASFK	High-Altitude Natural Gas Kit	HASFK-1	HASFK-1	HASFK-2	HASFK-2	HASFK-3	TBD	HASFK-2
HASFK	High-Altitude LP Gas Kit	HASFK-1	HASFK-1	HASFK-1	HASFK-2	HASFK-2	TBD	HASFK-2
LPLP03	Low LP Gas Pressure Switch	√	√	√	√	√	√	√
LPM-08	LP Conversion Kits	√	√	√	√	√	√	√

	GMVC96 0403BNA	GMVC96 0603BNA	GMVC96 0803BNA	GMVC96 0804CNA	GMVC96 1005CNA	GMVC96 1005DNA	GMVC96 1205DNA
HEATING DATA							
High Fire Input[1]	40,000	60,000	80,000	80,000	100,000	100,000	120,000
High Fire Output[1]	38,400	57,600	76,800	76,800	96,000	96,000	115,200
Low-Fire Steady-State Input[1]	28,000	42,000	56,000	56,000	70,000	70,000	84,000
Low-Fire Steady-State Output[1]	26,880	40,320	53,760	53,760	67,200	67,200	80,640
AFUE[2]	96	96	96	96	96	96	96
Temperature Rise Range (°F)	35 - 65	20 - 50	35 - 65	25 - 55	35 - 65	35 - 65	35 - 65
Vent Diameter[3]	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"	2" - 3"
No. of Burners	2	3	4	4	5	5	6
CIRCULATOR BLOWER							
Available AC @ 0.5" ESP	1.5 - 3	1.5 - 3	1.5 - 3	1.5 - 4	2 - 5	2 - 5	2 - 5
Size (D x W)	10" x 8"	11" x 8"	11" x 8"	11" x 10"	11" x 10"	11" x 11"	11" x 11"
Horsepower @ 1075 RPM	½	½	½	¾	1	1	1
Speed	VS ECM	VS ECM	VS ECM	VS ECM	VS ECM	VS ECM	VS ECM
ELECTRICAL DATA							
Min. Circuit Ampacity[4]	7.8	7.8	7.8	10.6	14.4	14.4	14.4
Max. Overcurrent Device (amps)[5]	15	15	15	15	20	20	20
SHIPPING WEIGHT (LBS)	114	117	120	141	143	153	156

[1] Natural Gas BTU/h

[2] DOE AFUE based upon Isolated Combustion System (ICS)

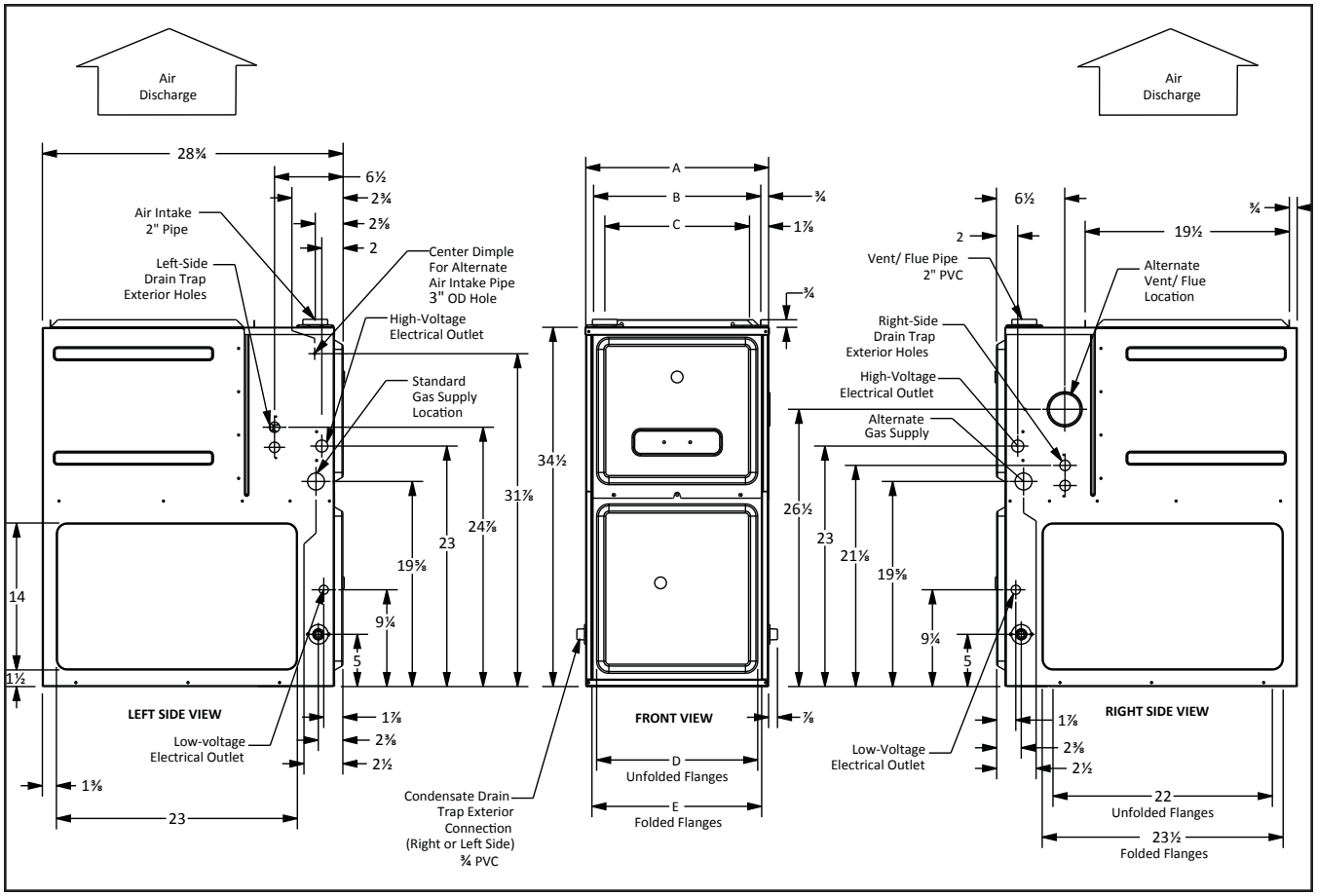
[3] Installer must supply one or two PVC pipes: one for combustion air (optional) and one for the flue outlet (required). Vent pipe must be either 2" or 3" in diameter, depending upon furnace input, number of elbows, length of run and installation (1 or 2 pipes). The optional Combustion Air Pipe is dependent on installation/code requirements and must be 2" or 3" diameter PVC.

[4] Minimum Circuit Ampacity = (1.25 x Circulator Blower Amps) + ID Blower amps. Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

[5] Maximum Overcurrent Protection Device refers to maximum recommended fuse or circuit breaker size. May use fuses or HACR-type circuit breakers of the same size as noted.

NOTES

- All furnaces are manufactured for use on 115 VAC, 60 Hz, single-phase electrical supply.
- Gas Service Connection ½" FPT
- Important: Size fuses and wires properly and make electrical connections in accordance with the National Electrical Code and/or all existing local codes.
- For bottom return: Failure to unfold flanges may reduce airflow by up to 18%. This could result in performance and noise issues.
- For servicing or cleaning, a 24" front clearance is required. Unit connections (electrical, flue and drain) may necessitate greater clearances than the minimum clearances listed above. In all cases, accessibility clearance must take precedence over clearances from the enclosure where accessibility clearances are greater.



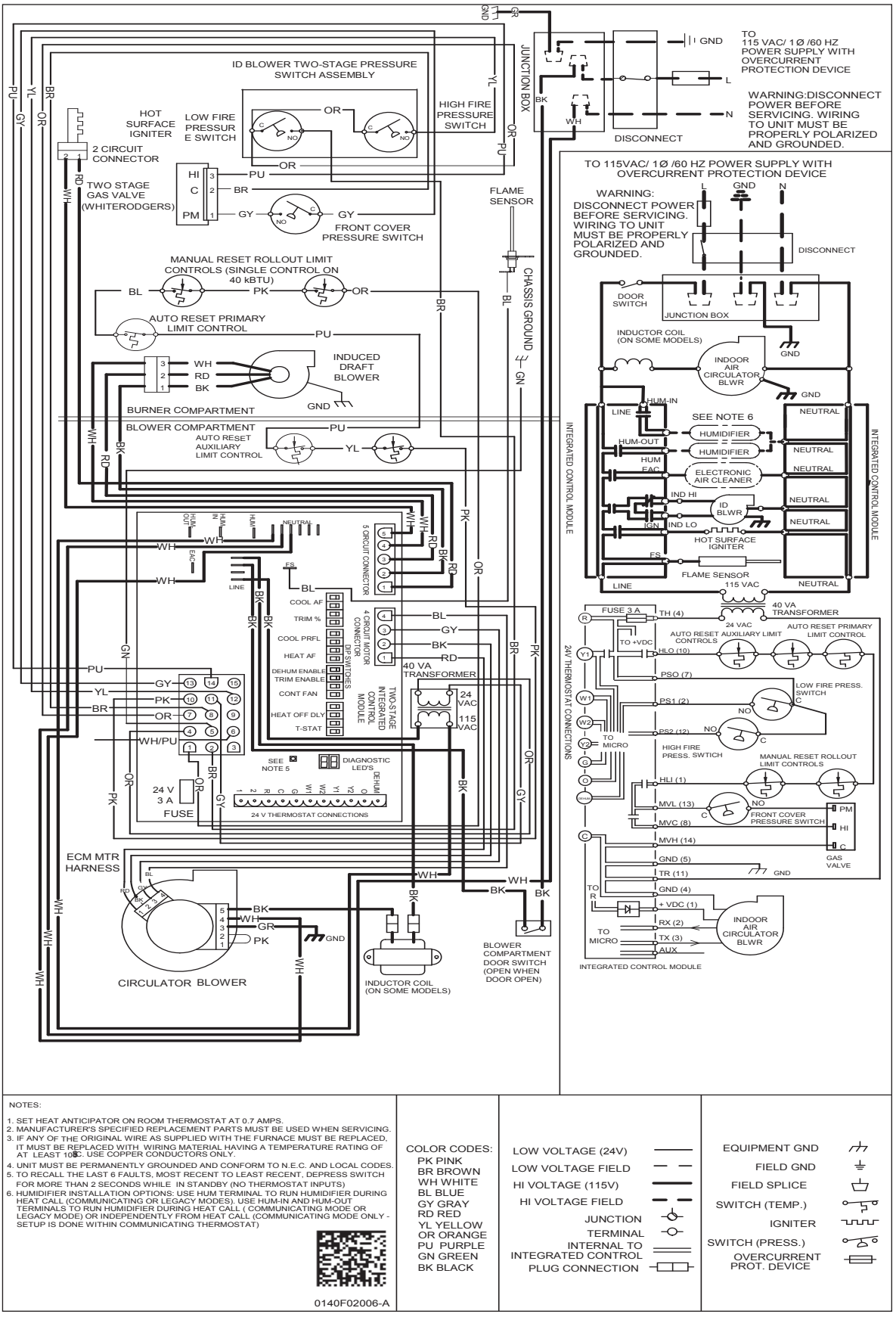
Model	W	D	H
GMVC960403BNA	17½"	28⅞"	34½"
GMVC960603BNA	17½"	28⅞"	34½"
GMVC960803BNA	17½"	28⅞"	34½"
GMVC960804CNA	21"	28⅞"	34½"
GMVC961005CNA	21"	28⅞"	34½"
GMVC961005DNA	24½"	28⅞"	34½"
GMVC961205DNA	24½"	28⅞"	34½"

	Air Discharge			Air Return
A	B	C	D	E
17½"	16"	13⅞"	12⅛"	13⅝"
17½"	16"	13⅞"	12⅛"	13⅝"
17½"	16"	13⅞"	12⅛"	13⅝"
21"	19½"	17⅞"	16"	17½"
21"	19½"	17⅞"	16"	17½"
24½"	23"	20⅞"	19⅜"	20⅞"
24½"	23"	20⅞"	19⅜"	20⅞"

MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS

Position	Sides	Rear	Front	Bottom	Flue	Top
Upflow	0"	0"	3"	C	0"	1"
Horizontal	6"	0"	3"	C	0"	6"

C = If placed on combustible floor, the floor MUST be wood ONLY.



NOTES:

1. SET HEAT ANTICIPATOR ON ROOM THERMOSTAT AT 0.7 AMPS.
2. MANUFACTURER'S SPECIFIED REPLACEMENT PARTS MUST BE USED WHEN SERVICING.
3. IF ANY OF THE ORIGINAL WIRE AS SUPPLIED WITH THE FURNACE MUST BE REPLACED, IT MUST BE REPLACED WITH WIRING MATERIAL HAVING A TEMPERATURE RATING OF AT LEAST 105°C. USE COPPER CONDUCTORS ONLY.
4. UNIT MUST BE PERMANENTLY GROUNDED AND CONFORM TO N.E.C. AND LOCAL CODES.
5. TO RECALL THE LAST 6 FAULTS, MOST RECENT TO LEAST RECENT, DEPRESS SWITCH FOR MORE THAN 2 SECONDS WHILE IN STANDBY (NO THERMOSTAT INPUTS)
6. HUMIDIFIER INSTALLATION OPTIONS: USE HUM TERMINAL TO RUN HUMIDIFIER DURING HEAT CALL (COMMUNICATING OR LEGACY MODES). USE HUM-IN AND HUM-OUT TERMINALS TO RUN HUMIDIFIER DURING HEAT CALL (COMMUNICATING MODE OR LEGACY MODE) OR INDEPENDENTLY FROM HEAT CALL (COMMUNICATING MODE ONLY - SETUP IS DONE WITHIN COMMUNICATING THERMOSTAT)

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COLOR CODES:
PK PINK
BR BROWN
WH WHITE
BL BLUE
GY GRAY
RD RED
YL YELLOW
OR ORANGE
PU PURPLE
GN GREEN
BK BLACK

LOW VOLTAGE (24V)
LOW VOLTAGE FIELD
HI VOLTAGE (115V)
HI VOLTAGE FIELD
JUNCTION
TERMINAL
INTERNAL TO INTEGRATED CONTROL
PLUG CONNECTION

EQUIPMENT GND
FIELD GND
FIELD SPLICE
SWITCH (TEMP.)
IGNITER
SWITCH (PRESS.)
OVERCURRENT PROT. DEVICE

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 on the unit for the most up-to-date wiring.