



# GMVC8

## TWO-STAGE, VARIABLE SPEED GAS FURNACE

**80% AFUE**

**HEATING INPUT: 70,000-115,000 BTU/H**

### Standard Features

- Aluminized steel, dual-diameter tubular heat exchanger
- Two-stage gas valve operates on two-stage or single-stage thermostats
- ComfortNet™ Communications System compatible
- Efficient and quiet variable-speed ECM circulator motor gently ramps up or down according to heating or cooling demand
- Silicon Nitride igniter designed for long igniter life
- Furnace control board with self-diagnostics, color-coded low-voltage terminals, and provisions for electronic air cleaner and 120-volt or 24-volt humidifiers
- Low constant fan speed allows homeowner to activate a very low speed to efficiently circulate air throughout the home. This setting costs as little as a 100-watt light bulb to operate.
- Quiet, two-speed induced draft blower
- All models comply with California NOx emissions standards

### Cabinet Features

- Fully insulated, heavy-gauge steel cabinet with durable baked-enamel finish
- Designed for multi-position installation: upflow, horizontal left or right
- Removable bottom for side- or bottom-return applications
- Coil and furnace fit flush for most installations



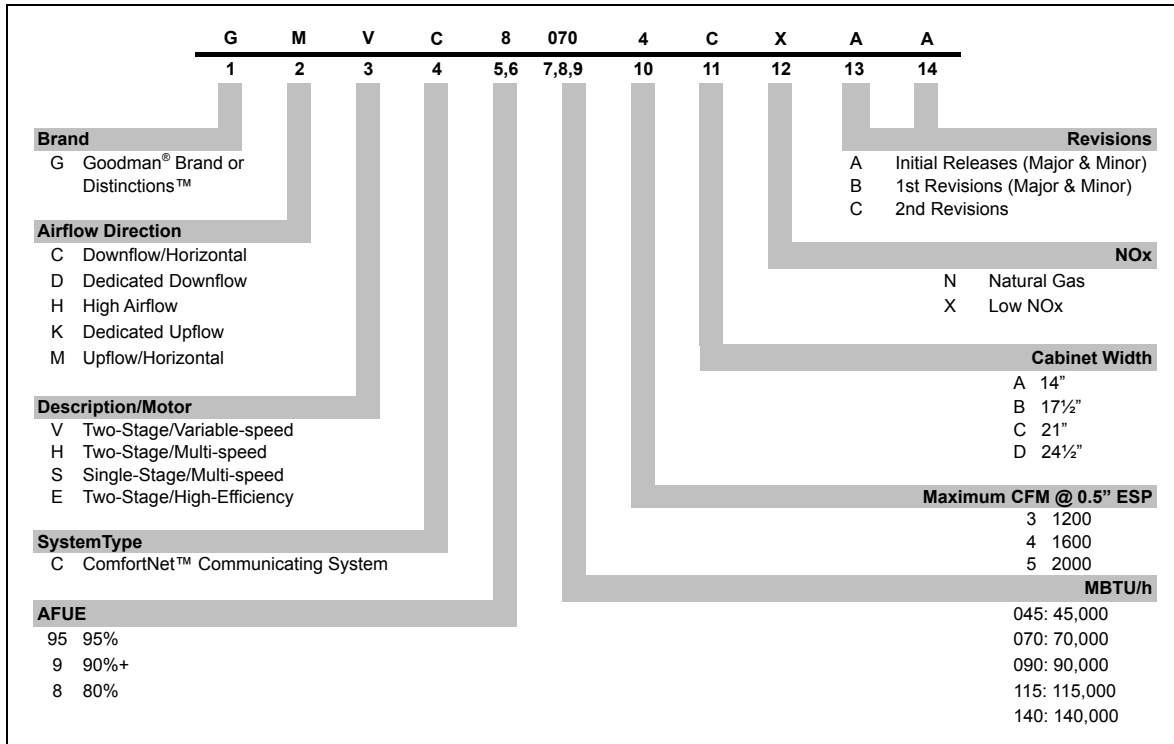
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\* Complete warranty details available from your local dealer or at [www.amana-hac.com](http://www.amana-hac.com). To receive the Lifetime Heat Exchanger Limited Warranty (good for as long as you own your home), 10-Year Unit Replacement Limited Warranty 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.

# NOMENCLATURE



# ACCESSORIES

MODEL	DESCRIPTION	GMVC8 0704BX*	GMVC8 0905CX*	GMVC8 1155CX*
LPM-05	LP Conversion Kit (Springs & Orifice) <sup>1</sup>	✓	✓	✓
LPM-06	LP Conversion Kit (Springs & Orifice) <sup>2</sup>	✓	✓	✓
AFE18-60A	Fossil Fuel Kit (must be used in a dual-fuel application with a compatible thermostat)	✓	✓	✓
ASAS	Electronic Air Cleaners (* = -10, -11, -12 or -18)	✓	✓	✓
AMU	Media Air Cleaners (* = 1620, 2020, 1625 or 2025)	✓	✓	✓

<sup>1</sup> White-Rodgers valve only

<sup>2</sup> White-Rodgers and Honeywell valves

# SPECIFICATIONS

	GMVC8 0704BX*	GMVC8 0905CX*	GMVC8 1155CX*
<b>HEATING CAPACITY</b>			
High Fire Input (BTU/h) <sup>1</sup>	70,000	90,000	115,000
High Fire Output (BTU/h) <sup>1</sup> (below)			
Natural Gas	57,000	74,000	93,000
LP Gas	50,400	64,000	82,000
Low Fire Input (BTU/h) <sup>1</sup>	49,000	63,000	80,000
Low Fire Output (BTU/h) <sup>1</sup> (below)			
Natural Gas	39,200	50,400	64,000
LP Gas	39,200	50,400	64,000
AFUE <sup>2</sup>	80	80	80
Available AC @ 0.5" ESP	1.5 - 3.0	2.0 - 5.0	2.0 - 5.0
Temperature Rise Range (° F)	20 - 50	20 - 50	25 - 55
<b>CIRCULATOR BLOWER</b>			
Size (D x W)	10" x 8"	10" x 10"	10" x 10"
Horsepower - RPM	¾	¾	¾
Speed	Variable	Variable	Variable
Vent Diameter <sup>1</sup>	4"	4"	4"
No. of Burners	3	4	5
Disposable Filter Size (in <sup>2</sup> )	711	960	960
<b>ELECTRICAL DATA</b>			
Min. Circuit Ampacity <sup>3</sup>	12.1	12.1	12.1
Max. Overcurrent Device (amps) <sup>4</sup>	15	15	15
<b>SHIP WEIGHT (LBS)</b>	138	156	156

<sup>1</sup> Natural Gas BTU/h. For altitudes above 2,000', reduce input rating 4% for each 1,000' above sea level.

<sup>2</sup> DOE AFUE based upon Isolated Combustion System (ICS)

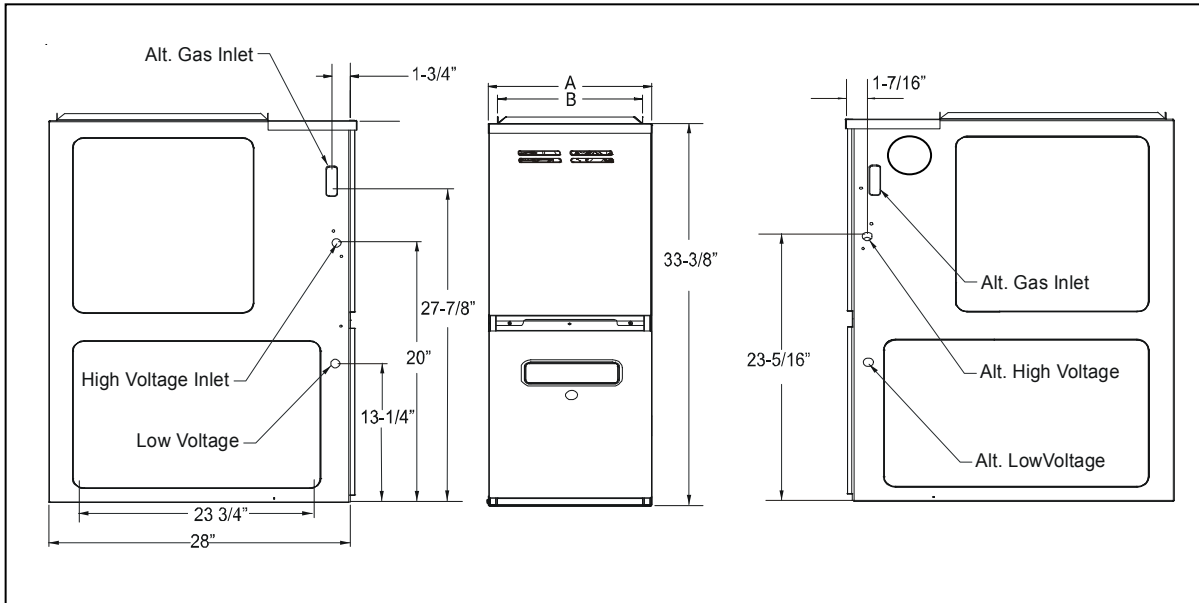
<sup>3</sup> Minimum Circuit Ampacity = (1.25 x Circulator Blower Amps) + ID Blower amps. Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

<sup>4</sup> 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.

# DIMENSIONS



MODEL	A	B
GMVC80704BX*	17½"	16"
GMVC80905CX*	21"	19½"
GMVC81155CX*	21"	19½"

## MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS

SIDES	REAR	FRONT <sup>1</sup>	VENT <sup>2</sup>		TOP
			SW	B	
1	0	3	6	1	1

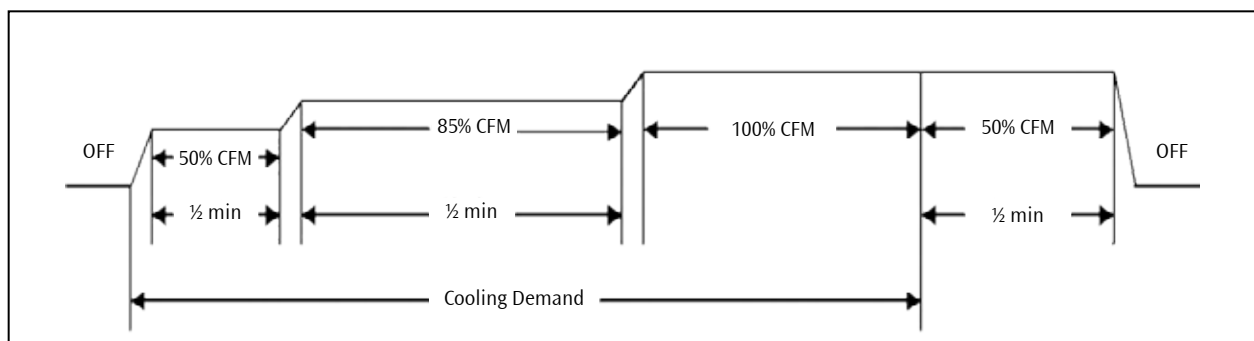
Approved for line contact in the horizontal position.

<sup>1</sup> 24" clearance for serviceability recommended.

<sup>2</sup> Single Wall Vent (SW) to be used only as a connector. Refer to the venting tables outlined in the Installation Manual for additional venting requirements.

## AUTO-COMFORT MODE

During Auto-Comfort mode, the furnace ramps up to 50% of the demand for half a minute. It then ramps to 85% of the full cooling demand airflow and operates there for approximately 7½ minutes. The motor then steps up to the full demand airflow. This mode spends a half minute at 50% airflow OFF delay.



# AIRFLOW DATA

## HIGH- OR SINGLE-STAGE COOLING SPEEDS

GMVC80704BX*		
COOLING SPEED TAP	ADJUST TAP	CFM <sup>1</sup>
A	Minus (-)	540
	Normal	600
	Plus (+)	660
B	Minus (-)	720
	Normal	800
	Plus (+)	880
C	Minus (-)	990
	Normal	1,100
	Plus (+)	1,210
D	Minus (-)	1,260
	Normal	1,400
	Plus (+)	1,540

GMVC80905CX*		
COOLING SPEED TAP	ADJUST TAP	CFM <sup>1</sup>
A	Minus (-)	720
	Normal	800
	Plus (+)	880
B	Minus (-)	990
	Normal	1,100
	Plus (+)	1,210
C	Minus (-)	1,260
	Normal	1,400
	Plus (+)	1,540
D	Minus (-)	1,620
	Normal	1,800
	Plus (+)	1,980

GMVC81155CX*		
COOLING SPEED TAP	ADJUST TAP	CFM <sup>1</sup>
A	Minus (-)	720
	Normal	800
	Plus (+)	880
B	Minus (-)	990
	Normal	1,100
	Plus (+)	1,210
C	Minus (-)	1,260
	Normal	1,400
	Plus (+)	1,540
D	Minus (-)	1,620
	Normal	1,800
	Plus (+)	1,980

## LOW-STAGE COOLING SPEEDS

GMVC80704BX*		
COOLING SPEED TAP	ADJUST TAP	CFM <sup>1</sup>
A	Minus (-)	351
	Normal	390
	Plus (+)	429
B	Minus (-)	468
	Normal	520
	Plus (+)	572
C	Minus (-)	644
	Normal	715
	Plus (+)	787
D	Minus (-)	819
	Normal	910
	Plus (+)	1,001

GMVC80905CX*		
COOLING SPEED TAP	ADJUST TAP	CFM <sup>1</sup>
A	Minus (-)	468
	Normal	520
	Plus (+)	572
B	Minus (-)	644
	Normal	715
	Plus (+)	787
C	Minus (-)	819
	Normal	910
	Plus (+)	1,001
D	Minus (-)	1,053
	Normal	1,170
	Plus (+)	1,287

GMVC81155CX*		
COOLING SPEED TAP	ADJUST TAP	CFM <sup>1</sup>
A	Minus (-)	468
	Normal	520
	Plus (+)	572
B	Minus (-)	644
	Normal	715
	Plus (+)	787
C	Minus (-)	819
	Normal	910
	Plus (+)	1,001
D	Minus (-)	1,053
	Normal	1,170
	Plus (+)	1,287

<sup>1</sup> @ .1" to .8" W.C. ESP

**NOTES**

- These charts are for furnaces installed at 0' - 2,000'. At higher altitudes, a properly de-rated unit will have the same temperature rise at a particular CFM, while the ESP at that CFM will be lower.
- THE INSTALLATION IS TO BE ADJUSTED TO OBTAIN A TEMPERATURE RISE WITHIN THE RANGE LISTED ON THE FURNACE NAMEPLATE.
- Propane gas installations will have a high-stage rise approximately 4° lower than shown in the tables.

# AIRFLOW DATA (CONT.)

## HEATING SPEEDS

GMVC80704BX* (RISE RANGE: 20° - 50°F)				
COOLING SPEED TAP	ADJUST TAP	LOW-STAGE CFM <sup>1</sup>	HIGH-STAGE CFM <sup>1</sup>	RISE (°F)
A	Minus (-)	790	1125	46
	Normal	875	1250	41
	Plus (+)	960	1375	38
B	Minus (-)	850	1215	43
	Normal	945	1350	38
	Plus (+)	1040	1485	35
C	Minus (-)	915	1305	40
	Normal	1015	1450	36
	Plus (+)	1115	1595	33
D	Minus (-)	975	1395	37
	Normal	1085	1550	33
	Plus (+)	1195	1705	30

GMVC80905CX* (RISE RANGE: 20° - 50°F)				
COOLING SPEED TAP	ADJUST TAP	LOW-STAGE CFM <sup>1</sup>	HIGH-STAGE CFM <sup>1</sup>	RISE (°F)
A	Minus (-)	945	1350	49
	Normal	1050	1500	44
	Plus (+)	1155	1650	40
B	Minus (-)	1010	1440	46
	Normal	1120	1600	42
	Plus (+)	1230	1760	38
C	Minus (-)	1070	1530	44
	Normal	1190	1700	39
	Plus (+)	1310	1870	36
D	Minus (-)	1135	1620	41
	Normal	1260	1800	37
	Plus (+)	1385	1980	34

GMVC81155CX* (RISE RANGE: 25° - 55°F)				
COOLING SPEED TAP	ADJUST TAP	LOW-STAGE CFM <sup>1</sup>	HIGH-STAGE CFM <sup>1</sup>	RISE (°F)
A	Minus (-)	1090	1555	55
	Normal	1210	1725	49
	Plus (+)	1330	1900	45
B	Minus (-)	1105	1575	54
	Normal	1225	1750	49
	Plus (+)	1350	1925	44
C	Minus (-)	1120	1600	53
	Normal	1245	1775	48
	Plus (+)	1370	1955	44
D	Minus (-)	1135	1620	53
	Normal	1260	1800	47
	Plus (+)	1385	1980	43

<sup>1</sup> @ .1" to .8" W.C. ESP

**NOTES**

- These charts are for furnaces installed at 0' - 4,500'. At higher altitudes, a properly de-rated unit will have the same temperature rise at a particular CFM, while the ESP at that CFM will be lower.
- The installation must be adjusted to obtain a temperature rise within the range listed on the furnace nameplate.
- Do not operate above .5" w.c. ESP in heating mode.
- Propane gas installations will have a high-stage rise approximately 4° lower than shown in the tables.

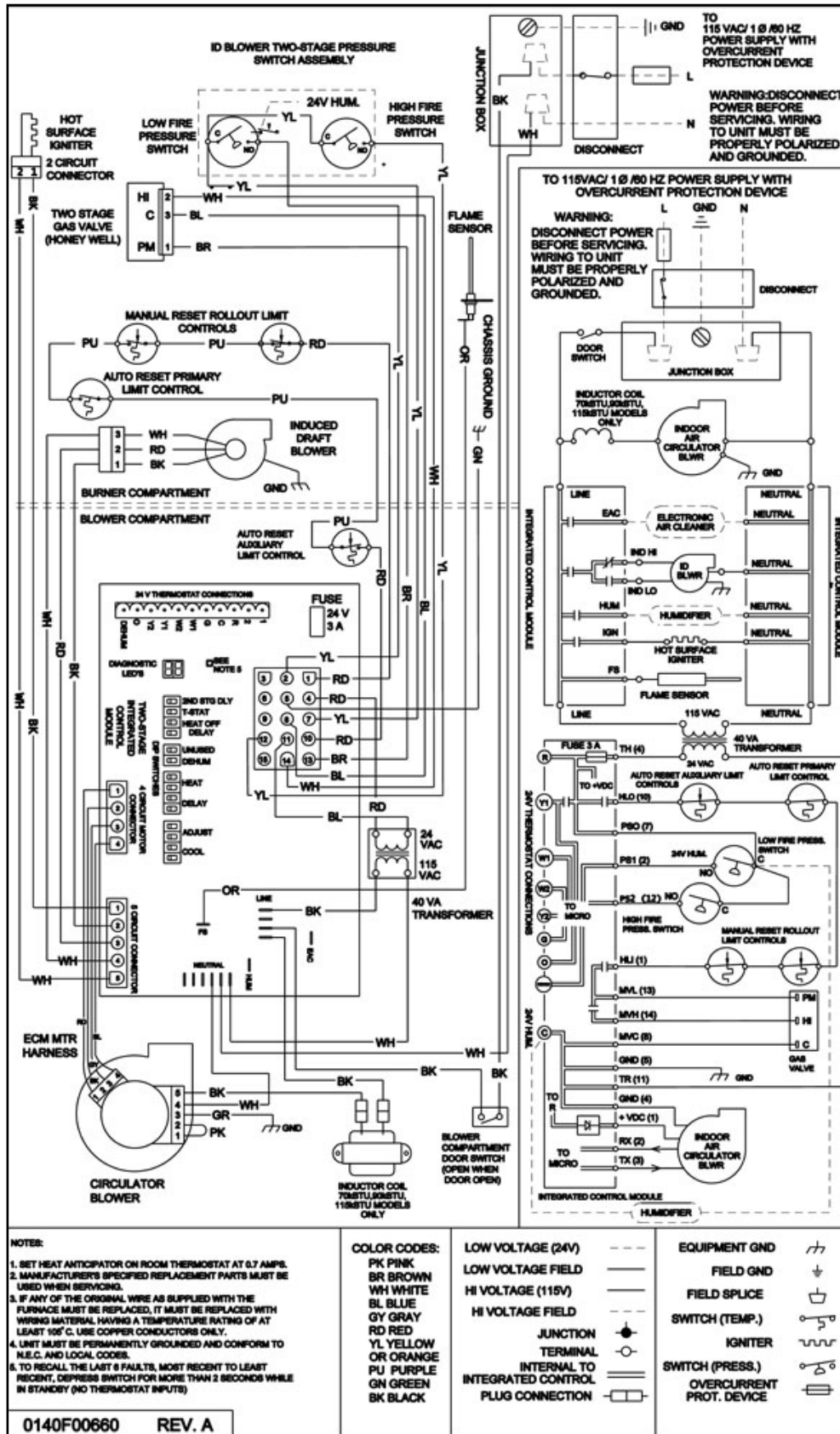
## CONTINUOUS FAN SPEEDS

MODEL	FURNACE MAXIMUM CFM	CONTINUOUS FAN SPEED <sup>1,2</sup>
GMVC80704BX*	1760	530
GMVC80905CX*	2000	600
GMVC81155CX*	2000	600

<sup>1</sup> Continuous fan speed is 30% of furnace maximum CFM

<sup>2</sup> Three continuous fan speeds are possible with the CTK01AA thermostat: 30%, 50%, and 70% of furnace maximum CFM

# WIRING DIAGRAM WITH HONEYWELL VALVE

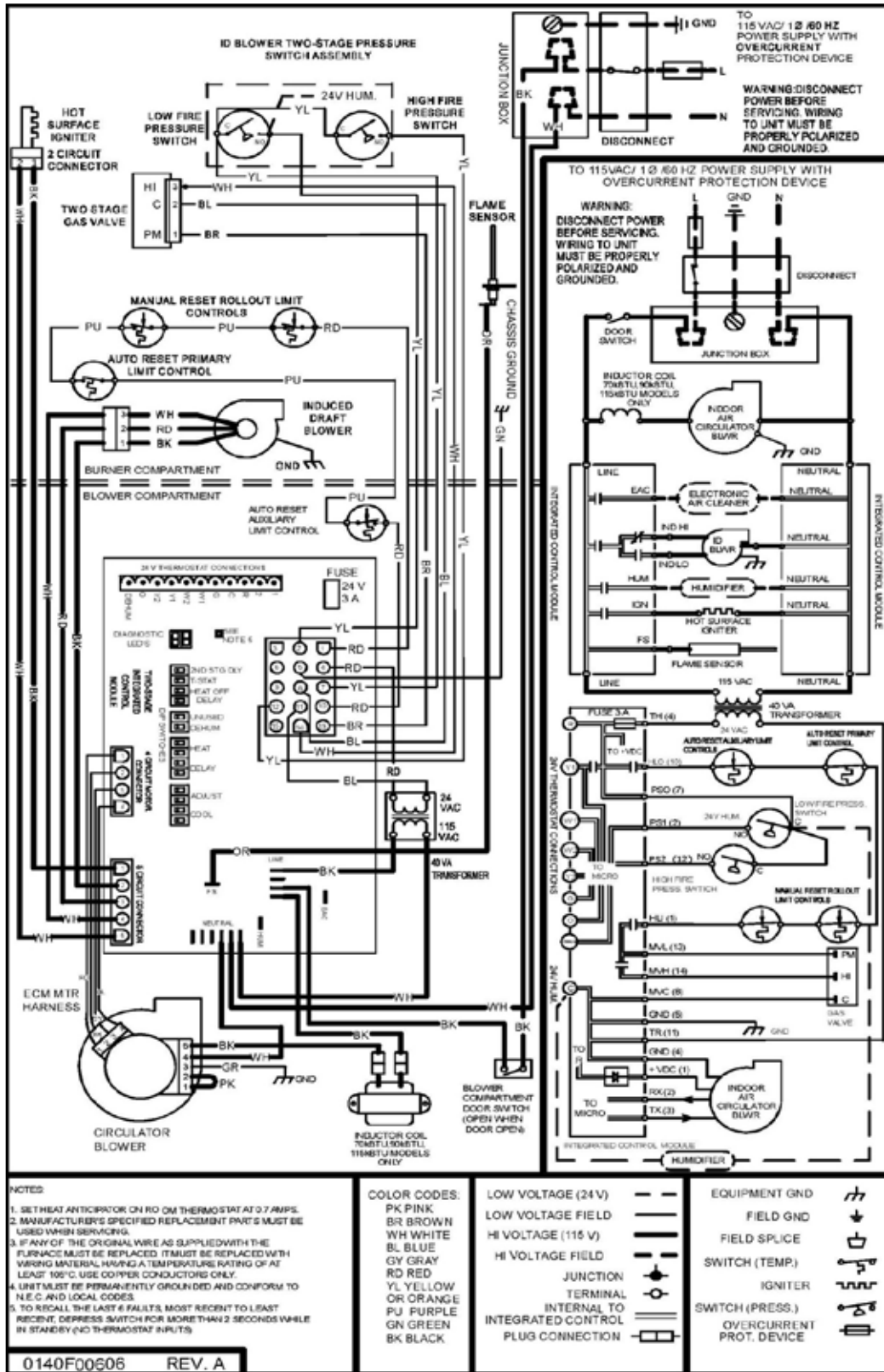


High Voltage: Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.

**WARNING**

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

# WIRING DIAGRAM WITH WHITE-RODGERS VALVE



⚡  
**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.

**WARNING**

⚠

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

