



Air Conditioning & Heating

# GMVS80-U

HEATING INPUT : 60,000 – 80,000 BTU/H

**SINGLE-STAGE, VARIABLE-SPEED ECM,  
MULTI-POSITION, ULTRA-LOW NOX  
GAS FURNACE  
80% AFUE**



### Contents

|                             |   |
|-----------------------------|---|
| Nomenclature.....           | 2 |
| Product Specifications..... | 3 |
| Dimensions.....             | 4 |
| Airflow Data.....           | 5 |
| Wiring Diagrams.....        | 7 |
| Accessories.....            | 8 |
| Minimum Filter Sizes.....   | 8 |

### Standard Features

- Integrated communicating ComfortBridge™ Technology
- Commissioning and diagnostics via indoor board Bluetooth with the CoolCloud™ phone and tablet application
- Heavy-duty stainless-steel dual-diameter tubular heat exchanger
- Single-stage gas valve
- Durable Hot-surface igniter
- Quiet, modulating draft inducer
- Self-diagnostic control board
- Variable-speed ECM blower motor
- Eligible for installation in California’s South Coast Air Quality Management District (SCAQMD) and San Joaquin Valley Air Pollution Control District (SJVUAPCD). This furnace complies with the 14 ng/J NOx emission limit in SCAQMD Rule 1111 and SJVUAPCD Rule 4905.
- EMI line filter kit must be installed. (It is intended for field installation only on “VS” model, Bluetooth® capable Ultra Low NOx Gas Furnaces. The purpose of the EMI Filter is to reduce electromagnetic interference between the furnace and other electrical devices)
- AHRI Certified; ETL Listed

### Cabinet Features

- Installation: upflow, horizontal left or right
- Convenient left or right connection for gas and electrical service
- Heavy-gauge steel cabinet with durable baked-enamel finish
- Foil faced insulated heat exchanger

LIFETIME  
HEAT EXCHANGER  
LIMITED WARRANTY\*

10 UNIT  
REPLACEMENT  
LIMITED  
WARRANTY\*

10 PARTS  
LIMITED  
WARRANTY\*



COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV GL  
■ ISO 9001 ■

COMPANY WITH  
ENVIRONMENTAL SYSTEM  
CERTIFIED BY DNV GL  
■ ISO 14001 ■



\* 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.

|                      | <b>G</b>  | <b>M</b> | <b>V</b> | <b>S</b> | <b>80</b> | <b>040</b> | <b>4</b> | <b>C</b> | <b>*</b> | <b>**</b> |   |
|----------------------|---|----------|----------|----------|-----------|------------|----------|----------|----------|-----------|---|
|                      | 1   | 2        | 3        | 4        | 5,6       | 7,8,9      | 10       | 11       | 12       | 13,14     |   |
| <b>BRAND</b>         | G- Goodman® Brand   |          |          |          |           |            |          |          |          |           | <b>ENGINEERING</b>  |
|                      |   |          |          |          |           |            |          |          |          |           | Major /Minor Revisions<br>* Not used for inventory control.                         |
| <b>CONFIGURATION</b> | M- Upflow/Horizontal<br>C- Downflow/Horizontal                                    |          |          |          |           |            |          |          |          |           | <b>NOX</b>  |
|                      |   |          |          |          |           |            |          |          |          |           | N- Natural Gas<br>X- Low NOx<br>U- Ultra-Low NOx                                    |
| <b>MOTOR</b>         | V- Variable Speed ECM / ComfortBridge™<br>E- Multi-Speed ECM      S- Single Speed |          |          |          |           |            |          |          |          |           | <b>CABINET WIDTH</b>  |
|                      |   |          |          |          |           |            |          |          |          |           | A- 14"      C- 21"<br>B- 17½"      D- 24½"  |
| <b>GAS VALVE</b>     | M- Modulating      S- Single Stage<br>C- Two Stage                                |          |          |          |           |            |          |          |          |           | <b>MAXIMUM CFM</b>  |
|                      |   |          |          |          |           |            |          |          |          |           | 2- 800 CFM      4- 1600 CFM<br>3- 1200 CFM      5- 2000 CFM                         |
| <b>AFUE</b>          | 80- 80% AFUE  |          |          |          |           |            |          |          |          |           | <b>MBTU/h</b>   |
|                      |   |          |          |          |           |            |          |          |          |           | 040- 40,000 BTU/h      100- 100,000 BTU/h<br>060- 60,000 BTU/h<br>080- 80,000 BTU/h |

|   | GMVS80<br>0604BUA*              | GMVS80<br>0805CUA*                               |
|---|---------------------------------|--|
| <b>HEATING CAPACITY</b>                     |                                 |  |
| Input                                       | 60,000                          | 80,000   |
| Natural Gas Output                          | 48,000                          | 64,000   |
| AFUE <sup>1</sup>                           | 80                              | 80   |
| Available AC @ 0.5" ESP                     | 1.5 - 4.0                       | 2.0 - 5.0  |
| Temperature Rise Range (°F)                 | 20 - 50                         | 35 - 65  |
| <b>CIRCULATOR BLOWER</b>                    |                                 |  |
| Size (D x W)                                | 10" x 8"                        | 10" x 10"  |
| Horsepower                                  | 3/4                             | 3/4  |
| Speed                                       | Variable                        | Variable   |
| Vent Diameter <sup>2</sup>                  | 4"                              | 4"   |
| No. of Burners                              | 1 Burner, 3 tubes               | 1 Burner, 4 tubes                                |
| Minimum Filter Size                         | (1) 16 x 25<br>(side or bottom) | (1) 20 x 25<br>(bottom) or<br>(2) 16 x 25 (side) |
| <b>ELECTRICAL DATA</b>                      |                                 |  |
| Min. Circuit Ampacity <sup>3</sup>          | 11.6                            | 11.6   |
| Max. Overcurrent Device (amps) <sup>4</sup> | 15                              | 15   |
| <b>SHIP WEIGHT (LBS)</b>                    | 112                             | 127  |

<sup>1</sup> For Use With Natural Gas Only. For altitudes + 4500' above sea level, see installation manual.

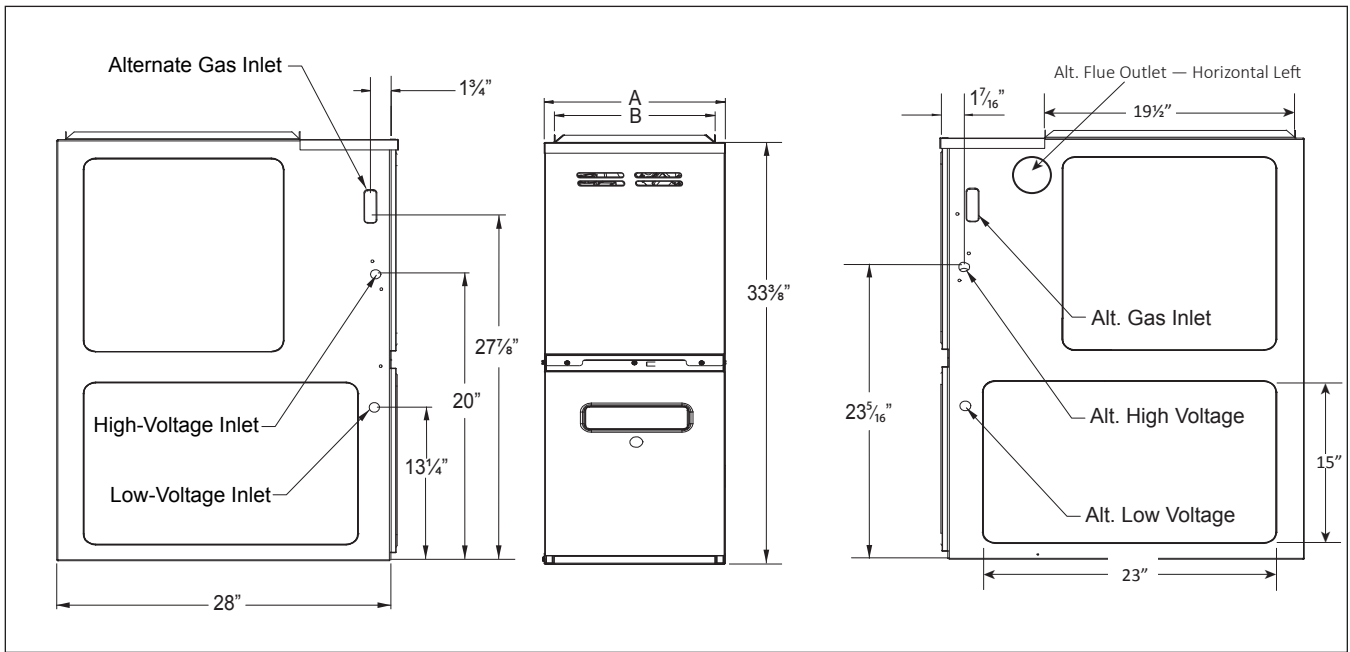
<sup>2</sup> DOE AFUE based upon Isolated Combustion System (ICS)

<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.



| MODEL         | A       | B       |
|---------------|---------|---------|
| GMVS800604BU* | 17 1/2" | 16"     |
| GMVS800805CU* | 21"     | 19 1/2" |

**NOTES**

- Line voltage wiring can enter through the right or left side of furnace.  
Low-voltage wiring can enter through the right or left side of furnace.

**MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS**

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

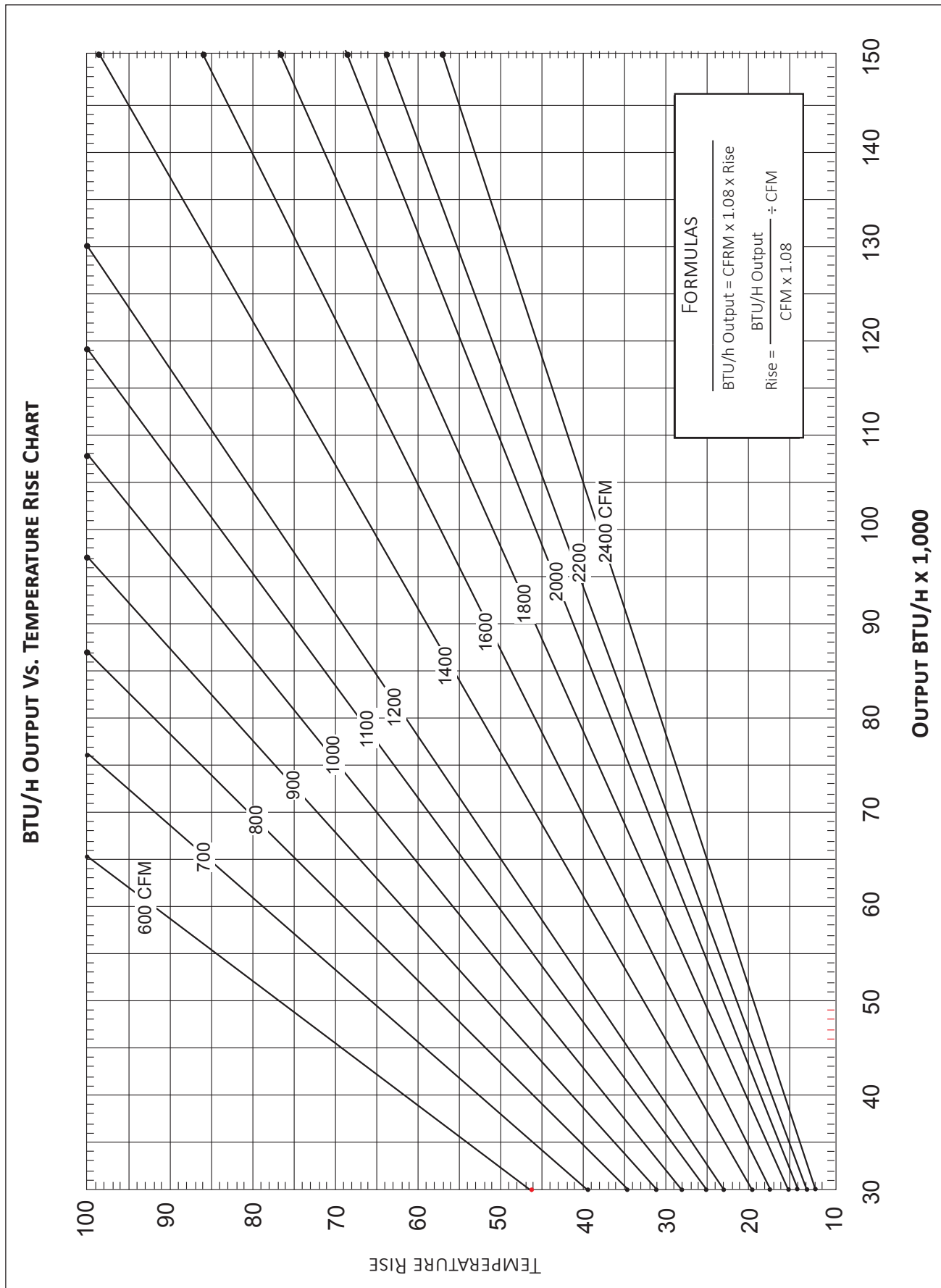
<sup>1</sup> 24" clearance for serviceability recommended.

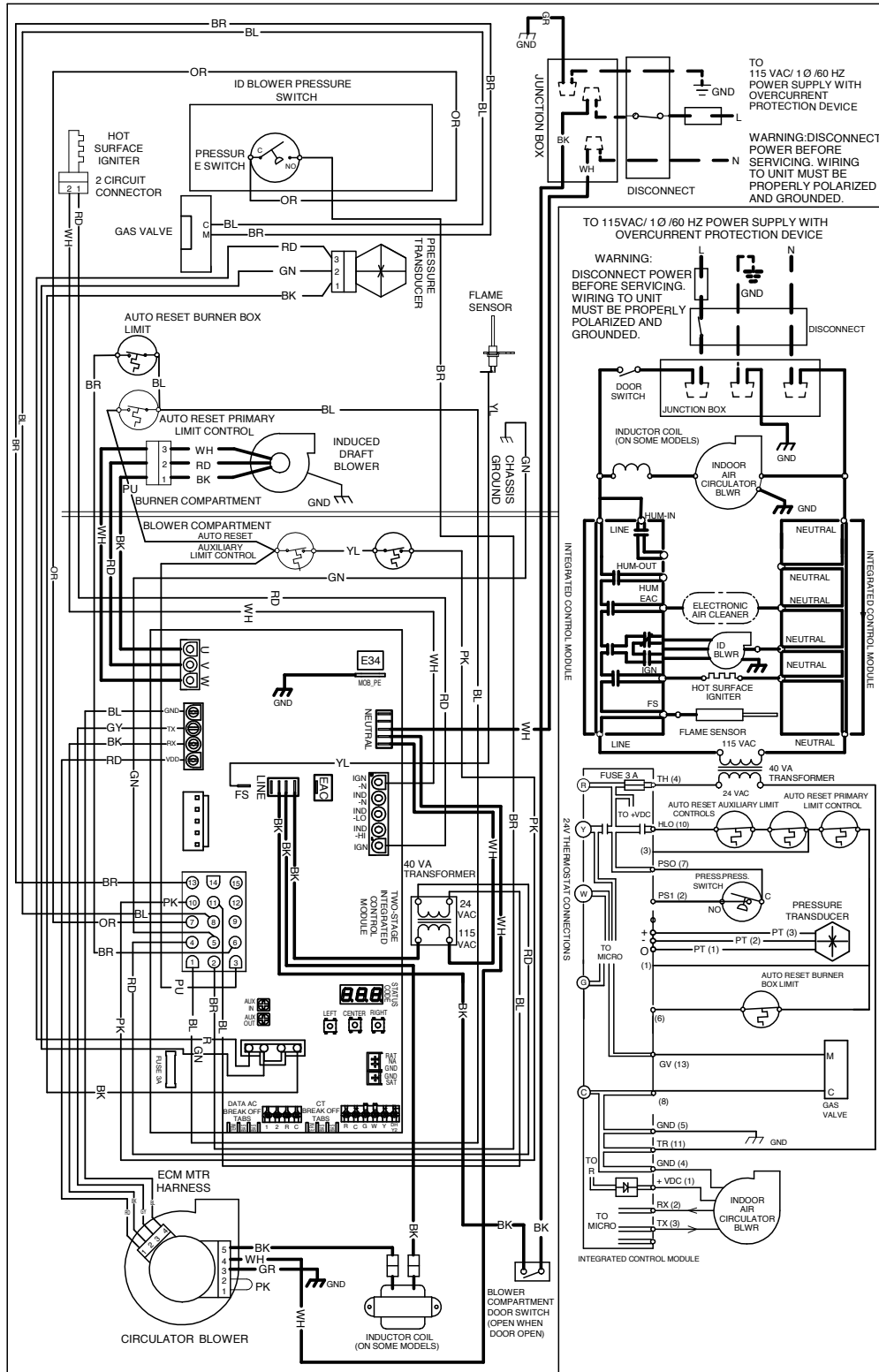
<sup>2</sup> Single Wall Vent (SW) to be used only as a connector. Refer to the latest editions of the National Fuel Gas Code NFPA 54/ ANSI Z223.1 (in the USA) and the Canada National Standard of Canada, CAN/CSA B149.1 and CAN/CSA B142.2 (in Canada).

Note: GMVS80 approved for line contact in the horizontal position.

| MODEL / TEMP RISE RANGE (MID RISE)                          | GMVS800604BU<br>20-50 (35) |      | GMVS800805CU<br>35-65-(50) |      |
|---|----------------------------|------|----------------------------|------|
|   | CFM                        | RISE | CFM                        | RISE |
| Recommended CFM & Expected Temperature Rise                 | 1524                       | 35   | 1760 (MAX CAPABLE CFM)     | 40   |
| Minimum Recommended Heating CFM & Expected Temperature Rise | 1067                       | 50   | 1422                       | 50   |
| Maximum Recommended Heating CFM & Expected Temperature Rise | 1760 (MAX CAPABLE CFM)     | 25   | 1760 (MAX CAPABLE CFM)     | 40   |

**Note:** To Set Heating CFM Using Push Buttons; 1) Scroll using Left or Right push buttons until gAF appears on the 7 segment display. 2) Press & release center button & display will show current heating airflow expressed as a percentage of max CFM.3) Press & release Left or Right button until desired percentage appears. 4) Press & release center button once more to select the displayed percentage. 5) CFM may be trimmed further by using the gTF menu.





**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.

- 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)

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 | ⏏ |

0140F02477-A

| MODEL               | DESCRIPTION      |
|---------------------|------------------|
| MVK-01 <sup>2</sup> | Masonry Vent Kit |
| TK-400              | Twinning Kit     |

<sup>2</sup> Upflow applications only

**MINIMUM FILTER SIZES**

| MODEL #                        | GMVS80<br>0604BU*               | GMVS80<br>0805CU*  |
|--------------------------------|---------------------------------|--|
| Filter Size (in <sup>2</sup> ) | (1) 16 x 25<br>(Side or Bottom) | (2) 16 x 25 (Side)<br>or (1) 20 x 25 (Bottom) <sup>1</sup> |

Note: Larger filters may be used; filters may also be centrally located.

<sup>1</sup> Use 2- 16 x 25 filters on side returns or 20 x 25 filter on bottom return if furnace is connected to a cooling unit over 4 tons nominal capacity.