

**HEATING INPUT: 46,000–115,000 BTU/H**



### Standard Features

- Heavy-duty Million-Air® stainless-steel dual-diameter, tubular heat exchanger
- Stainless-steel secondary heat exchanger
- Two-stage convertible gas valve automatically adjusts to high or low stage
- Durable SureStart™ Silicon Nitride igniter
- Quiet single speed draft inducer
- Self-diagnostic control board with constant memory fault code
- Color-coded low-voltage terminals with provisions for electronic air cleaner and humidifier
- Multi-speed blower motor
- Low continuous fan speed options offer quiet air circulation
- All models comply with California Low NOx emissions standards

### Cabinet Features

- 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 ( $Q_{Leak}$ )  $\leq 2\%$
- 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 application

### Contents

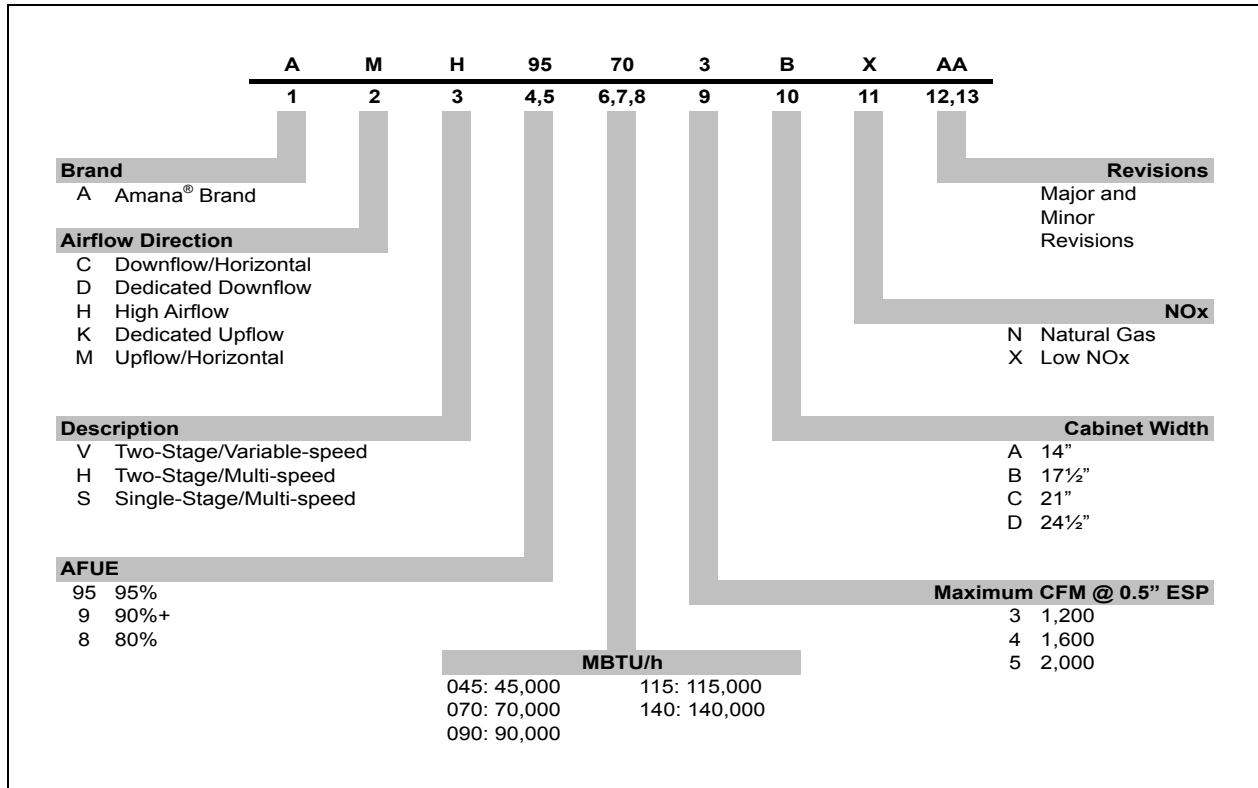
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\* Complete warranty details available from your local dealer or at [www.amana-hac.com](http://www.amana-hac.com). To receive the Lifetime Unit Replacement Limited Warranty, the Lifetime Heat Exchanger Limited Warranty (good for as long as you own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



**SPECIFICATIONS**

|   | <b>AMH95<br/>0453BXA</b> | <b>AMH95<br/>0703BXA</b> | <b>AMH95<br/>0704CXA</b> | <b>AMH95<br/>0904CXA</b> | <b>AMH95<br/>0905CXA</b> | <b>AMH95<br/>1155DXA</b> |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <b>HEATING CAPACITY</b>                     |                          |                          |                          |                          |                          |                          |
| Input <sup>1</sup>                          | 46,000                   | 69,000                   | 69,000                   | 92,000                   | 92,000                   | 115,000                  |
| Natural Gas Output <sup>1</sup>             | 44,200                   | 66,300                   | 66,300                   | 88,400                   | 88,400                   | 110,500                  |
| LP Gas Output <sup>1</sup>                  | 39,800                   | 59,700                   | 59,700                   | 79,600                   | 79,600                   | 99,500                   |
| AFUE <sup>2</sup>                           | 96.1                     | 96.1                     | 96.1                     | 96.1                     | 96.1                     | 96.1                     |
| Available AC @ 0.5" ESP                     | 3                        | 3                        | 4                        | 4                        | 5                        | 5                        |
| Temperature Rise Range (°F)                 | 35 - 65                  | 30 - 60                  | 35 - 65                  | 30 - 60                  | 30 - 60                  | 35 - 65                  |
| <b>CIRCULATOR BLOWER</b>                    |                          |                          |                          |                          |                          |                          |
| Size (D x W)                                | 10" X 8"                 | 10" X 8"                 | 10" X 10"                | 10" X 10"                | 11" X 10"                | 11" X 10"                |
| Horsepower @ 1750 RPM                       | ½                        | ½                        | ½                        | ½                        | ¾                        | ¾                        |
| Speed                                       | 4                        | 4                        | 4                        | 4                        | 4                        | 4                        |
| Vent Diameter <sup>3</sup>                  | 2"                       | 2"                       | 2"                       | 2"                       | 3"                       | 3"                       |
| No. of Burners                              | 2                        | 3                        | 3                        | 4                        | 4                        | 5                        |
| Disposable Filter Size (in <sup>2</sup> )   | 580                      | 580                      | 770                      | 770                      | 960                      | 960                      |
| <b>ELECTRICAL DATA</b>                      |                          |                          |                          |                          |                          |                          |
| Min. Circuit Ampacity <sup>4</sup>          | 9.4                      | 9.4                      | 13.8                     | 13.8                     | 13.2                     | 13.2                     |
| Max. Overcurrent Device (amps) <sup>5</sup> | 15                       | 15                       | 15                       | 15                       | 15                       | 15                       |
| <b>SHIP WEIGHT (LBS)</b>                    |                          |                          |                          |                          |                          |                          |
|   | 120                      | 123                      | 125                      | 144                      | 146                      | 163                      |

<sup>1</sup> Natural Gas BTU/h. For altitudes above 2,000', reduce input rating 4% for each 1,000' above sea level. Low-fire rate is 75% of high-fire rate

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

<sup>3</sup> Vent and combustion air diameters may vary depending upon vent length. 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).

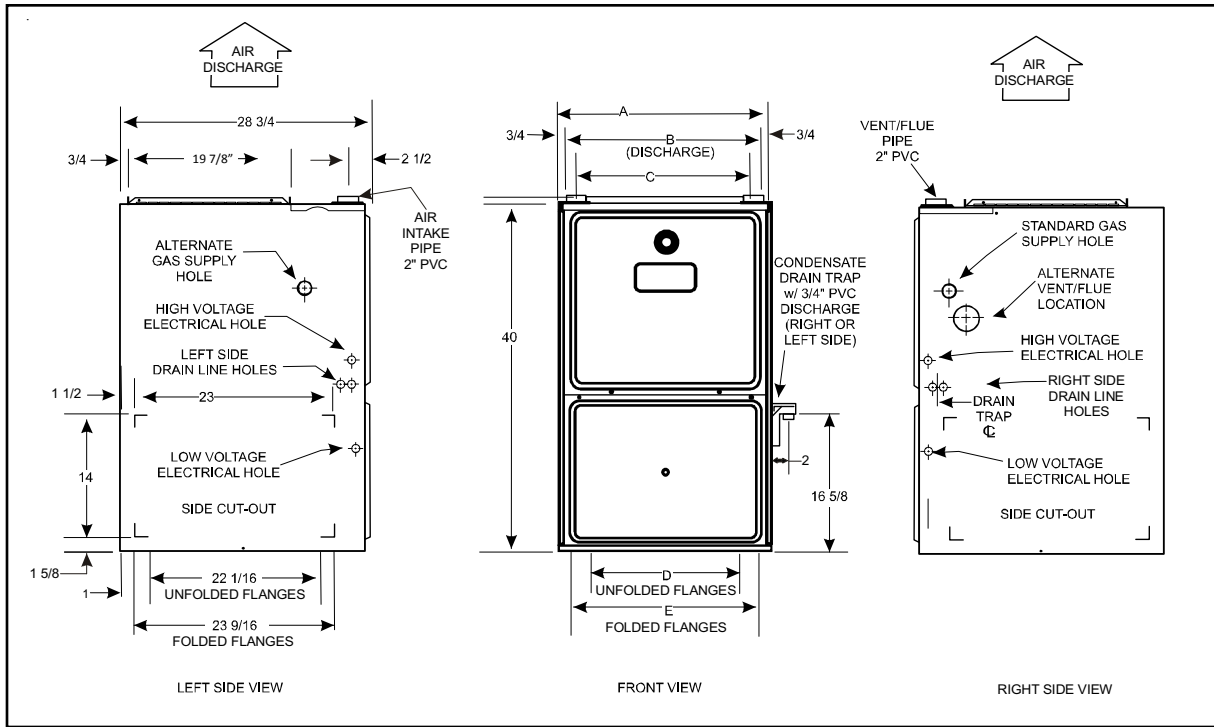
<sup>4</sup> Minimum Circuit Ampacity = (1.25 x Circulator Blower Amps) + ID Blower amps. Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

<sup>5</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    | C    | D    | E    |
|--------------|------|------|------|------|------|
| AMH950453BXA | 17½" | 16"  | 13⅝" | 12⅞" | 13⅝" |
| AMH950703BXA | 17½" | 16"  | 13⅝" | 12⅞" | 13⅝" |
| AMH950704CXA | 21"  | 19½" | 16⅞" | 16"  | 17½" |
| AMH950904CXA | 21"  | 19½" | 16⅞" | 16"  | 17½" |
| AMH950905CXA | 21"  | 19½" | 16⅞" | 16"  | 17½" |
| AMH951155DXA | 24½" | 23"  | 20⅝" | 19⅞" | 20⅝" |

**NOTES:**

- 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.
- 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.
- Conversion kits for high-altitude natural gas operation are available. Contact your Amana distributor or dealer for details.
- Installer must supply the following gas line fittings, according to which entrance is used:  
 Left: One 90° street elbow; one 2½" pipe nipple; one 90° elbow; straight pipe; one ground joint union  
 Right: Straight pipe to reach gas valve
- Installations using a bottom return: Failure to unfold flanges will reduce airflow area by approximately 18%. This could result in performance and noise issues.

**MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS**

| POSITION   | SIDES | REAR | FRONT | BOTTOM | FLUE | TOP |
|------------|-------|------|-------|--------|------|-----|
| Upflow     | 0"    | 0"   | 1"    | C      | 0"   | 1"  |
| Horizontal | 6"    | 0"   | 1"    | C      | 0"   | 4"  |

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

**NOTES**

- For servicing or cleaning, a 24" front clearance is recommended.
- 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.
- Approved for line contact in the horizontal position.

**AIRFLOW DATA**

**(CFM & TEMPERATURE RISE VS. EXTERNAL STATIC PRESSURE)**

| MODEL            | MOTOR SPEED | TONS AC <sup>1</sup> | EXTERNAL STATIC PRESSURE, (INCHES WATER COLUMN) |      |       |      |       |      |       |      |       |      |       |       |       |
|------------------|-------------|----------------------|---|------|-------|------|-------|------|-------|------|-------|------|-------|-------|-------|
|                  |             |                      | 0.1   |      | 0.2   |      | 0.3   |      | 0.4   |      | 0.5   |      | 0.6   | 0.7   | 0.8   |
|                  |             |                      | CFM   | RISE | CFM   | RISE | CFM   | RISE | CFM   | RISE | CFM   | RISE | CFM   | CFM   | CFM   |
| AMH95<br>0453BXA | High        | 3                    | 1,352   | 29   | 1,318 | 30   | 1,260 | 31   | 1,202 | 33   | 1,128 | 35   | 1,044 | 955   | 853   |
|                  | Med         | 2.5                  | 1,214   | 32   | 1,172 | 34   | 1,123 | 35   | 1,064 | 37   | 1,012 | 39   | 938   | 859   | 741   |
|                  | Med-Lo      | 2                    | 997   | 40   | 994   | 40   | 960   | 41   | 923   | 43   | 884   | 45   | 817   | 741   | 611   |
|                  | Low         | 1.5                  | 757   | 52   | 753   | 52   | 734   | 54   | 704   | 56   | 674   | 59   | 620   | 524   | 438   |
| AMH95<br>0703BXA | High        | 3                    | 1,449   | 41   | 1,409 | 42   | 1,326 | 45   | 1,273 | 47   | 1,201 | 49   | 1,194 | 1,136 | 1,018 |
|                  | Med         | 2.5                  | 1,192   | 50   | 1,172 | 51   | 1,141 | 52   | 1,094 | 54   | 1,046 | 57   | 973   | 904   | 793   |
|                  | Med-Lo      | 2                    | 981   | 61   | 962   | 62   | 943   | 63   | 917   | 65   | 888   | 67   | 830   | 764   | 665   |
|                  | Low         | 1.5                  | 750   | 79   | 730   | 81   | 714   | 83   | 692   | 86   | 657   | 90   | 620   | 570   | 502   |
| AMH95<br>0704CXA | High        | 4                    | 2,069   | 29   | 1,965 | 30   | 1,871 | 32   | 1,756 | 34   | 1,661 | 36   | 1,549 | 1,415 | 1,275 |
|                  | Med         | 3.5                  | 1,752   | 34   | 1,724 | 34   | 1,667 | 36   | 1,603 | 37   | 1,488 | 40   | 1,402 | 1,290 | 1,082 |
|                  | Med-Lo      | 3                    | 1,437   | 41   | 1,437 | 41   | 1,417 | 42   | 1,369 | 43   | 1,320 | 45   | 1,256 | 1,140 | 984   |
|                  | Low         | 2.5                  | 1,184   | 50   | 1,177 | 50   | 1,161 | 51   | 1,132 | 52   | 1,095 | 54   | 1,047 | 928   | 837   |
| AMH95<br>0904CXA | High        | 4                    | 1,970   | 40   | 1,874 | 42   | 1,757 | 45   | 1,667 | 48   | 1,566 | 51   | 1,431 | 1,334 | 1,182 |
|                  | Med         | 3.5                  | 1,713   | 46   | 1,650 | 48   | 1,572 | 50   | 1,510 | 52   | 1,418 | 56   | 1,313 | 1,211 | 1,079 |
|                  | Med-Lo      | 3                    | 1,439   | 55   | 1,412 | 56   | 1,370 | 58   | 1,327 | 60   | 1,260 | 63   | 1,166 | 1,078 | 956   |
|                  | Low         | 2.5                  | 1,183   | 67   | 1,155 | 69   | 1,122 | 71   | 1,108 | 72   | 1,062 | 75   | 1,011 | 931   | 816   |
| AMH95<br>0905CXA | High        | 5                    | 2058  | 39   | 1997  | 40   | 1928  | 42   | 1852  | 43   | 1777  | 45   | 1682  | 1600  | 1487  |
|                  | Med         | 4                    | 1718  | 47   | 1685  | 48   | 1632  | 49   | 1586  | 51   | 1520  | 53   | 1458  | 1369  | 1281  |
|                  | Med-Lo      | 3.5                  | 1502  | 54   | 1464  | 55   | 1429  | 56   | 1380  | 58   | 1319  | 61   | 1272  | 1200  | 1137  |
|                  | Low         | 3                    | 1305  | 62   | 1277  | 63   | 1253  | 64   | 1212  | 66   | 1175  | 69   | 1127  | 1081  | 1010  |
| AMH95<br>1155DXA | High        | 5                    | 2,134   | 46   | 2,103 | 47   | 2,029 | 48   | 1,941 | 51   | 1,906 | 51   | 1,818 | 1,733 | 1,625 |
|                  | Med         | 4                    | 1,678   | 58   | 1,643 | 60   | 1,643 | 60   | 1,577 | 62   | 1,527 | 64   | 1,489 | 1,423 | 1,339 |
|                  | Med-Lo      | 3.5                  | 1,453   | 68   | 1,440 | 68   | 1,426 | 69   | 1,363 | 72   | 1,349 | 73   | 1,314 | 1,253 | 1,205 |
|                  | Low         | 3                    | 1,259   | 78   | 1,239 | 79   | 1,220 | 80   | 1,181 | 83   | 1,159 | 85   | 1,118 | 1,082 | 1,015 |

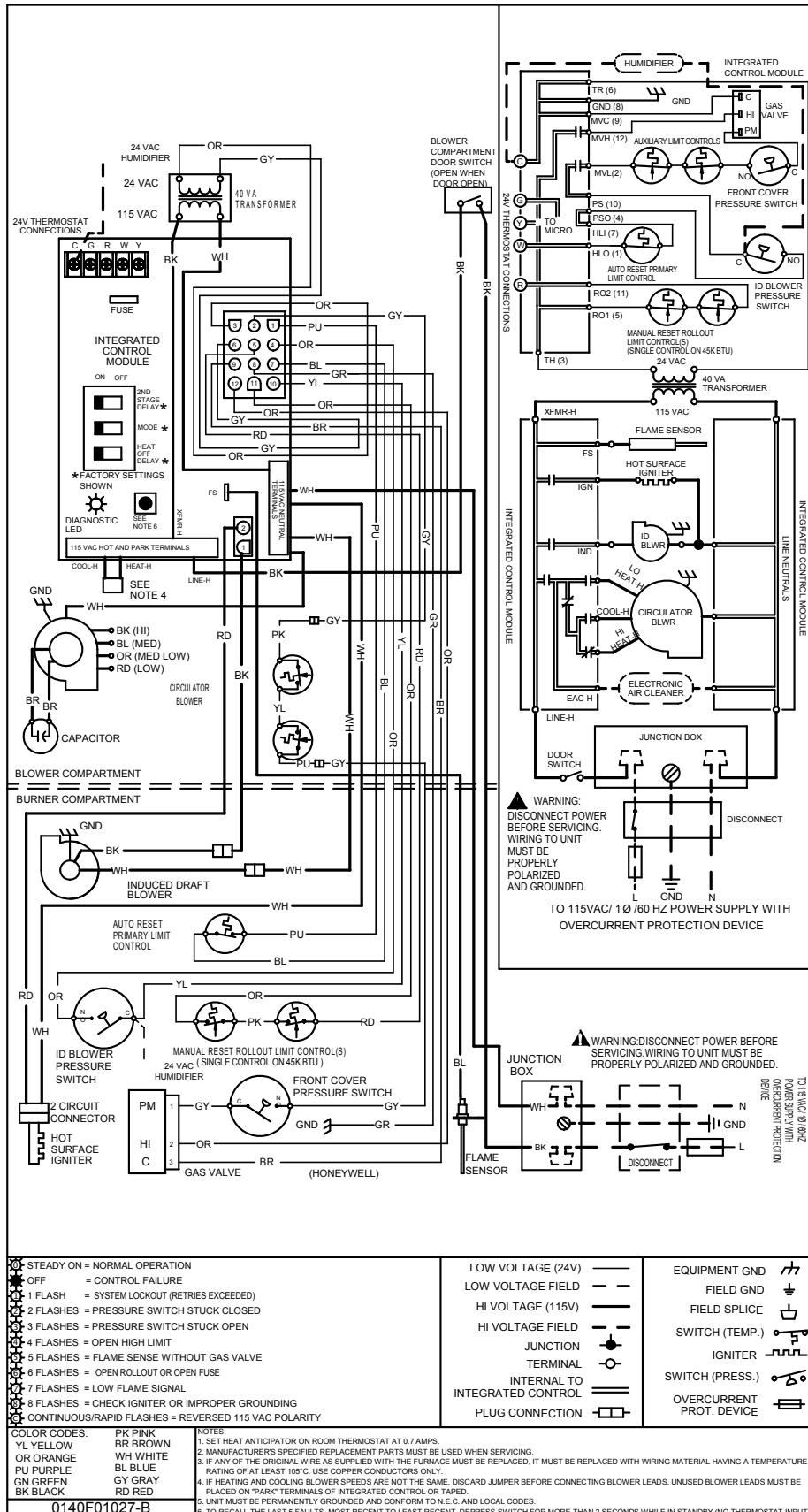
<sup>1</sup> at 0.5" ESP

**NOTES**

- CFM in chart is without filter(s). Filters do not ship with this furnace, but must be provided by the installer. If the furnace requires two return filters, this chart assumes both filters are installed.
- All furnaces ship as high-speed cooling and medium-speed heating. Installer must adjust blower cooling & heating speed as needed.
- For most jobs, about 400 CFM per ton when cooling is desirable.
- INSTALLATION IS TO BE ADJUSTED TO OBTAIN TEMPERATURE RISE WITHIN THE RANGE SPECIFIED ON THE RATING PLATE.
- This chart is for information only. For satisfactory operation, external static pressure should not exceed value shown on the rating plate. The shaded area indicates ranges in excess of maximum static pressure allowed when heating.
- The above chart is for U.S. furnaces installed at 0-2000 feet. At higher altitudes, a properly derated unit will have approximately the same temperature rise at a particular CFM, while ESP at the CFM will be lower.



# WIRING DIAGRAMS 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 on the unit for the most up-to-date wiring.

|   |   |  |
|---|---|--|
| <p>STEADY ON = NORMAL OPERATION</p> <p>OFF = CONTROL FAILURE</p> <p>1 FLASH = SYSTEM LOCKOUT (RETRIES EXCEEDED)</p> <p>2 FLASHES = PRESSURE SWITCH STUCK CLOSED</p> <p>3 FLASHES = PRESSURE SWITCH STUCK OPEN</p> <p>4 FLASHES = OPEN HIGH LIMIT</p> <p>5 FLASHES = FLAME SENSE WITHOUT GAS VALVE</p> <p>6 FLASHES = OPEN ROLLOUT OR OPEN FUSE</p> <p>7 FLASHES = LOW FLAME SIGNAL</p> <p>8 FLASHES = CHECK IGNITER OR IMPROPER GROUNDING</p> <p>CONTINUOUS/RAPID FLASHES = REVERSED 115 VAC POLARITY</p> | <p>LOW VOLTAGE (24V) ———</p> <p>LOW VOLTAGE FIELD - - -</p> <p>HI VOLTAGE (115V) ———</p> <p>HI VOLTAGE FIELD - - -</p> <p>JUNCTION ———</p> <p>TERMINAL ———</p> <p>INTERNAL TO INTEGRATED CONTROL ———</p> <p>PLUG CONNECTION ———</p>   | <p>EQUIPMENT GND ———</p> <p>FIELD GND ———</p> <p>FIELD SPICE ———</p> <p>SWITCH (TEMP.) ———</p> <p>IGNITER ———</p> <p>SWITCH (PRESS.) ———</p> <p>OVERCURRENT PROT. DEVICE ———</p> |
| <p><b>COLOR CODES:</b></p> <p>PK PINK</p> <p>YL YELLOW</p> <p>OR ORANGE</p> <p>PU PURPLE</p> <p>GN GREEN</p> <p>BK BLACK</p> <p>BR BROWN</p> <p>WH WHITE</p> <p>BL BLUE</p> <p>GY GRAY</p> <p>RD RED</p>  | <p><b>NOTES:</b></p> <p>1. SET HEAT ANTICIPATOR ON ROOM THERMOSTAT AT 0.7 AMPS.</p> <p>2. MANUFACTURER'S SPECIFIED REPLACEMENT PARTS MUST BE USED WHEN SERVICING.</p> <p>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.</p> <p>4. IF HEATING AND COOLING BLOWER SPEEDS ARE NOT THE SAME, DISCARD JUMPER BEFORE CONNECTING BLOWER LEADS. UNUSED BLOWER LEADS MUST BE PLACED ON "PARK" TERMINALS OF INTEGRATED CONTROL OR TAPED.</p> <p>5. UNIT MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C. AND LOCAL CODES.</p> <p>6. TO RECALL THE LAST 5 FAULTS, MOST RECENT TO LEAST RECENT, DEPRESS SWITCH FOR MORE THAN 2 SECONDS WHILE IN STANDBY (NO THERMOSTAT INPUT).</p> |  |

**ACCESSORIES**

| MODEL      | DESCRIPTION                                  | AMH95<br>0453B** | AMH95<br>0703B** | AMH95<br>0704C** | AMH95<br>0904C** | AMH95<br>0905C** | AMH95<br>1155D** |
|------------|--|------------------|------------------|------------------|------------------|------------------|------------------|
| LPM-06     | LP Conversion Kit (Springs & Orifice)        | √                | √                | √                | √                | √                | √                |
| LPLP03     | LP Gas Low Pressure Kit                      | √                | √                | √                | √                | √                | √                |
| FTK04      | Twinning Kit                                 | √                | √                | √                | √                | √                | √                |
| ASAS       | Electronic Air Cleaners                      | √                | √                | √                | √                | √                | √                |
| AMU        | Media Air Cleaners                           | √                | √                | √                | √                | √                | √                |
| HANG11     | High Altitude Natural Gas Kit                | 1                | 1                | 1                | 1                | ---              | 1                |
| HANG12     | High Altitude Natural Gas Kit                | 2                | 2                | 2                | 2                | ---              | 2                |
| HALP10     | High Altitude LP Gas Kit                     | 3                | 3                | 3                | 3                | ---              | 3                |
| HAPS27     | High Altitude Pressure Switch Kit            | 3                | 3                | 3                | 3                | ---              | 3                |
| EFR01      | External Filter Rack                         | √                | √                | √                | √                | √                | √                |
| DCVK-20    | Horizontal/Vertical Concentric Vent Kit (2") | √                | √                | ---              | ---              | ---              | ---              |
| DCVK-30    | Horizontal/Vertical Concentric Vent Kit (3") | √                | √                | √                | √                | √                | √                |
| 017K00000S | Flush-mount Vent Kit                         | √                | √                | √                | √                | √                | √                |

**NOTES**

- √ Indicates available for this model
- 1 Indicates 7,001' to 9,000' altitude
- 2 Indicates 9,001' to 11,000' altitude
- 3 Indicates 7,001' to 11,000' altitude
- All installations above 7,000' require a pressure switch change.
- For installation in Canada, gas furnaces are certified only to 4,500'.