

## G80VTL (Series B) Two-Stage, Variable 25-Speed, Non-Communicating, Non-Condensing, Gas Furnace



### Product Data



A210109

Representative drawing only. Some product models may vary.



### WARNING

**This furnace is not designed for use in mobile homes, trailers, or recreational vehicles. Such use could result in property damage and/or death.**



Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to [www.ahridirectory.org](http://www.ahridirectory.org).



ISO 9001  
Quality

### EASIER TO SELL

A200115

- Variable 25-speed, constant torque ECM blower motor
- Enhanced diagnostics with easy to read 3 digit display for faults and status
- 80% AFUE
- Cabinet air leakage less than 2.0% at 1.0 in. w.c. and cabinet air leakage less than 1.4% at 0.5 in.w.c. when tested in accordance with ASHRAE standard 193
- Supports two-stage cooling units
- Flame roll-out sensors standard
- Category I venting
- Blocked vent switch
- Dehumidification feature in cooling
- 24 VAC humidifier terminal
- Electronic air cleaner terminal

- All units can be installed in air quality management districts with a 40 ng/J NOx emissions requirements

### TOUGHER

- Variable speed ECM blower motor
- Adjustable heating blower OFF delay
- Factory set blower ON delay
- RPJ aluminized steel heat exchanger
- High temperature limit control prevents overheating
- Direct ignition with Silicon Nitride igniter
- One piece prepainted steel cabinet

### QUIETER

- Two-stage heating operation
- Two-stage induced draft blower
- In-shot burners
- Insulated blower compartment

### EASIER TO INSTALL AND SERVICE

- On-board NFC antenna makes setup a tap away when using the service technician app
- 33-1/3" (847mm) high, for ease of installation
- Quarter turn knobs for easy door removal and secure attachment
- Convertible to propane gas conversion accessory kit
- Twinning capable with accessory kit
- Four position - upflow/downflow/horizontal (left/right) installation
- Three position vent elbow capability
- Through the casing flue pipe for counterflow applications
- Common venting with other Category I appliances
- Masonry chimney adapter available
- Self diagnostics
- Slide out blower assembly

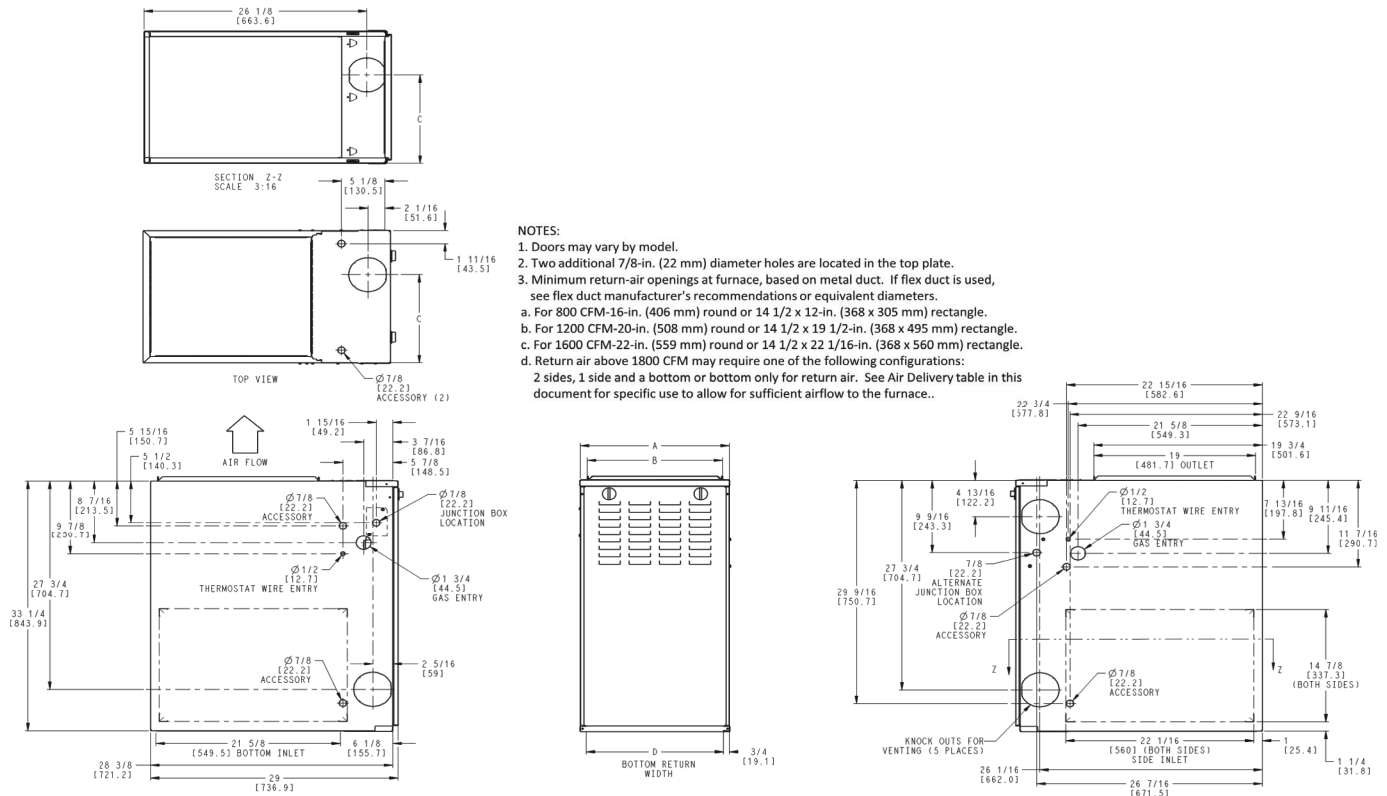
### LIMITED WARRANTY\*

- 5-year No Hassle Replacement™ limited warranty
- Default 5-year parts limited warranty
- Default 20-year heat exchanger limited warranty
- 10-year parts and lifetime heat exchanger limited warranty with timely registration\*
- Equipment must be registered within 90 days of original installation, except in jurisdictions where warranty benefits cannot be conditioned on registration.
- \* Applies to original purchaser/homeowner, some limitations may apply. For residential applications only. See warranty certificate for complete details and restrictions, including warranty coverage of other applications.

## UNIT PERFORMANCE DATA

| Model          | Input (BTUh) | Efficiency AFUE | Cooling Capacity CFM range | Dimensions H x W x D In (mm)           | Shipping Wt. Lbs (Kg) |
|----------------|--------------|-----------------|----------------------------|----------------------------------------|-----------------------|
| <b>0451412</b> | 44,000       | 80%             | 185-1345                   | 33-1/3 x 14-3/16 x 29 (847 x 360x 737) | 114 (51.7)            |
| <b>0701716</b> | 66,000       | 80%             | 260-1715                   | 33-1/3 x 17-1/2 x 29 (847 x 445 x 737) | 134 (60.8)            |
| <b>0902120</b> | 88,000       | 80%             | 330-2285                   | 33-1/3 x 21 x 29 (847 x 533 x 737)     | 149 (67.6)            |
| <b>1102122</b> | 110,000      | 80%             | 375-2345                   | 33-1/3 x 21 x 29 (847 x 533 x 737)     | 155 (70.3)            |

## DIMENSIONAL DATA



NOTE: ALL DIMENSIONS IN INCH (MM)

U.S. ECCN: Not Subject to Regulation (N.S.R.)

SD5669-4 REV. -

A210785

### Dimensions

| FURNACE SIZE   | A             | B             | C                          | D                  | VENT CONNECTION SIZE | SHIP WT. LB (KG) |
|----------------|---------------|---------------|----------------------------|--------------------|----------------------|------------------|
|                | CABINET WIDTH | OUTLET WIDTH  | TOP AND BOTTOM FLUE COLLAR | BOTTOM INLET WIDTH |                      |                  |
| <b>0451412</b> | 14-3/16 (360) | 12-9/16 (319) | 9-5/16 (237)               | 12-11/16 (322)     | 4 (102)              | 114 (51.7)       |
| <b>0701716</b> | 17-1/2 (445)  | 15-7/8 (403)  | 11-9/16 (294)              | 16 (406)           | 4 (102)              | 134 (60.8)       |
| <b>0902120</b> | 21 (533)      | 19-3/8 (492)  | 13-5/16 (338)              | 19-1/2 (495)       | 4 (102)              | 149 (67.6)       |
| <b>1102122</b> | 21 (533)      | 19-3/8 (492)  | 13-5/16 (338)              | 19-1/2 (495)       | 4 (102)              | 155 (70.3)       |

A221575

## FURNACE COMPONENTS



## CLEARANCES

336996-101 REV.

A220231

# SPECIFICATIONS

| UNIT SIZE                                            |                      |                 | 0451412                                                                        | 0701716              | 0902120              | 1102122              |
|------------------------------------------------------|----------------------|-----------------|--------------------------------------------------------------------------------|----------------------|----------------------|----------------------|
| HEATING AND CAPACITY AND EFFICIENCY                  |                      |                 |                                                                                |                      |                      |                      |
| Input BTUh*                                          | All Standard         | High            | 44,000                                                                         | 66,000               | 88,000               | 110,000              |
|                                                      | All Low NOx Upflow   | Low             | 29,000                                                                         | 43,500               | 58,000               | 72,500               |
|                                                      | All Low NOx          | High            | 42,000                                                                         | 63,000               | 84,000               | 105,000              |
|                                                      | Downflow/ Horizontal | Low             | 29,000                                                                         | 43,500               | 58,000               | 72,500               |
| Output Capacity (BTUh)†                              | All Standard         | High            | 35,000                                                                         | 53,000               | 71,000               | 89,000               |
|                                                      | All Low NOx Upflow   | Low             | 23,000                                                                         | 35,000               | 47,000               | 59,000               |
|                                                      | All Low NOx          | High            | 34,000                                                                         | 51,000               | 68,000               | 85,000               |
|                                                      | Downflow/ Horizontal | Low             | 23,000                                                                         | 35,000               | 47,000               | 59,000               |
| Certified Temperature Rise Range - °F (°C)           |                      | High            | 30 - 60<br>(17 - 33)                                                           | 25 - 55<br>(14 - 31) | 25 - 55<br>(14 - 31) | 30 - 60<br>(17 - 33) |
|                                                      |                      | Low             | 20 - 50<br>(11 - 28)                                                           | 15 - 45<br>(8 - 25)  | 15 - 45<br>(8 - 25)  | 20 - 50<br>(11 - 28) |
| AFUE                                                 |                      |                 | 80                                                                             | 80                   | 80                   | 80                   |
| AIRFLOW CAPACITY AND BLOWER DATA                     |                      |                 |                                                                                |                      |                      |                      |
| Rated Certified External Static Pressure             | Heating              |                 | 0.1                                                                            | 0.12                 | 0.15                 | 0.2                  |
|                                                      | Cooling              |                 | 0.5                                                                            | 0.5                  | 0.5                  | 0.5                  |
| Airflow CFM @ Rated ESP (CFM)*                       | Heating High/Low     |                 | 770/655                                                                        | 1235/1120            | 1690/1530            | 1620/1195            |
|                                                      | Cooling              |                 | 185-1345                                                                       | 260-1715             | 330-2285             | 375-2345             |
| Cooling Capacity (tons)                              | 400 CFM/ton          |                 | 3                                                                              | 4                    | 5                    | 5                    |
|                                                      | 350 CFM/ton          |                 | 3.5                                                                            | 4.5                  | 5.5                  | 5.5                  |
| Direct Drive Motor Type                              |                      |                 | Electronically Commutated Motor (ECM)                                          |                      |                      |                      |
| Direct Drive Motor HP                                |                      |                 | 1/2                                                                            | 3/4                  | 1                    | 1                    |
| Motor Full Load Amps                                 |                      |                 | 6.7                                                                            | 9.2                  | 11.5                 | 11.5                 |
| Heating Blower Control (Htg Off-Delay)               |                      |                 | Adjustable: 90, 120, 150, 180 seconds                                          |                      |                      |                      |
| Cooling Blower Control (Time Delay Relay)            |                      |                 | 90 seconds                                                                     |                      |                      |                      |
| Blower Wheel Diameter x Width - In. (mm)             |                      |                 | 10 x 6                                                                         | 11 x 8               | 11 x 11              | 11 x 11              |
| Air Filtration System                                |                      |                 | Field Supplied Filter                                                          |                      |                      |                      |
| Filter used for Certified Watt Data                  |                      |                 | 325531-40**                                                                    |                      |                      |                      |
| ELECTRICAL DATA                                      |                      |                 |                                                                                |                      |                      |                      |
| Unit Volts-Hertz-Phase                               |                      |                 | 115-60-1                                                                       |                      |                      |                      |
| Operating Voltage Range                              |                      | Min-Max         | 104-127                                                                        |                      |                      |                      |
| Maximum Unit Amps                                    |                      |                 | 8                                                                              | 10.5                 | 14.3                 | 14.6                 |
| Unit Ampacity                                        |                      |                 | 10.8                                                                           | 13.9                 | 18.5                 | 18.8                 |
| Maximum Wire Length                                  |                      |                 |                                                                                |                      |                      |                      |
| Measure 1 way in Ft                                  | Feet                 |                 | 34                                                                             | 26                   | 31                   | 30                   |
| (M)                                                  | Meters               |                 | 10.5                                                                           | 8.1                  | 9.4                  | 9.3                  |
| Minimum Wire Size                                    |                      |                 | 14                                                                             | 14                   | 12                   | 12                   |
| Max. Fuse/Ckt Bkr Size (Time-Delay Type Recommended) |                      | Amps            | 15                                                                             | 15                   | 20                   | 20                   |
| Transformer Capacity                                 |                      | (24 VAC output) | 40VA                                                                           |                      |                      |                      |
| External Control Power Available                     | Heating              |                 | 12VA                                                                           |                      |                      |                      |
|                                                      | Cooling              |                 | 35VA                                                                           |                      |                      |                      |
| GAS CONTROLS                                         |                      |                 |                                                                                |                      |                      |                      |
| Burners                                              |                      |                 | 2                                                                              | 3                    | 4                    | 5                    |
| Gas Connection Size                                  |                      |                 | 1/2in. NPT                                                                     |                      |                      |                      |
| Gas Valve (Redundant)                                |                      | Mfr             | WhiteRodgers™                                                                  |                      |                      |                      |
| Min. inlet pressure                                  |                      | (in.w.c.)       | 4.5 (Natural Gas)                                                              |                      |                      |                      |
| Max. inlet pressure                                  |                      | (in.w.c.)       | 13.6 (Natural Gas)                                                             |                      |                      |                      |
| Ignition Device                                      |                      |                 | Silicon Nitride                                                                |                      |                      |                      |
| Factory installed orifice                            |                      |                 | 43                                                                             | 43                   | 43                   | 43                   |
| CONNECTIONS                                          |                      |                 |                                                                                |                      |                      |                      |
| Communication System                                 |                      |                 | None                                                                           |                      |                      |                      |
| Thermostat Connections                               |                      |                 | G, C, W1, W/W2, Y/Y2, Y1, R, DHUM                                              |                      |                      |                      |
| Accessory Connections                                |                      |                 | EAC-1 (115 VAC); HUM (24 VAC); 1-STG AC (via Y/Y2); 2-STG AC (cia Y/Y2 and Y1) |                      |                      |                      |

- \*. Gas input ratings are certified for elevations to 2000 ft. (610 M). In USA, For elevations above 2000 ft (610 M), reduce ratings 4 percent for each 1000 ft (305 M) above sea level. Refer to National Fuel Gas Code NFPA 54/ANSI Z223.1 Table F.4 or furnace installation instructions.
- †. Capacity in accordance with U.S. Government DOE test procedures.
- ‡. Airflow shown is for bottom only return-air supply for the as-shipped speed tap. For air delivery above 1800 CFM, see Air Delivery table for other options. A filter is required for each return-air supply. An airflow reduction of up to 7 percent may occur when using the factory-specified 4-5/16-in. (110 mm) wide, high efficiency media filter.
- \*\*. See Accessory List for part numbers available.

**AIR DELIVERY—CFM (With Filter)\***

| Unit Size | Airflow Setting | Default Setting | External Static Pressure (in. w.c.) |      |      |      |      |      |      |      |      |      |
|-----------|-----------------|-----------------|-------------------------------------|------|------|------|------|------|------|------|------|------|
|           |                 |                 | 0.1                                 | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  | 1    |
| 0451412   | 1               | Cont. Fan       | 455                                 | 390  | 325  | 255  | 185  | 115  | -    | -    | -    | -    |
|           | 2               |                 | 500                                 | 440  | 380  | 320  | 255  | 185  | 120  | -    | -    | -    |
|           | 3               |                 | 565                                 | 510  | 450  | 395  | 340  | 285  | 220  | 145  | -    | -    |
|           | 4               |                 | 600                                 | 550  | 495  | 440  | 390  | 340  | 285  | 225  | 145  | -    |
|           | 5               | Low Heating     | 655                                 | 605  | 555  | 505  | 455  | 410  | 365  | 310  | 255  | 190  |
|           | 6               |                 | 720                                 | 675  | 630  | 585  | 535  | 490  | 450  | 405  | 360  | 310  |
|           | 7               | High Heating    | 770                                 | 725  | 680  | 640  | 595  | 550  | 505  | 465  | 425  | 380  |
|           | 8               |                 | 795                                 | 755  | 715  | 670  | 630  | 585  | 540  | 500  | 460  | 425  |
|           | 9               |                 | 825                                 | 785  | 745  | 705  | 660  | 620  | 575  | 535  | 500  | 460  |
|           | 10              |                 | 880                                 | 840  | 800  | 765  | 725  | 685  | 645  | 605  | 565  | 530  |
|           | 11              |                 | 910                                 | 875  | 835  | 800  | 760  | 725  | 685  | 645  | 605  | 570  |
|           | 12              |                 | 935                                 | 900  | 865  | 830  | 795  | 755  | 720  | 685  | 645  | 610  |
|           | 13              | Low Cooling     | 985                                 | 950  | 915  | 885  | 850  | 815  | 780  | 745  | 710  | 675  |
|           | 14              |                 | 1015                                | 980  | 950  | 920  | 885  | 850  | 820  | 785  | 750  | 715  |
|           | 15              |                 | 1045                                | 1010 | 980  | 945  | 915  | 885  | 850  | 815  | 785  | 750  |
|           | 16              |                 | 1075                                | 1045 | 1015 | 980  | 950  | 920  | 890  | 855  | 825  | 790  |
|           | 17              |                 | 1110                                | 1080 | 1045 | 1015 | 985  | 955  | 925  | 895  | 860  | 830  |
|           | 18              |                 | 1160                                | 1130 | 1100 | 1070 | 1040 | 1015 | 985  | 955  | 920  | 890  |
|           | 19              |                 | 1190                                | 1160 | 1130 | 1100 | 1075 | 1045 | 1015 | 990  | 960  | 930  |
|           | 20              |                 | 1220                                | 1190 | 1160 | 1135 | 1105 | 1075 | 1050 | 1020 | 990  | 960  |
|           | 21              |                 | 1250                                | 1225 | 1195 | 1165 | 1140 | 1115 | 1085 | 1060 | 1030 | 1000 |
|           | 22              |                 | 1280                                | 1255 | 1225 | 1200 | 1175 | 1145 | 1120 | 1095 | 1065 | 1040 |
|           | 23              | High Cooling    | 1325                                | 1295 | 1270 | 1245 | 1220 | 1190 | 1165 | 1140 | 1115 | 1085 |
|           | 24              |                 | 1400                                | 1375 | 1350 | 1325 | 1300 | 1275 | 1250 | 1225 | 1180 | 1095 |
|           | 25              |                 | 1485                                | 1460 | 1420 | 1380 | 1345 | 1305 | 1260 | 1225 | 1180 | 1100 |
| 0701716   | 1               | Cont. Fan       | 565                                 | 480  | 395  | 325  | 260  | 180  | -    | -    | -    | -    |
|           | 2               |                 | 620                                 | 545  | 470  | 395  | 330  | 265  | 195  | 140  | -    | -    |
|           | 3               |                 | 695                                 | 630  | 560  | 495  | 425  | 360  | 305  | 245  | 175  | -    |
|           | 4               |                 | 765                                 | 700  | 640  | 575  | 515  | 455  | 395  | 345  | 285  | 225  |
|           | 5               |                 | 825                                 | 770  | 710  | 650  | 595  | 535  | 480  | 420  | 375  | 325  |
|           | 6               |                 | 885                                 | 830  | 775  | 720  | 665  | 610  | 555  | 505  | 450  | 405  |
|           | 7               |                 | 960                                 | 910  | 860  | 810  | 755  | 705  | 655  | 600  | 550  | 500  |
|           | 8               |                 | 1030                                | 980  | 935  | 885  | 835  | 785  | 740  | 690  | 645  | 595  |
|           | 9               |                 | 1095                                | 1050 | 1005 | 960  | 915  | 865  | 820  | 775  | 730  | 685  |
|           | 10              | Low Heating     | 1130                                | 1080 | 1035 | 995  | 950  | 905  | 860  | 815  | 770  | 725  |
|           | 11              |                 | 1175                                | 1130 | 1085 | 1045 | 1000 | 960  | 915  | 870  | 830  | 785  |
|           | 12              | High Heating    | 1245                                | 1200 | 1160 | 1120 | 1080 | 1040 | 1000 | 955  | 915  | 875  |
|           | 13              |                 | 1270                                | 1230 | 1190 | 1150 | 1110 | 1070 | 1030 | 990  | 950  | 910  |
|           | 14              |                 | 1315                                | 1275 | 1235 | 1195 | 1155 | 1120 | 1080 | 1040 | 1000 | 960  |
|           | 15              | Low Cooling     | 1355                                | 1315 | 1275 | 1240 | 1200 | 1165 | 1125 | 1090 | 1050 | 1010 |
|           | 16              |                 | 1395                                | 1355 | 1315 | 1280 | 1240 | 1205 | 1170 | 1135 | 1095 | 1060 |
|           | 17              |                 | 1470                                | 1430 | 1395 | 1360 | 1325 | 1285 | 1255 | 1220 | 1185 | 1150 |
|           | 18              |                 | 1510                                | 1475 | 1440 | 1405 | 1370 | 1335 | 1300 | 1265 | 1235 | 1200 |
|           | 19              |                 | 1550                                | 1515 | 1480 | 1445 | 1410 | 1375 | 1345 | 1310 | 1280 | 1245 |
|           | 20              |                 | 1590                                | 1555 | 1520 | 1490 | 1455 | 1420 | 1385 | 1355 | 1325 | 1290 |
|           | 21              |                 | 1630                                | 1595 | 1560 | 1530 | 1495 | 1460 | 1430 | 1395 | 1365 | 1335 |
|           | 22              |                 | 1665                                | 1630 | 1600 | 1565 | 1535 | 1500 | 1470 | 1440 | 1410 | 1380 |
|           | 23              |                 | 1720                                | 1685 | 1655 | 1620 | 1590 | 1560 | 1525 | 1495 | 1465 | 1435 |
|           | 24              |                 | 1775                                | 1745 | 1710 | 1680 | 1650 | 1620 | 1585 | 1555 | 1525 | 1480 |
|           | 25              | High Cooling    | 1845                                | 1810 | 1780 | 1750 | 1715 | 1665 | 1620 | 1570 | 1525 | 1480 |

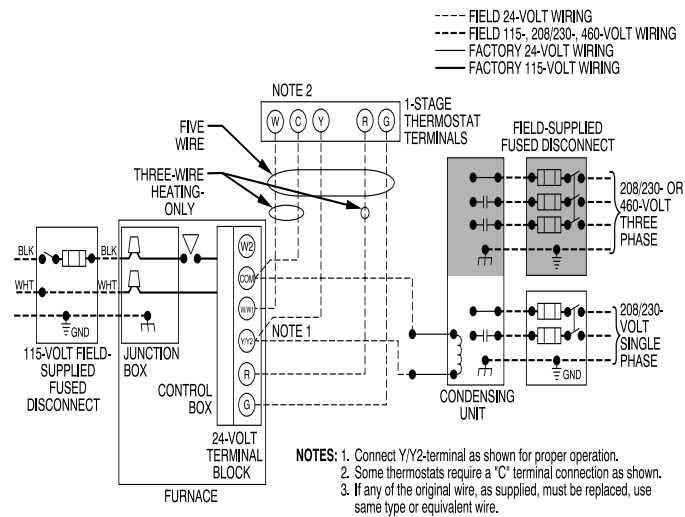
| Unit Size | Airflow Setting | Default Setting          | External Static Pressure (in. w.c.) |      |      |      |      |      |      |      |      |      |
|-----------|-----------------|--------------------------|-------------------------------------|------|------|------|------|------|------|------|------|------|
|           |                 |                          | 0.1                                 | 0.2  | 0.3  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 0.9  | 1    |
| 0902120   | 1               | Cont. Fan                | 780                                 | 660  | 545  | 440  | 330  | 210  | -    | -    | -    | -    |
|           | 2               |                          | 860                                 | 740  | 645  | 535  | 440  | 340  | 220  | -    | -    | -    |
|           | 3               |                          | 930                                 | 820  | 725  | 625  | 530  | 440  | 350  | 230  | -    | -    |
|           | 4               |                          | 1030                                | 930  | 835  | 755  | 655  | 570  | 485  | 400  | 310  | 185  |
|           | 5               |                          | 1125                                | 1035 | 935  | 860  | 785  | 690  | 610  | 530  | 450  | 370  |
|           | 6               |                          | 1210                                | 1125 | 1035 | 955  | 880  | 805  | 725  | 645  | 570  | 495  |
|           | 7               |                          | 1285                                | 1210 | 1125 | 1040 | 975  | 905  | 830  | 750  | 675  | 610  |
|           | 8               |                          | 1385                                | 1310 | 1235 | 1150 | 1085 | 1020 | 955  | 885  | 815  | 745  |
|           | 9               |                          | 1475                                | 1410 | 1340 | 1265 | 1190 | 1130 | 1065 | 1010 | 940  | 875  |
|           | 10              | Low Heating              | 1565                                | 1500 | 1435 | 1365 | 1290 | 1230 | 1175 | 1115 | 1060 | 995  |
|           | 11              |                          | 1670                                | 1605 | 1550 | 1485 | 1415 | 1350 | 1295 | 1240 | 1180 | 1130 |
|           | 12              | High Heating/Low Cooling | 1720                                | 1660 | 1605 | 1540 | 1475 | 1410 | 1350 | 1300 | 1245 | 1195 |
|           | 13              |                          | 1765                                | 1710 | 1655 | 1595 | 1530 | 1465 | 1405 | 1355 | 1305 | 1255 |
|           | 14              |                          | 1815                                | 1760 | 1705 | 1650 | 1585 | 1525 | 1460 | 1410 | 1360 | 1310 |
|           | 15              |                          | 1860                                | 1805 | 1755 | 1700 | 1640 | 1580 | 1515 | 1465 | 1415 | 1370 |
|           | 16              |                          | 1915                                | 1865 | 1815 | 1760 | 1705 | 1645 | 1585 | 1530 | 1480 | 1435 |
|           | 17              |                          | 1970                                | 1915 | 1865 | 1815 | 1760 | 1705 | 1645 | 1590 | 1540 | 1495 |
|           | 18              |                          | 2020                                | 1965 | 1920 | 1870 | 1820 | 1765 | 1710 | 1650 | 1605 | 1560 |
|           | 19              |                          | 2070                                | 2025 | 1975 | 1930 | 1880 | 1830 | 1775 | 1720 | 1670 | 1625 |
|           | 20              |                          | 2120                                | 2075 | 2030 | 1985 | 1935 | 1885 | 1835 | 1785 | 1730 | 1685 |
|           | 21              |                          | 2170                                | 2125 | 2080 | 2035 | 1990 | 1945 | 1895 | 1845 | 1795 | 1750 |
|           | 22              |                          | 2220                                | 2175 | 2130 | 2090 | 2045 | 2000 | 1955 | 1910 | 1860 | 1815 |
|           | 23              | High Cooling             | 2270                                | 2225 | 2185 | 2145 | 2100 | 2055 | 2015 | 1970 | 1920 | 1875 |
|           | 24              |                          | 2355                                | 2315 | 2275 | 2240 | 2200 | 2160 | 2115 | 2075 | 2020 | 1965 |
|           | 25              |                          | 2470                                | 2425 | 2385 | 2335 | 2285 | 2230 | 2175 | 2115 | 2050 | 1985 |
| 1102122   | 1               | Cont. Fan                | 815                                 | 690  | 580  | 475  | 375  | 285  | 190  | -    | -    | -    |
|           | 2               |                          | 890                                 | 780  | 670  | 570  | 475  | 385  | 300  | 215  | 135  | -    |
|           | 3               |                          | 1000                                | 900  | 800  | 700  | 615  | 525  | 440  | 360  | 285  | 210  |
|           | 4               |                          | 1100                                | 1005 | 910  | 820  | 735  | 650  | 570  | 490  | 415  | 350  |
|           | 5               |                          | 1190                                | 1105 | 1015 | 930  | 840  | 765  | 685  | 610  | 535  | 465  |
|           | 6               |                          | 1280                                | 1195 | 1110 | 1025 | 945  | 865  | 795  | 725  | 645  | 575  |
|           | 7               |                          | 1385                                | 1305 | 1225 | 1150 | 1070 | 995  | 920  | 860  | 790  | 720  |
|           | 8               |                          | 1480                                | 1405 | 1335 | 1260 | 1190 | 1120 | 1045 | 975  | 920  | 850  |
|           | 9               |                          | 1575                                | 1505 | 1435 | 1365 | 1295 | 1230 | 1165 | 1095 | 1030 | 975  |
|           | 10              | Low Heating              | 1685                                | 1620 | 1555 | 1485 | 1420 | 1360 | 1295 | 1230 | 1165 | 1105 |
|           | 11              | Low Cooling              | 1785                                | 1725 | 1660 | 1600 | 1535 | 1475 | 1415 | 1355 | 1300 | 1235 |
|           | 12              |                          | 1880                                | 1825 | 1765 | 1705 | 1645 | 1590 | 1530 | 1470 | 1415 | 1365 |
|           | 13              | High Heating             | 1935                                | 1880 | 1825 | 1765 | 1710 | 1650 | 1595 | 1545 | 1490 | 1435 |
|           | 14              |                          | 1995                                | 1940 | 1885 | 1825 | 1770 | 1715 | 1660 | 1605 | 1555 | 1505 |
|           | 15              |                          | 2010                                | 1960 | 1905 | 1850 | 1790 | 1740 | 1685 | 1630 | 1580 | 1530 |
|           | 16              |                          | 2060                                | 2005 | 1950 | 1900 | 1840 | 1790 | 1735 | 1685 | 1635 | 1585 |
|           | 17              |                          | 2095                                | 2045 | 1990 | 1940 | 1885 | 1835 | 1780 | 1730 | 1680 | 1635 |
|           | 18              |                          | 2140                                | 2090 | 2040 | 1990 | 1935 | 1885 | 1835 | 1790 | 1740 | 1695 |
|           | 19              |                          | 2190                                | 2145 | 2095 | 2045 | 1995 | 1940 | 1895 | 1850 | 1805 | 1755 |
|           | 20              |                          | 2250                                | 2205 | 2155 | 2105 | 2055 | 2010 | 1960 | 1915 | 1870 | 1830 |
|           | 21              | High Cooling             | 2305                                | 2260 | 2215 | 2165 | 2120 | 2075 | 2030 | 1985 | 1940 | 1900 |
|           | 22              |                          | 2355                                | 2305 | 2260 | 2220 | 2175 | 2130 | 2085 | 2040 | 2000 | 1960 |
|           | 23              |                          | 2400                                | 2355 | 2315 | 2270 | 2230 | 2185 | 2145 | 2100 | 2060 | 2015 |
|           | 24              |                          | 2460                                | 2420 | 2375 | 2335 | 2290 | 2250 | 2205 | 2150 | 2100 | 2045 |
|           | 25              |                          | 2515                                | 2470 | 2430 | 2385 | 2345 | 2290 | 2230 | 2170 | 2110 | 2050 |

## Airflow Settings

| Unit Size | Default Airflow Settings* |             |              |             | Designated Airflow Settings |             |              |
|-----------|---------------------------|-------------|--------------|-------------|-----------------------------|-------------|--------------|
|           | High Heating              | Low Heating | High Cooling | Low Cooling | High Heating                | Low Heating | Constant Fan |
| 0451412   | 7                         | 5           | 23           | 13          | (3 - 11)                    | (3 - 8)     | (1 - 9)      |
| 0701716   | 12                        | 10          | 25           | 15          | (7 - 16)                    | (4 - 12)    | (1 - 5)      |
| 0902120   | 12                        | 10          | 23           | 12          | (7 - 17)                    | (3 - 12)    | (1 - 9)      |
| 1102122   | 13                        | 10          | 21           | 11          | (9 - 19)                    | (5 - 12)    | (1 - 8)      |

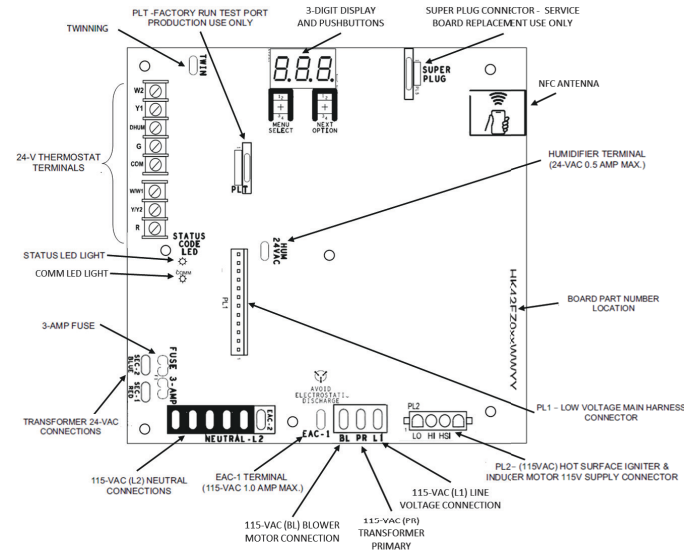
\*. Setting #1 is the default setting for Constant Fan

TYPICAL WIRING SCHEMATIC



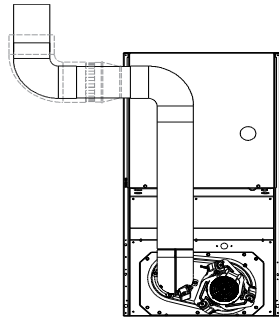
A95236

FURNACE CONTROL BOARD



A221518

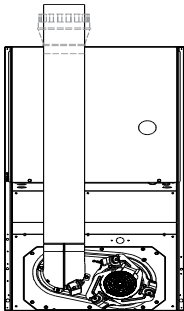
VENTING CONFIGURATIONS



SEE NOTES: 1,2,3,4,5,7,8,9 on the page following these figures

Downflow Application-Vent Elbow Up then Left

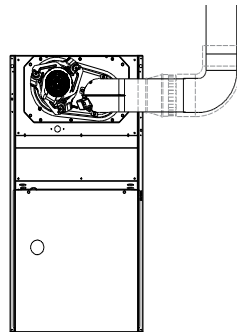
A03210



SEE NOTES: 1, 2, 4, 5, 7, 8, 9 on the page following these figures

Downflow Application-Vent Elbow Up

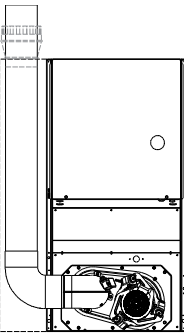
A03211



SEE NOTES: 1,2,3,4,7,8,9 on the pages following these figures

Upflow Application-Vent Elbow Right

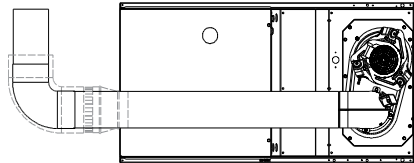
A03209



SEE NOTES: 1, 2, 4, 5, 6, 7, 8, 9 on the page following these figures

Downflow Application-Vent Elbow Left then Up

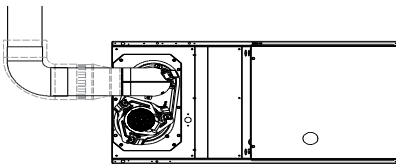
A03207



SEE NOTES: 1,2,4,5,7,8,9

Horizontal Right Application-Vent Elbow Left

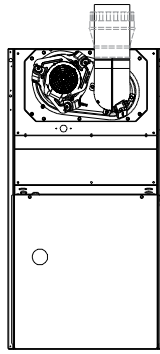
A02068



SEE NOTES: 1,2,4,7,8,9 on the page following these figures

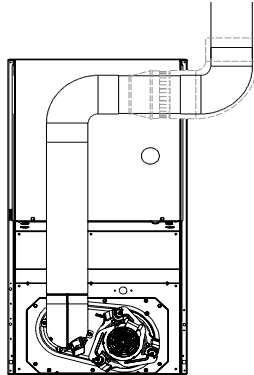
Horizontal Left Application-Vent Elbow Left

A03213



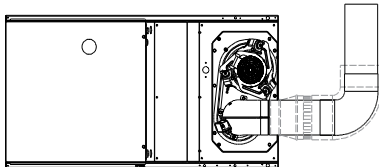
SEE NOTES: 1,2,4,7,8,9  
on the page following  
these figures

Upflow Application-Vent Elbow Up



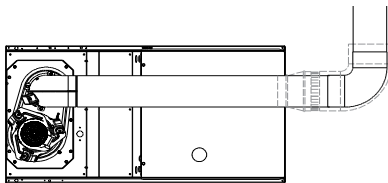
SEE NOTES: 1,2,3,4,5,7,8,9  
on the page following  
these figures.

Downflow Application-Vent Elbow Up then Right



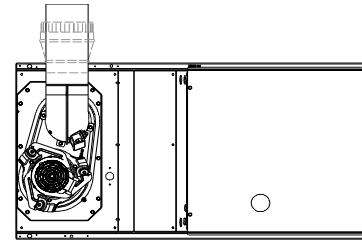
SEE NOTES: 1,2,4,7,8,9 on the page  
following these figures

Horizontal Right Application-Vent Elbow Right



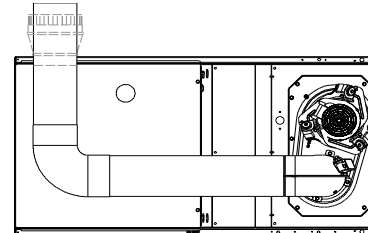
SEE NOTES: 1,2,4,5,7,8,9 on the page  
following these figures

Horizontal Left Application-Vent Elbow Right



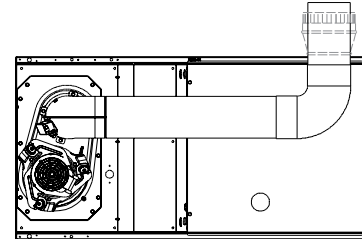
SEE NOTES: 1,2,4,5,7,8,9 on the page  
following these figures

Horizontal Left Application-Vent Elbow Up



SEE NOTES: 1,2,4,5,7,8,9 on the page  
following these figures

Horizontal Right Application-Vent Elbow Left then Up



SEE NOTES: 1,2,4,5,7,8,9 on the page  
following these figures

Horizontal Left Application-Vent Elbow Right then Up

### **Venting notes**

1. For common vent, vent connector sizing and vent material: United States, latest edition of the National Fuel Gas Code (NFGC), ANSI Z223.1/NFPA 54.
2. Immediately increase to 5-in. (127 mm) vent connector outside furnace casing when 5-in. (127 mm) vent connector required, refer to Note 1.
3. Side outlet vent for upflow and downflow installations must use Type B vent immediately after exiting the furnace, except when Downflow Vent Guard is used in downflow position.
4. Type B vent where required, refer to Note 1.
5. 4-in. (102 mm) single wall vent must be used inside furnace casing and the Downflow Vent Guard Kit.
6. Accessory Downflow Vent Guard Kit, required in downflow installations with bottom vent configuration.
7. Chimney Adapter Kit required for exterior masonry chimney applications. Refer to Chimney Adapter Kits for sizing and complete application details.
8. Secure vent connector to furnace elbow with (2) corrosion-resistant sheet metal screws, space approximately 180° apart.
9. Secure all other single wall vent connector joints with (3) corrosion-resistant screws spaced approximately 120° apart. Secure Type B vent connectors per vent connector manufacturer's recommendations.

## ACCESSORIES

| PART NUMBER   | DESCRIPTION                                                                          | 0451412 | 0701716 | 0902120 | 1102122 |
|---------------|--------------------------------------------------------------------------------------|---------|---------|---------|---------|
| ACG1425NCB*   | External Filter Rack, 14-1/2 x 25"                                                   | X       | -       | -       | -       |
| ACG1625NCF*   | External Filter Rack, 16 x 25"                                                       | -       | X       | -       | -       |
| ACG2025NCJ*   | External Filter Rack, 20 x 25"                                                       | -       | -       | X       | X       |
| 325531-402*   | Washable filter, 3/4" x 16" x 25"                                                    | X       | X       | -       | -       |
| 325531-403*   | Washable filter, 3/4" x 21" x 25"                                                    | -       | -       | X       | X       |
| NAHB00101CA   | Coil Adapter Kits - No Offset                                                        | X       | X       | X       | X       |
| NAHB00201CA   | Coil Adapter Kits - Single Offset                                                    | X       | X       | X       | X       |
| NAHB00301CA   | Coil Adapter Kits - Double Offset                                                    | X       | X       | X       | X       |
| NAHA00401DH   | Chimney Adapter Kit, up to or equal to 110K BTUh                                     | X       | X       | X       | X       |
| NAHA01101SB   | Combustible Floor Base (Not required when evaporator coil case is used for downflow) | X       | X       | X       | X       |
| NAHB00301VC   | Downflow Vent Guard (Not required when vent is routed through cabinet)               | X       | X       | X       | X       |
| AGAGC8NPS01C* | Natural-to-Propane Conversion Kit †                                                  | X       | X       | X       | X       |
| AGAGC8PNS01C* | Propane-to-Natural Conversion Kit †                                                  | X       | X       | X       | X       |
| AGATWNDTE01C* | Twinning Kit VCT-ECM Motor                                                           | -       | X       | X       | X       |
| NAHA00201HL   | High Altitude Kit                                                                    | X       | X       | X       | X       |
| SYST0101CW    | ION™ Control System - Self Configuring Communicating Control                         | X       | X       | X       | X       |

\* Purchased through FAST Parts.

† Factory authorized and field installed. Gas conversion kits are CSA recognized.

X Accessory

## ORIFICES

| Part Number | Gas Type | Orifice Size |
|-------------|----------|--------------|
| 1185612     | Natural  | 42           |
| 1176928     | Natural  | 43           |
| 1185574     | Natural  | 44           |
| 1177213     | Natural  | 45           |

| Part Number | Gas Type | Orifice Size |
|-------------|----------|--------------|
| 1183809     | Natural  | 46           |
| 1185613     | Natural  | 47           |
| 1185614     | Natural  | 48           |

| Part Number | Gas Type | Orifice Size |
|-------------|----------|--------------|
| 1184256     | Propane  | 54           |
| 1185615     | Propane  | 55           |
| 1185616     | Propane  | 56           |
| 1185617     | Propane  | 1.25 mm      |
| 1185618     | Propane  | 1.30 mm      |