

G80CTL (Series B)
80% AFUE, Two-Stage
Variable Speed, 4-Way Multipoise, Gas Furnace

Comfortmaker
Air Conditioning & Heating

Product Data



SYST0101CW
Recommended
(sold separately)



A200433

! 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.



A200115

EASIER TO SELL

- 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
- ION™ Communicating Control System
- 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 ignitor
- One piece pre-painted steel cabinet
- On-board NFC antenna makes setup a tap away when using the Service Technician App.
- 3-digit display shows fault codes and furnace status
- RAT and SAT thermistors can provide temperature rise
- Two-stage induced draft blower
- In-shot burners
- Insulated blower compartment

EASIER TO INSTALL AND SERVICE

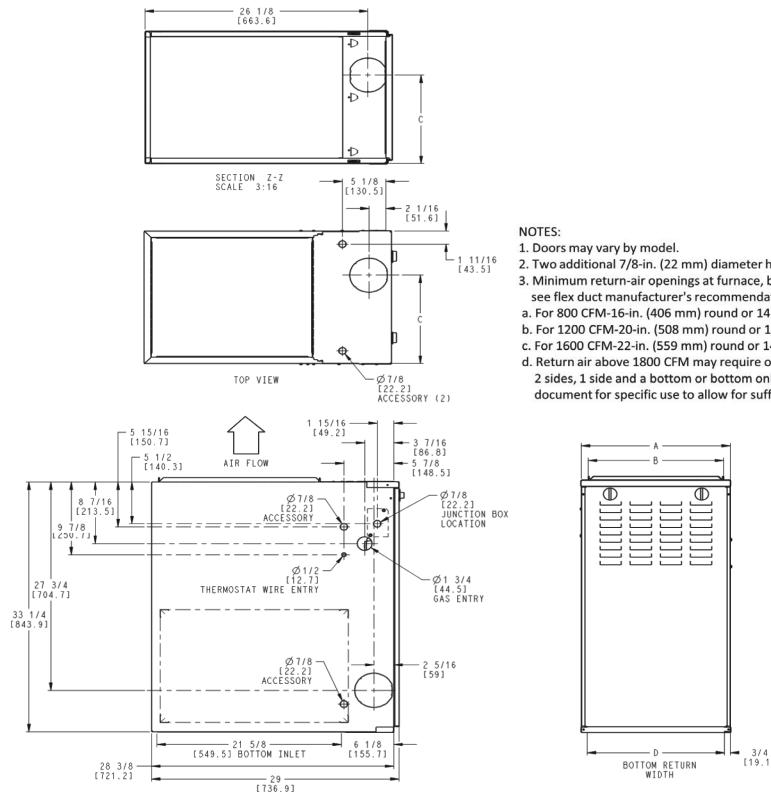
- 33-1/3" (847mm) high, for ease of installation
- Quarter turn knobs for easy door removal and secure attachment
- Convertible to propane gas conversion accessory kit
- Four position - upflow/downflow/horizontal (left/right) installation
- Three position vent elbow capability
- Through the casing flue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

LIMITED WARRANTY*

- 10 year No Hassle Replacement™ limited warranty
- Lifetime heat exchanger limited warranty with timely registration
- 5 year parts limited warranty
 - additional 5 year parts limited warranty with timely registration

* For residential applications only. See warranty certificate for complete details and restrictions, including warranty coverage of other applications.

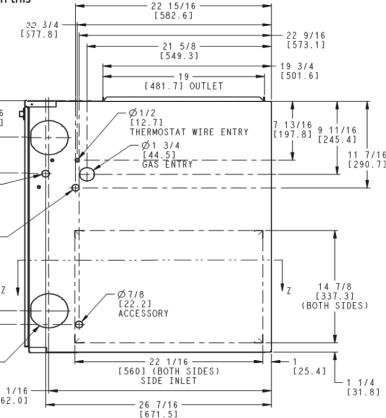
DIMENSIONAL DATA



NOTES:

1. Doors may vary by model.
2. Two additional 7/8-in. (22 mm) diameter holes are located in the top plate.
3. Minimum return-air openings at furnace, based on metal duct. If flex duct is used, see flex duct manufacturer's recommendations or equivalent diameters.
- a. For 800 CFM-16-in. (406 mm) round or 14 1/2 x 12-in. (368 x 305 mm) rectangle.
- b. For 1200 CFM-20-in. (508 mm) round or 14 1/2 x 19 1/2-in. (368 x 495 mm) rectangle.
- c. For 1600 CFM-22-in. (559 mm) round or 14 1/2 x 22 1/16-in. (368 x 560 mm) rectangle.
- d. Return air above 1800 CFM may require one of the following configurations:

2 sides, 1 side and a bottom or bottom only for return air. See Air Delivery table in this document for specific use to allow for sufficient airflow to the furnace..



NOTE: ALL DIMENSIONS IN INCH (MM)

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

SD5689-4 REV.-

A190084

Dimensions

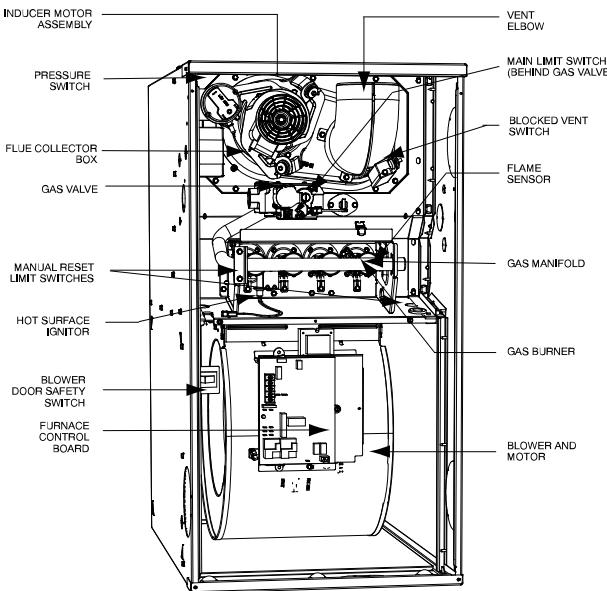
| FURNACE SIZE | A | B | C | D | VENT CONNECTION SIZE | SHIP WT. LB (KG) |
|--------------|---------------|---------------|----------------------------|--------------------|----------------------|------------------|
| | CABINET WIDTH | OUTLET WIDTH | TOP AND BOTTOM FLUE COLLAR | BOTTOM INLET WIDTH | | |
| 0451712 | 17-1/2 (445) | 15-7/8 (403) | 11-9/16 (294) | 16 (406) | 4 (102) | 122.5 (55.6) |
| 0701412 | 14-3/16 (360) | 12-9/16 (319) | 9-5/16 (237) | 12-11/16 (322) | 4 (102) | 119.5 (54.2) |
| 0701716 | 17-1/2 (445) | 15-7/8 (403) | 11-9/16 (294) | 16 (406) | 4 (102) | 132 (59.9) |
| 0702120 | 21 (533) | 19-3/8 (492) | 13-5/16 (338) | 19-1/2 (495) | 4 (102) | 137 (62.1) |
| 0901716 | 17-1/2 (445) | 15-7/8 (403) | 11-9/16 (294) | 16 (406) | 4 (102) | 134.5 (61.0) |
| 0902120 | 21 (533) | 19-3/8 (492) | 13-5/16 (338) | 19-1/2 (495) | 4 (102) | 147.5 (66.9) |
| 1102120 | 21 (533) | 19-3/8 (492) | 13-5/16 (338) | 19-1/2 (495) | 4 (102) | 152 (68.9) |
| 1352422 | 24-1/2 (622) | 22-7/8 (581) | 15-1/16 (383) | 23 (584) | 4 (102)* | 174.5 (79.2) |

*. 135 size furnace require a 5 or 6-in. (127 or 152 mm) vent. Use a vent adapter between furnace and vent stack. See Installation Instructions for complete installation requirements.

MODEL NUMBER NOMENCLATURE

A221575

FURNACE COMPONENTS



A190086

NOTE: The furnaces are factory shipped for use with natural gas. These furnaces can be field-converted for propane gas with a factory-authorized and listed accessory conversion kit.

CLEARANCES

| | | |
|--|---|--|
| WARNING | ELECTRIC SHOCK AND MOVING PARTS HAZARD High voltage and rotating fan blades may be present in blower compartment when door switch is pressed. Keep hands clear. | |
| WARNING FIRE, EXPLOSION, ASPHYXIATION HAZARD <p>Improper adjustment, alteration, service, maintenance, or installation can cause serious injury or death.</p> <p>Read and follow instructions and precautions in User's Information Manual provided with this furnace. Installation and service must be performed by a qualified service agency or the gas supplier.</p> | | |
| CAUTION <p>Check entire gas assembly for leaks after lighting this appliance.</p> | | |
| INSTALLATION <ol style="list-style-type: none"> 1. This furnace must be installed in accordance with the manufacturer's instructions and local codes. In the absence of local codes, follow the National Fuel Gas Code ANSI Z223.1 / NFPA54 or CSA B-149.1 Gas Installation Code. 2. This furnace must be installed so there are provisions for combustion and ventilation air. See manufacturer's installation information provided with this appliance. | | |
| OPERATION <p>This furnace is equipped with manual reset limit switch(es) in burner compartment to protect against overheat conditions that can result from inadequate combustion air supply or blocked vent conditions.</p> <ol style="list-style-type: none"> 1. Do not bypass limit switches. 2. If a limit opens, call a qualified serviceman to correct the condition and reset limit switch. | | |
| INSTALLATION MINIMUM INCHES CLEARANCE TO COMBUSTIBLE CONSTRUCTION <p>This forced air furnace is equipped for use with natural gas at altitudes 0 - 10,000 ft (0 - 3,050m).</p> <p>An accessory kit, supplied by the manufacturer, shall be used to convert to propane gas use or may be required for some natural gas applications.</p> <p>This furnace is for indoor installation in a building constructed on site.</p> <p>This furnace may be installed on combustible flooring in alcove or closet at minimum clearance as indicated by the diagram from combustible material.</p> <p>This furnace may be used with a Type B-1 Vent and may be vented in common with other gas fired appliances.</p> <p>Vent Clearance to combustibles: For Single Wall vents 6 inches (6 po). For type B-1 vent type 1 inch (1 po).</p> | | |
| MINIMUM INCHES CLEARANCE TO COMBUSTIBLE CONSTRUCTION DOWNTOWNS POSITIONS: <ul style="list-style-type: none"> † Installation on non-combustible floors only. For installation on combustible flooring only when installed on a manufacturer approved special base kit or manufacturer recommended coil assembly. ∅ 18 inches front clearance required for alcove. * Indicates supply or return sides when furnace is in the horizontal position. Line contact only permissible between lines formed by intersections of the Top and two Sides of the furnace jacket, and building joists, studs or framing. | | |

A220231

SPECIFICATIONS

| UNIT SIZE | | 0451712 | 0701412 | 0701716 | 0702120 | 0901716 | 0902120 | 1102120 | 1352422 |
|---|------------------------------|---|------------------|------------------|-------------------|------------------|-------------------|-------------------|-------------------|
| HEATING AND CAPACITY AND EFFICIENCY | | | | | | | | | |
| Input BTUh* | All Standard, Low NOx Upflow | High | 44,000 | 66,000 | 66,000 | 88,000 | 88,000 | 110,000 | 132,000 |
| | | Low | 29,000 | 43,500 | 43,500 | 43,500 | 58,000 | 58,000 | 72,500 |
| | Low NOx Downflow/Horizontal | High | 42,000 | 63,000 | 63,000 | 84,000 | 84,000 | 105,000 | 126,000 |
| | | Low | 29,000 | 43,500 | 43,500 | 58,000 | 58,000 | 72,500 | 87,000 |
| Output Capacity (BTUh)† | All Standard, Low NOx Upflow | High | 35,000 | 54,000 | 53,000 | 71,000 | 71,000 | 89,000 | 107,000 |
| | | Low | 23,000 | 35,000 | 35,000 | 47,000 | 47,000 | 59,000 | 70,000 |
| | Low NOx Downflow/Horizontal | High | 34,000 | 51,000 | 51,000 | 68,000 | 68,000 | 85,000 | 102,000 |
| | | Low | 23,000 | 35,000 | 35,000 | 47,000 | 47,000 | 59,000 | 70,000 |
| Certified Temperature Rise Range - °F (°C) | | High | 30-60 (17-33) | 30-60 (17-33) | 25-55 (14-31) | 25-55 (14-31) | 40-70 (22-39) | 25-55 (14-31) | 40-70 (22-39) |
| | | Low | 20-50 (11-28) | 30-60 (17-33) | 15-45 (8-25) | 15-45 (8-25) | 30-60 (17-33) | 15-45 (8-25) | 25-55 (14-31) |
| AFUE† | | 80% | | | | | | | |
| AIRFLOW CAPACITY AND BLOWER DATA | | | | | | | | | |
| Rated Certified External Static Pressure | Heating | 0.10 | 0.12 | 0.12 | 0.12 | 0.15 | 0.15 | 0.20 | 0.20 |
| | Cooling | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| Airflow CFM @ Rated ESP (CFM)‡ | High Heat | 630 | 1030 | 1175 | 1174 | 1175 | 1650 | 1445 | 1815 |
| | Low Heat | 520 | 650 | 1040 | 1025 | 965 | 1445 | 1315 | 1700 |
| | Cooling | 1565 | 1355 | 1650 | 2070 | 1455 | 2270 | 2245 | 2240 |
| Direct Drive Motor HP | | 3/4 | 1/2 | 3/4 | 1 | 1/2 | 1 | 1 | 1 |
| Motor Full Load Amps | | 8.8 | 6.7 | 8.8 | 11.5 | 6.7 | 11.5 | 11.5 | 11.7 |
| Heating Blower Control (Htg Off-Delay) | | Adjustable: 90, 120 (factory-set), 150, 180 seconds | | | | | | | |
| Cooling Blower Control (Time Delay Relay) | | Adjustable: 90 (factory-set), 5, 30, 60 seconds | | | | | | | |
| Blower Wheel Diameter x Width - In. (mm) | | 11 x 8 (279x203) | 10 x 6 (254x152) | 11 x 8 (279x203) | 11 x 10 (279x254) | 10 x 8 (254x203) | 11 x 11 (279x279) | 11 x 10 (279x254) | 11 x 11 (279x279) |
| 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 | | 10.5 | 8.0 | 10.5 | 13.8 | 8.6 | 14.4 | 14.7 | 13.9 |
| Unit Ampacity | | 13.8 | 10.7 | 13.8 | 18.0 | 11.3 | 18.5 | 18.8 | 17.8 |
| Maximum Wire Length (Measure 1 way in Ft. (M) | | 26 (7.9) | 34 (10.4) | 26 (7.9) | 31 (9.4) | 32 (9.8) | 31 (9.4) | 30 (9.1) | 32 (9.8) |
| Minimum Wire Size | AWG | 14 | 14 | 14 | 12 | 14 | 12 | 12 | 12 |
| Max. Fuse/Ckt Bkr Size (Time-Delay Type Recommended) | Amps | 15 | 15 | 15 | 20 | 15 | 20 | 20 | 20 |
| Transformer Capacity (24 VAC output) | | 40VA | | | | | | | |

SPECIFICATIONS (Continued)

| UNIT SIZE | | 0451712 | 0701412 | 0701716 | 0702120 | 0901716 | 0902120 | 1102120 | 1352422 |
|---|-----------|--|---------|---------|---------|---------|---------|---------|---------|
| External Control Power Available | Heating | 24VA | | | | | | | |
| | Cooling | 35VA | | | | | | | |
| GAS CONTROLS | | | | | | | | | |
| Burners | | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 6 |
| Gas Connection Size | | 1/2-in. 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 | | Size 43 | | | | | | | |
| CONNECTIONS | | | | | | | | | |
| Communication System | | ION™ Communicating Control SYST0101CW | | | | | | | |
| Thermostat Connections | | R, W/W1, W2, Y/Y2, Y1, G, Com 24V, DHUM | | | | | | | |
| Accessory Connections | | EAC-1 (115 VAC); HUM (24 VAC); 1-STG AC (via Y/Y2) | | | | | | | |

*. 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)***0451712**

| | | | | | | | | | | | | | |
|--|---------|----------------|------|------|------|------|------|------|------|------|-----|------|-------|
| Available Cooling Airflow Settings (CFM) | 488 | 525 | 555 | 600 | 650 | 700 | 740 | *800 | 875 | 925 | 975 | 1000 | †1050 |
| | 1138 | 1200 | 1225 | 1300 | 1400 | 1480 | 1600 | | | | | | |
| Available Constant Fan Airflow Settings (CFM) | ‡488 | 525 | 555 | 600 | 650 | 700 | 740 | 800 | 875 | 925 | 975 | 1000 | 1050 |
| | 1138 | 1200 | 1225 | | | | | | | | | | |
| Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these airflow settings | Airflow | ESP (in. w.c.) | | | | | | | | | | | |
| | 1400 | 0.7 | | | | | | | | | | | |
| | 1480 | 0.5 | | | | | | | | | | | |
| | 1600 | 0.3 | | | | | | | | | | | |
| Max Cooling ESP | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1 | | | |
| **Max Cooling CFM | 1695 | 1670 | 1640 | 1605 | 1565 | 1530 | 1490 | 1445 | 1400 | 1360 | | | |

0701412

| | | | | | | | | | | | | | |
|--|---------|----------------|------|------|------|------|------|------|------|------|-----|-----|-----|
| Available Cooling Airflow Settings (CFM) | 400 | 450 | 488 | 525 | 555 | 600 | 650 | 700 | 740 | *800 | 875 | 925 | 975 |
| | 1000 | †1050 | 1138 | 1200 | 1225 | 1300 | 1400 | | | | | | |
| Available Constant Fan Airflow Settings (CFM) | ‡400 | 450 | 488 | 525 | 555 | 600 | 650 | 700 | 740 | 800 | 875 | 925 | 975 |
| | 1000 | 1050 | 1138 | | | | | | | | | | |
| Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these airflow settings | Airflow | ESP (in. w.c.) | | | | | | | | | | | |
| | 1200 | 0.8 | | | | | | | | | | | |
| | 1225 | 0.8 | | | | | | | | | | | |
| | 1300 | 0.6 | | | | | | | | | | | |
| | 1400 | 0.4 | | | | | | | | | | | |
| Max Cooling ESP | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1 | | | |
| **Max Cooling CFM | 1430 | 1430 | 1420 | 1390 | 1355 | 1315 | 1275 | 1235 | 1195 | 1155 | | | |

0701716

| | | | | | | | | | | | | | |
|--|-----------------|----------------|------|------|-------|------|------|------|------|------|-----|------|-------|
| Available Cooling Airflow Settings (CFM) | 488 | 525 | 555 | 600 | 650 | 700 | 740 | 800 | 875 | 925 | 975 | 1000 | †1050 |
| | 1138 | 1200 | 1225 | 1300 | †1400 | 1480 | 1600 | | | | | | |
| Available Constant Fan Airflow Settings (CFM) | ‡488 | 525 | 555 | 600 | 650 | 700 | 740 | 800 | 875 | 925 | 975 | 1000 | 1050 |
| | 1138 | 1200 | 1225 | | | | | | | | | | |
| Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these airflow settings | Airflow Setting | ESP (in. w.c.) | | | | | | | | | | | |
| | 1480 | 0.9 | | | | | | | | | | | |
| | 1600 | 0.7 | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Max Cooling ESP | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1 | | | |
| **Max Cooling CFM | 1655 | 1655 | 1655 | 1655 | 1650 | 1645 | 1615 | 1570 | 1520 | 1475 | | | |

0702120

| | | | | | | | | | | | | | |
|--|---------|----------------|------|------|-------|------|------|------|------|------|------|------|-------|
| Available Cooling Airflow Settings (CFM) | 650 | 700 | 740 | 800 | 875 | 925 | 975 | 1000 | 1050 | 1138 | 1200 | 1225 | †1300 |
| | 1400 | 1480 | 1600 | 1625 | †1750 | 1850 | 1911 | 2000 | | | | | |
| Available Constant Fan Airflow Settings (CFM) | ‡650 | 700 | 740 | 800 | 875 | 925 | 975 | 1000 | 1050 | 1138 | 1200 | 1225 | 1300 |
| | 1400 | 1480 | 1600 | | | | | | | | | | |
| Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these airflow settings | Airflow | ESP (in. w.c.) | | | | | | | | | | | |
| | 1850 | 0.9 | | | | | | | | | | | |
| | 1911 | 0.8 | | | | | | | | | | | |
| | 2000 | 0.5 | | | | | | | | | | | |
| Max Cooling ESP | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1 | | | |
| **Max Cooling CFM | 2095 | 2095 | 2100 | 2100 | 2070 | 2035 | 1995 | 1960 | 1920 | 1880 | | | |

AIR DELIVERY—CFM (With Filter)* (Continued)

| 0901716 | | | | | | | | | | | | | |
|---|-----------------|-------|----------------|------|-------|------|-------|------|-------|------|------|------|-------|
| Available Cooling Airflow Settings (CFM) | 400 | 450 | 488 | 525 | 555 | 600 | 650 | 700 | 740 | 800 | 875 | 925 | 975 |
| | 1000 | *1050 | 1138 | 1200 | 1225 | 1300 | †1400 | 1480 | 1600 | | | | |
| Available Constant Fan Airflow Settings (CFM) | ‡400 | 450 | 488 | 525 | 555 | 600 | 650 | 700 | 740 | 800 | 875 | 925 | 975 |
| | 1000 | 1050 | 1138 | | | | | | | | | | |
| Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these airflow settings | Airflow | | ESP (in. w.c.) | | | | | | | | | | |
| | 1300 | | 0.9 | | | | | | | | | | |
| | 1400 | | 0.7 | | | | | | | | | | |
| | 1480 | | 0.5 | | | | | | | | | | |
| | 1600 | | 0.1 | | | | | | | | | | |
| Max Cooling ESP | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1 | | | |
| **Max Cooling CFM | 1595 | 1560 | 1525 | 1490 | 1455 | 1420 | 1385 | 1340 | 1280 | 1220 | | | |
| 0902120 | | | | | | | | | | | | | |
| Available Cooling Airflow Settings (CFM) | 650 | 700 | 740 | 800 | 875 | 925 | 975 | 1000 | 1050 | 1138 | 1200 | 1225 | *1300 |
| | 1400 | 1480 | 1600 | 1625 | †1750 | 1850 | 1911 | 2000 | 2100 | 2179 | 2200 | | |
| Available Constant Fan Airflow Settings (CFM) | ‡650 | 700 | 740 | 800 | 875 | 925 | 975 | 1000 | 1050 | 1138 | 1200 | 1225 | 1300 |
| | 1400 | 1480 | 1600 | | | | | | | | | | |
| Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these airflow settings | Airflow Setting | | ESP (in. w.c.) | | | | | | | | | | |
| | 2000 | | 0.8 | | | | | | | | | | |
| | 2100 | | 0.7 | | | | | | | | | | |
| | 2179 | | 0.6 | | | | | | | | | | |
| | 2200 | | 0.5 | | | | | | | | | | |
| Max Cooling ESP | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1 | | | |
| **Max Cooling CFM | 2290 | 2290 | 2290 | 2285 | 2270 | 2230 | 2185 | 2130 | 2070 | 2015 | | | |
| 1102120 | | | | | | | | | | | | | |
| Available Cooling Airflow Settings (CFM) | 650 | 700 | 740 | 800 | 875 | 925 | 975 | 1000 | 1050 | 1138 | 1200 | 1225 | *1300 |
| | 1400 | 1480 | 1600 | 1625 | †1750 | 1850 | 1911 | 2000 | 2100 | 2179 | 2200 | | |
| Available Constant Fan Airflow Settings (CFM) | ‡650 | 700 | 740 | 800 | 875 | 925 | 975 | 1000 | 1050 | 1138 | 1200 | 1225 | 1300 |
| | 1400 | 1480 | 1600 | | | | | | | | | | |
| Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these airflow settings | Airflow Setting | | ESP (in. w.c.) | | | | | | | | | | |
| | 2000 | | 0.8 | | | | | | | | | | |
| | 2100 | | 0.7 | | | | | | | | | | |
| | 2179 | | 0.6 | | | | | | | | | | |
| | 2200 | | 0.5 | | | | | | | | | | |
| Max Cooling ESP | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1 | | | |
| **Max Cooling CFM | 2270 | 2270 | 2270 | 2270 | 2245 | 2200 | 2150 | 2100 | 2050 | 1995 | | | |
| 1352422 | | | | | | | | | | | | | |
| Available Cooling Airflow Settings (CFM) | 550 | 600 | 650 | 700 | 740 | 800 | 875 | 925 | 975 | 1000 | 1050 | 1138 | 1200 |
| | 1225 | 1300 | *1400 | 1480 | 1600 | 1625 | 1750 | 1850 | †1911 | 2000 | 2100 | 2179 | |
| Available Constant Fan Airflow Settings (CFM) | ‡550 | 600 | 650 | 700 | 740 | 800 | 875 | 925 | 975 | 1000 | 1050 | 1138 | 1200 |
| | 1225 | 1300 | 1400 | | | | | | | | | | |
| Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these airflow settings | Airflow Setting | | ESP (in. w.c.) | | | | | | | | | | |
| | 1911 | | 0.9 | | | | | | | | | | |
| | 2000 | | 0.7 | | | | | | | | | | |
| | 2100 | | 0.6 | | | | | | | | | | |
| | 2250 | | 0.4 | | | | | | | | | | |
| Max Cooling ESP | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1 | | | |
| **Max Cooling CFM | 2270 | 2255 | 2255 | 2245 | 2240 | 2200 | 2135 | 2070 | 2010 | 1945 | | | |

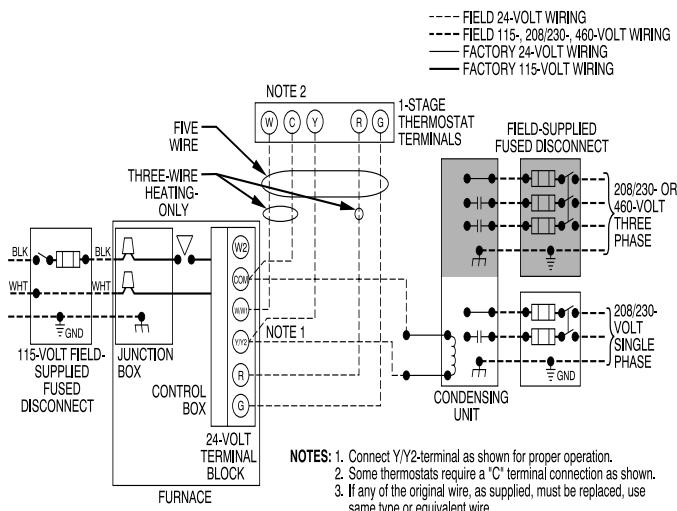
*. Low Cooling Default

†. High Cooling Default

‡. Constant Fan Default Not Recommended

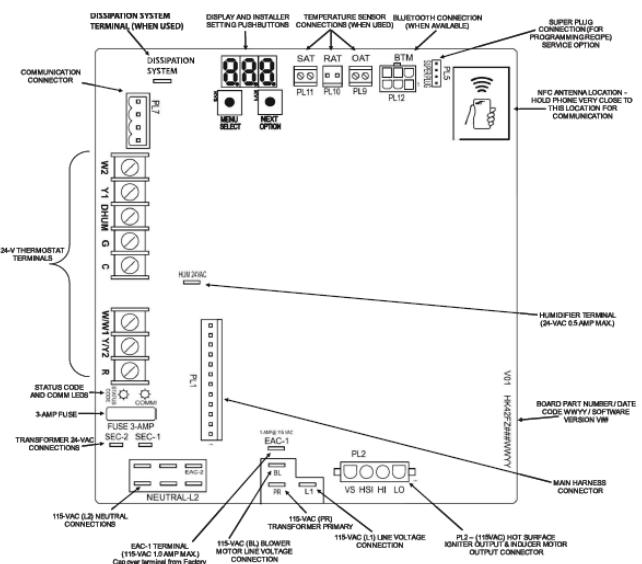
**. Max Cooling values are test CFM all other airflows are standard CFM

TYPICAL WIRING SCHEMATIC



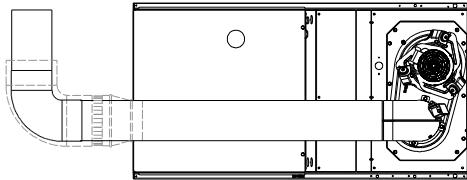
A95236

FURNACE CONTROL BOARD



A230451

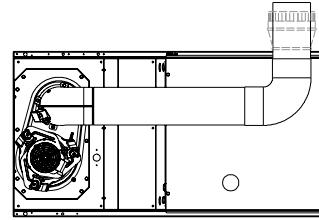
VENTING CONFIGURATIONS



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

HORIZONTAL RIGHT

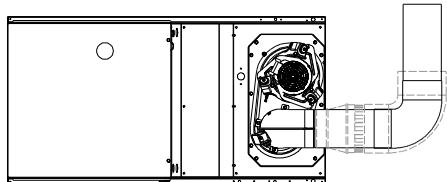
A02068



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

HORIZONTAL LEFT

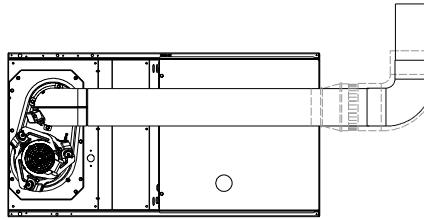
A02065



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

HORIZONTAL RIGHT

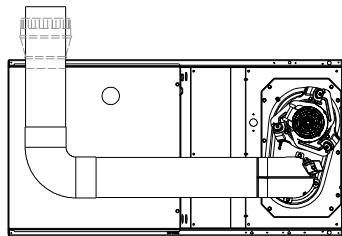
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SEE NOTES: 1,2,4,5,7,8,9

HORIZONTAL LEFT

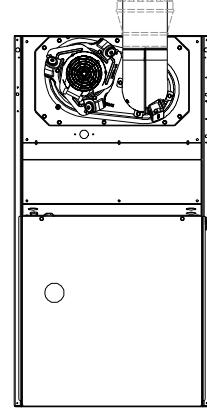
A02067



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

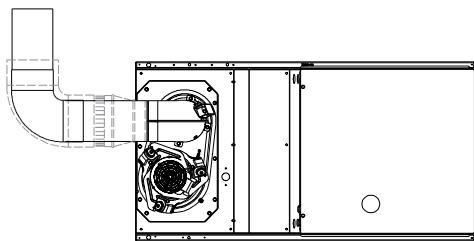
HORIZONTAL RIGHT

A02070



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

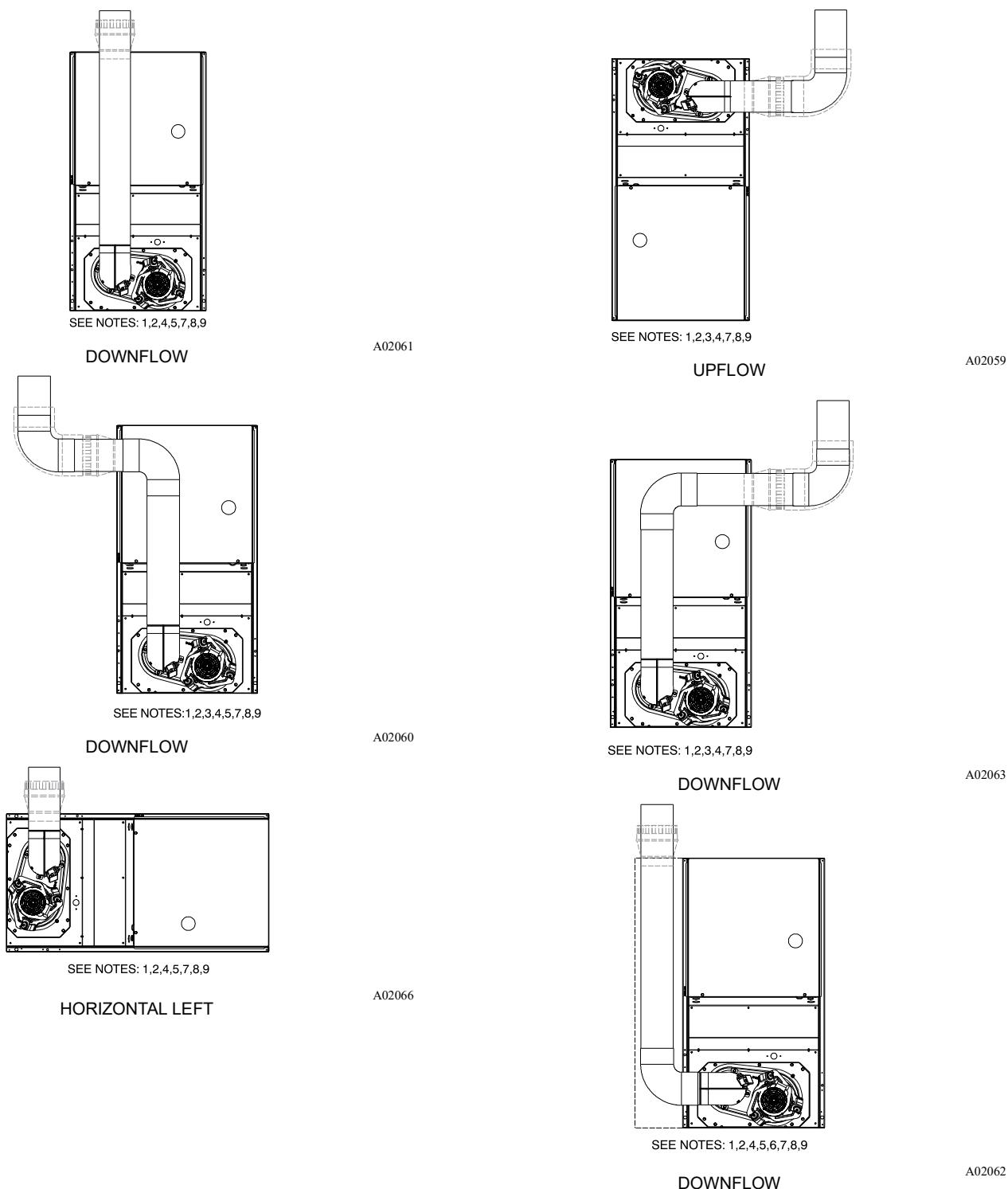
A02058



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

HORIZONTAL LEFT

A02064



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 | 0451712 | 0701412 | 0701716 | 0702120 |
|---------------|--|---------|---------|---------|---------|
| 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 | X | - |
| 325531-403* | Washable filter, 3/4" x 21" x 25" | - | - | - | 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 |
| AGAGC8NPS01B* | Natural-to-Propane Conversion Kit † | X | X | X | X |
| AGAGC8PNS01B* | Propane-to-Natural Conversion Kit † | X | X | X | X |
| NAHA00201HL | High Altitude Kit | X | X | X | X |
| SYST0101CW | ION™ Communicating Control | X | X | X | X |

*. Purchased through FAST Parts.

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

X Accessory

| PART NUMBER | DESCRIPTION | 0901716 | 0902120 | 1102120 | 1352422 |
|---------------|--|---------|---------|---------|---------|
| ACG1625NCF* | External Filter Rack, 16 x 25" | X | - | - | - |
| ACG2025NCJ* | External Filter Rack, 20 x 25" | - | X | X | - |
| ACG2424NCL* | External Filter Rack, 24-1/2" x 24"* | - | - | - | X |
| 325531-402* | Washable filter, 3/4" x 16" x 25" | X | - | - | - |
| 325531-403* | Washable filter, 3/4" x 21" x 25" | - | X | X | - |
| 325531-404* | Washable filter, 3/4" x 24" x 25"* | - | - | - | 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 | - |
| NAHA0301DH | Chimney Adapter Kit, greater than or equal to 135K BTUh | - | - | - | 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 |
| AGAGC8NPS01B* | Natural-to-Propane Conversion Kit † | X | X | X | X |
| AGAGC8PNS01B* | Propane-to-Natural Conversion Kit † | X | X | X | X |
| NAHA00201HL | High Altitude Kit | X | X | X | X |
| SYST0101CW | ION™ 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 | Part Number | Gas Type | Orifice Size | Part Number | Gas Type | Orifice Size |
|-------------|----------|--------------|-------------|----------|--------------|-------------|----------|--------------|
| 1185612 | Natural | 42 | 1183809 | Natural | 46 | 1184256 | Propane | 54 |
| 1176928 | Natural | 43 | 1185613 | Natural | 47 | 1185615 | Propane | 55 |
| 1185574 | Natural | 44 | 1185614 | Natural | 48 | 1185616 | Propane | 56 |
| 1177213 | Natural | 45 | | | | 1185617 | Propane | 1.25 mm |
| | | | | | | 1185618 | Propane | 1.30 mm |