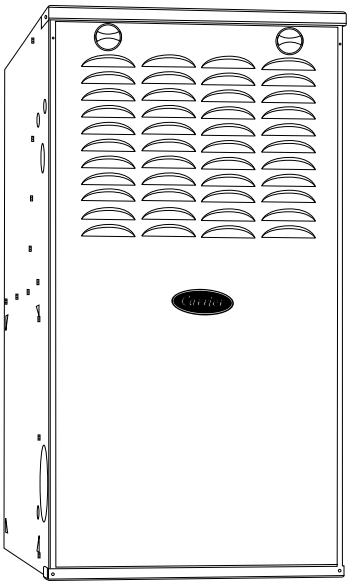
# 58TN0B/58TN1B
# Infinity® 80 Two-Stage, 80% AFUE, Variable Speed, 4-Way Multipoise, Gas Furnace

Turn to the experts

# Product Data



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**⚠ 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.**

The Infinity® 80 Variable-Speed, 4-way Multipoise Gas Furnaces offer unmatched comfort with ComfortHeat® and IdealHumidity® technologies in an 80% AFUE gas furnace. You get all the benefits of a ComfortHeat technology furnace: reduced drafts, reduced sound levels, longer cycles, less temperature swings between cycles, and less temperature differences between rooms. With the variable speed blower motor, homeowners can economically run constant fan to help eliminate temperature differences throughout the house and to get better indoor air quality. This furnace with IdealHumidity technology also increases comfort in the summer by wringing out extra humidity when needed. The Infinity 80 furnaces are approved for use with natural or propane gas, and the 58TN1 models can be installed in California air quality management districts with a 40 ng/J NOx emissions limit.

Carrier Infinity® System When theInfinitys 80 variable-speed gas furnace is matched with theInfinity 80 Control and Infinity 80 air conditioner or heat pump, you will experience the ultimate in ComfortHeat and IdealHumidity through unparalleled control of temperature, humidity, indoor air quality, and zoning. The Carrier Infinity System also provides unprecedented ease of use through on-screen, text-based service reminders and equipment malfunction alerts.

## PERFORMANCE

- Infinity System-match with the Infinity Control for Infinity System benefits
- Variable-speed, constant airflow ECM blower motor
  Increased SEER ratings for AC and HP systems when paired with select Carrier evaporator coil as compared to standard coil-only ratings.
- Two-stage gas valve and ComfortHeat® Technology Intelligent microprocessor control
- Very low operating sound through low-stage operation and QuieTech™ system
- Integral part of the IdealHumidity System
  Maximum dehumidification selection for summer time cooling
  Full IdealHumidity benefits including “Super Dehumidify mode”
  SmartEvap™-Humidity control when using a Thermidistat™/Infinity control
- Power Heat™ Igniter
- Bluetooth® provides enhanced serviceability and diagnostics.
- Microprocessor based control center
- 3 Digit Display shows fault codes and Furnace Status
- On-board NFC antenna makes setup a tap away when using the CarrierBryant service technician app. Stores fault codes during power outages
- RAT and SAT thermistors can provide temperature rise.
- Draft Safeguard switch designed to ensure proper furnace venting
- Insulated blower compartment
- Inner blower door for tighter sealing

## INSTALLATION FLEXIBILITY

- 4-way Multipoise furnace, 13 vent applications
- Compact design - only 33-1/3 in. (847 mm) tall

## APPLICATIONS

- HYBRID HEAT® Dual Fuel System compatible
- All models are chimney friendly when used with accessory vent kit
- Comfort Fan™ - Up to 12 cooling airflow selections from thermostat with a wide range of capability
- Two-stage heating with single-stage thermostat with patented Adaptive Control Technology

## CERTIFICATION

- 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

INFINITY SERIES

Certified System ISO 9001 Quality

AHRI CERTIFIED www.ahridirectory.org

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 .

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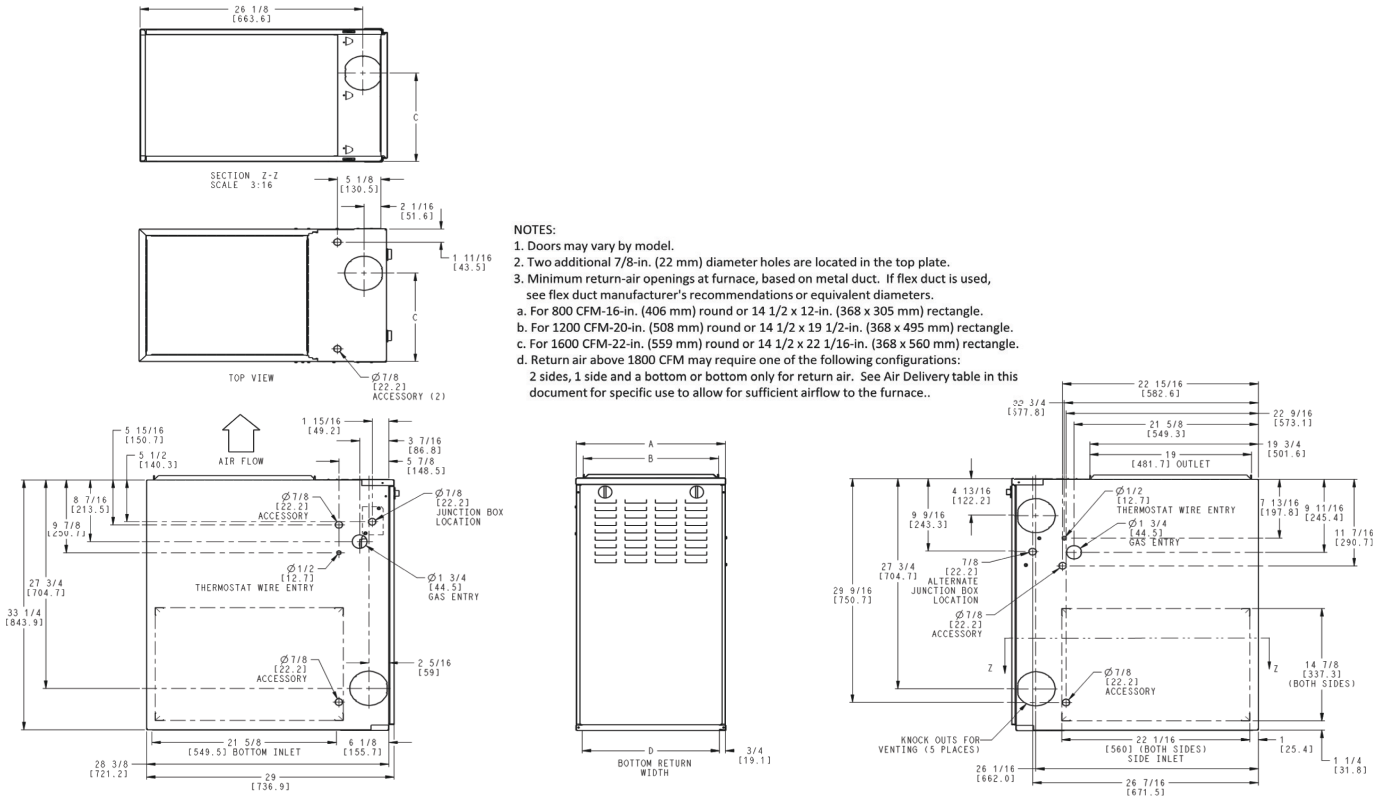
# DIMENSIONAL DATA




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.)

SD5669-4 REV. -

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**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 | | |
| 045C17--12 | 17-1/2 (445) | 15-7/8 (403) | 11-9/16 (294) | 16 (406) | 4 (102) | 122.5 (55.6) |
| 070C14--12 | 14-3/16 (360) | 12-9/16 (319) | 9-5/16 (237) | 12-11/16 (322) | 4 (102) | 119.5 (54.2) |
| 070C17--16 | 17-1/2 (445) | 15-7/8 (403) | 11-9/16 (294) | 16 (406) | 4 (102) | 132 (59.9) |
| 070C21--20 | 21 (533) | 19-3/8 (492) | 13-5/16 (338) | 19-1/2 (495) | 4 (102) | 137 (62.1) |
| 090C17--16 | 17-1/2 (445) | 15-7/8 (403) | 11-9/16 (294) | 16 (406) | 4 (102) | 134.5 (61.0) |
| 090C21--20 | 21 (533) | 19-3/8 (492) | 13-5/16 (338) | 19-1/2 (495) | 4 (102) | 147.5 (66.9) |
| 110C21--20 | 21 (533) | 19-3/8 (492) | 13-5/16 (338) | 19-1/2 (495) | 4 (102) | 152 (68.9) |
| 135C24--22 | 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

| 1, 2<br>Gas Furnace<br>58 | 3<br>Heating Stages<br>T | 4<br>Tier<br>N | 5<br>Min. AFUE/NOx<br>0 | 6<br>Major Series<br>B | 7, 8, 9<br>Heating Input<br>060 | 10<br>Motor Type<br>C | 11, 12<br>Width<br>17 | 13<br>Voltage (1-phase)<br>1 | 14<br>Minor Serie<br>1 |
|---|---|---|---|---|---|---|---|---|---|
| 58 = 80% Non-Condensing<br>59 = 90%+ Condensing | M = Modulating<br>T = Two Stage<br>S = Single Stage<br>C = Single Stage Communicating | B = Base<br>C = Comfort<br>E = Export<br>N = Infinity<br>P = Performance<br>U = Ultra Low Nox | 0 = 80%<br>1 = 80% Low NOx (Not Ultra Low NOx)<br>2 = 92%<br>5 = 95%<br>6 = 96%<br>7 = 97%<br>8 = 98% | A<br>B<br>C<br>--- | 026 = 26,000 BTU<br>040 = 40,000 BTU<br>060 = 60,000 BTU<br>---<br>155 = 155,000 BTU | C = Constant Airflow Variable- Speed (VCA) ECM<br>V = Variable-Speed (VCT) PWM<br>M = Multi 18-Speed Constant Torque (MCT) ECM | 14 - 14.2"<br>17 - 17.5"<br>21 - 21.0"<br>24 - 24.5" | 1 = 110V/60Hz<br>2 = 230V/50Hz | 1<br>2<br>3<br>--- |

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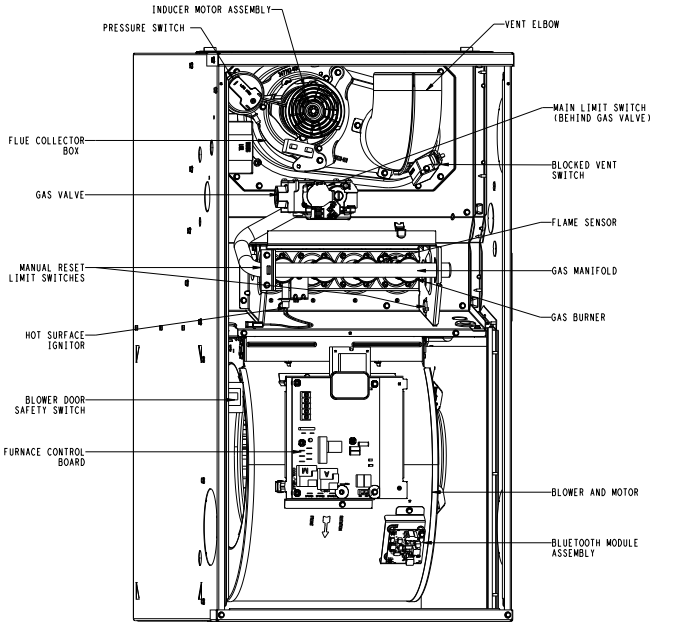
# FURNACE COMPONENTS

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**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**

**Improper adjustment, alteration, service, maintenance, or installation can cause serious injury or death.**

**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.**

**CAUTION**

**Check entire gas assembly for leaks after lighting this appliance.**

**INSTALLATION**

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**

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.

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**

This forced air furnace is equipped for use with natural gas at altitudes 0 - 10,000 ft (0 - 3,050m).

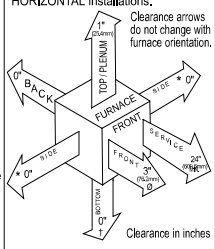
An accessory kit, supplied by the manufacturer, shall be used to convert to propane gas use or may be required for some natural gas applications.

This furnace is for indoor installation in a building constructed on site.

This furnace may be installed on combustible flooring in alcove or closet at minimum clearance as indicated by the diagram from combustible material.

This furnace may be used with a Type B-1 Vent and may be vented in common with other gas fired appliances.

This furnace is approved for UPFLOW, DOWNFLOW, and HORIZONTAL installations.




**Vent Clearance to combustibles:**
For Single Wall vents 6 inches (6 po).
For Type B-1 vent type 1 inch (1 po).

**MINIMUM INCHES CLEARANCE TO COMBUSTIBLE CONSTRUCTION**

**DOWNFLOW POSITIONS:**

† 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.

Ø 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.

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# SPECIFICATIONS

| UNIT SIZE | | | 045C17--12 | 070C14--12 | 070C17--16 | 070C21-20 | 090C17--16 | 090C21--20 | 110C21--20 | 135C24--22 |
|---|---|---|---|---|---|---|---|---|---|---|
| **HEATING AND CAPACITY AND EFFICIENCY** | | | | | | | | | | |
| **Input BTUh*** | All Standard, Low NOx Upflow | High | 44,000 | 66,000 | 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 | 87,000 |
| | Low Nox Downflow/ Horizontal | High | 42,000 | 63,000 | 63,000 | 63,000 | 84,000 | 84,000 | 105,000 | 126,000 |
| | | Low | 29,000 | 43,500 | 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 | 53,000 | 71,000 | 71,000 | 89,000 | 107,000 |
| | | Low | 23,000 | 35,000 | 35,000 | 35,000 | 47,000 | 47,000 | 59,000 | 70,000 |
| | Low Nox Downflow/ Horizontal | High | 34,000 | 51,000 | 51,000 | 51,000 | 68,000 | 68,000 | 85,000 | 102,000 |
| | | Low | 23,000 | 35,000 | 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) | 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) | 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 | | 045C17--12 | 070C14--12 | 070C17--16 | 070C21-20 | 090C17--16 | 090C21--20 | 110C21--20 | 135C24--22 |
|---|---|---|---|---|---|---|---|---|---|
| **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** | | Infinity®; Infinity® Zoning | | | | | | | |
| **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)*

| 045C17--12 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **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 | | | |

| 070C14--12 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **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 | | | |

| 070C17--16 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **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 | | | |

| 070C21--20 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **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)

| 090C17--16 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **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 | | | |

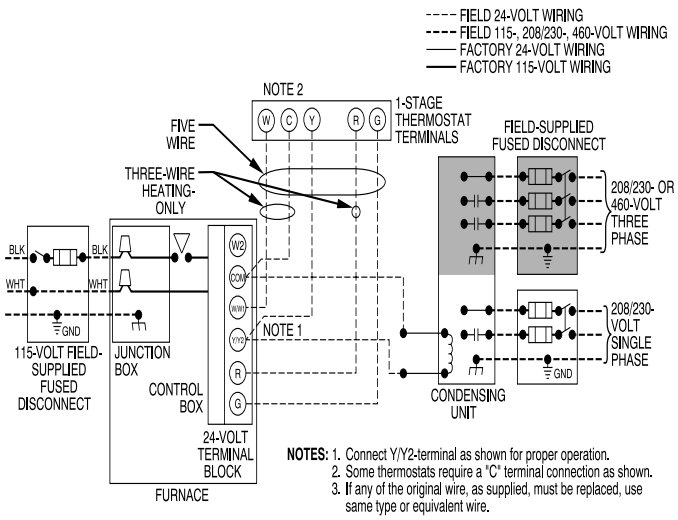
| 090C21--20 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Available Cooling Airflow Settings (CFM)** | 650 | 700 | 740 | 800 | 875 | 925 | 975 | 1000 | 1050 | 1138 | 1200 | 1225 | *1300 |
| | 1400 | 1480 | 1600 | 1625 | †1750 | 1850 | 1911 | 2000 | 2100 | 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 | | | |

| 110C21--20 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **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 | | 0.9 | | | | | | | | | | |
| | 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 | | | |

| 135C24--22 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **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 | | | |

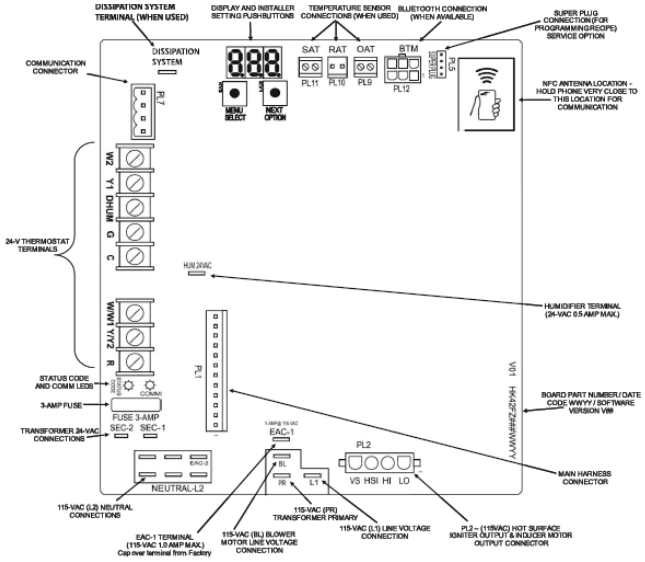
*. Low Cooling Default
†. High Cooling Default
‡. Constant Fan Default Not Recommended
**. Max Cooling values are test CFM all other airflows are standatd CFM

## TYPICAL WIRING SCHEMATIC



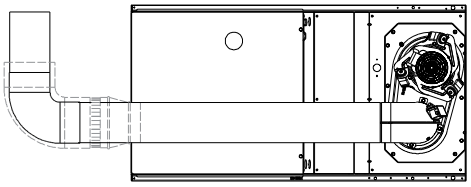

A95236

## FURNACE CONTROL BOARD




A230451

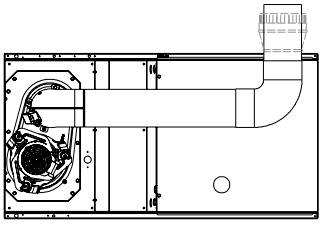
## VENTING CONFIGURATIONS



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

HORIZONTAL RIGHT

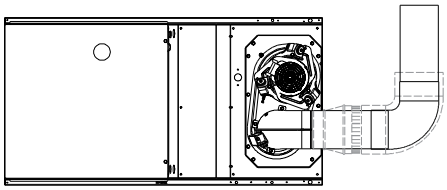
A02068



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

HORIZONTAL LEFT

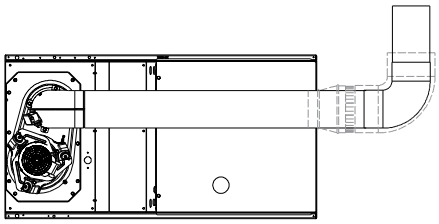
A02065



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

HORIZONTAL RIGHT

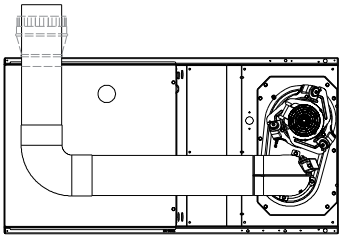
A02069



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

HORIZONTAL LEFT

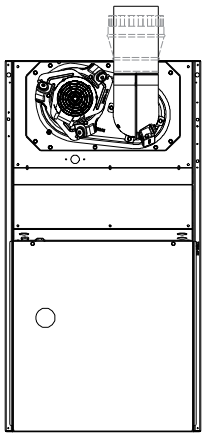
A02067



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

HORIZONTAL RIGHT

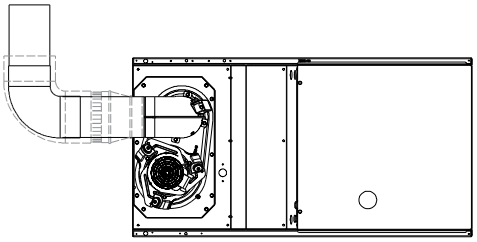
A02070



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

UPFLOW

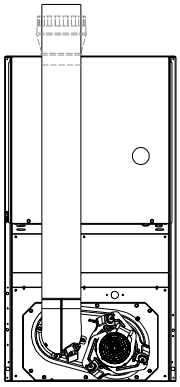
A02058



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

HORIZONTAL LEFT

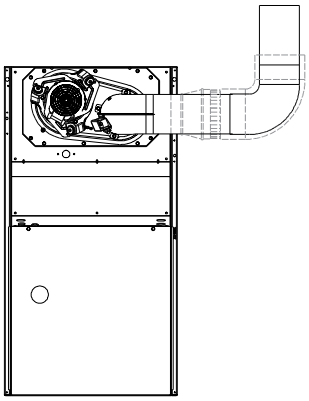
A02064



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

DOWNFLOW

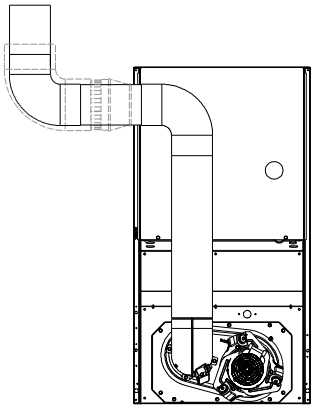
A02061



SEE NOTES: 1,2,3,4,7,8,9

UPFLOW

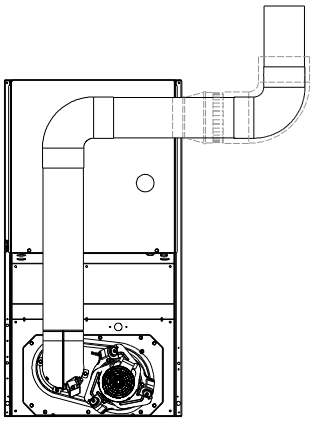
A02059



SEE NOTES:1,2,3,4,5,7,8,9

DOWNFLOW

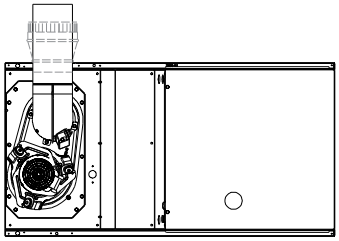
A02060



SEE NOTES: 1,2,3,4,7,8,9

DOWNFLOW

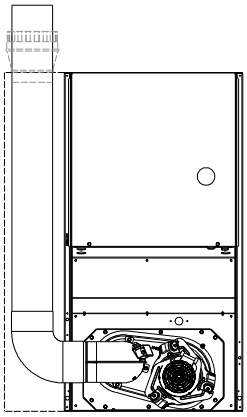
A02063



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

HORIZONTAL LEFT

A02066



SEE NOTES: 1,2,4,5,6,7,8,9

DOWNFLOW

A02062

## 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 | 045C17--12 | 070C14-12 | 070C17-16 | 070C21-20 |
|---|---|---|---|---|---|
| ACG1425NCB* | External Filter Rack, 14-1/2 x 25” | - | X | - | - |
| ACG1625NCF* | External Filter Rack, 16 x 25” | X | - | X | - |
| ACG2025NCJ* | External Filter Rack, 20 x 25”* | - | - | - | 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 |
| KGACA02014FC | Chimney Adapter Kit, up to or equal to 110K BTUh | X | X | X | X |
| KGAFE0112UPH | Flue Extension | X | X | X | X |
| KGAVE0101DNH | Vent Extension Kit | X | X | X | X |
| KGASB0201ALL | Combustible Floor Base (Not required when evaporator coil case is used for downflow) | X | X | X | X |
| KGBVG0101DFG | 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 |
| KGAHA5801PSW | High Altitude Pressure Switch Kit | X | X | X | X |
| SYSTXCC | Infinity®; Infinity® Zoning | X | X | X | X |

*. Purchased through Replacement Components
†. Factory-authorized and field installed. Fuel conversion kits are CSA (formerly AGA/CGA) recognized.
X = Accessory

| PART NUMBER | DESCRIPTION | 090C17-16 | 090C21-20 | 110C21-20 | 135C24-22 |
|---|---|---|---|---|---|
| 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 |
| KGACA02014FC | Chimney Adapter Kit, up to or equal to 110K BTUh | X | X | X | - |
| KGACA02015FC | Chimney Adapter Kit, greater than or equal to 135K BTUh | - | - | - | X |
| KGAFE0112UPH | Flue Extension | X | X | X | X |
| KGAVE0101DNH | Vent Extension Kit | X | X | X | X |
| KGASB0201ALL | Combustible Floor Base (Not required when evaporator coil case is used for downflow) | X | X | X | X |
| KGBVG0101DFG | 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 |
| KGAHA5801PSW | High Altitude Pressure Switch Kit | X | X | X | X |
| SYSTXCC | Infinity®; Infinity® Zoning | X | X | X | X |

*. Factory-authorized and field installed. Fuel conversion kits are CSA (formerly AGA/CGA) recognized.
X = Accessory

# ACCESSORIES (continued)

| ORIFICES | | |
|---|---|---|
| Gas Orifice Kit - #42 (Nat Gas) | LH32DB207 | See Installation Instructions for model, altitude, and heat value usages. |
| Gas Orifice Kit - #43 (Nat Gas) | LH32DB202 | |
| Gas Orifice Kit - #44 (Nat Gas) | LH32DB200 | |
| Gas Orifice Kit - #45 (Nat Gas) | LH32DB205 | |
| Gas Orifice Kit - #46 (Nat Gas) | LH32DB208 | |
| Gas Orifice Kit - #47 (Nat Gas) | LH32DB078 | |
| Gas Orifice Kit - #48 (Nat Gas) | LH32DB076 | |
| Gas Orifice Kit - #54 (LP) | LH32DB203 | |
| Gas Orifice Kit - #55 (LP) | LH32DB201 | |
| Gas Orifice Kit - #56 (LP) | LH32DB206 | |
| Gas Orifice Kit - 1.25mm (LP) | LH32DB209 | |
| Gas Orifice Kit - 1.30mm (LP) | LH32DB210 | |

| DESCRIPTION | ACCESSORY |
|---|---|
| HUMIDIFIER | Model HUM |
| HEAT RECOVERY VENTILATOR | Model HRV |
| ENERGY RECOVERY VENTILATOR | Model ERV |
| UV LIGHTS | Model UVL |

- Carrier has a wide variety of thermostats for your system, please visit www.Carrier.com to see all thermostat and IAQ products.

| DESCRIPTION | ACCESSORY | 14” | 17” | 21” | 24” |
|---|---|---|---|---|---|
| Carrier Carbon Monoxide Alarm (10 pack) | COALMCCNRB02-A10 | X | X | X | X |
| Carrier Infinity Air Purifier - 16x25 (407x635 mm) | DGAPAXX1625 | X | X | - | - |
| Carrier Infinity Air Purifier - 20x25 (508x635 mm) | DGAPAXX2025 | - | - | X | X |
| Carrier Infinity Air Purifier Repl. Filter- 16x25 (407x635 mm) | GAPCCCAR1625-A05 | X | X | - | - |
| Carrier Infinity Air Purifier Repl. Filter- 20x25 (508x635 mm) | GAPCCCAR2025-A05 | - | - | X | X |
| Cartridge Media Filter - 16” (407 mm) (MERV 11) | FILXXCAR0116 | X | X | - | - |
| Cartridge Media Filter - 16” (407 mm) (MERV 8) | FILXXCAR0016 | X | X | - | - |
| Cartridge Media Filter - 20” (508 mm) (MERV 8) | FILXXCAR0020 | - | - | X | - |
| Cartridge Media Filter - 20” (508 mm) (MERV11) | FILXXCAR0120 | - | - | X | - |
| Cartridge Media Filter - 24” (610 mm) (MERV 8) | FILXXCAR0024 | - | - | - | X |
| Cartridge Media Filter - 24” (610 mm) (MERV11) | FILXXCAR0124 | - | - | - | X |
| EZ Flex Cabinet Side or Bottom - 16” | EZXCABCR0016 | X | X | - | - |
| EZ Flex Cabinet Side or Bottom - 20” | EZXCABCR0020 | - | - | X | X |
| EZ Flex Replacement Filters 16” MERV 10 | EXPXXFIL0016 | X | X | - | - |
| EZ Flex Replacement Filters 16” MERV 13 | EXPXXFIL0316 | X | X | - | - |
| EZ Flex Replacement Filters 20” MERV 10 | EXPXXFIL0020 | - | - | X | - |
| EZ Flex Replacement Filters 20” MERV 13 | EXPXXFIL0320 | - | - | X | - |
| EZ Flex Replacement Filters 24” MERV 10 | EXPXXFIL0024 | - | - | - | X |
| EZ Flex Replacement Filters 24” MERV 13 | EXPXXFIL0324 | - | - | - | X |
| EZ-Flex Filter with End Caps - 16” (407 mm) (MERV 10) | EXPXXUNV0016 | X | X | - | - |
| EZ-Flex Filter with End Caps - 16” (407 mm) (MERV 13) | EXPXXUNV0316 | X | X | - | - |
| EZ-Flex Filter with End Caps - 20” (508 mm) (MERV 10) | EXPXXUNV0020 | - | - | X | - |
| EZ-Flex Filter with End Caps - 20” (508 mm) (MERV 13) | EXPXXUNV0320 | - | - | X | - |
| EZ-Flex Filter with End Caps - 24” (610 mm) (MERV 10) | EXPXXUNV0024 | - | - | - | X |
| EZ-Flex Filter with End Caps - 24” (610 mm) (MERV 13) | EXPXXUNV0324 | - | - | - | X |
| Media Filter Cabinet - 20” | FILCABXL0020 | - | - | X | - |
| Media Filter Cabinet - 24” | FILCABXL0024 | - | - | - | X |
| Media Filter Cabinet -16” | FILCABXL0016 | X | X | - | - |

Edition Date: 10/23
**Catalog No: 58TN0B-01PD**
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