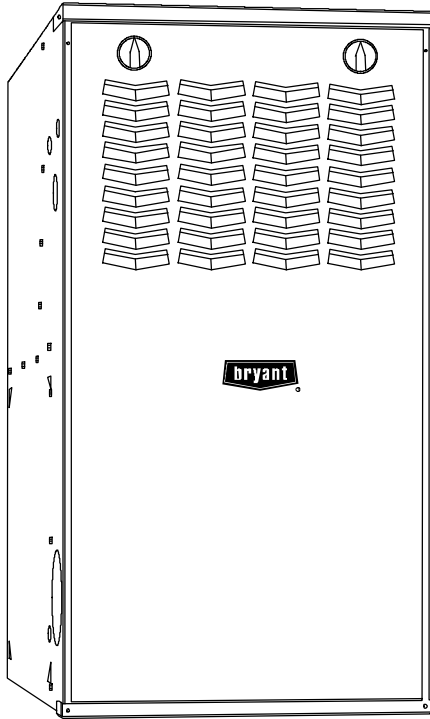




Product Data



A180220

THE TWO-STAGE GAS FURNACE

The Two-stage, Variable-speed, 4-way Multipoise Gas Furnace offers outstanding comfort in an 80% AFUE furnace.

You get the benefits of Perfect Heat™: reduced drafts, reduced sound levels, longer cycles, less temperature swings between cycles, less temperature differences between rooms, and improved indoor air quality. Plus, it features a dehumidify mode and the ability to change continuous fan speeds from the thermostat. The 820TA/821TA furnaces are approved for use with natural or propane gas. 821TA - Low NOx units are designed for California installations and can be installed in air quality management districts with a 40 ng/J NOx emissions limit.



ISO 9001
Quality



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

PERFORMANCE

- Perfect Heat® operation
Two-stage heating even with single-stage thermostat-patented Adaptive Control Technology
Reduced operating sound through low-stage operation and sound elimination combustion system
- Two-stage heating with single-stage thermostat with patented Adaptive Control Technology
- Microprocessor based "smart" control center
Fan on - Continuous Fan speed adjustable from thermostat
Adjustable heating air temperature rise
Adapts heating stages to meet demand
Dehumidify mode
Enhanced diagnostics with LED and reflective sight glass, non-volatile fault code memory, and self test feature
On-board fuse for transformer protection
- Perfect Light™ Igniter
- Patented blocked vent safeguard designed to ensure proper furnace venting
- Insulated blower compartment
- Inner door for tighter sealing
- Variable-speed, constant torque ECM blower motor
Increased SEER ratings for AC and HP systems as compared to the Air Conditioning Heating and Refrigeration Institute's standard coil-only rating when paired with selected Bryant evaporator coils.
- Noise reduction combustion system
- Noise elimination combustion system

INSTALLATION FLEXIBILITY

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

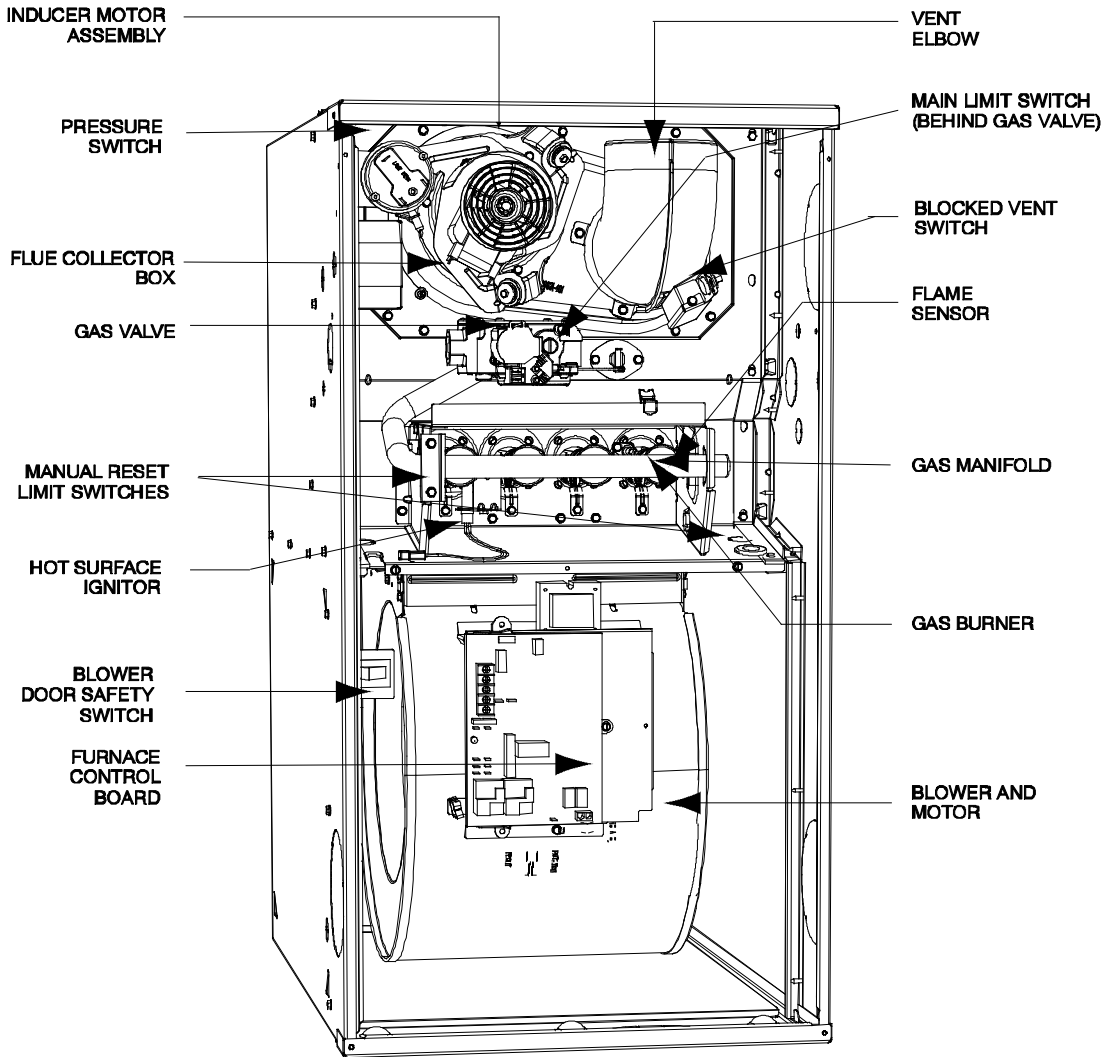
APPLICATIONS

- SmartEvap™ can lower the humidity level in the home by nearly 10 percent
- All models are Chimney friendly when used with accessory vent kit
- Twinning capable with accessory kit (sizes 48070, 48090, 60090, 66110, and 66135)
- HYBRID HEAT® Dual Fuel System compatible

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
- Residential installations eligible for consumer financing through the Retail Credit Program

FURNACE COMPONENTS



A190086

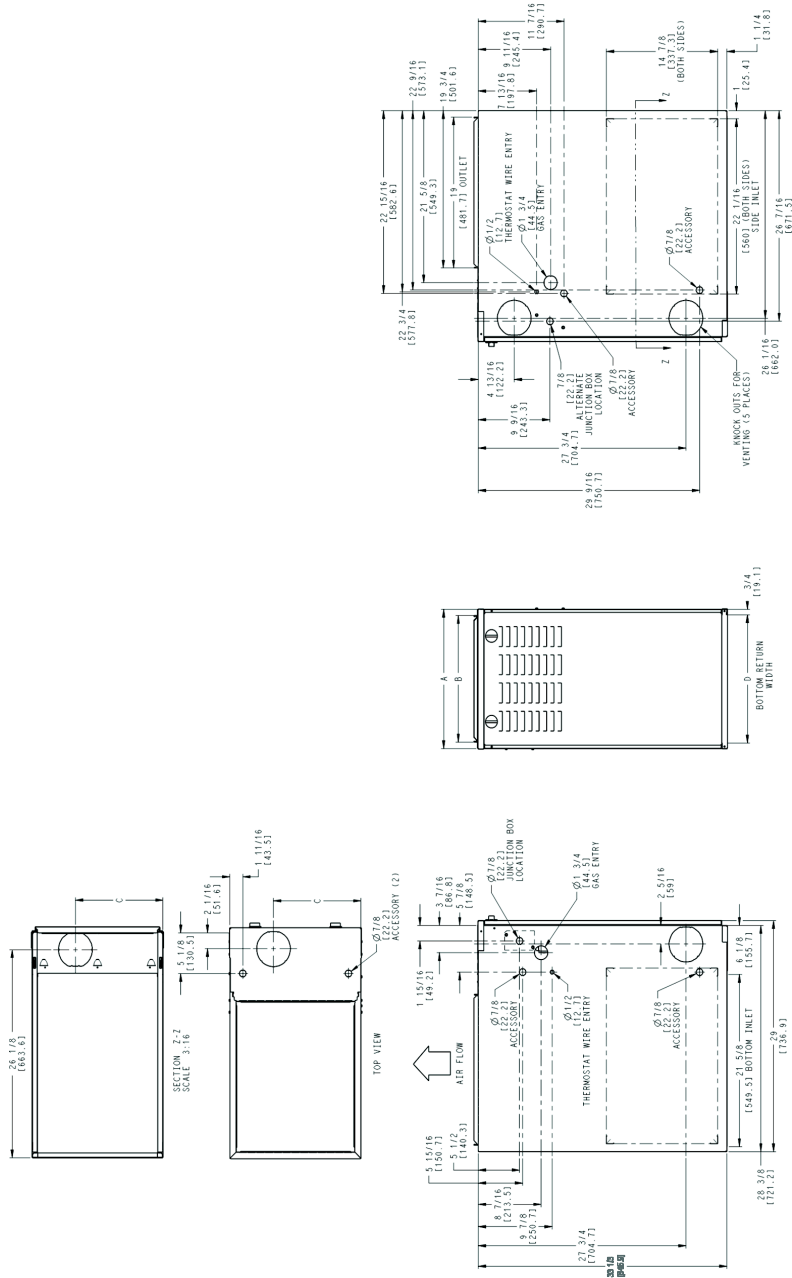
NOTE: The furnaces are factory shipped for use with natural gas. These furnaces can be field-converted for propane gas with a factory-authorized and listed accessory conversion kit.

EXAMPLE OF MODEL NUMBER NOMENCLATURE

| 1 | 2 | 3 | 4 | 5 | 6, 7 | 8-10 | 11 | 12-13 | 14 | 15 | 16 |
|----------------|--|---|---|-----------------------|--|---|--|--|--------------------------------|---------|------------------|
| Heat Exchanger | Tier/NOx | AFUE/NOx | Heating Stages | Major Series | Cooling Capacity (CFM) | Heat Input | Motor Type | Width | Voltage (1-phase) | Un-used | Minor Series |
| 8 | 1 | 0 | M | B | 42 | 060 | C | 17 | A | - | A |
| 9 = 90+% | 0 = Base 1 = Legacy Line 2 = Preferred 3 = Ultra Low Nox 8 = Evolution | 0 = 80% 1 = 80% Low NOx (Not Ultra Low NOx) 2 = 92% 5 = 95% 6 = 98% 7 = 97% 8 = 98% | C = Single Stage Communicating M = Modulating S = Single Stage T = Two-Stage | A B C D — | 24 = 800 CFM 30 = 1000 CFM 36 = 1200 CFM 42 = 1400 CFM 48 = 1600 CFM 60 = 2000 CFM 66 = 2200 CFM | 026 = 28,000 BTU/h 040 = 40,000 BTU/h 060 = 60,000 BTU/h — | C = Constant Airflow Variable-Speed (VCA) ECM E = Discrete Tapped (FCT) ECM V = Variable-Speed (VCT) PWM | 14 = 14.2" 17 = 17.5" 21 = 21.0" 24 = 24.5" | A = 110V/60Hz B = 230V/50Hz | - | A B C — |

A190378

DIMENSIONAL DRAWING



A190084

| FURNACE SIZE | A | B | C | D | VENT CONNECTION SIZE | SHIP WT. LB (KG) | ACCESSORY FILTER MEDIA CABINET SIZE |
|--------------|---------------|---------------|----------------------------|--------------------|----------------------|------------------|-------------------------------------|
| | CABINET WIDTH | OUTLET WIDTH | TOP AND BOTTOM FLUE COLLAR | BOTTOM INLET WIDTH | | | |
| 36045V14 | 14-3/16 (360) | 12-9/16 (319) | 9-5/16 (237) | 12-11/16 (322) | 4 (102) | 111 (50) | 16 (406) |
| 36070V14 | 14-3/16 (360) | 12-9/16 (319) | 9-5/16 (237) | 12-11/16 (322) | 4 (102) | 118 (54) | 16 (406) |
| 48070V17 | 17-1/2 (445) | 15-7/8 (403) | 11-9/16 (294) | 16 (406) | 4 (102) | 132 (60) | 16 (406) |
| 48090V17 | 17-1/2 (445) | 15-7/8 (403) | 11-9/16 (294) | 16 (406) | 4 (102) | 131 (59) | 16 (406) |
| 60090V21 | 21 (533) | 19-3/8 (492) | 13-5/16 (338) | 19-1/2 (495) | 4 (102) | 142 (64) | 20 (506) |
| 66110V21 | 21 (533) | 19-3/8 (492) | 13-5/16 (338) | 19-1/2 (495) | 4 (102) | 154 (70) | 20 (506) |
| 66135V24 | 24-1/2 (622) | 22-7/8 (581) | 15-1/16 (383) | 23 (584) | 4 (102)* | 168 (76) | 24 (610) |

*135 size furnaces 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.

SPECIFICATIONS

| UNIT SIZE | | | 36045V14 | 36070V14 | 48070V17 | 48090V17 | 60090V21 | 66110V21 | 66135V24 |
|--|--|--------------------|---------------------|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|
| RATINGS AND PERFORMANCE | | | | | | | | | |
| Input Btuh* Nonweatherized ICS | All Standard | High | 44,000 | 66,000 | 66,000 | 88,000 | 88,000 | 110,000 | 132,000 |
| | | All Low NOx Upflow | Low | 29,000 | 43,500 | 43,500 | 58,000 | 58,000 | 72,500 |
| | All 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) Nonweatherized ICS ^ | All Standard | High | 35,000 | 53,000 | 53,000 | 71,000 | 71,000 | 89,000 | 107,000 |
| | | All Low NOx Upflow | Low | 23,000 | 35,000 | 35,000 | 47,000 | 47,000 | 59,000 |
| | All 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 |
| AFUE | | | 80.00 | | | | | | |
| Certified Temperature Rise Range °F (°C) | | High | 30–60 (17–33) | 30–60 (17–33) | 25–55 (14–30) | 40–70 (22–39) | 25–55 (14–30) | 30–60 (17–33) | 40–70 (22–39) |
| | | Low | 20–50 (11–28) | 30–60 (17–33) | 15–45 (8–25) | 30–60 (17–33) | 15–45 (8–25) | 20–50 (11–28) | 25–55 (14–31) |
| Certified External Static Pressure | Heat/Cool | | 0.10/0.50 | 0.12/0.50 | 0.12/0.50 | 0.15/0.50 | 0.15/0.50 | 0.20/0.50 | 0.20/0.50 |
| Airflow CFM † | Heating High/Low | | 915/780 | 1180/715 | 1400/1225 | 1380/1005 | 1800/1570 | 2055/1685 | 2075/1795 |
| | Cooling | | 1175 | 1380 | 1740 | 1505 | 1915 | 2230 | 2160 |
| ELECTRICAL | | | | | | | | | |
| Unit Volts–Hertz–Phase | | | 115–60–1 | | | | | | |
| Operating Volt- age Range | Min/Max | | 104/127 | | | | | | |
| Maximum Unit Amps | | | 7.70 | 8.00 | 10.50 | 8.60 | 11.50 | 13.10 | 13.90 |
| Maximum Wire Length (Measure one way in Ft. (M)) | | | 35 (10.9) | 34 (10.4) | 26 (8.1) | 32 (10) | 24 (7.5) | 34 (10.4) | 32 (9.8) |
| Minimum Wire Size | | | 14 | 14 | 14 | 14 | 14 | 12 | 12 |
| Maximum Fuse or Ckt Bkr Size (Amps)** | | | 15 | 15 | 15 | 15 | 15 | 20 | 20 |
| Transformer (24v) | | | 40va | 40va | 40va | 40va | 40va | 40va | 40va |
| External Control | Heating | | 12va | 12va | 12va | 12va | 12va | 12va | 12va |
| Power Available | Cooling | | 35va | 35va | 35va | 35va | 35va | 35va | 35va |
| Air Conditioning Blower Relay | | | Standard | | | | | | |
| CONTROLS | | | | | | | | | |
| Burners (Monoport) | | | 2 | 3 | 3 | 4 | 4 | 5 | 6 |
| Gas Connection Size | | | 1/2in. NPT | | | | | | |
| GAS CONTROLS | | | | | | | | | |
| 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 | | | Hot Surface | | | | | | |
| Factory installed orifice | | | Size 43 | | | | | | |
| BLOWER DATA | | | | | | | | | |
| Variable– Speed Constant Torque (VCT) ECM | | | 1/2 | 1/2 | 3/4 | 1/2 | 3/4 | 1 | 1 |
| Motor Full Load Amps | | | 6.4 | 6.7 | 9.2 | 6.7 | 9.6 | 10.9 | 11.7 |
| RPM (Nominal) | | | 1200 | 1200 | 1200 | 1200 | 1200 | 1200 | 1200 |
| Blower Wheel Diameter x Width – In. (mm) | | | 10 x 6 (254x152) | 10 x 6 (254x152) | 11 x 8 (279x203) | 10 x 10 (254x254) | 11 x 11 (279x279) | 11 x 11 (279x279) | 11 x 11 (279x279) |

* Gas input ratings are certified for elevations to 2000 ft. (610 M). 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 Z223.1–2012 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 Max Cooling Airflow and heating airflows (efficiency setting) at certified external static pressure. 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.

** Time–delay type is recommended.

ICS Isolated Combustion System

ACCESSORIES

| DESCRIPTION | PART NO. | 36045V14 | 36070V14 | 48070V17 | 48090V17 | 60090V21 | 66110V21 | 66135V24 |
|--|---------------|----------|----------|----------|----------|----------|----------|----------|
| External Bottom Return Filter Rack | KGBFR0401B14 | X | X | | | | | |
| | KGBFR0501B17 | | | X | X | | | |
| | KGBFR0601B21 | | | | | X | X | |
| | KGBFR0701B24 | | | | | | | X |
| Unframed Filter 3/4-in. (19 mm) | KGAWF1306UFR | X | X | X | X | | | |
| | KGAWF1406UFR | | | | | X | X | |
| | KGAWF1506UFR | | | | | | | X |
| Flue Extension | KGAFE0112UPH | X | X | X | X | X | X | X |
| Combustible Floor Base | KGASB0201ALL | X | X | X | X | X | X | X |
| Downflow Vent Guard | KGBVG0101DFG | X | X | X | X | X | X | X |
| Vent Extension Kit | KGAVE0101DNH | X | X | X | X | X | X | X |
| Chimney Adapter Kit | KGACA02014FC | X | X | X | X | X | X | X |
| | KGACA02015FC | | | | | | X | X |
| Natural-to-Propane Conversion Kit* | AGAGC8NPS01A | X | X | X | X | X | X | X |
| Propane-to-Natural Conversion Kit | AGAGC8PNS01A | X | X | X | X | X | X | X |
| Twinning Kit VCT – ECM Motor | AGATWNPME01A | | | X | X | X | X | X |
| High Altitude Pressure Switch Kit | KGAAHA5801PSW | X | X | X | X | X | X | X |
| * Factory-authorized and field installed. Fuel conversion kits are CSA (formerly AGA/CGA) recognized. X = Accessory | | | | | | | | |

| ORIFICES | | |
|-------------|-----------|---|
| Gas Orifice | LH32DB207 | See Installation Instructions for model, altitude, and heat value usages. |
| | LH32DB202 | |
| | LH32DB200 | |
| | LH32DB205 | |
| | LH32DB208 | |
| | LH32DB078 | |
| | LH32DB076 | |
| | LH32DB203 | |
| | LH32DB201 | |
| | LH32DB206 | |
| | LH32DB209 | |
| | LH32DB210 | |

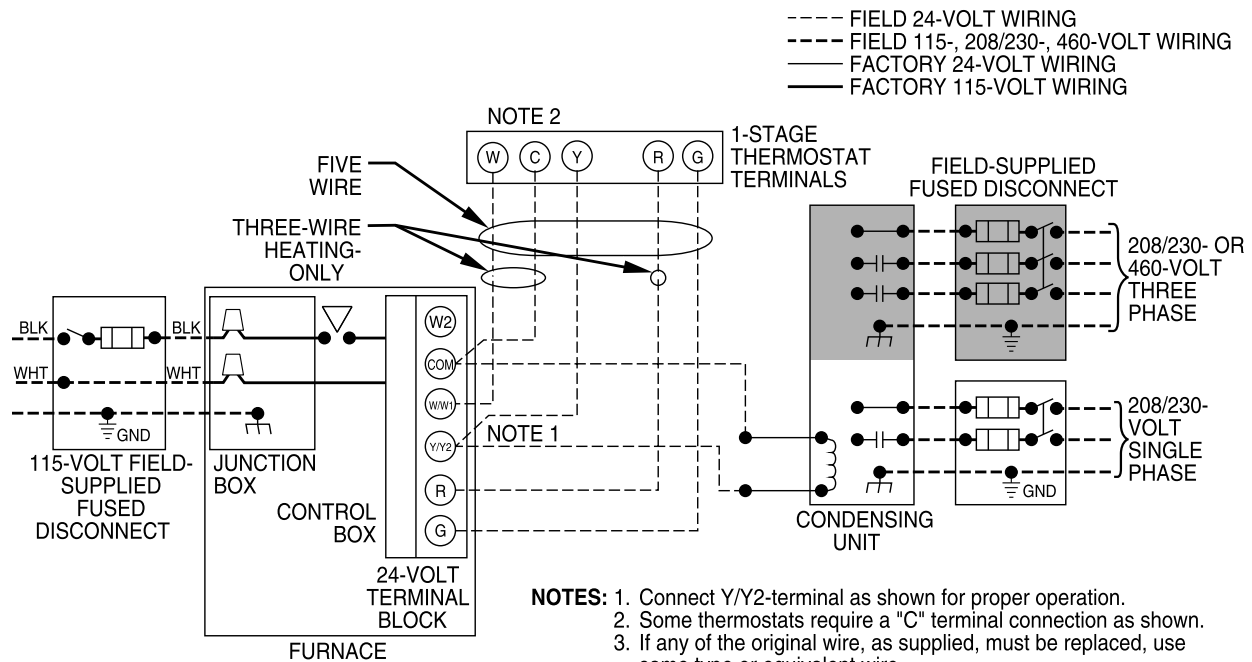
ACCESSORIES (continued)

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

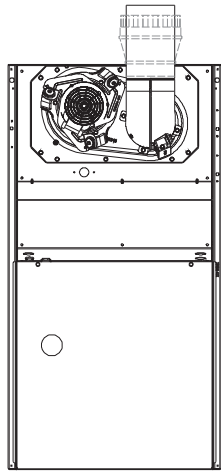
Bryant has a wide variety of thermostats for your system, please visit www.Bryant.com to see all thermostat and IAQ products.

| DESCRIPTION | ACCESSORY | 14" | 17" | 21" | 24" |
|--|------------------|-----|-----|-----|-----|
| Bryant Carbon Monoxide Alarm (10 pack) | COALMBBNRB02-A10 | X | X | X | X |
| Bryant Evolution Air Purifier - 16x25 (407x635 mm) | DGAPAXX1625 | X | X | | |
| Bryant Evolution Air Purifier - 20x25 (508x635 mm) | DGAPAXX2025 | | | X | X |
| Bryant Evolution Air Purifier Repl. Filter- 16x25 (407x635 mm) | GAPBBCAR1625-A05 | X | X | | |
| Bryant Evolution Air Purifier Repl. Filter- 20x25 (508x635 mm) | GAPBBCAR2025-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 | | |

TYPICAL WIRING SCHEMATIC

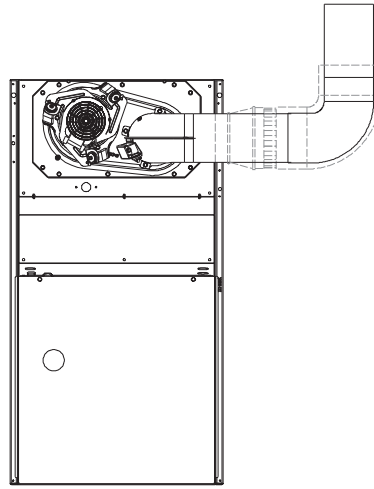


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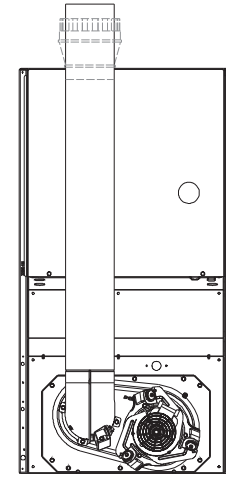
SEE NOTES: 1,2,4,7,8,9
UPFLOW

A02058



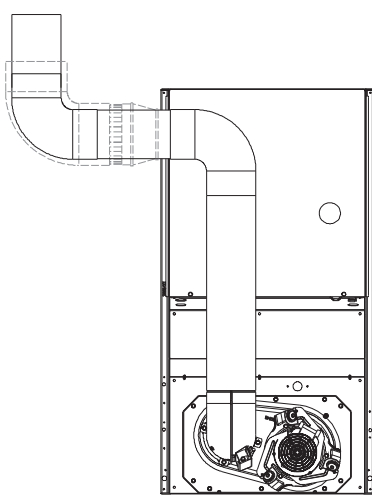
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UPFLOW

A02059



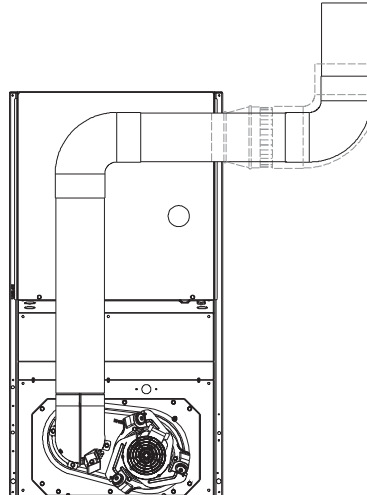
SEE NOTES: 1,2,4,5,7,8,9
DOWNFLOW

A02061



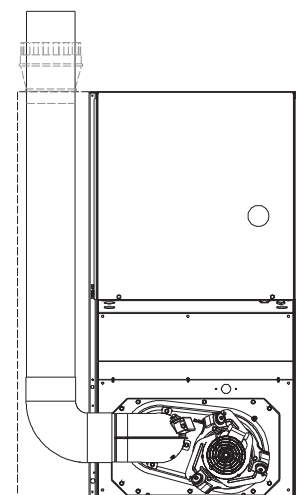
SEE NOTES: 1,2,3,4,5,7,8,9
DOWNFLOW

A02060



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

A02063

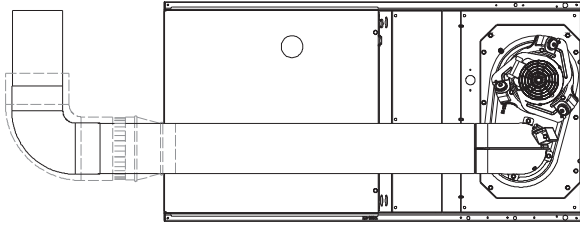


SEE NOTES: 1,2,4,5,6,7,8,9
DOWNFLOW

A02062

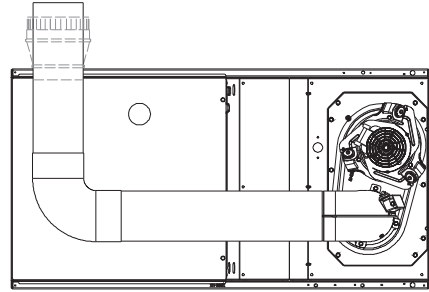
Venting Notes

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.



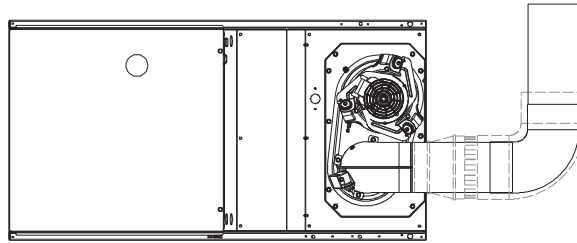
SEE NOTES: 1,2,4,5,7,8,9
HORIZONTAL RIGHT

A02068



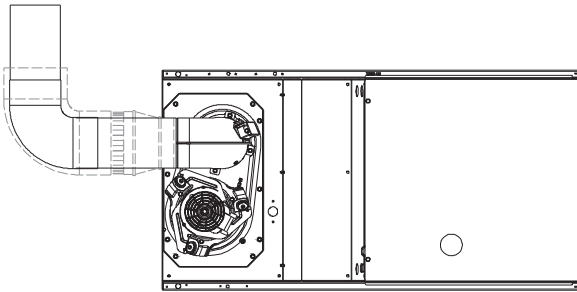
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HORIZONTAL RIGHT

A02070



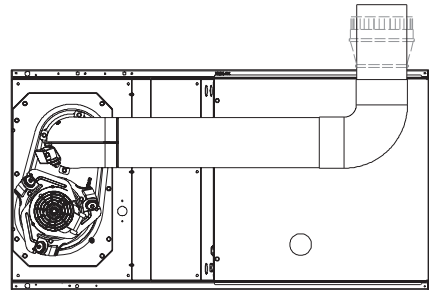
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HORIZONTAL RIGHT

A02069



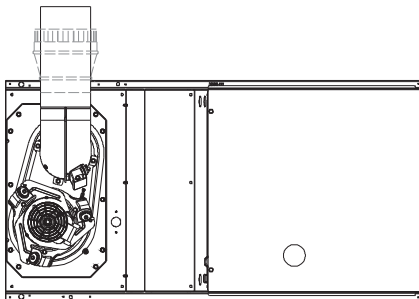
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HORIZONTAL LEFT

A02064



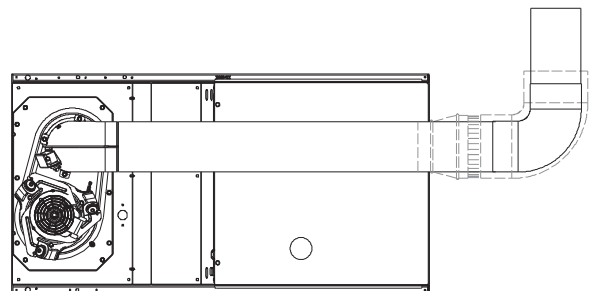
SEE NOTES: 1,2,4,5,7,8,9
HORIZONTAL LEFT

A02065



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

A02066



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

A02067

AIR DELIVERY—CFM (With Filter)*

| COOLING⁴ AND HEATING AIR DELIVERY - CFM (Bottom Return⁵ With Filter) | | | | | | | | | | | | | | |
|---|----------------------------------|--------------------------------|--------------|---------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----|
| (SW1-5 and SW2-2 set to OFF, except as indicated. See notes 1 and 2.) | | | | | | | | | | | | | | |
| Unit Size: 36045V14 | Clg/CF Switch settings | | | External Static Pressure (ESP) | | | | | | | | | | |
| Clg Switches: | SW2-8 | SW2-7 | SW2-6 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 | |
| Clg Default: | OFF | OFF | OFF | 1190 | 1140 | 1100 | 1065 | 1020 | 985 | 905 | 800 | 665 | 525 | |
| Cooling (SW2-8,7,6) | OFF | OFF | ON | 620 | 560 | 520 | 455 | 410 | 355 | 305 | 255 | See note 4 | | |
| | OFF | ON | OFF | 795 | 755 | 705 | 670 | 615 | 585 | 530 | 490 | 440 | 405 | |
| | OFF | ON | ON | 1020 | 955 | 930 | 890 | 840 | 805 | 755 | 715 | 645 | 490 | |
| | ON | OFF | OFF | 1190 | 1140 | 1100 | 1065 | 1020 | 985 | 905 | 800 | 665 | 525 | |
| | ON | OFF | ON | 1455 | 1390 | 1325 | 1255 | 1175 | 1085 | 1000 | 880 | 755 | 575 | |
| | ON | ON | OFF | 1455 | 1390 | 1325 | 1255 | 1175 | 1085 | 1000 | 880 | 755 | 575 | |
| | ON | ON | ON | 1455 | 1390 | 1325 | 1255 | 1175 | 1085 | 1000 | 880 | 755 | 575 | |
| | Maximum Clg Airflow ² | | | 1455 | 1390 | 1325 | 1255 | 1175 | 1085 | 1000 | 880 | 755 | 575 | |
| CF Switches | SW2-5 | SW2-4 | SW2-3 | | | | | | | | | | | |
| Low-Clg Default: | OFF | OFF | OFF | 620 | 560 | 520 | 455 | 410 | 355 | 305 | 255 | See note 4 | | |
| Low-Cooling (SW2-5,4,3) | OFF | OFF | ON | 620 | 560 | 520 | 455 | 410 | 355 | 305 | 255 | See note 4 | | |
| | OFF | ON | OFF | 795 | 755 | 705 | 670 | 615 | 585 | 530 | 490 | 440 | 405 | |
| | OFF | ON | ON | 1020 | 955 | 930 | 890 | 840 | 805 | 755 | 715 | 645 | 490 | |
| | ON | OFF | OFF | 1190 | 1140 | 1100 | 1065 | 1020 | 985 | 905 | 800 | 665 | 525 | |
| | ON | OFF | ON | 1455 | 1390 | 1325 | 1255 | 1175 | 1085 | 1000 | 880 | 755 | 575 | |
| | ON | ON | OFF | 1455 | 1390 | 1325 | 1255 | 1175 | 1085 | 1000 | 880 | 755 | 575 | |
| | ON | ON | ON | 1455 | 1390 | 1325 | 1255 | 1175 | 1085 | 1000 | 880 | 755 | 575 | |
| | Cont. Fan Default: | | | OFF | OFF | OFF | 620 | 560 | 520 | 455 | 410 | 355 | 305 | 255 |
| Continuous Fan (SW2-5,4,3) | OFF | OFF | ON | 620 | 560 | 520 | 455 | 410 | 355 | 305 | 255 | See note 4 | | |
| | OFF | ON | OFF | 795 | 755 | 705 | 670 | 615 | 585 | 530 | 490 | 440 | 405 | |
| | OFF | ON | ON | 1020 | 955 | 930 | 890 | 840 | 805 | 755 | 715 | 645 | 490 | |
| | ON | OFF | OFF | 1020 | 955 | 930 | 890 | 840 | 805 | 755 | 715 | 645 | 490 | |
| | ON | OFF | ON | 1020 | 955 | 930 | 890 | 840 | 805 | 755 | 715 | 645 | 490 | |
| | ON | ON | OFF | 1020 | 955 | 930 | 890 | 840 | 805 | 755 | 715 | 645 | 490 | |
| | ON | ON | ON | 1020 | 955 | 930 | 890 | 840 | 805 | 755 | 715 | 645 | 490 | |
| | Heating (SW1) | High Heat Airflow ³ | | | 915 | 860 | 825 | 790 | 735 | 700 | 650 | 610 | 550 | 450 |
| Low Heat Airflow ³ | | | 780 | 730 | 685 | 635 | 585 | 545 | 495 | 450 | 400 | 370 | | |

| Unit Size: 36070V14 | Clg/CF Switch settings | | | External Static Pressure (ESP) | | | | | | | | | |
|-------------------------------|----------------------------------|--------------------------------|--------------|---------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Clg Switches: | SW2-8 | SW2-7 | SW2-6 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 |
| Clg Default: | OFF | OFF | OFF | 1155 | 1125 | 1095 | 1065 | 1035 | 1005 | 975 | 950 | 915 | 875 |
| Cooling (SW2-8,7,6) | OFF | OFF | ON | 605 | 555 | 500 | 440 | 375 | 320 | 265 | See note 4 | | |
| | OFF | ON | OFF | 775 | 735 | 690 | 650 | 600 | 550 | 500 | 450 | 405 | 365 |
| | OFF | ON | ON | 980 | 950 | 915 | 880 | 845 | 810 | 775 | 735 | 695 | 655 |
| | ON | OFF | OFF | 1155 | 1125 | 1095 | 1065 | 1035 | 1005 | 975 | 950 | 915 | 875 |
| | ON | OFF | ON | 1370 | 1340 | 1310 | 1285 | 1260 | 1235 | 1210 | 1140 | 1025 | 880 |
| | ON | ON | OFF | 1505 | 1480 | 1455 | 1420 | 1380 | 1335 | 1250 | 1155 | 1045 | 900 |
| | ON | ON | ON | 1505 | 1480 | 1455 | 1420 | 1380 | 1335 | 1250 | 1155 | 1045 | 900 |
| | Maximum Clg Airflow ² | | | 1505 | 1480 | 1455 | 1420 | 1380 | 1335 | 1250 | 1155 | 1045 | 900 |
| CF Switches | SW2-5 | SW2-4 | SW2-3 | | | | | | | | | | |
| Low-Clg Default: | OFF | OFF | OFF | 605 | 555 | 500 | 440 | 375 | 320 | 265 | See note 4 | | |
| Low-Cooling (SW2-5,4,3) | OFF | OFF | ON | 605 | 555 | 500 | 440 | 375 | 320 | 265 | See note 4 | | |
| | OFF | ON | OFF | 775 | 735 | 690 | 650 | 600 | 550 | 500 | 450 | 405 | 365 |
| | OFF | ON | ON | 980 | 950 | 915 | 880 | 845 | 810 | 775 | 735 | 695 | 655 |
| | ON | OFF | OFF | 1155 | 1125 | 1095 | 1065 | 1035 | 1005 | 975 | 950 | 915 | 875 |
| | ON | OFF | ON | 1370 | 1340 | 1310 | 1285 | 1260 | 1235 | 1210 | 1140 | 1025 | 880 |
| | ON | ON | OFF | 1505 | 1480 | 1455 | 1420 | 1380 | 1335 | 1250 | 1155 | 1045 | 900 |
| | ON | ON | ON | 1505 | 1480 | 1455 | 1420 | 1380 | 1335 | 1250 | 1155 | 1045 | 900 |
| | Cont. Fan Default: | | | OFF | OFF | OFF | 605 | 555 | 500 | 440 | 375 | 320 | 265 |
| Continuous Fan (SW2-5,4,3) | OFF | OFF | ON | 605 | 555 | 500 | 440 | 375 | 320 | 265 | See note 4 | | |
| | OFF | ON | OFF | 775 | 735 | 690 | 650 | 600 | 550 | 500 | 450 | 405 | 365 |
| | OFF | ON | ON | 980 | 950 | 915 | 880 | 845 | 810 | 775 | 735 | 695 | 655 |
| | ON | OFF | OFF | 1155 | 1125 | 1095 | 1065 | 1035 | 1005 | 975 | 950 | 915 | 875 |
| | ON | OFF | ON | 1370 | 1340 | 1310 | 1285 | 1260 | 1235 | 1210 | 1140 | 1025 | 880 |
| | ON | ON | OFF | 1370 | 1340 | 1310 | 1285 | 1260 | 1235 | 1210 | 1140 | 1025 | 880 |
| | ON | ON | ON | 1370 | 1340 | 1310 | 1285 | 1260 | 1235 | 1210 | 1140 | 1025 | 880 |
| | Heating (SW1) | High Heat Airflow ³ | | | 1190 | 1160 | 1130 | 1100 | 1070 | 1045 | 1015 | 985 | 955 |
| Low Heat Airflow ³ | | | 725 | 680 | 635 | 585 | 530 | 475 | 425 | 375 | 330 | 285 | |

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

| COOLING ⁴ AND HEATING AIR DELIVERY - CFM (Bottom Return ⁵ With Filter) (SW1-5 and SW2-2 set to OFF, except as indicated. See notes 1 and 2.) | | | | | | | | | | | | | |
|---|----------------------------------|--------------------------------|-------|--------------------------------|------|------|------|------|------|------------|------|------------|------|
| Unit Size: 48070V17 | Clg/CF Switch settings | | | External Static Pressure (ESP) | | | | | | | | | |
| Clg Switches: | SW2-8 | SW2-7 | SW2-6 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 |
| Clg Default: | OFF | OFF | OFF | 1600 | 1570 | 1535 | 1500 | 1465 | 1430 | 1400 | 1365 | 1335 | 1300 |
| Cooling (SW2-8,7,6) | OFF | OFF | ON | 590 | 520 | 440 | 365 | 300 | 235 | See note 4 | | | |
| | OFF | ON | OFF | 790 | 730 | 670 | 610 | 550 | 485 | 430 | 380 | 330 | 275 |
| | OFF | ON | ON | 1025 | 980 | 930 | 880 | 835 | 785 | 735 | 690 | 635 | 590 |
| | ON | OFF | OFF | 1230 | 1190 | 1150 | 1105 | 1065 | 1025 | 980 | 940 | 900 | 860 |
| | ON | OFF | ON | 1390 | 1355 | 1315 | 1280 | 1240 | 1200 | 1165 | 1125 | 1090 | 1055 |
| | ON | ON | OFF | 1600 | 1570 | 1535 | 1500 | 1465 | 1430 | 1400 | 1365 | 1335 | 1300 |
| | ON | ON | ON | 1855 | 1830 | 1800 | 1770 | 1740 | 1695 | 1645 | 1600 | 1520 | 1415 |
| | Maximum Clg Airflow ² | | | 1855 | 1830 | 1800 | 1770 | 1740 | 1695 | 1645 | 1600 | 1520 | 1415 |
| CF Switches | SW2-5 | SW2-4 | SW2-3 | | | | | | | | | | |
| Low-Clg Default: | OFF | OFF | OFF | 590 | 520 | 440 | 365 | 300 | 235 | See note 4 | | | |
| Low-Cooling (SW2-5,4,3) | OFF | OFF | ON | 590 | 520 | 440 | 365 | 300 | 235 | See note 4 | | | |
| | OFF | ON | OFF | 790 | 730 | 670 | 610 | 550 | 485 | 430 | 380 | 330 | 275 |
| | OFF | ON | ON | 1025 | 980 | 930 | 880 | 835 | 785 | 735 | 690 | 635 | 590 |
| | ON | OFF | OFF | 1230 | 1190 | 1150 | 1105 | 1065 | 1025 | 980 | 940 | 900 | 860 |
| | ON | OFF | ON | 1390 | 1355 | 1315 | 1280 | 1240 | 1200 | 1165 | 1125 | 1090 | 1055 |
| | ON | ON | OFF | 1600 | 1570 | 1535 | 1500 | 1465 | 1430 | 1400 | 1365 | 1335 | 1300 |
| | ON | ON | ON | 1855 | 1830 | 1800 | 1770 | 1740 | 1695 | 1645 | 1600 | 1520 | 1415 |
| | Cont. Fan Default: | | | 590 | 520 | 440 | 365 | 300 | 235 | See note 4 | | | |
| Continuous Fan (SW2-5,4,3) | OFF | OFF | ON | 590 | 520 | 440 | 365 | 300 | 235 | See note 4 | | | |
| | OFF | ON | OFF | 685 | 625 | 565 | 505 | 445 | 385 | 325 | 265 | See note 4 | |
| | OFF | ON | ON | 790 | 730 | 670 | 610 | 550 | 485 | 430 | 380 | 330 | 275 |
| | ON | OFF | OFF | 790 | 730 | 670 | 610 | 550 | 485 | 430 | 380 | 330 | 275 |
| | ON | OFF | ON | 790 | 730 | 670 | 610 | 550 | 485 | 430 | 380 | 330 | 275 |
| | ON | ON | OFF | 790 | 730 | 670 | 610 | 550 | 485 | 430 | 380 | 330 | 275 |
| | ON | ON | ON | 790 | 730 | 670 | 610 | 550 | 485 | 430 | 380 | 330 | 275 |
| | Heating (SW1) | High Heat Airflow ³ | | | 1410 | 1375 | 1340 | 1300 | 1260 | 1225 | 1190 | 1155 | 1120 |
| Low Heat Airflow ³ | | | 1235 | 1195 | 1155 | 1110 | 1070 | 1025 | 985 | 945 | 905 | 865 | |
| Unit Size: 48090V17 | Clg/CF Switch settings | | | External Static Pressure (ESP) | | | | | | | | | |
| Clg Switches: | SW2-8 | SW2-7 | SW2-6 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 |
| Clg Default: | OFF | OFF | OFF | 1560 | 1520 | 1485 | 1450 | 1415 | 1380 | 1340 | 1300 | 1260 | 1115 |
| Cooling (SW2-8,7,6) | OFF | OFF | ON | 680 | 605 | 495 | 415 | 345 | 275 | See note 4 | | | |
| | OFF | ON | OFF | 835 | 770 | 700 | 600 | 535 | 465 | 410 | 350 | 285 | 240 |
| | OFF | ON | ON | 1035 | 980 | 930 | 870 | 795 | 720 | 665 | 605 | 555 | 505 |
| | ON | OFF | OFF | 1210 | 1165 | 1125 | 1080 | 1030 | 975 | 905 | 845 | 790 | 740 |
| | ON | OFF | ON | 1375 | 1335 | 1300 | 1260 | 1220 | 1175 | 1125 | 1075 | 1010 | 955 |
| | ON | ON | OFF | 1560 | 1520 | 1485 | 1450 | 1415 | 1380 | 1340 | 1300 | 1260 | 1115 |
| | ON | ON | ON | 1640 | 1605 | 1570 | 1540 | 1505 | 1470 | 1435 | 1390 | 1325 | 1110 |
| | Maximum Clg Airflow ² | | | 1640 | 1605 | 1570 | 1540 | 1505 | 1470 | 1435 | 1390 | 1325 | 1110 |
| CF Switches | SW2-5 | SW2-4 | SW2-3 | | | | | | | | | | |
| Low-Clg Default: | OFF | OFF | OFF | 680 | 605 | 495 | 415 | 345 | 275 | See note 4 | | | |
| Low-Cooling (SW2-5,4,3) | OFF | OFF | ON | 680 | 605 | 495 | 415 | 345 | 275 | See note 4 | | | |
| | OFF | ON | OFF | 835 | 770 | 700 | 600 | 535 | 465 | 410 | 350 | 285 | 240 |
| | OFF | ON | ON | 1035 | 980 | 930 | 870 | 795 | 720 | 665 | 605 | 555 | 505 |
| | ON | OFF | OFF | 1210 | 1165 | 1125 | 1080 | 1030 | 975 | 905 | 845 | 790 | 740 |
| | ON | OFF | ON | 1375 | 1335 | 1300 | 1260 | 1220 | 1175 | 1125 | 1075 | 1010 | 955 |
| | ON | ON | OFF | 1560 | 1520 | 1485 | 1450 | 1415 | 1380 | 1340 | 1300 | 1260 | 1115 |
| | ON | ON | ON | 1640 | 1605 | 1570 | 1540 | 1505 | 1470 | 1435 | 1390 | 1325 | 1110 |
| | Cont. Fan Default: | | | 680 | 605 | 495 | 415 | 345 | 275 | See note 4 | | | |
| Continuous Fan (SW2-5,4,3) | OFF | OFF | ON | 680 | 605 | 495 | 415 | 345 | 275 | See note 4 | | | |
| | OFF | ON | OFF | 835 | 770 | 700 | 600 | 535 | 465 | 410 | 350 | 285 | 240 |
| | OFF | ON | ON | 1035 | 980 | 930 | 870 | 795 | 720 | 665 | 605 | 555 | 505 |
| | ON | OFF | OFF | 1210 | 1165 | 1125 | 1080 | 1030 | 975 | 905 | 845 | 790 | 740 |
| | ON | OFF | ON | 1375 | 1335 | 1300 | 1260 | 1220 | 1175 | 1125 | 1075 | 1010 | 955 |
| | ON | ON | OFF | 1560 | 1520 | 1485 | 1450 | 1415 | 1380 | 1340 | 1300 | 1260 | 1115 |
| | ON | ON | ON | 1560 | 1520 | 1485 | 1450 | 1415 | 1380 | 1340 | 1300 | 1260 | 1115 |
| | Heating (SW1) | High Heat Airflow ³ | | | 1400 | 1360 | 1325 | 1285 | 1245 | 1200 | 1155 | 1110 | 1045 |
| Low Heat Airflow ³ | | | 1035 | 980 | 930 | 870 | 795 | 720 | 665 | 605 | 555 | 505 | |

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

| COOLING ⁴ AND HEATING AIR DELIVERY - CFM (Bottom Return ⁵ With Filter) (SW1-5 and SW2-2 set to OFF, except as indicated. See notes 1 and 2.) | | | | | | | | | | | | | |
|---|----------------------------------|-------|-------|--------------------------------|------|------------|------|------|------------|------|------------|------------|------|
| Unit Size: 60090V21 | Clg/CF Switch settings | | | External Static Pressure (ESP) | | | | | | | | | |
| Clg Switches: | SW2-8 | SW2-7 | SW2-6 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 |
| Clg Default: | OFF | OFF | OFF | 1985 | 1935 | 1885 | 1835 | 1785 | 1735 | 1685 | 1630 | 1583 | 1532 |
| Cooling (SW2-8,7,6) | OFF | OFF | ON | 860 | 755 | 650 | 545 | 445 | 350 | 235 | See note 4 | | |
| | OFF | ON | OFF | 1085 | 1000 | 910 | 830 | 735 | 655 | 565 | 485 | 405 | 310 |
| | OFF | ON | ON | 1255 | 1180 | 1105 | 1025 | 950 | 870 | 790 | 715 | 640 | 570 |
| | ON | OFF | OFF | 1425 | 1355 | 1290 | 1220 | 1150 | 1085 | 1015 | 940 | 870 | 800 |
| | ON | OFF | ON | 1630 | 1575 | 1515 | 1455 | 1395 | 1330 | 1270 | 1210 | 1155 | 1090 |
| | ON | ON | OFF | 1985 | 1935 | 1885 | 1835 | 1785 | 1735 | 1685 | 1630 | 1583 | 1532 |
| | ON | ON | ON | 2100 | 2055 | 2010 | 1960 | 1915 | 1870 | 1820 | 1775 | 1715 | 1640 |
| | Maximum Clg Airflow ² | | | 2100 | 2055 | 2010 | 1960 | 1915 | 1870 | 1820 | 1775 | 1715 | 1640 |
| CF Switches | SW2-5 | SW2-4 | SW2-3 | | | | | | | | | | |
| Low-Clg Default: | OFF | OFF | OFF | 860 | 755 | 650 | 545 | 445 | 350 | 235 | See note 4 | | |
| Low-Cooling (SW2-5,4,3) | OFF | OFF | ON | 700 | 575 | 455 | 345 | 225 | See note 4 | | | | |
| | OFF | ON | OFF | 860 | 755 | 650 | 545 | 445 | 350 | 235 | See note 4 | | |
| | OFF | ON | ON | 1085 | 1000 | 910 | 830 | 735 | 655 | 565 | 485 | 405 | 310 |
| | ON | OFF | OFF | 1255 | 1180 | 1105 | 1025 | 950 | 870 | 790 | 715 | 640 | 570 |
| | ON | OFF | ON | 1425 | 1355 | 1290 | 1220 | 1150 | 1085 | 1015 | 940 | 870 | 800 |
| | ON | ON | OFF | 1630 | 1575 | 1515 | 1455 | 1395 | 1330 | 1270 | 1210 | 1155 | 1090 |
| | ON | ON | ON | 1985 | 1935 | 1885 | 1835 | 1785 | 1735 | 1685 | 1630 | 1583 | 1532 |
| | Maximum Clg Airflow ² | | | 2100 | 2055 | 2010 | 1960 | 1915 | 1870 | 1820 | 1775 | 1715 | 1640 |
| Cont. Fan Default: | OFF | OFF | OFF | 860 | 755 | 650 | 545 | 445 | 350 | 235 | See note 4 | | |
| Continuous Fan (SW2-5,4,3) | OFF | OFF | ON | 700 | 575 | 455 | 345 | 225 | See note 4 | | | | |
| | OFF | ON | OFF | 860 | 755 | 650 | 545 | 445 | 350 | 235 | See note 4 | | |
| | OFF | ON | ON | 1085 | 1000 | 910 | 830 | 735 | 655 | 565 | 485 | 405 | 310 |
| | ON | OFF | OFF | 1255 | 1180 | 1105 | 1025 | 950 | 870 | 790 | 715 | 640 | 570 |
| | ON | OFF | ON | 1255 | 1180 | 1105 | 1025 | 950 | 870 | 790 | 715 | 640 | 570 |
| | ON | ON | OFF | 1255 | 1180 | 1105 | 1025 | 950 | 870 | 790 | 715 | 640 | 570 |
| | ON | ON | ON | 1255 | 1180 | 1105 | 1025 | 950 | 870 | 790 | 715 | 640 | 570 |
| | Maximum Clg Airflow ² | | | 2100 | 2055 | 2010 | 1960 | 1915 | 1870 | 1820 | 1775 | 1715 | 1640 |
| Heating (SW1) | High Heat Airflow ³ | | | 1830 | 1775 | 1725 | 1675 | 1625 | 1570 | 1520 | 1465 | 1410 | 1360 |
| | Low Heat Airflow ³ | | | 1600 | 1540 | 1485 | 1430 | 1370 | 1315 | 1255 | 1195 | 1140 | 1070 |
| | | | | | | | | | | | | | |
| Unit Size: 66110V21 | Clg/CF Switch settings | | | External Static Pressure (ESP) | | | | | | | | | |
| Clg Switches: | SW2-8 | SW2-7 | SW2-6 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 |
| Clg Default: | OFF | OFF | OFF | 2055 | 2000 | 1950 | 1900 | 1840 | 1790 | 1740 | 1675 | 1625 | 1565 |
| Cooling (SW2-8,7,6) | OFF | OFF | ON | 855 | 755 | See note 4 | | | | | | | |
| | OFF | ON | OFF | 1060 | 985 | 875 | 800 | 700 | See note 4 | | | | |
| | OFF | ON | ON | 1250 | 1180 | 1095 | 1025 | 925 | 860 | 775 | 715 | See note 4 | |
| | ON | OFF | OFF | 1445 | 1380 | 1320 | 1235 | 1175 | 1100 | 1035 | 955 | 900 | 825 |
| | ON | OFF | ON | 1685 | 1630 | 1560 | 1505 | 1445 | 1375 | 1320 | 1265 | 1195 | 1140 |
| | ON | ON | OFF | 2055 | 2000 | 1950 | 1900 | 1840 | 1790 | 1740 | 1675 | 1625 | 1565 |
| | ON | ON | ON | 2465 | 2415 | 2365 | 2305 | 2230 | 2140 | 2045 | 1925 | 1805 | 1655 |
| | Maximum Clg Airflow ² | | | 2465 | 2415 | 2365 | 2305 | 2230 | 2140 | 2045 | 1925 | 1805 | 1655 |
| CF Switches | SW2-5 | SW2-4 | SW2-3 | | | | | | | | | | |
| Low-Clg Default: | OFF | OFF | OFF | 855 | 755 | See note 4 | | | | | | | |
| Low-Cooling (SW2-5,4,3) | OFF | OFF | ON | 640 | 540 | See note 4 | | | | | | | |
| | OFF | ON | OFF | 855 | 755 | See note 4 | | | | | | | |
| | OFF | ON | ON | 1060 | 985 | 875 | 800 | 700 | See note 4 | | | | |
| | ON | OFF | OFF | 1250 | 1180 | 1095 | 1025 | 925 | 860 | 775 | 715 | See note 4 | |
| | ON | OFF | ON | 1445 | 1380 | 1320 | 1235 | 1175 | 1100 | 1035 | 955 | 900 | 825 |
| | ON | ON | OFF | 1685 | 1630 | 1560 | 1505 | 1445 | 1375 | 1320 | 1265 | 1195 | 1140 |
| | ON | ON | ON | 2055 | 2000 | 1950 | 1900 | 1840 | 1790 | 1740 | 1675 | 1625 | 1565 |
| | Maximum Clg Airflow ² | | | 2465 | 2415 | 2365 | 2305 | 2230 | 2140 | 2045 | 1925 | 1805 | 1655 |
| Cont. Fan Default: | OFF | OFF | OFF | 855 | 755 | See note 4 | | | | | | | |
| Continuous Fan (SW2-5,4,3) | OFF | OFF | ON | 640 | 540 | See note 4 | | | | | | | |
| | OFF | ON | OFF | 855 | 755 | See note 4 | | | | | | | |
| | OFF | ON | ON | 1060 | 985 | 875 | 800 | 700 | See note 4 | | | | |
| | ON | OFF | OFF | 1250 | 1180 | 1095 | 1025 | 925 | 860 | 775 | 715 | See note 4 | |
| | ON | OFF | ON | 1445 | 1380 | 1320 | 1235 | 1175 | 1100 | 1035 | 955 | 900 | 825 |
| | ON | ON | OFF | 1445 | 1380 | 1320 | 1235 | 1175 | 1100 | 1035 | 955 | 900 | 825 |
| | ON | ON | ON | 1445 | 1380 | 1320 | 1235 | 1175 | 1100 | 1035 | 955 | 900 | 825 |
| | Maximum Clg Airflow ² | | | 2465 | 2415 | 2365 | 2305 | 2230 | 2140 | 2045 | 1925 | 1805 | 1655 |
| Heating (SW1) | High Heat Airflow ³ | | | 2105 | 2055 | 2005 | 1955 | 1895 | 1850 | 1795 | 1735 | 1665 | 1580 |
| | Low Heat Airflow ³ | | | 1740 | 1685 | 1620 | 1560 | 1505 | 1440 | 1385 | 1325 | 1260 | 1205 |

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

| COOLING ⁴ AND HEATING AIR DELIVERY - CFM (Bottom Return ⁵ With Filter) (SW1-5 and SW2-2 set to OFF, except as indicated. See notes 1 and 2.) | | | | | | | | | | | | | |
|---|----------------------------------|-------|-------|--------------------------------|------|------|------|------|------------|------|------|------|------|
| Unit Size: 66135V24 | Clg/CF Switch settings | | | External Static Pressure (ESP) | | | | | | | | | |
| Clg Switches: | SW2-8 | SW2-7 | SW2-6 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 |
| Clg Default: | OFF | OFF | OFF | 2105 | 2050 | 1995 | 1940 | 1880 | 1820 | 1765 | 1705 | 1650 | 1590 |
| Cooling (SW2-8,7,6) | OFF | OFF | ON | 990 | 885 | 780 | 665 | 570 | See note 4 | | | | |
| | OFF | ON | OFF | 1180 | 1090 | 995 | 900 | 815 | 715 | 635 | 555 | 475 | 400 |
| | OFF | ON | ON | 1355 | 1270 | 1190 | 1105 | 1020 | 940 | 855 | 775 | 700 | 630 |
| | ON | OFF | OFF | 1535 | 1465 | 1395 | 1320 | 1245 | 1165 | 1095 | 1025 | 945 | 875 |
| | ON | OFF | ON | 1735 | 1670 | 1605 | 1535 | 1470 | 1405 | 1335 | 1270 | 1205 | 1140 |
| | ON | ON | OFF | 2105 | 2050 | 1995 | 1940 | 1880 | 1820 | 1765 | 1705 | 1650 | 1590 |
| | ON | ON | ON | 2280 | 2225 | 2175 | 2120 | 2065 | 2010 | 1955 | 1905 | 1850 | 1800 |
| | Maximum Clg Airflow ² | | | 2360 | 2310 | 2265 | 2215 | 2160 | 2115 | 2060 | 2010 | 1960 | 1870 |
| CF Switches | SW2-5 | SW2-4 | SW2-3 | | | | | | | | | | |
| Low-Clg Default: | OFF | OFF | OFF | 990 | 885 | 780 | 665 | 570 | See note 4 | | | | |
| Low-Cooling (SW2-5,4,3) | OFF | OFF | ON | 800 | 670 | 540 | 410 | 280 | See note 4 | | | | |
| | OFF | ON | OFF | 990 | 885 | 780 | 665 | 570 | See note 4 | | | | |
| | OFF | ON | ON | 1180 | 1090 | 995 | 900 | 815 | 715 | 635 | 555 | 475 | 400 |
| | ON | OFF | OFF | 1355 | 1270 | 1190 | 1105 | 1020 | 940 | 855 | 775 | 700 | 630 |
| | ON | OFF | ON | 1535 | 1465 | 1395 | 1320 | 1245 | 1165 | 1095 | 1025 | 945 | 875 |
| | ON | ON | OFF | 1735 | 1670 | 1605 | 1535 | 1470 | 1405 | 1335 | 1270 | 1205 | 1140 |
| | ON | ON | ON | 2105 | 2050 | 1995 | 1940 | 1880 | 1820 | 1765 | 1705 | 1650 | 1590 |
| Cont. Fan Default: | OFF | OFF | OFF | 740 | 605 | 470 | 360 | 255 | See note 4 | | | | |
| Continuous Fan (SW2-5,4,3) | OFF | OFF | ON | 740 | 605 | 470 | 360 | 255 | See note 4 | | | | |
| | OFF | ON | OFF | 900 | 775 | 650 | 525 | 400 | See note 4 | | | | |
| | OFF | ON | ON | 1080 | 980 | 885 | 785 | 680 | 595 | 510 | 430 | 345 | 260 |
| | ON | OFF | OFF | 1080 | 980 | 885 | 785 | 680 | 595 | 510 | 430 | 345 | 260 |
| | ON | OFF | ON | 1080 | 980 | 885 | 785 | 680 | 595 | 510 | 430 | 345 | 260 |
| | ON | ON | OFF | 1080 | 980 | 885 | 785 | 680 | 595 | 510 | 430 | 345 | 260 |
| | ON | ON | ON | 1080 | 980 | 885 | 785 | 680 | 595 | 510 | 430 | 345 | 260 |
| Heating (SW1) | High Heat Airflow ³ | | | 2130 | 2075 | 2020 | 1970 | 1910 | 1855 | 1805 | 1745 | 1690 | 1630 |
| | Low Heat Airflow ³ | | | 1855 | 1795 | 1730 | 1670 | 1605 | 1545 | 1480 | 1420 | 1360 | 1300 |

- Nominal 350 CFM/ton cooling airflow is delivered with SW1-5 and SW2-2 set to OFF.
Set both SW1-5 and SW2-2 to ON for +7% airflow (nominal 370 CFM/ton).
Set SW1-5 to ON and SW2-2 to OFF for +15% airflow (nominal 400 CFM/ton).
Set SW2-2 to ON and SW1-5 to OFF for -7% airflow (nominal 325 CFM/ton).
The above adjustments in airflow are subject to motor horsepower range/capacity.
This applies to Cooling and Low-Cooling airflow, but does not affect continuous fan airflow.
- Maximum cooling airflow is achieved when switches SW2-6, SW2-7, SW2-8 and SW1-5 are set to ON, and SW2-2 is set to OFF.
- All heating CFM's are when comfort/efficiency adjustment switch (SW1-4) is set to OFF
- Ductwork must be sized for high-heating CFM within the operational range of ESP. Operation within the blank areas of the chart is not recommended because high-heat operation will be above 1.0 ESP.
- All airflows on 21" casing size furnaces are 5% less on side return only installations.
- Side returns for 24.5" casing sizes require two sides, or side and bottom, to allow sufficient airflow at the return of the furnace.
- Airflows over 1800 CFM require bottom return, two-side return, or bottom and side return or excessive watt draw may result. A minimum filter size of 20x25" (508 x 635 mm) is required.

⚠ 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).

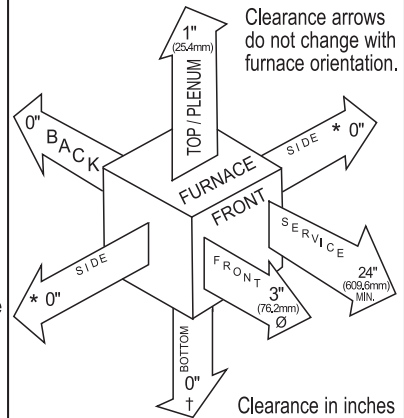
An accessory kit, supplied by the manufacturer, shall be used to convert to propane gas use or may be required for some natural gas applications.

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 special base, Part No. KGASB0201ALL or NAHA01101SB, Coil Assembly, Part No. CAR, CAP, CNPV, CNRV, END4X, ENW4X, WENC, WTNC, WENW OR WTNW.

∅ 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.



336996-101 REV. C

GUIDE SPECIFICATIONS

Gas Furnace

820TA/821TA

General

SYSTEM DESCRIPTION

Furnish a _____ fixed capacity gas-fired furnace for use with natural gas or propane (factory authorized conversion kit required for propane); furnish cold air return plenum.

QUALITY ASSURANCE

Unit will be designed, tested and constructed to the current ANSI Z 21.47/CSA 2.3 design standard for gas-fired central furnaces.

Unit will be 3rd party certified by CSA to the current ANSI Z 21.47/CSA 2.3 design standard for gas-fired central furnaces.

Unit will carry the CSA Blue Star® label.

Unit efficiency testing will be performed per the current DOE test procedure as listed in the Federal Register.

Unit will be certified for capacity and efficiency and listed in the latest AHRI Consumer's Directory of Certified Efficiency Ratings.

Unit shall carry the current Federal Trade Commission Energy Guide efficiency label.

DELIVERY, STORAGE AND HANDLING

Unit shall be shipped as single package only and is stored and handled per unit manufacturer's recommendations.

WARRANTY (for inclusion by specifying engineer)

U.S. only. Warranty certificate available upon request.

Products

EQUIPMENT

Components shall include: slow-opening two stage gas valve to reduce ignition noise, regulate gas flow, with electric switch gas shut-off; flame proving sensor, hot surface igniter, pressure switch assembly, flame rollout switch, blower and inducer assembly, 40va transformer; low-voltage (heating) (heating/cooling) thermostat.

Blower Wheel and Blower Motor

Galvanized blower wheel shall be centrifugal type, statically and dynamically balanced. Blower motor of ECM type shall be permanently lubricated with sealed bearings, of _____ hp, and shall be multiple-speed direct drive. Blower motor shall be soft mounted to the blower scroll to reduce vibration transmission.

Filters

Furnace may have reusable-type filters. Filter shall be _____ (x) _____ in. (mm). An accessory high efficiency Media Filter is available as an option. _____ Media Filter.

Casing

Casing shall be of .030 in. (.76 mm) thickness minimum, pre-painted steel.

Two Speed Inducer Motor

Two Speed Inducer motor shall be soft mounted to reduce vibration transmission.

Draft Safeguard Switch

Draft Safeguard Switch (blocked vent safeguard) shall be factory installed to reduce the possibility of vent gas infiltration due to a blocked or restricted vent pipe.

Heat Exchangers

Heat exchangers shall be a 4-Pass 20 gage aluminized steel of fold-and-crimp sectional design when applied operating under negative pressure.

Controls

Control shall include a micro-processor based integrated electronic control board with at least 11 service troubleshooting codes displayed via diagnostic flashing enhanced LED light on the control, a self-test feature that checks all major functions of the furnace within one minute, and a replaceable automotive-type circuit protection fuse. Multiple operational settings available including, separate blower speeds for low heat, high heat, low cooling, high cooling and continuous fan. Continuous fan speed may be adjusted from the thermostat. Cooling airflow will be selectable between 350 or 400 CFM per ton of air conditioning. Features will also include temporary reduced airflow in the cooling mode for improved dehumidification when a control or Thermostat™ is selected as the thermostat.

OPERATING CHARACTERISTICS

Heating Capacity shall be _____ Btuh input; _____ Btuh output capacity.

Fuel Gas Efficiency shall be 80% AFUE.

Air delivery shall be _____ CFM minimum at 0.50 in. W.C. external static pressure.

Dimensions shall be: depth _____ in. (mm); width _____ in. (mm); height _____ in. (mm). (casing only). Height shall be _____ in. (mm). with A/C coil and _____ in. (mm) overall with plenum.

ELECTRICAL REQUIREMENTS

Electrical supply shall be 115 volts, 60 Hz, single-phase (nominal). Minimum wire size shall be _____ AWG; maximum fuse size or circuit breaker shall be _____ Amps.

SPECIAL FEATURES

Refer to section of the product data sheet identifying accessories and descriptions for specific features and available enhancements.