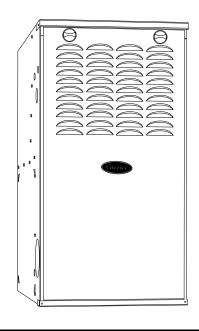
### 58TN0B/58TN1B

## Infinity<sup>®</sup> 80 Two-Stage, 80% AFUE, Variable Speed, 4-Way Multipoise, Gas Furnace



## **Product Data**



A190411

# **⚠** 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<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> 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

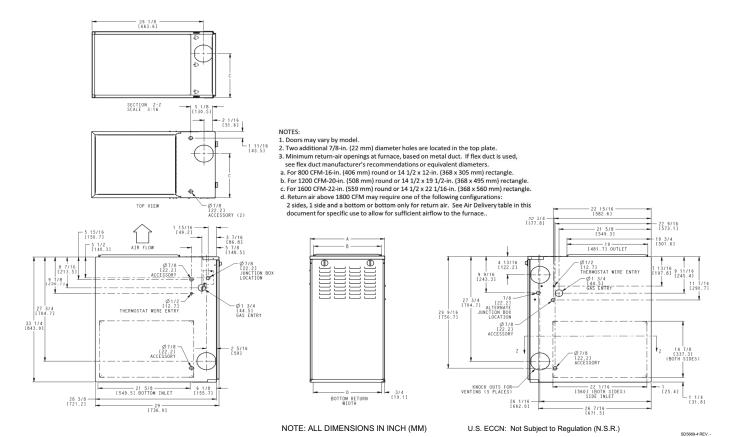
### **CERTIFICATION**

 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





### **DIMENSIONAL DATA**



### **Dimensions**

A190084

	Α	В	С	D		
FURNACE SIZE	CABINET WIDTH	OUTLET WIDTH	TOP AND BOTTOM FLUE COLLAR	BOTTOM INLET WIDTH	VENT CONNECTION SIZE	SHIP WT. LB (KG)
045C1712	17-1/2 (445)	15-7/8 (403)	11-9/16 (294)	16 (406)	4 (102)	122.5 (55.6)
070C1412	14-3/16 (360)	12-9/16 (319)	9-5/16 (237)	12-11/16 (322)	4 (102)	119.5 (54.2)
070C1716	17-1/2 (445)	15-7/8 (403)	11-9/16 (294)	16 (406)	4 (102)	132 (59.9)
070C2120	21 (533)	19-3/8 (492)	13-5/16 (338)	19-1/2 (495)	4 (102)	137 (62.1)
090C1716	17-1/2 (445)	15-7/8 (403)	11-9/16 (294)	16 (406)	4 (102)	134.5 (61.0)
090C2120	21 (533)	19-3/8 (492)	13-5/16 (338)	19-1/2 (495)	4 (102)	147.5 (66.9)
110C2120	21 (533)	19-3/8 (492)	13-5/16 (338)	19-1/2 (495)	4 (102)	152 (68.9)
135C2422	24-1/2 (622)	22-7/8 (581)	15-1/16 (383)	23 (584)	4 (102) <sup>*</sup>	174.5 (79.2)

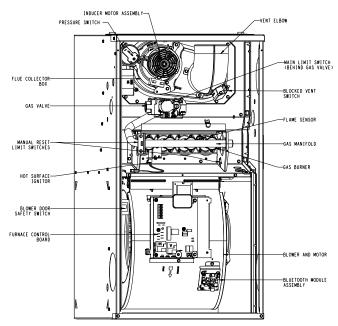
<sup>\*. 135</sup> size furnace require a 5 or 6-in. (127 or 152 mm) vent. Use a vent adapter between furnace and vent stack. See Installation Instructions for complete installation requirements.

### MODEL NUMBER NOMENCLATURE

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

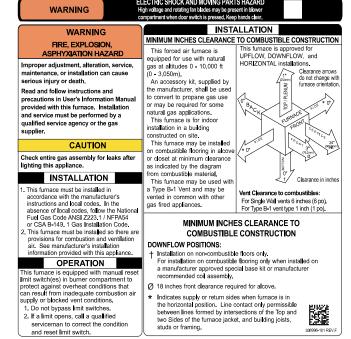
A230438

### **FURNACE COMPONENTS**



**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**



A220231

### **SPECIFICATIONS**

SPECIFICATIO			045017 12	070014 12	070C1716	070024 20	090C1716	000024 20	110021 20	125024 22
HEATING AND CAPA	CITY AND EE	EICIENCY		0/001412	0/001/16	070021-20	09001716	09002120	11002120	13502422
HEATING AND CAPA	All Standard,			00.000	00.000	00.000	00.000	00.000	110.000	400.000
	Low NOx	High	44,000	66,000	66,000	66,000	88,000	88,000	110,000	132,000
Input BTUh <sup>*</sup>	Upflow	Low	29,000	43,500	43,500	43,500	58,000	58,000	72,500	87,000
	Low Nox Downflow/	High	42,000	63,000	63,000	63,000	84,000	84,000	105,000	126,000
	Horizontal	Low	29,000	43,500	43,500	43,500	58,000	58,000	72,500	87,000
	All Standard, Low NOx	High	35,000	54,000	53,000	53,000	71,000	71,000	89,000	107,000
Output Capacity	Upflow	Low	23,000	35,000	35,000	35,000	47,000	47,000	59,000	70,000
(BTUh) <sup>†</sup>	Low Nox Downflow/	High	34,000	51,000	51,000	51,000	68,000	68,000	85,000	102,000
	Horizontal	Low	23,000	35,000	35,000	35,000	47,000	47,000	59,000	70,000
	Certified Temperature Rise		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)
Range - °F (°C)		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 <sup>†</sup>						80	0%			
AIRFLOW CAPACITY	AND BLOWE	R DATA								
Rated Certified External Static		Heating	0.10	0.12	0.12	0.12	0.15	0.15	0.20	0.20
Pressure		Cooling	0.50 630	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Airflow CFM @	F	High Heat		1030	1175	1174	1175	1650	1445	1815
Rated ESP (CFM) <sup>‡</sup>	Low Heat		520	650	1040	1025	965	1445	1315	1700
		Cooling	1565	1355	1650	2070	1455	2270	2245	2240
Direct Drive Motor H			3/4	1/2	3/4	1	1/2	1	1	1
Motor Full Load Amp			8.8	6.7	8.8	11.5	6.7	11.5	11.5	11.7
Heating Blower Cont						•	ry-set), 150,			
Cooling Blower Cont	trol (Time Dela	y Relay)			,	` ,	set), 5, 30, 60			
Blower Wheel Diame	eter x Width -	ln. (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 Sup	plied Filter			
Filter used for Certifi	ed Watt Data					32553	1-40**			
ELECTRICAL DATA										
Unit Volts-Hertz-Pha	se					115-	60-1			
Operating Voltage Range		Min-Max				104	-127			
Maximum Unit Amps	<b>3</b>		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 Leng (Measure 1 way in Ft			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		Amps	15	15	15	20	15	20	20	20
Recommended) Transformer Capacit	v (24 VAC out	nut)				<b>∆</b> ∩	VA			
	., (== +AO OUL	Pat)				40	*/*			

## **SPECIFICATIONS (Continued)**

UNIT	SIZE	045C1712	070C1412	070C1716	070C21-20	090C1716	090C2120	110C2120	135C2422				
External Control	Heating	g 24VA											
Power Available	Cooling	35VA											
GAS CONTROLS													
Burners		2	3	3	3	4	4	5	6				
Gas Connection Size	)			*	1/2-ir	ı. NPT		,	*				
Gas Valve (Redun- dant)	Mfr				WhiteR	odgers™							
Min. inlet pressure	(in.w.c.)				4.5 (Nat	ural Gas)							
Max. inlet pressure	(in.w.c.)				13.6 (Na	tural Gas)							
Ignition Device					Silicon	Nitride							
Factory installed orif	ice				Siz	e 43							
CONNECTIONS													
Communication System Infinity®; Infinity® Zoning													
Thermostat Connect	ions			R, W/W1,	, W2, Y/Y2, Y	1, G, Com 24	V, DHUM						
Accessory Connection	ons		Е	AC-1 (115 VA	AC); HUM (24	VAC); 1-ST	G AC (via Y/Y	2)					

<sup>\*.</sup> 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.

<sup>\*\*.</sup> See Accessory List for part numbers available.

### AIR DELIVERY-CFM (With Filter)\*

					045C17	12							
Available Cooling Airflow Settings (CFM)	488 1138	525 1200	555 1225	600 1300	650 1400	700 1480	740 1600	*800	875	925	975	1000	†1050
Available Constant Fan	<sup>‡</sup> 488							000	075	005	075	4000	4050
Airflow Settings (CFM)	<sup>+488</sup>	525 <b>1200</b>	555 <b>1225</b>	600	650	700	740	800	875	925	975	1000	1050
Annow Cettings (Or in)		low		n. w.c.)									
Airflow reduces by 2% -		00	,	.7									
3% per 0.1 of ESP above		80	0	.5									
the noted static for these airflow settings	16	00	0	.3									
airnow settings													
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			
													1
					070C14		1			*	1	ſ	-
Available Cooling Airflow	400	450	488	525	555	600	650	700	740	*800	875	925	975
Settings (CFM)	1000	<sup>†</sup> 1050	1138	1200	1225	1300	1400						
Available Constant Fan	<sup>‡</sup> 400	450	488	525	555	600	650	700	740	800	875	925	975
Airflow Settings (CFM)	1000	1050	1138										
Airflow reduces by 2% -	Airf			n. w.c.)									
3% per 0.1 of ESP above		00	-	.8									
the noted static for these	12			.8									
airflow settings	1300 1400		0.6 0.4										
	14	00				0.0	0.7	0.0	0.0	4			
	^ 4	0.0	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 ESP **Max Cooling CFM	0.1 1430	0.2 1430	0.3 1420	0.4 1390	0.5 1355	1315	1275	1235	1195	1155			
					1355	1315							
**Max Cooling CFM		1430	1420			1315 <b>16</b>					975	1000	*1050
**Max Cooling CFM  Available Cooling Airflow	1430	1430 525	1420 555	1390	1355 <b>070C17</b> 650	1315 <b>16</b> 700	1275 740	1235	1195	1155	975	1000	*1050
**Max Cooling CFM  Available Cooling Airflow Settings (CFM)	1430 488 1138	1430 525 1200	1420 555 1225	1390 600 1300	1355 070C17 650 †1400	1315 <b>16</b> 700 1480	740 1600	1235 800	1195 875	925			
Available Cooling Airflow Settings (CFM)	1430 488 1138 ‡488	525 1200 525	1420 555 1225 555	1390	1355 <b>070C17</b> 650	1315 <b>16</b> 700	1275 740	1235	1195	1155	975	1000	*1050
Available Cooling Airflow Settings (CFM)  Available Constant Fan Airflow Settings (CFM)	1430 488 1138 ‡488 1138	1430 525 1200 525 1200	555 1225 555 1225	600 1300 600	1355 070C17 650 †1400	1315 <b>16</b> 700 1480	740 1600	1235 800	1195 875	925			
Available Cooling Airflow Settings (CFM)  Available Constant Fan Airflow Settings (CFM)  Airflow reduces by 2% -	1430 488 1138 ‡488 1138 Airflow	525 1200 525	555 1225 555 1225 ESP (ii	600 1300 600 n. w.c.)	1355 070C17 650 †1400	1315 <b>16</b> 700 1480	740 1600	1235 800	1195 875	925			
Available Cooling Airflow Settings (CFM)  Available Constant Fan Airflow Settings (CFM)  Airflow reduces by 2% - 3% per 0.1 of ESP above	1430 488 1138 ‡488 1138 Airflow	1430 525 1200 525 1200 Setting	555 1225 555 1225 ESP (ii	600 1300 600	1355 070C17 650 †1400	1315 <b>16</b> 700 1480	740 1600	1235 800	1195 875	925			
Available Cooling Airflow Settings (CFM)  Available Constant Fan Airflow Settings (CFM)  Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these	1430 488 1138 ‡488 1138 Airflow	1430 525 1200 525 1200 Setting 80	555 1225 555 1225 ESP (ii	600 1300 600 n. w.c.)	1355 070C17 650 †1400	1315 <b>16</b> 700 1480	740 1600	1235 800	1195 875	925			
Available Cooling Airflow Settings (CFM)  Available Constant Fan Airflow Settings (CFM)  Airflow reduces by 2% - 3% per 0.1 of ESP above	1430 488 1138 ‡488 1138 Airflow	1430 525 1200 525 1200 Setting 80	555 1225 555 1225 ESP (ii	600 1300 600 n. w.c.)	1355 070C17 650 †1400	1315 <b>16</b> 700 1480	740 1600	1235 800	1195 875	925			
Available Cooling Airflow Settings (CFM)  Available Constant Fan Airflow Settings (CFM)  Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these airflow settings  Max Cooling ESP	1430 488 1138 ‡488 1138 Airflow 14 16	525 1200 525 1200 Setting 80 00	555 1225 555 1225 ESP (ii 0	1390 600 1300 600 n. w.c.)	1355 070C17 650 †1400 650 0.5	1315 16 700 1480 700	740 1600 740	800 800 0.8	875 875 0.9	925 925 925			
Available Cooling Airflow Settings (CFM)  Available Constant Fan Airflow Settings (CFM)  Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these airflow settings	1430 488 1138 ‡488 1138 Airflow 14	1430 525 1200 525 1200 Setting 80 00	555 1225 555 1225 ESP (ii	600 1300 600 n. w.c.)	1355 070C17 650 †1400 650	1315 16 700 1480 700	740 1600 740	800 800	875 875	925 925			
Available Cooling Airflow Settings (CFM)  Available Constant Fan Airflow Settings (CFM)  Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these airflow settings  Max Cooling ESP	1430 488 1138 ‡488 1138 Airflow 14 16	525 1200 525 1200 Setting 80 00	555 1225 555 1225 ESP (ii 0	1390 600 1300 600 n. w.c.)	1355 070C17 650 †1400 650 0.5 1650	1315 16 700 1480 700 0.6 1645	740 1600 740	800 800 0.8	875 875 0.9	925 925 925			
Available Cooling Airflow Settings (CFM)  Available Constant Fan Airflow Settings (CFM)  Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these airflow settings  Max Cooling ESP  **Max Cooling CFM	1430 488 1138 ‡488 1138 Airflow 14 16 0.1 1655	525 1200 525 1200 Setting 80 00	1420 555 1225 555 1225 ESP (ii 0 0 0.3 1655	600 1300 600 n. w.c.) .9 .7	1355 070C17 650 †1400 650 0.5 1650 070C21	131516700	740 1600 740 0.7 1615	800 800 0.8 1570	875 875 0.9 1520	925 925 925 1 1475	975	1000	1050
Available Cooling Airflow Settings (CFM)  Available Constant Fan Airflow Settings (CFM)  Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these airflow settings  Max Cooling ESP  **Max Cooling CFM  Available Cooling Airflow	1430 488 1138 ‡488 1138 Airflow 14 16 0.1 1655	1430 525 1200 525 1200 Setting 80 00 0.2 1655	555 1225 555 1225 ESP (ii 0 0 0 0.3 1655	1390 600 1300 600 n. w.c.) .9 .7	070C17 650 †1400 650 0.5 1650 070C21 875	700 1480 700 0.6 1645	740 1600 740 0.7 1615	800 800 0.8 1570	875 875 0.9	925 925 925			
Available Cooling Airflow Settings (CFM)  Available Constant Fan Airflow Settings (CFM)  Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these airflow settings  Max Cooling ESP  **Max Cooling CFM  Available Cooling Airflow Settings (CFM)	1430 488 1138 ‡488 1138 Airflow 14 16 0.1 1655 650 1400	1430 525 1200 525 1200 Setting 80 00 0.2 1655 700 1480	1420 555 1225 555 1225 ESP (ii 0 0 0 0.3 1655 740 1600	1390 600 1300 600 n. w.c.) 9 .7 0.4 1655 800 1625	070C17 650 †1400 650 0.5 1650 070C21 875 †1750	131516 700 1480 700  0.6 164520 925 1850	740 1600 740 0.7 1615	800 800 800 0.8 1570	875 875 0.9 1520	925 925 1 1475	975	1000	1050
Available Cooling Airflow Settings (CFM)  Available Constant Fan Airflow Settings (CFM)  Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these airflow settings  Max Cooling ESP  **Max Cooling CFM  Available Cooling Airflow Settings (CFM)  Available Constant Fan	1430 488 1138 <sup>‡</sup> 488 1138 Airflow 14 16 0.1 1655 650 1400 <sup>‡</sup> 650	1430  525 1200 525 1200 Setting 80 00  0.2 1655  700 1480 700	1420 555 1225 555 1225 ESP (ii 0 0 0 0 0 1655 740 1600 740	1390 600 1300 600 n. w.c.) .9 .7	070C17 650 †1400 650 0.5 1650 070C21 875	700 1480 700 0.6 1645	740 1600 740 0.7 1615	800 800 0.8 1570	875 875 0.9 1520	925 925 925 1 1475	975	1000	1050
Available Cooling Airflow Settings (CFM)  Available Constant Fan Airflow Settings (CFM)  Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these airflow settings  Max Cooling ESP  **Max Cooling CFM  Available Cooling Airflow Settings (CFM)	1430 488 1138 <sup>‡</sup> 488 1138 Airflow 14 16 0.1 1655 650 1400 <sup>‡</sup> 650 1400	1430  525 1200 525 1200 Setting 80 00  0.2 1655  700 1480 700 1480	1420 555 1225 555 1225 ESP (II 0 0 0 0 1655 740 1600 740 1600	1390 600 1300 600 n. w.c.) 9 .7 0.4 1655 800 1625 800	070C17 650 †1400 650 0.5 1650 070C21 875 †1750	131516 700 1480 700  0.6 164520 925 1850	740 1600 740 0.7 1615	800 800 800 0.8 1570	875 875 0.9 1520	925 925 1 1475	975	1000	1050
Available Cooling Airflow Settings (CFM)  Available Constant Fan Airflow Settings (CFM)  Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these airflow settings  Max Cooling ESP  **Max Cooling CFM  Available Cooling Airflow Settings (CFM)  Available Constant Fan Airflow Settings (CFM)  Airflow reduces by 2% -	1430 488 1138 ‡488 1138 Airflow 14 16 0.1 1655 650 1400 ‡650 1400 Airflow	1430  525 1200 525 1200 Setting 80 00  0.2 1655  700 1480 700 1480 low	1420 555 1225 555 1225 ESP (ii 0 0 0 0 1655 740 1600 740 1600 ESP (ii	1390 600 1300 600 n. w.c.) 9 .7 0.4 1655 800 1625 800	070C17 650 †1400 650 0.5 1650 070C21 875 †1750	131516 700 1480 700  0.6 164520 925 1850	740 1600 740 0.7 1615	800 800 800 0.8 1570	875 875 0.9 1520	925 925 1 1475	975	1000	1050
Available Cooling Airflow Settings (CFM)  Available Constant Fan Airflow Settings (CFM)  Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these airflow settings  Max Cooling ESP  *Max Cooling CFM  Available Cooling Airflow Settings (CFM)  Available Constant Fan Airflow Settings (CFM)  Airflow reduces by 2% - 3% per 0.1 of ESP above	1430 488 1138 ‡488 1138 Airflow 14 16 0.1 1655 650 1400 ‡650 1400 Airflow 1400	1430  525 1200 525 1200 Setting 80 00  0.2 1655  700 1480 700 1480 6low 50	1420 555 1225 555 1225 ESP (ii 0 0 0 0.3 1655 740 1600 740 1600 ESP (ii 0	1390 600 1300 600 n. w.c.) 9 .7 0.4 1655 800 1625 800 n. w.c.)	070C17 650 †1400 650 0.5 1650 070C21 875 †1750	131516 700 1480 700  0.6 164520 925 1850	740 1600 740 0.7 1615	800 800 800 0.8 1570	875 875 0.9 1520	925 925 1 1475	975	1000	1050
Available Cooling Airflow Settings (CFM)  Available Constant Fan Airflow Settings (CFM)  Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these airflow settings  Max Cooling ESP  **Max Cooling CFM  Available Cooling Airflow Settings (CFM)  Available Constant Fan Airflow Settings (CFM)  Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these	1430 488 1138 ‡488 1138 Airflow 14 16 0.1 1655 650 1400 ‡650 1400 Airflow 18 19	1430  525 1200 525 1200 Setting 80 00  0.2 1655  700 1480 700 1480 6low 50	1420 555 1225 555 1225 ESP (ii 0 0 0.3 1655 740 1600 740 1600 ESP (ii 0 0	1390 600 1300 600 n. w.c.) 9 .7 0.4 1655 800 1625 800 n. w.c.)	070C17 650 †1400 650 0.5 1650 070C21 875 †1750	131516 700 1480 700  0.6 164520 925 1850	740 1600 740 0.7 1615	800 800 800 0.8 1570	875 875 0.9 1520	925 925 1 1475	975	1000	1050
Available Cooling Airflow Settings (CFM)  Available Constant Fan Airflow Settings (CFM)  Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these airflow settings  Max Cooling ESP  *Max Cooling CFM  Available Cooling Airflow Settings (CFM)  Available Constant Fan Airflow Settings (CFM)  Airflow reduces by 2% - 3% per 0.1 of ESP above	1430 488 1138 ‡488 1138 Airflow 14 16 0.1 1655 650 1400 ‡650 1400 Airflow 18 19	1430  525 1200 525 1200 Setting 80 00  0.2 1655  700 1480 700 1480 6low 50	1420 555 1225 555 1225 ESP (ii 0 0 0.3 1655 740 1600 740 1600 ESP (ii 0 0	1390 600 1300 600 n. w.c.) 9 .7 0.4 1655 800 1625 800 n. w.c.)	070C17 650 †1400 650 0.5 1650 070C21 875 †1750	131516 700 1480 700  0.6 164520 925 1850	740 1600 740 0.7 1615	800 800 800 0.8 1570	875 875 0.9 1520	925 925 1 1475	975	1000	1050
Available Cooling Airflow Settings (CFM)  Available Constant Fan Airflow Settings (CFM)  Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these airflow settings  Max Cooling ESP  **Max Cooling CFM  Available Cooling Airflow Settings (CFM)  Available Constant Fan Airflow Settings (CFM)  Airflow reduces by 2% - 3% per 0.1 of ESP above the noted static for these	1430 488 1138 ‡488 1138 Airflow 14 16 0.1 1655 650 1400 ‡650 1400 Airflow 18 19	1430  525 1200 525 1200 Setting 80 00  0.2 1655  700 1480 700 1480 6low 50	1420 555 1225 555 1225 ESP (ii 0 0 0.3 1655 740 1600 740 1600 ESP (ii 0 0	1390 600 1300 600 n. w.c.) 9 .7 0.4 1655 800 1625 800 n. w.c.)	070C17 650 †1400 650 0.5 1650 070C21 875 †1750	131516 700 1480 700  0.6 164520 925 1850	740 1600 740 0.7 1615	800 800 800 0.8 1570	875 875 0.9 1520	925 925 1 1475	975	1000	1050

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

					090C17	16							
Available Cooling Airflow	400	450	488	525	555	600	650	700	740	800	875	925	975
Settings (CFM)	1000	*1050	1138	1200	1225	1300	†1400	1480	1600		0.0	020	0.0
Available Constant Fan	<sup>‡</sup> 400	450	488	525	555	600	650	700	740	800	875	925	975
Airflow Settings (CFM)	1000	1050	1138										
A treff	Airf	low	ESP (i	n. w.c.)									
Airflow reduces by 2% -	13	800	0	.9									
3% per 0.1 of ESP above the noted static for these	14	.00	0	.7									
airflow settings	14	-80	0	.5									
annow settings	16	00	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								*
Available Cooling Airflow	650	700	740	800	875	925	975	1000	1050	1138	1200	1225	<sup>^</sup> 1300
Settings (CFM)	1400	1480	1600	1625	<sup>†</sup> 1750	1850	1911	2000	2100	2179	2200		
Available Constant Fan	<sup>‡</sup> 650	700	740	800	875	925	975	1000	1050	1138	1200	1225	1300
Airflow Settings (CFM)	1400	1480	1600										
Airflow reduces by 2% -		Setting	ESP (i	n. w.c.)									
3% per 0.1 of ESP above	20	000	0	.8									
the noted static for these	21	00	0	.7									
airflow settings		79		.6									
-	22	200	0	.5									
Max Cooling ESP	0.1	0.2	0.3	0.4	0.5	0.6	0.7	8.0	0.9	1			
**Max Cooling CFM	2290	2290	2290	2285	2270	2230	2185	2130	2070	2015			
		1			110C21			1000	1 40=0	1400			*
Available Cooling Airflow	650	700	740	800	875	925	975	1000	1050	1138	1200	1225	*1300
Settings (CFM)	1400	1480	1600	1625	†1750	1850	1911	2000	2100	2179	2200		
Available Constant Fan	<sup>‡</sup> 650	700	740	800	875	925	975	1000	1050	1138	1200	1225	1300
Airflow Settings (CFM)	1400	1480	1600										
Airflow reduces by 2% -		Setting	,	n. w.c.)									
3% per 0.1 of ESP above		000		.9									
the noted static for these		00		.7									
airflow settings		79		.6									
		200		.5	<u> </u>								
Max Cooling ESP	0.1	0.2	0.3	0.4	0.5	0.6	0.7	8.0	0.9	1			
**Max Cooling CFM	2270	2270	2270	2270	2245	2200	2150	2100	2050	1995			
					135C24	22							
Available Cooling Airflow	550	600	650	700	740	800	875	925	975	1000	1050	1138	1200
Settings (CFM)	1225	1300	*1400	1480	1600	1625	1750	1850	†1911	2000	2100	2179	
Available Constant Fan	<sup>‡</sup> 550	600	650	700	740	800	875	925	975	1000	1050	1138	1200
Airflow Settings (CFM)	1225	1300	1400		1-10-		010	020					
• ,		Setting		n. w.c.)									
Airflow reduces by 2% -		911		.9									
3% per 0.1 of ESP above		000		.7									
the noted static for these		00		.6									
airflow settings		250		.4									
					0.5	0.6	0.7	0.0	0.0				
Max Cooling ESP	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1			
Max Cooling ESP	2270	2255	2255	2245	2240	2200	2135	2070	2010	1945			

<sup>\*.</sup> Low Cooling Default

<sup>†.</sup> High Cooling Default

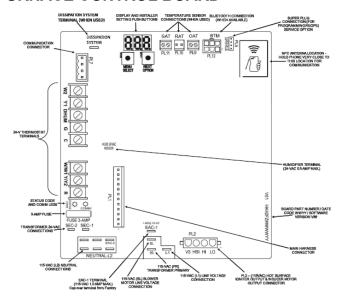
†. Constant Fan Default Not Recommended

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

### **TYPICAL WIRING SCHEMATIC**

#### ---- FIELD 24-VOLT WIRING ---- FIELD 115-, 208/230-, 460-VOLT WIRING ---- FACTORY 24-VOLT WIRING ---- FACTORY 115-VOLT WIRING NOTE 2 R G THERMOSTAT TERMINALS (W) (D) (Y) FIELD-SUPPLIED FUSED DISCONNECT FIVE WIRE THREE-WIRE 208/230- OR 460-VOLT ONLY PHASE (W2) (001) WWI 208/230 VOLT SINGLE PHASE NOTE 1 ≑GND (1/12) 115-VOLT FIELD-SUPPLIED FUSED JUNCTION BOX R CONTROL CONDENSING DISCONNECT BOX 24-VOLT TERMINAL NOTES: 1. Connect Y/Y2-terminal as shown for proper operation. 2. Some thermostats require a "C" terminal connection as shown. 3. If any of the original wire, as supplied, must be replaced, use BLOCK FURNACE same type or equivalent wire. A95236

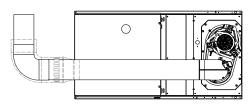
### **FURNACE CONTROL BOARD**



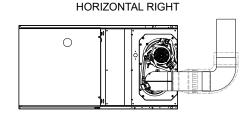
#### A230451

A02065

### **VENTING CONFIGURATIONS**

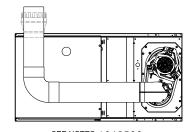


SEE NOTES: 1,2,4,5,7,8,9

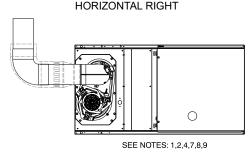


HORIZONTAL RIGHT

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

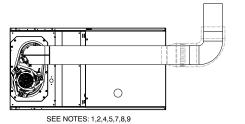


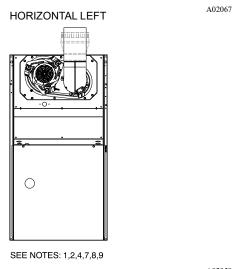
SEE NOTES: 1,2,4,5,7,8,9



HORIZONTAL LEFT

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





UPFLOW

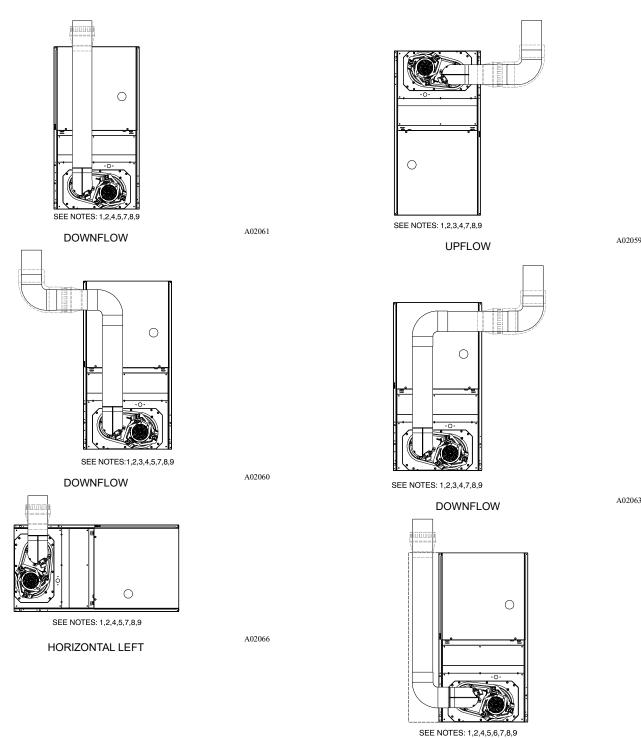
A02058

A02064

A02068

A02069

A02070



### **VENTING NOTES**

 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.

A02062

**DOWNFLOW** 

- 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	045C1712	070C14-12	070C17-16	070C21-20
ACG1425NCB*	External Filter Rack, 14-1/2 x 25"	-	Х	-	-
ACG1625NCF*	External Filter Rack, 16 x 25"	Х	-	Х	-
ACG2025NCJ*	External Filter Rack, 20 x 25"*	-	-	-	Х
325531-402 <sup>*</sup>	Washable filter, 3/4" x 16" x 25"*	Х	Х	Х	-
325531-403 <sup>*</sup>	Washable filter, 3/4" x 21" x 25"*	-	-	-	X
KGACA02014FC	Chimney Adapter Kit, up to or equal to 110K BTUh	X	X	Х	Х
KGAFE0112UPH	Flue Extension	Х	Х	Х	Х
KGAVE0101DNH	Vent Extension Kit	X	Х	Х	X
KGASB0201ALL	Combustible Floor Base (Not required when evaporator coil case is used for downflow)	Х	Х	Х	Х
KGBVG0101DFG	Downflow Vent Guard (Not required when vent is routed through cabinet)	Х	Х	Х	Х
AGAGC8NPS01B*	Natural-to-Propane Conversion Kit <sup>†</sup>	Х	Х	Х	Х
AGAGC8PNS01B*	Propane-to-Natural Conversion Kit*	Х	Х	Х	Х
KGAHA5801PSW	High Altitude Pressure Switch Kit	X	Х	X	X
SYSTXCC	Infinity®; Infinity® Zoning	Х	X	Х	Х

PART NUMBER	DESCRIPTION	090C17-16	090C21-20	110C21-20	135C24-22
ACG1625NCF*	External Filter Rack, 16 x 25"	Х	-	-	-
ACG2025NCJ*	External Filter Rack, 20 x 25"*	-	Х	X	-
ACG2424NCL*	External Filter Rack, 24-1/2 x 24"*	-	-	-	Х
325531-402*	Washable filter, 3/4" x 16" x 25"*	Х	-	-	-
325531-403 <sup>*</sup>	Washable filter, 3/4" x 21" x 25"*	-	Х	Х	-
325531-404 <sup>*</sup>	Washable filter, 3/4" x 24" x 25"*	-	-	-	Х
KGACA02014FC	Chimney Adapter Kit, up to or equal to 110K BTUh	X	Х	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)	Х	Х	Х	Х
KGBVG0101DFG	Downflow Vent Guard (Not required when vent is routed through cabinet)	Х	Х	Х	Х
AGAGC8NPS01B*	Natural-to-Propane Conversion Kit*	Х	Х	Х	Х
AGAGC8PNS01B*	Propane-to-Natural Conversion Kit*	Х	Х	Х	Х
KGAHA5801PSW	High Altitude Pressure Switch Kit	X	X	Х	X
SYSTXCC	Infinity®; Infinity® Zoning	Х	X	X	Х

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

<sup>\*.</sup> Purchased through Replacement Components
†. 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									
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	See Installation Instructions for model, altitude,								
Gas Orifice Kit - #48 (Nat Gas)	LH32DB076	and heat value usages.								
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	Х	Х	Х
Carrier Infinity Air Purifier - 16x25 (407x635 mm)	DGAPAXX1625	Х	Х	-	-
Carrier Infinity Air Purifier - 20x25 (508x635 mm)	DGAPAXX2025	-	-	Х	Х
Carrier Infinity Air Purifier Repl. Filter- 16x25 (407x635 mm)	GAPCCCAR1625-A05	Х	Х	-	-
Carrier Infinity Air Purifier Repl. Filter- 20x25 (508x635 mm)	GAPCCCAR2025-A05	-	-	Х	Х
Cartridge Media Filter - 16" (407 mm) (MERV 11)	FILXXCAR0116	Х	Х	-	-
Cartridge Media Filter - 16" (407 mm) (MERV 8)	FILXXCAR0016	Х	Х	-	-
Cartridge Media Filter - 20" (508 mm) (MERV 8)	FILXXCAR0020	-	-	Х	-
Cartridge Media Filter - 20" (508 mm) (MERV11)	FILXXCAR0120	-	-	Х	-
Cartridge Media Filter - 24" (610 mm) (MERV 8)	FILXXCAR0024	-	-	-	Х
Cartridge Media Filter - 24" (610 mm) (MERV11)	FILXXCAR0124	-	-	-	Х
EZ Flex Cabinet Side or Bottom - 16"	EZXCABCR0016	X	Х	-	-
EZ Flex Cabinet Side or Bottom - 20"	EZXCABCR0020	-	-	Х	Х
EZ Flex Replacement Filters 16" MERV 10	EXPXXFIL0016	X	Х	-	-
EZ Flex Replacement Filters 16" MERV 13	EXPXXFIL0316	X	Х	-	-
EZ Flex Replacement Filters 20" MERV 10	EXPXXFIL0020	-	-	Х	-
EZ Flex Replacement Filters 20" MERV 13	EXPXXFIL0320	-	-	Х	-
EZ Flex Replacement Filters 24" MERV 10	EXPXXFIL0024	-	-	-	Х
EZ Flex Replacement Filters 24" MERV 13	EXPXXFIL0324	-	-	-	Х
EZ-Flex Filter with End Caps - 16" (407 mm) (MERV 10)	EXPXXUNV0016	Х	Х	-	-
EZ-Flex Filter with End Caps - 16" (407 mm) (MERV 13)	EXPXXUNV0316	X	Х	-	-
EZ-Flex Filter with End Caps - 20" (508 mm) (MERV 10)	EXPXXUNV0020	-	-	Х	-
EZ-Flex Filter with End Caps - 20" (508 mm) (MERV 13)	EXPXXUNV0320	-	-	Х	-
EZ-Flex Filter with End Caps - 24" (610 mm) (MERV 10)	EXPXXUNV0024	-	-	-	Х
EZ-Flex Filter with End Caps - 24" (610 mm) (MERV 13)	EXPXXUNV0324	-	-	-	Х
Media Filter Cabinet - 20"	FILCABXL0020	-	-	Х	-
Media Filter Cabinet - 24"	FILCABXL0024	-	-	-	Х
Media Filter Cabinet -16"	FILCABXL0016	Х	Х	-	-

58TN0B/58TN1B: Product Data

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