

## 80% Variable Speed, Two-Stage Heating Furnace

### EASIER TO SELL

- 80% AFUE
- Cabinet air leakage less than 2.0% at 1.0 in. W.C. and cabinet air leakage less than 1.4% at 0.5 in. W.C. when tested in accordance with ASHRAE standard 193
- Supports two-stage cooling units
- ION™ Communicating Control System
- Observer® Communicating Control System
- Flame roll-out sensors standard
- Category I venting
- Blocked vent switch
- Dehumidification feature in cooling
- 24 VAC humidifier terminal
- Electronic air cleaner terminal
- Low NOx units are designed for California installations and meet 40 ng/J NOx emissions. Can be installed in air quality management districts with a 40 ng/J NOx emissions requirement.

### TOUGHER

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

### QUIETER

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

### EASIER TO INSTALL AND SERVICE

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

### LIMITED WARRANTY \*

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

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



**TSTAT0201CW**  
Recommended  
(sold separately)



**SYST0101CW**  
Recommended  
(sold separately)



Illustrations and photographs are only representative.  
Some product models may vary.

### WARNING

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



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



ISO 9001  
Quality



Model Number	Input (BTUH)	Efficiency AFUE	Cooling Capacity CFM range @ .5 in. w.c. (125 Pa)	Dimensions H x W x D Inches (Millimeters)	Shipping Wt. Lbs (Kg)
G80CTL0451712	44,000	80%	550 – 1345	33-1/3 x 17-1/2 x 29 (847 x 445 x 737)	126 (57)
G80CTL0701412	66,000	80%	485 – 1395	33-1/3 x 14-3/16 x 29 (847 x 360 x 737)	107 (49)
G80CTL0701716	66,000	80%	505 – 1375	33-1/3 x 17-1/2 x 29 (847 x 445 x 737)	126 (57)
G80CTL0702120	66,000	80%	790 – 2150	33-1/3 x 21 x 29 (847 x 533 x 737)	146 (66)
G80CTL0901716	88,000	80%	475 – 1595	33-1/3 x 17-1/2 x 29 (847 x 445 x 737)	126 (57)
G80CTL0902120	88,000	80%	730 – 2330	33-1/3 x 21 x 29 (847 x 533 x 737)	146 (66)
G80CTL1102120	110,000	80%	700 – 2155	33-1/3 x 21 x 29 (847 x 533 x 737)	152 (69)
G80CTL1352422	132,000	80%	690 – 2265	33-1/3 x 24-1/2 x 29 (847 x 622 x 737)	163 (74)

MODEL NUMBER IDENTIFICATION GUIDE

DIGIT POSITION	1	2,3	4	5	6	7-9	10,11	12,13	14	15
	F, G, N, R <b>BRAND</b>									
	80 - 80% AFUE 92 - 92% AFUE 95 - 95% AFUE 96 - 96% AFUE 97 - 97% AFUE <b>EFFICIENCY</b>									
	C = Comm. Variable-Speed Constant Airflow (VCA) ECM E = Fixed-Speeds Constant Torque (FCT) ECM V = Variable-Speed Constant Torque (VCT) ECM <b>MOTOR TYPE</b>									
	M - Modulating S - Single Stage T - Two Stage <b>HEATING STAGES</b>									
	L = Low NOx M = Mobile/Manufactured Home N = Standard NOx U = Ultra Low Nox <b>FEATURE</b>									
	026 = 26,000 BTU/h 040 = 40,000 BTU/h 060 = 60,000 BTU/h ..... <b>HEATING INPUT</b>									
	14 = 14.2" 17 = 17.5" 21 = 21.0" 24 = 24.5" <b>CABINET WIDTH</b>									
	08 = 800 CFM 10 = 1000 CFM 12 = 1200 CFM 14 = 1400 CFM 16 = 1600 CFM 20 = 2000 CFM 22 = 2200 CFM <b>COOLING CAPACITY</b>									
	A, B, C, D... <b>MAJOR SERIES</b>									
	1, 2, 3, 4... <b>MINOR SERIES</b>									

A190043

**For California Residents:**

For installation in SCAQMD only: This furnace does not meet the SCAQMD Rule 1111 14 ng/J NOx emission limit, and thus is subject to a mitigation fee of up to \$450. This furnace is not eligible for the Clean Air Furnace Rebate Program: [www.CleanAirFurnaceRebate.com](http://www.CleanAirFurnaceRebate.com)

**MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS FOR ALL UNITS**

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.

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

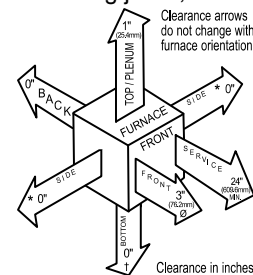
This furnace may be used with a Type B-1 Vent and may be vented in common with other gas fired appliances.

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

Downflow Positions:

- † Installation on non-combustible floors only.
- For Installation on combustible flooring only when installed on special base or coil assembly.
- Ø 18 inch front clearance required for alcove.

\* Indicate 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.



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

PHYSICAL DATA						
Unit Size		0451712	0701412	0701716	0702120	
<b>RATINGS AND PERFORMANCE</b>						
Input Btuh* Nonweatherized ICS	All Standard, Low Nox Upflow	High	44,000	66,000	66,000	66,000
		Low	29,000	43,500	43,500	43500
Input Btuh* Nonweatherized ICS	All Low Nox Downflow/ Horizontal	High	42,000	63,000	63,000	63,000
		Low	29,000	43,500	43,500	43500
Output Capacity (Btuh) Nonweatherized ICS ^	All Standard, Low Nox Upflow	High	35,000	54,000	53,000	53,000
		Low	23,000	35,000	35,000	35,000
Output Capacity (Btuh) Nonweatherized ICS ^	All Low NOx Downflow/ Horizontal	High	34,000	51,000	51,000	51,000
		Low	23,000	35,000	35,000	35,000
AFUE			80.00			
Certified Temperature Rise Range – °F (°C)		High	30–60 (17–33)	30–60 (17–33)	25–55 (14–30)	25–55 (14–30)
		Low	20–50 (11–28)	30–60 (17–33)	15–45 (8–25)	15–45 (8–25)
Certified External Static Pressure		Heat/Cool	0.10/0.50	0.12/0.50	0.12/0.50	0.12/0.50
Airflow CFM ‡		Heating High/Low	730/605	1160/735	1245/1040	1195/1085
		Max Cooling	1345	1395	1380	2150
<b>ELECTRICAL</b>						
Unit Volts–Hertz–Phase		115–60–1				
Operating Voltage Range	Min/Max	104/127				
Maximum Unit Amps		9.00	9.00	9.80	14.10	
Maximum Wire Length (Measure 1 Way in Ft. (M))		30 (9.4)	30 (9.4)	28 (8.7)	31 (9.5)	
Minimum Wire Size		14	14	14	12	
Maximum Fuse or Ckt Bkr Size (Amps)**		15	15	15	20	
Transformer (24v)		40va				
External Control	Heating	12va				
Power Available	Cooling	35va				
Air Conditioning Blower Relay		Standard				
<b>CONTROLS</b>						
Limit Control		SPST				
Heating Blower Control		Solid State Time Operation				
Burners (Monoport)		2	3	3	3	
Gas Connection Size		1/2in. NPT				
<b>GAS CONTROLS</b>						
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				
<b>BLOWER DATA</b>						
Direct–Drive Motor HP (ECM)		1/2	1/2	1/2	1	
Motor Full Load Amps		7.7	7.7	8.5	12.8	
RPM (Nominal)		1200	1200	1200	1200	
Blower Wheel Diameter x Width – In. (mm)		11 x 8 (279x203)	10 x 6 (254x152)	11 x 8 (279x203)	11 x 10 (254x279)	

PHYSICAL DATA (CONTINUED)						
Unit Size			0901716	0902120	1102120	1352422
<b>RATINGS AND PERFORMANCE</b>						
Input Btuh* Nonweatherized ICS	All Standard, Low Nox Upflow	High	88,000	88,000	110,000	132,000
		Low	58,000	58,000	72,500	87,000
Input Btuh* Nonweatherized ICS	All Low NOx Downflow/ Horizontal	High	84,000	84,000	105,000	126,000
		Low	58,000	58,000	72,500	87,000
Output Capacity (Btuh) Nonweatherized ICS ^	All Standard, Low Nox Upflow	High	71,000	71,000	89,000	107,000
		Low	47,000	47,000	59,000	70,000
Output Capacity (Btuh) Nonweatherized ICS ^	All Low NOx Downflow/ Horizontal	High	68,000	68,000	85,000	102,000
		Low	47,000	47,000	59,000	70,000
AFUE			80.00			
Certified Temperature Rise Range – °F (°C)		High	40–70 (22–39)	25–55 (14–30)	40–70 (22–39)	40–70 (22–39)
		Low	30–60 (17–33)	15–45 (8–25)	25–55 (14–31)	25–55 (14–31)
Certified External Static Pressure		Heat/Cool	0.15/0.50	0.15/0.50	0.20/0.50	0.20/0.50
Airflow CFM ‡		Heating High/Low	1195/960	1600/1435	1465/1295	1835/1660
		Max Cooling	1595	2330	2155	2265
<b>ELECTRICAL</b>						
Unit Volts–Hertz–Phase			115–60–1			
Operating Voltage Range		Min/Max	104/127			
Maximum Unit Amps			9.60	14.70	15.00	15.00
Maximum Wire Length (Measure 1 Way in Ft. (M))			29 (9.0)	30 (9.2)	29 (9.1)	29 (9.1)
Minimum Wire Size			14	12	12	12
Maximum Fuse or Ckt Bkr Size (Amps)**			15	20	20	20
Transformer (24v)			40va			
External Control		Heating	12va			
Power Available		Cooling	35va			
Air Conditioning Blower Relay			Standard			
<b>CONTROLS</b>						
Limit Control			SPST			
Heating Blower Control			Solid State Time Operation			
Burners (Monoport)			4	4	5	6
Gas Connection Size			1/2in. NPT			
<b>GAS CONTROLS</b>						
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			
<b>BLOWER DATA</b>						
Direct–Drive Motor HP (ECM)			1/2	1	1	1
Motor Full Load Amps			7.7	12.8	12.8	12.8
RPM (Nominal)			1200	1200	1200	1200
Blower Wheel Diameter x Width – In. (mm)			10 x 8 (254x203)	11 x 11 (279x279)	11 x 10 (254x279)	11 x 11 (279x279)

\* 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.

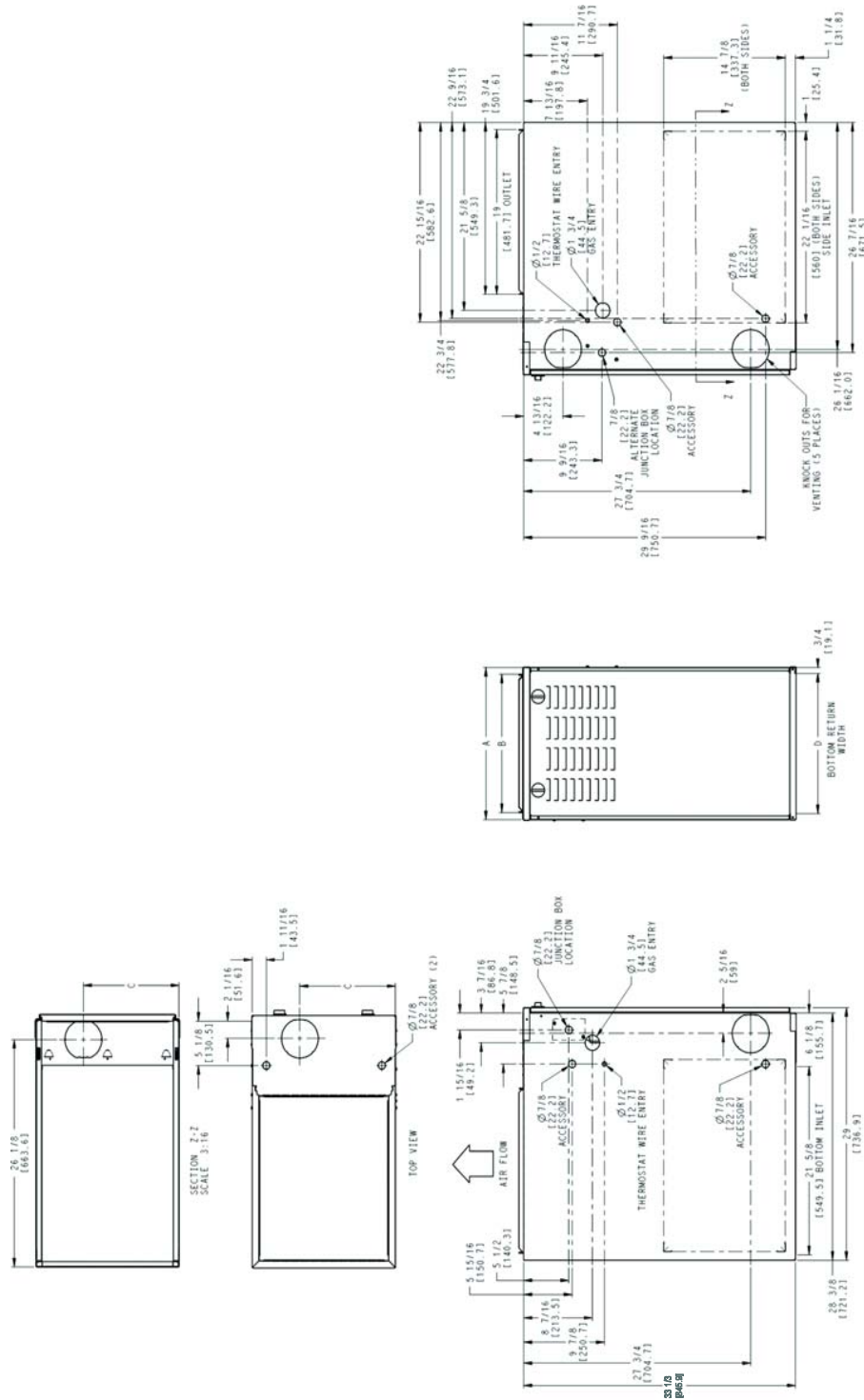
† Capacity in accordance with U.S. Government DOE test procedures.

‡ Airflow shown is for bottom only returnair 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.

\*\* Time–delay type is recommended.

ICS Isolated Combustion System

UNIT DIMENSIONS

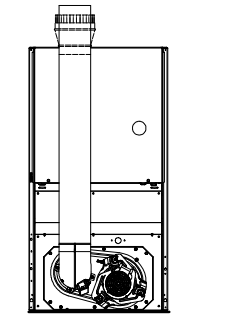


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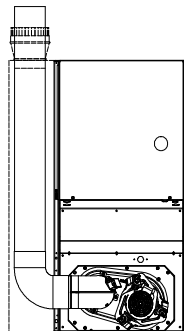
G80CTL	A	B	C	D	FLUE COLLAR* in (mm)	SHIPPING WT. LB (KG)
	CABINET WIDTH in (mm)	OUTLET WIDTH in (mm)	TOP AND BOTTOM FLUE COLLAR in (mm)	BOTTOM INLET WIDTH in (mm)		
0451712	17-1/2 (445)	15-7/8 (403)	11-9/16 (294)	16 (406)	4 (102)	118 (53.5)
0701412	14-3/16 (360)	12-9/16 (319)	9-5/16 (237)	12-11/16 (322)	4 (102)	118 (53.5)
0701716	17-1/2 (445)	15-7/8 (403)	11-9/16 (294)	16 (406)	4 (102)	126 (57.1)
0702120	21 (533)	19-3/8 (492)	13-5/16 (338)	19-1/2 (495)	4 (102)	147 (66.7)
0901716	17-1/2 (445)	15-7/8 (403)	11-9/16 (294)	16 (406)	4 (102)	134 (60.8)
0902120	21 (533)	19-3/8 (492)	13-5/16 (338)	19-1/2 (495)	4 (102)	153 (69.4)
1102120	21 (533)	19-3/8 (492)	13-5/16 (338)	19-1/2 (495)	4 (102)	156 (70.7)
1352422	24-1/2 (622)	22-7/8 (581)	15-1/16 (383)	23 (584)	4 (102)*	169 (76.6)

\* 5 inch or 6 inch (127 or 152 mm) vent connector may be required in some cases.

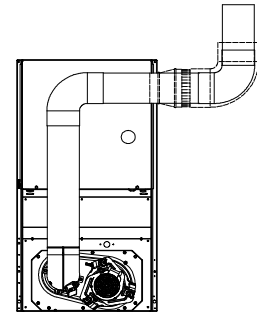
DOWNFLOW VENT CONFIGURATIONS



SEE NOTES: 1,2,4,5,7,8,9 A02061

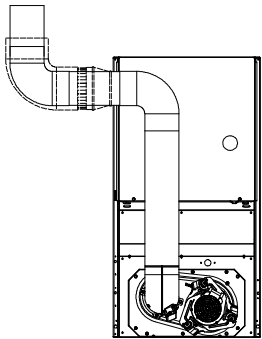


SEE NOTES: 1,2,4,5,6,7,8,9 A02062



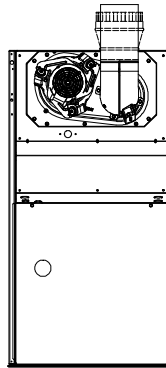
SEE NOTES: 1,2,3,4,5,7,8,9 A02063

DOWNFLOW CONTINUED

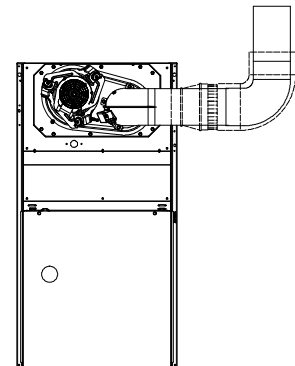


SEE NOTES: 1,2,3,4,5,7,8,9 A02060

UPFLOW VENT CONFIGURATIONS

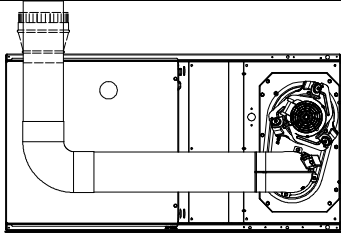


SEE NOTES: 1,2,4,7,8,9 A02058

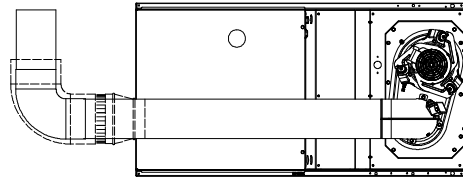


SEE NOTES: 1,2,3,4,7,8,9 A02059

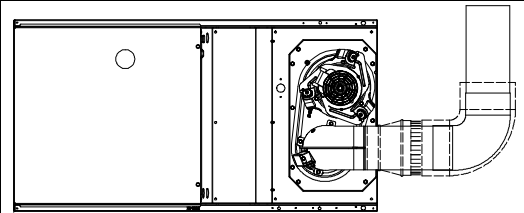
HORIZONTAL RIGHT VENT CONFIGURATIONS



SEE NOTES: 1,2,4,5,7,8,9 A02070

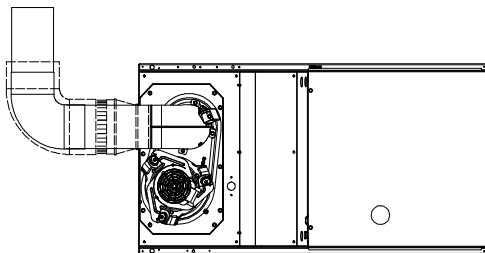


SEE NOTES: 1,2,4,5,7,8,9 A02068

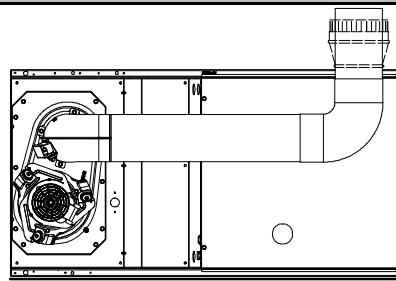


SEE NOTES: 1,2,4,7,8,9 A02069

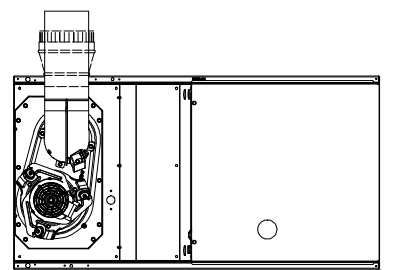
HORIZONTAL LEFT VENT CONFIGURATIONS



SEE NOTES: 1,2,4,7,8,9 A02064

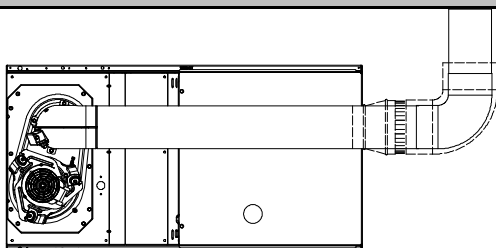


SEE NOTES: 1,2,4,5,7,8,9 A02065



SEE NOTES: 1,2,4,5,7,8,9 A02066

HORIZONTAL LEFT VENT CONFIGURATIONS



SEE NOTES: 1,2,4,5,7,8,9 A02067

Venting Notes

1. For common vent, vent connector sizing and vent material: United States—use the NFGC.
2. Immediately increase to 5 inch (102 mm) or 6 inch (152 mm) vent connector outside furnace casing when 5 inch (127 mm) vent connector is required, refer to Note 1 above.
3. Side outlet vent for upflow and downflow installations must use Type B vent immediately after exiting the furnace, except when Downflow Vent Guard Kit is used in the downflow position.
4. Type-B vent where required, refer to Note 1 above.
5. A 4 inch (102 mm) single-wall (26 ga. min.) vent must be used inside furnace casing and when the NAHB00301VC Downflow Vent Guard Kit is used external to the furnace.
6. Accessory Downflow Vent Guard Kit is required in downflow installations with lower vent configuration.
7. Chimney Adapter Kit may be required for exterior masonry chimney applications. Refer to Chimney Adapter Kit for sizing and complete application details.
8. Secure vent connector to furnace elbow with (2) corrosion-resistant sheet metal screws, spaced 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.

AIR DELIVERY – CFM (with filter)*													
(SW1–5 and SW4–3 set to OFF, except as indicated. See notes 1 and 2.)													
Unit Size: 0451712	Clg/CF Switch settings			External Static Pressure (ESP)									
Clg Switches	SW2–3	SW2–2	SW2–1	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	1070	1080	1085	1095	1095	1100	1095	1090	1080	1070
CF Switches	SW3–3	SW3–2	SW3–1										
Low–Clg Default:	OFF	OFF	OFF	525	540	540	550	550	See note 4				
Cooling Airflow (SW2) Low–Cooling Airflow (SW3)	OFF	OFF	ON	525	540	540	550	550	See note 4				
	OFF	ON	OFF	700	720	715	730	735	745	745	745	735	725
	OFF	ON	ON	885	905	920	925	920	910	905	900	895	885
	ON	OFF	OFF	1070	1080	1085	1095	1095	1100	1095	1090	1080	1070
	ON	OFF	ON	1250	1265	1275	1280	1275	1265	1255	1240	1205	1170
	ON	ON	OFF	1425	1425	1410	1380	1340	1305	1270	1235	1200	1165
	ON	ON	ON	1425	1425	1410	1380	1340	1305	1270	1235	1200	1165
Maximum Clg Airflow <sup>2</sup>				1480	1445	1415	1380	1345	1310	1275	1235	1200	1165
CF Switches	SW3–3	SW3–2	SW3–1										
Cont. Fan Default:	OFF	OFF	OFF	525	540	540	550	550	See note 4				
Continuous Fan Airflow (SW3)	OFF	OFF	ON	525	540	540	550	550	See note 4				
	OFF	ON	OFF	700	720	715	730	735	745	745	745	735	725
	OFF	ON	ON	885	905	920	925	920	910	905	900	895	885
	ON	OFF	OFF	1070	1080	1085	1095	1095	1100	1095	1090	1080	1070
	ON	OFF	ON	1070	1080	1085	1095	1095	1100	1095	1090	1080	1070
	ON	ON	OFF	1070	1080	1085	1095	1095	1100	1095	1090	1080	1070
	ON	ON	ON	1070	1080	1085	1095	1095	1100	1095	1090	1080	1070
Heating (SW1)	High Heat Airflow <sup>3</sup>			730	730	735	750	765	770	770	770	760	750
	Low Heat Airflow <sup>3</sup>			605	625	635	630	635	635	630	625	615	605
Unit Size: 0701412	Clg/CF Switch settings			External Static Pressure (ESP)									
Clg Switches	SW2–3	SW2–2	SW2–1	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	1050	1050	1050	1050	1050	1050	1045	1035	1020	1000
CF Switches	SW3–3	SW3–2	SW3–1										
Low–Clg Default:	OFF	OFF	OFF	515	500	500	490	485	See note 4				
Cooling Airflow (SW2) Low–Cooling Airflow (SW3)	OFF	OFF	ON	515	500	500	490	485	See note 4				
	OFF	ON	OFF	690	680	675	680	675	See note 4				
	OFF	ON	ON	875	875	875	870	865	855	850	835	825	820
	ON	OFF	OFF	1050	1050	1050	1050	1050	1050	1045	1035	1020	1000
	ON	OFF	ON	1220	1225	1225	1225	1225	1220	1205	1190	1185	1170
	ON	ON	OFF	1220	1225	1225	1225	1225	1220	1205	1190	1185	1170
	ON	ON	ON	1220	1225	1225	1225	1225	1220	1205	1190	1185	1170
Maximum Clg Airflow <sup>2</sup>				1395	1400	1400	1400	1395	1385	1370	1340	1300	1245
CF Switches	SW3–3	SW3–2	SW3–1										
Cont. Fan Default:	OFF	OFF	OFF	515	500	500	490	485	See note 4				
Continuous Fan Airflow (SW3)	OFF	OFF	ON	515	500	500	490	485	See note 4				
	OFF	ON	OFF	690	680	675	680	675	See note 4				
	OFF	ON	ON	875	875	875	870	865	855	850	835	825	820
	ON	OFF	OFF	1050	1050	1050	1050	1050	1050	1045	1035	1020	1000
	ON	OFF	ON	1220	1225	1225	1225	1225	1220	1205	1190	1185	1170
	ON	ON	OFF	1220	1225	1225	1225	1225	1220	1205	1190	1185	1170
	ON	ON	ON	1220	1225	1225	1225	1225	1220	1205	1190	1185	1170
Heating (SW1)	High Heat Airflow <sup>3</sup>			1160	1165	1175	1180	1180	1180	1180	1180	1180	1175
	Low Heat Airflow <sup>3</sup>			735	735	735	735	725	See note 4				

**AIR DELIVERY – CFM continued (with filter)\***

(SW1–5 and SW4–3 set to OFF, except as indicated. See notes 1 and 2.)

Unit Size: 0701716	Clg/CF Switch settings			External Static Pressure (ESP)									
Clg Switches	SW2–3	SW2–2	SW2–1	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	1435	1435	1435	1420	1380	1345	1310	1270	1235	1200
CF Switches	SW3–3	SW3–2	SW3–1										
Low–Clg Default:	OFF	OFF	OFF	705	715	720	720	715	705	700	690	680	665
Cooling Airflow (SW2) Low–Cooling Airflow (SW3)	OFF	OFF	ON	530	535	530	520	505	See note 4				
	OFF	ON	OFF	705	715	720	720	715	705	700	690	680	665
	OFF	ON	ON	870	885	890	895	895	895	890	885	875	865
	ON	OFF	OFF	1110	1110	1110	1105	1100	1090	1085	1075	1065	1050
	ON	OFF	ON	1240	1240	1245	1245	1240	1235	1230	1225	1215	1210
	ON	ON	OFF	1435	1435	1435	1420	1380	1345	1310	1270	1235	1200
	ON	ON	ON	1435	1435	1435	1420	1380	1345	1310	1270	1235	1200
	Maximum Clg Airflow <sup>2</sup>			1510	1480	1445	1410	1375	1340	1305	1270	1235	1200
CF Switches	SW3–3	SW3–2	SW3–1										
Cont. Fan Default:	OFF	OFF	OFF	805	800	795	790	775	765	750	735	715	700
Continuous Fan Airflow (SW3)	OFF	OFF	ON	520	520	515	510	495	See note 4				
	OFF	ON	OFF	635	630	625	620	605	595	580	565	550	535
	OFF	ON	ON	805	800	795	790	775	765	750	735	715	700
	ON	OFF	OFF	805	800	795	790	775	765	750	735	715	700
	ON	OFF	ON	805	800	795	790	775	765	750	735	715	700
	ON	ON	OFF	805	800	795	790	775	765	750	735	715	700
	ON	ON	ON	805	800	795	790	775	765	750	735	715	700
Heating (SW1)	High Heat Airflow <sup>3</sup>			1245	1250	1250	1240	1235	1230	1225	1215	1205	1200
	Low Heat Airflow <sup>3</sup>			1040	1040	1035	1030	1030	1020	1010	1000	990	980
Unit Size: 0702120	Clg/CF Switch settings			External Static Pressure (ESP)									
Clg Switches	SW2–3	SW2–2	SW2–1	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	1785	1815	1825	1825	1825	1820	1810	1805	1795	1755
CF Switches	SW3–3	SW3–2	SW3–1										
Low–Clg Default:	OFF	OFF	OFF	855	905	925	950	970	970	960	955	970	965
Cooling Airflow (SW2) Low–Cooling Airflow (SW3)	OFF	OFF	ON	670	735	765	775	790	See note 4				
	OFF	ON	OFF	855	905	925	950	970	970	960	955	970	965
	OFF	ON	ON	1040	1040	1050	1085	1085	1095	1100	1090	1080	1090
	ON	OFF	OFF	1235	1255	1290	1300	1315	1310	1310	1310	1295	1285
	ON	OFF	ON	1495	1475	1490	1490	1495	1490	1485	1470	1460	1455
	ON	ON	OFF	1785	1815	1825	1825	1825	1820	1810	1805	1795	1755
	ON	ON	ON	2145	2140	2135	2125	2110	2090	2040	1965	1875	1800
	Maximum Clg Airflow <sup>2</sup>			2225	2215	2205	2190	2150	2110	2045	1970	1880	1800
CF Switches	SW3–3	SW3–2	SW3–1										
Cont. Fan Default:	OFF	OFF	OFF	855	905	925	950	970	970	960	955	970	965
Continuous Fan Airflow (SW3)	OFF	OFF	ON	670	735	765	775	790	See note 4				
	OFF	ON	OFF	855	905	925	950	970	970	960	955	970	965
	OFF	ON	ON	1040	1040	1050	1085	1085	1095	1100	1090	1080	1090
	ON	OFF	OFF	1040	1040	1050	1085	1085	1095	1100	1090	1080	1090
	ON	OFF	ON	1040	1040	1050	1085	1085	1095	1100	1090	1080	1090
	ON	ON	OFF	1040	1040	1050	1085	1085	1095	1100	1090	1080	1090
	ON	ON	ON	1040	1040	1050	1085	1085	1095	1100	1090	1080	1090
Heating (SW1)	High Heat Airflow <sup>3</sup>			1195	1215	1240	1250	1255	1270	1265	1260	1255	1245
	Low Heat Airflow <sup>3</sup>			1085	1090	1115	1135	1160	1160	1155	1150	1150	1140



**AIR DELIVERY – CFM continued (with filter)\***

(SW1–5 and SW4–3 set to OFF, except as indicated. See notes 1 and 2.)

Unit Size: 0901716	Clg/CF Switch settings			External Static Pressure (ESP)									
Clg Switches	SW2–3	SW2–2	SW2–1	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	1350	1370	1390	1390	1400	1390	1380	1380	1360	1340
CF Switches	SW3–3	SW3–2	SW3–1										
Low–Clg Default:	OFF	OFF	OFF	680	680	680	675	670	See note 4				
Cooling Airflow (SW2) Low–Cooling Airflow (SW3)	OFF	OFF	ON	525	520	525	495	475	See note 4				
	OFF	ON	OFF	680	680	680	675	670	See note 4				
	OFF	ON	ON	815	845	845	855	850	850	845	835	820	805
	ON	OFF	OFF	1005	1005	1015	1035	1040	1040	1035	1030	1025	1010
	ON	OFF	ON	1190	1200	1200	1205	1205	1215	1205	1200	1185	1170
	ON	ON	OFF	1350	1370	1390	1390	1400	1390	1380	1380	1360	1340
	ON	ON	ON	1350	1370	1390	1390	1400	1390	1380	1380	1360	1340
	Maximum Clg Airflow <sup>2</sup>			1595	1600	1600	1600	1595	1555	1505	1465	1430	1390
CF Switches	SW3–3	SW3–2	SW3–1										
Cont. Fan Default:	OFF	OFF	OFF	680	680	680	675	670	See note 4				
Continuous Fan Airflow (SW3)	OFF	OFF	ON	525	520	525	495	475	See note 4				
	OFF	ON	OFF	680	680	680	675	670	See note 4				
	OFF	ON	ON	815	845	845	855	850	850	845	835	820	805
	ON	OFF	OFF	1005	1005	1015	1035	1040	1040	1035	1030	1025	1010
	ON	OFF	ON	1190	1200	1200	1205	1205	1215	1205	1200	1185	1170
	ON	ON	OFF	1190	1200	1200	1205	1205	1215	1205	1200	1185	1170
	ON	ON	ON	1190	1200	1200	1205	1205	1215	1205	1200	1185	1170
Heating (SW1)	High Heat Airflow <sup>3</sup>			1190	1205	1210	1210	1210	1210	1210	1210	1210	1200
	Low Heat Airflow <sup>3</sup>			950	970	985	985	985	985	985	985	985	980
Unit Size: 0902120	Clg/CF Switch settings			External Static Pressure (ESP)									
Clg Switches	SW2–3	SW2–2	SW2–1	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	1785	1805	1815	1835	1840	1855	1860	1850	1845	1835
CF Switches	SW3–3	SW3–2	SW3–1										
Low–Clg Default:	OFF	OFF	OFF	925	935	945	960	980	965	940	925	920	900
Cooling Airflow (SW2) Low–Cooling Airflow (SW3)	OFF	OFF	ON	715	715	735	730	730	See note 4				
	OFF	ON	OFF	925	935	945	960	980	965	940	925	920	900
	OFF	ON	ON	1040	1045	1030	1055	1060	1045	1060	1045	1030	1005
	ON	OFF	OFF	1295	1320	1285	1335	1350	1340	1350	1335	1310	1300
	ON	OFF	ON	1505	1525	1480	1480	1490	1475	1465	1455	1450	1445
	ON	ON	OFF	1785	1805	1815	1835	1840	1855	1860	1850	1845	1835
	ON	ON	ON	2250	2265	2270	2265	2255	2245	2220	2175	2120	2060
	Maximum Clg Airflow <sup>2</sup>			2375	2375	2375	2365	2330	2285	2235	2185	2140	2075
CF Switches	SW3–3	SW3–2	SW3–1										
Cont. Fan Default:	OFF	OFF	OFF	925	935	945	960	980	965	940	925	920	900
Continuous Fan Airflow (SW3)	OFF	OFF	ON	715	715	735	730	730	See note 4				
	OFF	ON	OFF	925	935	945	960	980	965	940	925	920	900
	OFF	ON	ON	1040	1045	1030	1055	1060	1045	1060	1045	1030	1005
	ON	OFF	OFF	1295	1320	1285	1335	1350	1340	1350	1335	1310	1300
	ON	OFF	ON	1505	1525	1480	1480	1490	1475	1465	1455	1450	1445
	ON	ON	OFF	1505	1525	1480	1480	1490	1475	1465	1455	1450	1445
	ON	ON	ON	1505	1525	1480	1480	1490	1475	1465	1455	1450	1445
Heating (SW1)	High Heat Airflow <sup>3</sup>			1590	1610	1605	1605	1600	1605	1610	1610	1615	1620
	Low Heat Airflow <sup>3</sup>			1425	1450	1440	1465	1470	1455	1450	1440	1435	1430

AIR DELIVERY – CFM continued (with filter)*													
(SW1–5 and SW4–3 set to OFF, except as indicated. See notes 1 and 2.)													
Unit Size: 1102120	Clg/CF Switch settings			External Static Pressure (ESP)									
Clg Switches	SW2–3	SW2–2	SW2–1	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	1750	1750	1750	1750	1750	1750	1750	1750	1740	1725
CF Switches	SW3–3	SW3–2	SW3–1										
Low–Clg Default:	OFF	OFF	OFF	875	875	875	875	875	See note 4				
Cooling Airflow (SW2) Low–Cooling Airflow (SW3)	OFF	OFF	ON	700	700	700	700	700	See note 4				
	OFF	ON	OFF	875	875	875	875	875	See note 4				
	OFF	ON	ON	1050	1050	1050	1050	1050	See note 4				
	ON	OFF	OFF	1225	1225	1225	1225	1225	1225	1225	1225	1225	1225
	ON	OFF	ON	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
	ON	ON	OFF	1750	1750	1750	1750	1750	1750	1750	1750	1740	1725
	ON	ON	ON	2100	2100	2100	2100	2090	2075	2055	2040	2005	1970
Maximum Clg Airflow <sup>2</sup>			2200	2190	2190	2180	2155	2145	2125	2100	2080	2020	
CF Switches	SW3–3	SW3–2	SW3–1										
Cont. Fan Default:	OFF	OFF	OFF	875	875	875	875	875	See note 4				
Continuous Fan Airflow (SW3)	OFF	OFF	ON	700	700	700	700	700	See note 4				
	OFF	ON	OFF	875	875	875	875	875	See note 4				
	OFF	ON	ON	1050	1050	1050	1050	1050	See note 4				
	ON	OFF	OFF	1225	1225	1225	1225	1225	1225	1225	1225	1225	1225
	ON	OFF	ON	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
	ON	ON	OFF	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
	ON	ON	ON	1400	1400	1400	1400	1400	1400	1400	1400	1400	1400
Heating (SW1)	High Heat Airflow <sup>3</sup>			1460	1465	1475	1475	1475	1475	1475	1475	1465	1465
	Low Heat Airflow <sup>3</sup>			1275	1295	1315	1320	1320	1320	1320	1320	1320	1315
Unit Size: 1352422	Clg/CF Switch settings			External Static Pressure (ESP)									
Clg Switches	SW2–3	SW2–2	SW2–1	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	1750	1765	1765	1775	1780	1785	1785	1775	1770	1765
CF Switches	SW3–3	SW3–2	SW3–1										
Low–Clg Default:	OFF	OFF	OFF	860	880	895	900	905	900	890	865	845	825
Cooling Airflow (SW2) Low–Cooling Airflow (SW3)	OFF	OFF	ON	690	710	715	710	690	See note 4				
	OFF	ON	OFF	860	880	895	900	905	900	890	865	845	825
	OFF	ON	ON	1015	1050	1070	1080	1085	1095	1095	1090	1085	1075
	ON	OFF	OFF	1185	1220	1245	1260	1270	1275	1280	1280	1285	1280
	ON	OFF	ON	1400	1415	1420	1425	1425	1420	1415	1410	1400	1390
	ON	ON	OFF	1750	1765	1765	1775	1780	1785	1785	1775	1770	1765
	ON	ON	ON	2080	2095	2100	2110	2105	2115	2125	2115	2120	2090
Maximum Clg Airflow <sup>2</sup>			2240	2255	2265	2270	2265	2255	2220	2175	2135	2085	
CF Switches	SW3–3	SW3–2	SW3–1										
Cont. Fan Default:	OFF	OFF	OFF	860	880	895	900	905	900	890	865	845	825
Continuous Fan Airflow (SW3)	OFF	OFF	ON	690	710	715	710	690	See note 4				
	OFF	ON	OFF	860	880	895	900	905	900	890	865	845	825
	OFF	ON	ON	1015	1050	1070	1080	1085	1095	1095	1090	1085	1075
	ON	OFF	OFF	1185	1220	1245	1260	1270	1275	1280	1280	1285	1280
	ON	OFF	ON	1400	1415	1420	1425	1425	1420	1415	1410	1400	1390
	ON	ON	OFF	1400	1415	1420	1425	1425	1420	1415	1410	1400	1390
	ON	ON	ON	1400	1415	1420	1425	1425	1420	1415	1410	1400	1390
Heating (SW1)	High Heat Airflow <sup>3</sup>			1825	1835	1850	1855	1860	1860	1855	1850	1845	1840
	Low Heat Airflow <sup>3</sup>			1645	1660	1670	1675	1675	1675	1675	1670	1665	1660

- Nominal 350 CFM/ton cooling airflow is delivered with SW1-5 and SW4-3 set to OFF.  
Set SW1-5 to ON for nominal 400 CFM/ton (+15% airflow).  
Set SW4-3 to ON for nominal 325 CFM/ton (-7% airflow).  
Set both SW1-5 and SW4-3 on ON for nominal 370 CFM/ton (+7% airflow).  
This applies to Cooling and Low-Cooling airflow, but does not affect continuous fan airflow.

The above adjustments in airflow are subject to motor horsepower range/capacity.

- Maximum cooling airflow is achieved when switches SW2-1, SW2-2, SW2-3 and SW1-5 are set to ON, and SW4-3 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.

ACCESSORIES					
PART NUMBER	DESCRIPTION	0451712	0701412	0701716	0702120
NAHB00501FF	External Bottom Filter Rack, 14 inch (14 x 25 inch washable filter included)		X		
NAHB00601FF	External Bottom Filter Rack, 17 inch (16 x 25 inch washable filter included)	X		X	
NAHB00701FF	External Bottom Filter Rack, 21 inch (20 x 25 inch washable filter included)				X
NAHA00506FB†	Washable filter, 1 inch 16 X 25 (6 pack)	X	X	X	
NAHA00706FB	Washable filter, 1 inch 24 X 25 (6 pack)				X
NAHA01101SB	Combustible Floor Base (Not required when evaporator coil case is used for downflow)	X	X	X	X
NAHB00301VC	Downflow Vent Guard (Not required when vent is routed through cabinet)	X	X	X	X
NAHA00401DH	Chimney Adapter Kit 4-in. vent	X	X	X	X
NAHA00301DH	Chimney Adapter Kit 5-in. vent				
AGAGC8NPS01A	Natural-to-Propane Conversion Kit *	X	X	X	X
AGAGC8PNS01A	Propane-to-Natural Conversion Kit *	X	X	X	X
NAHA00201HL	High Altitude Kit	X	X	X	X
TSTAT0201CW	Observer Control System – Self Configuring Communicating Control	X	X	X	X
SYST0101CW	ION™ Control System – Self Configuring Communicating Control	X	X	X	X

PART NUMBER	DESCRIPTION	0901716	0902120	1102120	1352422
NAHB00601FF	External Bottom Filter Rack, 17 inch (16 x 25 inch washable filter included)	X			
NAHB00701FF	External Bottom Filter Rack, 21 inch (20 x 25 inch washable filter included)		X	X	
NAHB00801FF	External Bottom Filter Rack, 24 inch (24 x 25 inch washable filter included)				X
NAHA00506FB†	Washable filter, 1 inch 16 X 25 (6 pack)	X			
NAHA00706FB	Washable filter, 1 inch 24 X 25 (6 pack)		X	X	X
NAHA01101SB	Combustible Floor Base (Not required when evaporator coil case is used for downflow)	X	X	X	X
NAHB00301VC	Downflow Vent Guard (Not required when vent is routed through cabinet)	X	X	X	X
NAHA00401DH	Chimney Adapter Kit 4-in. vent	X	X	X	
NAHA00301DH	Chimney Adapter Kit 5-in. vent				X
AGAGC8NPS01A	Natural-to-Propane Conversion Kit *	X	X	X	X
AGAGC8PNS01A	Propane-to-Natural Conversion Kit *	X	X	X	X
NAHA00201HL	High Altitude Kit	X	X	X	X
TSTAT0201CW	Observer Control System – Self Configuring Communicating Control	X	X	X	X
SYST0101CW	ION™ Control System – Self Configuring Communicating Control	X	X	X	X

