

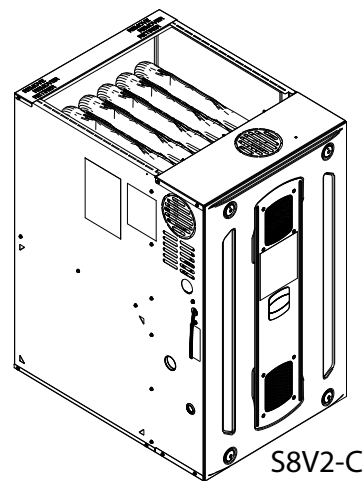


Product and Submittal Data

Link Communicating or 24 Volt Gas-Fired 2 Stage Induced Draft Furnaces with Variable Speed Motor

Upflow, Downflow, Horizontal Right/Left
Two Stage

S8V2A040M3PC/D
S8V2B060M4PC/D
S8V2B080M4PC/D
S8V2C080M5PC/D
S8V2C100M5PC/D
S8V2D120M5PC/D



Notes:

- Graphics in this document are for representation only. Actual model may differ in appearance.
- Models that have a "D" in the 12th digit designating they meet California less than 40 ng/J (NOx) emissions requirements.



Introduction

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Data Notes

This document supersedes and includes data from the documents listed below.

Table 1. Data notes

Literature Number	Title
22-1984-1*-EN	Upflow/Horizontal Left/Right, Downflow Two Stage Link Communicating or 24 Volt Gas-Fired 2 Stage Induced Draft Furnaces with Variable Speed Motor Product Data
S8V2A040M3-SUB-1*	Upflow, Downflow, Horizontal Right/Left Link Communicating or 24 Volt Gas-Fired 2 Stage Induced Draft Furnaces with Variable Speed Motor 40,000 BTUH Submittal
S8V2B060M4-SUB-1*	Upflow, Downflow, Horizontal Right/Left Link Communicating or 24 Volt Gas-Fired 2 Stage Induced Draft Furnaces with Variable Speed Motor 60,000 BTUH Submittal
S8V2B080M4-SUB-1*	Upflow, Downflow, Horizontal Right/Left Link Communicating or 24 Volt Gas-Fired 2 Stage Induced Draft Furnaces with Variable Speed Motor 80,000 BTUH Submittal
S8V2C080M5-SUB-1*	Upflow, Downflow, Horizontal Right/Left Link Communicating or 24 Volt Gas-Fired 2 Stage Induced Draft Furnaces with Variable Speed Motor 80,000 BTUH Submittal
S8V2C100M5-SUB-1*	Upflow, Downflow, Horizontal Right/Left Link Communicating or 24 Volt Gas-Fired 2 Stage Induced Draft Furnaces with Variable Speed Motor 100,000 BTUH Submittal
S8V2D120M5-SUB-1*	Upflow, Downflow, Horizontal Right/Left Link Communicating or 24 Volt Gas-Fired 2 Stage Induced Draft Furnaces with Variable Speed Motor 120,000 BTUH Submittal



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General Features

Communicating Mode

Furnace is shipped ready to be connected in communicating mode.

A/T LINK360A2VVUA Link Smart Thermostat and System Controller must be ordered separately.

Comfort Control

Link communicating technology seamlessly connects each of the system's components, allowing for advanced diagnostics, system performance updates, and optional remote monitoring that can help keep the system running at optimal performance levels throughout its lifetime.

Alternate 24V Mode

Furnace is field configurable to 24V non-communicating mode.

Natural Gas Models

Central Heating furnace designs are certified by Intertek for both natural and propane gas. Limit setting and rating data were established and approved under standard rating conditions using American National Standards Institute standards.

Safe Operation

The Integrated System Control is a solid state device which continuously monitors for presence of flame when the system is in the heating mode of operation. Dual solenoid combination gas valve and regulator provide additional safety.

Quick Heating

Durable, cycle tested, heavy gauge tubular aluminized steel heat exchanger quickly transfers heat to provide warm conditioned air to the structure. Low energy power vent blower, to increase efficiency and provide a discharge of gas fumes to the outside.

Burners

Multiport, Inshot burners will give years of quiet and efficient service. All models can be converted to propane gas with propane conversion kit.

Integrated System Control

Exclusively designed operational program provides total control of furnace limit sensors, blowers, gas valve, flame control and includes self diagnostics for ease of service.

Energy Efficient Operation

Air-Tite™ cabinet design is certified to <1% air leakage per ASHRAE 193 "Method of Test for Determining the Airtightness of HVAC Equipment."

Air Delivery

The highly efficient, variable speed blower motor delivers consistent airflow and will switch from heating to cooling speeds on demand from the room thermostat.

Styling

Heavy gauge steel and wrap-around cabinet construction is used in the cabinet with baked-on enamel finish for strength and beauty. Every orientation has at least two venting options. There are no knockouts on cabinet.

Features and General Operation

The S-Series furnace utilizes a Silicon Nitride Hot Surface Ignition system, which eliminates the waste of a constant burning pilot. The integrated system control lights the main burners upon a demand for heat from the room thermostat. Complete front service access.

1. Low energy power venter
2. Vent proving pressure switches



Features and Benefits

Link Communication or 24 Volt Control

Seamless connection between system components to monitor system performance and efficiency

Diagnostics and configuration capability through Mobile App

Field configurable to 24 volt non-communicating mode

80% AFUE on S8V2 Furnace Models

Lowers utility bills

Electrically Efficient

Efficient airflow design reduces electrical energy use

34-Inch Tall

Lighter, easier to move and fit into tight spaces like short basements or tight closets

Works great with larger, high-efficiency coils

No knockouts

4-Way Multi-Poise

12 SKU's — Upflow / Downflow / Horizontal Left / Horizontal Right

Added application flexibility and reduction in specification errors

Airflow

At least 400 CFM/ton at 0.5-inch. H₂O external static pressure

Regulatory

All models are air tight; 1% or less air leakage as per ASHRAE 193

Open vestibule design provides a full 34-inch. high open vestibule for ease of installation and service

Dimensions

Widths are industry standard: 14.5 inch, 17.5 inch, 21 inch and 24.5 inch. Depth remains approximately 28-inch.

Cabinet is compatible with industry standard coils, as well as, other accessories

Integrated Furnace Control

Setup / Status / Diagnostics / Digital Display

No dip switches

Last six errors stored

Dry contact EAC and HUM connections

All multi-pin polarized terminals connections; no spade terminals

Low voltage labeled above and below

Tubular Aluminized Steel Heat Exchanger

Vortica™ II Blower, Designed Exclusively for the S-Series Furnace

Improved airflow efficiency

Durable, easy to clean, housing

Single piece belly band/ motor arm assembly

Blower deck has full-length rails for easy removal and replacement, regardless of poise

Four-Way Multi-Poise (Upflow, Downflow, Horizontal Left and Right)

Easier to specify

Shipped ready to install (no conversion kits required)

Every model has at least two venting options



Accessories

Table 2. Accessories

Model Number	Description	Use with
BAYHANG	Horizontal Hanging Kit	All furnaces
BAYSENSC360	Supply Air Temperature Sensor	All furnaces
BAYFURNPTKT	Return Air Static Pressure Sensor	All furnaces
BAYLIFTB ^(a)	Dual Return Kit (B size extension)	All B cabinet furnaces
BAYLIFTC ^(a)	Dual Return Kit (C size extension)	All C cabinet furnaces
BAYLIFTD ^(a)	Dual Return Kit (D size extension)	All D cabinet furnaces
BAYBASE205	Downflow Subbase	All furnaces in Downflow orientation
BAYFLTR203	Horizontal Filter Kit	B cabinet furnace in Downflow/Horizontal
BAYFLTR204	Horizontal Filter Kit	C cabinet furnace in Downflow/Horizontal
BAYFLTR205	Horizontal Filter Kit	D cabinet furnace in Downflow/Horizontal
BAYFLTR206	Filter AccessDoor Kit (Downflow Only)	All furnaces in downflow orientation
BAYSF1165 ^{(a)(b)}	1 in. SlimFit Cabinet with MERV 4 Filter	All upflow furnaces
BAYSF1255 ^(b)	1 in. SlimFit Rack with MERV 4 Filter	All furnaces when used in side return application; B Cabinet furnaces only when in bottom return application
FLRSF1255	1 in. Filter Replacement (Qty 12)	BAYSF1255 ^(b)
BAYVENT600A	Internal Venting Kit	B, C, and D furnaces in Downflow orientation
BAYVENT800B	Masonry Chimney Vent Kit	All furnaces in upflow orientation only
BAYSWT22AHALTAA	High Altitude Pressure Switch Kit	S8V2A040M3P ^(b)
BAYSWT16AHALTAB	High Altitude Pressure Switch Kit	S8V2C080M5P ^(b)
BAYSWT18AHALTAA	High Altitude Pressure Switch Kit	S8V2B080M4P ^(b)
BAYSWT19AHALTAA	High Altitude Pressure Switch Kit	S8V2C100M5P ^(b)
BAYSWT23AHALTAA	High Altitude Pressure Switch Kit	S8V2B060M4P ^(b)
BAYSWT24AHALTAA	High Altitude Pressure Switch Kit	S8V2D120M5P ^(b)
BAYLPSS400 ^(b)	Propane Conversion Kit with Stainless Steel Burners	All furnaces
BAYBURNERSS	All Stainless Steel Natural Gas Burners - Set of Six	All upflow furnaces - special case
PIP02095	U Fitting for Gas Piping	All furnaces for right hand gas entry

^(a) Airflow greater than 1600 CFM; furnace will require return air openings and filters on: (1) both sides, (2) one side and the bottom, or (3) just on the bottom.

^(b) Latest Version



Product Specification

Table 3. Models S8V2A040M3PC, S8V2A040M3PD, S8V2B060M4PC, S8V2B060M4PD, S8V2B080M4PC, and S8V2B080M4PD

Model	S8V2A040M3PC ^(a) S8V2A040M3PD ^(a)	S8V2B060M4PC ^(a) S8V2B060M4PD ^(a)	S8V2B080M4PC ^(a) S8V2B080M4PD ^(a)
Type	Upflow / Horizontal / Downflow	Upflow / Horizontal / Downflow	Upflow / Horizontal / Downflow
Ratings ^(b)			
1st Stage Input BTUH	26,000	39,000	52,000
1st Stage Capacity BTUH (ICS)	21,000	31,300	41,200
2nd Stage Input BTUH	40,000	60,000	80,000
2nd Stage Capacity BTUH (ICS) ^(c)	32,200	49,100	65,800
1st Stage Temp. Rise (Min. - Max.) °F	20 - 50	20 - 50	30 - 60
2nd Stage Temp. Rise (Min. - Max.) °F	30 - 60	30 - 60	30 - 60
AFUE – Rating ^(c)	80	80	80
Return Air Temp. (Min. - Max.) °F	55°F - 80°F	55°F - 80°F	55°F - 80°F
Blower Drive	DIRECT	DIRECT	DIRECT
Diameter - Width (in.)	11 X 8	11 X 8	11 X 8
No. Used	1	1	1
Speeds (No.) ^(d)	Variable	Variable	Variable
CFM vs. in. w.g.	See Fan Performance Table	See Fan Performance Table	See Fan Performance Table
Motor HP	1/2	3/4	3/4
R.P.M.	Variable	Variable	Variable
Volts / Ph / Hz	120 / 1 / 60	120 / 1 / 60	120 / 1 / 60
FLA	6.4	8	8
Combustion Fan - Type	PSC	PSC	PSC
Drive - No. Speeds	Direct - 2	Direct - 2	Direct - 2
Motor HP - RPM	3200/2700	3200/2700	3200/2900
Volts/Ph/Hz	120 / 1 / 60	120 / 1 / 60	120 / 1 / 60
FLA	0.30	0.30	0.33
Inducer Orifice	1.20	1.40	1.75
Filter - Furnished?	No	No	No
Type Recommended	High Velocity	High Velocity	High Velocity
Hi Vel. (No.-Size-Thk.)	1 - 14 X 25 - 1 in.	1 - 16 X 25 - 1 in.	1 - 16 X 25 - 1 in.
Vent Pipe Diameter - Min. (in.) ^(e)	4 Round	4 Round	4 Round
Heat Exchanger - Type	Aluminized Steel	Aluminized Steel	Aluminized Steel
Gauge (Fired)	20 - 19	20 - 19	20 - 19
Orifices - Main			
Nat. Gas Qty. - Drill Size	2 - 45	3 - 45	4 - 45
L.P. Gas Qty. - Drill Size	2 - 56	3 - 56	4 - 56
Gas Valve	Redundant - Two Stage	Redundant - Two Stage	Redundant - Two Stage
Pilot Safety Device - Type	120 V SiNi Igniter	120 V SiNi Igniter	120 V SiNi Igniter
Burners - Qty	2	3	4
Power Conn. - V/Ph/HZ ^(f)	120 / 1 / 60	120 / 1 / 60	120 / 1 / 60
Ampacity (Amps)	8.5	10.5	10.5
Max. Overcurrent Protection (Amps)	15	15	15
Pipe Conn. Size (in.)	1/2	1/2	1/2
Dimensions	H x W x D	H x W x D	H x W x D
Uncrated (in.)	34 x 14.5 x 28.75	34 x 17.5 x 28.75	34 x 17.5 x 28.75
Crated (in.)	35.5 x 16.5 x 30.87	35.5 x 19.5 x 30.87	35.5 x 19.5 x 30.87
Weight			
Shipping (Lbs.)/Net (Lbs.)	102/94	132/124	137/129

^(a) Central Furnace heating designs are certified to ANSI Z21.47 - latest edition.

^(b) For U.S. applications, above input ratings (BTUH) are up to 2,000 feet, derate 4% per 1,000 feet for elevations above 2,000 feet above sea level.

^(c) Based on U.S. government standard tests.

^(d) Direct drive variable speed blower motor is an ECM constant airflow blower motor.

^(e) Refer to the Installation, Operation, and Maintenance Manual.

^(f) The above wiring specifications are in accordance with National Electric Code, however, installations must comply with local codes.



Product Specification

Table 4. Models S8V2C080M5PC, S8V2C080M5PD, S8V2C100M5PC, S8V2C100M5PD, S8V2D120M5PC and S8V2D120M5PD

Model	S8V2C080M5PC ^(a) S8V2C080M5PD ^(a)	S8V2C100M5PC ^(a) S8V2C100M5PD ^(a)	S8V2D120M5PC ^(a) S8V2D120M5PD ^(a)
Type	Upflow / Horizontal / Downflow	Upflow / Horizontal / Downflow	Upflow / Horizontal / Downflow
Ratings ^(b)			
1st Stage Input BTUH	52,000	65,000	84,000
1st Stage Capacity BTUH (ICS)	41,800	52,300	67,900
2nd Stage Input BTUH	80,000	100,000	120,000
2nd Stage Capacity BTUH (ICS) ^(c)	64,800	81,200	98,000
1st Stage Temp. Rise (Min. - Max.) °F	30 - 60	25 - 55	30 - 60
2nd Stage Temp. Rise (Min. - Max.) °F	30 - 60	30 - 60	35 - 65
AFUE – Rating ^(c)	80	80	80
Return Air Temp. (Min. - Max.) °F	55°F - 80°F	55°F - 80°F	55°F - 80°F
Blower Drive	DIRECT	DIRECT	DIRECT
Diameter - Width (in.)	11 X 11	11 X 11	11 X 11
No. Used	1	1	1
Speeds (No.) ^(d)	Variable	Variable	Variable
CFM vs. in. w.g.	See Fan Performance Table	See Fan Performance Table	See Fan Performance Table
Motor HP	1	1	1
R.P.M.	Variable	Variable	Variable
Volts / Ph / Hz	120 / 1 / 60	120 / 1 / 60	120 / 1 / 60
FLA	10	10	10
Combustion Fan - Type	PSC	PSC	PSC
Drive - No. Speeds	Direct - 2	Direct - 2	Direct - 2
Motor HP - RPM	3200/2700	3200/2900	3200/2900
Volts/Ph/Hz	120 / 1 / 60	120 / 1 / 60	120 / 1 / 60
FLA	0.30	0.33	0.33
Inducer Orifice	1.80	2.50	2.15
Filter - Furnished?	No	No	No
Type Recommended	High Velocity	High Velocity	High Velocity
Hi Vel. (No.-Size-Thk.)	1 - 20 X 25 - 1 in.	1 - 20 X 25 - 1 in.	1 - 24 X 25 - 1 in.
Vent Pipe Diameter - Min. (in.) ^(e)	4 Round	4 Round	4 Round
Heat Exchanger - Type	Aluminized Steel	Aluminized Steel	Aluminized Steel
Gauge (Fired)	20 - 19	20 - 19	20 - 19
Orifices - Main			
Nat. Gas Qty. - Drill Size	4 - 45	5 - 45	6 - 45
L.P. Gas Qty. - Drill Size	4 - 56	5 - 56	6 - 56
Gas Valve	Redundant - Two Stage	Redundant - Two Stage	Redundant - Two Stage
Pilot Safety Device - Type	120 V SiNi Igniter	120 V SiNi Igniter	120 V SiNi Igniter
Burners - Qty	4	5	6
Power Conn. - V/Ph/HZ ^(f)	120 / 1 / 60	120 / 1 / 60	120 / 1 / 60
Ampacity (Amps)	13.0	13.0	13.0
Max. Overcurrent Protection (Amps)	15	15	15
Pipe Conn. Size (in.)	1/2	1/2	1/2
Dimensions	H x W x D	H x W x D	H x W x D
Uncrated (in.)	34 x 21 x 28.75	34 x 21 x 28.75	34 x 24.5 x 28.75
Crated (in.)	35.5 x 23 x 30.87	35.5 x 23 x 30.87	35.5 x 26.5 x 30.87
Weight			
Shipping (Lbs.)/Net (Lbs.)	142/134	144/136	160/152

^(a) Central Furnace heating designs are certified to ANSI Z21.47 - latest edition.

^(b) For U.S. applications, above input ratings (BTUH) are up to 2,000 feet, derate 4% per 1,000 feet for elevations above 2,000 feet above sea level.

^(c) Based on U.S. government standard tests.

^(d) Direct drive variable speed blower motor is an ECM constant airflow blower motor.

^(e) Refer to the Installation, Operation, and Maintenance Manual.

^(f) The above wiring specifications are in accordance with National Electric Code, however, installations must comply with local codes.



Airflow Tables

Table 5. Heating airflow performance – S8V2A040M3P

S8V2A040M3P Furnace Heating Airflow (CFM), Temp. Rise (°F), and Power (Watts) vs. External Static Pressure with Filter (iwc)								
Airflow Setting	Heating Stage	Target Airflow		External Static Pressure				
				0.1	0.3	0.5	0.7	0.9
540	1st Stage	427	CFM/Watts	458/23	459/55	460/87	461/119	462/151
			Temp. Rise	42	42	42	41	41
	2nd Stage	540	CFM/Watts	605/32	601/71	596/109	591/148	586/187
			Temp. Rise	49	49	50	50	50
640 ^(a)	1st Stage	506	CFM/Watts	521/30	522/64	524/98	525/132	527/166
			Temp. Rise	37	37	37	37	37
	2nd Stage	640	CFM/Watts	660/44	661/84	662/125	663/165	664/206
			Temp. Rise	45	45	45	45	45
750	1st Stage	593	CFM/Watts	611/40	605/76	598/112	592/149	585/185
			Temp. Rise	32	33	33	33	34
	2nd Stage	750	CFM/Watts	785/64	779/108	773/152	768/196	762/240
			Temp. Rise	39	39	39	39	40
850	1st Stage	672	CFM/Watts	694/50	680/88	667/126	653/164	639/202
			Temp. Rise	28	29	29	30	31
	2nd Stage	850	CFM/Watts	898/82	887/130	875/177	863/224	851/272
			Temp. Rise	33	33	34	34	35

^(a) Factory Setting

Table 6. Cooling airflow performance – S8V2A040M3P

S8V2A040M3P Furnace Cooling Airflow (CFM) and Power (Watts) vs. External Static Pressure with Filter (iwc)							
Outdoor Tonnage - "Odt" (tons)	Airflow Setting - "CPC" (CFM/ton)		EXTERNAL STATIC PRESSURE (IN. W. C.)				
			0.1	0.3	0.5	0.7	0.9
1.5	450	CFM / WATTS	672 / 52	655 / 91	641 / 134	627 / 180	611 / 228
	420	CFM / WATTS	630 / 45	611 / 83	596 / 124	581 / 168	566 / 215
	400	CFM / WATTS	601 / 41	581 / 78	566 / 118	551 / 161	535 / 207
	370	CFM / WATTS	558 / 35	537 / 70	521 / 109	505 / 151	489 / 196
	350	CFM / WATTS	529 / 32	507 / 66	490 / 104	475 / 145	458 / 189
	330	CFM / WATTS	500 / 29	477 / 62	460 / 98	444 / 139	427 / 183
	310	CFM / WATTS	471 / 26	447 / 58	429 / 94	413 / 133	396 / 176
	290	CFM / WATTS	437 / 23	405 / 53	400 / 89	363 / 125	326 / 165
2.0	450	CFM / WATTS	869 / 93	863 / 142	852 / 193	823 / 240	800 / 291
	420	CFM / WATTS	827 / 82	814 / 128	803 / 177	790 / 228	776 / 281
	400	CFM / WATTS	790 / 74	776 / 118	764 / 166	751 / 215	736 / 267
	370	CFM / WATTS	734 / 63	718 / 105	705 / 150	692 / 198	677 / 248
	350	CFM / WATTS	690 / 55	680 / 96	646 / 136	632 / 181	628 / 233
	330	CFM / WATTS	658 / 49	640 / 88	626 / 131	612 / 176	596 / 224
	310	CFM / WATTS	620 / 44	601 / 81	586 / 122	571 / 166	555 / 213
	290	CFM / WATTS	582 / 38	562 / 74	546 / 114	531 / 157	515 / 202
2.5	450	CFM / WATTS	1087 / 163	1065 / 212	1074 / 278	1064 / 339	1052 / 402
	420	CFM / WATTS	1019 / 138	998 / 186	1004 / 248	993 / 306	981 / 366
	400	CFM / WATTS	974 / 123	953 / 171	945 / 225	922 / 277	902 / 331
	370	CFM / WATTS	898 / 101	886 / 149	876 / 200	848 / 248	825 / 300
	350	CFM / WATTS	859 / 90	848 / 137	837 / 187	824 / 240	810 / 294
	330	CFM / WATTS	813 / 79	800 / 124	788 / 173	775 / 223	761 / 276
	310	CFM / WATTS	766 / 69	752 / 112	739 / 159	726 / 208	711 / 259
	290	CFM / WATTS	719 / 60	704 / 101	690 / 146	677 / 193	661 / 243
3.0 ^(a)	450	CFM / WATTS	1288 / 255	1286 / 319	1282 / 386	1274 / 455	1264 / 525
	420	CFM / WATTS	1208 / 215	1205 / 276	1199 / 340	1191 / 405	1180 / 473
	400	CFM / WATTS	1155 / 190	1150 / 249	1144 / 311	1135 / 375	1124 / 440
	370	CFM / WATTS	1074 / 157	1068 / 213	1060 / 272	1050 / 332	1038 / 394
	350 ^(a)	CFM / WATTS	1019 / 138	1012 / 191	1004 / 248	993 / 306	981 / 366
	330	CFM / WATTS	965 / 120	956 / 171	947 / 226	936 / 282	923 / 340
	310	CFM / WATTS	910 / 104	900 / 153	889 / 205	878 / 259	864 / 315
	290	CFM / WATTS	854 / 89	843 / 136	832 / 186	820 / 238	805 / 292

^(a) Factory Setting



Airflow Tables

Table 7. Heating airflow performance – S8V2B060M4P

Furnace Heating Airflow (CFM), Power (Watts), and Temp. Rise (°F) vs. External Static Pressure with Filter (iwc)								
Airflow Setting	Heating Stage	Target Airflow		EXTERNAL STATIC PRESSURE (IN. W. C.)				
				0.1	0.3	0.5	0.7	0.9
900	1st Stage	711	CFM / Watts	690 / 44	687 / 83	684 / 122	681 / 161	678 / 200
			Temp. Rise	42	42	42	43	43
	2nd Stage	900	CFM / Watts	880 / 71	880 / 121	879 / 172	878 / 223	877 / 273
			Temp. Rise	51	51	51	51	50
1050 ^(a)	1st Stage	830	CFM / Watts	808 / 63	812 / 107	816 / 151	820 / 194	824 / 238
			Temp. Rise	36	36	36	36	35
	2nd Stage	1050	CFM / Watts	1037 / 108	1032 / 162	1027 / 216	1021 / 269	1016 / 323
			Temp. Rise	43	44	44	43	44
1200	1st Stage	948	CFM / Watts	917 / 87	921 / 137	925 / 186	929 / 235	932 / 285
			Temp. Rise	32	32	32	32	32
	2nd Stage	1200	CFM / Watts	1179 / 165	1175 / 226	1171 / 287	1168 / 347	1164 / 408
			Temp. Rise	39	39	39	39	39
1400	1st Stage	1106	CFM / Watts	1063 / 119	1067 / 176	1070 / 233	1074 / 289	1077 / 347
			Temp. Rise	27	27	27	27	27
	2nd Stage	1400	CFM / Watts	1367 / 240	1366 / 311	1364 / 381	1363 / 451	1361 / 522
			Temp. Rise	33	33	33	33	33

^(a) Factory Setting

Table 8. Cooling airflow performance – S8V2B060M4P

S8V2B060M4P Furnace Cooling Airflow (CFM) and Power (Watts) vs. External Static Pressure with Filter (iwc)							
Outdoor Tonnage - "Odt" (tons)	Airflow Setting - "CPC" (CFM/ton)		EXTERNAL STATIC PRESSURE (IN. W. C.)				
			0.1	0.3	0.5	0.7	0.9
1.5	450	CFM / WATTS	650 / 42	649 / 77	653 / 116	658 / 159	659 / 205
	420	CFM / WATTS	600 / 36	599 / 69	604 / 107	609 / 149	611 / 195
	400	CFM / WATTS	567 / 33	566 / 65	571 / 102	576 / 143	578 / 189
	370	CFM / WATTS	518 / 28	516 / 59	521 / 94	526 / 135	529 / 180
	350	CFM / WATTS	484 / 25	483 / 55	488 / 90	493 / 130	496 / 176
	330	CFM / WATTS	451 / 23	449 / 51	455 / 86	460 / 126	462 / 171
	310	CFM / WATTS	417 / 20	415 / 48	421 / 82	426 / 122	429 / 167
	290	CFM / WATTS	325 / 15	325 / 41	340 / 75	346 / 115	326 / 161
2.0	450	CFM / WATTS	892 / 81	892 / 124	895 / 171	898 / 220	899 / 272
	420	CFM / WATTS	828 / 69	828 / 110	832 / 154	835 / 202	836 / 252
	400	CFM / WATTS	785 / 61	785 / 101	789 / 144	792 / 190	793 / 240
	370	CFM / WATTS	720 / 51	720 / 89	724 / 130	728 / 174	729 / 222
	350	CFM / WATTS	677 / 45	676 / 81	681 / 121	685 / 164	686 / 212
	330	CFM / WATTS	633 / 40	632 / 74	637 / 113	641 / 155	643 / 202
	310	CFM / WATTS	589 / 35	588 / 68	593 / 105	598 / 147	600 / 193
	290	CFM / WATTS	545 / 31	544 / 62	549 / 98	554 / 139	556 / 185
2.5	450	CFM / WATTS	1127 / 142	1128 / 193	1131 / 248	1133 / 305	1132 / 365
	420	CFM / WATTS	1040 / 117	1042 / 165	1045 / 217	1047 / 271	1046 / 327
	400	CFM / WATTS	997 / 105	998 / 152	1001 / 202	1003 / 255	1003 / 310
	370	CFM / WATTS	918 / 87	919 / 131	922 / 178	925 / 228	925 / 281
	350	CFM / WATTS	865 / 76	865 / 118	869 / 164	872 / 212	873 / 264
	330	CFM / WATTS	812 / 66	812 / 106	816 / 150	819 / 197	820 / 247
	310	CFM / WATTS	758 / 57	758 / 95	762 / 138	766 / 183	767 / 232
	290	CFM / WATTS	704 / 49	703 / 86	708 / 126	712 / 170	713 / 218

Table 8. Cooling airflow performance – S8V2B060M4P (continued)

S8V2B060M4P Furnace Cooling Airflow (CFM) and Power (Watts) vs. External Static Pressure with Filter (iwc)							
Outdoor Tonnage - "Odt" (tons)	Airflow Setting - "CPC" (CFM/ton)		EXTERNAL STATIC PRESSURE (IN. W. C.)				
			0.1	0.3	0.5	0.7	0.9
3.0	450	CFM / WATTS	1355 / 228	1358 / 288	1360 / 352	1361 / 417	1358 / 485
	420	CFM / WATTS	1265 / 190	1267 / 247	1269 / 307	1270 / 369	1268 / 433
	400	CFM / WATTS	1204 / 167	1205 / 222	1208 / 279	1209 / 339	1208 / 402
	370	CFM / WATTS	1111 / 137	1113 / 188	1116 / 242	1117 / 299	1116 / 358
	350	CFM / WATTS	1049 / 119	1050 / 168	1053 / 220	1055 / 274	1055 / 331
	330	CFM / WATTS	987 / 103	987 / 149	991 / 199	993 / 251	993 / 306
	310	CFM / WATTS	923 / 88	924 / 132	927 / 180	930 / 230	930 / 283
3.5	290	CFM / WATTS	860 / 75	860 / 117	864 / 162	867 / 211	867 / 262
	450	CFM / WATTS	1576 / 345	1580 / 414	1582 / 486	1582 / 560	1578 / 636
	420	CFM / WATTS	1474 / 286	1477 / 351	1479 / 419	1479 / 489	1476 / 561
	400	CFM / WATTS	1405 / 251	1408 / 314	1410 / 379	1410 / 446	1408 / 516
	370	CFM / WATTS	1300 / 204	1302 / 262	1305 / 324	1305 / 387	1303 / 453
	350	CFM / WATTS	1229 / 177	1231 / 232	1234 / 291	1235 / 351	1233 / 414
	330	CFM / WATTS	1158 / 152	1159 / 204	1162 / 260	1163 / 319	1162 / 379
4.0 (a)	310	CFM / WATTS	1085 / 129	1087 / 179	1090 / 232	1092 / 288	1091 / 346
	290	CFM / WATTS	1013 / 109	1014 / 157	1017 / 207	1019 / 261	1019 / 316
	450	CFM / WATTS	1791 / 497	1795 / 575	1797 / 656	1796 / 739	1791 / 823
	420	CFM / WATTS	1677 / 411	1681 / 485	1683 / 561	1683 / 639	1678 / 719
	400	CFM / WATTS	1601 / 360	1604 / 430	1606 / 503	1606 / 578	1602 / 655
	370	CFM / WATTS	1484 / 291	1487 / 357	1489 / 425	1489 / 496	1486 / 568
	350(a)	CFM / WATTS	1405 / 251	1408 / 314	1410 / 379	1410 / 446	1408 / 516
	330	CFM / WATTS	1325 / 215	1327 / 274	1330 / 336	1331 / 401	1328 / 467
	310	CFM / WATTS	1244 / 182	1246 / 238	1249 / 297	1250 / 359	1248 / 422
	290	CFM / WATTS	1163 / 153	1164 / 206	1167 / 262	1169 / 321	1167 / 381

(a) Factory Setting

Table 9. Heating airflow performance – S8V2B080M4P

Furnace Heating Airflow (CFM), Power (Watts), and Temp. Rise (°F) vs. External Static Pressure with Filter (iwc)								
Airflow Setting	Heating Stage	Target Airflow		EXTERNAL STATIC PRESSURE (IN. W. C.)				
				0.1	0.3	0.5	0.7	0.9
1060	1st Stage	689	CFM / Watts	692 / 50	684 / 93	678 / 136	670 / 179	664 / 222
			Temp. Rise	56	56	57	57	58
	2nd Stage	1060	CFM / Watts	1071 / 107	1068 / 180	1065 / 254	1061 / 327	1058 / 401
			Temp. Rise	56	56	56	56	57
1330(a)	1st Stage	865	CFM / Watts	854 / 78	858 / 125	861 / 173	864 / 221	867 / 268
			Temp. Rise	45	45	45	45	45
	2nd Stage	1330	CFM / Watts	1320 / 211	1318 / 287	1315 / 364	1313 / 441	1311 / 517
			Temp. Rise	45	45	45	45	45
1470	1st Stage	956	CFM / Watts	947 / 100	941 / 151	936 / 201	930 / 252	924 / 302
			Temp. Rise	41	41	42	42	42
	2nd Stage	1470	CFM / Watts	1460 / 305	1453 / 383	1446 / 460	1439 / 538	1432 / 615
			Temp. Rise	41	41	42	42	42
1600	1st Stage	1040	CFM / Watts	1033 / 121	1019 / 174	1005 / 227	991 / 280	978 / 334
			Temp. Rise	37	38	38	39	40
	2nd Stage	1600	CFM / Watts	1591 / 393	1579 / 471	1568 / 550	1556 / 628	1545 / 707
			Temp. Rise	38	38	38	38	38

(a) Factory Setting



Airflow Tables

Table 10. Cooling airflow performance – S8V2B080M4P

S8V2B080M4P Furnace Cooling Airflow (CFM) and Power (Watts) vs. External Static Pressure with Filter (iwc)							
Outdoor Tonnage - "Odt" (tons)	Airflow Setting - "CPC" (CFM/ton)		EXTERNAL STATIC PRESSURE (IN. W. C.)				
			0.1	0.3	0.5	0.7	0.9
1.5	450	CFM / WATTS	692 / 42	684 / 78	678 / 119	672 / 163	667 / 212
	420	CFM / WATTS	647 / 37	639 / 71	632 / 110	626 / 153	621 / 201
	400	CFM / WATTS	617 / 33	609 / 66	602 / 105	596 / 147	591 / 194
	370	CFM / WATTS	572 / 28	563 / 60	556 / 97	550 / 139	545 / 185
	350	CFM / WATTS	542 / 26	533 / 56	526 / 92	520 / 134	515 / 180
	330	CFM / WATTS	512 / 23	502 / 53	495 / 88	489 / 129	484 / 175
	310	CFM / WATTS	481 / 21	472 / 49	465 / 84	459 / 125	453 / 170
2.0	290	CFM / WATTS	450 / 18	443 / 46	450 / 82	450 / 123	417 / 166
	450	CFM / WATTS	915 / 82	909 / 126	903 / 175	897 / 226	893 / 281
	420	CFM / WATTS	856 / 69	849 / 112	843 / 158	838 / 207	833 / 260
	400	CFM / WATTS	817 / 62	809 / 103	803 / 147	798 / 195	793 / 247
	370	CFM / WATTS	757 / 52	749 / 90	743 / 133	737 / 179	732 / 229
	350	CFM / WATTS	717 / 46	709 / 83	703 / 124	697 / 169	692 / 218
	330	CFM / WATTS	677 / 40	669 / 76	662 / 116	657 / 160	652 / 208
2.5	310	CFM / WATTS	637 / 35	629 / 69	622 / 108	616 / 151	611 / 199
	290	CFM / WATTS	597 / 31	589 / 63	582 / 101	576 / 143	571 / 190
	450	CFM / WATTS	1135 / 143	1130 / 196	1124 / 253	1120 / 312	1115 / 375
	420	CFM / WATTS	1062 / 119	1056 / 170	1050 / 224	1045 / 281	1041 / 340
	400	CFM / WATTS	1013 / 106	1007 / 154	1002 / 206	997 / 261	992 / 319
	370	CFM / WATTS	940 / 87	933 / 133	927 / 182	922 / 235	917 / 290
	350	CFM / WATTS	891 / 76	884 / 120	878 / 167	872 / 218	868 / 272
3.0	330	CFM / WATTS	841 / 66	834 / 108	828 / 154	823 / 203	818 / 255
	310	CFM / WATTS	792 / 57	784 / 97	778 / 141	772 / 188	768 / 239
	290	CFM / WATTS	742 / 49	734 / 87	728 / 129	722 / 175	717 / 225
	450	CFM / WATTS	1353 / 230	1348 / 292	1343 / 358	1339 / 426	1335 / 496
	420	CFM / WATTS	1266 / 192	1261 / 250	1256 / 312	1252 / 377	1247 / 444
	400	CFM / WATTS	1208 / 169	1203 / 225	1198 / 285	1193 / 347	1189 / 412
	370	CFM / WATTS	1121 / 138	1115 / 191	1110 / 247	1105 / 306	1101 / 367
3.5	350	CFM / WATTS	1062 / 120	1056 / 170	1051 / 224	1046 / 281	1041 / 340
	330	CFM / WATTS	1004 / 103	997 / 151	992 / 203	987 / 258	982 / 315
	310	CFM / WATTS	945 / 88	938 / 134	932 / 184	927 / 236	922 / 292
	290	CFM / WATTS	886 / 75	879 / 119	873 / 166	867 / 216	863 / 270
	450	CFM / WATTS	1568 / 349	1564 / 420	1559 / 494	1556 / 571	1552 / 650
	420	CFM / WATTS	1468 / 289	1463 / 356	1459 / 427	1455 / 499	1451 / 574
	400	CFM / WATTS	1401 / 253	1396 / 318	1392 / 385	1387 / 455	1383 / 528
4.0 (a)	370	CFM / WATTS	1300 / 206	1295 / 266	1290 / 330	1286 / 396	1282 / 464
	350	CFM / WATTS	1232 / 178	1227 / 235	1222 / 296	1218 / 359	1213 / 425
	330	CFM / WATTS	1165 / 153	1159 / 207	1154 / 265	1149 / 326	1145 / 389
	310	CFM / WATTS	1096 / 130	1091 / 182	1085 / 237	1080 / 295	1076 / 356
	290	CFM / WATTS	1028 / 110	1022 / 159	1016 / 212	1011 / 267	1007 / 325
	450	CFM / WATTS	1780 / 503	1776 / 584	1773 / 667	1769 / 753	1766 / 841
	420	CFM / WATTS	1667 / 416	1663 / 492	1659 / 570	1656 / 651	1652 / 734
	400	CFM / WATTS	1592 / 364	1587 / 436	1583 / 512	1579 / 590	1576 / 670
	370	CFM / WATTS	1477 / 294	1473 / 362	1469 / 433	1464 / 506	1461 / 581
	350 (a)	CFM / WATTS	1401 / 253	1396 / 318	1392 / 385	1387 / 455	1383 / 528
	330	CFM / WATTS	1324 / 217	1319 / 278	1314 / 342	1310 / 409	1306 / 478
	310	CFM / WATTS	1247 / 184	1242 / 242	1237 / 303	1232 / 367	1228 / 433
	290	CFM / WATTS	1169 / 154	1164 / 209	1159 / 267	1154 / 328	1150 / 392

(a) Factory Setting

Table 11. Heating airflow performance – S8V2C080M5P

Furnace Heating Airflow (CFM), Power (Watts), and Temp. Rise (°F) vs. External Static Pressure with Filter (iwc)								
Airflow Setting	Heating Stage	Target Airflow		EXTERNAL STATIC PRESSURE (IN. W. C.)				
				0.1	0.3	0.5	0.7	0.9
1150	1st Stage	748	CFM / Watts	771 / 46	741 / 90	711 / 134	682 / 178	652 / 221
			Temp. Rise	50	52	54	56	58
	2nd Stage	1150	CFM / Watts	1175 / 105	1159 / 174	1142 / 243	1126 / 312	1109 / 381
			Temp. Rise	50	51	52	53	53
1350 ^(a)	1st Stage	878	CFM / Watts	879 / 59	854 / 116	830 / 174	805 / 232	781 / 290
			Temp. Rise	44	45	46	47	48
	2nd Stage	1350	CFM / Watts	1387 / 154	1373 / 243	1359 / 333	1345 / 422	1331 / 512
			Temp. Rise	43	43	43	44	44
1450	1st Stage	943	CFM / Watts	958 / 70	948 / 132	938 / 194	929 / 256	919 / 318
			Temp. Rise	40	41	41	42	42
	2nd Stage	1450	CFM / Watts	1446 / 94	1444 / 215	1443 / 336	1441 / 457	1439 / 577
			Temp. Rise	41	41	41	41	41
1650	1st Stage	1073	CFM / Watts	1035 / 90	1026 / 150	1016 / 210	1007 / 271	997 / 331
			Temp. Rise	37	38	38	39	40
	2nd Stage	1650	CFM / Watts	1642 / 279	1621 / 373	1601 / 467	1580 / 561	1560 / 655
			Temp. Rise	36	36	37	37	38

^(a) Factory Setting

Table 12. Cooling airflow performance – S8V2C080M5P

S8V2C080M5P Furnace Cooling Airflow (CFM) and Power (Watts) vs. External Static Pressure with Filter (iwc)								
Outdoor Tonnage - "Odt" (tons)	Airflow Setting - "CPC" (CFM/ton)		EXTERNAL STATIC PRESSURE (IN. W. C.)					
			0.1	0.3	0.5	0.7	0.9	
2.5	450	CFM / WATTS	1057 / 107	1057 / 168	1055 / 231	1051 / 296	1047 / 363	
	420	CFM / WATTS	982 / 91	980 / 149	976 / 209	972 / 270	968 / 334	
	400	CFM / WATTS	932 / 82	928 / 137	924 / 194	919 / 254	914 / 316	
	370	CFM / WATTS	856 / 69	850 / 121	844 / 174	838 / 231	832 / 290	
	350	CFM / WATTS	806 / 62	797 / 111	790 / 162	783 / 217	777 / 274	
	330	CFM / WATTS	755 / 55	744 / 101	735 / 151	728 / 204	721 / 260	
	310	CFM / WATTS	704 / 48	691 / 92	681 / 140	672 / 191	665 / 246	
	290	CFM / WATTS	652 / 42	637 / 84	625 / 130	616 / 180	608 / 233	
3.0	450	CFM / WATTS	1279 / 164	1284 / 237	1285 / 311	1283 / 387	1280 / 463	
	420	CFM / WATTS	1190 / 139	1194 / 207	1194 / 277	1192 / 348	1188 / 421	
	400	CFM / WATTS	1131 / 124	1133 / 189	1132 / 256	1130 / 324	1126 / 394	
	370	CFM / WATTS	1042 / 104	1041 / 164	1039 / 227	1036 / 291	1032 / 357	
	350	CFM / WATTS	982 / 91	980 / 149	976 / 209	972 / 270	968 / 334	
	330	CFM / WATTS	922 / 80	918 / 135	913 / 192	908 / 251	903 / 312	
	310	CFM / WATTS	861 / 70	855 / 122	849 / 176	843 / 232	838 / 292	
	290	CFM / WATTS	800 / 61	792 / 110	784 / 161	778 / 215	771 / 273	
3.5	450	CFM / WATTS	1498 / 238	1505 / 324	1508 / 410	1507 / 497	1504 / 585	
	420	CFM / WATTS	1396 / 201	1402 / 281	1404 / 362	1404 / 443	1401 / 525	
	400	CFM / WATTS	1328 / 179	1333 / 255	1335 / 332	1334 / 410	1331 / 489	
	370	CFM / WATTS	1225 / 148	1229 / 219	1229 / 290	1227 / 363	1224 / 437	
	350	CFM / WATTS	1156 / 130	1158 / 197	1158 / 265	1156 / 334	1152 / 405	
	330	CFM / WATTS	1087 / 114	1087 / 176	1086 / 241	1083 / 307	1079 / 375	
	310	CFM / WATTS	1017 / 98	1016 / 158	1013 / 219	1009 / 282	1005 / 347	
	290	CFM / WATTS	947 / 85	944 / 141	939 / 198	935 / 259	930 / 321	



Airflow Tables

Table 12. Cooling airflow performance – S8V2C080M5P (continued)

S8V2C080M5P Furnace Cooling Airflow (CFM) and Power (Watts) vs. External Static Pressure with Filter (iwc)							
Outdoor Tonnage - "Odt" (tons)	Airflow Setting - "CPC" (CFM/ton)		EXTERNAL STATIC PRESSURE (IN. W. C.)				
			0.1	0.3	0.5	0.7	0.9
4.0	450	CFM / WATTS	1714 / 332	1721 / 431	1724 / 530	1724 / 629	1720 / 728
	420	CFM / WATTS	1599 / 279	1607 / 371	1609 / 463	1609 / 556	1606 / 649
	400	CFM / WATTS	1522 / 247	1529 / 335	1532 / 422	1532 / 511	1529 / 599
	370	CFM / WATTS	1406 / 204	1412 / 285	1414 / 366	1414 / 448	1411 / 531
	350	CFM / WATTS	1328 / 179	1333 / 255	1335 / 332	1334 / 410	1331 / 489
	330	CFM / WATTS	1250 / 155	1254 / 227	1254 / 300	1253 / 374	1250 / 449
	310	CFM / WATTS	1171 / 134	1173 / 201	1173 / 270	1171 / 340	1168 / 412
4.5	290	CFM / WATTS	1091 / 115	1092 / 178	1091 / 243	1088 / 309	1084 / 377
	450	CFM / WATTS	1926 / 449	1933 / 561	1935 / 672	1934 / 784	1929 / 895
	420	CFM / WATTS	1799 / 376	1807 / 480	1809 / 584	1808 / 688	1805 / 792
	400	CFM / WATTS	1714 / 332	1721 / 431	1724 / 530	1724 / 629	1720 / 728
	370	CFM / WATTS	1585 / 273	1592 / 364	1595 / 455	1595 / 547	1592 / 639
	350	CFM / WATTS	1498 / 238	1505 / 324	1508 / 410	1507 / 497	1504 / 585
	330	CFM / WATTS	1411 / 206	1417 / 287	1419 / 368	1418 / 450	1416 / 534
5.0 (a)	310	CFM / WATTS	1323 / 177	1328 / 253	1330 / 330	1329 / 407	1326 / 486
	290	CFM / WATTS	1235 / 151	1239 / 222	1239 / 294	1238 / 367	1234 / 442
	450	CFM / WATTS	2135 / 590	2140 / 715	2141 / 839	2137 / 964	2131 / 1088
	420	CFM / WATTS	1996 / 493	2003 / 609	2004 / 725	2002 / 841	1997 / 956
	400	CFM / WATTS	1903 / 435	1910 / 545	1912 / 655	1911 / 765	1906 / 875
	370	CFM / WATTS	1761 / 356	1769 / 458	1772 / 559	1771 / 661	1767 / 763
	350 (a)	CFM / WATTS	1666 / 310	1674 / 405	1677 / 501	1676 / 501	1673 / 694
	330	CFM / WATTS	1570 / 267	1578 / 357	1580 / 448	1580 / 538	1577 / 630
	310	CFM / WATTS	1474 / 229	1481 / 313	1483 / 398	1483 / 484	1480 / 570
	290	CFM / WATTS	1377 / 194	1383 / 273	1385 / 353	1384 / 433	1381 / 515

(a) Factory Setting

Table 13. Heating airflow performance – S8V2C100M5P

Furnace Heating Airflow (CFM), Power (Watts), and Temp. Rise (°F) vs. External Static Pressure with Filter (iwc)								
Airflow Setting	Heating Stage	Target Airflow		EXTERNAL STATIC PRESSURE (IN. W. C.)				
				0.1	0.3	0.5	0.7	0.9
1360	1st Stage	979	CFM / Watts	1014 / 77	998 / 139	981 / 200	966 / 261	950 / 322
			Temp. Rise	48	49	50	51	51
	2nd Stage	1360	CFM / Watts	1401 / 164	1393 / 249	1385 / 334	1377 / 419	1369 / 503
			Temp. Rise	54	54	54	54	54
1500	1st Stage	1080	CFM / Watts	1103 / 98	1093 / 163	1083 / 228	1073 / 294	1062 / 359
			Temp. Rise	44	44	45	45	46
	2nd Stage	1500	CFM / Watts	1537 / 223	1523 / 313	1509 / 404	1495 / 494	1482 / 585
			Temp. Rise	49	49	49	50	50
1650 (a)	1st Stage	1188	CFM / Watts	1202 / 119	1190 / 188	1177 / 257	1165 / 327	1153 / 397
			Temp. Rise	41	41	41	42	42
	2nd Stage	1650	CFM / Watts	1673 / 285	1667 / 381	1661 / 478	1654 / 575	1649 / 671
			Temp. Rise	45	45	45	45	45
1800	1st Stage	1296	CFM / Watts	1332 / 156	1314 / 229	1296 / 302	1278 / 376	1260 / 449
			Temp. Rise	37	37	38	38	39
	2nd Stage	1800	CFM / Watts	1825 / 371	1819 / 480	1812 / 588	1806 / 696	1800 / 805
			Temp. Rise	42	41	41	42	42

(a) Factory Setting

Table 14. Cooling airflow performance – S8V2C100M5P

S8V2C100M5P Furnace Cooling Airflow (CFM) and Power (Watts) vs. External Static Pressure with Filter (iwc)							
Outdoor Tonnage - "Odt" (tons)	Airflow Setting - "CPC" (CFM/ton)		EXTERNAL STATIC PRESSURE (IN. W. C.)				
			0.1	0.3	0.5	0.7	0.9
2.5	450	CFM / WATTS	1120 / 108	1119 / 167	1115 / 229	1109 / 294	1101 / 360
	420	CFM / WATTS	1043 / 92	1041 / 148	1036 / 207	1030 / 268	1021 / 332
	400	CFM / WATTS	992 / 83	989 / 136	984 / 193	976 / 252	968 / 315
	370	CFM / WATTS	915 / 70	910 / 120	904 / 173	895 / 230	886 / 290
	350	CFM / WATTS	863 / 62	857 / 110	850 / 161	841 / 216	831 / 275
	330	CFM / WATTS	811 / 55	804 / 100	795 / 150	786 / 204	776 / 261
	310	CFM / WATTS	759 / 48	750 / 92	741 / 140	730 / 192	719 / 248
	290	CFM / WATTS	706 / 42	696 / 84	686 / 130	674 / 181	663 / 236
3.0	450	CFM / WATTS	1346 / 166	1348 / 236	1346 / 309	1341 / 383	1335 / 458
	420	CFM / WATTS	1256 / 140	1257 / 207	1254 / 275	1249 / 345	1243 / 417
	400	CFM / WATTS	1196 / 125	1196 / 188	1193 / 254	1187 / 321	1180 / 391
	370	CFM / WATTS	1104 / 104	1103 / 163	1099 / 225	1093 / 288	1085 / 355
	350	CFM / WATTS	1043 / 92	1041 / 148	1036 / 207	1030 / 268	1021 / 332
	330	CFM / WATTS	982 / 81	979 / 134	973 / 190	965 / 249	957 / 311
	310	CFM / WATTS	920 / 70	916 / 121	909 / 174	901 / 231	892 / 292
	290	CFM / WATTS	858 / 61	852 / 109	844 / 160	835 / 215	825 / 274
3.5	450	CFM / WATTS	1568 / 242	1571 / 324	1570 / 407	1566 / 492	1560 / 577
	420	CFM / WATTS	1465 / 204	1467 / 281	1466 / 359	1462 / 438	1456 / 519
	400	CFM / WATTS	1396 / 181	1398 / 254	1396 / 329	1392 / 405	1386 / 483
	370	CFM / WATTS	1291 / 150	1292 / 218	1290 / 287	1285 / 359	1279 / 432
	350	CFM / WATTS	1221 / 131	1221 / 196	1218 / 262	1213 / 331	1206 / 401
	330	CFM / WATTS	1150 / 114	1150 / 175	1146 / 239	1140 / 304	1133 / 372
	310	CFM / WATTS	1079 / 99	1078 / 157	1073 / 217	1067 / 280	1059 / 345
	290	CFM / WATTS	1007 / 85	1005 / 140	999 / 197	992 / 257	984 / 320
4.0	450	CFM / WATTS	1785 / 339	1788 / 433	1787 / 527	1784 / 623	1778 / 719
	420	CFM / WATTS	1670 / 284	1673 / 372	1672 / 460	1669 / 550	1663 / 640
	400	CFM / WATTS	1592 / 252	1595 / 335	1594 / 419	1591 / 505	1585 / 592
	370	CFM / WATTS	1475 / 207	1477 / 284	1476 / 363	1472 / 443	1466 / 524
	350	CFM / WATTS	1396 / 181	1398 / 254	1396 / 329	1392 / 405	1386 / 483
	330	CFM / WATTS	1316 / 157	1318 / 226	1315 / 297	1311 / 370	1304 / 444
	310	CFM / WATTS	1236 / 135	1237 / 200	1234 / 267	1229 / 337	1222 / 408
	290	CFM / WATTS	1155 / 116	1155 / 177	1151 / 240	1146 / 306	1138 / 374
4.5	450	CFM / WATTS	1997 / 459	2000 / 564	1998 / 671	1994 / 777	1988 / 885
	420	CFM / WATTS	1870 / 384	1873 / 482	1872 / 582	1869 / 681	1863 / 782
	400	CFM / WATTS	1785 / 339	1788 / 433	1787 / 527	1784 / 623	1778 / 719
	370	CFM / WATTS	1655 / 278	1658 / 365	1658 / 452	1654 / 541	1648 / 631
	350	CFM / WATTS	1568 / 242	1571 / 324	1570 / 407	1566 / 492	1560 / 577
	330	CFM / WATTS	1479 / 209	1482 / 286	1481 / 365	1477 / 445	1471 / 527
	310	CFM / WATTS	1391 / 179	1393 / 252	1391 / 327	1387 / 403	1381 / 480
	290	CFM / WATTS	1301 / 153	1302 / 221	1300 / 291	1296 / 363	1289 / 437
5.0 (a)	450	CFM / WATTS	2204 / 604	2206 / 722	2203 / 840	2198 / 958	2191 / 1077
	420	CFM / WATTS	2067 / 504	2069 / 614	2067 / 724	2063 / 835	2056 / 946
	400	CFM / WATTS	1974 / 444	1976 / 549	1975 / 653	1971 / 759	1965 / 865
	370	CFM / WATTS	1832 / 363	1835 / 460	1835 / 557	1831 / 655	1825 / 754
	350 (a)	CFM / WATTS	1737 / 315	1740 / 406	1739 / 498	1736 / 591	1730 / 685
	330	CFM / WATTS	1641 / 272	1644 / 358	1643 / 445	1639 / 533	1634 / 622
	310	CFM / WATTS	1543 / 232	1546 / 313	1545 / 395	1542 / 478	1536 / 563
	290	CFM / WATTS	1445 / 197	1447 / 273	1446 / 350	1442 / 428	1436 / 509

(a) Factory Setting



Airflow Tables

Table 15. Heating airflow performance – S8V2D120M5P

Furnace Heating Airflow (CFM), Power (Watts), and Temp. Rise (°F) vs. External Static Pressure with Filter (iwc)								
Airflow Setting	Heating Stage	Target Airflow		EXTERNAL STATIC PRESSURE (IN. W. C.)				
				0.1	0.3	0.5	0.7	0.9
1500	1st Stage	1155	CFM / Watts	1223 / 103	1238 / 173	1254 / 243	1270 / 313	1286 / 384
			Temp. Rise	52	51	51	50	49
	2nd Stage	1500	CFM / Watts	1597 / 200	1603 / 294	1608 / 388	1613 / 482	1619 / 575
			Temp. Rise	56	56	56	55	55
1740 ^(a)	1st Stage	1340	CFM / Watts	1398 / 149	1421 / 229	1443 / 310	1466 / 390	1488 / 471
			Temp. Rise	44	44	44	43	43
	2nd Stage	1740	CFM / Watts	1822 / 296	1832 / 405	1843 / 514	1854 / 624	1865 / 733
			Temp. Rise	50	49	49	49	48
1850	1st Stage	1425	CFM / Watts	1496 / 181	1510 / 264	1525 / 347	1540 / 430	1555 / 513
			Temp. Rise	42	41	41	41	41
	2nd Stage	1850	CFM / Watts	1916 / 366	1930 / 484	1944 / 602	1958 / 721	1972 / 839
			Temp. Rise	47	46	46	46	45
2000	1st Stage	1540	CFM / Watts	1629 / 225	1633 / 312	1638 / 398	1642 / 484	1647 / 571
			Temp. Rise	39	38	38	38	38
	2nd Stage	2000	CFM / Watts	2045 / 463	2064 / 593	2082 / 723	2101 / 854	2120 / 983
			Temp. Rise	44	44	43	43	42

^(a) Factory Setting

Table 16. Cooling airflow performance – S8V2D120M5P

S8V2D120M5P Furnace Cooling Airflow (CFM) and Power (Watts) vs. External Static Pressure with Filter (iwc)							
Outdoor Tonnage - "Odt" (tons)	Airflow Setting - "CPC" (CFM/ton)		EXTERNAL STATIC PRESSURE (IN. W. C.)				
			0.1	0.3	0.5	0.7	0.9
3.0	450	CFM / WATTS	1376 / 149	1382 / 217	1382 / 287	1378 / 359	1371 / 434
	420	CFM / WATTS	1283 / 126	1288 / 189	1286 / 255	1281 / 323	1274 / 395
	400	CFM / WATTS	1221 / 112	1225 / 172	1222 / 235	1216 / 301	1208 / 370
	370	CFM / WATTS	1126 / 93	1129 / 149	1125 / 208	1118 / 271	1108 / 337
	350	CFM / WATTS	1063 / 82	1064 / 135	1059 / 192	1051 / 252	1040 / 316
	330	CFM / WATTS	998 / 71	999 / 122	993 / 176	984 / 234	972 / 297
	310	CFM / WATTS	934 / 62	933 / 110	926 / 162	916 / 218	904 / 279
	290	CFM / WATTS	869 / 54	867 / 99	859 / 149	848 / 203	834 / 263
3.5	450	CFM / WATTS	1602 / 219	1611 / 299	1614 / 380	1613 / 463	1609 / 547
	420	CFM / WATTS	1497 / 184	1505 / 258	1506 / 334	1504 / 412	1499 / 492
	400	CFM / WATTS	1427 / 163	1433 / 234	1434 / 306	1431 / 380	1425 / 457
	370	CFM / WATTS	1319 / 134	1325 / 200	1324 / 267	1319 / 337	1312 / 409
	350	CFM / WATTS	1247 / 117	1251 / 179	1249 / 243	1244 / 310	1235 / 380
	330	CFM / WATTS	1174 / 102	1177 / 160	1174 / 221	1167 / 286	1158 / 353
	310	CFM / WATTS	1100 / 88	1102 / 143	1098 / 201	1090 / 263	1080 / 328
	290	CFM / WATTS	1025 / 76	1026 / 127	1021 / 182	1012 / 241	1001 / 304
4.0	450	CFM / WATTS	1821 / 310	1832 / 402	1838 / 495	1839 / 588	1838 / 683
	420	CFM / WATTS	1705 / 259	1715 / 344	1719 / 431	1720 / 519	1717 / 608
	400	CFM / WATTS	1627 / 228	1636 / 310	1639 / 392	1638 / 476	1635 / 561
	370	CFM / WATTS	1507 / 187	1515 / 262	1517 / 338	1515 / 416	1510 / 497
	350	CFM / WATTS	1427 / 163	1433 / 234	1434 / 306	1431 / 380	1425 / 457
	330	CFM / WATTS	1345 / 141	1351 / 207	1350 / 276	1346 / 347	1339 / 420
	310	CFM / WATTS	1262 / 121	1267 / 184	1265 / 248	1260 / 316	1252 / 386
	290	CFM / WATTS	1179 / 103	1182 / 162	1179 / 223	1173 / 287	1164 / 355

Table 16. Cooling airflow performance – S8V2D120M5P (continued)

S8V2D120M5P Furnace Cooling Airflow (CFM) and Power (Watts) vs. External Static Pressure with Filter (iwc)							
Outdoor Tonnage - "Odt" (tons)	Airflow Setting - "CPC" (CFM/ton)		EXTERNAL STATIC PRESSURE (IN. W. C.)				
			0.1	0.3	0.5	0.7	0.9
4.5	450	CFM / WATTS	2032 / 423	2045 / 528	2053 / 632	2057 / 738	2059 / 844
	420	CFM / WATTS	1907 / 352	1918 / 449	1925 / 547	1927 / 645	1928 / 744
	400	CFM / WATTS	1821 / 310	1832 / 402	1838 / 495	1839 / 588	1838 / 683
	370	CFM / WATTS	1691 / 253	1700 / 338	1704 / 423	1705 / 510	1702 / 599
	350	CFM / WATTS	1602 / 219	1611 / 299	1614 / 380	1613 / 463	1609 / 547
	330	CFM / WATTS	1512 / 189	1520 / 264	1522 / 341	1520 / 419	1515 / 499
	310	CFM / WATTS	1421 / 161	1428 / 232	1429 / 304	1426 / 378	1420 / 455
	290	CFM / WATTS	1329 / 137	1335 / 203	1334 / 271	1330 / 341	1323 / 414
5.0 ^(a)	450	CFM / WATTS	2236 / 561	2250 / 678	2260 / 796	2266 / 913	2270 / 1031
	420	CFM / WATTS	2101 / 466	2114 / 575	2123 / 684	2128 / 793	2130 / 903
	400	CFM / WATTS	2009 / 409	2022 / 512	2029 / 616	2033 / 720	2035 / 825
	370	CFM / WATTS	1869 / 333	1880 / 428	1886 / 523	1888 / 619	1888 / 717
	350 ^(a)	CFM / WATTS	1773 / 288	1784 / 377	1789 / 467	1790 / 558	1788 / 651
	330	CFM / WATTS	1676 / 247	1685 / 331	1689 / 416	1689 / 502	1687 / 590
	310	CFM / WATTS	1577 / 210	1586 / 289	1588 / 369	1587 / 450	1583 / 533
	290	CFM / WATTS	1477 / 178	1485 / 251	1486 / 326	1483 / 403	1478 / 482

^(a) Factory Setting



Wiring Diagrams

Figure 1. S9V2 – wiring diagram

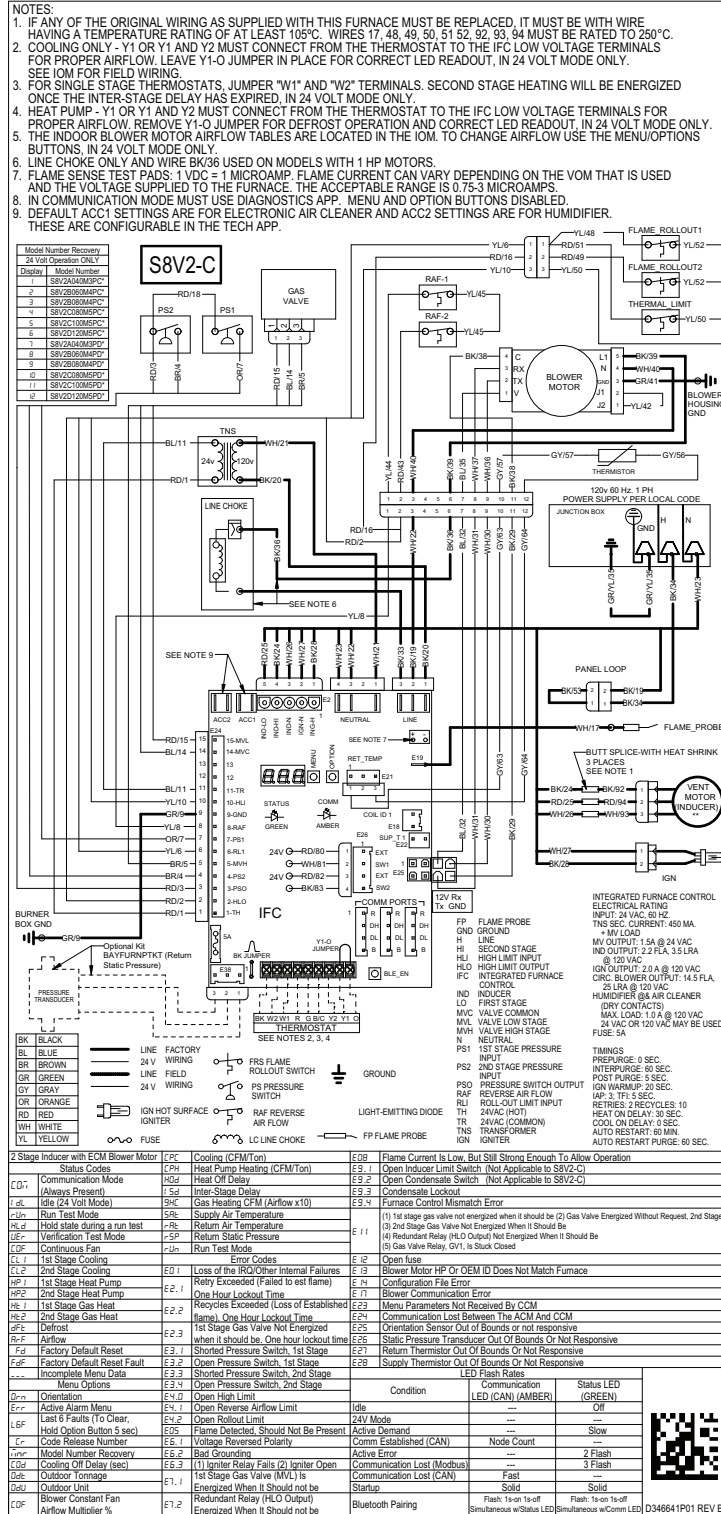
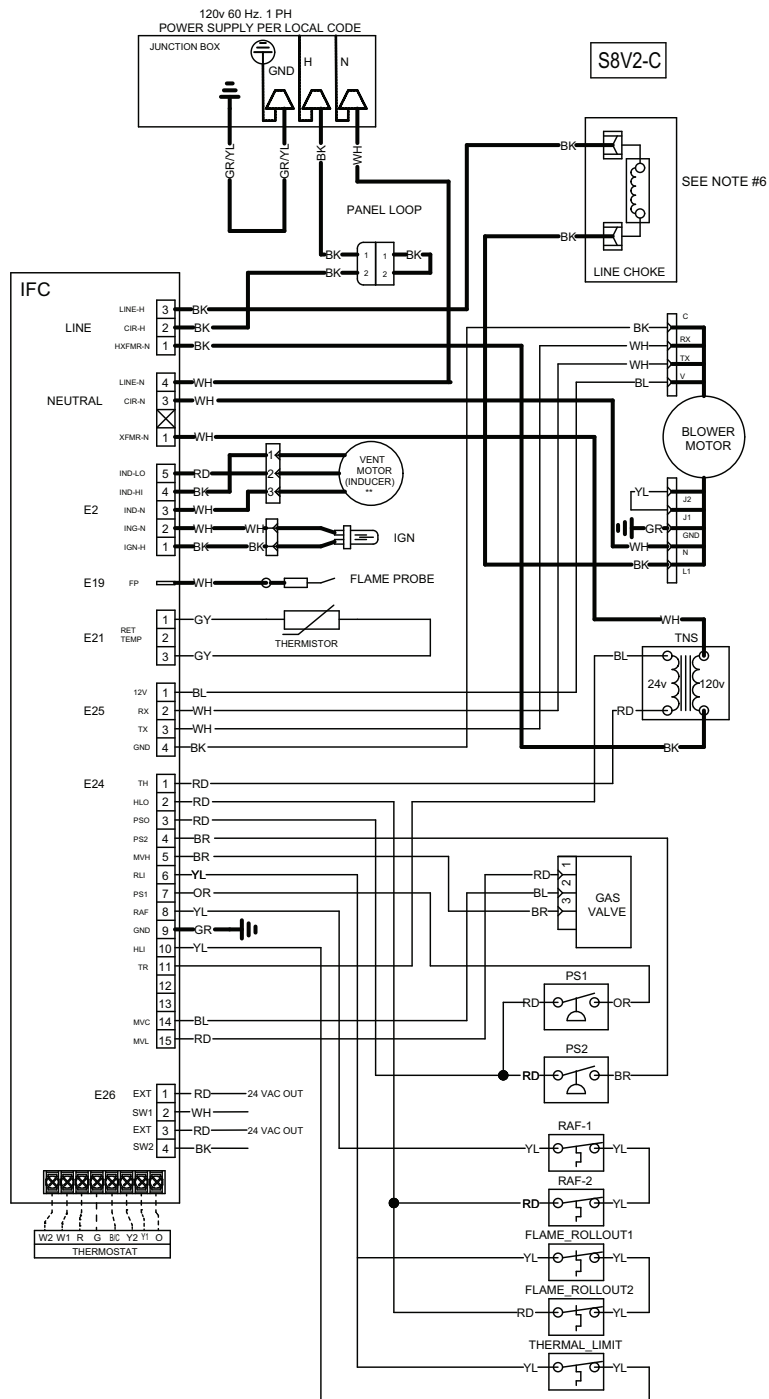


Figure 2. S9V2 – ladder diagram





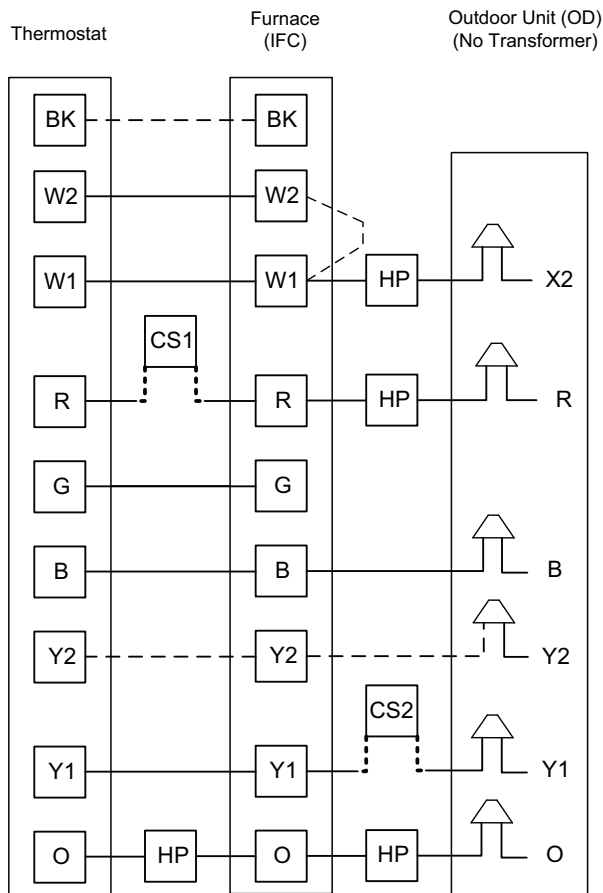
Electrical Connections

Make wiring connections to the unit as indicated on enclosed wiring diagram. As with all gas appliances using electrical power, this furnace shall be connected into a permanently live electric circuit. It is recommended that furnace be provided with a separate circuit protection device electric circuit. The furnace must be electrically grounded in accordance with local codes or in the absence of local codes with the National Electrical Code, ANSI/NFPA 70 , if an external electrical source is utilized. The integrated furnace control is polarity sensitive. The hot leg of the 120V power supply must be connected to the black power lead as indicated on the wiring diagram.

Refer to the Wiring Diagram section in this document and unit wiring diagram attached to furnace.

24V Field Wiring

Figure 3. Field wiring for S8V2-C with one or two stage AC or heat pump



NOTES:

- 1) HP = Wiring used for Heat Pump System.
- 2) CS = wiring used for Condensate Switch (2 Options).
- 3) Y1 and/or Y2 must be connected from the thermostat to the IFC for proper airflow.
- 4) Remove Y1-O jumper for HP systems. O terminal must be connected as shown for gas heating operation during defrost.
- 5) If the thermostat does not have a W2, or there are not enough conductors, jumper W1 to W2 at the IFC.
- 6) A/TCONT824 thermostats do not require the use of X2.
- 7) For PWM (BK) enabled thermostats, cut the BK jumper on the IFC and connect wiring.

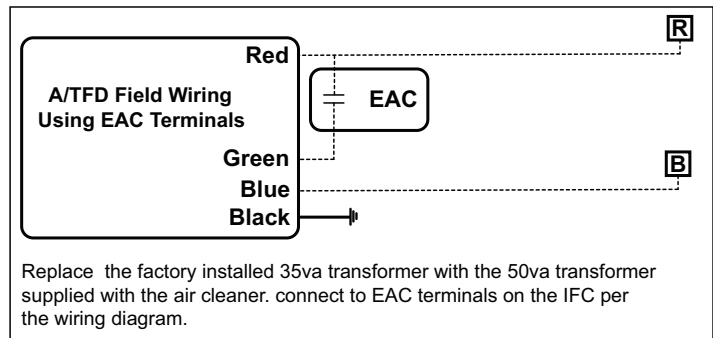
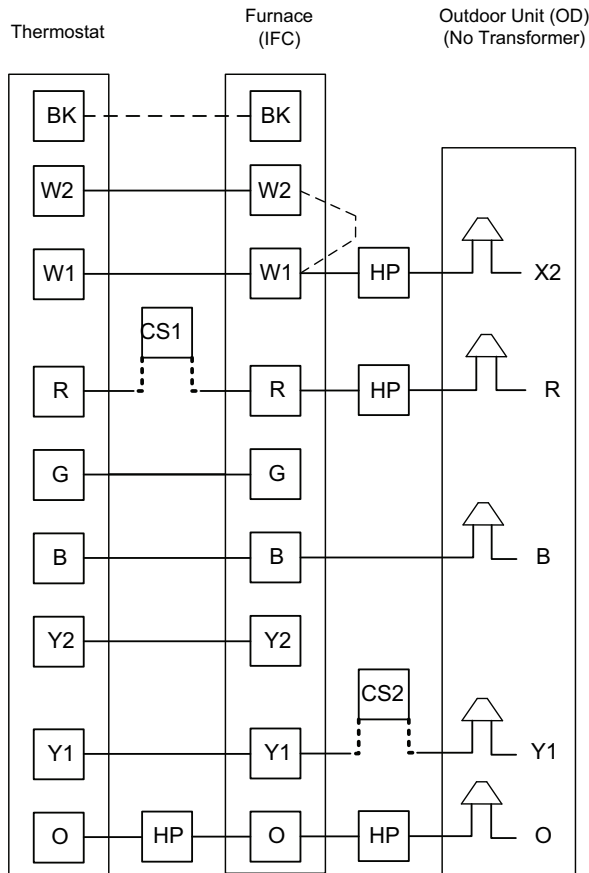
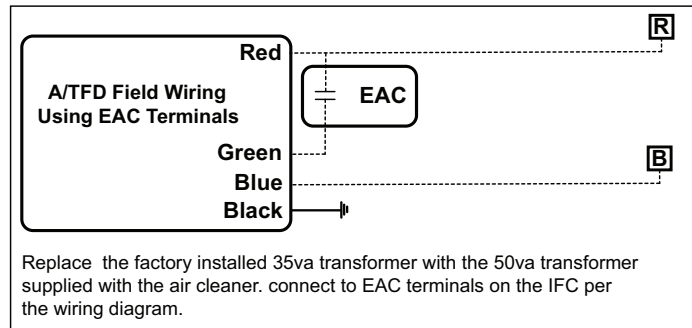


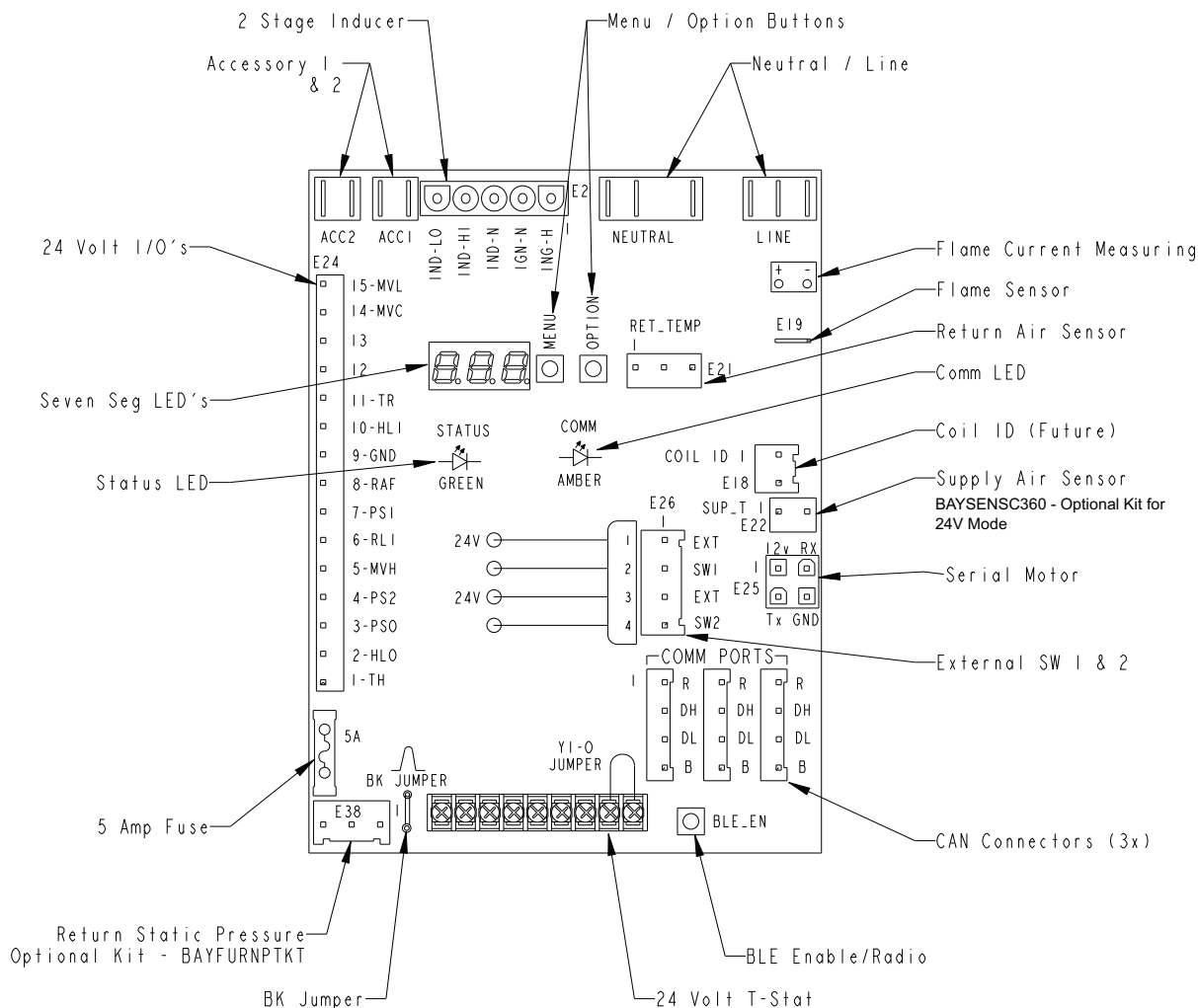
Figure 4. Field wiring for S8V2-C with single stage AC or heat pump with two stage airflow

NOTES:

- 1) HP = Wiring used for Heat Pump System.
- 2) CS = wiring used for Condensate Switch (2 Options).
- 3) Y1 and Y2 must be connected from the thermostat to the IFC for proper airflow.
- 4) Thermostat must be setup for 2 stage OD.
- 5) IFC Must be setup for 2 stage OD using the Menu/Option Buttons.
- 6) Remove Y1-O jumper for HP systems. O terminal must be connected as shown for gas heating operation during defrost.
- 7) If the thermostat does not have a W2, or there are not enough conductors, jumper W1 to W2 at the IFC.
- 8) A/TCONT824 thermostats do not require the use of X2.
- 9) For PWM (BK) enabled thermostats, cut the BK jumper on the IFC and connect wiring.



1. Secure the sheathed wiring to the IFC using the factory supplied wire ties.

Figure 5. S8V2 IFC layout



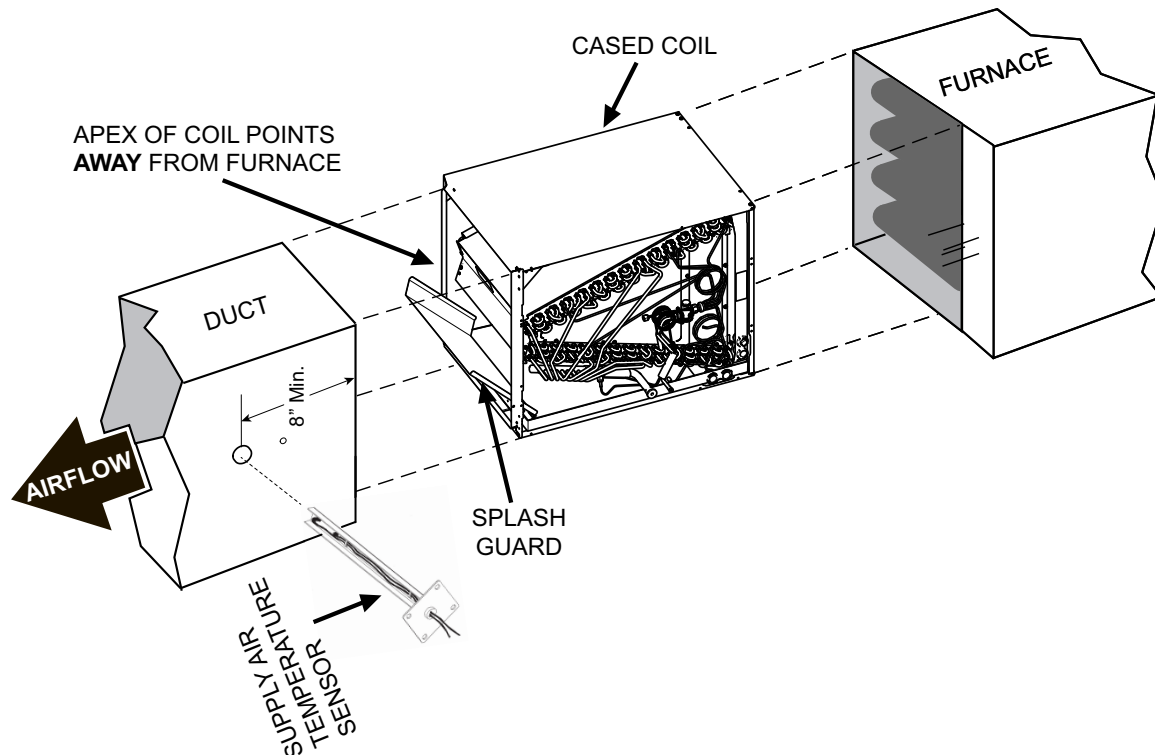
2. Mount Supply Air Temperature Sensor

The Supply Air Sensor (BAYSENSC360) must be mounted on the leaving side of the cooling coil, or the maximum distance allowed by the wire length on a furnace only application. Testing has shown the left side of the plenum delivers the best average temperature. If the left side cannot be used, take several readings to determine the best place to mount the sensor for your application.

The Supply Air Sensor plugs into connector E22 of the IFC (See IFC layout). In the Diagnostic App, this sensor is defaulted OFF and must be configured to ON.

Notes:

- Supply Air Temp Sensor (SAT) is used in Link Communicating mode and is optional in 24 volt mode.
- Supply Air Temp Sensor (SAT) ships with SC360 System Controller.
- Supply Air Sensor kit is BAYSENSC360.
- The return air sensor is located within the blower wiring harness, behind the blower panel. In the Diagnostic App, this sensor is defaulted ON.

Figure 6. S8V2 Furnace and cased coil with duct


The Low Voltage Maximum Wire Length table defines the size and combined total maximum length of the low voltage wiring from the outdoor unit, to the indoor unit, and to the thermostat.

Note: The use of color coded low voltage wire is recommended to simplify connections between the outdoor unit, the control, and the indoor unit.

Table 17. Low voltage maximum wire length

Control Wire — Communicating	
WIRE SIZE	MAX. WIRE LENGTH
18 AWG	500 FT. Combined
Control Wire — 24 Volt	
WIRE SIZE	MAX. WIRE LENGTH
18 AWG	100 FT. Combined

Link mode uses simple connectors for low voltage connections. These connections are color coded which makes the installation easier and quicker.

Table 18. Link communicating low voltage wire connectors

Wire Colors	
R	Red
DH	White
DL	Green
B	Blue



Electrical Connections

Do the following to make the connections from the actual thermostat wire to the connector.

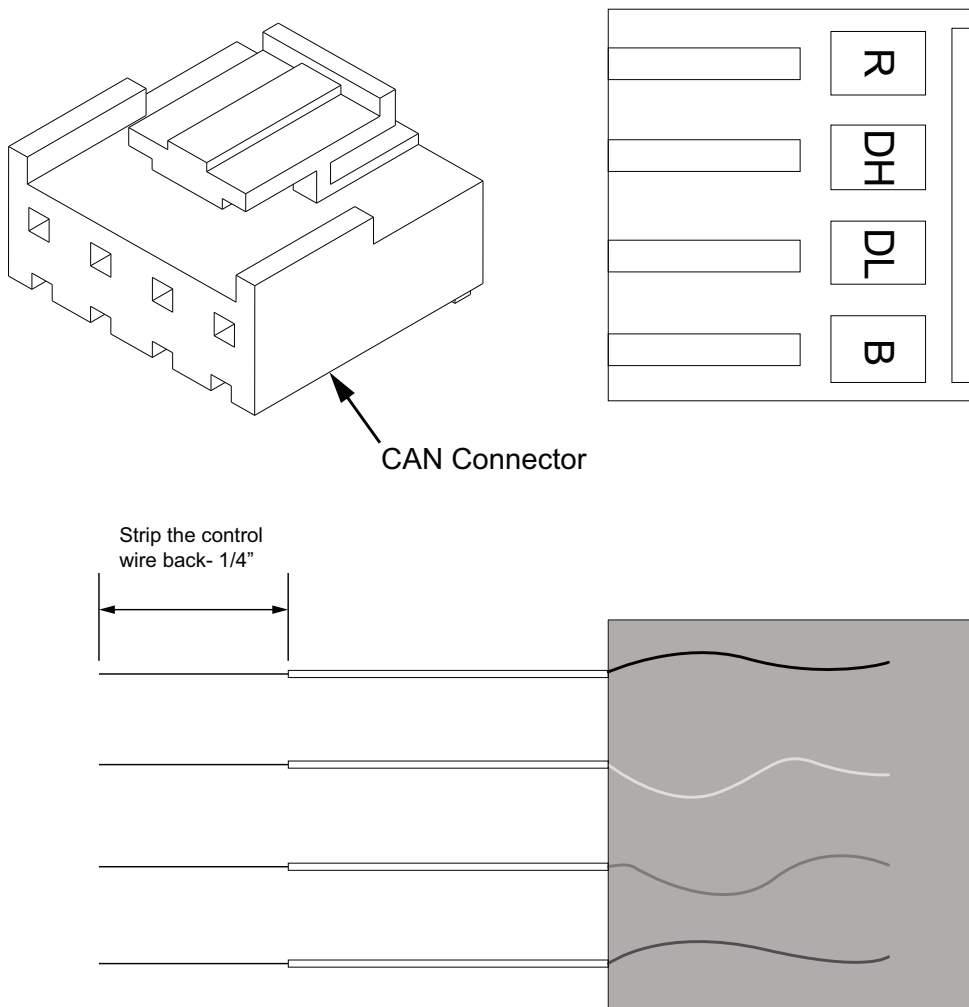
Note: These connectors are necessary at the communicating outdoor unit, communicating indoor unit, distribution board(s), system controller and communicating accessories.

1. Strip the Red, White, Green and Blue thermostat wires back 1/4-inch.
2. Insert the wires into the connector in the correctly colored locations.
3. When you feel it release, allow each wire to slide in further.
4. Pull back on the wires individually and slightly and check if the wires are seated properly. If each wire does not pull out for all four wires, the connection is complete.
5. Connectors are ONE TIME USE. If a 18 ga. Thermostat wire gets broken off inside of the connector, the connector will need replaced.
6. Wire colors are for illustration purposes only. If using a different color, ensure it lands at the correct terminal throughout all of the communicating control wiring.

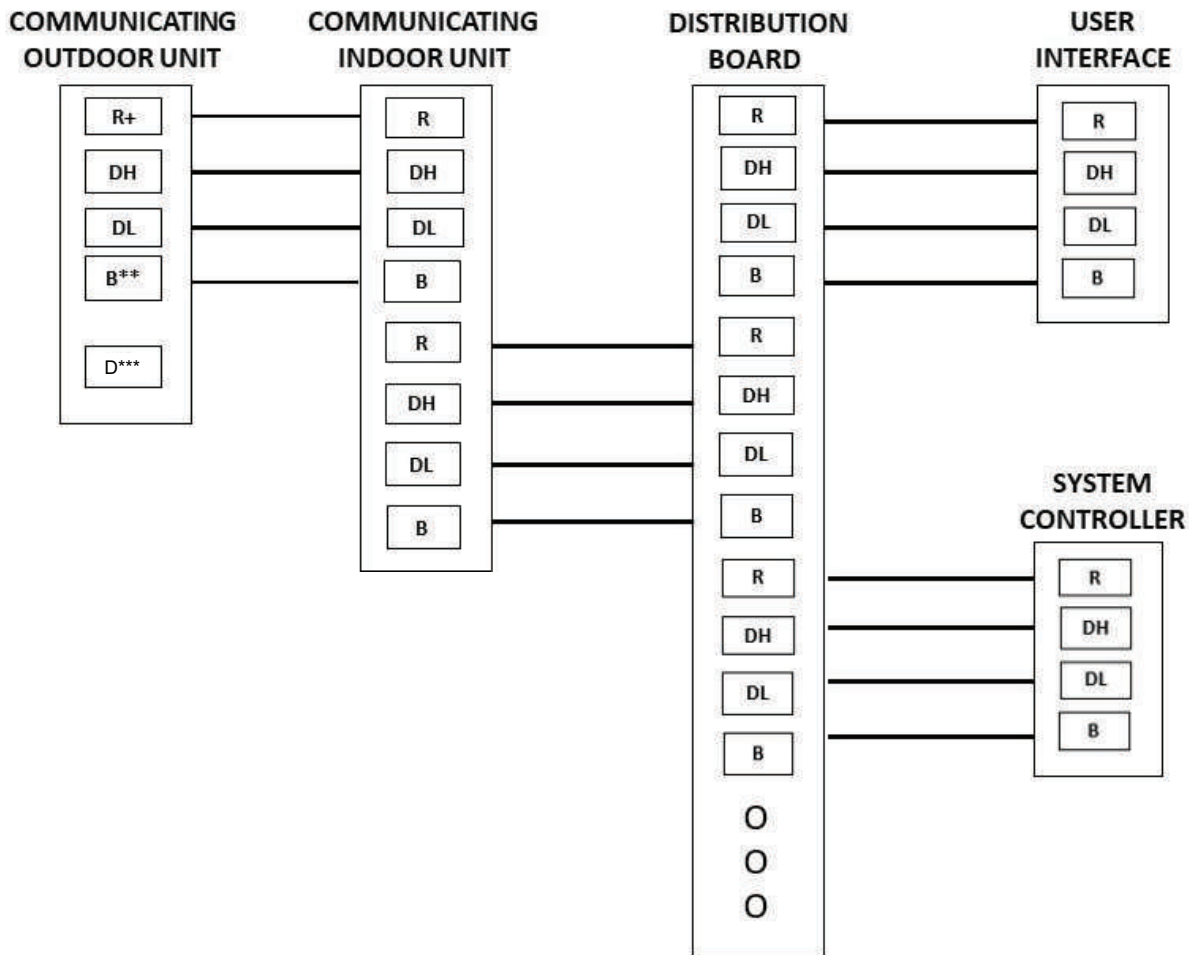
Connect the CAN connector into the male coupling on the low voltage harness at the Outdoor unit.

This furnace has three dedicated CAN connectors on the Integrated Furnace Control (IFC). In Link communicating mode, all of them are in the communicating loop. It does not matter which connector is used for the Thermostat, System Controller (HUB), or Outdoor unit. Link accessories can be connected to the Distribution Board if needed.

Figure 7. Can connectors beta units



Note: For use with 18 ga. solid core thermostat wire.

Table 19. Link communicating low voltage hook-up diagrams


Wire Colors	
R	Red
DH	White
DL	Green
B	Blue

Notes:

- + — R connection to the outdoor unit is required only in applications utilizing an outdoor loadshed device or when using SmartCharge.
- ** — B connection to the outdoor unit is optional for 2 wire outdoor applications, but is recommended in other applications.
- *** — DATA (Brown) wire only used in Clii mode.
- Wire colors are for illustration purposes only. If using a different color, ensure it lands at the correct terminal throughout all of the communicating control wiring.
- DATA (Brown) wire only used in Clii mode.



External Switches and Accessories

When connecting a humidifier or electronic air cleaner to the furnace, use ACC1 or ACC2.

- Accessory 1 and 2 are dry contacts need source voltage from the accessory.
- External switches 1 and 2 have 24VAC source voltage and are to be connected to Normally Closed (NC) contacts on the device, i.e smoke detector.

Notes:

- In Link Communicating mode, Accessories and External Switches can be configured in the UX360 User Interface or Diagnostics Mobile app.
- In 24V mode, Accessories and External Switches must be configured in the Diagnostics Mobile app.

Figure 8. Accessory for S8V2

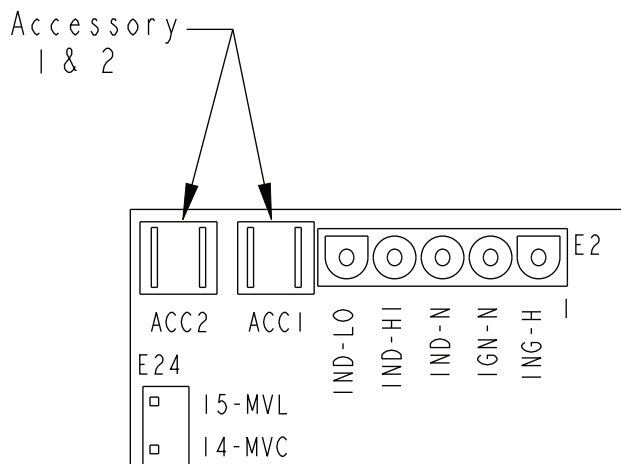
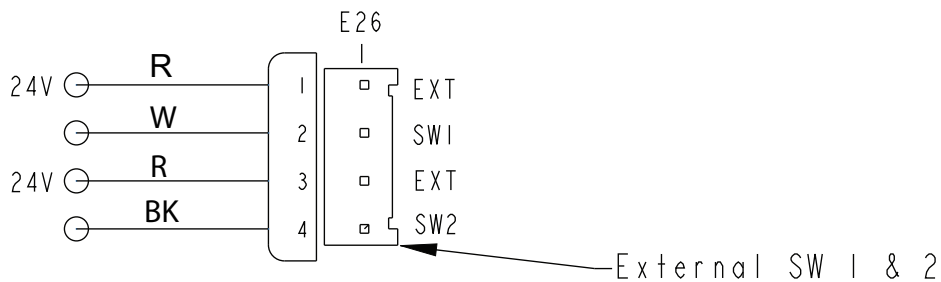


Figure 9. External switch for S8V2



Wire Colors	
R	Red
W	White
BK	Black

[illegible]



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