



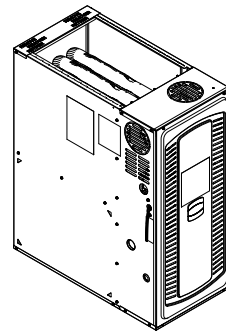
Product Data

Upflow/Horizontal Left/Right Gas-Fired, Single Stage Induced Draft Furnaces with High Efficiency Blower Motor

Upflow, Horizontal Right/Left
(For use with Natural Gas only.)

Single Stage
L8X1B060U3XSAA
L8X1B080U4XSAA

*Note: This product complies with SJVAPCD 4905 and SCAQDMD 1111 with
NOx levels below 14 ng/J.*



*Note: Graphics in this document are for
representation only. Actual model may
differ in appearance.*



Table of Contents

General Features	3
Features and Benefits.....	4
Accessories.....	5
Product Specifications	6
Airflow Tables	7
CFM Versus Temperature Rise	7
Wiring Diagrams.....	8
Electrical Connections	10
Field Wiring	10
Outline Drawings	11



General Features

NATURAL GAS MODELS

L8X1 models are certified for installation in natural gas applications.

SAFE OPERATION

Each component is tested at the manufacturing facility to help ensure consistent and reliable performance.

QUICK HEATING

Tubular, aluminized steel heat exchanger transfers heat quickly and is composed of durable, heavy gauge steel.

INTEGRATED SYSTEM CONTROL

Includes diagnostic lights for troubleshooting. All L8X1 models contain electronic air cleaner and humidifier connections.

ENERGY EFFICIENT OPERATION

Furnace is certified to leak 1% or less of nominal air conditioning CFM delivered when pressurized to 0.5" water column with all inlets and outlets sealed.

When operating in natural gas, L8X1 models are certified by the SCAQMD and SJVAPC Districts to operate with NOx levels below 14 ng/J.

AIR DELIVERY

The 5 speed constant torque blower motor helps deliver sufficient airflow in heating and cooling applications. The motor will switch from heating to cooling speeds on demand from the room thermostat.

STYLING

The two-piece, louvered door increases combustion airflow and utilizes captured screws to make servicing easier.

FEATURES AND GENERAL OPERATION

The L8X1 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.



Features and Benefits

80% AFUE on L8X1 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

3-WAY POISE

Upflow/Horizontal Left/Horizontal Right

Each model offers 3 poises to help increase installation flexibility

AIRFLOW

At least 350 CFM/ton at 0.5 in. H₂O external static pressure

REGULATORY

All models are certified to 1% or less air leakage

DIMENSIONS

Width is industry standard: 17.5"

Depth is approximately 28"

INTEGRATED FURNACE CONTROL

Setup / Status / Diagnostics

EAC and HUM connections

Diagnostic lights to indicate fault codes

TUBULAR ALUMINIZED STEEL HEAT EXCHANGER

ULTRA-LOW NOX OPERATION

Models are certified to operate with NO_x levels below 14 ng/J



Accessories

Table 1. Accessories

Model Number	Description	Use with
BAYHANG	Horizontal Hanging Kit	All Furnaces
BAYLIFTB	Dual Return Kit (B size extension)	B Cabinet Furnaces
BAYSF1165AA ^(a)	1" SlimFit Box with MERV 4 Filter	All Furnaces
BAYSF1255BA	1" SlimFit Filter and Insulated Frame	All furnaces when used in side return application B Cabinet furnaces only when in bottom return application
FLRSF1255	1" Filter replacement (Qty 12)	BAYSF1255BA
BAYVENT800B	Masonry Chimney Vent Kit	All furnaces
PIPO2095	U fitting for gas piping	All Furnaces for right hand gas entry
BAYHALTMOD0001	High Altitude ID Plug	L8X1B060U3XS**
BAYHALTMOD0002	High Altitude ID Plug	L8X1B080U4XS**

^(a) Airflow greater than 1600 CFM requires dual returns



Product Specifications

MODEL	L8X1B060U3XSAA	L8X1B080U4XSAA
TYPE	Upflow / Horizontal	Upflow / Horizontal
RATINGS (a)		
Input BTUH	60,000	80,000
Capacity BTUH (ICS) (b) (c)	48,000	64,000
Temp. Rise (Min.-Max.)	30 - 60	30 - 60
AFUE — Rating (c)	80	80
BLOWER DRIVE	DIRECT	DIRECT
Diameter — Width (In.)	11 X 8	11 X 8
No. Used	1	1
Speeds (No.) (d)	5	5
CFM vs. in. w.g.	See Fan Performance Table	See Fan Performance Table
Motor HP	1/2	3/4
RPM	1050	1050
Volts/Ph/Hz	120 / 1 / 60	120 / 1 / 60
FLA	6.4	8.8
COMBUSTION FAN — Type	Centrifugal	Centrifugal
Drive — No. Speeds	Variable	Variable
Motor HP — RPM	1/25	1/25
Volts/Ph/Hz	120 / 1 / 60	120 / 1 / 60
FLA	1.40	1.40
FILTER — Furnished?	No	No
Type recommended	High Velocity	High Velocity
High Vel. (No.-Size-Thk.)	1 — 16 x 25 — 1 in.	1 — 16 x 25 — 1 in.
VENT PIPE DIAMETER — Min (in.) (e)	4 Round	4 Round
HEAT EXCHANGER		
Type	Stainless Steel	Stainless Steel
Gauge (Fired)	20	20
ORIFICES — Main (
Nat. Gas Drill Size	1-#23	1-#15
GAS VALVE	Redundant - Two Stage	Redundant - Two Stage
PILOT SAFETY DEVICE	Silicon Nitride Igniter	Silicon Nitride Igniter
BURNERS		
Type	Premix-ULN	Premix-ULN
Quantity	1	1
POWER CONN. — V/Ph/Hz (f)	120 / 1 / 60	120 / 1 / 60
Ampacity (Amps)	9.6	12.6
Max. Overcurrent Protection (Amps)	15	15
PIPE CONN. SIZE (in.)	1/2	1/2

(a) 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.

(b) Central Furnace heating designs are certified to ANSI Z21.47 — latest edition.

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

(d) 5 Speed constant torque ECM blower motor.

(e) Refer to the Installer's Guide.

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



Airflow Tables

Furnace Airflow (CFM) Vs. External Static Pressure (in. W.C.)							
Model	Tap		0.1	0.3	0.5	0.7	0.9
L8X1B060U3XAA	1	SCFM	829	689	549	410	270
		Watts	83	95	107	119	130
	2	SCFM	1087	985	884	782	681
		Watts	163	179	195	210	226
	3	SCFM	1210	1126	1043	959	876
		Watts	211	228	245	262	279
	4	SCFM	1238	1157	1076	995	914
		Watts	227	244	261	278	295
	5	SCFM	1481	1409	1338	1266	1195
		Watts	381	399	417	435	453

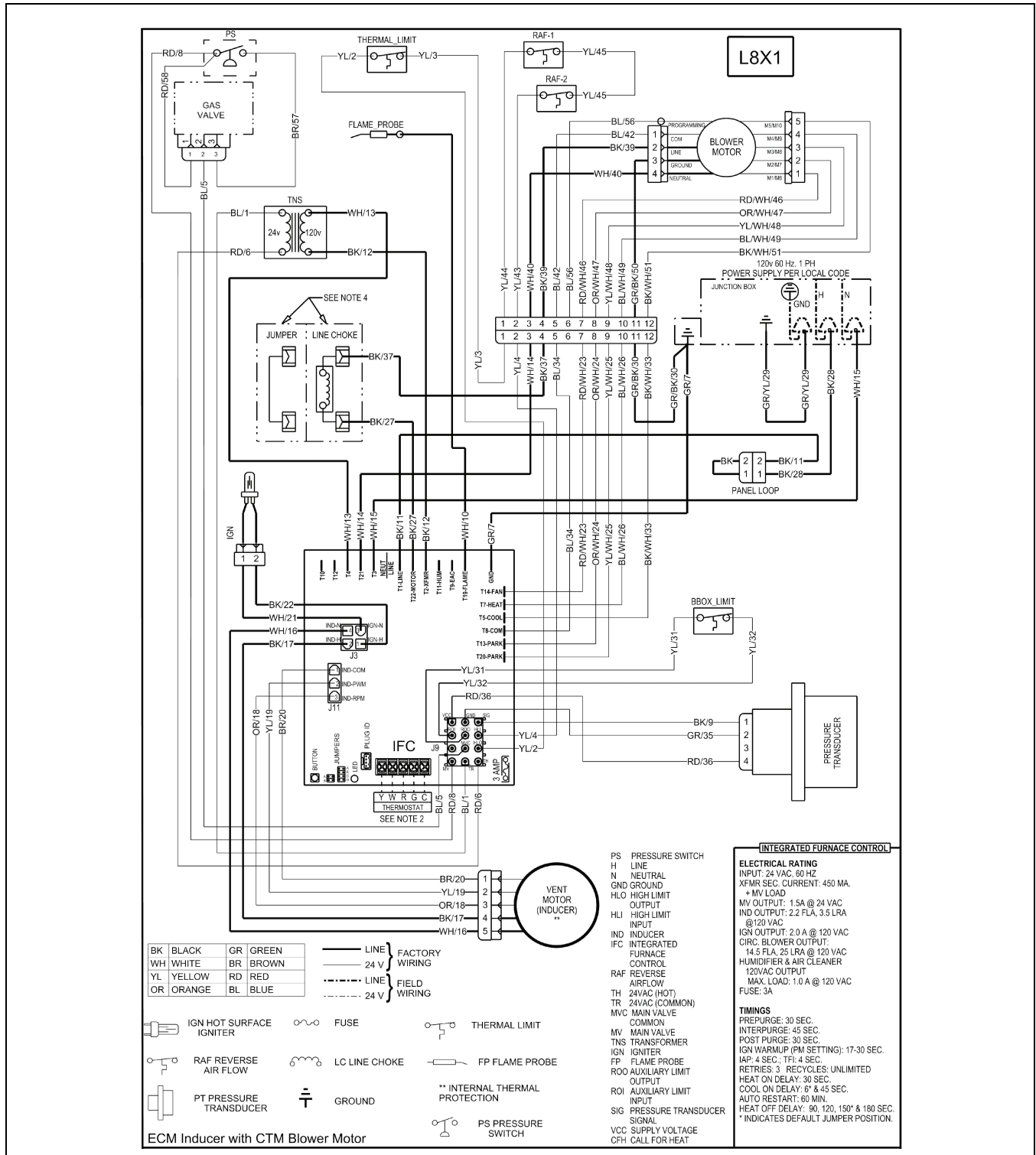
Furnace Airflow (CFM) Vs. External Static Pressure (in. W.C.)							
Model	Tap		0.1	0.3	0.5	0.7	0.9
L8X1B080U4XAA	1	SCFM	1106	1006	906	806	707
		Watts	159	172	185	199	212
	2	SCFM	1373	1306	1239	1172	1105
		Watts	285	301	317	333	349
	3	SCFM	1445	1386	1328	1269	1210
		Watts	337	354	370	386	403
	4	SCFM	1647	1598	1549	1500	1451
		Watts	495	512	529	546	563
	5	SCFM	1829	1784	1739	1694	1649
		Watts	681	697	714	731	747

CFM Versus Temperature Rise

Table 2. L8X1

Model	CFM Versus Temperature Rise																		
	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	
L8X1B060U3XAA					56	49	44	40	37	34	32								
L8X1B080U4XAA							59	54	49	46	42	40							

Wiring Diagrams



NOTES:

1. IF ANY OF THE ORIGINAL WIRING AS SUPPLIED WITH THIS FURNACE MUST BE REPLACED, IT MUST BE WITH WIRE HAVING A TEMPERATURE RATING OF AT LEAST 105°C.
2. FOR PROPER AIRFLOW IN COOLING/HEAT PUMP MODE, "Y" FROM THERMOSTAT MUST BE CONNECTED TO "Y" OF THE IFC.
3. THE INDOOR BLOWER MOTOR AIRFLOW TABLES ARE LOCATED IN THE SERVICE FACTS. TO CHANGE AIRFLOW MOVE TERMINALS TO THE APPROPRIATE LOCATIONS ON IFC (HEAT AND COOL TERMINALS).
4. LINE CHOKE USED ON MODELS WITH 3/4 AND 1 HP MOTORS, ALL OTHERS USE JUMPER.
5. TO RETRIEVE FAULT CODE HISTORY, PRESS AND RELEASE SW1 BUTTON.
6. TO CLEAR FAULT CODE HISTORY, PRESS AND HOLD SW1 BUTTON FOR 5 TO 10 SECONDS.

LED Flash Codes

LED Activity	Description	Color	Lockout Notes (Power cycle will reset all lockouts)
OFF No LED Activity	No 24 VAC Power to Control		N/A
Red, Amber, Green	Power-up verification of LED		N/A
Steady ON	Control Fault Detected Hard Lockout	RED	Until fault is removed
Rapid Flash	Reversed Line Voltage Polarity	RED	Until fault is removed
1 Flash	System Lockout - Retries Exceeded	RED	1 Hour Fixed
2 Flashes	Pressure Transducer Null Error: Inconsistent reading with inducer OFF, sensor may be electrically unplugged	RED	30 second lockout
3 Flashes	Pressure Transducer Span Error: Inconsistent reading with inducer ON, or inducer fails to reach target pressure	RED	5 minutes during CFH with Unlimited Retries
4 Flashes	Thermal Limit Switch Open	RED	Until limit closes or CFH is removed or 5 minutes during a CFH or 1 hour lockout after 3 faults in a single CFH
5 Flashes	Flame Present with Gas Valve OFF	RED	5 minutes during CFH
6 Flashes	Burner Box Limit Open	RED	Until limit closes or CFH is removed or 5 minutes during CFH
7 Flashes	Gas Valve Circuit Shorted	RED	1 hour lockout
1 Flash	Low Flame Sense	AMBER	N/A
2 Flashes	ID Plug Failure	AMBER	Operation continues after fault correction
3 Flashes	Control Fuse Open	AMBER	Operation continues after fault correction
Steady ON	Standby Normal Operation No Thermostat Requests	GREEN	N/A
1 Flash	Call for Heating	GREEN	N/A
2 Flashes	Call for Cooling	GREEN	N/A
3 Flashes	Continuous Fan Operation	GREEN	N/A

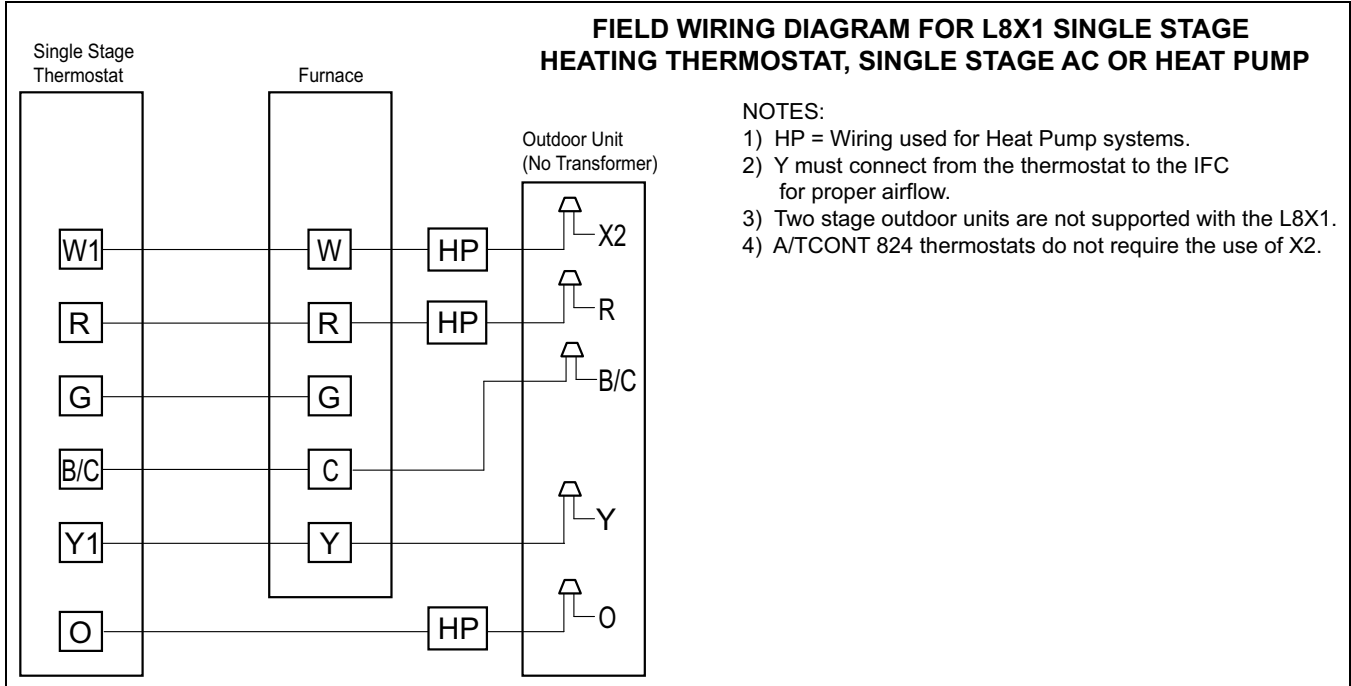
D346475P01 REV A



Electrical Connections

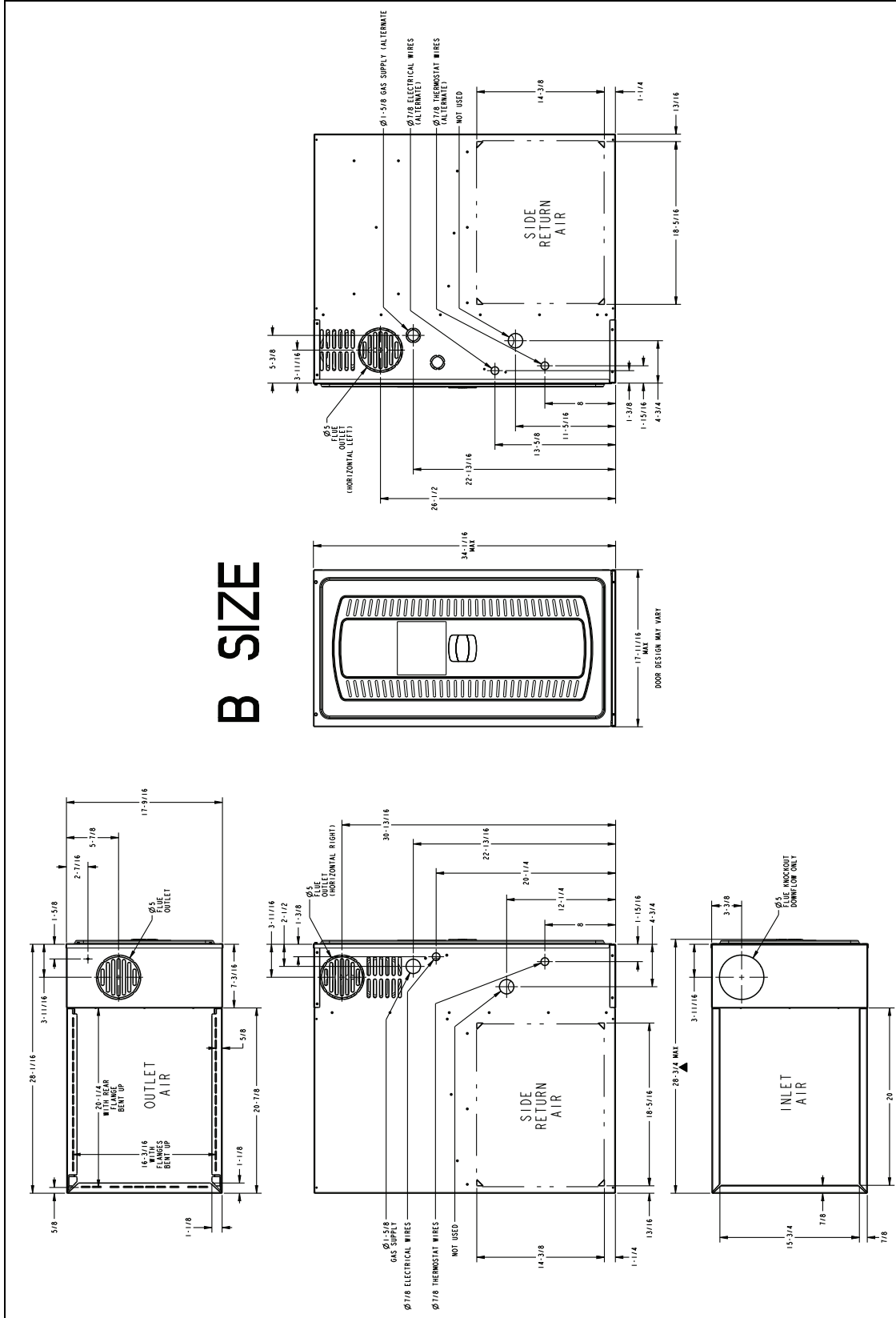
Make wiring connections to the unit as indicated on enclosed wiring diagram. As with all gas appliances using electrical power, this furnace shall be connected into a permanently live electric circuit. It is recommended that furnace be provided with a separate "circuit protection device" electric circuit. 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 SERVICE FACTS literature and unit wiring diagram attached to furnace.

Field Wiring



Outline Drawings

Table 3. 17.5" Width Cabinet





Trane - by Trane Technologies (NYSE: TT), a global innovator - creates comfortable, energy efficient indoor environments for commercial and residential applications. For more information, please visit trane.com or tranetechnologies.com.



Trane has a policy of continuous data improvement and it reserves the right to change design and specifications without notice. We are committed to using environmentally conscious print practices.