

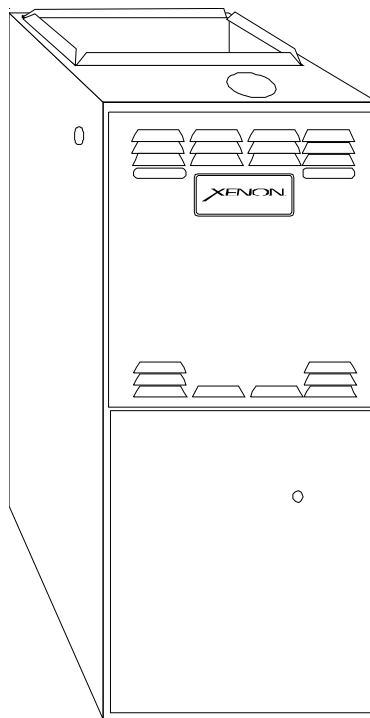
Technical Information

40" 80% Gas Furnaces XF80V****A

Model and Manufacturing numbers listed in this manual.

<u>MODEL</u>	<u>M/N</u>
XF8V0704A	P1244303F
XF8V0905A	P1244305F
XF8V1155A	P1244307F
XF8V1405A	P1244308F

- Refer to Service Manual XS6600001 for installation, operation, and troubleshooting information.
- All safety information must be followed as provided in the Service Manual.
- Refer to the appropriate Parts Catalog for part number information.



XENON
HEATING & AIR CONDITIONING

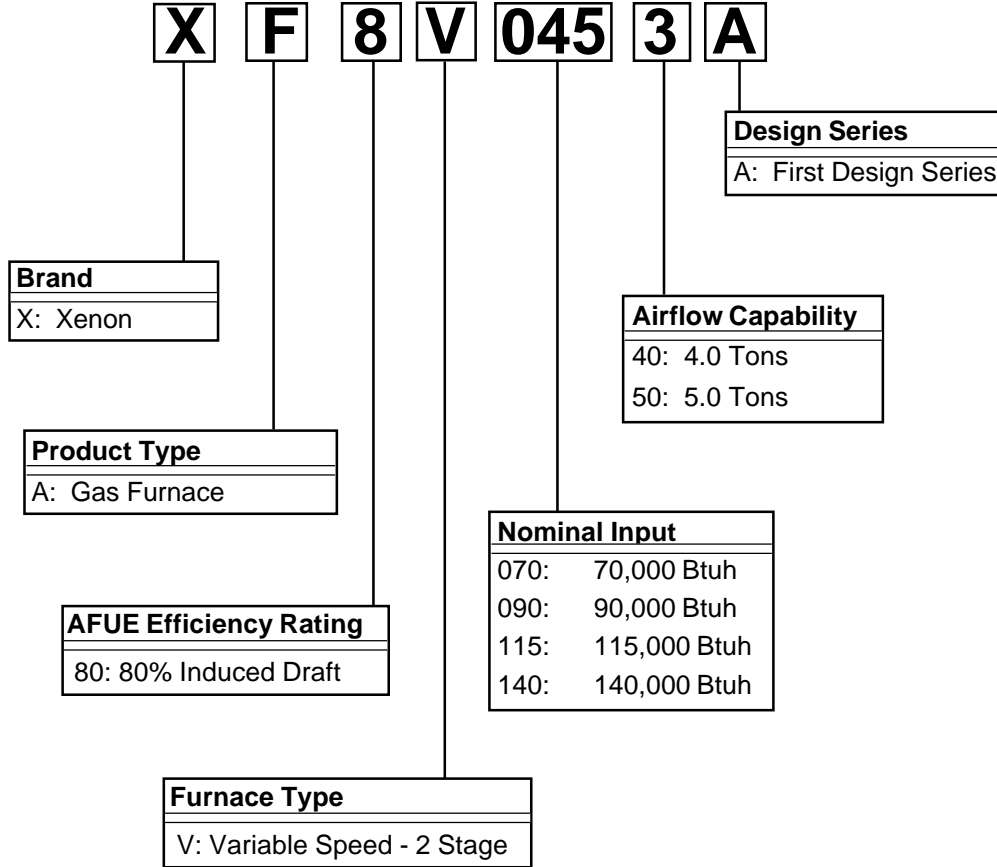
This manual is to be used by qualified HVAC technicians only. Xenon does not assume any responsibility for property damage or personal injury due to improper service procedures performed by an unqualified person.


XT6622001
Revision 0
December 2002

PRODUCT IDENTIFICATION

The model and manufacturing number are used for positive identification of component parts used in manufacturing. When engineering and manufacturing changes take place where interchangeability of components are affected, the manufacturing number will change.

It is very important to use the model and manufacturing numbers at all times when requesting service or parts information.

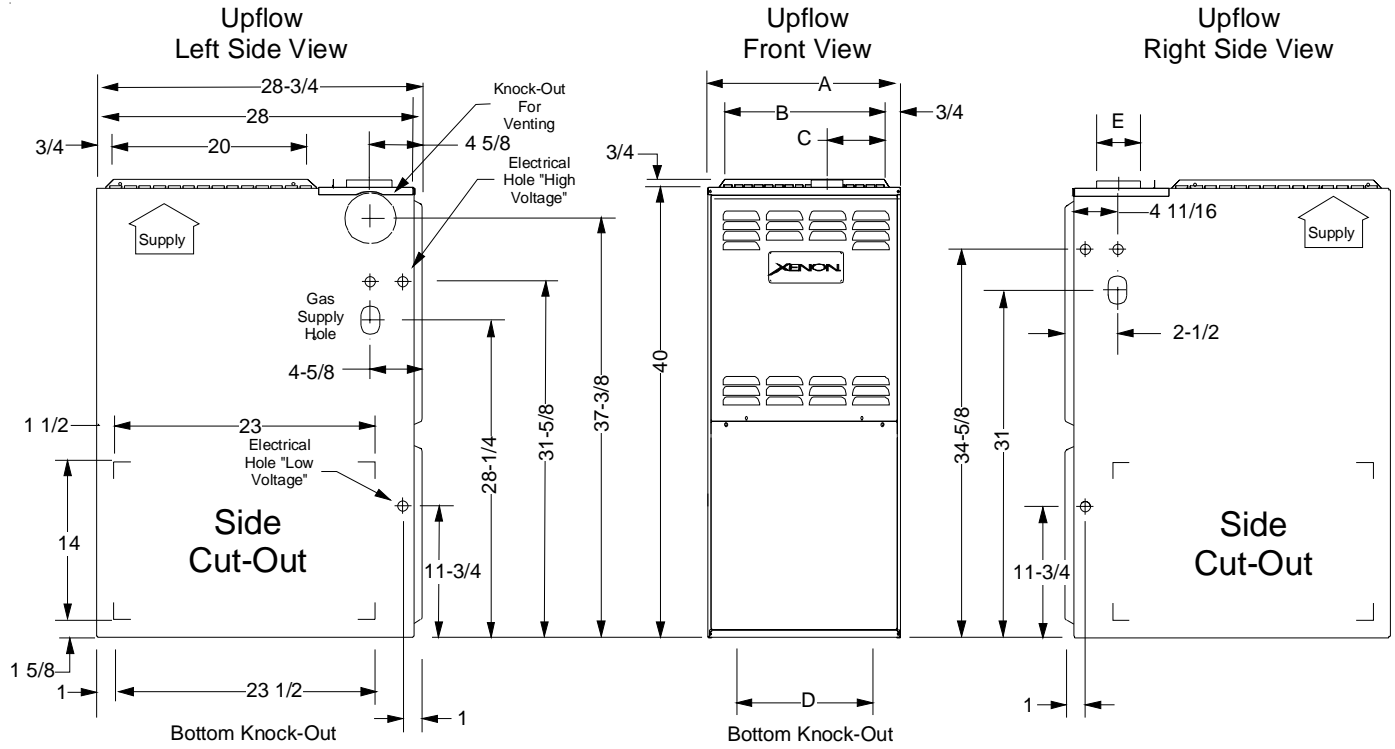


 WARNING	IF REPAIRS ARE ATTEMPTED BY UNQUALIFIED PERSONS, DANGEROUS CONDITIONS (SUCH AS EXPOSURE TO ELECTRICAL SHOCK) MAY RESULT. THIS MAY CAUSE SERIOUS INJURY OR DEATH.
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 CAUTION	XENON WILL NOT BE RESPONSIBLE FOR ANY INJURY OR PROPERTY DAMAGE ARISING FROM IMPROPER SERVICE OR SERVICE PROCEDURES. IF YOU PERFORM SERVICE ON YOUR OWN PRODUCT, YOU ASSUME RESPONSIBILITY FOR ANY PERSONAL INJURY OR PROPERTY DAMAGE WHICH MAY RESULT.
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PRODUCT DIMENSIONS

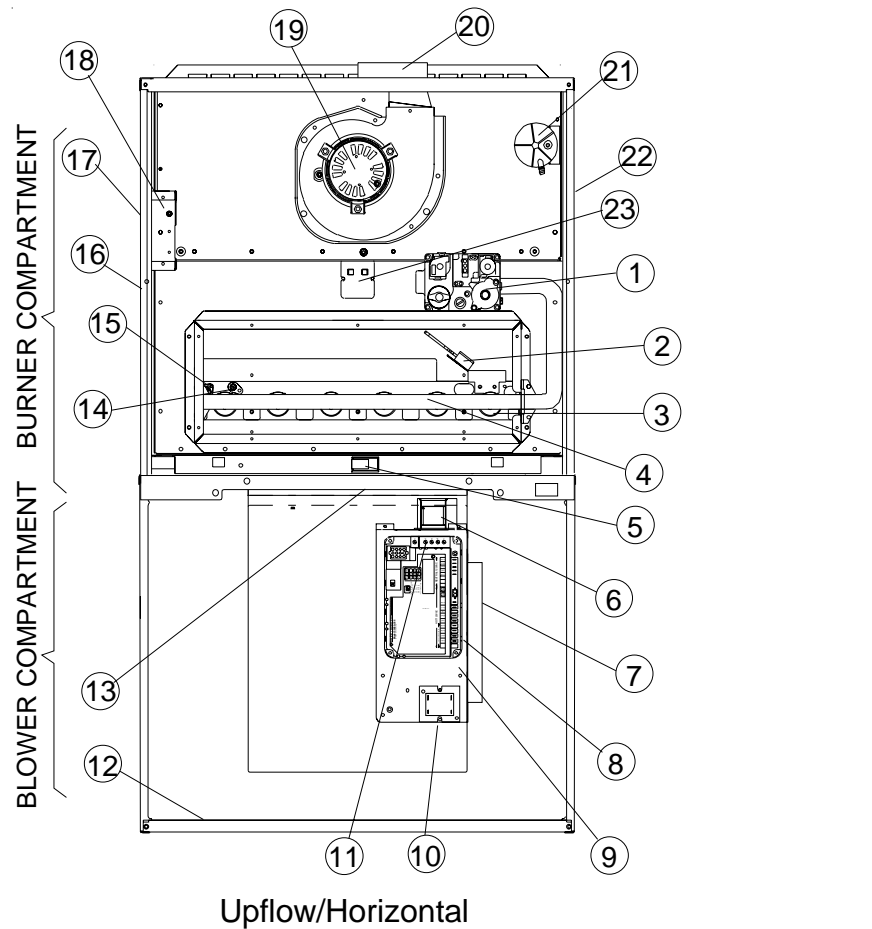
XF80V****A



XF80 DIMENSIONS						
FURNACE MODEL	A	B	C	D	E	Minimum Vent Diameter
XF8V0704A	16-1/2	15	5-1/4	12-5/8	4	4
XF8V0905A	20-1/2	19	7-1/4	14-5/8	4	4
XF8V1155A XF8V1405A	24-1/2	23	9-1/4	18-5/8	4	5

All dimensions are in inches.

COMPONENT IDENTIFICATION



- | | |
|--|---|
| 1 Two-Stage Gas Valve | 12 Bottom Return Filter Retainer |
| 2 Hot Surface Igniter | 13 Auxiliary Limit |
| 3 Burners | 14 Flame Sensor |
| 4 Gas Manifold | 15 Rollout Limit |
| 5 Blower Door Interlock Switch | 16 Gas Line Entrance |
| 6 Inductor (Not all Models) | 17 Electrical Connection Inlets |
| 7 ECM Variable Speed Circulator Blower | 18 Junction Box |
| 8 Two-Stage Integrated Control Module
(with diagnostic LED) | 19 Two-Speed Induced Draft Blower |
| 9 Control Mounting Bracket | 20 Flue Pipe Connection |
| 10 Transformer (40 VA) | 21 Pressure Switch |
| 11 24 Volt Thermostat Connections | 22 Electrical Connection Inlets (Alternate) |
| | 23 Primary Limit Control |

PRODUCT DESIGN

General Operation

This XF80 furnace is equipped with an electronic ignition device to light the burners and an induced draft blower to exhaust combustion products.

An interlock switch prevents furnace operation if the blower door is not in place. Keep the blower access doors in place except for inspection and maintenance.

This furnace is also equipped with a self-diagnosing electronic control module. In the event a furnace component is not operating properly, the control module LED will flash on and off in a factory-programmed sequence, depending on the problem encountered. This light can be viewed through the observation window in the blower access door. Refer to the *Troubleshooting Chart* for further explanation of the LED codes and *Abnormal Operation - Integrated Ignition Control* section in the Service Instructions for an explanation of the possible problem.

The rated heating capacity of the furnace should be greater than or equal to the total heat loss of the area to be heated. The total heat loss should be calculated by an approved method or in accordance with "ASHRAE Guide" or "Manual J-Load Calculations" published by the Air Conditioning Contractors of America.

*Obtain from: American National Standards Institute 1430 Broadway New York, NY 10018

Location Considerations

- The furnace should be as centralized as is practical with respect to the air distribution system.
- Do not install the furnace directly on carpeting, tile, or combustible material other than wood flooring.
- When suspending the furnace from rafters or joists, use 3/8" threaded rod and 2" x 2" x 3/8" angle as shown in the Installation and Service Instructions. The length of the rod will depend on the application and clearance necessary.
- When installed in a residential garage, the furnace must be positioned so the burners and ignition source are located not less than 18 inches (457 mm) above the floor and protected from physical damage by vehicles.

Accessibility Clearances (Minimum)

MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS (INCHES)							
POSITION*	FRONT	RIGHT	LEFT	REAR	TOP	FLUE	FLOOR
Upflow	5 ¹	0	0	0	1	6 ²	C
Horizontal Left	Alcove	6	12	0	1	6 ²	C
Horizontal Right	Alcove	12	6	0	1	6 ²	C

* = All positioning is determined as installed unit viewed from the front.

¹ = 1 inch when using Type B-1 vent is used.

² = 1 inch when Type B-1 vent is used.

C = If placed on combustible floor, floor MUST be wood ONLY.

36" at front is required for servicing or cleaning.

Note: In all cases accessibility clearance shall take precedence over clearances from the enclosure where accessibility clearances are greater. All dimensions are given in inches.

High Altitude Derate

When this furnace is installed at high altitude, the appropriate High Altitude orifice kit must be installed. This is required due to the natural reduction in the density of both the gas fuel and combustion air as altitude increases. The kit will provide the proper design certified input rate within the specified altitude range.

PROPANE AND HIGH ALTITUDE KITS				
MODEL NUMBER	0 to 7000 ft.	3001 to 7000 ft.	7001 to 8500 ft.	7001 to 8500 ft.
XF8V0704A	LPTK09 Propane Conversion Kit (#55 Orifice)	HATS01 High Altitude Natural Gas Kit (#44 Orifice)	HATS06 High Altitude Orifice Kit (#45 Orifice)	HALP09 High Altitude Propane Gas Kit (#56 Orifice)
XF8V0905A	LPTK09 Propane Conversion Kit (#55 Orifice)	HATS02 High Altitude Natural Gas Kit (#44 Orifice)	HATS06 High Altitude Orifice Kit (#45 Orifice)	HALP09 High Altitude Propane Gas Kit (#56 Orifice)
XF8V1155A	LPTK09 Propane Conversion Kit (#55 Orifice)	HATS03 High Altitude Natural Gas Kit (#44 Orifice)	HATS07 High Altitude Orifice Kit (#45 Orifice)	HALP09 High Altitude Propane Gas Kit (#56 Orifice)
XF8V1405A	LPTK09 Propane Conversion Kit (#55 Orifice)	HATS04 High Altitude Natural Gas Kit (#44 Orifice)	HATS08 High Altitude Orifice Kit (#45 Orifice)	HALP09 High Altitude Propane Gas Kit (#56 Orifice)

Note: For propane gas installations, the LPTK09 conversion kit has the required orifices for installations up to 7,000 feet. For Propane gas installations between 3,001 and 7,000 feet, the HATS kits listed above are required for the pressure switch change.

High altitude kits are purchased according to the installation altitude and usage of either natural or propane gas. Refer to the chart above for a tabular listing of appropriate altitude ranges and corresponding manufacturer's high altitude Natural Gas and Propane Gas kits. For a tabular listing of appropriate altitude ranges and corresponding manufacturer's High Altitude Pressure Switch kits, refer to either the *Pressure Switch Trip Points & Usage Chart* in this manual or the *Accessory Charts* in Service Instructions.

PRODUCT DESIGN

PRESSURE SWITCH TRIP POINTS AND USAGE CHART				
MODEL	NEGATIVE PRESSURE ID BLOWER WITH FLUE NOT FIRING TYPICAL SEA LEVEL DATA		NEGATIVE PRESSURE ID BLOWER WITH FLUE FIRING TYPICAL SEA LEVEL DATA	
	LOW FIRE	HIGH FIRE	LOW FIRE	HIGH FIRE
XF8V0704A	-0.50	-0.90	-0.52	-0.85
XF8V0905A	-0.42	-0.90	-0.44	-0.79
XF8V1155A	-0.42	-0.85	-0.42	-0.71
XF8V1405A	-0.37	-0.85	-0.39	-0.71

PRESSURE SWITCH TRIP POINTS AND USAGE CHART															
MODEL	0 to 3,000 feet					3,001 to 7,000 feet					7,001 to 8,500 feet				
	TRIP POINT ID BLOWER PRESSURE SWITCH		ID BLOWER PRESSURE SWITCH PART #	PS1 LABEL COLOR	PS2 LABEL COLOR	TRIP POINT ID BLOWER PRESSURE SWITCH		HIGH ALTITUDE KIT	PS1 LABEL COLOR	PS2 LABEL COLOR	TRIP POINT ID BLOWER PRESSURE SWITCH		HIGH ALTITUDE KIT	PS1 LABEL COLOR	PS2 LABEL COLOR
	LOW FIRE	HIGH FIRE				LOW FIRE	HIGH FIRE				LOW FIRE	HIGH FIRE			
XF8V0704A	-0.45	-0.80	11177103	DK BLUE	ORANGE	-0.37	-0.66	HATS01 11177105	PURPLE	WHITE	-0.32	-0.55	HATS06 11177108	RED	GRAY
XF8V0905A	-0.37	-0.74	11177102	PURPLE	YELLOW	-0.37	-0.60	HATS02 11177106	PURPLE	LT BLUE	-0.32	-0.55	HATS06 11177108	RED	GRAY
XF8V1155A5	-0.37	-0.66	11177105	PURPLE	WHITE	-0.37	-0.55	HATS03 11177107	PURPLE	GRAY	-0.32	-0.46	HATS07 11177110	RED	PINK
XF8V1405A	-0.32	-0.66	11177104	RED	WHITE	-0.32	-0.55	HATS04 11177108	RED	GRAY	-0.27	-0.46	HATS08 11177109	GREEN	PINK

Note: All installations above 3,000 ft. require a pressure switch change. For installations in Canada the Amana 80% furnace is certified only to 4500.ft.

Note: Replacement pressure switch number is listed below high altitude kit number.

Note: All negative pressure readings are in inches of water column (" w.c.).

Note: XF8V furnaces may not be installed above 8,500 feet.

T.O.D. PRIMARY LIMIT				
Part Number	10728326	10728334	10728336	10728337
Open Setting °F	220	180	195	140
Style	3	3	3	3
SLEEVE COLORS	BLACK	YELLOW	1 BLUE 1 YELLOW	1 RED 1 YELLOW
XF8V0704A	1			
XF8V0905A		1		
XF8V1155A			1	
XF8V1405A				1

ROLLOUT LIMIT SWITCHES			
Part Number	10123508	10123510	10123512
Open Setting °F	260	300	325
Dot Color	BROWN	LT GREEN	LT PURPLE
XF8V0704A	1		
XF8V0905A		1	
XF8V1155A			1
XF8V1405A			1

AUXILIARY LIMIT SWITCHES		
Part Number	10123506	10123516
Open Setting °F	160	150
Dot Color	ORANGE	RED
XF8V0704A		1
XF8V0905A		1
XF8V1155A	1	
XF8V1405A	1	

PRODUCT DESIGN

Filters:

Filters are required with this furnace and must be provided by the installer. The filters used must comply with UL900 or CAN/ULCS111 standards. Installing this furnace without filters will void the unit warranty.

This furnace has provisions for the installation of return air filters at the side and/or bottom return. The furnace will accommodate the following filter sizes depending on cabinet size:

Side Return(s)		
Cabinet Width (in.)	Nominal Filter Size (in.)	Approx. Flow Area (in ²)
All	16 x 25 x 1	400

Bottom Return		
Cabinet Width (in.)	Nominal Filter Size (in.)	Approx. Flow Area (in ²)
16-1/2	14 x 25 x 1	350
20-1/2	16 x 25 x 1	400
24-1/2	20 x 25 x 1	500

Filter rails for internal, side return air filters are included, but not installed. The factory-supplied rails must be installed inside the cabinet. Align the top filter rail (large rail) with the vacant holes in the furnace side panel and secure with sheet metal screws. Align the bottom filter rail (small rail) with the vacant hole along the lower edge of the cabinet and secure with sheet metal screws.

Refer to Minimum Filter Area tables to determine filter area requirement. **NOTE:** Filters can also be installed elsewhere in the duct system such as a central return.

XF80V****A Model (Input Airflow)	Cooling Airflow Requirement (CFM)						
	600	800	1000	1200	1400	1600	2000
045_30	335*	384	480	576	---	---	---
070_30	503*	503*	503*	576	---	---	---
070_40	---	---	503*	576*	672	768	---
090_30	610*	610*	610*	610*	---	---	---
090_50	---	---	---	610*	672	768	960
115_50	---	---	---	838*	838*	838*	960

*Minimum filter area dictated by heating airflow requirement.

Disposable Minimum Filter Area (in²)
[Based on a 300 ft/min filter face velocity]

XF80V****A Model (Input Airflow)	Cooling Airflow Requirement (CFM)						
	600	800	1000	1200	1400	1600	2000
045_30	168*	192	240	288	---	---	---
070_30	251*	251*	251*	288	---	---	---
070_40	---	---	251*	288	336	384	---
090_30	305*	305*	305*	305*	---	---	---
090_50	---	---	---	305*	336	384	480
115_50	---	---	---	419*	419*	419*	480

*Minimum filter area dictated by heating airflow requirement.

Permanent Minimum Filter Area (in²)
[Based on 600 ft/min filter face velocity]

IMPORTANT NOTES:

1. All furnaces have a redundant gas valve and blower door interlock switch.
2. All furnaces are manufactured for use on 115 VAC, 60 Hz, single phase electrical supply.
3. **IMPORTANT:** While the data is presented as a guide, it is required to properly size fuses and wires and make electrical connections in accordance with the National Electrical Code and/or all existing local codes.
4. Performance figures are based on Department of Energy information and requirements under continuous operating conditions. Performance will vary with weather conditions and use.

FURNACE SPECIFICATIONS

MODEL	XF8V0704A	XF8V0905A	XF8V1155A	XF8V1405A
Btuh Input (US) High Fire	69,000	92,000	115,000	138,000
Output (US) High Fire	55,200	73,600	92,000	110,400
Btuh Input (US) Low Fire	48,000	64,000	80,000	96,000
Output (US) Low Fire	38,400	51,200	64,000	76,800
A.F.U.E.	80%	80%	80%	80%
Rated External Static (" w.c.)	.10 - .50	.10 - .50	.10 - .50	.10 - .50
Temperature Rise (°F)	30 - 60	35 - 65	35 - 65	45 - 75
High Stage Pressure Switch Trip Point (" w.c.)	-0.80	-0.74	-0.66	-0.66
Low Stage Pressure Switch Trip Point (" w.c.)	-0.45	-0.37	-0.37	-0.32
Blower Wheel (D" x W")	10 x 8	10 x 8	10 x 9	10 x 9
Blower Horsepower	1/2	3/4	3/4	3/4
Blower Speeds	Refer to notes below airflow charts on pages 9-11.			
Max CFM @ 0.5 E.S.P.	1426	1845	2059	2059
Power Supply	115-60-1	115-60-1	115-60-1	115-60-1
Minimum Circuit Ampacity (MCA)	11.0	11.7	11.7	11.7
Maximum Overcurrent Device	15	15	15	15
Transformer (VA)	40	40	40	40
Heat Anticipator (Amps)	0.7	0.7	0.7	0.7
Primary Limit Setting (°F)	220	180	195	140
Auxiliary Limit Setting (°F)	150	150	160	160
Rollout Limit Setting (°F)	260	300	300	325
Fan Delay On Heating	0 or 5 secs.	0 or 5 secs.	0 or 5 secs.	0 or 5 secs.
Off Heating *	30 secs.	30 secs.	30 secs.	30 secs.
Fan Delay On Cooling **	90 secs.	90 secs.	90 secs.	90 secs.
Off Cooling ***	0 or 45 secs.	0 or 45 secs.	0 or 45 secs.	0 or 45 secs.
Gas Supply Pressure (Natural/Propane) ("w.c.)	7 / 11	7 / 11	7 / 11	7 / 11
Manifold Pressure (Natural/Propane) High Stage ("w.c.)	3.5 / 10	3.5 / 10	3.5 / 10	3.5 / 10
Manifold Pressure (Natural/Propane) Low Stage ("w.c.)	1.9 / 6.0	1.9 / 6.0	1.9 / 6.0	1.9 / 6.0
Orifice Size (Natural/Propane)	#43 / #55	#43 / #55	#43 / #55	#43 / #55
Number of Burners	3	4	5	6
Vent Connector Diameter (inches)	4	4	4	4
Shipping Weight (lbs.)	152	178	194	198

* Off Heating - This fan delay timing is adjustable (60, 90, 120 or 180 seconds). 90 seconds as shipped.

** On Cooling - This fan delay timing can be set at either 0 or 5 seconds. Refer to Circulator Blower Timing and Speeds Selection section in the Service Instructions for details.

*** Off Cooling - This fan delay timing can be set at either 0 or 45 seconds. Refer to Circulator Blower Timing and Speeds Selection section in the Service Instructions for details.

1. These furnaces are manufactured for natural gas operation. Optional kits are available for conversion to propane gas operation.
2. For elevations above 2000 feet the rating should be reduced by 4% for each 1000 feet above sea level. The furnace must not be derated, orifice changes should only be made if necessary for altitude.
3. The total heat loss from the structure as expressed in TOTAL BTU/HR must be calculated by the manufacturers method in accordance with the "A.S.H.R.A.E. GUIDE" or "MANUAL J-LOAD CALCULATIONS" published by the AIR CONDITIONING CONTRACTORS OF AMERICA. The total heat loss calculated should be equal to or less than the heating capacity. Output based on D.O.E. test procedures, steady state efficiency times output.
4. Minimum Circuit Ampacity calculated as: $(1.25 \times \text{Circulator Blower Amps}) + \text{I.D. Blower Amps}$.

BLOWER PERFORMANCE SPECIFICATIONS

Heating Speed Charts

("W1" must be connected to "W1" on Two-Stage Integrated Furnace Control)

("W2" must be connected to "W2" on Two-Stage Integrated Furnace Control)

XF8V0704A						
Heating Speed	Adjust	CFM @ .1 to .5 "WC Low Stage ESP	Rise Low Stage (°F)	CFM @ .1 to .5 "WC High Stage ESP	Rise High Stage Natural (°F)	Rise High Stage Propane (°F)
A	Minus	585	----	----	61	55
A	Normal	650	55	936	55	49
A	Plus	715	50	1030	50	45
B	Minus	630	56	907	56	51
B	Normal	700	51	1008	51	46
B	Plus	770	46	1109	46	41
C	Minus	720	49	1037	49	44
C	Normal	800	44	1152	44	40
C	Plus	880	40	1267	40	36
D	Minus	810	44	1166	44	39
D	Normal	900	40	1296	39	35
D	Plus	990	36	1426	36	32

XF8V0905A						
Heating Speed	Adjust	CFM @ .1 to .5 "WC Low Stage ESP	Rise Low Stage (°F)	CFM @ .1 to .5 "WC High Stage ESP	Rise High Stage Natural (°F)	Rise High Stage Propane (°F)
A	Minus	801	59	1153	59	53
A	Normal	890	53	1282	53	48
A	Plus	979	48	1410	48	44
B	Minus	855	55	1231	55	50
B	Normal	950	50	1368	50	45
B	Plus	1045	45	1505	45	41
C	Minus	945	50	1361	50	45
C	Normal	1050	45	1512	45	41
C	Plus	1155	41	1663	41	37
D	Minus	1049	45	1510	45	41
D	Normal	1165	41	1678	41	37
D	Plus	1282	37	1845	37	33

XF8V1155A						
Heating Speed	Adjust	CFM @ .1 to .5 "WC Low Stage ESP	Rise Low Stage (°F)	CFM @ .1 to .5 "WC High Stage ESP	Rise High Stage Natural (°F)	Rise High Stage Propane (°F)
A	Minus	945	63	1361	63	56
A	Normal	1050	56	1512	56	51
A	Plus	1155	51	1663	51	46
B	Minus	990	60	1426	60	54
B	Normal	1100	54	1584	54	48
B	Plus	1210	39	1742	49	44
C	Minus	1080	55	1555	55	49
C	Normal	1200	49	1728	49	44
C	Plus	1320	45	1901	45	40
D	Minus	1170	51	1685	51	46
D	Normal	1300	46	1872	46	41
D	Plus	1430	41	2059	41	37

XF8V1405A						
Heating Speed	Adjust	CFM @ .1 to .5 "WC Low Stage ESP	Rise Low Stage (°F)	CFM @ .1 to .5 "WC High Stage ESP	Rise High Stage Natural (°F)	Rise High Stage Propane (°F)
A	Minus	945	75	1361	75	68
A	Normal	1050	68	1512	68	61
A	Plus	1155	62	1663	61	55
B	Minus	990	72	1426	72	65
B	Normal	1100	65	1584	65	58
B	Plus	1210	59	1742	59	53
C	Minus	1080	66	1555	66	59
C	Normal	1200	59	1728	59	53
C	Plus	1320	54	1901	54	48
D	Minus	1170	61	1685	61	55
D	Normal	1300	55	1872	55	49
D	Plus	1430	50	2059	50	45

* Factory Setting

- Units are shipped without filter(s). CFM in chart is without filter(s).
- All furnaces shipped with heating speed set at "B". Installer should adjust blower speed as needed.
- INSTALLATION IS TO BE ADJUSTED TO OBTAIN TEMPERATURE RISE WITHIN THE RANGE SPECIFIED ON THE RATING PLATE.
- The chart is for information only. For satisfactory operation, external static pressure not to exceed value shown on rating plate.
- The above chart is for U.S. furnaces installed at 0-2000 feet. At higher altitudes, a properly derated unit will have approximately the same temperature rise at a particular CFM, while the ESP at that CFM will be lower.
- Propane gas installations will have a High Stage rise approximately 4°F lower than shown in above tables.
- The dashed (----) areas indicate a temperature rise not recommended for this model.

BLOWER PERFORMANCE SPECIFICATIONS

Cooling Speed Chart

("Y" on Two-Stage Integrated Furnace Control or "Y/Y2" on Interface Board)

GUIV070**40			GUIV090**50		
Cooling Speed	Adjust	CFM @ .1 to .8 "WC ESP	Cooling Speed	Adjust	CFM @ .1 to .8 "WC ESP
A	Minus	540	A	Minus	720
A	Normal	600	A	Normal	800
A	Plus	660	A	Plus	880
B	Minus	720	B	Minus	990
B	Normal	800	B	Normal	1100
B	Plus	880	B	Plus	1210
C	Minus	990	C	Minus	1260
C	Normal	1100	C	Normal	1400
C	Plus	1210	C	Plus	1540
D	Minus	1260	D	Minus	1620
D	Normal	1400	D	Normal	1800
D	Plus	1540	D	Plus	1980

GUIV115**50			GUIV140**50		
Cooling Speed	Adjust	CFM @ .1 to .8 "WC ESP	Cooling Speed	Adjust	CFM @ .1 to .8 "WC ESP
A	Minus	900	A	Minus	900
A	Normal	1000	A	Normal	1000
A	Plus	1100	A	Plus	1100
B	Minus	1080	B	Minus	1080
B	Normal	1200	B	Normal	1200
B	Plus	1320	B	Plus	1320
C	Minus	1440	C	Minus	1440
C	Normal	1600	C	Normal	1600
C	Plus	1760	C	Plus	1760
D	Minus	1800	D	Minus	1800
D	Normal	2000	D	Normal	2000
D	Plus	2000	D	Plus	2000

* Factory Setting

Low Stage Cooling Speed Chart

("Y1" on Interface Board)

GUIV070**40			GUIV090**50		
Cooling Speed	Adjust	CFM @ .1 to .8 "WC ESP	Cooling Speed	Adjust	CFM @ .1 to .8 "WC ESP
A	Minus	484	A	Minus	481
A	Normal	484	A	Normal	520
A	Plus	484	A	Plus	572
B	Minus	484	B	Minus	644
B	Normal	520	B	Normal	715
B	Plus	572	B	Plus	787
C	Minus	644	C	Minus	819
C	Normal	715	C	Normal	910
C	Plus	787	C	Plus	1001
D	Minus	819	D	Minus	1053
D	Normal	910	D	Normal	1170
D	Plus	1001	D	Plus	1287

GUIV115**50			GUIV140**50		
Cooling Speed	Adjust	CFM @ .1 to .8 "WC ESP	Cooling Speed	Adjust	CFM @ .1 to .8 "WC ESP
A	Minus	619	A	Minus	619
A	Normal	650	A	Normal	650
A	Plus	715	A	Plus	715
B	Minus	702	B	Minus	702
B	Normal	780	B	Normal	780
B	Plus	858	B	Plus	858
C	Minus	936	C	Minus	936
C	Normal	1040	C	Normal	1040
C	Plus	1144	C	Plus	1144
D	Minus	1170	D	Minus	1170
D	Normal	1300	D	Normal	1300
D	Plus	1300	D	Plus	1300

1. Units are shipped without filter(s). CFM in chart is without filter(s).
2. All furnaces shipped with cooling speed set at "A". Installer should adjust blower speed as needed.
3. For most cooling applications, about 400 CFM per ton is desirable.
4. The chart is for information only. For satisfactory operation, external static pressure not to exceed value shown on rating plate.
5. Do not operate above 0.5" w.c. ESP in heating mode. Operating between 0.5" w.c. and 0.8" w.c. is tabulated for

BLOWER PERFORMANCE SPECIFICATIONS

Continuous Fan Speed Charts

Cooling - Based Continuous Fan Speeds ("G", from thermostat connected to "G" on Motor Interface Board)

[**Note:** EAC terminals on the Two-Stage Integrated Control Module will not energize with this method.]

XF8V0704A			XF8V0905A		
Cooling Speed	Adjust	CFM @ .1 to .8 "WC ESP	Cooling Speed	Adjust	CFM @ .1 to .8 "WC ESP
A	Minus	484	A	Minus	540
A	Normal	484	A	Normal	600
A	Plus	495	A	Plus	660
B	Minus	540	B	Minus	743
B	Normal	600	B	Normal	825
B	Plus	660	B	Plus	908
C	Minus	743	C	Minus	945
C	Normal	825	C	Normal	1050
C	Plus	908	C	Plus	1155
D	Minus	945	D	Minus	1215
D	Normal	1050	D	Normal	1350
D	Plus	1155	D	Plus	1485

XF8V1155A			XF8V1405A		
Cooling Speed	Adjust	CFM @ .1 to .8 "WC ESP	Cooling Speed	Adjust	CFM @ .1 to .8 "WC ESP
A	Minus	675	A	Minus	675
A	Normal	750	A	Normal	750
A	Plus	825	A	Plus	825
B	Minus	810	B	Minus	810
B	Normal	900	B	Normal	900
B	Plus	990	B	Plus	990
C	Minus	1080	C	Minus	1080
C	Normal	1200	C	Normal	1200
C	Plus	1320	C	Plus	1320
D	Minus	1350	D	Minus	1350
D	Normal	1500	D	Normal	1500
D	Plus	1650	D	Plus	1650

Heating - Based Continuous Fan Speeds ("G", from thermostat connected to "G" on Integrated Furnace Control)

XF8V0704A			XF8V0905A		
Heating Speed	Adjust	CFM @ .1 to .8 "WC ESP	Heating Speed	Adjust	CFM @ .1 to .8 "WC ESP
A	Minus	585	A	Minus	801
A	Normal	650	A	Normal	890
A	Plus	715	A	Plus	979
B	Minus	630	B	Minus	855
B	Normal	700	B	Normal	950
B	Plus	770	B	Plus	1045
C	Minus	720	C	Minus	945
C	Normal	800	C	Normal	1050
C	Plus	880	C	Plus	1155
D	Minus	810	D	Minus	1049
D	Normal	900	D	Normal	1165
D	Plus	990	D	Plus	1282

XF8V1155A			XF8V1405A		
Heating Speed	Adjust	CFM @ .1 to .8 "WC ESP	Heating Speed	Adjust	CFM @ .1 to .8 "WC ESP
A	Minus	945	A	Minus	945
A	Normal	1050	A	Normal	1050
A	Plus	1155	A	Plus	1155
B	Minus	990	B	Minus	990
B	Normal	1100	B	Normal	1100
B	Plus	1210	B	Plus	1210
C	Minus	1080	C	Minus	1080
C	Normal	1200	C	Normal	1200
C	Plus	1320	C	Plus	1320
D	Minus	1170	D	Minus	1170
D	Normal	1300	D	Normal	1300
D	Plus	1430	D	Plus	1430

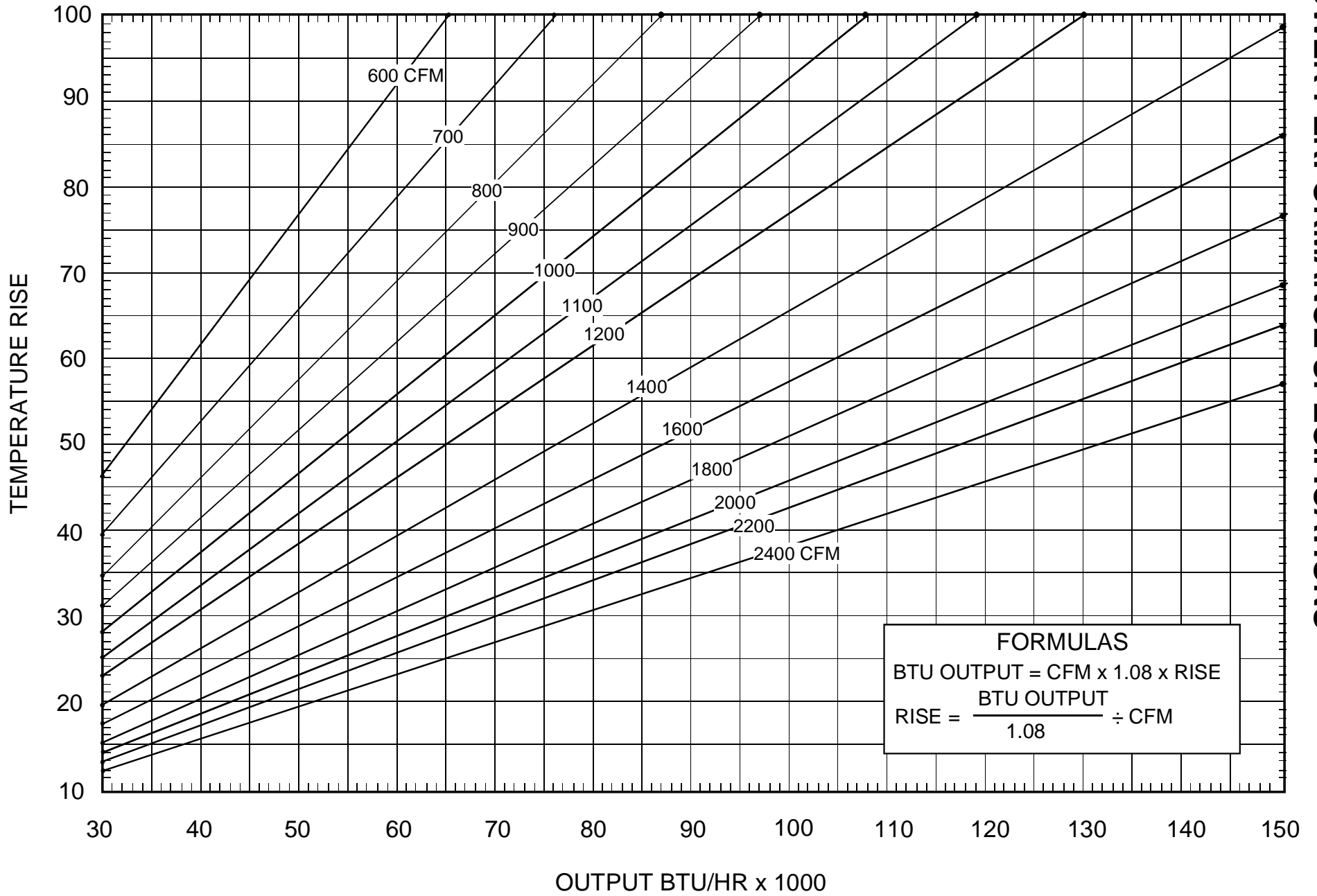
Note: Continuous fan operation may operate in one of two modes:

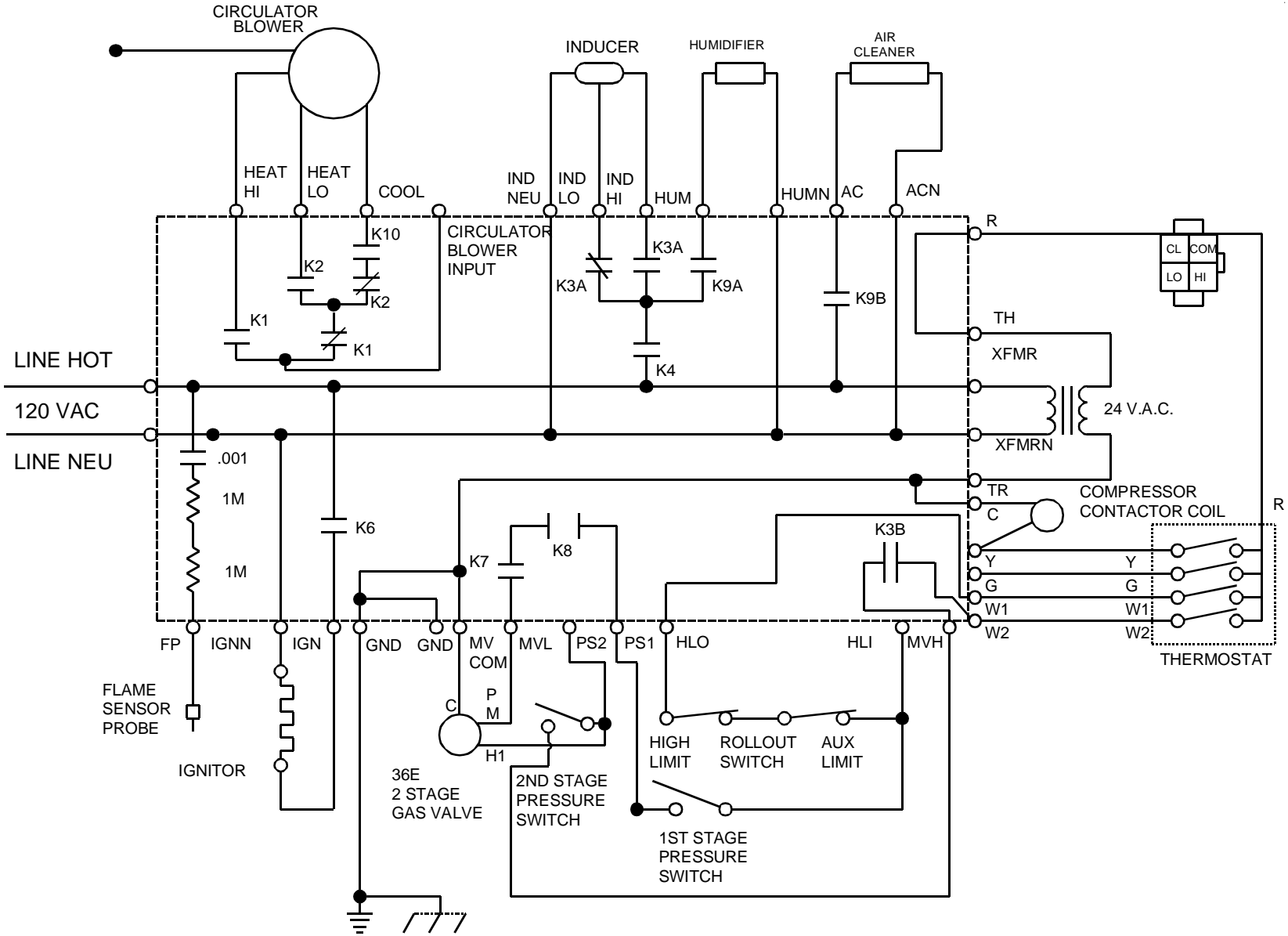
1. If "G" from the thermostat is connected to "G" on the two stage integrated furnace control, the continuous fan speed will be the same as the low stage heating speed.
2. If "G" from the thermostat is connected directly to "G" on the motor interface board, the continuous fan speed will be 75% of the selected cooling speed.
 - With this connection, the EAC (Electronic Air Cleaner) terminals on the two stage integrated control module are not energized. To energize the EAC terminals, the "G" wire from the thermostat must be connected directly to the "G" terminal on the two stage integrated control module.

1. Units are shipped without filter(s). CFM in chart is without filter(s).
2. All furnaces shipped with cooling speed set at "A". Installer should adjust blower speed as needed.
3. For most cooling applications, about 400 CFM per ton is desirable.
4. The chart is for information only. For satisfactory operation, external static pressure not to exceed value shown on rating plate.
5. Do not operate above 0.5" w.c. ESP in heating mode. Operating between 0.5" w.c. and 0.8" w.c. is tabulated for cooling purposes only.

BTU OUTPUT vs TEMPERATURE RISE CHART

BLOWER PERFORMANCE SPECIFICATIONS





TYPICAL SCHEMATIC

XF8V**A MODEL FURNACES**

WHITE-RODGERS 50A51-225 INTEGRATED IGNITION CONTROL

This schematic is for reference only. Not all wiring is as shown above, refer to the appropriate wiring diagram for the unit being serviced.

WARNING TO AVOID POSSIBLE ELECTRICAL SHOCK, PERSONAL INJURY, OR DEATH, DISCONNECT THE POWER BEFORE SERVICING.