

TECHNICAL INFORMATION MANUAL

Model and manufacturing numbers

MODEL

M/N

GUIV070FX40 P1246903F

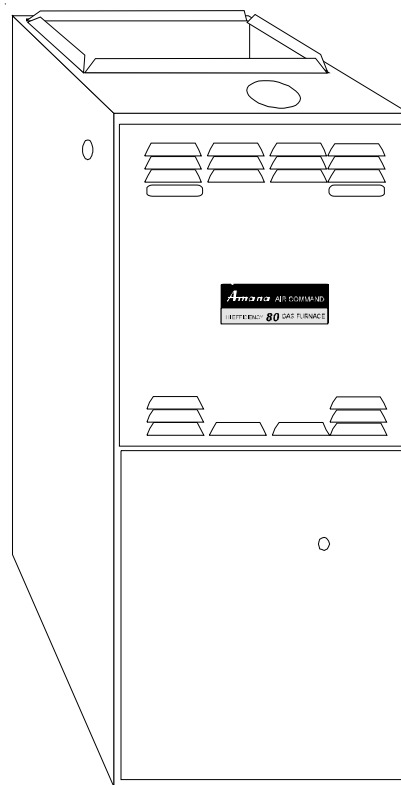
GUIV090FX50 P1246905F

GUIV115FX50 P1246907F

GUIV140FX50 P1246908F

GUIV 40" 80% Gas Furnace Units

- Refer to Service Manual RS6600001 Rev. 1 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.



Heating & Air Conditioning
Amana
LASTS AND LASTS AND LASTS.™

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

RT662001 Rev. 3
January 2005

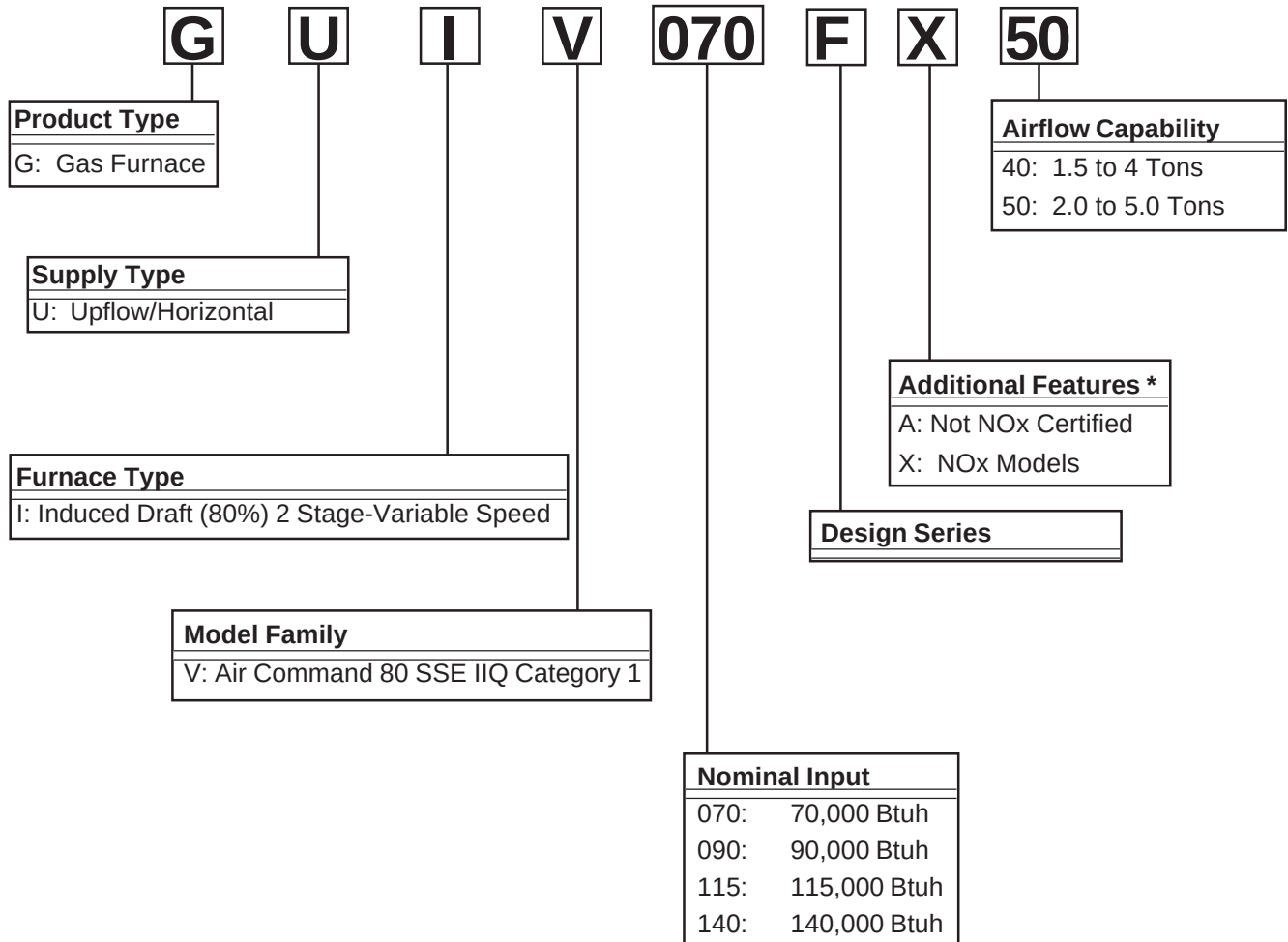
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PRODUCT IDENTIFICATION

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.



CAUTION

GOODMAN WILL NOT ASSUME RESPONSIBILITY 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.

PRODUCT DESIGN

General Operation

This GUIV 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	6 ¹	0	0	0	1	6 ²	C
Horizontal Left	Alcove	6	12	0	6	6 ²	C
Horizontal Right	Alcove	12	6	0	6	6 ²	C

¹ = All positioning is determined as installed unit is viewed from the front.

² = All positioning is determined as installed unit is viewed from the front.

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

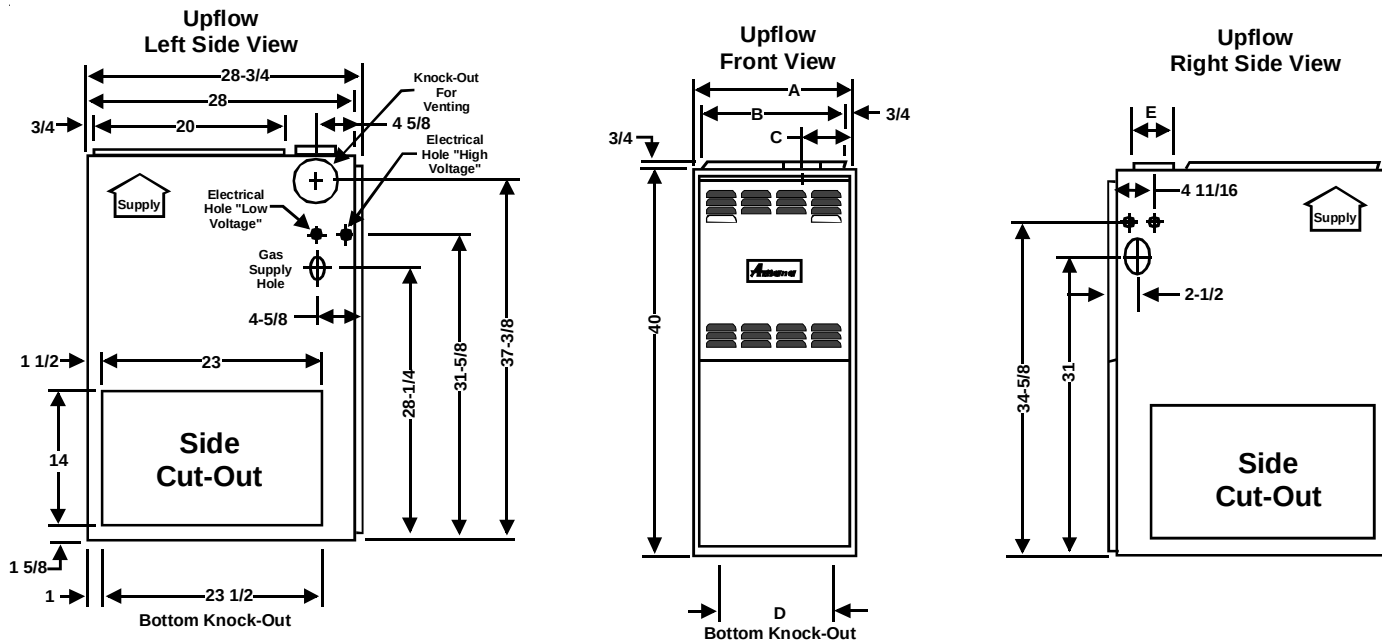
When this furnace is installed at high altitude, the appropriate High Altitude orifice kit must be installed. This is required due to the natural reduction in the density of both the gas fuel and combustion air as altitude increases. The kit will provide the proper design certified input rate within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

"PROPANE" and "HIGH ALTITUDE" KITS				
FURNACE	0 to 7,000 ft.	3,001 to 7,000 ft.	7,001 to 8,500 ft.	7,001 to 8,500 ft.
GUIV070FX40	LPTK09 Propane Conversion Kit #55 Orifice	HATS01 High Altitude Natural Gas Kit (#44 Orifice)	HATS06 High Altitude Natural Gas Kit (#45 Orifice)	HALP09 High Altitude Natural Gas Kit (#56 Orifice)
GUIV090FX50	LPTK09 Propane Conversion Kit #55 Orifice	HATS02 High Altitude Natural Gas Kit (#44 Orifice)	HATS06 High Altitude Natural Gas Kit (#45 Orifice)	HALP09 High Altitude Natural Gas Kit (#56 Orifice)
GUIV115FX50	LPTK09 Propane Conversion Kit #55 Orifice	HATS03 High Altitude Natural Gas Kit (#44 Orifice)	HATS07 High Altitude Natural Gas Kit (#45 Orifice)	HALP09 High Altitude Natural Gas Kit (#56 Orifice)
GUIV140FX50	LPTK09 Propane Conversion Kit #55 Orifice	HATS04 High Altitude Natural Gas Kit (#44 Orifice)	HATS08 High Altitude Natural Gas Kit (#45 Orifice)	HALP09 High Altitude Natural Gas Kit (#56 Orifice)

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 DIMENSIONS

GUIV 80% Upflow/Horizontal



CABINET SIZE	UNITS	A	B	C	D	E	MINIMUM VENT DIAMETER
SMALL	GUIV070FX40	16 1/2	15	5 3/8	14 5/8	4	4
MEDIUM	GUIV090FX50	20 1/2	19	7 3/8	14 5/8	4	4
LARGE	GUIV115FX50 GUIV140FX50	24 1/2	23	9 3/8	18 5/8	4	5

All dimensions are in inches.

PRODUCT DESIGN

PRESSURE SWITCH TRIP POINTS AND USAGE CHART				
MODEL	NEGATIVE PRESSURE ID BLOWER WITH FLUE NOT FIRING		NEGATIVE PRESSURE COIL COVER WITH FLUE FIRING	
	TYPICAL SEA LEVEL DATA		TYPICAL SEA LEVEL DATA	
	LOW FIRE	HIGH FIRE	LOW FIRE	HIGH FIRE
GUIV070FX40	-0.5	-0.90	-0.52	-0.85
GUIV090FX50	-0.42	-0.90	-0.44	-0.79
GUIV115FX50	-0.42	-0.85	-0.42	-0.71
GUIV140FX50	-0.37	-0.85	-0.39	-0.71

Note: The typical sea level negative pressure data represents the minimum pressures expected. Shorter length of flue pipe or single pipe systems compared to dual pipe systems should show higher (greater negative) pressures.

PRESSURE SWITCH TRIP POINTS AND USAGE CHART															
MODEL	0 to 3,000 ft.					3,001 ft. to 7,000 ft.					7,001 ft. to 11,000 ft.				
	TRIP POINT ID BLOWER PRESSURE SWITCH		ID BLOWER PRESSURE SWITCH PART #	PS1 LABEL COLOR	PS2 LABEL COLOR	TRIP POINT COIL COVER PRESSURE SWITCH		HIGH ALTITUDE KIT	PS1 LABEL COLOR	PS2 LABEL COLOR	TRIP POINT COIL COVER PRESSURE SWITCH		HIGH ALTITUDE KIT	PS1 LABEL COLOR	PS2 LABEL COLOR
	LOW FIRE	HIGH FIRE				LOW FIRE	HIGH FIRE				LOW FIRE	HIGH FIRE			
GUIV070FX40	-0.45	-0.80	11177103	DK. BLUE	ORANGE	-0.37	-0.66	HATS01 11177105	PURPLE	WHITE	-0.32	-0.55	HATS06 11177108	RED	GREY
GUIV090FX50	-0.37	-0.74	11177102	PURPLE	YELLOW	-0.37	-0.60	HATS02 11177106	PURPLE	LT BLUE	-0.32	-0.55	HATS06 11177108	RED	GREY
GUIV115FX50	-0.37	-0.66	11177105	PURPLE	WHITE	-0.37	-0.55	HATS03 11177107	PURPLE	GREY	-0.32	-0.46	HATS07 11177110	RED	PINK
GUIV140FX50	-0.32	-0.66	11177104	RED	WHITE	-0.32	-0.55	HATS04 11177108	RED	GREY	-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 GUIV 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: GUIV furnaces may not be installed above 8500 ft.

T.O.D. PRIMARY LIMIT				
Part Number	10728326	10728334	10728336	10728337
Open Setting (°F)	140	180	195	140
Color Code(s)	Black	Yellow	1 Blue 1 Yellow	1 Red 1 Yellow
GUIV070FX40	1			
GUIV090FX50		1		
GUIV115FX50			1	
GUIV140FX50				1

ROLLOUT LIMIT SWITCHES			
Part Number	10123527	10123529	10123531
Open Setting (°F)	260	300	325
Color Code(s)	Brown	Green	Lt. Purple
GUIV070FX40	1		
GUIV090FX50		2	
GUIV115FX50			1
GUIV140FX50			1

AUXILIARY LIMIT SWITCHES		
Part Numbers	10123535	10123525
Open Setting (°F)	150	160
Color Code(s)	Orange	Red
GUIV070FX40	1	
GUIV090FX50	1	
GUIV115FX50		1
GUIV140FX50		1

PRODUCT DESIGN

Coil Matches:

A large array of Amana coils are available for use with the GUIV furnaces, in either upflow or horizontal applications. These coils are available in both cased and uncased models, with or without a TXV expansion device. These 80% furnaces match up with the existing Amana coils as shown in the chart below.

Btuh Input	Cabinet Width	Air Flow (tons)	CCA_F*C Cased A-Coils	CCA_FSC Uncased A-Coils	CHA_TCC Cased TXV A-Coils	CHA_TSC Uncased TXV A-Coils	CCF_F*C Horiz. A-Coils	CHF_TCC Horiz. A-Coils
GUIV070FX40	16 1/2"	1 1/2 - 4	CCA18FCC CCA24FCC CCA30FCC CCA36FCC	CCA18FSC CCA24FSC CCA30FSC CCA36FSC	CHA18TCC CHA24TCC CHA30TCC CHA36TCC	CHA18TSC CHA24TSC CHA30TSC CHA36TSC	CCF24FCC	CHF18TCC CHF24TCC
GUIV090FX50	20 1/2"	5-Feb	CCA30FDC CCA36FDC CCA42FDC CCA48FCC	CCA48FSC	CHA42TCC	CHA42TSC	CCF24FDC CCF36FDC CCF42FCC CCF48FCC	CHF36TCC CHF42TCC
GUIV115FX50 GUIV140FX50	24 1/2"	2 1/2 - 5	CCA36FKC CCA48FDC CCA54FCC CCA57FCC CCA60FCC	CCA54FSC CCA57FSC CCA60FSC	CHA48TCC CHA54TCC CHA57TCC CHA60TCC	CHA48TSC CHA54TSC CHA57TSC CHA60TSC	CCF48FDC CCF60FCC CCF61FCC	CHF48TCC CHF60TCC

Thermostats:

The following Amana Thermostats are suggested for use with the GUIV Furnace Models:

Thermostats (Two-Stage Applications)								
Thermostat	Man/Auto	Programmable	Cool	Heat	Batt. Powered	Batt. Bkup*	Shape	Color
1217701	Man. Changeover	No	2	2	No	No	Rectangular	Beige
1213407	Man. Changeover	Yes	2	2	No	Yes	Rectangular	White

*1213407 is 24V powered with battery backup.

Thermostats (Dual Fuel Applications)								
Thermostat	Man/Auto	Programmable	Cool	Heat	Batt. Powered	Batt. Bkup*	Shape	Color
1213406*	Man. Or Auto	Yes	2	3	No	Yes	Rectangular	White

*1213406 is 24V powered with battery backup.

NOTE: The above thermostat 1213406 is the recommended model for the GUIV furnace when used with a heat pump in a fossil fuel application. It is NOT for use with the GUIV furnace as a sole heating source.

FURNACE SPECIFICATIONS

MODEL	GUIV070FX40	GUIV090FX50	GUIV115FX50	GUIV140FX50
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 airflow charts on pages 8-10.			
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.)	133	178	194	198

* Off Heating - This fan delay timing is adjustable (90, 120, 150 or 180 seconds), 90 seconds as shipped.

** On Cooling - This fan delay timing is adjustable (90, 120, 150 or 180 seconds), 90 seconds as shipped.

*** Off Cooling - This fan delay timing is adjustable (90, 120, 150 or 180 seconds), 90 seconds as shipped.

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 x Circulator Blower Amps) + 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)

GUIV070FX40						
Heating Speed Tap	Adjust Tap	Low Stage CFM at .1" - .5" w.c. ESP	Low Stage Rise (°F)	High Stage CFM at .1" - .5" w.c. ESP	High Stage Rise Natural (°F)	High Stage Rise Propane (°F)
A	Minus(-)	585	-----	-----	61	55
	Normal	650	55	936	55	49
	Plus (+)	715	50	1030	50	45
B	Minus(-)	630	56	907	56	51
	Normal	700	51	1008	51	46
	Plus (+)	770	46	1109	46	41
C	Minus(-)	720	49	1037	49	44
	Normal	800	44	1152	44	40
	Plus (+)	880	40	1267	40	36
D	Minus(-)	810	44	1166	44	39
	Normal	900	40	1296	39	35
	Plus (+)	990	36	1426	36	32

GUIV090FX50						
Heating Speed Tap	Adjust Tap	Low Stage CFM at .1" - .5" w.c. ESP	Low Stage Rise (°F)	High Stage CFM at .1" - .5" w.c. ESP	High Stage Rise Natural (°F)	High Stage Rise Propane (°F)
A	Minus(-)	801	59	1153	59	53
	Normal	890	53	1282	53	48
	Plus (+)	979	48	1410	48	44
B	Minus(-)	588	55	1231	55	50
	Normal	950	50	1368	50	45
	Plus (+)	1045	45	1505	45	41
C	Minus(-)	945	50	1361	50	45
	Normal	1050	45	1512	45	41
	Plus (+)	1155	41	1663	41	37
D	Minus(-)	1049	45	1510	45	41
	Normal	1165	41	1678	41	37
	Plus (+)	1282	37	1845	37	33

GUIV115FX50						
Heating Speed Tap	Adjust Tap	Low Stage CFM at .1" - .5" w.c. ESP	Low Stage Rise (°F)	High Stage CFM at .1" - .5" w.c. ESP	High Stage Rise Natural (°F)	High Stage Rise Propane (°F)
A	Minus(-)	945	63	1361	63	56
	Normal	1050	56	1512	56	51
	Plus (+)	1155	51	1663	51	46
B	Minus(-)	990	60	1426	60	54
	Normal	1100	54	1584	54	48
	Plus (+)	1210	39	1742	49	44
C	Minus(-)	1080	55	1555	55	49
	Normal	1200	49	1728	49	44
	Plus (+)	1320	45	1901	45	40
D	Minus(-)	1170	51	1685	51	46
	Normal	1300	46	1872	46	41
	Plus (+)	1430	41	2059	41	37

GUIV140FX50						
Heating Speed Tap	Adjust Tap	Low Stage CFM at .1" - .5" w.c. ESP	Rise (°F)	High Stage CFM at .1" - .5" w.c. ESP	High Stage Rise Natural (°F)	High Stage Rise Propane (°F)
A	Minus(-)	945	75	1361	75	68
	Normal	1050	68	1512	68	61
	Plus (+)	1155	62	1663	61	55
B	Minus(-)	990	72	1426	72	65
	Normal	1100	65	1584	65	58
	Plus (+)	1210	59	1742	59	53
C	Minus(-)	1080	66	1555	66	59
	Normal	1200	59	1728	59	53
	Plus (+)	1320	54	1901	54	48
D	Minus(-)	1170	61	1685	61	55
	Normal	1300	55	1872	55	49
	Plus (+)	1430	50	2059	50	45

- Units are shipped without filter(s). CFM in chart is with-out 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)

GUIV070FX40			GUIV090FX50		
Heating Speed Tap	Adjust Tap	Low Stage CFM at .1" - .8" w.c. ESP	Heating Speed Tap	Adjust Tap	Low Stage CFM at .1" - .8" w.c. ESP
A	Minus(-)	540	A	Minus(-)	720
	Normal	600		Normal	800
	Plus (+)	660		Plus (+)	880
B	Minus(-)	720	B	Minus(-)	990
	Normal	800		Normal	1100
	Plus (+)	880		Plus (+)	1210
C	Minus(-)	990	C	Minus(-)	1260
	Normal	1100		Normal	1400
	Plus (+)	1210		Plus (+)	1540
D	Minus(-)	1260	D	Minus(-)	1620
	Normal	1400		Normal	1800
	Plus (+)	1540		Plus (+)	1980

GUIV115FX50			GUIV140FX50		
Heating Speed Tap	Adjust Tap	Low Stage CFM at .1" - .8" w.c. ESP	Heating Speed Tap	Adjust Tap	Low Stage CFM at .1" - .8" w.c. ESP
A	Minus(-)	900	A	Minus(-)	900
	Normal	1000		Normal	1000
	Plus (+)	1100		Plus (+)	1100
B	Minus(-)	1080	B	Minus(-)	1080
	Normal	1200		Normal	1200
	Plus (+)	1320		Plus (+)	1320
C	Minus(-)	1440	C	Minus(-)	1440
	Normal	1600		Normal	1600
	Plus (+)	1760		Plus (+)	1760
D	Minus(-)	1800	D	Minus(-)	1800
	Normal	2000		Normal	2000
	Plus (+)	2000		Plus (+)	2000

*Factory Setting

1. Units are shipped without filter(s). CFM in chart is without filter(s).
2. All furnaces shipped with cooling speed set at "D". 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.

BLOWER PERFORMANCE SPECIFICATIONS

Low Stage Cooling Speed Chart

("Y1" on Interface Board)

GUIV070FX40			GUIV090FX50		
Heating Speed Tap	Adjust Tap	Low Stage CFM at .1" - .8" w.c. ESP	Heating Speed Tap	Adjust Tap	Low Stage CFM at .1" - .8" w.c. ESP
A	Minus(-)	484	A	Minus(-)	481
	Normal	484		Normal	520
	Plus (+)	484		Plus (+)	572
B	Minus(-)	484	B	Minus(-)	644
	Normal	520		Normal	715
	Plus (+)	572		Plus (+)	787
C	Minus(-)	644	C	Minus(-)	819
	Normal	715		Normal	910
	Plus (+)	787		Plus (+)	1001
D	Minus(-)	819	D	Minus(-)	1053
	Normal	910		Normal	1170
	Plus (+)	1001		Plus (+)	1287

GUIV115FX50			GUIV140FX50		
Heating Speed Tap	Adjust Tap	Low Stage CFM at .1" - .8" w.c. ESP	Heating Speed Tap	Adjust Tap	Low Stage CFM at .1" - .8" w.c. ESP
A	Minus(-)	619	A	Minus(-)	619
	Normal	650		Normal	650
	Plus (+)	715		Plus (+)	715
B	Minus(-)	702	B	Minus(-)	702
	Normal	780		Normal	780
	Plus (+)	858		Plus (+)	858
C	Minus(-)	936	C	Minus(-)	936
	Normal	1040		Normal	1040
	Plus (+)	1144		Plus (+)	1144
D	Minus(-)	1170	D	Minus(-)	1170
	Normal	1300		Normal	1300
	Plus (+)	1300		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 "D". 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.

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.]

GUIV070**40			GUIV90**50		
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

GUIV115**50			GUIV140**50		
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)

GUIV070**40			GUIV90**50		
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

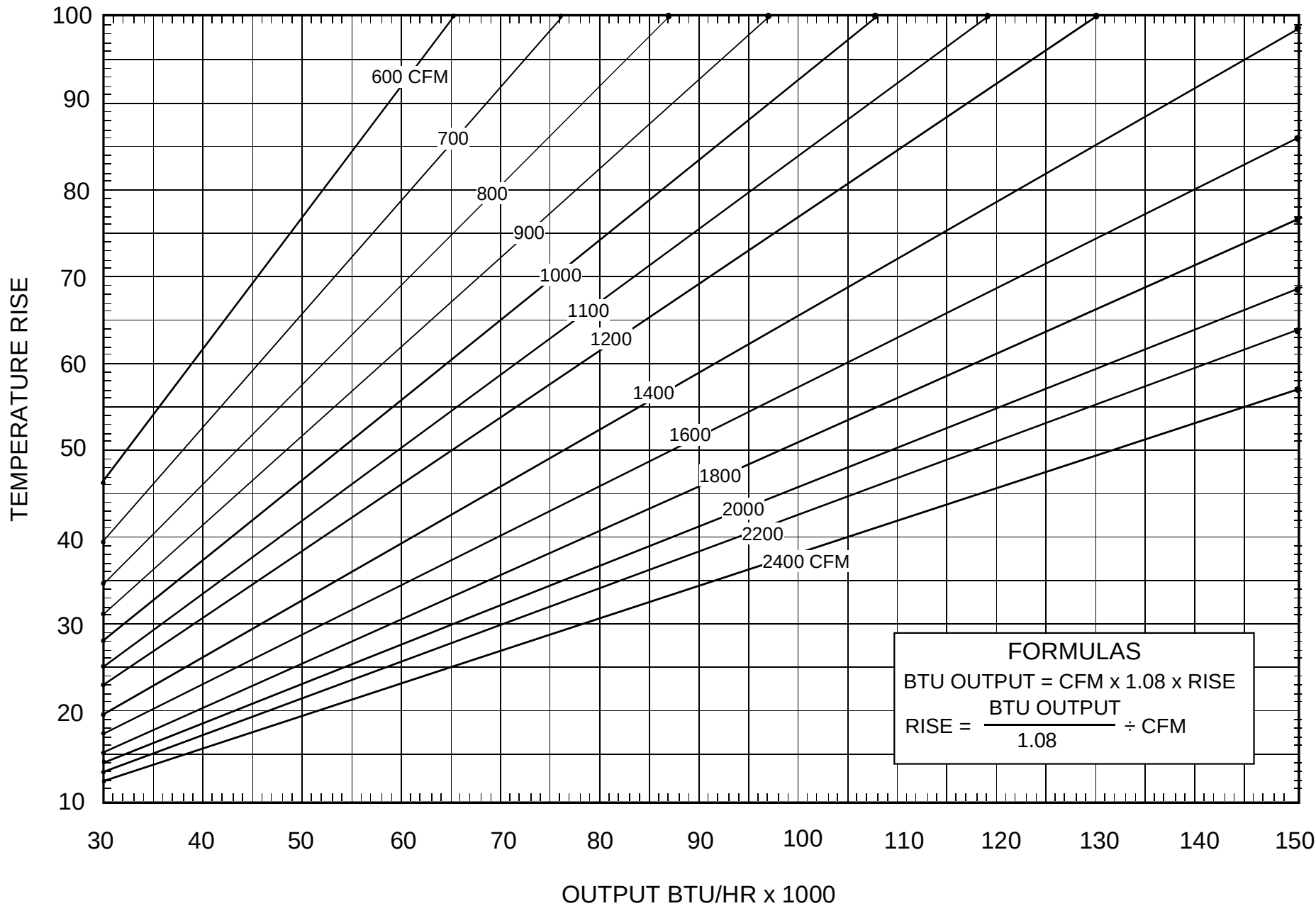
GUIV115**50			GUIV140**50		
Heating Speed	Adjust	CFM @ .1 to .8 "WC ESP	Heating Speed	Adjust	CFM @ .1 to .8 "WC ESP
A	Minus	945	A	Minus	945
A	Normal	1050	A	Normal	1050
A	Plus	1155	A	Plus	1155
B	Minus	990	B	Minus	990
B	Normal	1100	B	Normal	1100
B	Plus	1210	B	Plus	1210
C	Minus	1080	C	Minus	1080
C	Normal	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 "D". 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



WARNING

[illegible]

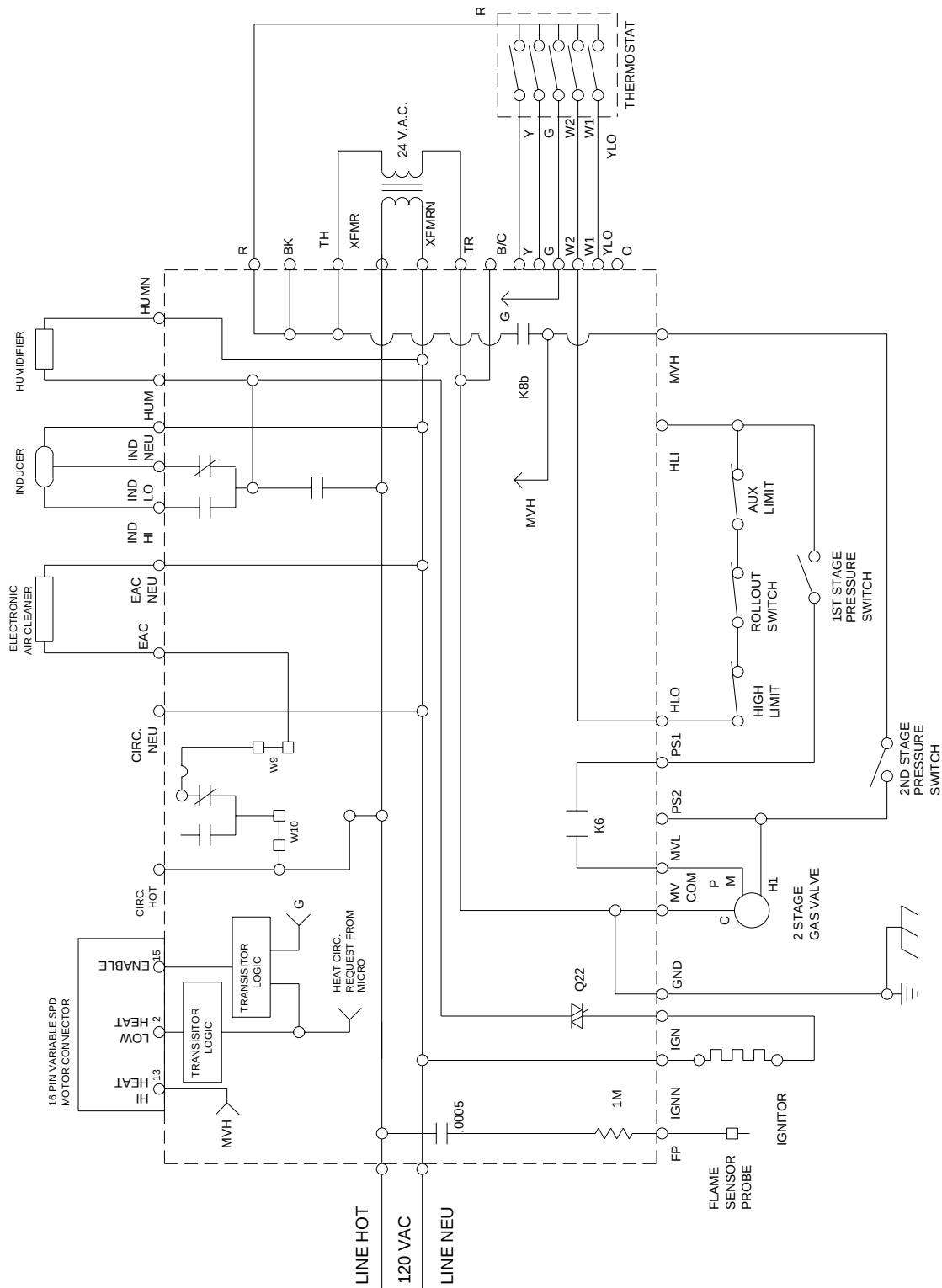
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SCHEMATICS



WARNING

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



TYPICAL SCHEMATIC GUVFX MODEL FURNACES
WR50V61-228 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.

Wiring is subject to change, always refer to the wiring diagram on the unit for the most up-to-date wiring.