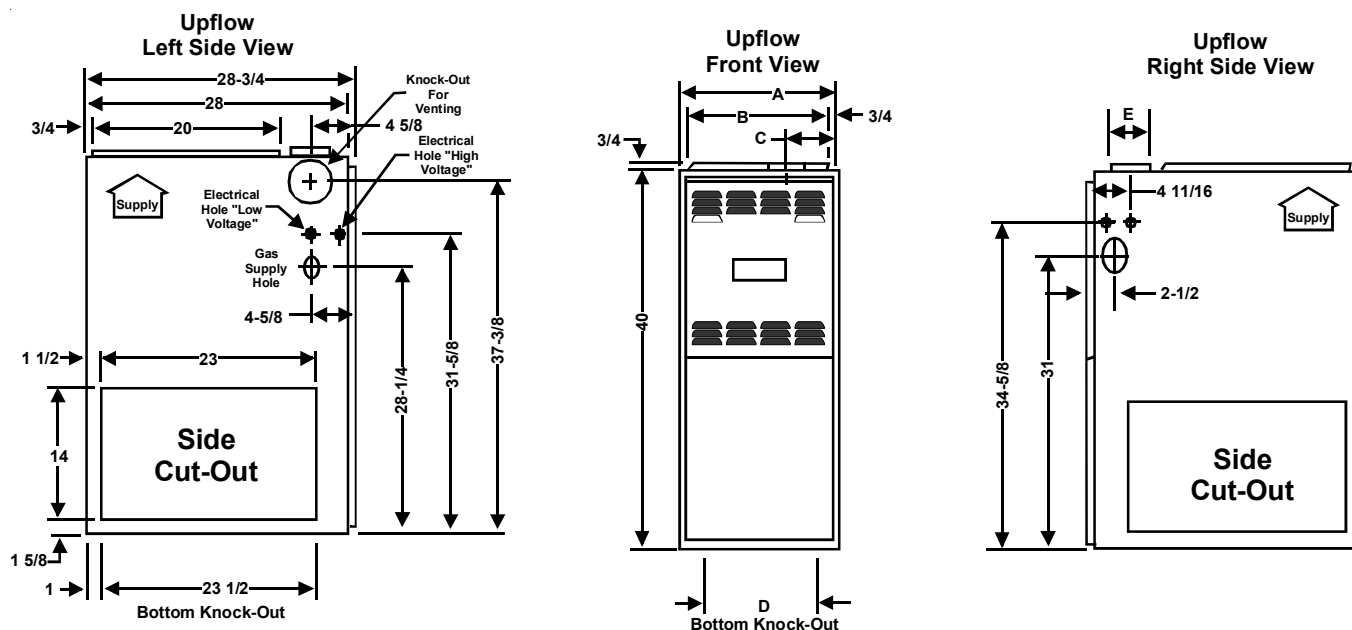


2-STAGE VARIABLE SPEED GAS FIRED FURNACE SPECIFICATION SHEETS GUIV

DIMENSIONS (Inches)



Model	A	B	C	D
GUIV070__40	16-1/2	15	12-5/8	12-5/8
GUIV090__50	20-1/2	19	14-5/8	14-5/8
GUIV115__50	24-1/2	23	18-5/8	18-5/8
GUIV140__50				

All dimensions are in inches.

Installer: Affix literature adjacent to the unit.

Due to policy of continual product improvement, the right is reserved to change specifications and design without notice.

SPECIFICATIONS

Model Number	High Fire Rates		Low Fire Rates		Rated AFUE	Temp. Rise Range (°F)	Number of Burners	Minimum Circuit Ampacity ¹ (Amps)	Maximum Overcurrent Protection ² (Amps)	Circulator Blower		Tons AC at 0.5" ESP	Pressure Switch ³ Settings (Inches W.C.)		Ship Weight (lbs)
	Output (Btu/hr)	Input (Btu/hr)	Output (Btu/hr)	Input (Btu/hr)						Size (D" x W")	HP		ID Blwr (Low)	ID Blwr (High)	
GUIV070__40	69,000	55,200	48,000	38,400	80	30 - 60	3	11.0	15	10 x 8	1/2	1.5 - 4.0	-0.45	-0.80	152
GUIV090__50	92,000	73,600	64,000	51,200	80	35 - 65	4	11.7	15	10 x 8	3/4	2.0 - 5.0	-0.37	-0.74	178
GUIV115__50	115,000	92,000	80,000	64,000	80	35 - 65	5	11.7	15	10 x 9	3/4	2.5 - 5.0	-0.37	-0.66	194
GUIV140__50	138,000	110,400	96,000	76,800	80	45 - 75	6	11.7	15	10 x 9	3/4	2.5 - 5.0	-0.32	-0.66	198

¹ Minimum Circuit Ampacity = (1.25 x Circulator Blower Amps) + ID Blower Amps.

² Maximum Overcurrent Protection refers to maximum recommended fuse or circuit breaker size.

³ As shipped for installations below 4,500 feet.



WARNING

To avoid death, personal injury or property damage due to fire, do not exceed maximum recommended fuse or circuit breaker size.

FLAME SENSOR

Flame sensor output is 1 to 4 microamps at 115 volts.

CIRCULATOR MOTOR AIRFLOW

The variable speed circulator motor runs at a constant airflow over a range of static pressures. The airflow is easily adjusted using the speed tap DIP switches on the integrated control module.

Using the speed adjustments on the integrated control board, twelve different heating speeds and twelve different cooling speeds may be attained. In addition to the four main speeds for heating (A, B, C, and D) and the four main speeds for cooling (A, B, C, and D), the ADJUST tap allows for a PLUS or MINUS adjust for each of the four speeds. The ADJUST tap affects both the HEAT and COOL speeds. Refer to installation instructions for speed selection method.

The heating speeds have been programmed to provide the same rise on low stage as on high stage heating. The high stage heating speed and low stage heating speed cannot be independently selected.

Low stage cooling speed has been programmed to provide 70% of the high stage cooling speed. The high stage cooling speed and low stage cooling speed cannot be independently selected.

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.

NOTE: 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.

CONTINUOUS FAN SPEED CHARTS

Cooling-Based Continuous Fan Speeds ("G", from thermostat, connected to "G" on the Two-Stage Integrated Furnace Control)

GUIV070__40			GUIV090__50			GUIV115__50			GUIV140__50		
Cooling Speed Tap	Adjust Tap	CFM @ .1"-.8" w.c. ESP	Cooling Speed Tap	Adjust Tap	CFM @ .1"-.8" w.c. ESP	Cooling Speed Tap	Adjust Tap	CFM @ .1"-.8" w.c. ESP	Cooling Speed Tap	Adjust Tap	CFM @ .1"-.8" w.c. ESP
A	Minus (-)	484*	A	Minus (-)	540	A	Minus (-)	675	A	Minus (-)	675
	Normal	484*		Normal	600		Normal	750		Normal	750
	Plus (+)	495		Plus (+)	660		Plus (+)	825		Plus (+)	825
B	Minus (-)	540	B	Minus (-)	743	B	Minus (-)	810	B	Minus (-)	810
	Normal	600		Normal	825		Normal	900		Normal	900
	Plus (+)	660		Plus (+)	908		Plus (+)	990		Plus (+)	990
C	Minus (-)	743	C	Minus (-)	945	C	Minus (-)	1080	C	Minus (-)	1080
	Normal	825		Normal	1050		Normal	1200		Normal	1200
	Plus (+)	908		Plus (+)	1155		Plus (+)	1320		Plus (+)	1320
D	Minus (-)	945	D	Minus (-)	1215	D	Minus (-)	1350	D	Minus (-)	1350
	Normal	1050		Normal	1350		Normal	1500		Normal	1500
	Plus (+)	1155		Plus (+)	1485		Plus (+)	1650		Plus (+)	1650

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

GUIV070__40			GUIV090__50			GUIV115__50			GUIV140__50		
Cooling Speed Tap	Adjust Tap	CFM @ .1"-.8" w.c. ESP	Cooling Speed Tap	Adjust Tap	CFM @ .1"-.8" w.c. ESP	Cooling Speed Tap	Adjust Tap	CFM @ .1"-.8" w.c. ESP	Cooling Speed Tap	Adjust Tap	CFM @ .1"-.8" w.c. ESP
A	Minus (-)	585	A	Minus (-)	801	A	Minus (-)	945	A	Minus (-)	945
	Normal	650		Normal	890		Normal	1050		Normal	1050
	Plus (+)	715		Plus (+)	979		Plus (+)	1155		Plus (+)	1155
B	Minus (-)	630	B	Minus (-)	855	B	Minus (-)	990	B	Minus (-)	990
	Normal	700		Normal	950		Normal	1100		Normal	1100
	Plus (+)	770		Plus (+)	1045		Plus (+)	1210		Plus (+)	1210
C	Minus (-)	720	C	Minus (-)	945	C	Minus (-)	1080	C	Minus (-)	1080
	Normal	800		Normal	1050		Normal	1200		Normal	1200
	Plus (+)	880		Plus (+)	1155		Plus (+)	1320		Plus (+)	1320
D	Minus (-)	810	D	Minus (-)	1049	D	Minus (-)	1170	D	Minus (-)	1170
	Normal	900		Normal	1165		Normal	1300		Normal	1300
	Plus (+)	990		Plus (+)	1282		Plus (+)	1430		Plus (+)	1430

COOLING SPEED CHARTS

High or Single Stage Cooling Speed (“Y” on Two-Stage Integrated Furnace Control)

GUIV070__40			GUIV090__50			GUIV115__50			GUIV140__50		
Cooling Speed Tap	Adjust Tap	CFM @ .1"-.8" w.c. ESP	Cooling Speed Tap	Adjust Tap	CFM @ .1"-.8" w.c. ESP	Cooling Speed Tap	Adjust Tap	CFM @ .1"-.8" w.c. ESP	Cooling Speed Tap	Adjust Tap	CFM @ .1"-.8" w.c. ESP
A	Minus (-)	540	A	Minus (-)	720	A	Minus (-)	900	A	Minus (-)	900
	Normal	600		Normal	800		Normal	1000		Normal	1000
	Plus (+)	660		Plus (+)	880		Plus (+)	1100		Plus (+)	1100
B	Minus (-)	720	B	Minus (-)	990	B	Minus (-)	1080	B	Minus (-)	1080
	Normal	800		Normal	1100		Normal	1200		Normal	1200
	Plus (+)	880		Plus (+)	1210		Plus (+)	1320		Plus (+)	1320
C	Minus (-)	990	C	Minus (-)	1260	C	Minus (-)	1440	C	Minus (-)	1440
	Normal	1100		Normal	1400		Normal	1600		Normal	1600
	Plus (+)	1210		Plus (+)	1540		Plus (+)	1760		Plus (+)	1760
D	Minus (-)	1260	D	Minus (-)	1620	D	Minus (-)	1800	D	Minus (-)	1800
	Normal	1400		Normal	1800		Normal	2000		Normal	2000
	Plus (+)	1540		Plus (+)	1980		Plus (+)	2000		Plus (+)	2000

Low Stage Cooling Speed (“YL0” on Intergrated Furnace Control)

GUIV070__40			GUIV090__50			GUIV115__50			GUIV140__50		
Cooling Speed Tap	Adjust Tap	CFM @ .1"-.8" w.c. ESP	Cooling Speed Tap	Adjust Tap	CFM @ .1"-.8" w.c. ESP	Cooling Speed Tap	Adjust Tap	CFM @ .1"-.8" w.c. ESP	Cooling Speed Tap	Adjust Tap	CFM @ .1"-.8" w.c. ESP
A	Minus (-)	484*	A	Minus (-)	504	A	Minus (-)	630*	A	Minus (-)	630*
	Normal	484*		Normal	560		Normal	700		Normal	700
	Plus (+)	484*		Plus (+)	616		Plus (+)	770		Plus (+)	770
B	Minus (-)	484*	B	Minus (-)	693	B	Minus (-)	756	B	Minus (-)	756
	Normal	560		Normal	770		Normal	840		Normal	840
	Plus (+)	616		Plus (+)	847		Plus (+)	924		Plus (+)	924
C	Minus (-)	693	C	Minus (-)	882	C	Minus (-)	1008	C	Minus (-)	1008
	Normal	770		Normal	980		Normal	1120		Normal	1120
	Plus (+)	847		Plus (+)	1078		Plus (+)	1232		Plus (+)	1232
D	Minus (-)	882	D	Minus (-)	1134	D	Minus (-)	1260	D	Minus (-)	1260
	Normal	980		Normal	1260		Normal	1400		Normal	1400
	Plus (+)	1078		Plus (+)	1386		Plus (+)	1400		Plus (+)	1400

NOTES:

- Installer must adjust blower speeds as required.
- For most cooling applications, about 400 CFM per ton is desirable.
- *Motor CFM Floor.

HEATING SPEED CHARTS

GUIV070__40				
Heating Speed Tap	Adjust Tap	CFM at .1" - .5" w.c. ESP		Rise (°F)
		Low Stage	High Stage	
A	Minus (-)	585	842	-----
	Normal	650	936	55
	Plus (+)	715	1030	50
B	Minus (-)	630	907	56
	Normal	700	1008	51
	Plus (+)	770	1109	46
C	Minus (-)	720	1037	49
	Normal	800	1152	44
	Plus (+)	880	1267	40
D	Minus (-)	810	1166	44
	Normal	900	1296	40
	Plus (+)	990	1426	36

GUIV090__40				
Heating Speed Tap	Adjust Tap	CFM at .1" - .5" w.c. ESP		Rise (°F)
		Low Stage	High Stage	
A	Minus (-)	801	1153	59
	Normal	890	1282	53
	Plus (+)	979	1410	48
B	Minus (-)	855	1231	55
	Normal	950	1368	50
	Plus (+)	1045	1505	45
C	Minus (-)	945	1361	50
	Normal	1050	1512	45
	Plus (+)	1155	1663	41
D	Minus (-)	1049	1510	45
	Normal	1165	1678	41
	Plus (+)	1282	1845	37

GUIV115__50				
Heating Speed Tap	Adjust Tap	CFM at .1" - .5" w.c. ESP		Rise (°F)
		Low Stage	High Stage	
A	Minus (-)	945	1361	63
	Normal	1050	1512	56
	Plus (+)	1155	1663	51
B	Minus (-)	990	1426	60
	Normal	1100	1584	54
	Plus (+)	1210	1742	49
C	Minus (-)	1080	1555	55
	Normal	1200	1728	49
	Plus (+)	1320	1901	45
D	Minus (-)	1170	1685	51
	Normal	1300	1872	46
	Plus (+)	1430	2059	41

GUIV0140__50				
Heating Speed Tap	Adjust Tap	CFM at .1" - .5" w.c. ESP		Rise (°F)
		Low Stage	High Stage	
A	Minus (-)	945	1361	75
	Normal	1050	1512	68
	Plus (+)	1155	1663	61
B	Minus (-)	990	1426	72
	Normal	1100	1584	65
	Plus (+)	1210	1742	59
C	Minus (-)	1080	1555	66
	Normal	1200	1728	59
	Plus (+)	1320	1901	54
D	Minus (-)	1170	1685	61
	Normal	1300	1872	55
	Plus (+)	1430	2059	50

NOTES:

- These charts are for furnaces installed at 0 - 2000 feet. At higher altitudes, a properly derated unit will have the same temperature rise at a particular CFM, while the ESP at that CFM will be lower.
- The installation must be adjusted to obtain a temperature rise within the range listed on the furnace nameplate.
- Do not operate above .5" W.C. ESP in heating mode.
- Propane gas installations will have a High Stage rise approximately 5°F lower than shown in above tables.

MINIMUM CLEARANCES



WARNING

To avoid death, personal injury or property damage due to fire, clearances to combustible surfaces listed as below must be observed.

SERVICE ACCESSIBILITY AND UNIT CONNECTIONS

- 36 inches front clearance is required for servicing or cleaning.
- Unit connections (electrical, flue, and drain) may necessitate greater clearances than the minimum clearances listed below.

NOTE: In all cases, accessibility clearance must take precedence over clearances from the enclosure where accessibility clearances are greater.

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

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

NOTE

1 = 3 inch when 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.

HIGH ALTITUDE INSTALLATIONS

When installing this furnace refer to the High Altitude Chart for proper high altitude kit, if required, and gas manifold pressure.

For installations above 11,000 feet, please refer to your distributor for required kit(s).

High Altitude Gas Orifice Chart						
Model	Gas	Altitude	Kit	Orifice	Manifold Pressure	
					High Stage	Low Stage
GUIV	Natural	0-3000	None	#43	3.5" w.c.	1.9" w.c.
	Propane	0-7500	LPTK09	#55	10.0" w.c.	6.0" w.c.
		7501-8500	HALP09	#45	3.5" w.c.	6.0" w.c.

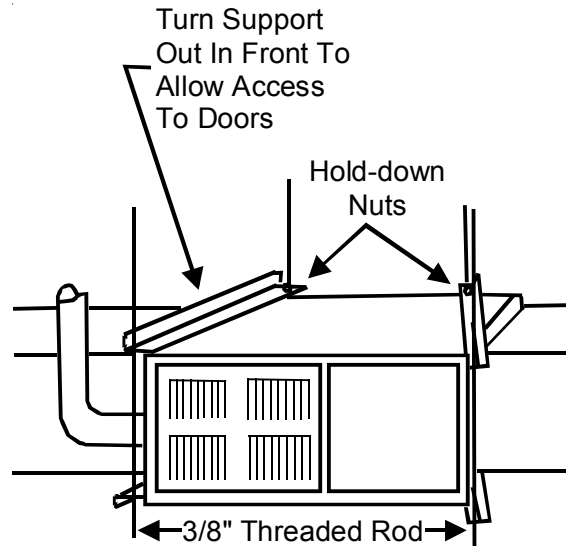
High Altitude Pressure Switch Chart		
Model	Altitude	Kit
	3001- 7000 ft.	7001- 8500 ft.
GUIV070 40	HATS01	HATS06
GUIV090 50	HATS02	HATS06
GUIV115 50	HATS03	HATS07
GUIV140 50	HATS04	HATS08

NOTES:

- XF8V furnaces utilize factory-shipped pressure switches below 3001 ft.
- XF8V furnaces are only certified for installations up to 8500 feet.
- In Canada, gas furnaces are certified to 4500 feet.

FURNACE SUSPENSION

If necessary to suspend the furnace from rafters or joists, use 3/8 inch threaded rod with angle iron as shown below.



FILTERS

NOTE: 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

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.

FILTERS

		Cooling Airflow Requirement (CFM)						
		600	800	1000	1200	1400	1600	2000
Input_Airflow	0704A	279*	279*	279*	288	336	384	---
	0905A	---	335*	335*	335*	336	384	480
	1155A	---	---	419*	419*	419*	419*	480
	1405A	---	---	419*	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]

		Cooling Airflow Requirement (CFM)						
		600	800	1000	1200	1400	1600	2000
Input_Airflow	0704A	559*	559*	559*	576	672	768	---
	0905A	---	671*	671*	671*	672	768	960
	1155A	---	---	838*	838*	838*	838*	960
	1405A	---	---	838*	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]

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.
5. Drain connections must conform to local codes.

To prevent death, personal injury or property damage due to electrical shock, disconnect electrical power to this furnace before servicing or performing maintenance.

