

# GF801U SERIES Models with Input Rates from 50 to 150 kBTU [15 to 44 kW]





# 80% A.F.U.E.<sup>†</sup> UPFLOW/ HORIZONTAL GAS FURNACES

The Sure Comfort<sup>™</sup> line of upflow/horizontal gas furnaces are designed for utility rooms, closets, alcoves, or attics. Because of the model's low-profile 34 inch [864 mm] height, the upflow model can also be used to satisfy most applications that traditionally call for a horizontal furnace.

The design is certified by CSA International.

# Features

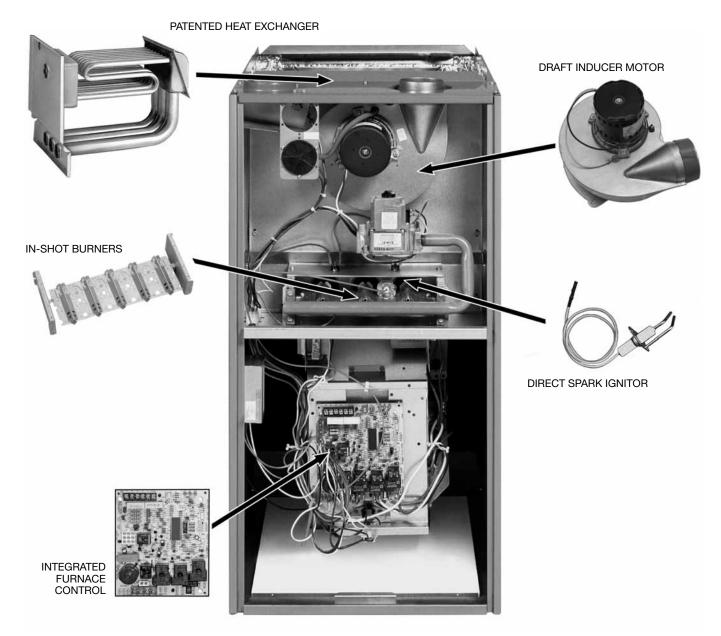
- Unique solid door design leads to quiet operation.
- Patented heat exchanger, constructed of both stainless and aluminized steel for the maximum in corrosion resistance.
- Low profile "34 inch" [864 mm] design is lighter and easier to handle, and leaves room for optional equipment.
- Convertible from upflow to horizontal left or right without field conversion.
- Left or right side gas and electric inlet connections allow quick and simple change.
- Direct spark ignition with remote sense, features a integrated board with an electronic air cleaner hookup.
- Prepaint galvanized steel cabinet.
- A slow-open gas valve and a specially designed draft inducer motor make it one of the quietest furnaces on the market today.
- Grab-holes in doors to aid in easy door removal and replacement.

A variety of cooling coils and plenums designed to use with *Sure Comfort*<sup>™</sup> gas furnaces are available as optional accessories.

tA.F.U.E. (Annual Fuel Utilization Efficiency) calculated in accordance with Department of Energy test procedures.

# **TABLE OF CONTENTS**

3
4
5
6-7
8
9
10



### **STANDARD EQUIPMENT**

Completely assembled and wired; induced draft; pressure switch; redundant main gas control; blower compartment door safety switch; solid state time on/time off blower control; limit control; manual shut-off valve, pressure regulator for natural and L.P. (propane) gas; transformer; direct drive multi-speed blower motor. Furnaces are equipped with cooling/heating relay and transformer (40VA) ready for air conditioning applications. (Please note: a thermostat is not included as standard equipment.) Flame sensor diagnostics.

#### **OPTIONAL EQUIPMENT**

#### Twinning Kit

Side and bottom filter frame assembly. Return air cabinet for all sizes. NOTE: Furnace is not listed for use with fuels other than natural or L.P. (propane) gas.

The complete terms of limited and other warranties are available at our sales office, or through local installer.

All models can be converted by a qualified *Sure Comfort*<sup>™</sup> distributor or local service dealer to use L.P. (propane) gas without changing burners. Factory approved kits must be used to convert from natural to L.P. (propane) gas and may be ordered as optional accessories from a *Sure Comfort*<sup>™</sup> parts distributor.

For L.P. (propane) operation, refer to Conversion Kit Index Form. NOTE: For natural and L.P. (propane) gas models, standard hot surface ignition is 100% safety lockout type.

# WARNING THIS FURNACE IS NOT APPROVED OR RECOMMENDED FOR USE IN MOBILE HOMES

# **Model Features**

- The design is certified by CSA International.
- Unique solid door design leads to quiet operation.
- Patented heat exchanger, constructed of both stainless and aluminized steel for the maximum in corrosion resistance.
- Low profile "34 inch" [864 mm] design is lighter and easier to handle, and leaves room for optional equipment.
- Convertible from upflow to horizontal left or right without field conversion.
- Left or right side gas and electric inlet connections allow quick and simple change.

- Direct spark ignition with remote sense, features a integrated board with an electronic air cleaner hookup.
- Prepaint galvanized steel cabinet.
- A slow-open gas valve and a specially designed draft inducer motor make it one of the quietest furnaces on the market today.
- Grab-holes in doors to aid in easy door removal and replacement.

# **Physical Data and Specifications**

MODEL NUMBERS GF801U SERIES	GF801U050	GF801U075	GF801U100	GF801U125
Input-BTU/Hr [kW] ②	50,000 [15]	75,000 [22]	100,000 [29]	125,000 [37]
Heating Capacity BTU/Hr [kW] ①	41,000 [12]	60,000 [18]	80,000 [23]	99,000 [29]
Heat Ext. Static Pressure [kPa]	.10 [.025]	.12 [.029]	.15 [.037]	.20 [.05]
Blower (D x W) [mm]	11 x 6 [279 x 152]	11 x 7 [279 x 178]	11 x 10 [279 x 254]	11 x 10 [279 x 254]
Motor H.P.–Speed– PSC Type [W]	1/2-4-PSC [373]	<sup>1/2-3-PSC</sup> [373]	<sup>1</sup> /2- <b>3</b> -PSC [373]	<sup>3</sup> /4-3-PSC [560]
Motor Full Load Amps	6.8	7.9	7.9	9.5
Heating Speed	Med-Low	Med	Med	Low
Cooling Speed	High	High	High	Med
Cooling CFM @ .5" E.S.P. (Nominal) [L/s]	1200 [566]	1600 [755]	1845 [871]	2115 [998]
Max. E.S.P. (In. W.C.) [kPa]	0.5 [.12]	0.5 [.12]	0.5 [.12]	0.5 [.12]
Temperature Rise Range °F [°C]	25-55 [13.9-30.6]	25-55 [13.9-30.6]	30-60 [16.7-33.3]	35-65 [19.4-36.1]
Max. Outlet Air Temp. °F [°C]	155 [68.3]	155 [68.3]	170 [76.6]	180 [82.2]
Approx. Shipping Weight (Lbs.) [kg]	85 [39]	105 [48]	120 [54]	140 [63]
Standard Filter (In.) [mm]	15 <sup>3</sup> /4 x 25 [400 x 635]	15 <sup>3</sup> /4 x 25 [400 x 635]	19 <sup>1</sup> /4 x 25 [489 x 635]	22 <sup>3</sup> /4 x 25 [578 x 635]
Return Air Cabinets (Opt.) RXGR- Filter Size [mm]	C14B (2) 12 x 16 [305 x 406]	C17B (2) 12 x 16 [305 x 406]	C21B (2) 20 x 16 [508 x 406]	C24B (2) 24 x 16 [610 x 406]
AFUE–H.S.I. Models ①	80.0%	80.0%	80.0%	80.0%

NOTES: All models are 115V, 60HZ, 1 Ph. Gas connection size for all models is 1/2" [12 mm] N.P.T.

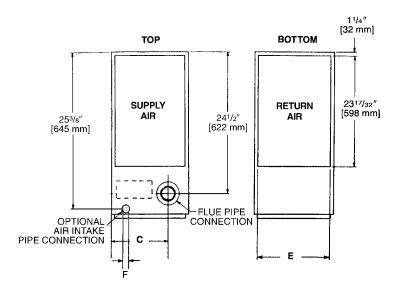
① In accordance with D.O.E. test procedures.

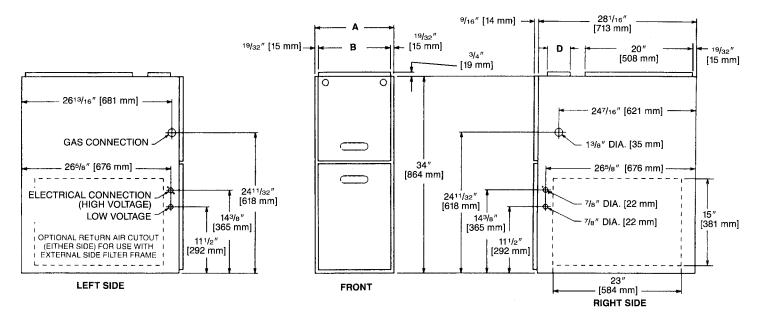
O See Conversion Kit Index Form for high altitude derate.

# **Model Number Identification**

GF	<u>80</u>	<u>1</u>	U	<u>125</u>	<u>A</u>	<u>S</u>	<u>60</u>
Gas Furnace	<b>80</b> = Efficiency	<b>1</b> = 1 Stage	<b>U</b> = Upflow	Heating Input Designation           Electric Ignition         Input BTU/HR [kW]           050         50,000 [15]           075         76,000 [22]           100         100,000 [28]           125         125,000 [37]	<b>A</b> = Variation	Variation S = Standard W = Wide	Nominal Cooling Designation 36 = 3 Tons 48 = 4 Tons 60 = 5 Tons

# **Upflow Application**





### **Dimensional Data: Upflow Model**

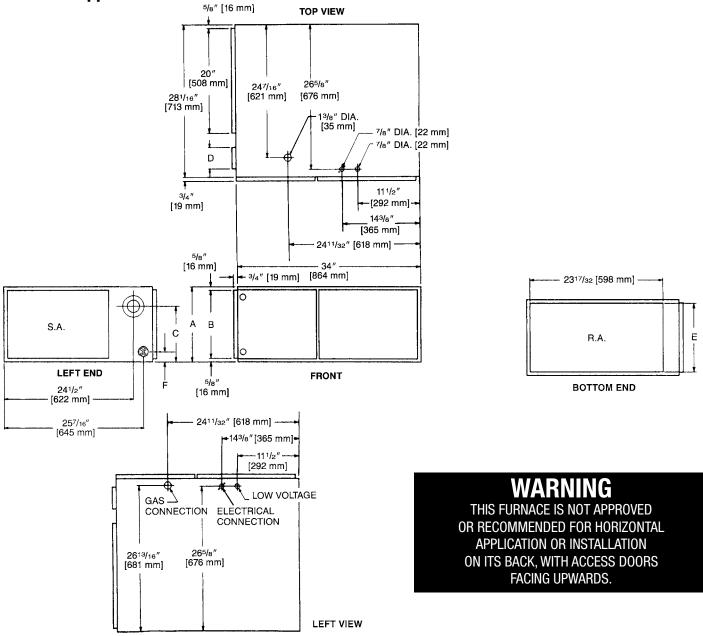
MODEL								F	REDUCE	D CLEAF	RANCE (II	N.) [mm]	
GF801U	A	В	C	D	E	F	LEFT SIDE	RIGHT SIDE	BACK	TOP	FRONT	VENT	SHIP. WGTS. (LBS.) [Kg]
050	14 [356]	12 <sup>27</sup> /32 [326]	10 <sup>5</sup> /8 [270]	1	11 <sup>1</sup> /2 [292]	1 <sup>7</sup> /8 [48]	0	4 [102] ②	0	1 [25]	3 [76]	6 [152] ③	85 [38.6]
075	171/2 [445]	16 <sup>11</sup> /32 [415]	12 <sup>3</sup> /8 [314]	1	15 [381]	21/2 [64]	0	3 [76] 2	0	1 [25]	3 [76]	6 [152] ③	105 [47.6]
100	21 [533]	19 <sup>27</sup> / <sub>32</sub> [504]	141/8 [359]	1	181/2 [470]	21/2 [64]	0	0	0	1 [25]	3 [76]	6 [152] ③	120 [54.4]
125	241/2 [622]	2311/32 [593]	15 <sup>7</sup> /8 [403]	1	22 [559]	21/2 [64]	0	0	0	1 [25]	3 [76]	6 [152] ③	140 [63.5]

NOTES: ① May require a 3" [76 mm] to 4" [102 mm] or 3" [76 mm] to 5" [127 mm] adapter.

May be 0" [0 mm] with type B vent.
May be 1" [25 mm] with type B vent.

Furnaces must be vented in accordance with the National Fuel Gas Code, ANSI Z223.1 and/or Can/CGA-B149 Installation Codes and in accordance with local codes.

# **Horizontal Application**



## **Dimensional Data: Horizontal Model**

MODEL								F	REDUCE	D CLEAF	RANCE (II	N.) [mm]	
GF801U	A	В	C	D	E	F	LEFT SIDE	RIGHT SIDE	BACK	TOP	FRONT	VENT	SHIP. WGTS. (LBS.) [Kg]
050	14 [356]	12 <sup>27</sup> /32 [326]	105/8 [270]	1	111/2 [292]	17/8 [48]	0	4 [102] ②	0	1 [25]	3 [76]	6 [152] ③	85 [38.6]
075	17 <sup>1</sup> /2 [445]	16 <sup>11</sup> /32 [415]	12 <sup>3</sup> /8 [314]	1	15 [381]	21/2 [64]	0	3 [76] ②	0	1 [25]	3 [76]	6 [152] ③	105 [47.6]
100	21 [533]	19 <sup>27</sup> /32 [504]	14 <sup>1</sup> /8 [359]	1	18 <sup>1</sup> /2 [470]	2 <sup>1</sup> /2 [64]	0	0	0	1 [25]	3 [76]	6 [152] ③	120 [54.4]
125	241/2 [622]	2311/32 [593]	157/8 [403]	1	22 [559]	21/2 [64]	0	0	0	1 [25]	3 [76]	6 [152] ③	140 [63.5]

NOTES: ① May require a 3" [76 mm] to 4" [102 mm] or 3" [76 mm] to 5" [127 mm] adapter.

2 May be 0" [0 mm] with type B vent.

③ May be 1" [25 mm] with type B vent.

Furnaces must be vented in accordance with the National Fuel Gas Code, ANSI Z223.1 and/or Can/CGA-B149 Installation Codes and in accordance with local codes.

# **Blower Performance Data**

MODEL Number GF801u	BLOWER SIZE	MOTOR H.P.	BLOWER SPEED	CFM [L/s] AIR DELIVERY EXTERNAL STATIC PRESSURE INCHES [kPa] WATER COLUMN						
SERIES	[mm]	[W]	SFEED	.1 [.02] .2 [.05]		.3 [.07]	.4 [.10]	.5 [.12]	.6 [.15]	.7 [.17]
GF801U050	11 x 6 [279 x 152]	1/2 [373]	LOW <b>MED-LO</b> MED-HI HIGH	675 [319] <b>950 [448]</b> 1115 [526] 1270 [599]	655 [309] <b>930 [439]</b> 1090 [514] 1250 [590]	635 [300] <b>905 [427]</b> 1070 [505] 1225 [578]	610 [288] <b>880 [415]</b> 1040 [491] 1200 [566]	585 [276] <b>860 [406]</b> 1015 [479] 1165 [550]	555 [262] <b>830 [392]</b> 985 [465] 1130 [533]	520 [245] <b>800 [380]</b> 945 [446] 1085 [512]
GF801U075	11 x 7 [279 x 178]	1/2 [373]	LOW <b>MED</b> HIGH	1245 [588] <b>1555 [734]</b> 1810 [854]	1220 [576] <b>1515 [715]</b> 1755 [828]	1195 [564] <b>1475 [696]</b> 1705 [805]	1165 [550] <b>1435 [677]</b> 1645 [776]	1135 [536] <b>1395 [658]</b> 1585 [748]	1105 [522] <b>1350 [637]</b> 1530 [722]	1065 [503] <b>1300 [614]</b> 1470 [694]
GF801U100	11 x 7 [279 x 178]	1/2 [373]	LOW <b>MED</b> HIGH	1050 [496] <b>1220 [576]</b> 1410 [665]	1040 [491] <b>1195 [564]</b> 1380 [651]	1030 [486] <b>1160 [547]</b> 1345 [635]	990 [467] <b>1140 [538]</b> 1300 [614]	960 [453] <b>1105 [522]</b> 1255 [592]	920 [434] <b>1065 [503]</b> 1205 [569]	890 [420] <b>1020 [481]</b> 1150 [543]
GF801U125	11 x 10 [279 x 254]	3/4 [559]	<b>LOW</b> MED HIGH	<b>1645 [776]</b> 2050 [967] 2365 [1116]	<b>1635 [772]</b> 2015 [951] 2310 [1090]	<b>1615 [762]</b> 1980 [934] 2250 [1062]	<b>1590 [750]</b> 1935 [913] 2185 [1031]	<b>1560 [736]</b> 1885 [890] 2115 [998]	<b>1520 [717]</b> 1835 [866] 2035 [960]	<b>1470 [694]</b> 1775 [838] 1950 [920]

Note: Recommended blower speeds are in bold.

#### **INTERNAL FILTER RACK FOR BOTTOM**

**OR SIDE RETURN:** RXGF-DA\*

Each order contains (1) one box of 10 filter racks supplied without filters.

\*Filters available through PROSTOCK®.

SIDE RETURN FILTER RACK: RXGF-CA

#### BOTTOM RETURN FILTER RACK FOR UPFLOW APPLICATION: RXGF-CB

FILTER RACK FILTER SIZES† INCHES [mm]				
MODEL GF801U	RXGF-CA (SIDE)			
050, 075	15 <sup>3</sup> /4 x 25 [400 x 635]			
100	15 <sup>3</sup> /4 x 25 [400 x 635]			
125	15 <sup>3</sup> /4 x 25 [400 x 635]			

†Filter racks are shipped without filters.

A 1" [25.4 mm] filter may be used.

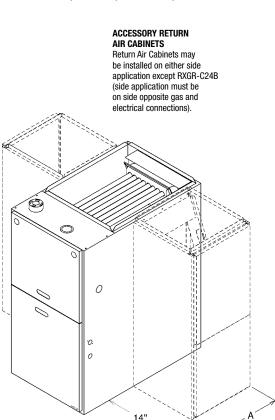
\*Designates "E" or "N".

## **RXPF-F01 and F02**

**FOSSIL FUEL KIT**—is for use with *Sure Comfort™* Heat Pumps and air furnaces. RXPF-F02 meets TVA requirements.

### **RXGP-F03**

TWINNING KIT—is for parallel operation requirements.



[356 mm]

THE RXGR-C24B MUST ONLY BE INSTALLED ON THE SIDE OPPOSITE THE GAS AND ELECTRICAL CONNECTIONS.

RETURN AIR CABINETS	A IN. [mm]	FILTER SIZE IN. [mm]
RXGR-C14B	14 [356]	(2) 12 x 16 [305 x 406]
RXGR-C17B	17 <sup>1</sup> /2 [445]	(2) 12 x 16 [305 x 406]
RXGR-C21B	21 [533]	(2) 20 x 16 [508 x 406]
RXGR-C24B	241/2 [622]	(2) 24 x 16 [610 x 406]

	WARNING: IMPORTANT NOTICE					
A SOLID METAL	A SOLID METAL BASE PLATE (SEE TABLE) MUST BE IN PLACE WHEN THE FURNACE IS					
INSTALLED WIT	INSTALLED WITH SIDE AIR RETURN DUCTS. FAILURE TO INSTALL A BASE PLATE COULD					
CAUSE PRODUC	CAUSE PRODUCTS OF COMBUSTION TO BE CIRCULATED INTO THE LIVING SPACE AND					
CREATE POTEN	ITIALLY HAZARDOUS CON	DITIONS.				
FURNACE WIDTH IN. [mm]	WIDTH SOLID BOTTOM		BASE PLATE SIZE IN. [mm]			
14 [356]	RXGB-D14	AE-61874-01	11 <sup>5</sup> /8 x 23 <sup>9</sup> /16 [295 x 598]			
171/2 [445]	RXGB-D17	AE-61874-02	15 <sup>1</sup> /8 x 23 <sup>9</sup> /16 [384 x 598]			
21 [533]	RXGB-D21	AE-61874-03	18 <sup>5</sup> /8 x 23 <sup>9</sup> /16 [473 x 598]			
24 <sup>1</sup> /2 [622]	RXGB-D24	AE-61874-04	25 <sup>5</sup> /8 x 23 <sup>9</sup> /16 [651 x 598]			

### FOR HIGH ALTITUDES:

**OPTION CODE FOR HIGH ALTITUDE:** U.S. & Canada None required for high altitudes.

**HIGH ALTITUDE CONVERSION KITS:** U.S. & Canada None required for high altitudes.

#### **80+ HIGH ALTITUDE INSTRUCTIONS**

**CAUTION:** Always follow National Fuel Gas Code (NFGC) guidelines when converting for high altitudes.

High altitude option codes are not required for these models. However, the burner orifice size needs to be recalculated and verified at elevations above 2000 ft. See Installation Instructions for more information.

- **NOTE:** For Canadian installations only, an optional derate (manifold gas pressure reduction) method may be used to adjust the furnace for altitude. See Installation Instructions for more information. This optional method may **NOT** be used for U.S. installations.
- [ ] Designates Metric Conversions

Limited Warranty GF801U Series

# **GENERAL TERMS OF LIMITED WARRANTY\***

Sure Comfort<sup>™</sup> will furnish a replacement for any part of this product which fails in normal use and service within the applicable period stated, in accordance with the terms of the limited warranty.

\*For complete details of the Limited and Conditional Warranties, including applicable terms and conditions, contact your local contractor or the Manufacturer for a copy of the product warranty certificate.

Parts	Five (5) Years
Heat Exchanger	Ten (10) Years

Notes GF801U Series

Before proceeding with installation, refer to installation instructions packaged with each model, as well as complying with all Federal, State, Provincial, and Local codes, regulations, and practices. Sure Comfort™

P.O. Box 17010, Fort Smith, AR 72917



"In keeping with its policy of continuous progress and product improvement, Sure Comfort™ reserves the right to make changes without notice." PRINTED IN U.S.A. 8-13 QG FORM NO. GSC-520