



GRANDAIRE®

80% A.F.U.E.† DOWNFLOW GAS FURNACES

The Grandaire® GVLJ- Series value line of downflow gas furnaces is designed for installation in closets, alcoves, utility rooms, or attics. The design is certified by CSA International.

Features

- 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.
- Hot surface ignition.
- Left or right side gas and electric inlet connections.
- Integrated board with electronic air cleaner hookup.
- A slow-open gas valve and a specially designed draft inducer motor provides reliable, smooth and quieter ignitions.
- Grab-holes in doors to aid in easy door removal and replacement.
- Every Grandaire gas furnace is thoroughly checked by a quality assurance team and tested before shipping.

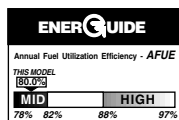
A variety of cooling coils and plenums designed to use with Grandaire GVLJ- Series gas furnaces are available as optional accessories.

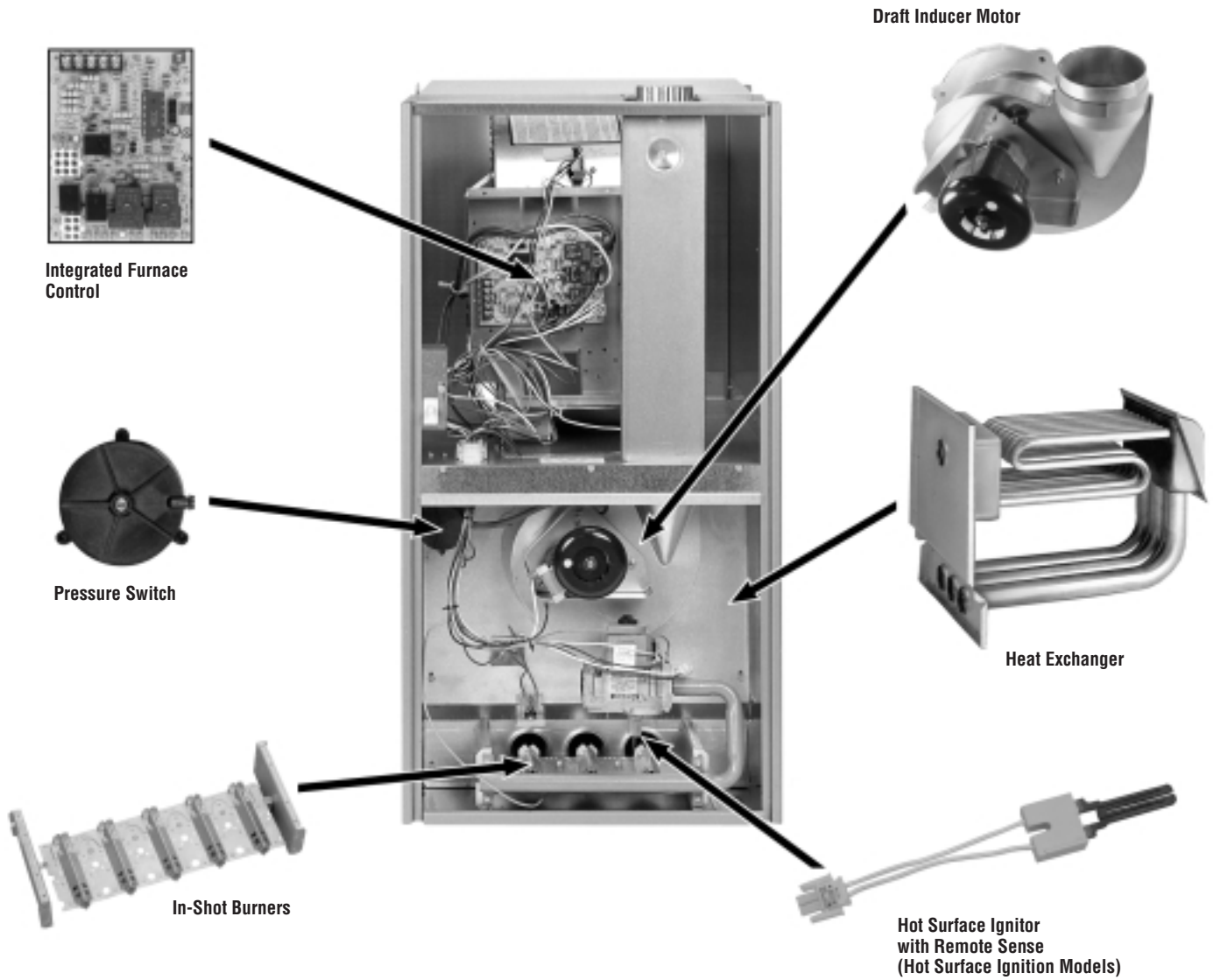
†A.F.U.E. (Annual Fuel Utilization Efficiency) calculated in accordance with Department of Energy test procedures.

GVLJ- SERIES

Models with Input Rates from
50,000 to 150,000 BTU/HR
[15 to 44 kW]
(U.S. & Canadian Models)

Manufactured for
Grandaire





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.

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 Grandaire 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 Grandaire parts distributor.

For L.P. (propane) operation, refer to Conversion Kit Index included with furnace.

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

BEFORE PURCHASING THIS APPLIANCE, READ IMPORTANT ENERGY COST AND EFFICIENCY INFORMATION AVAILABLE FROM YOUR RETAILER.

PHYSICAL DATA AND SPECIFICATIONS—U.S. AND CANADA (DOWNFLOW)

MODEL NUMBERS GVLJ- SERIES	E050AR N050AR	E075AR N075AR	E075BR N075BR	E100CR	E100CR	E125DR N125DR	E150DR N150DR
Input-BTU/Hr [kW] ②	50,000 [15]	75,000 [22]	75,000 [22]	100,000 [29]	100,000 [29]	125,000 [37]	150,000 [44]
Heating Capacity BTU/Hr [kW] ①	41,000 [12]	60,000 [18]	60,000 [18]	80,000 [23]	80,000 [23]	99,000 [29]	120,000 [35]
High Altitude Input [kW]	45,000 [13]	67,500 [20]	67,500 [20]	90,000 [26]	90,000 [26]	112,500 [33]	135,000 [40]
High Altitude Output Capacity [kW]	36,500 [11]	53,500 [16]	54,000 [16]	72,000 [21]	72,500 [21]	89,000 [26]	107,500 [31]
Heat Ext. Static Pressure [kPa]	.10 [.025]	.12 [.029]	.12 [.029]	.15 [.037]	.15 [.037]	.20 [.05]	.20 [.05]
Blower (D x W) [mm]	11 x 6 [279 x 152]	11 x 6 [279 x 152]	11 x 7 [279 x 178]	11 x 7 [279 x 178]	11 x 10 [279 x 254]	11 x 10 [279 x 254]	11 x 10 [279 x 254]
Motor H.P.–Speed– PSC Type [W]	1/2-4-PSC [373]	1/2-3-PSC [373]	1/2-3-PSC [373]	1/2-3-PSC [373]	1/2-3-PSC [373]	3/4-3-PSC [560]	3/4-3-PSC [560]
Motor Full Load Amps	6.8	5.8	7.9	7.1	7.9	9.5	9.5
Heating Speed	Med-Low	Med	Med	Med	Med	Low	Low
Cooling Speed	High	High	High	High	High	Med	Med
Cooling CFM @ .5" E.S.P. (Nominal) [L/s]	1200 [566]	1200 [566]	1600 [755]	1200 [566]	1970 [930]	2185 [1031]	2145 [1012]
Max. E.S.P. (In. W.C.) [kPa]	0.5 [.12]	0.5 [.12]	0.5 [.12]	0.5 [.12]	0.5 [.12]	0.5 [.12]	0.5 [.12]
Temperature Rise Range °F [°C]	25-55 [13.9-30.6]	40-70 [22.2-38.9]	25-55 [13.9-30.6]	45-75 [25-41.7]	40-70 [22.2-38.9]	40-70 [22.2-38.9]	50-80 [27.8-44.4]
Max. Outlet Air Temp. °F [°C]	155 [68.3]	165 [73.8]	155 [68.3]	190 [87.7]	190 [87.7]	180 [82.2]	190 [87.7]
Approx. Shipping Weight (Lbs.) [kg]	85 [39]	105 [48]	105 [48]	115 [52]	120 [54]	140 [63]	150 [68]
AFUE–H.S.I. Models	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%	80.0%
California Seasonal Efficiency– H.S.I./Nox Models ①	75.9/76.2	74.4/74.9	75.1/75.5	75.2/75.2	74.7/74.7	75.2/75.3	76.0/75.9

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.

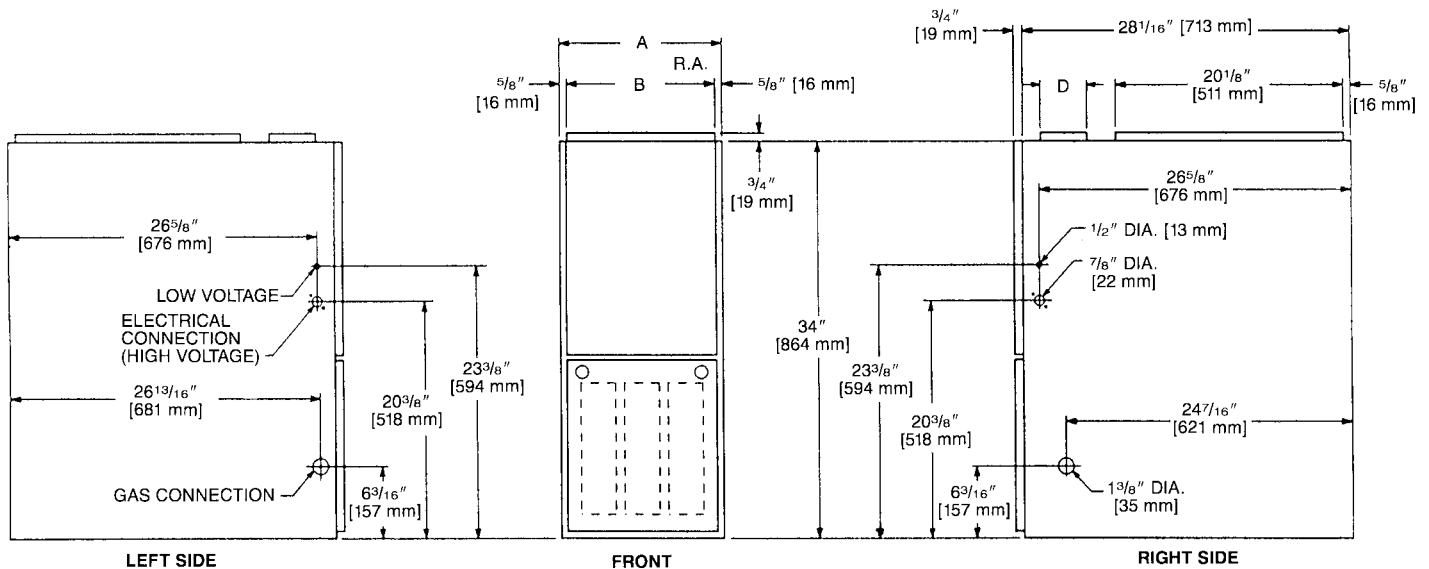
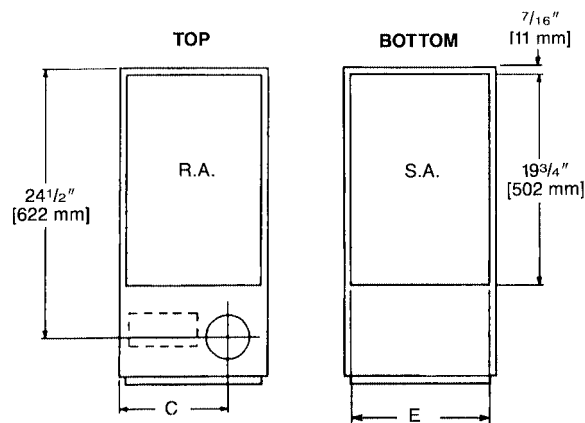
② See Conversion Kit Index Form for high altitude derate in U.S. applications. For Canadian applications, reference the furnace installation instructions.

MODEL IDENTIFICATION—DOWNFLOW MODELS

<u>G</u>	<u>V</u>	<u>L</u>	<u>J</u>	<u>80E</u>	<u>050</u>		<u>A</u>	<u>R</u>
Grandaire	Value (V Series)	L = Downflow Non-Condensing	Design Series J = 2nd	Efficiency and Ignition Type	Heating Input Designation		Blower Designation [mm]	Fuel Designation
					Electric Ignition	Input BTU/HR [kW]	A = Std. Cabinet 11 x 6 [279 x 152] 1/2 HP PSC B = Std. Cabinet 11 x 7 [279 x 178] 1/2 HP PSC C = Wide Cabinet 11 x 10 [279 x 254] 1/2 HP PSC D = Std. Cabinet 11 x 10 [279 x 254] 3/4 HP PSC	R = Natural Gas –CSA– U.S. and Canada (North American)
					050	50,000 [15]		
					075	75,000 [22]		
					100	100,000 [29]		
					125	125,000 [37]		
					150	150,000 [44]		

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DOWNFLOW DIMENSIONS



DIMENSIONS AND CLEARANCE TO COMBUSTIBLE MATERIAL (INCHES) [mm]

MODEL GVLJ-	A	B	C	D	E	REDUCED CLEARANCE (IN.) [mm]						
						LEFT SIDE	RIGHT SIDE	BACK	TOP	FRONT	VENT	SHIP. WGTS. (LBS.) [Kg]
050	14 [356]	12 ²⁷ / ₃₂ [326]	10 ³ / ₈ [264]	①	13 ¹ / ₈ [333]	0	4 ②	0	1 [25]	3 [76]	6 [152] ③	85 [38.6]
075	17 ¹ / ₂ [445]	16 ¹¹ / ₃₂ [415]	12 ¹ / ₈ [308]	①	16 ⁵ / ₈ [422]	0	3 ②	0	1 [25]	3 [76]	6 [152] ③	105 [47.6]
100 (A)	17 ¹ / ₂ [445]	16 ¹¹ / ₃₂ [415]	12 ¹ / ₈ [308]	①	16 ⁵ / ₈ [422]	0	3 ②	0	1 [25]	3 [76]	6 [152] ③	115 [52.2]
100 (B)	21 [533]	19 ²⁷ / ₃₂ [504]	13 ⁷ / ₈ [352]	①	20 ¹ / ₈ [511]	0	0	0	1 [25]	3 [76]	6 [152] ③	120 [54.4]
125	24 ¹ / ₂ [622]	23 ¹¹ / ₃₂ [593]	15 ⁵ / ₈ [397]	①	23 ⁵ / ₈ [600]	0	0	0	1 [25]	3 [76]	6 [152] ③	140 [63.5]
150	24 ¹ / ₂ [622]	23 ¹¹ / ₃₂ [593]	15 ⁵ / ₈ [397]	①	23 ⁵ / ₈ [600]	0	0	0	1 [25]	3 [76]	6 [152] ③	150 [68]

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—DOWNFLOW MODELS

MODEL NUMBER GVLJ-SERIES	BLOWER SIZE [mm]	MOTOR H.P. [W]	BLOWER SPEED	CFM [L/s] AIR DELIVERY EXTERNAL STATIC PRESSURE INCHES [kPa] WATER COLUMN						
				.1 [.02]	.2 [.05]	.3 [.07]	.4 [.10]	.5 [.12]	.6 [.15]	.7 [.17]
				E050AR N050AR	11 x 6 [279 x 152]	1/2 [373]	LOW MED-LO MED-HI HIGH	735 [347] 1025 [484] 1185 [559] 1345 [635]	715 [337] 1015 [479] 1165 [550] 1330 [628]	690 [326] 995 [470] 1150 [543] 1310 [618]
E075AR N075AR	11 x 6 [279 x 152]	1/2 [373]	LOW MED HIGH	990 [467] 1140 [538] 1300 [614]	975 [460] 1125 [531] 1290 [609]	955 [451] 1105 [522] 1265 [597]	935 [441] 1080 [510] 1245 [588]	905 [427] 1050 [496] 1215 [573]	875 [413] 1020 [481] 1180 [557]	835 [394] 980 [463] 1140 [538]
E075BR N075BR	11 x 7 [279 x 178]	1/2 [373]	LOW MED HIGH	1210 [571] 1580 [746] 1915 [904]	1205 [569] 1560 [736] 1880 [887]	1195 [564] 1550 [732] 1825 [861]	1180 [557] 1530 [722] 1790 [845]	1165 [550] 1495 [706] 1740 [821]	1155 [545] 1465 [691] 1675 [791]	1130 [533] 1430 [675] 1600 [755]
E100CR	11 x 7 [279 x 178]	1/2 [373]	LOW MED HIGH	1070 [505] 1240 [585] 1420 [670]	1055 [498] 1210 [571] 1395 [658]	1040 [491] 1190 [562] 1370 [647]	1010 [477] 1165 [550] 1340 [632]	980 [463] 1135 [536] 1305 [616]	945 [446] 1095 [517] 1265 [597]	905 [427] 1055 [498] 1220 [576]
E100CR	11 x 10 [279 x 254]	1/2 [373]	LOW MED HIGH	1330 [628] 1690 [798] —	1295 [611] 1670 [788] 2085 [984]	1285 [606] 1655 [781] 2055 [970]	1245 [588] 1615 [762] 2005 [946]	1225 [578] 1585 [748] 1970 [930]	1205 [569] 1565 [739] 1945 [918]	1160 [547] 1525 [720] 1880 [887]
E125DR N125DR	11 x 10 [279 x 254]	3/4 [559]	LOW MED HIGH	— — —	1690 [798] 2090 [986] 2395 [1130]	1660 [783] 2035 [960] 2335 [1102]	1635 [772] 1985 [937] 2260 [1067]	1580 [746] 1930 [911] 2185 [1031]	1535 [724] 1850 [873] 2080 [982]	1480 [698] 1785 [842] 1965 [927]
E150DR N150DR	11 x 10 [279 x 254]	3/4 [559]	LOW MED HIGH	1675 [791] 2105 [993] —	1650 [779] 2075 [979] —	1620 [765] 2035 [960] —	1570 [741] 1990 [939] —	1545 [729] 1955 [923] —	1485 [701] 1900 [897] —	1425 [673] 1815 [857] —

NOTES: Recommended blower speeds are in bold.
See Form Number C11-206 for MultiFlex® coil data.

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GENERAL TERMS OF LIMITED WARRANTY

Grandaire 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 Warranty, Including Applicable Terms and Conditions, See Your Local Installer.

Gas Heat Exchanger Limited WarrantyTwenty (20) Years
*Any Other Part.....Five (5) Years

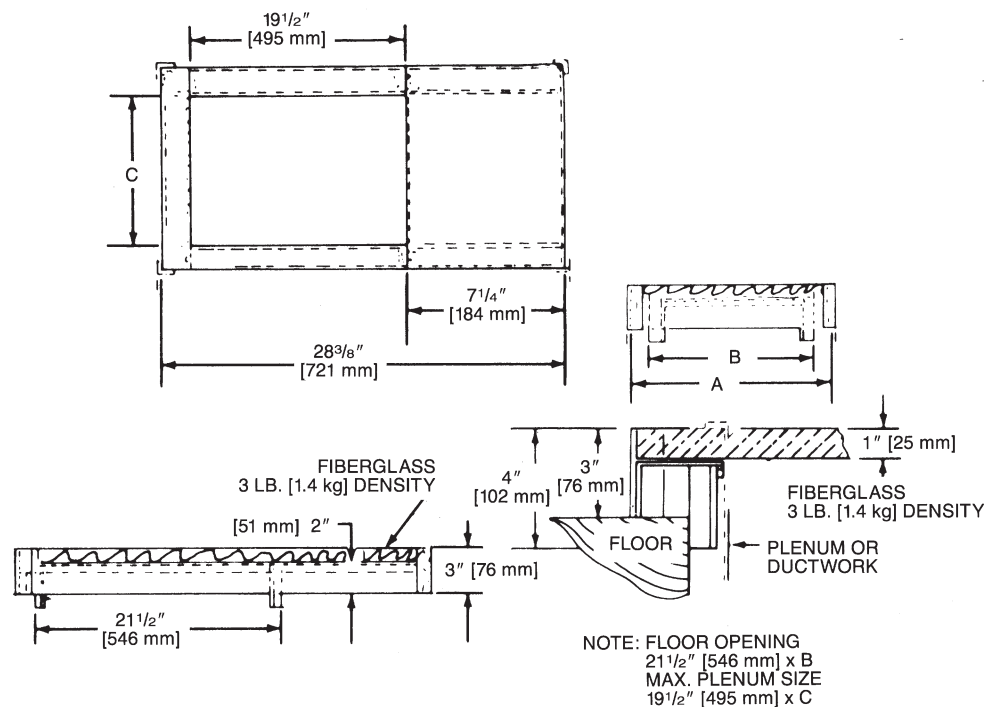
*This five year limited warranty is applicable only to single-phase products installed in residential applications on or after January 1, 2001.

ACCESSORIES—DOWNFLOW

DOWNFLOW WARNING: Unit design is certified for installation on non-combustible floor. A special factory supplied combustible floor sub-base is required when installing on a combustible floor. Failure to install the sub-base may result in fire, property damage and personal injury.

COMBUSTIBLE FLOOR BASE DIMENSIONS

COMBUSTIBLE FLOOR BASE	USE WITH FURNACE SIZES	A IN. [mm]	B IN. [mm]	C IN. [mm]
RXGC-B14	GVLJ80E050	14 ¹ / ₂ [368]	13 ¹ / ₄ [337]	11 ¹ / ₄ [286]
RXGC-B17	GVLJ80E075, -100A	18 [457]	16 ³ / ₄ [425]	14 ³ / ₄ [451]
RXGC-B21	GVLJ80E100B	21 ¹ / ₂ [546]	20 ¹ / ₄ [514]	18 ¹ / ₄ [464]
RXGC-B24	GVLJ80E125, -150	25 [635]	23 ³ / ₄ [603]	21 ³ / ₄ [552]



RXPF-F01

FOSSIL FUEL KIT—Standard.

RXPF-F02

FOSSIL FUEL KIT—Meets TVA specifications.

RXGF-CC

FILTER RACK—Downflow top return mount.

NOTE: Filter racks are shipped without filters.

Suitable for 1" [25.4 mm] throw away filters.

RXGF-DB*

FILTER RACK—Internal filter rack for top return.

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

*Filters available through PROSTOCK®.

FOR HIGH ALTITUDES:

OPTION CODE FOR HIGH ALTITUDE: US & Canada – None required for these models.

HIGH ALTITUDE CONVERSION KITS: US & Canada – None required for these models.

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.

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NOTES

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.

Manufactured for
Grandaire
Jacksonville, Florida

GRANDAIR®

"In keeping with its policy of continuous progress and product improvement, Grandaire reserves the right to make changes without notice."