

W801S (Downflow) SERIES Models with Input Rates from 50 to 150 kBTU [15 to 44 kW]



DOWNFLOW GAS FURNACE

Features

- 80% residential Gas Furnace CSA certified
- 7 Segment LED all units
- Direct spark ignition for reliability and longevity
- Heat exchanger is removable for improved serviceability. Aluminized steel construction provides maximum corrosion resistance and thermal fatigue reliability.
- Low profile 34" cabinet ideal for space constrained installations
- Integrated Control board features dip switches for easy system set up
- QR code for quick access to product information from your smart phone or tablet

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



(80% A.F.U.E.†)

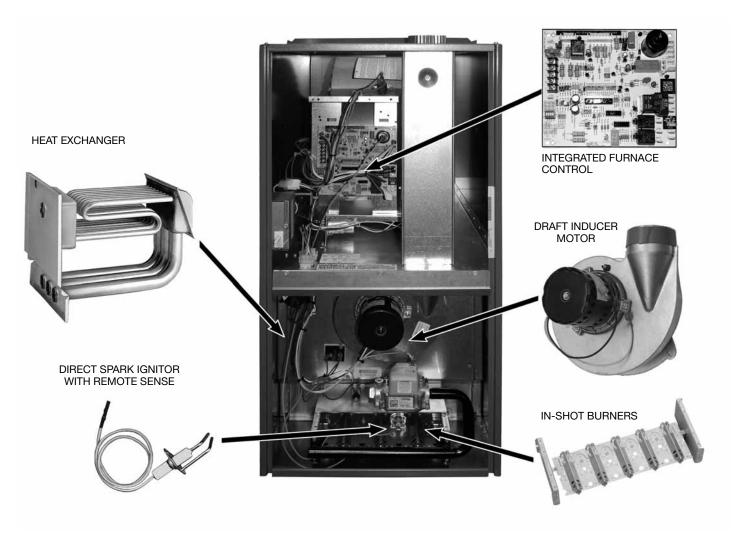






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STANDARD EQUIPMENT

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; on-board twinning; fused-protection (secondary), 3rd speed option for continuous fan; common heat/cool terminal.

OPTIONAL EQUIPMENT

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 WeatherKing 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 WeatherKing parts distributor.

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

WARNING

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

Model Features

- 80% residential Gas Furnace CSA certified
- Segment LED all units
- Direct spark ignition for reliability and longevity
- Heat exchanger is removable for improved serviceability.
 Aluminized steel construction provides maximum corrosion resistance and thermal fatigue reliability.
- Low profile 34" cabinet ideal for space constrained installations
- Blower shelf design serviceable in all furnace orientations
- Integrated Controls board features dip switches for easy system set up
- QR code for quick access to product information from your smart phone or tablet

Physical Data and Specifications U.S. and Canadian Models

MODEL NUMBERS W801S (DOWNFLOW)	W801SA 050314Z*B	W801SA 075317Z*B	W801SA 075417Z*B	W801SA 100317Z*B	W801SA 100421Z*B	W801SA 100521Z*B	W801SA 125524Z*B	W801SA 150524Z*B
Input-BTU/Hr [kW] ②	50,000 [15]	75,000 [22]	75,000 [22]	100,000 [29.3]	100,000 [29.3]	100,000 [29.3]	125,000 [36.6]	150,000 [44]
Heating Capacity BTU/Hr [kW] ①	40,000 [12]	60,000 [18]	60,000 [18]	80,000 [23]	80,000 [23]	80,000 [24]	100,000 [29]	120,000 [35]
High Altitude Input [kW]	45,000 [13]	67,500 [19.8]	67,500 [19.8]	90,000 [26.4]	90,000 [26.4]	90,000 [26.4]	112,500 [33]	135,000 [39.6]
High Altitude Output Capacity [kW]	36,500 [10.7]	54,000 [15.8]	54,000 [15.8]	72,000 [21.1]	72,000 [21.1]	72,500 [21.2]	89,000 [26.1]	107,500 [31.5]
Heat Ext. Static Pressure [kPa]	.10 [.025]	.12 [.029]	.12 [.029]	.15 [.037]	.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 = 10*AM [279 x 178]	11 x 10 [279 x 254]			
Motor H.P. [W]-Speeds [W]- PSC Type	¹ / ₂ -4-PSC [373]	¹ / ₂ -3-PSC [373]	³ /4-3-PSC [559]	¹ /2 - 3-PSC [373]	¹ /2-3-PSC [373]	³ /4-3-PSC [559]	³ /4-3-PSC [559]	³ /4-3-PSC [559]
Min. Circuit Ampacity	9	9	11	9	11	13	13	13
Min. Overload Protection Device	15	15	15	15	15	20	20	20
Max. Overload Protection Device	15	15	15	15	15	20	20	20
Heating Speed	MED	MED	MED	MED	MED	LOW	LOW	LOW
Cooling Speed	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH
Cooling CFM @ .5" [kPa] E.S.P. (Nominal) [L/s]	1200 [566]	1200 [566]	1600 [755]	1200 [566]	2000 [944]	2000 [944]	2000 [944]	2000 [944]
Rated 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]	0.5 [.12]
Temperature Rise Range °F [°C]	25-55 [13.9-30.6]	30-60 [16.7-33.3]	25-55 [13.9-30.6]	45-75 [25-41.7]	40-70 [22.2-38.9]	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 [73.9]	155 [68.3]	190 [87.8]	190 [87.8]	170 [76.7]	180 [82.2]	170 [76.7]
Approx. Shipping Weight (Lbs.) [kg]	85 [38.6]	105 [47.6]	105 [47.6]	115 [52.2]	120 [54.4]	120 [54.4]	140 [63.5]	150 [68.0]
AFUE-Electric Ignition Models ①	80%	80%	80%	80%	80%	80%	80%	80%

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

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

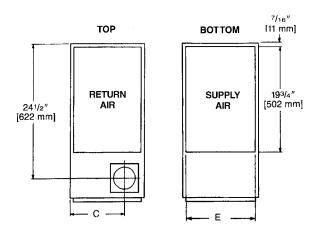
② See Conversion Kit Index Form for high altitude derate in U.S. applications.

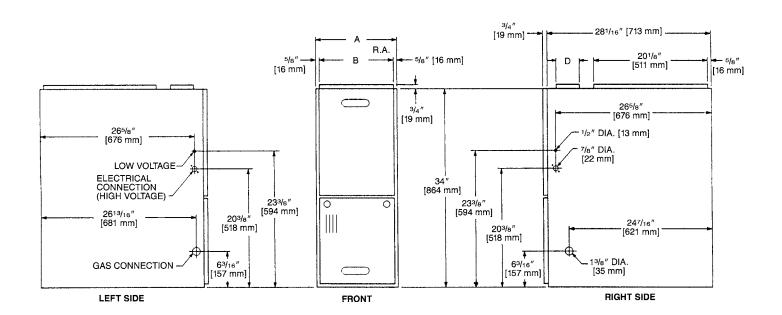
Model Number Identification—Downflow Models

	$\underline{\mathbf{w}}$	<u>80</u>	<u>1</u>	<u>s</u>	<u>A</u>	<u>075</u>	<u>4</u>	<u>17</u>	<u>z</u>	<u>s</u>	<u>A</u>
We	atherKing	80 = 80% AFUE	1 = Single Stage	S = Standard PSC	Design Series A = 1st Design	Input <u>BTU/HR [kW]</u> 050 = 50,000 [15] 075 = 75,000 [22] 100 = 100,000 [29] 125 = 125,000 [37] 150 = 150,000 [44]	3 = Up to 3 Ton 4 = Up to 4 Ton 5 = Up to 5 Ton	Cabinet Width 14 = 14" 17 = 17.5" 21 = 21" 24 = 24.5"	Z = Down and Zero Clearance Downflow	X = Low NO _x S = Standard	Revision- Marketing (A – First Time Release) (B – 2nd Design Series)

^[] Designates Metric Conversions

Downflow Dimensions





Dimensions and Clearance to Combustible Material (inches) [mm]

MODEL						REDUCED CLEARANCES (IN.) [mm]						
W801S (DOWNFLOW) SERIES	A	В	C	D	E	LEFT SIDE	RIGHT SIDE	BACK	ТОР	FRONT	VENT	SHIP. WGTS. (LBS.) [kg]
050	14 [356]	12 ²⁷ /32 [326]	10 ³ /8 [264]	1	131/8 [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]
100317	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]
100421 100521	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	241/2 [622]	2311/32 [593]	155/8 [397]	1	235/8 [600]	0	0	0	1 [25]	3 [76]	6 [152] ③	140 [63.5]
150	241/2 [622]	2311/32 [593]	155/8 [397]	1	235/8 [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.

Furnaces must be vented in accordance with the National Fuel Gas Code, ANSI Z223.1 and in accordance with local codes.

② May be 0" [0 mm] with type B vent.

³ May be 1" [25 mm] with type B vent.

Blower Performance Data—Downflow Models

MODEL W801S	BLOWER Size	MOTOR H.P.	BLOWER	CFM [L/s] AIR DELIVERY EXTERNAL STATIC PRESSURE INCHES [kPa] WATER COLUMN							
SERIES [mm]		[W]	SPEED	.1 [.02]	.2 [.05]	.3 [.07]	.4 [.10]	.5 [.12]	.6 [.15]	.7 [.17]	
050	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]	660 [311] 975 [460] 1130 [533] 1295 [611]	635 [300] 955 [451] 1100 [519] 1265 [597]	605 [286] 930 [439] 1075 [507] 1235 [583]	575 [271] 905 [427] 1040 [491] 1205 [569]	
075317	11 x 6 [279 x 152]	1/2 [373]	LOW MED HIGH	1104 [529] 1284 [606] 1478 [698]	1081 [510] 1269 [599] 1438 [679]	1050 [496] 1236 [583] 1397 [659]	1025 [484] 1206 [569] 1362 [643]	999 [471] 1179 [556] 1392 [657]	971 [458] 1139 [538] 1282 [605]	940 [444] 1102 [520] 1242 [586]	
075417	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]	
100317	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]	
100421	11 x 10 [279 x 254]	1/2 [373]	LOW MED HIGH	1303 [615] 1697 [801] 2078 [981]	1304 [615] 1674 [790] 2068 [976]	1280 [604] 1655 [781] 2037 [961]	1250 [590] 1638 [773] 2010 [949]	1222 [577] 1621 [765] 1988 [938]	1188 [557] 1581 [746] 1938 [915]	1160 [547] 1542 [728] 1898 [896]	
100521	11 x 10 [279 x 254]	3/4 [559]	LOW MED HIGH	1690 [798] — —	1670 [788] 2085 [984] 2410 [1137]	1655 [781] 2055 [970] 2355 [1111]	1615 [762] 2005 [946] 2305 [1088]	1585 [748] 1970 [930] 2240 [1057]	1565 [739] 1945 [918] 2165 [1022]	1525 [720] 1880 [887] 2100 [991]	
125524	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]	
150524	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] —	

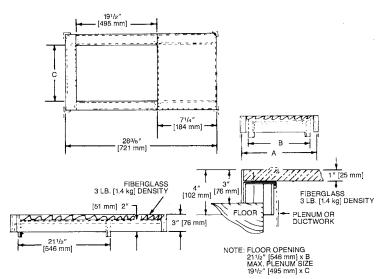
NOTES: Recommended blower speeds are in bold.

DOWNFLOW ACCESSORIES

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	801S050	141/2 [368]	131/4 [337]	111/4 [286]
RXGC-B17	801S075, 801SA100317	18 [457]	163/4 [425]	143/4 [451]
RXGC-B21	801SA100421, 801SA100521	211/2 [546]	201/4 [514]	181/4 [464]
RXGC-B24	801S125, 801S150	25 [635]	233/4 [603]	213/4 [552]



GXGP-F03

PARALLEL FURNACE KITS—are for parallel operation requirements.

RXGF-CC*

FILTER RACK—Downflow top return mount. Requires (2) 14 x 20 filters.

NOTE: Filter racks are shipped without filters.

*Filters available through PROSTOCK ®.

RXGF-DB*

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

*Filters available through PROSTOCK®.

FOR HIGH ALTITUDES:

HIGH ALTITUDE OPTION CODE: U.S.

None required for high altitudes.

HIGH ALTITUDE CONVERSION KITS: U.S.

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.

GENERAL TERMS OF LIMITED WARRANTY*

WeatherKing 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.

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

Notes W801S (DF) 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.

