

GAS FURNACES



Rheem
Prestige
S E R I E S

90 PLUS COMMUNICATING MODULATING DOWNFLOW GAS FURNACES EQUIPPED WITH THE **COMFORT CONTROL² SYSTEM** AND **CONTOUR COMFORT CONTROL[®]**

The Rheem *Prestige Series*[™] 90 Plus High Efficiency line of downflow gas furnaces are designed for utility rooms, closets, or alcoves, attics or crawl spaces.

The design is certified by CSA.

RGGE- SERIES

Models with Input Rates
from 60,000 to 120,000 BTU/HR
[17.58 to 35.16 kW]
(U.S. & Canadian Models)



Equipped with **Comfort Control² System[™]**

- Serial communication enabled
- Increased system reliability and efficiency
- 28 on-board diagnostic and operating codes
- *Active Protection*[™] with homeowner "Call for Service" alert
- Dual 7-segment LED display



Features

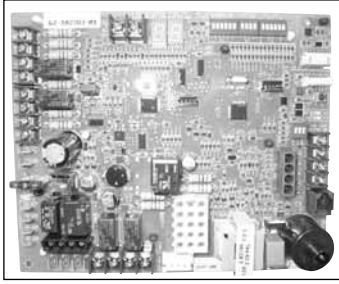
- The *Comfort Control² System*[™] provides over 28 on-board diagnostics and fault history codes by detecting system and electrical problems. "Call for Service" alert notification is sent to the thermostat to alert the homeowner of required service.
- Serial Communication Enhanced – When installed with a Serial Communicating Condensing Unit and user interface control (RHC-TST550CMMS) 500 Series thermostat this unit offers 4 or 2 wire installation, auto-configuration, and diagnostic messaging with full communicating capability.
- Heat exchanger is constructed of all stainless steel for maximum corrosion resistance and thermal fatigue reliability.
- Modulating Function: when used with a modulating or communicating thermostat, modulation rate between 40% and 100% of total capacity.
- Two-stage Function: when used with a two-stage thermostat, furnace operates at 40% on first stage, and stages up to 65%, then 100% for second stage.
- Multistage Function: when used with a single-stage thermostat, furnace functions as a three stage furnace operating at 40%, 65% and 100% of total capacity.
- Reduced firing rates, electrically efficient ECM2+ motor, and solid doors provide the ultimate in quiet operation.
- Low speed constant fan.
- Constant temperature rise for superior comfort.
- Seven segment LED for system diagnostics.
- Diagnostic history for troubleshooting.
- Two-speed induced draft motor.
- Direct spark ignition with remote sense.
- Top electrical connections, left or right gas and condensate drainage connections on downflow models.
- Optional indoor or outdoor combustion air.

A variety of cooling coils and plenums designed to use with the Rheem *Prestige Series*[™] 90 Plus gas furnaces are available as optional accessories.

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

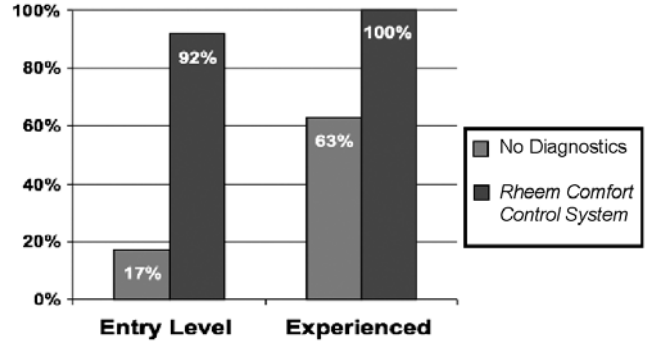
FEATURES & BENEFITS OF THE *COMFORT CONTROL² SYSTEM*TM

- The Rheem Dual 7-Segment LED Display easily shows system operating status codes and diagnostic codes.
- The Status Indication System Diagnostics feature thermostat communication capability and built-in diagnostics. The thermostat communication capability and alerts the homeowner to any necessary service requirements. Faster, more accurate service is provided by the built-in diagnostics, by providing the HVAC professional with dependable information.



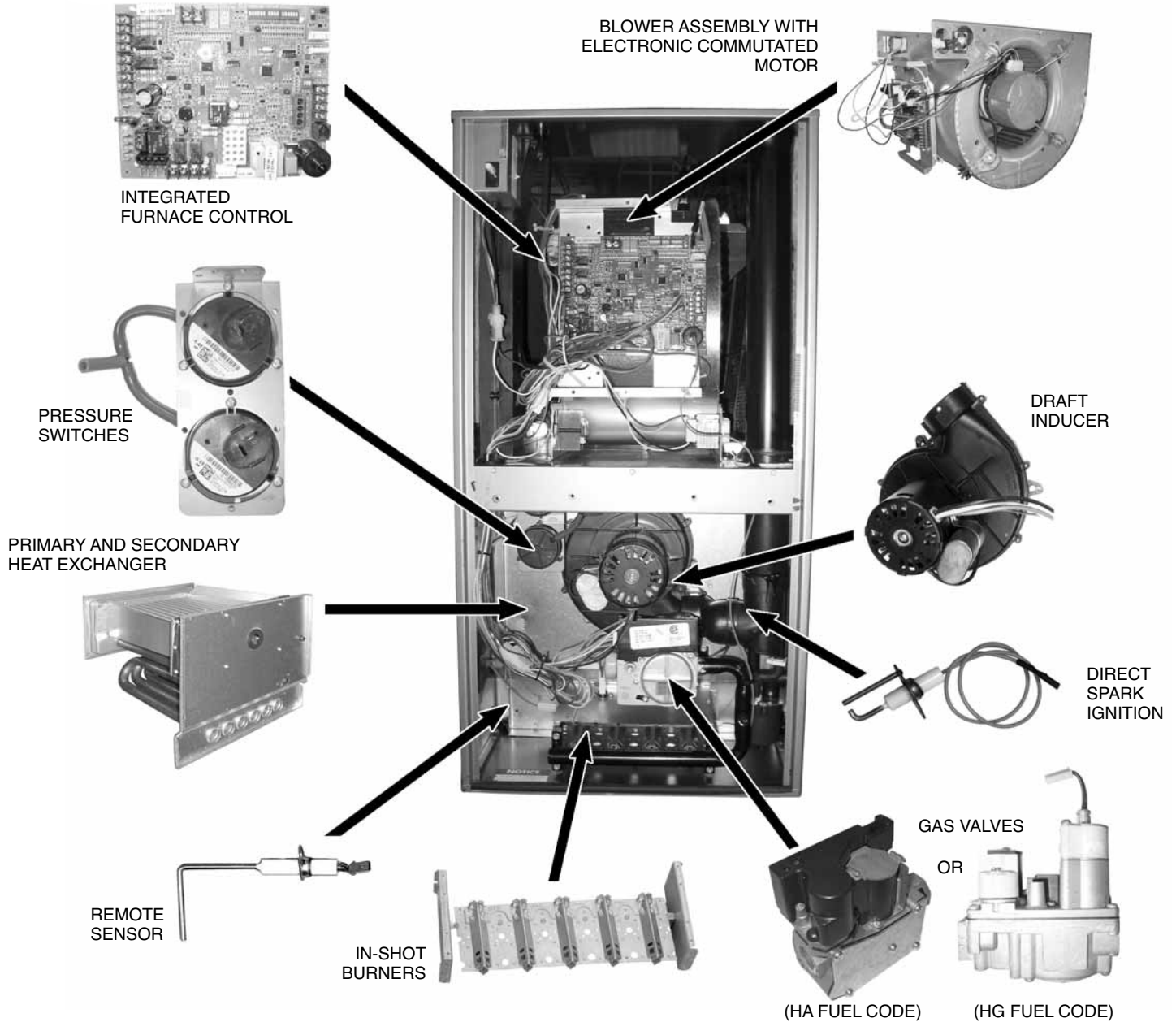
- The fault recall feature will allow for the last six fault-codes to be displayed, and will retain these codes even if power failure occurs.
- In order to save time and money, replacement automotive style fuses can be utilized instead of replacing the entire control board.

Problem-Solving Accuracy





PRESTIGE SERIES™ 90 PLUS HIGH EFFICIENCY MODULATING DOWNFLOW GAS FURNACE



STANDARD EQUIPMENT

Completely assembled and wired; heat exchanger; primary: 409 and aluminized 409 stainless steel, secondary: 29-4C stainless steel; induced draft; pressure switches; redundant modulating main gas control; blower compartment door safety switch; solid state time on/off blower control; limit controls; manual shut-off valve; 100% safety lock out; cool fan off delay; one hour automatic retry; power and self-test diagnostics; flame sense current diagnostics; electronic air cleaner connections; humidifier connections; humidifier on/off delay, dehumidification connection; low speed continuous fan option; transformer; direct drive, ECM variable speed blower motor. (Please note: a thermostat is not included as standard equipment. See "Accessories").

OPTIONAL EQUIPMENT

NOTE: Furnace is not listed for use with fuels other than natural or L.P. (propane) gas.

All models can be converted by a qualified 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 parts distributor.

For L.P. (propane) operation, refer to Conversion Kit Index Form. Fossil Fuel Kits for use with heat pumps.

Communicating Thermostat System

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

PHYSICAL DATA AND SPECIFICATIONS—DOWNFLOW MODELS

U.S. and Canadian Models

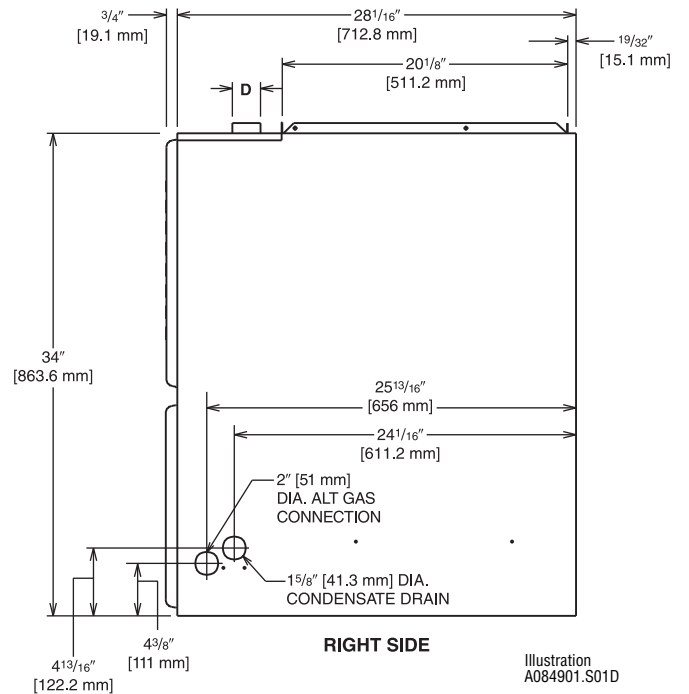
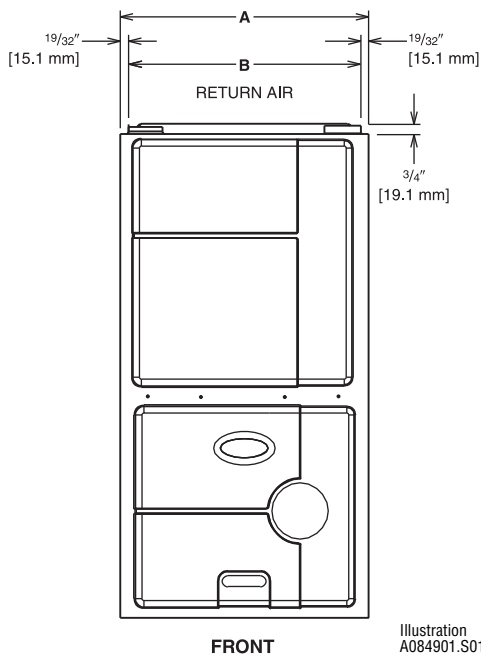
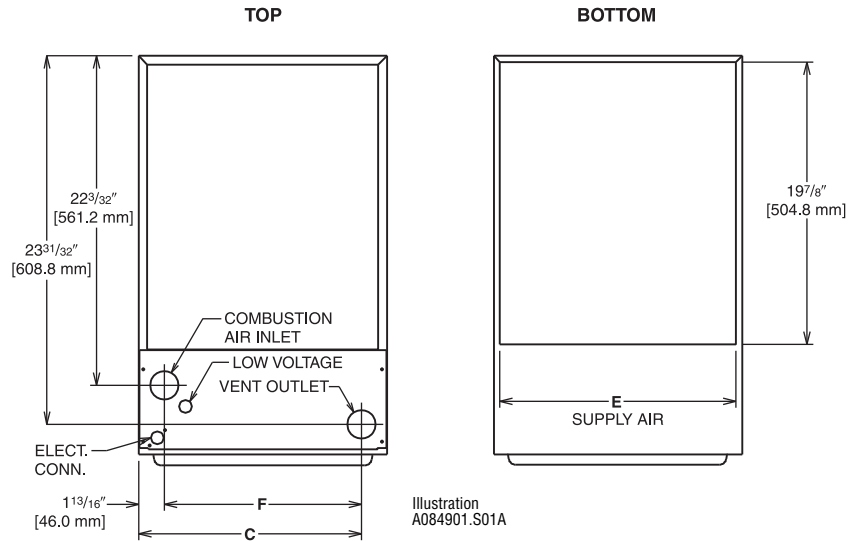
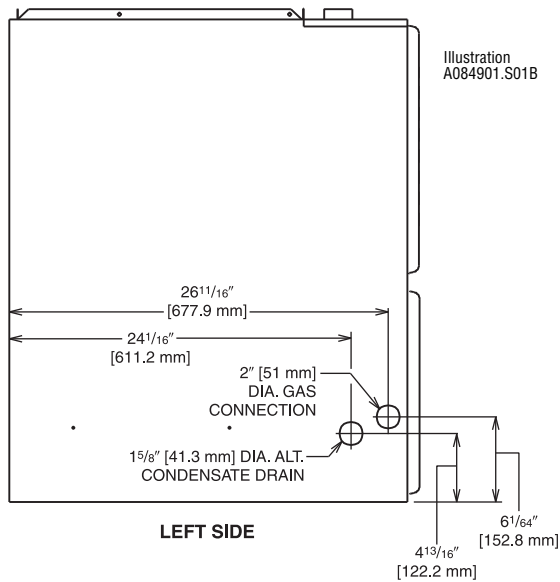
MODEL NUMBERS	RGGE-06EMCKS	RGGE-07EMCKS	RGGE-09EZCMS	RGGE-10EZCMS	RGGE-12ERCMS
INPUT—MAXIMUM (BTU/HR) [kW]	60,000 [17.58]	75,000 [21.98]	90,000 [26.38]	105,000 [30.77]	120,000 [35.17]
HEATING CAPACITY—MAXIMUM [kW]	54,720 [16.03]	69,000 [20.22]	83,160 [24.37]	95,865 [28.09]	110,880 [32.49]
INPUT—MINIMUM (BTU/HR) [kW]	24,000 [7.03]	30,000 [8.79]	36,000 [10.55]	42,000 [12.31]	48,000 [14.07]
HEATING CAPACITY—MINIMUM [kW]	21,888 [6.41]	27,600 [8.09]	33,264 [9.75]	38,346 [11.24]	44,352 [12.99]
HEATING EXT. STATIC PRESSURE [kPa]	0.12 [.029]	0.12 [.029]	0.15 [.037]	0.20 [.049]	0.20 [.049]
BLOWER (D X W IN.) [mm]	11 x 7 [279 x 178]	11 x 7 [279 x 178]	12 x 11 [305 x 279]	12 x 11 [305 x 279]	11 x 10 [279 x 254]
ECM MOTOR HP [W]	1/2 [373]	1/2 [373]	1 [746]	1 [746]	1 [746]
UNIT AMPS	8.7	8.7	12.0	12.0	12.0
MAXIMUM OVERCURRENT PROTECTION	15	15	15	15	15
HEATING CFM—MAXIMUM [L/s]	795 [375]	995 [470]	1195 [564]	1395 [658]	1595 [753]
HEATING CFM—MINIMUM [L/s]	320 [151]	430 [203]	515 [243]	600 [283]	685 [323]
COOLING CFM—RANGE [L/s]	600-1200 [283-566]	600-1200 [283-566]	1200-2000 [566-944]	1200-2000 [566-944]	1200-2000 [566-944]
MAXIMUM EXT. STATIC PRESSURE [kPa]	0.80 [0.20]	0.80 [0.20]	0.80 [0.20]	0.80 [0.20]	0.80 [0.20]
TEMPERATURE RISE RANGE °F [°C]	40-70 [22.2-38.9]	40-70 [22.2-38.9]	40-70 [22.2-38.9]	40-70 [22.2-38.9]	40-70 [22.2-38.9]
MAX OUTLET AIR TEMPERATURE °F [°C]	180 [82.2]	180 [82.2]	180 [82.2]	190 [87.8]	195 [90.6]
RETURN AIR CABINETS—RXGR-	C17B	C17B	C21B	C21B	C24B
FILTER SIZE (IN.) [mm] BOTTOM	15 ³ / ₄ x 25 [400 x 635]	15 ³ / ₄ x 25 [400 x 635]	19 ¹ / ₄ x 25 [489 x 635]	19 ¹ / ₄ x 25 [489 x 635]	22 ³ / ₄ x 25 [578 x 635]
FILTER SIZE (IN.) [mm] SIDE	15 ³ / ₄ x 25 [400 x 635]	15 ³ / ₄ x 25 [400 x 635]	15 ³ / ₄ x 25 [400 x 635]	15 ³ / ₄ x 25 [400 x 635]	15 ³ / ₄ x 25 [400 x 635]
APPROX. SHIPPING WEIGHT (LBS.) [kg]	127 [57.6]	133 [60.3]	158 [71.7]	162 [73.5]	170 [77.1]
AFUE	91.2%	92.3%	92.3%	91%	92.2%

MODEL IDENTIFICATION

<u>R</u>	<u>G</u>	<u>G</u>	<u>E</u>	<u>07E</u>	<u>M</u>	<u>C</u>	<u>K</u>	<u>S</u>
Rheem	Gas Furnace	Downflow Modulating Prestige Series™ 90 Plus Gas Furnace	Design Series E – Communicating	Heating Input Designation	Blower Size	Variations	Heat/Cool Designation	Fuel Code
				Electric Ignition–NOx Models	M = 11 x 7 [279 x 178 mm] R = 11 x 10 [279 x 254 mm] Z = 12 x 11 [305 x 279 mm]	C = Single/Multi Zone	K = 600-1200 CFM [283-566 L/s] M = 1200-2000 CFM [566-944 L/s]	S = U.S. or Canadian Natural Gas
				Input BTU/HR				
				06E 06N 60,000 [17.6 kW] 07E 07N 75,000 [22.0 kW] 09E 09N 90,000 [26.4 kW] 10E 10N 105,000 [30.7 kW] 12E 12N 120,000 [35.2 kW]				

[] Designates Metric Conversions

DOWNFLOW MODELS



MODEL RGGE-	A	B	C	D	E	F	LEFT SIDE	MINIMUM CLEARANCE (IN.) [mm]				
								RIGHT SIDE	BACK	TOP	FRONT	VENT
06	17 ¹ / ₂ [445]	16 ¹¹ / ₃₂ [415]	15 ⁵ / ₈ [397]	2 [51]	16 ⁵ / ₈ [422]	13 ⁷ / ₈ [352]	0	0	0	1 [25]	2 [51]	0
07	17 ¹ / ₂ [445]	16 ¹¹ / ₃₂ [415]	15 ⁵ / ₈ [397]	2 [51]	16 ⁵ / ₈ [422]	13 ⁷ / ₈ [352]	0	0	0	1 [25]	2 [51]	0
09	21 [533]	19 ²⁷ / ₃₂ [504]	19 ³ / ₁₆ [487]	2 [51]	20 ¹ / ₈ [511]	17 ³ / ₈ [441]	0	0	0	1 [25]	2 [51]	0
10	21 [533]	19 ²⁷ / ₃₂ [504]	19 ³ / ₁₆ [487]	2 [51]	20 ¹ / ₈ [511]	17 ³ / ₈ [441]	0	0	0	1 [25]	2 [51]	0
12	24 ¹ / ₂ [622]	23 ¹¹ / ₃₂ [593]	22 ⁵ / ₈ [575]	2 [51]	23 ⁵ / ₈ [600]	20 ⁷ / ₈ [530]	0	0	0	1 [25]	2 [51]	0

[] Designates Metric Conversions

BLOWER PERFORMANCE DATA—RGGE MODELS

MODEL RGGE-	BLOWER SIZE (D x W) IN. [mm]	ICM MOTOR H.P. [W]	BLOWER SPEED (SELECTED W/DIP SWITCHES)	CFM [L/s] AIR DELIVERY EXTERNAL STATIC PRESSURE INCHES WATER COLUMN [kPa]
				0.1 [.02]-0.8 [.20]
06	11 x 7 [279 x 178]	1/2 [373]	HIGH MED-HI MED LOW	1200 [566] 1000 [472] 800 [378] 600 [283]
07	11 x 7 [279 x 178]	1/2 [373]	HIGH MED-HI MED LOW	1200 [566] 1000 [472] 800 [378] 600 [283]
09	12 x 11 [305 x 279]	1 [746]	HIGH MED-HI MED LOW	2000 [944] 1600 [755] 1400 [661] 1200 [566]
10	12 x 11 [305 x 279]	1 [746]	HIGH MED-HI MED LOW	2000 [944] 1600 [755] 1400 [661] 1200 [566]
12	11 x 10 [279 x 254]	1 [746]	HIGH MED-HI MED LOW	2000 [944] 1600 [755] 1400 [661] 1200 [566]

[] Designates Metric Conversions

ACCESSORIES—DOWNFLOW

VENT TERMINATION KITS CONCENTRIC: HORIZONTAL/ VERTICAL =

RXGY-E03A (US & Canadian Installations)

HORIZONTAL TWO PIPE: RXGY-D02, RXGY-D03, RXGY-D04
(US Installations)

RXGY-D02A, RXGY-D03A, RXGY-D04A (Canadian Installations)

RXGY-G02 (US Only)

NEUTRALIZER KIT: RXGY-A01

COMBUSTIBLE FLOOR BASE: RXGC-B17
RXGC-B21
RXGC-B24

EXTERNAL FILTER RACK: RXGF-CC

FILTER RACK FILTER SIZES* INCHES [mm]	
MODEL RGGE-	RXGF-CC
06	(2) 12 x 20 [305 x 508]
07	(2) 12 x 20 [305 x 508]
09	(2) 12 x 20 [305 x 508]
10	(2) 12 x 20 [305 x 508]
12	(2) 14 x 20 [305 x 508]

*Filter racks are shipped without filters.
Filters shipped with furnace may be used or a suitable 1" [25.4 mm] filter.

FOSSIL FUEL KIT: RXPF-F02

PLENUM DATA FOR "A" COILS

Plenum adapters are required in some instances for use on downflow applications when plenum and furnace size do not match.

FURNACE WIDTH IN. [mm]	PLENUM WIDTH IN. [mm]	PLENUM ADAPTER UPFLOW	COIL PLENUM
17½ [445]	16¼ [413]	RXAA-C186	RXAL-B16BU
17½ [445]	20¼ [514]	RXAA-C173	RXAL-B20BU
17½ [445]	21⅝ [549]	RXAA-C187	RXAL-B21BU
17½ [445]	25¼ [641]	RXAA-C174	RXAL-B25BU
21 [533]	25¼ [641]	RXAA-C175	RXAL-B25BU
21 [533]	22¼ [565]	RXAA-C176	RXAL-B22BU
21 [533]	21⅝ [549]	RXAA-C188	RXAL-B21BU
24½ [622]	25¼ [641]	RXAA-C177	RXAL-B25BU
24½ [622]	21⅝ [549]	RXAA-C187	RXAL-B21BU

Note: See Form Number C11-206 for MultiFlex® coil data.

LP KIT: (Available through PROSTOCK®)

U.S./Canadian = RXGJ-FP27 (HA & HB Fuel codes only).

U.S./Canadian = RXGJ-FP07 (HG & HH Fuel codes only).

THERMOSTATS

RECOMMENDED MODULATING FURNACE THERMOSTAT



RHC-TST550CMMS

CONTRACTOR BENEFITS:

- Multi-Purpose Thermostat-Setup, Control & Diagnostics
- Auto-Configuration – No Manual Settings Required in the Field
- System History – More Accurate Diagnostics
- Easy Installation – Requires only 4 wires
- Diagnostic Messages (Service Access to Fault Codes)
- Blower Adjustment in Heat and Cool
- Programmable Fan
- USB Interface for contractor contact information and thermostat programming

HOMEOWNER BENEFITS:

- Scrolling System Status
- De-Humidification Control
- Humidification Control
- Heat/Cool/Auto Change-over
- Outdoor Temperature Display
- Backlight On/Off
- Intelligent Scheduling Ramp-Up/Program Anticipation
- Audio Notifications On/Off
- Air Filter, UV Lights & Humidifier Maintenance Reminder
- Temperature Offset
- Continuous Fan (Hi, Med, Lo)

*PROGRAMMABLE THERMOSTAT ACCESSORIES:

Adapter Plate = F61-2600

Remote F1451328 and F1451378 Sensor

*Available through PROSTOCK®.

[] Designates Metric Conversions

ACCESSORIES—DOWNFLOW (con't.)

FOR HIGH ALTITUDES:

RGGE HIGH ALTITUDE FIELD CONVERSION KITS:

MODEL	INPUT (KBTU)	KIT NO.
RGGE-06	60,000	None Needed
RGGE-07	75,000	RXGY-F23
RGGE-09*	90,000	RXGY-F24
RGGE-10*	105,000	RXGY-F25
RGGE-12*	120,000	RXGY-F26

*5000 ft. & above only (except where noted).

OPTION CODE FOR HIGH ALTITUDE: None Available - Kit must be purchased

NOTE: High altitude kits do **NOT** include additional burner orifices. If a burner orifice change is necessary, they must be ordered through PROSTOCK®. See Installation Instructions for more information.

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

For all installations above 2000 ft. the burner orifice size must be recalculated and verified. A burner orifice change may still be required. See Installation Instructions for more information.

Manifold gas pressure reduction methods may **NOT** be used on these models. The only method permitted on modulating furnace models is to recalculate the burner orifice size. See Installation Instructions for more information.

ALTERNATE (LEFT SIDE) CONDENSATE DRAIN KIT:

RXGY-H01 (All Models)

[] Designates Metric Conversions

GENERAL TERMS OF LIMITED WARRANTY*

Rheem 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.

Primary and Secondary Heat ExchangerLimited Lifetime
Conditional Unit Replacement
(Registration Required)Limited Lifetime
Limited PartsTen (10) Years

*For Complete Details of the Limited Warranty, Including Applicable Terms and Conditions, See Your Local Installer or Contact the Manufacturer for a Copy.

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.

**Rheem Heating,
Cooling and
Water Heating**

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



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