

Ruud *Ultra Series*™ Modulating Horizontal Gas Furnace equipped with the *Comfort Control*² System

RGJF- Series

Up to 94.8% A.F.U.E.†

Input Rates from 60 to 120 kBTU

[17.58 to 35.16 kW]

With *Contour Comfort Control*®



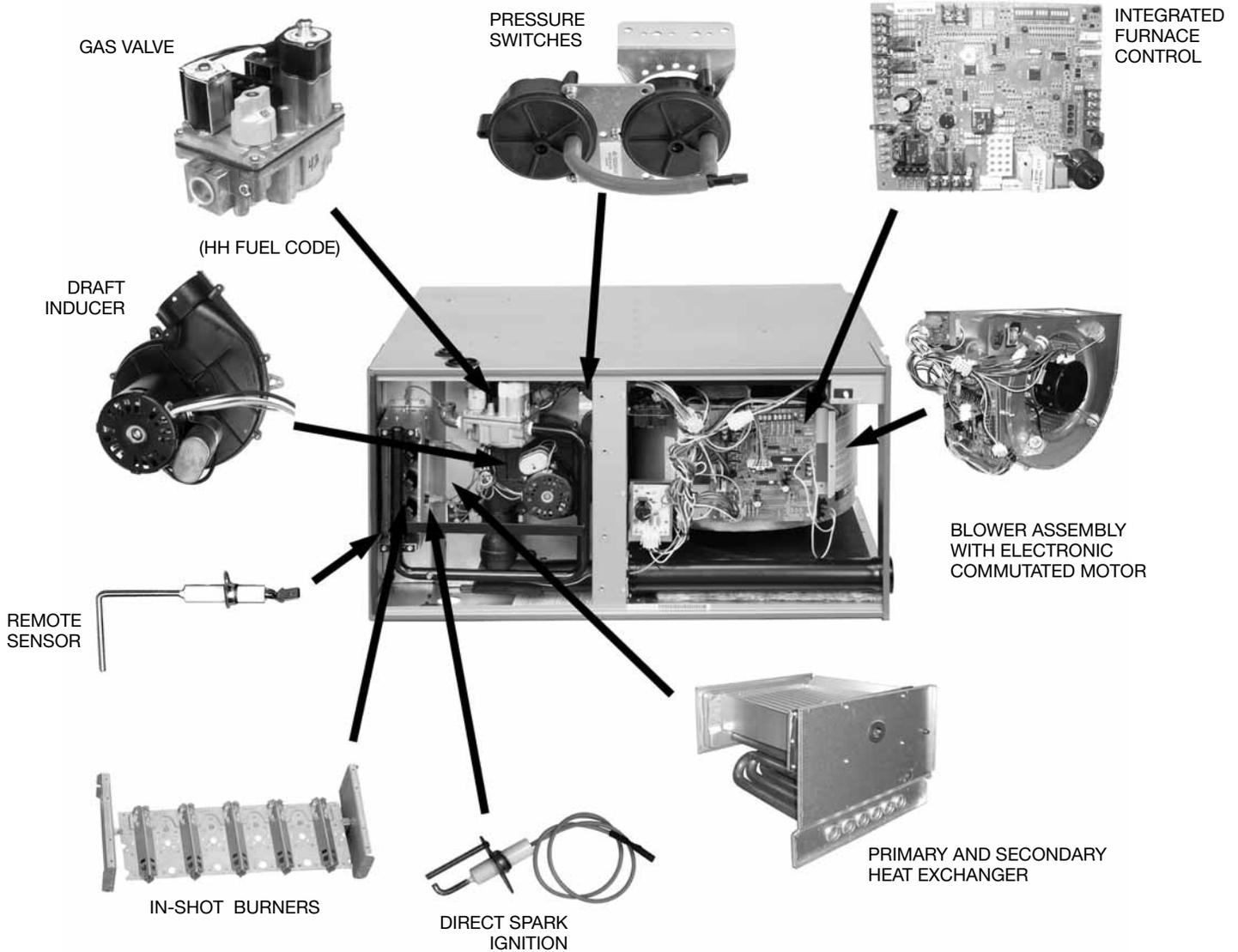
†A.F.U.E. (Annual Fuel Utilization Efficiency) calculated in accordance with Department of Energy test procedures.



- The Ruud *Ultra Series*™ High Efficiency line of horizontal gas furnaces are designed for utility rooms, closets, or alcoves, attics or crawl spaces. The design is certified by CSA.
- The *Comfort Control*² 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 (UHC-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 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.
- Dual Seven segment LED for system diagnostics.
- Diagnostic history for troubleshooting.
- Two-speed induced draft motor.
- Direct spark ignition with remote sense.
- Top electrical connections.
- Optional indoor or outdoor combustion air.
- All models comply with Department of Energy test procedures for 2% or less electrical efficiency ratings.
- A variety of cooling coils and plenums designed to use with the Ruud *Ultra Series*™ gas furnaces are available as optional accessories.

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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.

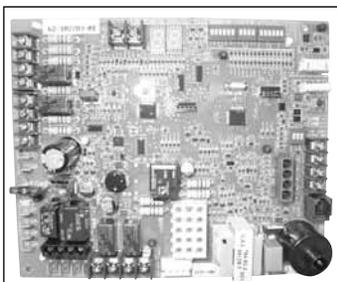
WARNING

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

The *Comfort Control² System*™ Features:

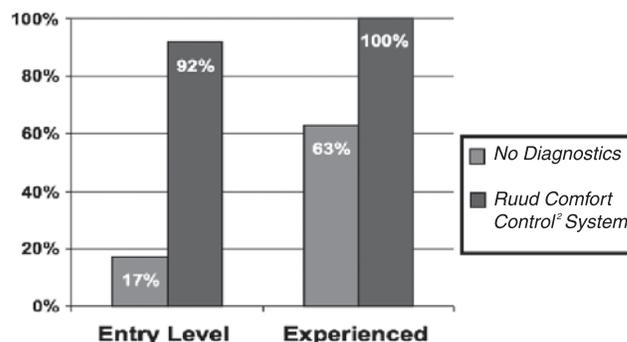
- The Ruud Dual 7-Segment LED Display easily shows system operating status codes and diagnostic codes.

- 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



Model 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 (UHC-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 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.
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- Diagnostic history for troubleshooting.
- Two-speed induced draft motor.
- Direct spark ignition with remote sense.
- Top electrical connections.
- Optional indoor or outdoor combustion air.
- All models comply with Department of Energy test procedures for 2% or less electrical efficiency ratings.
- A variety of cooling coils and plenums designed to use with the Ruud *Ultra Series*™ gas furnaces are available as optional accessories.

Physical Data and Specifications—Horizontal Models

MODEL NUMBERS	RGJF-06EMCK	RGJF-07EMCK	RGJF-09EZCM	RGJF-10EZCM	RGJF-12ERCM
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	94.8	93.1	90.2	90.4	91.6

[] Designates Metric Conversions

Model Number Identification

<u>R</u>	<u>G</u>	<u>J</u>	<u>F</u>	—	<u>07E</u>	<u>M</u>	<u>C</u>	<u>K</u>	<u>S</u>	<u>Option 278</u>
Ruud	Gas Furnace	Horizontal Modulating <i>Ultra Series™</i> 90 Plus Gas Furnace	Design Series F = Communicating		Heating Input Designation	Blower Size	Variations	Heat/Cool Designation	Fuel Code	278 = Factory- Supplied High Altitude Conversion Kit (Not Required on 60K BTU Model)
					Electric Ignition— NOx Input <u>BTU/HR</u>	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	
					Electric <u>Ignition</u> <u>Models</u>					
					06E					
					07E	06N				
					09E	07N				
					10E	09N				
					12E	10N				
						12N				
						60,000 [17.6 kW]				
						75,000 [22.0 kW]				
						90,000 [26.4 kW]				
						105,000 [30.7 kW]				
						120,000 [35.2 kW]				

[] Designates Metric Conversions

Illustration
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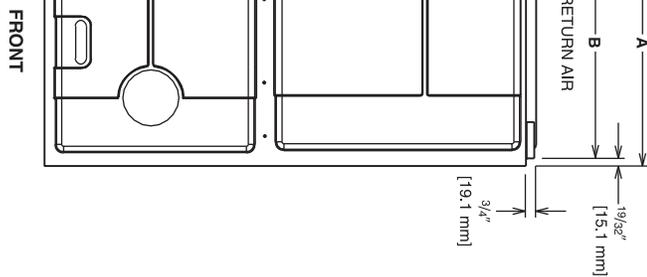
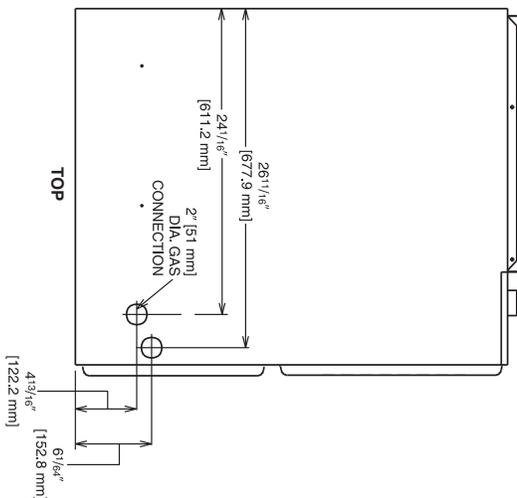


Illustration
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Illustration
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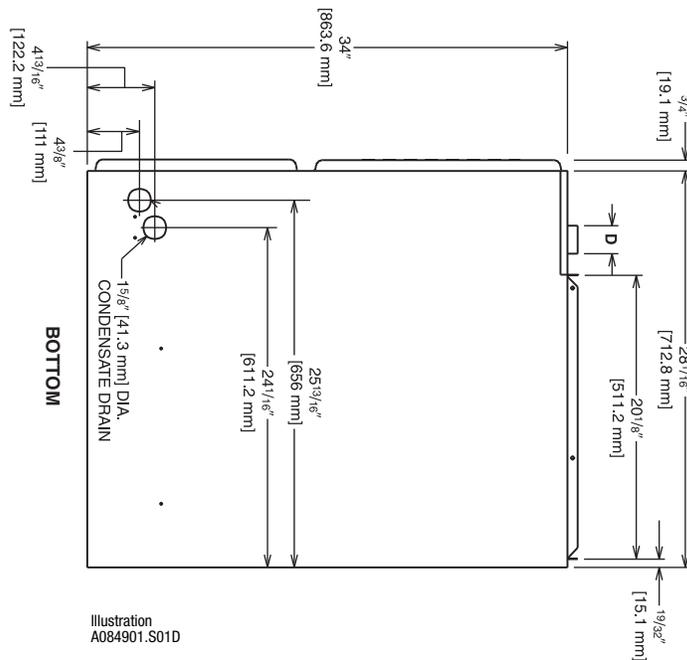
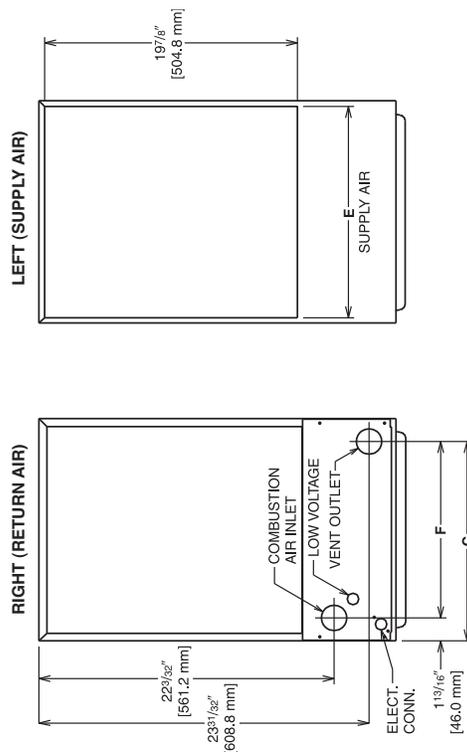


Illustration
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MODEL RGJF-	A	B	C	D	E	F	LEFT SIDE	MINIMUM CLEARANCE (IN.) [mm]				
								RIGHT SIDE	BACK	TOP	FRONT	VENT
06	17 1/2 [445]	16 11/32 [415]	15 5/8 [397]	2 [51]	16 5/8 [422]	13 7/8 [352]	0	0	0	1 [25]	2 [51]	0
07	17 1/2 [445]	16 11/32 [415]	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

MODEL RGJF-	BLOWER SIZE (D x W) IN. [mm]	ICM MOTOR H.P. [W]	BLOWER SPEED	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	1200 [566]
			MED-HI	1000 [472]
			MED	800 [378]
			LOW	600 [283]
07	11 x 7 [279 x 178]	1/2 [373]	HIGH	1200 [566]
			MED-HI	1000 [472]
			MED	800 [378]
			LOW	600 [283]
09	12 x 11 [305 x 279]	1 [746]	HIGH	2000 [944]
			MED-HI	1600 [755]
			MED	1400 [661]
			LOW	1200 [566]
10	12 x 11 [305 x 279]	1 [746]	HIGH	2000 [944]
			MED-HI	1600 [755]
			MED	1400 [661]
			LOW	1200 [566]
12	11 x 10 [279 x 254]	1 [746]	HIGH	2000 [944]
			MED-HI	1600 [755]
			MED	1400 [661]
			LOW	1200 [566]

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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)

FUEL KIT: Use Modulating Programmable Thermostat
(see below) for Dual Fuel/Fossil Fuel Kits.

HORIZONTAL: RXGY-G02

NEUTRALIZER KIT: RXGY-A01

PLENUM DATA FOR "A" COILS

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

FURNACE WIDTH IN. [mm]	PLENUM WIDTH IN. [mm]	PLENUM ADAPTER UPFLOW	COIL PLENUM
17 1/2 [445]	16 1/4 [413]	RXAA-C186	RXAL-B16BU
17 1/2 [445]	20 1/4 [514]	RXAA-C173	RXAL-B20BU
17 1/2 [445]	21 5/8 [549]	RXAA-C187	RXAL-B21BU
17 1/2 [445]	25 1/4 [641]	RXAA-C174	RXAL-B25BU
21 [533]	25 1/4 [641]	RXAA-C175	RXAL-B25BU
21 [533]	22 1/4 [565]	RXAA-C176	RXAL-B22BU
21 [533]	21 5/8 [549]	RXAA-C188	RXAL-B21BU
24 1/2 [622]	25 1/4 [641]	RXAA-C177	RXAL-B25BU
24 1/2 [622]	21 5/8 [549]	RXAA-C187	RXAL-B21BU

LP KIT: (Available through PROSTOCK®)
U.S./Canadian = RXGJ-FP07

THERMOSTATS

RECOMMENDED MODULATING FURNACE THERMOSTAT



UHC-TST550CMMS

- 7 Day 5/1/1 Programmable Modulating/Two Cool Hardwired
- Works in Modulating Furnace and Modulating Furnace Dual Fuel applications (requires optional external sensor)
- Bright, 12 sq. inch touchscreen display
- Keypad lockout option
- Hardwired
- Easy, menu-driven programming
- Audio prompting to ensure program change confirmation
- Intuitive red/blue temperature keys
- Large, easy-to-see characters
- Available only through professional contractors

*PROGRAMMABLE THERMOSTAT ACCESSORIES:

Adapter Plate = F61-2600

Remote F1451328 and F1451378 Sensor

*Available through PROSTOCK®.

FOR HIGH ALTITUDES:

RGJF HIGH ALTITUDE FIELD CONVERSION KITS:

MODEL	INPUT	HIGH ALTITUDE FIELD CONVERSION KIT NO.
RGJF-06	60,000	None Needed
RGJF-07	75,000	RXGY-F38 (8000 ft. and above only)
RGJF-09*	90,000	RXGY-F39
RGJF-10*	105,000	RXGY-F40
RGJF-12*	120,000	RXGY-F41

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

OPTION CODE FOR HIGH ALTITUDE: None available. Kit must be ordered.

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.

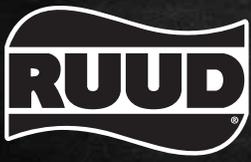
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GENERAL TERMS OF LIMITED WARRANTY*

Ruud 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 ExchangerLimited Lifetime
Conditional Unit Replacement Warranty
(Registration Required)Limited Lifetime
Parts WarrantyTen (10) Years



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

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