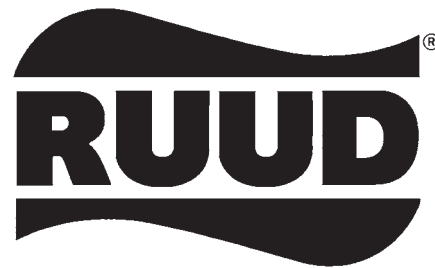


GAS FURNACES



ACHIEVER® 90 PLUS® MODULATING UPFLOW GAS FURNACES WITH CONTOUR™ COMFORT CONTROL

The Ruud® Achiever 90 Plus High Efficiency line of upflow gas furnaces are designed for utility rooms, closets, or alcoves. **Because of the low-profile 34 inch height, the UGFD-model can be used vertically to satisfy most applications that traditionally call for a horizontal furnace.**

The design is certified by CSA.

Features

- 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 low-fire, and stages up to 65%, then 100% for high fire.
- Multistage Function: when used with a single-stage thermostat, furnace operates 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 Achiever 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.

UGFD- SERIES

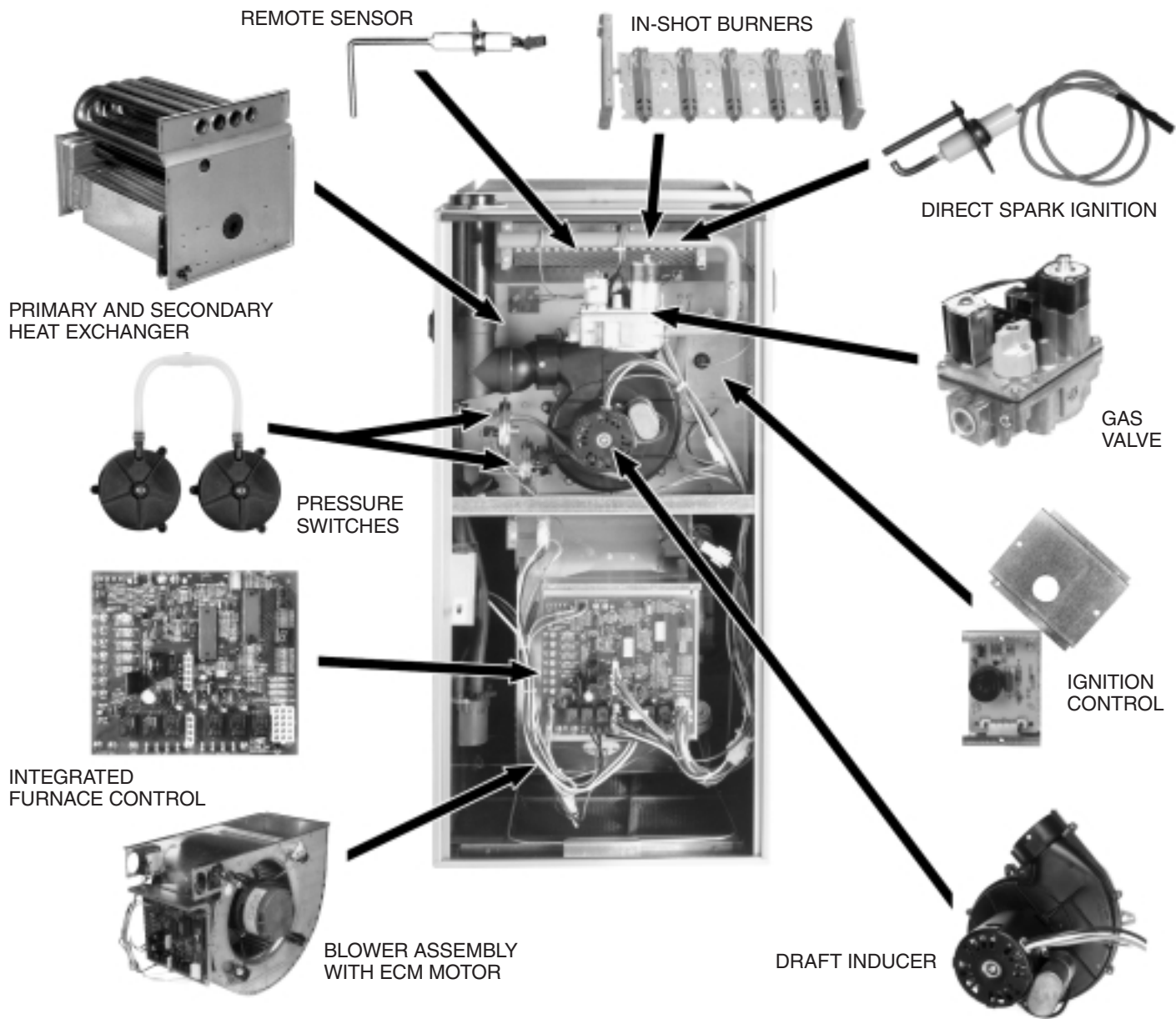
Models with Input Rates
from 60,000 to 120,000 BTU/HR
[17.58 to 35.16 kW]

(All Models 92% A.F.U.E.† or Above)





ACHIEVER 90 PLUS HIGH EFFICIENCY MODULATING UPFLOW 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; 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

Side and bottom filter racks; return air cabinet for all sizes.

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.

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—UPFLOW MODELS

U.S. and Canadian Models

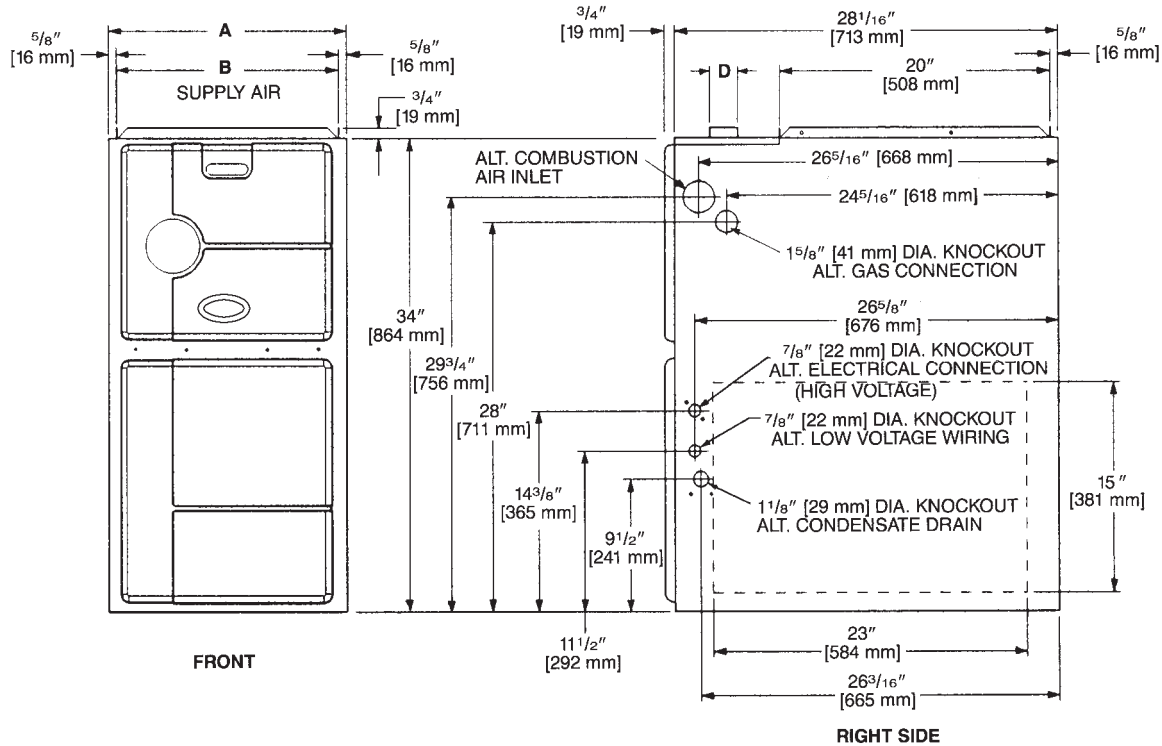
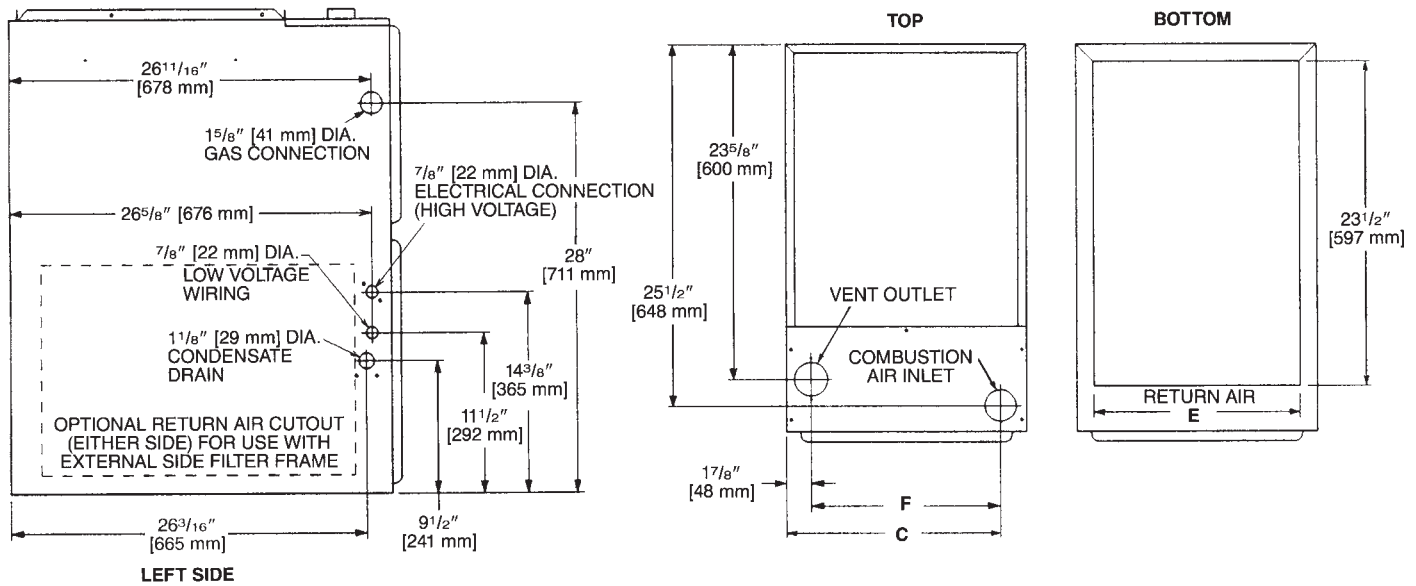
MODEL NUMBERS	UGFD-06EMCK	UGFD-07EMCK	UGFD-09EZCM	UGFD-10EZCM	UGFD-12ERCM
INPUT—MAXIMUM (BTU/HR) [kW]	60,000 [17.58]	75,000 [21.98]	90,000 [26.38]	105,000 [30.77]	120,000 [35.17]
HEATING CAPACITY—MAXIMUM [kW]	55,800 [16.35]	72,000 [21.10]	86,000 [25.20]	100,000 [29.31]	115,000 [33.70]
INPUT—MINIMUM (BTU/HR) [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]	22,560 [6.61]	28,200 [8.26]	33,840 [9.92]	39,000 [11.57]	45,120 [13.22]
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]	170 [76.7]	180 [82.2]	180 [82.2]	180 [82.2]	180 [82.2]
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	93.5%	92.9%	94.1%	92.0%	93.3%

MODEL IDENTIFICATION

U	G	F	D	—	07E	M	C	K	S
Ruud	Gas Furnace	Modulating Achiever 90 Plus Gas Furnace	Design Series		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. and Canadian Natural Gas
					Input BTU/HR				
					06E 06N 60,000 [17.6 kW] 07E 07N 75,000 [20.5 kW] 09E 09N 90,000 [26.4 kW] 10E 10N 105,000 [30.7 kW] 12E — 120,000 [35.2 kW]				

[] Designates Metric Conversions

UPFLOW MODELS



MODEL UGFD-	A	B	C	D	E	F	LEFT SIDE	MINIMUM CLEARANCE (IN.) [mm]				
								RIGHT SIDE	BACK	TOP	FRONT	VENT
06	17 ^{1/2} [445]	16 ^{3/8} [416]	15 ^{5/8} [397]	2 [51]	15 [422]	13 ^{13/16} [351]	0	0	0	1 [25]	2 [51]	0
07	17 ^{1/2} [445]	16 ^{3/8} [416]	15 ^{5/8} [397]	2 [51]	15 [422]	13 ^{13/16} [351]	0	0	0	1 [25]	2 [51]	0
09	21 [533]	19 ^{7/8} [505]	19 ^{1/8} [487]	2 [51]	18 ^{1/2} [511]	17 ^{5/16} [440]	0	0	0	1 [25]	2 [51]	0
10	21 [533]	19 ^{7/8} [505]	19 ^{1/8} [487]	2 [51]	18 ^{1/2} [511]	17 ^{5/16} [440]	0	0	0	1 [25]	2 [51]	0
12	24 ^{1/2} [622]	23 ^{3/8} [594]	22 ^{5/8} [575]	2 [51]	22 [600]	20 ^{13/16} [529]	0	0	0	1 [25]	2 [51]	0

[] Designates Metric Conversions

BLOWER PERFORMANCE DATA—UGFD MODELS

MODEL UGFD-	BLOWER SIZE (D x W) IN. [mm]	ECM 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 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

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 Warranty, Including Applicable Terms and Conditions, See Your Local Installer or Contact the Manufacturer for a Copy.

Primary and Secondary Heat Exchanger.....Limited Lifetime
*All Other PartsFive (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—UPFLOW

VENT TERMINATION KITS

CONCENTRIC: Vertical/Horizontal = RXGY-E03

HORIZONTAL TWO PIPE: RXGY-D02, RXGY-D03, RXGY-D04

CONDENSATE PUMP KIT: RXGY-B01
NEUTRALIZER KIT: RXGY-A01

RETURN AIR PLENUM: RXGR-C17B
 RXGR-C21B
 RXGR-C24B

***HIGH ALTITUDE KIT:** RXGY-F12 (60 MBH)
 RXGY-F08 (75 MBH)
 RXGY-F09 (90 MBH)
 RXGY-F10 (105 MBH)
 RXGY-F11 (120 MBH)

***For installations over 5000 ft.**
Includes orifices required on furnaces 8,001 ft. and above.

OPTION CODE FOR HIGH ALTITUDE: US-278
 Canada-298

(U.S. Models—Kit packaged with furnace.
 Requires field installation).

EXTERNAL BOTTOM FILTER RACK: RXGF-CB

EXTERNAL SIDE FILTER RACK: RXGF-CA

FILTER RACK FILTER SIZES* INCHES [mm]		
MODEL UGFD-	RXGF-CB (BOTTOM)	RXGF-CA (SIDE)
06	15 ³ / ₄ x 25 [400 x 635]	15 ³ / ₄ x 25 [400 x 635]
07	15 ³ / ₄ x 25 [400 x 635]	15 ³ / ₄ x 25 [400 x 635]
09	19 ¹ / ₄ x 25 [489 x 635]	15 ³ / ₄ x 25 [400 x 635]
10	19 ¹ / ₄ x 25 [489 x 635]	15 ³ / ₄ x 25 [400 x 635]
12	22 ³ / ₄ x 25 [578 x 635]	15 ³ / ₄ x 25 [400 x 635]

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

[] Designates Metric Conversions

PLENUM DATA FOR "A" COILS

Plenum adapters are required in some instances for use on upflow 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-C185	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

Note: See Form Number C22-206 for MultiFlex® coil data.

LP KIT:
 U.S. = RXGJ-FP07
 Canadian = RXGJ-FP08

NON PROGRAMMABLE THERMOSTAT:
 41-25347-01

***PROGRAMMABLE THERMOSTAT:**
 41-24312-04



***THERMOSTAT ACCESSORIES:**
 Adapter Plate = 41-25300-06
 Remote Indoor & Outdoor Sensor = 41-25300-04

*Available through PROSTOCK™.

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.

**RUUD
AIR CONDITIONING
DIVISION**

5600 Old Greenwood Road, Fort Smith, Arkansas 72908



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