



## Endeavor<sup>®</sup> Line Achiever<sup>®</sup> Series Gas Furnaces



*This product meets a stringent set of our internally defined sustainability standards*



### **R951V Ultra Low NOx**

95% A.F.U.E.†

EcoNet<sup>®</sup> Enabled

Heating Stages: Single Stage

Motor Type: Constant CFM

Input Rates: 40 to 100 kBTU [12.31 to 27.84 kW]

Configuration Options: Upflow Horizontal



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

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## Features and Benefits

- **Ultra Low Greenhouse Gas Emissions:** Certified unit meets 14ng/j NOx emission standard – reducing NOx emissions by 65%
- **PlusOne® Energy Efficiency:** ENERGY STAR® certified, featuring 95% AFUE across all model sizes
- **PlusOne® Diagnostics:** With the Ruud Contractor & EcoNet® Apps, built-in EcoNet® & Bluetooth®<sup>1</sup> technology makes monitoring, troubleshooting and repairing the product easier than ever before
- **Dip Switch Free Installation Commissioning via Bluetooth® Technology:** Seamless final install step without DIP switch configuration using the Ruud Contractor App
- **PlusOne® Ignition System:** Proven Direct Spark Ignition (DSI) for reliability and longevity
- **PlusOne® Water Management System:** Ruud-exclusive patented block drain sensor that automatically shuts off the furnace when the drain is blocked, and also alerts the contractor via diagnostic code
- **Constant CFM Motor:** Truly variable speed technology allows for ultimate humidity control, quieter sound levels and year-round energy savings
- **Quieter Operation<sup>2</sup>:** A fully insulated blower cabinet, solid bottom and truly variable speed airflow technology makes this furnace one of the quieter options available
- **EcoNet® Enabled Furnace:** The latest in sensor technology and the EcoNet® monitoring system provides a new level of protection, control and energy savings
- **Allows on-the-go control** and receipt of system alerts by the homeowner via the EcoNet® Smart Thermostat and EcoNet® App<sup>3</sup>

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<sup>2</sup>Based on manufacturer's furnace offering, and the product's heating stages, motor type and cabinet insulation. Sound levels are also dependent on furnace location and installation.

<sup>3</sup>Wifi broadband internet connection required. Download the EcoNet® App from the App Store® or Google Play® to set up your EcoNet® Smart Thermostat. Receipt of notifications depend on home WiFi set up. Amazon, Alexa and all related logos are trademarks of Amazon.com, Inc. or its affiliates.

# Gas Furnaces

<u>R</u>	<u>95</u>	<u>1</u>	<u>V</u>	<u>040</u>	<u>3</u>	<u>A</u>	<u>17</u>	<u>UH</u>	<u>U</u>	<u>C</u>	<u>A</u>	<u>P</u>
Brand	Furnace Efficiency	Stages of Heating	Motor Type	Heating Input	AC Max. Capacity	Major Series	Width	Position	NOx	Controls	Minor Series	Option Code
R - Ruud	95 - 95% AFUE	1 - Single Stage	V - ECM Variable Speed	040 - 40K BTUH [12.31 kW] 060 - 60K BTUH [16.41 kW] 070 - 70K BTUH [20.51 kW] 100 - 100K BTUH [27.84 kW]	3 - 3 ton drive 5 - 5 ton drive	A - 1st Design Series	17 - 17.5" Width 21 - 21" Width	UH - Upflow Horizontal	U - Ultra Low NOx	C - Communicating, EcoNet®, Bluetooth®	A - 1st Series	P - Premium Grade

[ ] Designates Metric Conversions

AVAILABLE MODELS
R951V0403A17UHUCAP
R951V0603A17UHUCAP
R951V0705A21UHUCAP
R951V1005A21UHUCAP

STANDARD EQUIPMENT	
100% Safety Lock Out	Limit Controls
2 Stage Cooling	Low Speed Continuous Fan Option
29-4C Stainless Steel Secondary Heat Exchanger	Manual Shut-Off Valve
3 Way Multi Poise Design Upflow/Horizontal	On Demand Dehumidification
Blocked Drain Sensor	One-Hour Automatic Retry
Blower Compartment Door Safety Switch	Outdoor Air Temperature Connection
Bluetooth® Set Up, Diagnostics & Marked Hoses for Ease of Installation	Power and Self-Test Diagnostics
Complete Assembly and Wiring	Pressure Switches
Condensate Switch Connection	Redundant Main Gas Control
Constant CFM Variable Speed CT Motor	Return Air Temp Sensor Connection
Cool Fan Off Delay	Solid Bottom
Direct Drive	Blower Insulation
Electronic Air Cleaner Connections	Stainless Steel Primary Heat Exchanger
EXV Connection	Suction Pressure/Evap. Temperature Connection
Flame Sense Current Diagnostics	Suction Temperature Connection
Fully Insulated Heat Exchanger Cabinet	Supply Air Temperature Connection
Furnace Diagnostics-7 Segment LED All Units	Transformer
Humidifier Connections	Variable Speed 3 Phase Induced Draft Motor

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

## Physical Data and Specifications U.S. and Canadian Models

MODEL NUMBERS R951V 1 STG VS-CT UP/HZ SERIES	R951V0403A17UHUCAP	R951V0603A17UHUCAP	R951V0705A21UHUCAP	R951V1005A21UHUCAP
INPUT-BTU/HR [kW]	42,000 [12.31]	56,000 [16.41]	70,000 [20.51]	95,000 [27.84]
HEATING CAPACITY BTU/HR [kW] ①	39,900 [11.69]	53,200 [15.59]	66,500 [19.49]	90,250 [26.45]
HEAT EXT. STATIC PRESSURE [kPa]	.10 [.02]	.12 [.03]	.15 [.04]	.20 [.05]
BLOWER (D X W) [mm]	11 x 8 [279 x 203]	11 x 8 [279 x 203]	11 x 10 [279 x 254]	11 x 10 [279 x 254]
MOTOR H.P. [W] TYPE	1/2 [373] VS-CT(ECM)	3/4 [560] VS-CT(ECM)	1 [746] VS-CT(ECM)	1 [746] VS-CT(ECM)
MIN. CIRCUIT AMPACITY	9	13	17	17
MIN. OVERLOAD PROTECTION DEVICE	15	20	20	20
MAX. OVERLOAD PROTECTION DEVICE	15	20	25	25
MOTOR FULL LOAD AMPS	6.1	9.6	12.4	12.4
HEATING CFM [L/s]	825 [389]	1050 [496]	1210 [571]	1650 [779]
MAX. COOLING CFM [L/s]	1240 [585]	1240 [585]	1980 [934]	1980 [934]
MIN. COOLING CFM [L/s]	300 [142]	300 [142]	500 [236]	500 [236]
FAN CFM [L/s]	600 [283]	800 [378]	1000 [472]	1000 [472]
MAX. E.S.P. (IN. W.C.) [kPa]	1.0 [0.25]	1.0 [0.25]	1.0 [0.25]	1.0 [0.25]
TEMPERATURE RISE RANGE °F [°C]	30-60 [17-33]	35-65 [19.4-36.1]	35-65 [19.4-36.1]	40-70 [22-39]
APPROX. SHIPPING WEIGHT (LBS.) [kg]	143 [65]	143.5 [65]	168.5 [76]	170.5 [77]
AFUE ②	95.00%	95.00%	95.00%	95.00%

**NOTES:** All models are 115V, 60HZ, 1 Ph. Gas connection size for all models is 1/2" [13 mm] N.P.T.

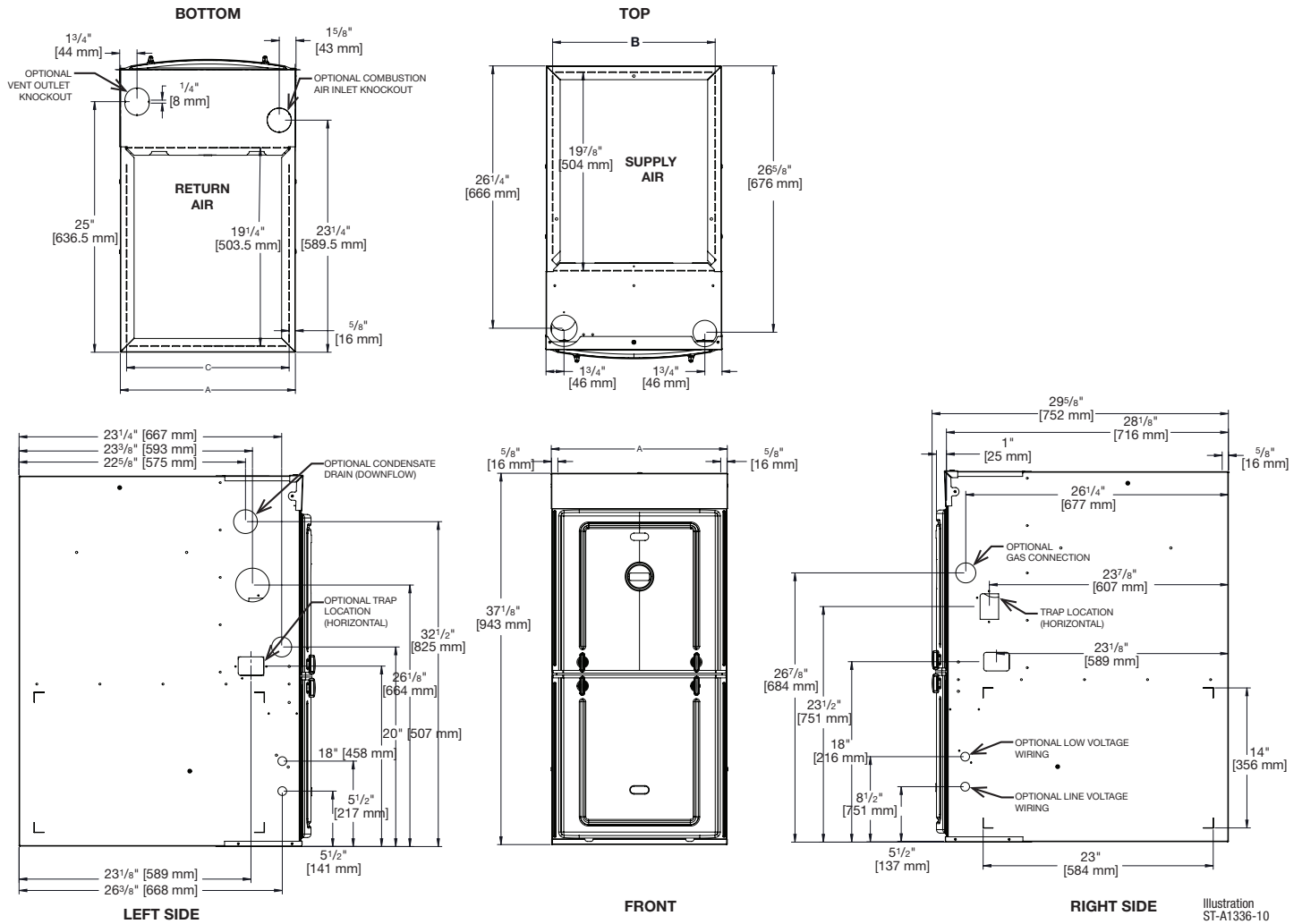
① This model does not require any component changes at elevations 0-5,500 ft. above sea level. At elevations higher than 2,000 ft. these models do require a 2% de-rate for every 1,000 ft. of elevation above sea level.

② In accordance with D.O.E test procedures.

This furnace meets air district requirements of 14 ng/J NOx emissions limit, and thus is eligible for the Clean Air Furnace Rebate Program:  
[www.CleanAirFurnaceRebate.com](http://www.CleanAirFurnaceRebate.com) in SCAQMD.

[ ] Designates Metric Conversions

## Multi-position Application



## Unit Dimensions (Clearance to Combustibles)

MODEL R951V ULN	MINIMUM CLEARANCE (IN.) [mm]						FLANGE DIMENSIONS		
	LEFT SIDE	RIGHT SIDE	BACK	TOP	FRONT	VENT	A	B	C
040	0	0	0	1 [25]	2 [51]	0	17 1/2 [445]	16 17/64 [413]	16 13/64 [412]
060	0	0	0	1 [25]	2 [51]	0	17 1/2 [445]	16 17/64 [413]	16 13/64 [412]
070	0	0	0	1 [25]	2 [51]	0	21 [533]	19 49/64 [502]	19 45/64 [500]
100	0	0	0	1 [25]	2 [51]	0	21 [533]	19 49/64 [502]	19 45/64 [500]

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

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## Blower Performance Data

TARGET GAS HEATING AIRFLOWS					
		R951V0403 A17UHUCAP	R951V0603 A17UHUCAP	R951V0705 A21UHUCAP	R951V1005 A21UHUCAP
Factory High Heating CFM [L/s]	Factory High Heating CFM [L/s]	825 [389]	1050 [496]	1210 [571]	1650 [779]
High Heat Side Return CFM [L/s]	High Heat Side Return CFM [L/s]	891 [421]	1134 [535]	1265 [597]	1782 [841]
High Heat Approx. ±2°F CFM	High Heat Approx. ±2°F CFM	797 [376]	1014 [479]	1168 [551]	1593 [752]
High Heat Approx. ±4°F CFM	High Heat Approx. ±4°F CFM	772 [364]	982 [463]	1132 [534]	1543 [728]

[ ] Designates Metric Conversions

## Vent Termination Kits:

**RXGY-E02:** Vertical/Horizontal Concentric Vent Termination Kit  
 2" Pipe (US Only)

**RXGY-E02A:** Vertical/Horizontal Concentric Vent Termination Kit  
 2" Pipe (US & Canadian)

**RXGY-E03:** Vertical/Horizontal Concentric Vent Termination Kit  
 3" Pipe (US Only)

**RXGY-E03A:** Vertical/Horizontal Concentric Vent Termination Kit  
 3" Pipe (US & Canadian)

**RXGY-G02:** Direct Vent Furnace Side Wall Vent 2" or 3" (US Only)

**RXGY-D05:** Combustion Air Drain Kit 2"

**RXGY-D06:** Combustion Air Drain Kit 3"

**NEUTRALIZER KIT:** RXGY-A01  
 (Replacement Cartridge 54-22120-01)

**EXTERNAL BOTTOM FILTER (UPFLOW/HORIZONTAL) RACK:**  
 RXGF-CB

**EXTERNAL SIDE (UPFLOW) FILTER RACK:** RXGF-CD

**EXTERNAL (DOWNFLOW) FILTER RACK:** RXGF-CC

**CONDENSATE PUMP KIT:** PROSTOCK & 1PCB151TUL

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

## For High Altitudes:

**PRESSURE SWITCH ASSEMBLY:** 42-109148-05

The 100K BTU furnace will require the installation of 42-109148-05 when operating in elevations above 8,000 ft. Please read installation instructions for more details regarding the installation of the pressure switch assembly.

[ ] Designates Metric Conversions

FILTER RACK FILTER SIZES* INCHES [mm]			
MODEL	RXGF-CB (UPFLOW/ HORIZONTAL)	RXGF-CD (UPFLOW)	RXGF-CC (DOWNFLOW)
R951V(-)040	15 <sup>3</sup> / <sub>4</sub> x 25 [400 x 635]	15 <sup>3</sup> / <sub>4</sub> x 25 [400 x 635]	14 x 20 [356 x 508]
R951V(-)060	15 <sup>3</sup> / <sub>4</sub> x 25 [400 x 635]	15 <sup>3</sup> / <sub>4</sub> x 25 [400 x 635]	14 x 20 [356 x 508]
R951V(-)070	19 <sup>1</sup> / <sub>4</sub> x 25 [489 x 635]	15 <sup>3</sup> / <sub>4</sub> x 25 [400 x 635]	14 x 20 [356 x 508]
R951V(-)100	19 <sup>1</sup> / <sub>4</sub> x 25 [489 x 635]	15 <sup>3</sup> / <sub>4</sub> x 25 [400 x 635]	14 x 20 [356 x 508]

## Indoor Coil Casings

MODEL NUMBER
RXBC-D17A1
RXBC-D21A1
RXBC-D21B1
RXBC-D24A1



## Integrated Controls



EcoNet® is smart, technology developed exclusively by Ruud that allows Heating, Cooling, and Water Heating products to communicate with each other on one integrated network.

### THE ECONET® SMART THERMOSTAT

#### BUILT-IN WIFI

#### 4.3" LCD TOUCH SCREEN

**LOCAL WEATHER** – Current conditions plus 6-day forecast

**5 OPERATING MODES** – Heat, Cool, Auto, Emergency Heat and Fan Only

**7-DAY PROGRAMMABLE SCHEDULE** – Offers comfort without thought

**ONE-TOUCH AWAY** – Quickly switch to your energy-saving away preferences

**VACATION SCHEDULING** – Allows you to save while you're away and come home to comfort

**STANDBY SCREEN** – Displays indoor temperature and current weather



**UETST800SYS**

### OPERATIONAL FEATURES

**AUTOMATIC CHANGEOVER** – Transitions between heating and cooling automatically to keep the house comfortable

**INTEGRATED WATER CONTROL** – Enables easy water heater management

**SMOOTH ARRIVAL** – Prompts the system to start ahead of schedule to ensure the home is at the desired temperature at the scheduled time

**HUMIDITY CONTROL** – Supports humidifier accessories or over-cool based dehumidification

**DETAILED OPERATING STATUS** – View pertinent equipment status information and run times

**CONTINUOUS FAN** – Offers 5 speeds (Low, Medium Low, Medium, Medium High, High)

**SHORT-CYCLE PROTECTION** – Avoids damage to equipment from short run cycles

### MONITORING & REMOTE CONTROL FEATURES

**ACTIVE MONITORING** – Alerts to problems that need immediate attention

**REMOTE CONTROL** – Allows adjusting of comfort and settings from anywhere using a mobile device

**SERVICE ALERTS** – Sends routine maintenance reminders

**AIR FILTER MONITORING** – Detects when it's time to replace the air filter

**ALARM HISTORY** – Displays time-stamped alarm codes with clear descriptions







**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.**

Conditional Parts  
(Registration Required)..... Ten (10) Years  
Heat Exchanger ..... Limited Lifetime

**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.**

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

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