Endeavor™ Line *Achiever*® Series Gas Furnaces

R801T

80% A.F.U.E.†
Heating Stages: Single Stage
Motor Type: Constant Torque
Input Rates: 50-125 kBTU [14.6-36.6 kW]
Configuration Options: Upflow/Horizontal

ISO 9001:2015 · c UL us LISTED · AHRI CERTIFIED www.ahridirectory.org Unitary Small HP AHRI Standard 210/240 · Dual Fuel The Choice is Yours

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

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Features and Benefits

- **PlusOne® Diagnostics:** Industry-first, 7-segment LED for quick & easy service
- **PlusOne® Ignition System:** Proven Direct Spark Ignition (DSI) for reliability and longevity
- **Low Profile, 34-inch Cabinet:** Makes our furnaces ideal for space-constrained installations
- **Hemmed Cabinet & Door Edges and Quarter-Turn Door Fasteners (Upflow/Horizontal only):** Allows for safe, tool-less access and serviceability
- **Removable Heat Exchanger:** Improves serviceability. Aluminized steel construction provides maximum corrosion resistance and thermal fatigue reliability

Gas Furnaces

R	80	1	T	050	3	A	14	UH	S	N	A	S
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	80 - 80% AFUE	1 - Single-Stage	T - Constant Torque	050 - 50K BTUH [14.7 kW] 075 - 75K BTUH [22.0 kW] 100 - 100K BTUH [29.3 kW] 125 - 125K BTUH [36.6 kW]	3 - 3 ton drive 4 - 4 ton drive 5 - 5 ton drive	A - 1st Design Series	14 - 14" Width 17 - 17.5" Width 21 - 21" Width 24 - 24.5" Width	UH - Upflow Horizontal	S - Standard N - Low NOx	N - Non-Comm.	A - 1st Series	S - Standard Grade

[ ] Designates Metric Conversions

AVAILABLE MODELS
R801T0503A14UHSNAS
R801T0754A17UHSNAS
R801T0754A21UHSNAS
R801T1005A21UHSNAS
R801T1255A24UHSNAS
R801T0503A14UHNNAS
R801T0754A17UHNNAS
R801T0754A21UHNNAS
R801T1005A21UHNNAS
R801T1255A24UHNNAS

STANDARD EQUIPMENT
Limit controls
Manual shut-off valve
100% safety lock out
Cool fan off delay
Field selectable heat fan off delay
One hour automatic retry
Power and self test diagnostics
Flame sense current diagnostics
Electronic air cleaner connections
Twinning (built-in) features
Humidifier connections
Low speed continuous fan option
Single speed option for heating and cooling applications
Transformer
Direct drive motor
Multi-speed constant torque blower motor
Solid bottom

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

Physical Data and Specifications—Upflow Models

MODEL NUMBERS R801T **Constant Tq-UH Series**	**R801T0503A14UH*NAS**	**R801T0754A17UH*NAS**	**R801T0754A21UH*NAS**	**R801T1005A21UH*NAS**	**R801T1255A24UH*NAS**
Input-BTU/Hr [kW]	50,000 [15]	75,000 [22]	75,000 [22]	100,000 [29]	125,000 [37]
Heating Capacity BTU/Hr [kW] ®	40,000 [12]	60,000 [18]	60,000 [18]	80,000 [23]	100,000 [29]
Heat Ext. Static Pressure [kPa]	.18 [.05]	.20 [.05]	.20 [.05]	.28 [.07]	.28 [.07]
Blower (D x W) [mm]	11 x 6 [279 x 152]	11 x 7 [279 x 178]	11 x 7 [279 x 178]	11 x 10 [279 x 254]	11 x 10 [279 x 254]
Motor H.P. [W] Type	1/2 [373] 5 Spd Constant Torque	1/2 [373] 5 Spd Constant Torque	3/4 [560] 5 Spd Constant Torque	3/4 [560] 5 Spd Constant Torque	3/4 [560] 5 Spd Constant Torque
Min. Circuit Ampacity	8	8	9	10	11
Min. Overload Protection Device	15	15	15	15	15
Max. Overload Protection Device	15	15	15	15	15
Heating Speed	Med	Med	Med-High	Med	Med-High
Cooling Speed	High	High	High	High	High
Cooling CFM @ Rating Point [L/s]	1305 [616]	1402 [662]	1608 [759]	1840 [868]	1934 [913]
Max. E.S.P. (In. W.C.) [kPa]	0.9 [.22]	0.9 [.22]	0.9 [.22]	0.9 [.22]	0.9 [.22]
Temperature Rise Range °F [°C]	25-55 [13.9-30.6]	25-55 [13.9-30.6]	25-55 [13.9-30.6]	40-70 [22-39]	35-65 [19.4-36.1]
Max. Outlet Air Temp. °F [°C]	155 [68.3]	155 [68.3]	160 [71.1]	180 [82.2]	165 [73.8]
Approx. Shipping Weight (Lbs.) [kg]	110 [50]	125 [57]	140 [64]	140 [64]	150 [68]
AFUE ©	80.00%	80.00%	80.00%	80.00%	80.00%

NOTES: All models are 115V, 60HZ, 1 Ph. Gas connection size for all models is 1/2" [12 mm] N.P.T.
© In accordance with D.O.E. test procedures.
® See Conversion Kit Index Form for high altitude derate.
*S=Standard, N=Low NOx

This furnace does not meet air district requirements of 14 ng/J NOx emissions limit. This furnace is not eligible for the Clean Air Furnace Rebate Program: www.CleanAirFurnaceRebate.com.

This furnace is to be installed for propane firing only in air districts requiring 14 ng/J NOx emission limits. Operating in natural gas mode is in violation of these Rules.

[ ] Designates Metric Conversions

Upflow Application

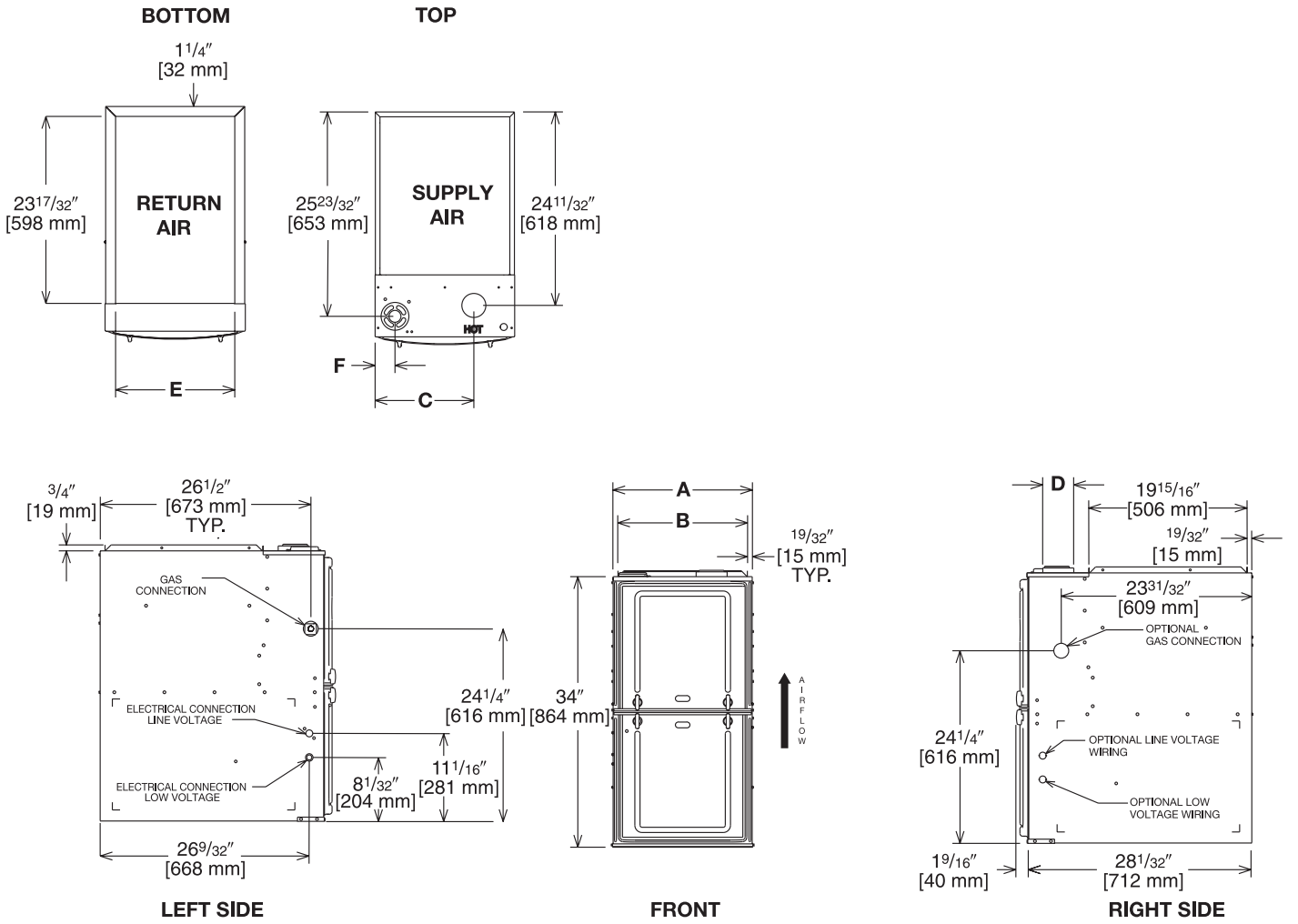


Illustration
ST-A1220-04-00
FIGURE 1

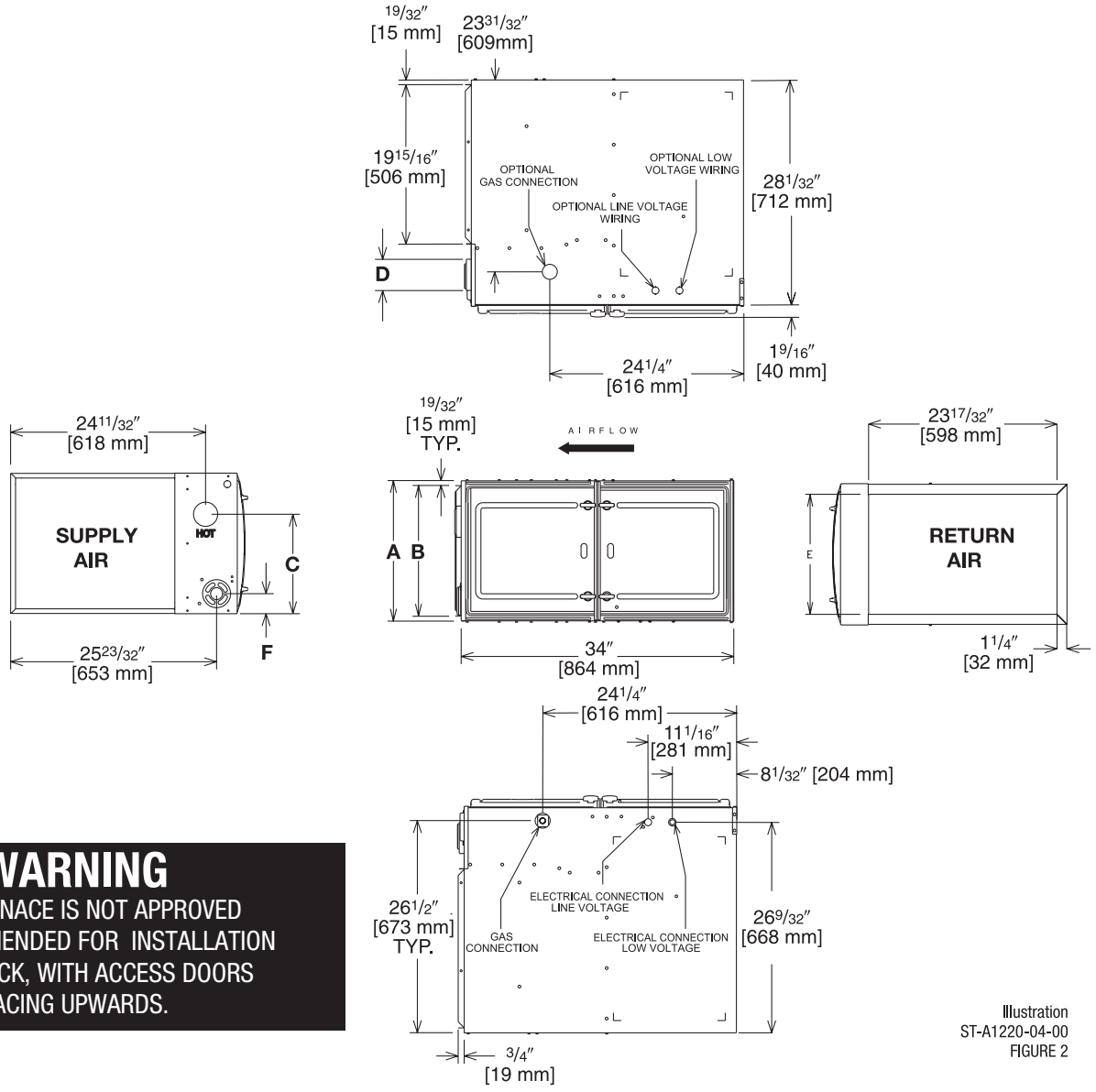
Dimensional Data: Upflow Model

MODEL R801T-	A	B	C	D	E	F	MINIMUM CLEARANCE (IN.) [mm]						SHIP WGTS. (LBS.) [kg]
							LEFT SIDE	RIGHT SIDE	BACK	TOP	FRONT	VENT	
050	14 [356]	12 27/32 [326]	10 5/8 [270]	①	11 1/2 [292]	1 7/8 [48]	0	4 [102] ②	0	1 [25]	3 [76]	6 [152] ③	110 [50]
075417	17 1/2 [445]	16 11/32 [415]	12 3/8 [314]	①	15 [381]	2 1/2 [64]	0	3 [76] ②	0	1 [25]	3 [76]	6 [152] ③	125 [57]
075421/100	21 [533]	19 27/32 [504]	14 1/8 [359]	①	18 1/2 [470]	2 1/2 [64]	0	0	0	1 [25]	3 [76]	6 [152] ③	140 [64]
125	24 1/2 [622]	23 11/32 [593]	15 7/8 [403]	①	22 [559]	2 1/2 [64]	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.
② May be 0" [0 mm] with type B vent.
③ May be 1" [25 mm] with type B vent.
Furnaces must be vented in accordance with the National Fuel Gas Code, ANSI Z223.1 and in accordance with local codes.

[ ] Designates Metric Conversions

Horizontal Application



WARNING

THIS FURNACE IS NOT APPROVED
OR RECOMMENDED FOR INSTALLATION
ON ITS BACK, WITH ACCESS DOORS
FACING UPWARDS.

Illustration
ST-A1220-04-00
FIGURE 2

Dimensional Data: Horizontal Model

MODEL R801T	A	B	C	D	E	F	MINIMUM CLEARANCE (IN.) [mm]						SHIP WGTS. (LBS.) [kg]
							SUPPLY AIR SIDE	RETURN AIR SIDE	BACK	TOP	FRONT	VENT	
050	14 [356]	12 27/32 [326]	10 5/8 [270]	①	11 1/2 [292]	1 7/8 [48]	4 [102] ②	4 [102] ②	0	1 [25]	3 [76]	6 [152] ③	110 [50]
075417	17 1/2 [445]	16 11/32 [415]	12 3/8 [314]	①	15 [381]	2 1/2 [64]	3 [76] ②	3 [76] ②	0	1 [25]	3 [76]	6 [152] ③	125 [57]
075421/100	21 [533]	19 27/32 [504]	14 1/8 [359]	①	18 1/2 [470]	2 1/2 [64]	0	0	0	1 [25]	3 [76]	6 [152] ③	140 [64]
125	24 1/2 [622]	23 11/32 [593]	15 7/8 [403]	①	22 [559]	2 1/2 [64]	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.
② May be 0" [0 mm] with type B vent.
③ May be 1" [25 mm] with type B vent.
Furnaces must be vented in accordance with the National Fuel Gas Code, ANSI Z223.1 and in accordance with local codes.

[ ] Designates Metric Conversions

Blower Performance Data

AIR FLOW PERFORMANCE - 80% SINGLE STAGE UPFLOW/HORIZONTAL CONSTANT TORQUE											
INPUT [BTU] CABINET WIDTH [IN]	**AIRFLOW CONTROL SETTINGS**	**SPEED TAP/ WIRE COLORS**	**CFM AIR DELIVERY EXTERNAL STATIC PRESSURE INCHES WATER COLUMN**									
			0.1	**0.2**	**0.3**	**0.4**	**0.5**	**0.6**	**0.7**	**0.8**	**0.9**	**1.0**
50K 14"	Factory Setting Fan	Low/Red	915	777	674	598	541	498	460	419	370	304
	Cool	Medium Low/Yellow	963	894	834	781	733	689	646	602	555	504
	Heat or Heat/Cool	Medium/Purple	997	976	947	911	870	825	779	732	687	646
	Cool	Medium High/Blue	1123	1130	1121	1101	1071	1036	997	957	920	888
	Factory Setting Cooling	High/Black	1246	1244	1232	1211	1185	1154	1121	1087	1054	1024
75K 17"	Factory Setting Fan	Low/Red	967	916	865	814	763	712	661	610	558	505
	Cool	Medium Low/Yellow	1206	1147	1087	1027	966	905	843	783	722	662
	Cool	Medium/Purple	1301	1260	1214	1164	1111	1058	1005	955	910	870
	Heat or Heat/Cool	Medium High/Blue	1413	1369	1324	1277	1229	1181	1130	1079	1026	972
	Factory Setting Cooling	High/Black	1590	15568	1530	1486	1437	1387	1342	1303	1276	1265
75K 21"	Factory Setting Fan	Low/Red	1216	1174	1132	1088	1043	998	952	905	858	811
	Cool	Medium Low/Yellow	1314	1271	1229	1188	1147	1105	1063	1019	974	926
	Heat or Heat/Cool	Medium/Purple	1400	1356	1315	1276	1239	1200	1161	1120	1076	1027
	Cool	Medium High/Blue	1605	1576	1544	1509	1473	1436	1400	1365	1333	1303
	Factory Setting Cooling	High/Black	1686	1659	1628	1595	1559	1524	1489	1455	1426	1400
100K 21"	Factory Setting Fan	Low/Red	1304	1233	1162	1091	1018	944	869	793	716	637
	Cool	Medium Low/Yellow	1406	1348	1289	1229	1168	1106	1044	982	920	859
	Heat or Heat/Cool	Medium/Purple	1520	1465	1409	1353	1296	1239	1183	1128	1073	1019
	Cool	Medium High/Blue	1709	1658	1607	1557	1507	1457	1407	1358	1308	1260
	Factory Setting Cooling	High/Black	1807	1758	1710	1663	1616	1569	1522	1475	1428	1380
125K 24"	Factory Setting Fan	Low/Red	1295	1216	1138	1061	986	914	844	778	715	657
	Cool	Medium Low/Yellow	1649	1598	1548	1499	1449	1400	1351	1302	1252	1201
	Cool	Medium/Purple	1796	1746	1698	1652	1606	1561	1515	1469	1422	1374
	Heat or Heat/Cool	Medium High/Blue	1878	1828	1781	1735	1691	1647	1604	1560	1516	1470
	Factory Setting Cooling	High/Black	1943	1893	1846	1801	1757	1714	1673	1631	1589	1547

BOTTOM RETURN FILTER RACK FOR UPFLOW APPLICATION: RXGF-CB

SIDE RETURN FILTER RACK: RXGF-CD

FILTER RACK FILTER SIZES* INCHES [mm]		
MODEL	**RXGF-CB (UPFLOW/ HORIZONTAL)**	**RXGF-CD (UPFLOW) SIDE RETURN**
R801TA050	12 1/4 x 25 [311 x 635]	15 3/4 x 25 [400 x 635]
R801TA075417	15 3/4 x 25 [400 x 635]	15 3/4 x 25 [400 x 635]
R801TA075421/ R801TA100	19 1/4 x 25 [489 x 635]	15 3/4 x 25 [400 x 635]
R801TA125	22 3/4 x 25 [578 x 635]	15 3/4 x 25 [400 x 635]

4" FLUE ADAPTER: RXGW-C01

Indoor Coil Casings

MODEL NUMBER
RXBC-D14AI
RXBC-D17AI
RXBC-D21AI
RXBC-D21BI
RXBC-D24AI

WARNING: IMPORTANT NOTICE

A SOLID METAL BASE PLATE (SEE TABLE) MUST BE IN PLACE WHEN THE FURNACE IS INSTALLED WITH SIDE AIR RETURN DUCTS. FAILURE TO INSTALL A BASE PLATE COULD CAUSE PRODUCTS OF COMBUSTION TO BE CIRCULATED INTO THE LIVING SPACE AND CREATE POTENTIALLY HAZARDOUS CONDITIONS.

FURNACE WIDTH IN. [mm]	SOLID BOTTOM KIT NO.	BASE PLATE NO.	BASE PLATE SIZE IN. [mm]
14 [356]	RXGB-D14	AE-61874-01	11 5/8 x 23 9/16 [295 x 598]
17 1/2 [445]	RXGB-D17	AE-61874-02	15 1/8 x 23 9/16 [384 x 598]
21 [533]	RXGB-D21	AE-61874-03	18 5/8 x 23 9/16 [473 x 598]
24 1/2 [622]	RXGB-D24	AE-61874-04	25 5/8 x 23 9/16 [651 x 598]

For High Altitudes

OPTION CODE FOR HIGH ALTITUDE: 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.

[ ] 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 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 .....Twenty (20) Years

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.

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

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