

R9MSB

Product Specifications

92.1% AFUE, Single Stage, PSC Gas Furnace

EASIER TO SELL

- 92.1% AFUE, all models all positions, California NOx approved
- Certified to leak 2% or less of nominal air conditioning CFM delivered when pressurized to 1-inch water column with all present air inlets, air outlets, and condensate drain port(s) sealed
- Approved for Manufactured Housing/Mobile Home applications with accessory (order separately)

TOUGHER

- Flame roll-out sensors standard
- Adjustable heating blower OFF delay
- Factory set blower ON delay
- RPJ® primary heat exchanger
- Stainless steel secondary heat exchanger
- High temperature limit control prevents overheating
- Direct ignition with Silicon Nitride ignitor
- High quality, corrosion-resistant, prepainted steel cabinet

EASIER TO INSTALL AND SERVICE

- Direct vent (2-pipe), single-pipe venting or ventilated combustion air
- 24 VAC humidifier terminal & electronic air cleaner terminal
- 35" (889mm) high, for ease of installation
- Simplified, factory installed internal condensate drain system
- Innovative knobs for easy door removal and secure attachment
- Factory shipped for natural gas, with propane gas conversion kits available
- Four position – upflow/downflow/horizontal (left/right) installation
- At least twelve different venting configurations
- Through the casing flue pipe for counterflow or horizontal applications with accessory (order separately)
- Concentric vent available
- Self diagnostics with super bright LED
- Slide out heat exchanger and blower assembly

WARRANTY *

- 20 year heat exchanger limited warranty
- 5 year parts limited warranty
 - With timely registration, an additional 5 year parts limited warranty
- * For owner occupied, residential applications only. See warranty certificate for complete details and restrictions, including warranty coverage for other applications.



Illustrations and photographs are only representative.
Some product models may vary.



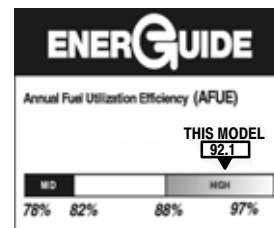
WARNING

CARBON MONOXIDE POISONING AND FIRE HAZARD

Failure to follow this warning could result in personal injury, death, and/or property damage.

This furnace is not designed for use in recreation vehicles or outdoors. This furnace is designed for use in manufactured (Mobile) homes when an optional Mobile Home accessory kit is installed.

Failure to follow this warning could result in personal injury, death, and/or property damage.



Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to www.ahridirectory.org.

Model Number	Input (MBTUH)	Efficiency AFUE	Cooling Capacity CFM range @ .5 in. w.c. (125 Pa)	Dimensions H x W x D Inches (Millimeters)	Shipping Wt. Lbs (Kg)
R9MSB0601716A	60,000	92.1%	685–1505	35 x 17-1/2 x 29-1/2 (889 x 445 x 750)	142 (65)
R9MSB0801716A	80,000	92.1%	780–1630	35 x 17-1/2 x 29-1/2 (889 x 445 x 750)	151 (69)
R9MSB1002122A	100,000	92.1%	1330–2280	35 x 21 x 29-1/2 (889 x 533 x 750)	166 (76)
R9MSB1202422A	120,000	92.1%	1350–2230	35 x 24-1/2 x 29-1/2 (889 x 622 x 750)	184 (84)

MODEL NUMBER IDENTIFICATION GUIDE

DIGIT POSITION	1	2	3	4	5	6, 7, 8	9, 10	11, 12	13	14
	R	9	M	S	B	060	17	14	A	1
R = Non-Branded 9 = 90% – 100%			EFFICIENCY							
M = Multiposition										
S = Single-stage			FEATURE							
B = Base AFUE Efficiency			FEATURE							
060 = 60,000 BTU/hr 080 = 80,000 BTU/hr 100 = 100,000 BTU/hr 120 = 120,000 BTU/hr						INPUT HEAT				
14 = 14-3/16” 17 = 17-1/2” 21 = 21” 24 = 24-1/2”										
						CABINET WIDTH				
16 = 1600 CFM (max) 20 = 2000 CFM (max) 22 = 2200 CFM (max)										
						COOLING AIRFLOW				
SALES (MAJOR) REVISION DIGIT										

ACCESSORIES PART NUMBER IDENTIFICATION GUIDE

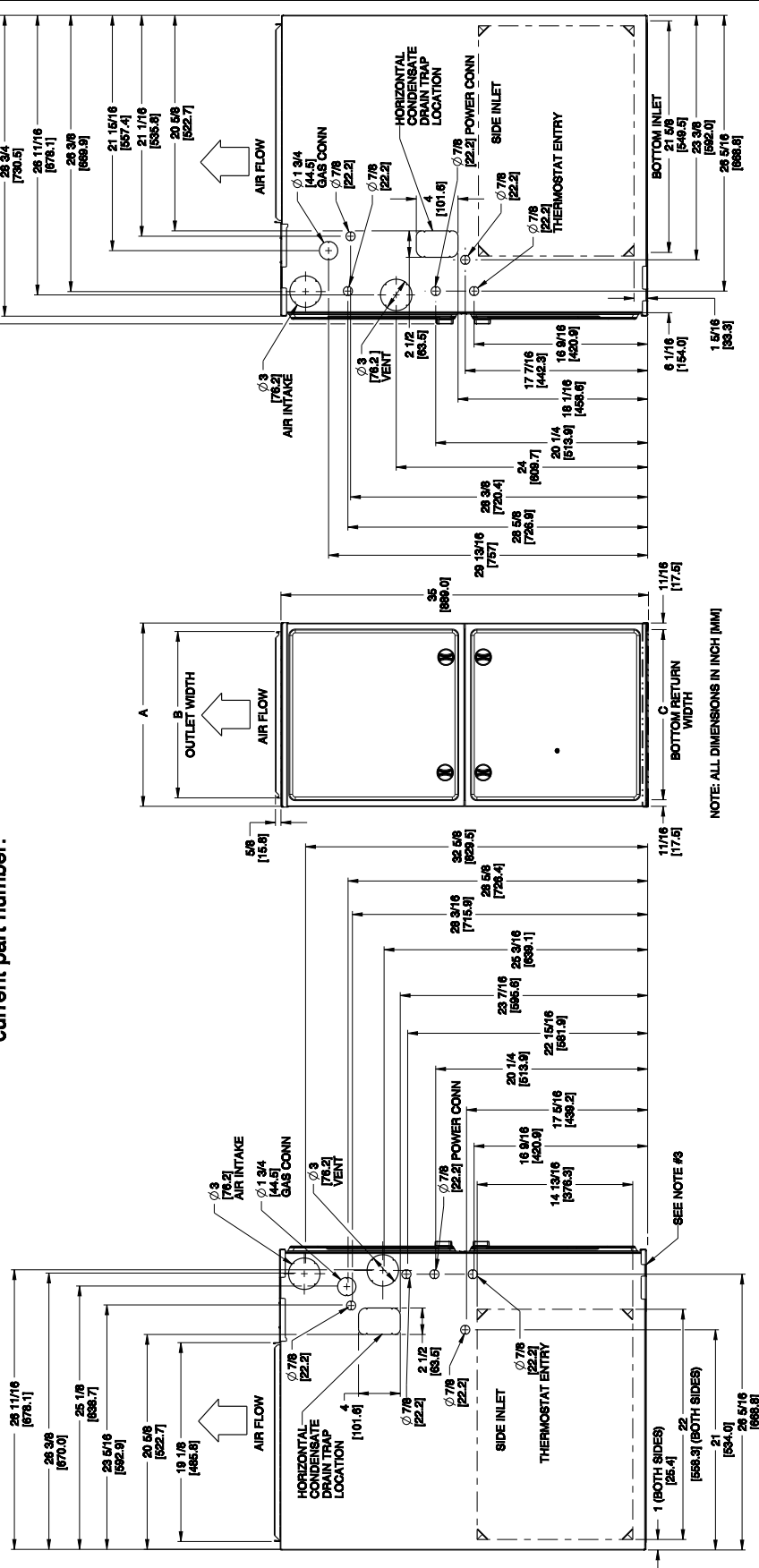
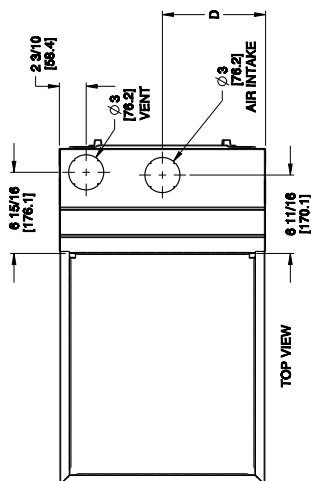
ACCESSORIES PART NUMBER IDENTIFICATION GUIDE							
DIGIT POSITION	1	2	3	4	5, 6, 7	8, 9	10, 11
	N	A	H	A	001	01	DH
N = Non-Branded	BRANDING						
A = Accessory	PRODUCT GROUP						
H = Heating	KIT USAGE						
A = Original							
B = 2nd Generation	MAJOR SERIES						
Product Identifier Number							
Package Quantity							
Type of Kit (Example: DH = Draft Hood – Chimney Adapter)							

Heating Capacity and Efficiency						
Model Size			0601716	0801716	1002122	1202422
Input	Heat	(BTUH)	60,000	80,000	100,000	120,000
Output	Heat	(BTUH)	56,000	75,000	93,000	112,000
Efficiency	AFUE % (ICS)		92.1			
Certified Temperature Rise Range °F (°C)		Heat	40 - 70 (22 - 39)		40 - 70 (22 - 39)	45 - 75 (25 - 42)
Airflow Capacity and Blower Data						
Model Size			0601716	0801716	1002122	1202422
Rated External Static Pressure in. w.c.(kPa)		Heating	0.12 (.05)	0.15 (.38)	0.20 (.050)	0.20 (.050)
		Cooling	0.5 (.125)			
Airflow Delivery @ Rated ESP (CFM)		Heat	1005	1085	1640	2355
		Cooling	1505	1630	2280	2230
Cooling Capacity (tons) @ 400, 350 CFM/ton		CFM/ton	3.5	4	5	5
		CFM/ton	4	4.5	5+	5+
Direct-Drive Motor Type			Permanent Split Capacitor (PSC)			
Direct-Drive Motor HP			0.5	0.5	1	1
Motor Full Load Amps			6.8	7.9	13.8	14.1
RPM Range			500-1150			
Speed Selections			5	5	5	5
Blower Wheel Dia x Width		in.	11 x 8	11 x 8	11 x 10	11 x 11
Air Filtration System			Field Supplied			
Filter Used for Certified Watt Data			NAHA00506FB		NAHA00706FB	
Electrical Data						
Model Size			0601716	0801716	1002122	1202422
Input Voltage		Volts-Hertz-Phase	115-60-1			
Operating Voltage Range		Min-Max	104-127			
Maximum Input Amps		Amps	7.6	8.2	14.6	14.9
Unit Ampacity		Amps	10.4	11.1	19.2	19.6
Minimum Wire Size		AWG	14	14	12	12
Maximum Wire Length @ Minimum Wire Size		Feet	35	33	29	29
		(M)	(10.7)	(10.1)	(8.8)	(8.8)
Maximum Fuse/Ckt Bkr (Time-Delay Type Recommended)		Amps	15	15	20	20
Transformer Capacity (24vac output)			24 VAC Output / 40 VA			
External Control Power Available		Heating	27.9 VA			
		Cooling	34.6 VA			
Controls						
Model Size			0601716	0801716	1002122	1202422
Gas Connection Size			1/2" - NPT			
Burners (Monoport)			3	4	5	6
Gas Valve (Redundant)		Manufacturer	White Rodgers			
Minimum Inlet Gas pressure (in. wc)			4.5			
Maximum Inlet Gas pressure (in. wc)			13.6			
Manufactured (Mobile) Home Kit			NAHB00101MH			
Ignition Device			Silicon Nitride			
Limit Control			205	210**	215	195
Heating Blower Control (Htg Off-Delay)			Adjustable: 90, 120, 150, 180 seconds			
Cooling Blower Control (Time Delay Relay)			90 seconds			
Thermostat Connections			C, R, W, G, Y			
Accessory Connections			EAC (115vac); HUM (24vac)			

** Limit does not use a gasket

NOTES:

1. Doors may vary by model.
2. Minimum return-air openings at furnace, based on metal duct. If flex duct is used, see flex duct manufacturer's recommendations for equivalent diameters.
 - a. For 800 CFM-16-in. (406 mm) round or 14 1/2 x 12-in. (368 x 305 mm) rectangle.
 - b. For 1200 CFM-20-in. (508 mm) round or 14 1/2 x 19 1/2-in. (368 x 495 mm) rectangle.
 - c. For 1600 CFM-22-in. (559 mm) round or 14 1/2 x 22 1/16-in. (368 x 560mm) rectangle.
 - d. Return air above 1800 CFM at 0.5 in. w.c. ESP on 24.5" casing, requires one of the following configurations: 2 sides, 1 side and a bottom or bottom only. See Air Delivery table in this document for specific use to allow for sufficient airflow to the furnace.
3. Vent and Combustion air pipes through blower compartment must use accessory "Vent Kit - Through the Cabinet". See accessory list for current part number.



NOTE: ALL DIMENSIONS IN INCH [MM]

4

FURNACE SIZE	A	B	C	D	SHIP WT. LB (KG)
	CABINET WIDTH	OUTLET WIDTH	BOTTOM INLET WIDTH	AIR INTAKE	
0601716	17-1/2 (445)	15-7/8 (403)	16 (406)	8-3/4 (222)	142 (65)
0801716	17-1/2 (445)	15-7/8 (403)	16 (406)	8-3/4 (222)	151 (69)
1002122	21 (533)	19-3/8 (492)	19-1/2 (495)	10-1/2 (267)	167 (76)
1202422	24-1/2 (622)	22-7/8 (581)	23 (584)	12-1/4 (311)	184 (84)

MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS FOR ALL UNITS

POSITION	CLEARANCE In(mm)
REAR	0
FRONT (Combustion air openings in furnace and in structure)	1 (25)
Required for service	*24 (610)
All Sides of Supply Plenum	*1 (25)
Sides	0
Vent	0
Top of Furnace	1 (25)

* Consult your local building codes.

AIR DELIVERY – CFM (with filter)

UNIT SIZE	RETURN-AIR CONNECTION	SPEED TAPS ²	EXTERNAL STATIC PRESSURE (in. w.c.)									
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
0601716	SIDE/BOTTOM	Black	1760	1705	1635	1575	1505	1430	1355	1270	1180	1090
		Yellow	1415	1400	1365	1335	1290	1240	1180	1115	1040	965
		Orange	1065	1060	1050	1035	1010	975	940	890	835	770
		Blue	1010	1000	990	975	955	925	885	845	785	720
		Red	770	745	730	710	685	660	625	585	545	500
0801716	SIDE/BOTTOM	Black	1800	1770	1735	1685	1630	1570	1495	1415	1330	1230
		Yellow	1445	1430	1410	1385	1350	1305	1255	1195	1120	1045
		Orange	1250	1240	1225	1200	1170	1130	1090	1040	975	910
		Blue	1090	1080	1060	1035	1010	970	930	885	835	765
		Red ⁵	880	860	835	810	780	750	710	665	615	560
1002122	BOTTOM or TWO-SIDES ^{3,4}	Black	2690	2595	2490	2390	2280	2170	2050	1930	1810	1675
		Yellow	2180	2145	2095	2045	1980	1905	1820	1725	1615	1490
		Orange	1790	1795	1785	1765	1735	1690	1630	1555	1460	1350
		Blue	1640	1640	1635	1620	1595	1565	1510	1450	1365	1270
		Red	1365	1360	1360	1345	1330	1300	1265	1215	1155	1080
1202422	BOTTOM or TWO-SIDES ^{3,4}	Black	2645	2545	2445	2340	2230	2110	1990	1810	1685	1580
		Blue	2430	2355	2275	2185	2090	1980	1850	1700	1600	1500
		Yellow	1850	1825	1795	1760	1705	1625	1540	1465	1380	1280
		Orange	1610	1595	1575	1550	1500	1455	1405	1345	1270	1185
		Red ⁵	1445	1430	1405	1380	1350	1315	1265	1215	1150	1075

NOTE:

1. A filter is required for each return-air inlet. Airflow performance includes a 3/4 in. (19 mm) washable filter media such as contained in factory-authorized accessory filter rack. See accessory list. To determine airflow performance without this filter, assume an additional 0.1 in. w.c. available external static pressure.
2. Blower speed taps are not always in the same order. Factory Default blower connections are as follows:
Heating airflow – BLUE (also used for Continuous Fan)
Cooling airflow – BLACK (enabled when the Y terminal is energized)
ADJUST THE BLOWER SPEED TAPS AS NECESSARY FOR THE PROPER AIR TEMPERATURE RISE FOR EACH INSTALLATION.
3. Airflows over 1800 CFM require bottom return, two-side return, or bottom and side return. A minimum filter size of 20" x 25" is required.
4. For upflow applications, air entering from one side into both the side of the furnace and a return air base counts as a side and bottom return.
5. Highlighted areas indicate that this airflow range is beyond the range allowed for heating. **THESE AIRFLOW RANGES MAY ONLY BE USED FOR COOLING.**
6. All airflows that are shown in **BOLD** exceed 0.58 Watts per CFM at the given external static pressure.

ACCESSORIES						
PART NUMBER	COMPONENT NAME	DESCRIPTION	0601716	0801716	1002122	1202422
NAHA00101CT	EXTERNAL TRAP KIT	CONDENSATE TRAP	X	X	X	X
NAHA00110DA	DRAIN ACCESSORY	1/2" CPVC TO 3/4" PVC (10 PACK)	X	X	X	X
NAHA002CV	VENT TERMINATION KIT	2" CONCENTRIC VENT	X	X	X	
NAHA001CV		3" CONCENTRIC VENT	X	X	X	X
NAHA00101VC	INTERNAL VENT KIT	THROUGH THE CABINET	X	X	X	X
NAHA00301VT	DIRECT VENT TERMINATION KIT	2" BRACKET	X	X	X	
NAHA00401VT		3" BRACKET	X	X	X	X
NAHA00101CK	INLET AIR PIPE COUPLING	COUPLING FOR POLYPROPYLENE VENT SYSTEMS	X	X	X	X
NAHA00101HV	HORIZONTAL INSTALLATION KIT	TRAP GROMMET (DIRECT VENT APPLICATION ONLY)	X	X	X	X
NAHA00101HH	FREEZE PROTECT KIT	CONDENSATE DRAIN LINE - TAPE	X	X	X	X
NAHA00201HH	CONDENSATE FREEZE PROTECT KIT	CONDENSATE TRAP WITH HEAT PAD	X	X	X	X
NAHA01101SB	FLOOR BASE KIT	COMBUSTIBLE FLOOR	X	X	X	X
NAHC00901LP*	GAS CONVERSION KIT	NATURAL TO PROPANE	X	X	X	X
NAHC00901NG*		PROPANE TO NATURAL	X	X	X	X
NAHB00101MH*	MANUFACTURED HOME KIT	GAS CONVERSION KIT	X	X	X	X
NAHA00506FB†	WASHABLE FILTER PACK	WASHABLE FILTER 1" X 16" X 25" (6 PACK)	X	X		
NAHA00706FB		WASHABLE FILTER 1" X 24" X 25" (6 PACK)			X	X
NAHB00601FF	EXTERNAL BOTTOM FILTER RACK	17-1/2" X 25" WASHABLE FILTER INCLUDED	X	X		
NAHB00701FF		21" X 25" WASHABLE FILTER INCLUDED			X	
NAHB00801FF		24-1/2" X 25" WASHABLE FILTER INCLUDED				X
NAHA01001FF	SIDE FILTER RACK	16" X 25" RACK - FILTER NOT INCLUDED	X	X	X	X
NAHA01006FF	SIDE FILTER PACK	16" X 25" FILTER (6 PACK)	X	X	X	X
NAHB00101CA	COIL ADAPTER KIT	WITH NO OFFSET	X	X	X	X
NAHB00201CA		WITH SINGLE OFFSET	X	X	X	X
NAHB00301CA		WITH DOUBLE OFFSET	X	X	X	X
NAHA01701RA	RETURN AIR KIT	17-1/2" WIDE	X	X		
NAHA02101RA		21" WIDE			X	
NAHA02401RA		24-1/2" WIDE				X
NAHA001NK	CONDENSATE NEUTRALIZER KIT	NEUTRALIZES CONDENSATE	X	X	X	X

X Accessory available
† Suitable for side return filter rack and 17 inch external bottom filter rack.
* Factory authorized and field installed. Gas conversion kits are CSA recognized.

Part Number	Gas Type	Orifice Size
1185612	Natural	42
1176928	Natural	43
1185574	Natural	44
1177213	Natural	45

Part Number	Gas Type	Orifice Size
1183809	Natural	46
1185613	Natural	47
1185614	Natural	48

Part Number	Gas Type	Orifice Size
1184256	Propane	54
1185615	Propane	55
1185616	Propane	56
1185617	Propane	1.25 mm
1185618	Propane	1.30 mm