TEMPSTAR®
Heating and Cooling Products

N9MSB
Product Specifications

92.1% AFUE, Single Stage, PSC Gas Furnace

EASIER TO SELL
- 92.1% AFUE all models in all positions
- Cabinet air leakage less than 2.0% at 1.0 in. W.C. and cabinet air leakage less than 1.4% at 0.5 in. W.C. when tested in accordance with ASHRAE standard 193
- Approved for Twinning applications (0601412 through 1202420) with accessory (order separately)
- Approved for Manufactured Housing/Mobile Home applications (0401410 through 1202420) with accessory (order separately)
- Low NOx units are designed for California installations and meet 40 ng/J NOx emissions. Can be installed in air quality management districts with a 40 ng/J NOx emissions requirement.

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

LIMITED WARRANTY *
- 20 heat exchanger limited warranty
- 5 year parts limited warranty
  - With timely registration, an additional 5 year parts limited warranty

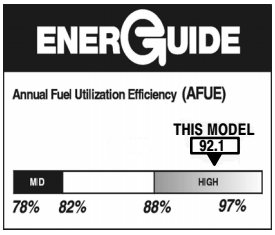
* For residential applications only. See warranty certificate for complete details and restrictions, including warranty coverage for other applications.



Illustrations and photographs are only representative.

⚠ 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.



AHRI CERTIFIED™ www.ahridirectory.org

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)
		Upflow/Hz	Downflow			
N9MSB0401410C	40,000	92.1%	92.1%	595–970	35 x 14-3/16 x 29-1/2 (889 x 361 x 750)	121 (55)
N9MSB0401712C	40,000	92.1%	92.1%	655–1140	35 x 17-1/2 x 29-1/2 (889 x 445 x 750)	125 (57)
N9MSB0601412C	60,000	92.1%	92.1%	645–1155	35 x 14-3/16 x 29-1/2 (889 x 361 x 750)	127 (57)
N9MSB0601716C	60,000	92.1%	92.1%	985–1505	35 x 17-1/2 x 29-1/2 (889 x 445 x 750)	142 (65)
N9MSB0801716B	80,000	92.1%	92.1%	760–1555	35 x 17-1/2 x 29-1/2 (889 x 445 x 750)	151 (69)
N9MSB0802120C	80,000	92.1%	92.1%	865–1885	35 x 21 x 29-1/2 (889 x 533 x 750)	159 (72)
N9MSB1002116C	100,000	92.1%	92.1%	890–1490	35 x 21 x 29-1/2 (889 x 533 x 750)	166 (76)
N9MSB1002120C	100,000	92.1%	92.1%	1475–1970	35 x 21 x 29-1/2 (889 x 533 x 750)	166 (76)
N9MSB1202420C	120,000	92.1%	92.1%	1450–2050	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
	N	**9**	**M**	**S**	**B**	**060**	**17**	**14**	**C**	**1**

F/G = Mainline
N = Entry

9 = 90+% AFUE — **EFFICIENCY**

M = Multiposition — **POSITION**

A = Modulating ECM Variable Speed Blower
V = ECM Variable Speed
X = ECM Blower (Speed Select)
S = Single–stage
T = Two–stage — **TYPE**

B= Base AFUE Efficiency
C = Communicating
E = Extra AFUE Efficiency
T = Two–Stage — **FEATURE**

040 = 40,000 BTU/hr
060 = 60,000 BTU/hr
080 = 80,000 BTU/hr
100 = 100,000 BTU/hr
120 = 120,000 BTU/hr
140 = 140,000 BTU/hr — **HEAT INPUT**

14 = 14–3/16”
17 = 17–1/2”
21 = 21”
24 = 24–1/2” — **CABINET WIDTH**

08 = 800 CFM
10 = 1000 CFM
12 = 1200 CFM
14 = 1400 CFM
16 = 1600 CFM
20 = 2000 CFM
22 = 2200 CFM — **NOMINAL MAXIMUM COOLING AIRFLOW @ .5 IN. W.C.**

SALES (MAJOR) REVISION DIGIT

ENGINEERING (MINOR) REVISION DIGIT

ACCESSORIES PART NUMBER IDENTIFICATION GUIDE

DIGIT POSITION	1	2	3	4	5, 6, 7	8, 9	10, 11
	N	**A**	**H**	**B**	**007**	**01**	**FF**

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: FF = Filter Kit)

For California Residents:
For installation in SCAQMD only: This furnace does not meet the SCAQMD Rule 1111 14 ng/J NOx emission limit, and thus is subject to a mitigation fee of up to $450. This furnace is not eligible for the Clean Air Furnace Rebate Program: www.CleanAirFurnaceRebate.com

PHYSICAL DATA

UNIT SIZE (NATURAL GAS Ratings)			0401410	0401712	0601412	0601716	0801716
Input	Heat	(BTUH)	40,000	40,000	60,000	60,000	80,000
Output	Heat	(BTUH)	37,000	37,000	56,000	56,000	75,000
Efficiency	Upflow/Hz AFUE % (ICS)		92.1				
	Downflow AFUE % (ICS)		92.1				
Certified Temperature Rise Range ºF (ºC)			40–70(22–39)	35–65(19–36)	40–70(22–39)	35–65(19–36)	35–65(19–36)

UNIT SIZE (NATURAL GAS Ratings)			0802120	1002116	1002120	1202420
Input	Heat	(BTUH)	80,000	100,000	100,000	120,000
Output	Heat	(BTUH)	75,000	93,000	93,000	112,000
Efficiency	Upflow/Hz AFUE % (ICS)		92.1			
	Downflow AFUE % (ICS)		92.1			
Certified Temperature Rise Range ºF (ºC)			35–65(19–36)	40–70(22–39)		45–75(25–42)

ICS — Isolated Combustion System

AIRFLOW CAPACITY AND BLOWER DATA

UNIT SIZE		0401410	0401712	0601412	0601716	0801716
Rated External Static Pressure in.w.c.(kPa)	Heating	0.10(.025)	0.10(.025)	0.12(.05)	0.12(.05)	0.15(.38)
	Cooling	.5 (.125)				
Airflow Delivery @ Rated ESP (CFM)	Heating	910	980	910	980	1030
	Cooling	970	1140	1155	1505	1555
Cooling Capacity (tons) @ 400, 350 CFM/ton	400 CFM/ton	2.5	2.5	2.5	3.5	4
	350 CFM/ton	2.5	3	3	4	4.5
Direct–Drive Motor Type		PSC – Permanent Split Capacitor				
Direct–Drive Motor HP		0.3	0.5	0.3	0.5	0.5
Motor Full Load Amps		4.6	6.8	4.6	7.9	7.4
RPM Range		500–1150				
Speed Selections		4	5	4	4	5
Blower Wheel Dia x Width	Inches	11 x 7	11 x 7	11 x 7	11 x 8	11 x 8
Air Filtration System		Field Supplied				
Filter Used for Certified Watt Data		NAHA00506FB				

UNIT SIZE		0802120	1002116	1002120	1202420
Rated External Static Pressure in.w.c.(kPa)	Heating	0.15(.38)	0.20(.050)	0.20(.050)	0.20(.050)
	Cooling	.5 (.125)			
Airflow Delivery @ Rated ESP (CFM)	Heating	1115	1480	1550	2070
	Cooling	1885	1490	1970	2050
Cooling Capacity (tons) @ 400, 350 CFM/ton	400 CFM/ton	4.5	3.5	5	5
	350 CFM/ton	5	4	5+	5+
Direct–Drive Motor Type		PSC – Permanent Split Capacitor			
Direct–Drive Motor HP		0.75	0.5	0.75	0.75
Motor Full Load Amps		7.9	6.5	11.1	11.1
RPM Range		500–1150			
Speed Selections		5	4	4	4
Blower Wheel Dia x Width	Inches	11 x 10	11 x 10	11 x 10	11 x 11
Air Filtration System		Field Supplied			
Filter Used for Certified Watt Data		NAHA00706FB			

CONTROLS

UNIT SIZE		0401410	0401712	0601412	0601716	0801716
Gas Connection Size		1/2" – NPT				
Burners (Monoport)		2	2	3	3	4
Gas Valve (Redundant)	Manufacturer	White Rodgers™				
Minimum Inlet Gas pressure in. w.c. (kPa)		4.5 (1.1)				
Maximum Inlet Gas pressure in. w.c. (kPa)		13.6 (3.4)				
Ignition Device		Silicon Nitride				
Limit Control		195	180	220	190	185
Heating Blower Control (Heating Off–Delay)		Adjustable: 90, 120, 150, 180 seconds				
Cooling Blower Control (Time Delay Relay)		90 seconds				
Thermostat Connections		R, W, Y, G, C				
Accessory Connections		EAC (115vac); HUM (24vac)				

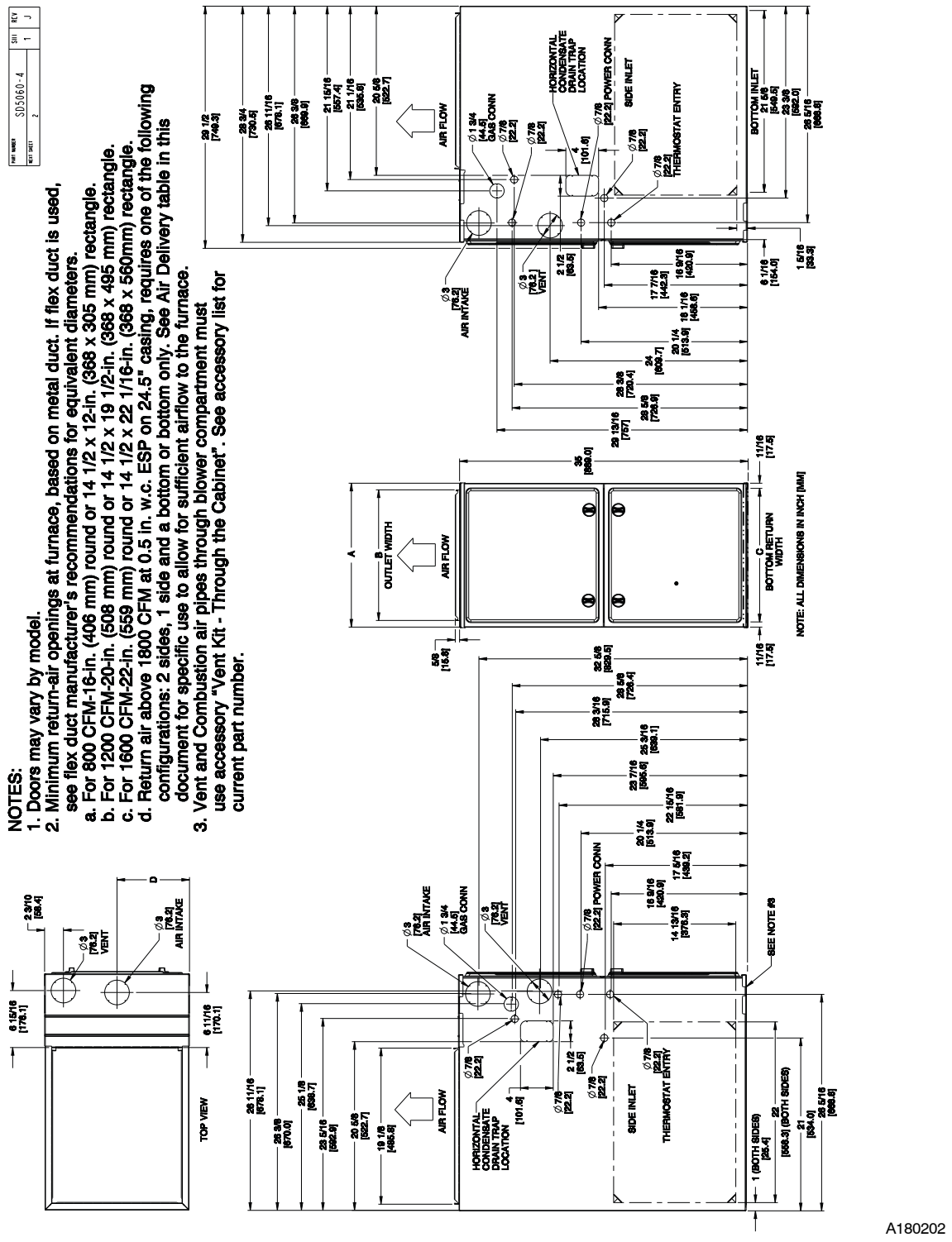
UNIT SIZE		0802120	1002116	1002120	1202420
Gas Connection Size		1/2" – NPT			
Burners (Monoport)		4	5	5	6
Gas Valve (Redundant)	Manufacturer	White Rodgers™			
Minimum Inlet Gas pressure in. w.c. (kPa)		4.5 (1.1)			
Maximum Inlet Gas pressure in. w.c. (kPa)		13.6 (3.4)			
Ignition Device		Silicon Nitride			
Limit Control		195	220	220	165
Heating Blower Control (Heating Off–Delay)		Adjustable: 90, 120, 150, 180 seconds			
Cooling Blower Control (Time Delay Relay)		90 seconds			
Thermostat Connections		R, W, Y, G, C			
Accessory Connections		EAC (115vac); HUM (24vac)			

ELECTRICAL DATA

UNIT SIZE		0401410	0401712	0601412	0601716	0801716
Input Voltage (Volts–Hertz–Phase)		115 – 60 – 1				
Operating Voltage Range	Min.–Max.	104 – 127				
Maximum Input Amps	Amps	5.2	7.4	5.3	8.6	8.1
Unit Ampacity	Amps	7.5	10.3	7.6	11.7	11.1
Minimum Wire Size	AWG	14	14	14	14	14
Maximum Wire Length @ Min Wire Size	Feet (M)	49(14.9)	36(11.0)	48(14.6)	31(9.4)	33(10.1)
Maximum Fuse/Circuit Breaker (Time–Delay Type Recommended)	Amps	15	15	15	15	15
Transformer Capacity		24 VAC Output / 40 VA				
External Control Power Available	Heating	27.9 VA				
	Cooling	34.6 VA				

UNIT SIZE		0802120	1002116	1002120C	1202420
Input Voltage (Volts–Hertz–Phase)		115 – 60 – 1			
Operating Voltage Range	Min.–Max.	104 – 127			
Maximum Input Amps	Amps	8.6	7.3	11.9	11.9
Unit Ampacity	Amps	11.7	10.1	15.8	15.8
Minimum Wire Size	AWG	14	14	12	12
Maximum Wire Length @ Min Wire Size	Feet (M)	31(11.0)	36(11.0)	36(11.0)	36(11.0)
Maximum Fuse/Circuit Breaker (Time–Delay Type Recommended)	Amps	15	15	20	20
Transformer Capacity		24 VAC Output / 40 VA			
External Control Power Available	Heating	27.9 VA			
	Cooling	34.6 VA			

UNIT DIMENSIONS



FURNACE SIZE	A CABINET WIDTH	B OUTLET WIDTH	C BOTTOM INLET WIDTH	D AIR INTAKE	SHIP WT. LB (KG)
0401410	14–3/16 (361)	12–1/2 (319)	12–9/16 (322)	7–1/8 (181)	121 (55)
0401712	17–1/2 (445)	15–7/8 (403)	16 (406)	8–3/4 (222)	125 (57)
0601412	14–3/16 (361)	12–1/2 (319)	12–9/16 (322)	7–1/8 (181)	127 (57)
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)
0802120	21 (533)	19–3/8 (492)	19–1/2 (495)	10–1/2 (267)	159 (72)
1002116	21 (533)	19–3/8 (492)	19–1/2 (495)	10–1/2 (267)	166 (76)
1002120	21 (533)	19–3/8 (492)	19–1/2 (495)	10–1/2 (267)	166 (76)
1202420	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.

COOLING AIR DELIVERY - CFM (with filter [1])

SIZE	RETURN AIR CONNECTION	WIRE LEAD COLOR	COOLING TONS	CFM /TON	TEST AIRFLOW DELIVERY @ VARIOUS EXTERNAL STATIC PRESSURES									
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
401410	SIDE/BOTTOM	Black	2.5	388	1145	1100	1060	1015	970	920	860	785	**680**	**615**
		Blue	2.0	413	970	940	905	870	825	775	730	675	570	**505**
		Yellow	2.0	385	910	880	845	810	770	725	675	600	535	**475**
		Red	1.5	397	725	695	665	635	595	555	510	460	**390**	**340**
401712	SIDE/BOTTOM	Black	3.0	380	1365	1310	1255	1200	1140	**1080**	**1015**	**950**	**860**	**795**
		Yellow	2.5	418	1245	1200	1150	1100	1045	990	930	855	790	**730**
		Orange	2.5	366	1050	1025	985	950	915	870	820	760	705	655
		Blue	2.0	435	980	955	935	905	870	830	780	725	675	625
		Red	1.5	437	720	705	690	675	655	625	590	555	525	**485**
601412	SIDE/BOTTOM	Black	3.0	385	1215	1205	1205	1195	1155	1100	1045	975	910	805
		Blue	2.5	370	980	985	980	955	925	880	835	780	695	585
		Yellow	2.0	425	910	920	905	880	850	815	765	695	630	545
		Red [3]	1.5	430	750	730	705	680	645	605	555	490	435	**370**
601716	SIDE/BOTTOM	Black	4.0	376	1600	1545	1505	1475	1505	1445	1400	1330	1235	1140
		Yellow	3.5	377	1380	1340	1335	1330	1320	1285	1225	1155	1085	1000
		Blue [3]	3.0	387	1190	1185	1195	1195	1160	1125	1075	1015	950	885
		Red [3]	2.5	394	1030	1025	1030	1010	985	940	905	855	805	735
801716	SIDE/BOTTOM	Black	4.0	408	1800	1770	1735	1685	1630	1570	1495	1415	1330	1230
		Yellow	3.5	386	1445	1430	1410	1385	1350	1305	1255	1195	1120	1045
		Orange	3.0	390	1250	1240	1225	1200	1170	1130	1090	1040	975	910
		Blue	2.5	404	1090	1080	1060	1035	1010	970	930	885	835	765
		Red [3]	2.0	390	880	860	835	810	780	750	710	665	615	560
802120	BOTTOM or TWO–SIDES [4,5]	Black	5.0	377	2225	2160	2070	1980	1885	1790	1690	1575	1460	1345
		Yellow	4.0	386	1690	1665	1640	1595	1545	1485	1410	1330	1235	1135
		Orange	3.5	397	1485	1470	1455	1430	1390	1340	1280	1205	1120	1035
		Blue [3]	2.5	426	1120	1110	1100	1090	1065	1035	990	935	870	805
		Red [3]	2.0	433	940	920	910	890	865	830	790	745	690	625
1002116	SIDE/BOTTOM	Black	4.0	373	1715	1660	1610	1555	1490	1420	1340	1245	1150	1065
		Yellow [3]	3.5	379	1535	1480	1435	1380	1325	1260	1180	1095	1010	910
		Blue [3]	3.0	367	1300	1255	1205	1160	1100	1035	970	905	810	730
		Red [3]	2.0	445	1110	1055	1005	955	890	835	770	690	610	535
1002120	BOTTOM or TWO–SIDES [4,5]	Black	5.0	394	2270	2205	2130	2055	1970	1880	1780	1670	1555	1425
		Yellow	5.0	367	2090	2040	1980	1910	1835	1755	1670	1570	1460	1340
		Blue	4.0	416	1850	1815	1775	1725	1665	1600	1525	1435	1335	1225
		Red	3.5	421	1580	1550	1540	1515	1475	1420	1355	1280	1190	1100
1202420	BOTTOM or TWO–SIDES [4,5]	Black	5.0	410	2385	2310	2230	2150	2050	1920	1780	1650	1540	1415
		Yellow	5.0	369	2130	2070	2010	1940	1845	1740	1630	1525	1420	1305
		Blue	4.0	416	1875	1840	1795	1735	1665	1580	1495	1410	1310	1205
		Red [3]	3.5	414	1610	1585	1555	1515	1450	1395	1325	1250	1160	1080

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. **ADJUST THE BLOWER SPEED TAPS AS NECESSARY FOR THE PROPER AIR TEMPERATURE RISE FOR EACH INSTALLATION**.
3. Shaded areas indicate that this airflow range is below the range allowed for heating. **THESE AIRFLOW RANGES MAY ONLY BE USED FOR COOLING.**
4. Airflow over 1800 CFM require bottom return, two–side return, or bottom and side return. A minimum filter size of 20” x 25” is required.
5. 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.
6. All airflow that are shown in **BOLD** exceed 0.58 Watts per CFM at the given external static pressure.

ACCESSORIES											
PART NUMBER	COMPONENT NAME	DESCRIPTION	0401410	0401712	0601412	0601716	0801716	0802120	1002116	1002120	1202420
NAHB00101CT	EXTERNAL TRAP KIT	CONDENSATE TRAP	X	X	X	X	X	X	X	X	X
NAHA00110DA	DRAIN ACCESSORY	1/2" CPVC TO 3/4" PVC (10 PACK)	X	X	X	X	X	X	X	X	X
NAHA002CV	VENT TERMINATION KIT	2" CONCENTRIC VENT	X	X	X	X	X	X	X	X	
NAHA001CV		3" CONCENTRIC VENT				X	X	X	X	X	X
NAHA00101VC	INTERNAL VENT KIT	THROUGH THE CABINET	X	X	X	X	X	X	X	X	X
NAHA00301VT	DIRECT VENT TERMINATION KIT	2" BRACKET			X	X	X	X	X	X	
NAHA00401VT		3" BRACKET	X	X	X	X	X	X	X	X	X
NAHA00101CK	INLET AIR PIPE COUPLING	COUPLING FOR POLYPROPYLENE VENT SYSTEMS	X	X	X	X	X	X	X	X	X
NAHA00101HV	HORIZONTAL INSTALLATION KIT	TRAP GROMMET (DIRECT VENT APPLICATION ONLY)	X	X	X	X	X	X	X	X	X
NAHA00101HH	FREEZE PROTECT KIT	CONDENSATE DRAIN LINE – TAPE	X	X	X	X	X	X	X	X	X
NAHA00201HH	CONDENSATE FREEZE PROTECT KIT	CONDENSATE TRAP WITH HEAT PAD	X	X	X	X	X	X	X	X	X
NAHA01101SB	FLOOR BASE KIT	COMBUSTIBLE FLOOR	X	X	X	X	X	X	X	X	X
NAHD00901LP*	GAS CONVERSION KIT	NATURAL TO PROPANE	X	X	X	X	X	X	X	X	X
NAHD00901NG*		PROPANE TO NATURAL	X	X	X	X	X	X	X	X	X
1188594‡	GAS VALVE TOWER PORT ADAPTER KIT	ADAPTER FOR GAS VALVE	X	X	X	X	X	X	X	X	X
NAHB00101MH*	MANUFACTURED HOME KIT	GAS CONVERSION KIT	X	X	X	X	X	X	X	X	X
NAHA00701WK	TWINNING KIT	OPERATION OF TWO IDENTICAL SIZE MODEL FURNACES			X	X	X	X	X	X	X
NAHA00506FB†	WASHABLE FILTER PACK	WASHABLE FILTER 1" X 16" X 25" (6 PACK)	X	X	X	X	X				
NAHA00706FB		WASHABLE FILTER 1" X 24" X 25" (6 PACK)						X	X	X	X
NAHB00501FF	EXTERNAL BOTTOM FILTER RACK	14" X 25" WASHABLE FILTER INCLUDED	X		X						
NAHB00601FF		17-1/2" X 25" WASHABLE FILTER INCLUDED		X		X	X				
NAHB00701FF		21" X 25" WASHABLE FILTER INCLUDED						X	X	X	
NAHB00801FF		24-1/2" X 25" WASHABLE FILTER INCLUDED									X
NAHB00101CA	COIL ADAPTER KIT	WITH NO OFFSET	X	X	X	X	X	X	X	X	X
NAHB00201CA		WITH SINGLE OFFSET	X	X	X	X	X	X	X	X	X
NAHB00301CA		WITH DOUBLE OFFSET	X	X	X	X	X	X	X	X	X
NAHA01401RA	RETURN AIR KIT	14-3/16" WIDE	X	X	X						
NAHA01701RA		17-1/2" WIDE				X	X				
NAHA02101RA		21" WIDE						X	X	X	
NAHA02401RA		24-1/2" WIDE									X
NAHA001NK	CONDENSATE NEUTRALIZER KIT	NEUTRALIZES CONDENSATE	X	X	X	X	X	X	X	X	X

X Accessory available
† Suitable for 17 inch external bottom filter rack.
* Factory authorized and field installed. Gas conversion kits are CSA recognized.
‡ Order through FAST Parts.

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

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