

**WFER / WFEL (Major Series B)
80% AFUE, Single-Stage, Multi 18-Speed ECM,
Non-Condensing Gas Furnaces**



Product Data



Representative drawing only. Some product models may vary.

A200151



WARNING

This furnace is not designed for use in mobile homes, trailers, or recreational vehicles. Such use could result in property damage and/or death.



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.



ISO 9001
Quality

A200115

EASIER TO SELL

- Multi 18-Speed, Constant Torque (MCT) ECM blower motor
- Enhanced diagnostics with easy to read 3 digit display for faults and status
- 80% AFUE
- Flame roll-out sensors standard
- Category I venting
- Blocked vent switch
- Louvered door
- 24 VAC humidifier terminal
- Electronic air cleaner terminal
- Select sizes approved for twinning, refer to accessory kit listing
- WFEL - Low NOx units are designed for California installations and can be installed in air quality management districts with a 40ng/J NOx emissions limit
- 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

TOUGHER

- Adjustable heating blower OFF delay
- Factory set blower ON delay

EASIER TO INSTALL AND SERVICE

- On-board NFC antenna makes setup a tap away when using the service technician app
- 33-1/3" (847mm) high, for ease of installation
- Quarter turn knobs for easy door removal and secure attachment
- Convertible to propane gas conversion accessory kit
- Twinning capable with accessory kit

LIMITED WARRANTY*

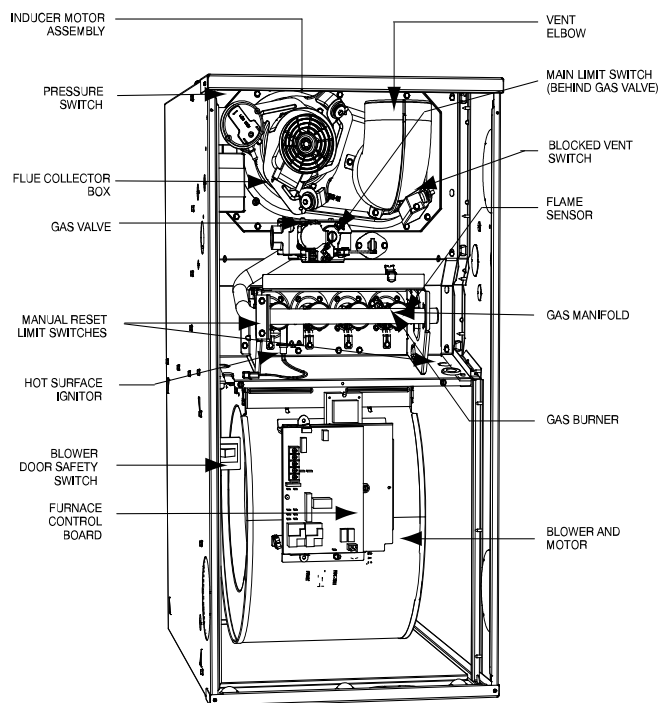
- 1-year unit replacement limited warranty
- 20-year heat exchanger limited warranty
- 5-year parts limited warranty
- Additional 5-year parts limited warranty with timely registration
- * Applies to original purchaser/homeowner, some limitations may apply. For residential applications only, See warranty certificate for complete details and restrictions, including warranty coverage of other applications.

UNIT PERFORMANCE DATA

Model	Input (BTUh)	Efficiency AFUE	Cooling Capacity CFM range	Dimensions H x W x D In (mm)	Shipping Wt. Lbs (Kg)
045A036	44,000	80%	175-1095	33-1/3 x 14-3/16 x 29 (847 x 360 x 737)	108 (49)
070A036	66,000	80%	180-1115	33-1/3 x 14-3/16 x 29 (847 x 360 x 737)	114 (52)
070B036	66,000	80%	155-1160	33-1/3 x 17-1/2 x 29 (847 x 445 x 737)	124 (56)
070B048	66,000	80%	235-1700	33-1/3 x 17-1/2 x 29 (847 x 445 x 737)	127 (58)
090B042	88,000	80%	330-1490	33-1/3 x 17-1/2 x 29 (847 x 445 x 737)	133 (60)
090C048	88,000	80%	315-1565	33-1/3 x 21 x 29 (847 x 533 x 737)	140.5 (64)
110C060	110,000	80%	420-2350	33-1/3 x 21 x 29 (847 x 533 x 737)	150 (68)
135D060	132,000	80%	290-1925	33-1/3 x 24-1/2 x 29 (847 x 622 x 737)	167 (76)

A220585A

FURNACE COMPONENTS



Representative drawing only, some models may vary.

The furnaces are factory shipped for use with natural gas. These furnaces can be field-converted for propane gas with a factory-authorized and listed accessory conversion kit.

CLEARANCES


WARNING

High voltage and rotating fan blades may be present in blower compartment when door switch is pressed. Keep hands clear.

ELECTRIC SHOCK AND MOVING PARTS HAZARD
 High voltage and rotating fan blades may be present in blower compartment when door switch is pressed. Keep hands clear.





WARNING

FIRE, EXPLOSION, ASPHYXIATION HAZARD

Improper adjustment, alteration, service, maintenance, or installation can cause serious injury or death.

Read and follow instructions and precautions in User's Information Manual provided with this furnace. Installation and service must be performed by a qualified service agency or the gas supplier.


CAUTION

Check entire gas assembly for leaks after lighting this appliance.

INSTALLATION

- This furnace must be installed in accordance with the manufacturer's instructions and local codes. In the absence of local codes, follow the National Fuel Gas Code ANSI Z223.1 / NFPA54 or CSA B-149, 1 gas Installation Code.
- This furnace must be installed so there are provisions for combustion and ventilation air. See manufacturer's installation information provided with this appliance.

OPERATION

This furnace is equipped with manual reset limit switch(es) in burner compartment to protect against overheated conditions that can result from inadequate combustion air supply or blocked vent constriction.

- Do not bypass limit switches.
- If a limit opens, call a qualified serviceman to correct the condition and reset limit switch.

INSTALLATION

MINIMUM INCHES CLEARANCE TO COMBUSTIBLE CONSTRUCTION

This forced air furnace is equipped for use with natural gas at altitudes 0 - 10,000 ft (0 - 3,050m).

An accessory kit, supplied by the manufacturer, shall be used to convert to propane gas use or may be required for some natural gas applications.

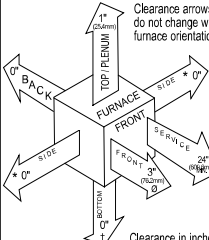
This furnace is for indoor installation in a building constructed on site.

This furnace may be installed on combustible flooring in alcove or closet at minimum clearance as indicated by the diagram from combustible material.

This furnace may be used with a Type B-1 Vent and may be vented in common with other gas fired appliances.

This furnace is approved for UPFLOW, DOWNFLOW, and HORIZONTAL installations.

Clearance arrows do not change with furnace orientation.



Clearance in inches

Vent Clearance to combustibles:
 For Single Wall vents 6 inches (6 po).
 For Type B-1 vent type 1 inch (1 po).

MINIMUM INCHES CLEARANCE TO COMBUSTIBLE CONSTRUCTION

DOWNFLOW POSITIONS:

† Installation on non-combustible floors only.

For installation on combustible flooring only when installed on a manufacturer approved special base kit or manufacturer recommended coil assembly.

Ø 18 inches front clearance required for alcove.

* Indicates supply or return sides when furnace is in the horizontal position. Line contact only permissible between lines formed by intersections of the Top and two Sides of the furnace jacket, and building joists, studs or framing.



336996-101 REV B

A220231

SPECIFICATIONS

UNIT SIZE		045A036	070A036	070B036	070B048
HEATING AND CAPACITY AND EFFICIENCY					
Input BTUh*	All Standard Low NOx - Upflow	44,000	66,000	66,000	66,000
	Low NOx - Dwnflw/Hz	42,000	63,000	63,000	63,000
Output Capacity (BTUh)†	All Standard Low NOx - Upflow	36,000	54,000	54,000	54,000
	Low NOx - Dwnflw/Hz	34,000	51,000	51,000	51,000
Certified Temperature Rise Range - °F (°C)		30–60 (17–3)	30–60 (17–33)	30–60 (17–33)	25–55 (14–31)
AFUE‡		80%			
AIRFLOW CAPACITY AND BLOWER DATA					
Rated Certified External Static Pressure	Heating	0.10	0.12	0.12	0.12
	Cooling	0.50	0.50	0.50	0.50
Airflow CFM @ Rated ESP (CFM)‡	Heating	715	1075	1110	1310
	Cooling	175–1095	180–1115	155–1160	235–1700
Direct Drive Motor HP		1/3	1/3	1/3	3/4
Motor Full Load Amps		4.4	4.4	4.4	8.8
Heating Blower Control (Htg OFF-Delay)		Adjustable: 90, 120 (factory-set), 150, 180 seconds			
Cooling Blower Control (Clg OFF-Delay)		Adjustable: 90 (factory-set), 5, 30 seconds			
Blower Wheel Diameter x Width - In. (mm)		10 x 6 (254 x 152)	10 x 6 (254 x 152)	10 x 8 (254 x 203)	11 x 8 (279 x 203)
Air Filtration System		Field Supplied Filter			
Filter used for Certified Watt Data		325531–40**			
ELECTRICAL DATA					
Unit Volts–Hertz–Phase		115–60–1			
Operating Voltage Range	Min-Max	104–127			
Maximum Unit Amps		6.0	6.0	5.9	10.4
Unit Ampacity		8.3	8.3	8.2	13.8
Maximum Wire Length (Measure 1 way in Ft/M)		44 / 13.6	44 / 13.6	45 / 13.80	26 / 8.2
Minimum Wire Size	AWG	14	14	14	14
Max. Fuse/Ckt Bkr Size (Time-Delay Type Recommended)	Amps	15	15	15	15
Transformer Capacity (24 VAC output)		40VA			
External Control Power Available	Heating	12VA			
	Cooling	35VA			
GAS CONTROLS					
Burners		2	3	3	3
Gas Connection Size		1/2 in. NPT			
Gas Valve (Redundant)	Mfr	WhiteRodgers™			
Min. inlet pressure	(in.w.c.)	4.5 (Natural Gas)			
Max. inlet pressure	(in.w.c.)	13.6 (Natural Gas)			
Ignition Device		Silicon Nitride			
Factory installed orifice		Size 43			
CONNECTIONS					
Communication System		None			
Thermostat Connections		G, C, W, Y, R			
Accessory Connections		EAC–1 (115 VAC); HUM (24 VAC); 1–STG AC (via Y)			

*. Gas input ratings are certified for elevations to 2000 ft. (610 M). In USA, For elevations above 2000 ft (610 M), reduce ratings 4 percent for each 1000 ft (305 M) above sea level. Refer to National Fuel Gas Code NFPA 54/ANSI Z223.1 Table F.4 or furnace installation instructions.

†. Capacity in accordance with U.S. Government DOE test procedures.

‡. Airflow shown is for bottom only return-air supply for the as-shipped speed tap. For air delivery above 1800 CFM, see Air Delivery table for other options. A filter is required for each return-air supply. An airflow reduction of up to 7 percent may occur when using the factory-specified 4-5/16-in. (110 mm) wide, high efficiency media filter.

**. See Accessory List for part numbers available.

UNIT SIZE		090B042	090C048	110C060	135D060
HEATING AND CAPACITY AND EFFICIENCY					
Input BTUh*	All Standard Low NOx - Upflow	88,000	88,000	110,000	132,000
	Low NOx - Dwnflw/Hz	84,000	84,000	105,000	126,000
Output Capacity (BTUh)†	All Standard Low NOx - Upflow	71,000	72,000	90,000	107,000
	Low NOx - Dwnflw/Hz	68,000	68,000	85,000	102,000
Certified Temperature Rise Range - °F (°C)		40-70 (22-39)	35-65 (19-36)	30-60 (17-33)	40-70 (22-39)
AFUE†		80%			
AIRFLOW CAPACITY AND BLOWER DATA					
Rated Certified External Static Pressure	Heating	.15	.15	.20	.20
	Cooling	.50	.50	.50	.50
Airflow CFM @ Rated ESP (CFM)‡	Heating	1230	1325	1840	1805
	Cooling	330-1490	315-1565	420-2350	290-1925
Direct Drive Motor HP		1/2	1/2	1	3/4
Motor Full Load Amps		6.7	6.7	11.5	8.8
Heating Blower Control (Htg Off-Delay)		Adjustable: 90, 120 (factory-set), 150, 180 seconds			
Cooling Blower Control (Clg OFF-Delay)		Adjustable: 90 (factory-set), 5, 30 seconds			
Blower Wheel Diameter x Width - In. (mm)		10x8 (254x203)	10x10 (254x254)	11x11 (279x279)	11x11 (279x279)
Air Filtration System		Field Supplied Filter			
Filter used for Certified Watt Data		325531-40**			
ELECTRICAL DATA					
Unit Volts-Hertz-Phase		115-60-1			
Operating Voltage Range	Min-Max	104-127			
Maximum Unit Amps		8.2	8.2	14.4	11.0
Unit Ampacity		11.0	11.0	18.6	14.4
Maximum Wire Length (Measure 1 way in Ft/M)		34/10.3	34/10.3	30/9.4	25/7.8
Minimum Wire Size	AWG	14	14	12	14
Max. Fuse/Ckt Bkr Size (Time-Delay Type Recommended)	Amps	15	15	20	15
Transformer Capacity (24 VAC output)		40VA			
External Control Power Available	Heating	12VA			
	Cooling	35VA			
GAS CONTROLS					
Burners		4	4	5	6
Gas Connection Size		1/2 in. NPT			
Gas Valve (Redundant)	Mfr	WhiteRodgers™			
Min. inlet pressure	(in.w.c.)	4.5 (Natural Gas)			
Max. inlet pressure	(in.w.c.)	13.6 (Natural Gas)			
Ignition Device		Silicon Nitride			
Factory installed orifice		Size 43			
CONNECTIONS					
Communication System		None			
Thermostat Connections		G, C, W, Y, R			
Accessory Connections		EAC-1 (115 VAC); HUM (24 VAC); 1-STG AC (via Y)			

*. Gas input ratings are certified for elevations to 2000 ft. (610 M). In USA, For elevations above 2000 ft (610 M), reduce ratings 4 percent for each 1000 ft (305 M) above sea level. Refer to National Fuel Gas Code NFPA 54/ANSI Z223.1 Table F.4 or furnace installation instructions.

†. Capacity in accordance with U.S. Government DOE test procedures.

‡. Airflow shown is for bottom only return-air supply for the as-shipped speed tap. For air delivery above 1800 CFM, see Air Delivery table for other options. A filter is required for each return-air supply. An airflow reduction of up to 7 percent may occur when using the factory-specified 4-5/16-in. (110 mm) wide, high efficiency media filter.

**. See Accessory List for part numbers available.

AIR DELIVERY (with filter)**Air Delivery - CFM (with filter)***

Unit Size	Airflow Setting	Default Setting	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
045A036	1	Constant Fan	455	385	320	250	175	--	--	--	--	--
	2		490	425	360	300	225	150	--	--	--	--
	3		535	480	415	360	305	230	160	--	--	--
	4		565	510	450	395	345	285	215	135	--	--
	5		605	555	500	445	390	345	285	215	145	--
	6		645	595	545	490	440	395	350	290	225	155
	7		695	645	600	550	500	455	410	370	310	255
	8	Heating	715	670	625	575	530	485	440	400	355	290
	9		770	730	685	640	595	555	510	470	430	390
	10		825	780	740	700	660	615	575	535	500	460
	11		870	830	795	755	720	680	640	600	560	525
	12		920	880	845	810	775	735	700	660	625	590
	13		965	930	895	855	825	790	755	720	685	650
	14		1005	970	935	905	875	840	805	770	740	705
	15		1055	1020	990	960	930	895	865	835	800	770
	16		1105	1070	1040	1010	980	950	925	895	860	830
	17		1125	1095	1065	1035	1005	975	950	920	890	860
	18	Cooling	1210	1180	1150	1120	1095	1065	1040	1010	980	945
070A036	1	Constant Fan	465	400	330	250	180	115	--	--	--	--
	2		500	440	370	295	225	165	115	-	--	--
	3		550	490	430	365	300	235	175	130	---	--
	4		595	540	485	425	355	295	240	185	135	--
	5		635	580	530	475	420	355	300	245	195	145
	6		675	625	575	525	470	410	355	300	250	205
	7		715	670	625	575	525	475	420	370	320	270
	8		760	720	675	630	585	535	490	435	390	340
	9		805	765	725	685	640	595	550	505	455	410
	10		855	820	780	740	700	660	615	575	530	485
	11		905	870	835	795	760	720	685	645	600	560
	12		950	915	880	845	810	775	740	700	665	625
	13		1005	970	940	905	870	840	805	770	735	700
	14		1055	1020	990	960	930	895	865	830	800	765
	15	Heating	1085	1055	1025	995	965	935	900	870	840	810
	16		1120	1090	1060	1030	1000	970	940	910	880	850
	17		1150	1120	1095	1065	1035	1005	975	945	920	890
	18	Cooling	1220	1195	1170	1140	1115	1090	1060	1035	1005	970
070B036	1	Constant Fan	475	385	300	220	155	-	--	--	--	--
	2		515	430	350	275	200	130	--	--	--	--
	3		565	490	410	340	270	205	140	--	--	--
	4		610	540	470	400	335	265	210	150	--	--
	5		655	590	525	455	395	330	270	215	155	--
	6		700	635	570	505	445	385	325	270	220	165
	7		740	685	620	560	500	445	390	335	280	235
	8		790	735	675	620	565	510	455	400	350	300
	9		835	785	730	675	620	570	515	465	415	365
	10		880	830	780	725	675	625	575	525	480	430
	11		935	890	840	790	740	690	645	595	550	505
	12		985	940	895	845	800	750	705	665	620	575
	13		1035	990	950	900	855	810	770	730	685	640
	14		1080	1040	995	950	910	865	825	785	745	705
	15	Heating	1120	1075	1035	995	950	910	870	830	790	750
	16		1175	1140	1100	1060	1020	980	940	905	865	830
	17		1225	1190	1155	1115	1080	1040	1000	965	930	895
	18	Cooling	1300	1265	1230	1190	1160	1120	1085	1050	1015	980

Air Delivery - CFM (with filter)* (Continued)

Unit Size	Airflow Setting	Default Setting	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
070B048	1	Constant Fan	545	465	385	310	235	155	--	--	--	--
	2		605	535	455	385	315	250	175	-	--	--
	3		665	595	530	460	395	330	270	205	--	--
	4		740	675	615	550	490	430	370	315	255	190
	5		810	750	690	635	570	515	460	405	355	305
	6		870	815	760	705	650	595	545	490	440	390
	7		955	900	850	795	745	695	645	595	545	495
	8		1025	975	925	880	835	785	735	685	645	595
	9		1095	1050	1005	955	915	870	820	770	730	685
	10		1175	1135	1090	1045	1005	960	920	875	830	790
	11		1220	1180	1135	1095	1055	1015	975	935	890	850
	12	Heating	1320	1285	1245	1205	1170	1130	1095	1055	1015	980
	13		1390	1355	1315	1280	1245	1210	1170	1135	1100	1065
	14		1475	1435	1405	1370	1335	1300	1265	1235	1200	1165
	15		1550	1520	1485	1450	1415	1385	1350	1320	1290	1260
	16		1630	1600	1570	1540	1510	1480	1450	1420	1390	1365
	17		1705	1675	1640	1615	1590	1560	1535	1505	1480	1455
	18	Cooling	1840	1810	1775	1735	1700	1660	1620	1580	1540	1500
090B042	1	Constant Fan	670	595	485	405	330	245	190	130	--	--
	2		705	635	535	450	380	305	235	180	125	--
	3		760	695	625	520	450	380	310	245	195	145
	4		810	750	685	585	515	450	385	320	260	210
	5		860	800	745	675	580	510	450	390	325	270
	6		910	855	800	740	650	580	515	460	400	345
	7		950	900	850	790	730	640	575	515	465	410
	8		1025	975	925	875	820	740	670	615	560	510
	9		1075	1030	985	935	885	835	745	690	630	580
	10		1140	1095	1050	1005	960	910	855	775	715	665
	11		1210	1165	1125	1085	1040	995	950	895	815	760
	12	Heating	1255	1210	1170	1130	1085	1045	1000	955	880	820
	13		1280	1235	1200	1160	1115	1075	1030	990	925	855
	14		1340	1300	1265	1225	1185	1145	1105	1065	1025	965
	15		1410	1370	1335	1300	1265	1225	1190	1150	1110	1070
	16		1475	1440	1405	1370	1335	1300	1265	1225	1190	1150
	17		1550	1515	1480	1445	1415	1380	1345	1310	1270	1235
	18	Cooling	1620	1585	1555	1520	1490	1460	1425	1375	1315	1255
090C048	1	Constant Fan	685	585	490	395	315	240	170	--	--	--
	2		745	660	560	480	390	320	250	185	--	--
	3		810	725	635	550	475	395	325	265	200	--
	4		860	785	700	615	540	465	395	335	275	215
	5		915	845	765	680	610	535	465	400	345	285
	6		980	910	840	765	690	620	555	490	425	370
	7		1040	980	910	840	770	700	635	575	510	450
	8		1100	1040	975	910	840	770	710	650	590	530
	9		1170	1110	1055	995	930	870	800	745	685	630
	10		1225	1170	1110	1055	995	930	865	810	755	700
	11		1295	1245	1195	1135	1085	1025	970	905	850	795
	12		1315	1265	1215	1160	1110	1055	1000	935	880	830
	13	Heating	1350	1300	1250	1195	1145	1090	1035	975	915	865
	14		1420	1375	1330	1280	1230	1185	1130	1075	1020	960
	15		1495	1455	1405	1360	1315	1270	1220	1170	1120	1060
	16		1565	1525	1480	1435	1395	1350	1305	1260	1210	1160
	17		1645	1605	1565	1525	1480	1435	1390	1345	1300	1250
	18	Cooling	1725	1680	1645	1605	1565	1520	1480	1420	1340	1260

Air Delivery - CFM (with filter)* (Continued)

Unit Size	Airflow Setting	Default Setting	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
110C060	1	Constant Fan	845	730	625	520	420	330	240	135	--	--
	2		920	810	705	610	515	425	345	260	155	--
	3		1025	920	825	735	645	560	475	400	320	245
	4		1115	1015	930	840	760	675	595	520	445	380
	5		1235	1150	1060	980	900	825	750	675	600	525
	6		1340	1260	1180	1100	1025	955	885	810	740	675
	7		1440	1365	1290	1215	1140	1070	1005	940	875	805
	8		1530	1460	1390	1320	1250	1185	1115	1055	995	930
	9		1640	1575	1510	1440	1375	1310	1250	1190	1130	1075
	10		1745	1685	1620	1555	1495	1430	1370	1315	1260	1205
	11		1835	1780	1720	1665	1605	1550	1490	1435	1380	1330
	12	Heating	1895	1840	1785	1730	1675	1615	1560	1505	1455	1400
	13		1950	1895	1840	1785	1725	1670	1615	1565	1510	1460
	14		2055	2005	1955	1900	1845	1790	1740	1690	1640	1590
	15		2160	2110	2065	2015	1960	1910	1860	1815	1765	1720
	16	Cooling	2260	2210	2165	2120	2070	2020	1975	1930	1885	1840
	17		2355	2310	2265	2225	2180	2135	2090	2045	2005	1960
	18		2520	2480	2435	2395	2350	2310	2255	2195	2135	2080
135D060	1	Constant Fan	760	635	520	405	290	175	--	--	--	--
	2		815	700	590	485	370	270	155	--	--	--
	3		905	795	685	590	490	380	290	185	--	--
	4		975	870	770	680	590	490	395	310	205	--
	5		1025	920	825	740	655	560	460	375	290	195
	6		1120	1025	935	845	770	690	600	505	420	350
	7		1205	1120	1030	945	870	800	720	635	550	470
	8		1285	1200	1120	1040	965	900	830	750	675	590
	9		1380	1305	1225	1150	1075	1010	950	885	815	735
	10		1450	1380	1305	1230	1160	1095	1030	975	910	840
	11		1555	1480	1415	1345	1275	1210	1150	1095	1045	985
	12		1635	1565	1500	1435	1370	1310	1245	1190	1140	1090
	13		1710	1645	1585	1525	1460	1400	1340	1285	1230	1185
	14		1785	1725	1665	1600	1545	1485	1425	1375	1320	1275
	15	Heating	1870	1805	1750	1695	1640	1580	1525	1475	1420	1375
	16		1940	1885	1830	1780	1725	1675	1620	1570	1520	1475
	17		2020	1965	1915	1865	1815	1765	1715	1665	1620	1580
	18	Cooling	2125	2075	2025	1975	1925	1875	1825	1775	1705	1640

NOTE:

1. A filter is required for each return-air inlet. Airflow performance included 3/4-in. (19 mm) washable filter media such as contained in a 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 airflow setting 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" (508 x 635 mm) 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. The -- entry indicates unstable operating conditions.

Airflow Settings

Unit Size	Default Airflow Settings*		Designated Airflow Settings	
	Heating	Cooling	Heating	Constant Fan
045A036	8	18	(4-12)	(1-7)
070A036	15	18	(9-16)	(1-7)
070B036	15	18	(11-17)	(1-8)
070B048	12	18	(7-13)	(1-4)
090B042	12	18	(7-16)	(1-9)
090C048	13	18	(8-16)	(1-6)
110C060	12	16	(8-15)	(1-9)
135D060	15	18	(12-16)	(1-7)

*. Setting #1 is the default setting for Constant Fan



The diagram illustrates the front panel of a 24VAC thermostat with the following components and labels:

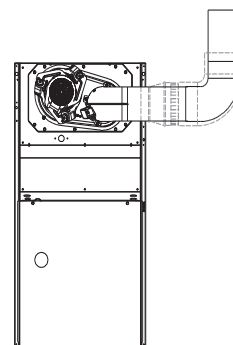
- PLT - FACTORY RUN TEST PORT** (Production Use Only)
- 7 SEGMENT DISPLAY AND PUSHBUTTONS**
- SUPER PLUG** (Super Plug Connector - Board Replacement Use Only)
- NFC ANTENNA**
- HUMIDIFIER TERMINAL** (24-VAC 0.5 AMP MAX.)
- BOARD PART NUMBER LOCATION** (HK42FZ0xxxxxx)
- PL1 - LOW VOLTAGE MAIN HARNESS CONNECTOR**
- IND HSI** (115VAC (L1) HOT SURFACE IGNITER & INDUCER MOTOR 115V SUPPLY CONNECTOR)
- 115-VAC (L1) LINE VOLTAGE CONNECTION**
- 115-VAC (BL, 1) BLOWER MOTOR LINE VOLTAGE CONNECTION**
- EAC-1 TERMINAL** (115-VAC 1.0 AMP MAX.)
- 115-VAC (L2) NEUTRAL CONNECTIONS**
- TRANSFORMER 24-VAC CONNECTIONS**
- 3-AMP FUSE**
- STATUS LED LIGHT**
- 24-V THERMOSTAT TERMINALS** (G, W, Y, R)
- 24VAC ONLY**
- TWINNING**
- NEW SELECT** and **NEW OPTION** buttons
- HUM 24VAC** (Humidifier Terminal)
- WALL ELECTROSTATIC DISCHARGE**

A210192

SEE NOTES: 1, 2, 3, 4, 5, 7, 8, 9
on the page following these figures.

Downflow Application-Vent Elbow Up then Left

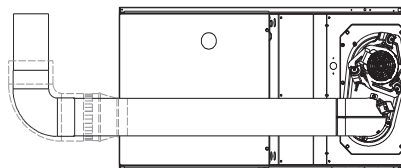
A03210



SEE NOTES: 1, 2, 3, 4, 7, 8, 9
on the page following these figures.

Upflow Application-Vent Elbow Right

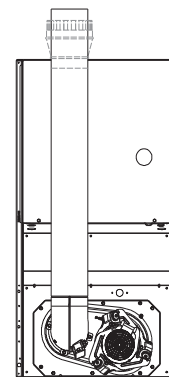
A03209



SEE NOTES: 1, 2, 4, 5, 7, 8, 9 on the page following these figures.

Horizontal Right Application-Vent Elbow Left

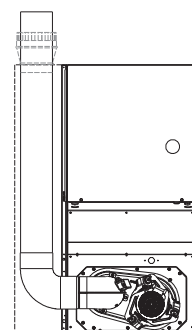
A02068



SEE NOTES: 1, 2, 3, 4, 5, 7, 8, 9
on the page following these figures.

Downflow Application-Vent Elbow Up

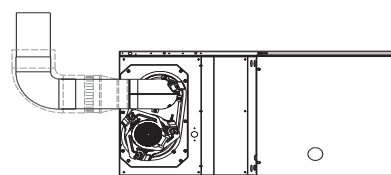
A03211



SEE NOTES: 1, 2, 4, 5, 6, 7, 8, 9
on the page following these figures.

Downflow Application-Vent Elbow Left then Up

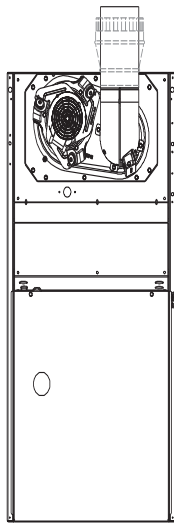
A03207



SEE NOTES: 1, 2, 4, 7, 8, 9 on the page following these figures.

Horizontal Left Application-Vent Elbow Left

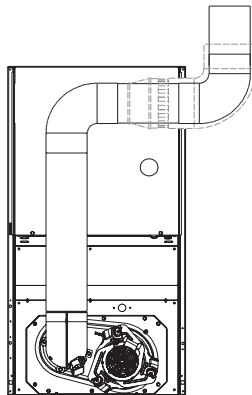
A03213



SEE NOTES: 1, 2, 4, 7, 8, 9
on the page following these figures.

Upflow Application-Vent Elbow Up

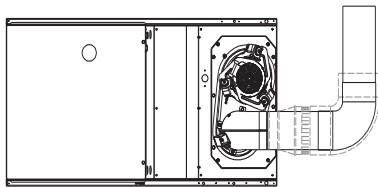
A03208



SEE NOTES: 1, 2, 3, 4, 5, 7, 8, 9
on the page following these figures.

Downflow Application-Vent Elbow Up then Right

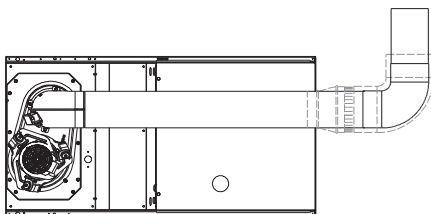
A03212



SEE NOTES: 1, 2, 4, 7, 8, 9 on the page following these figures.

Horizontal Right Application-Vent Elbow Right

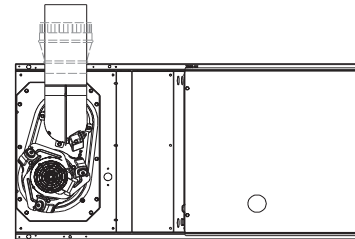
A03218



SEE NOTES: 1, 2, 4, 5, 7, 8, 9 on the page following these figures.

Horizontal Left Application-Vent Elbow Right

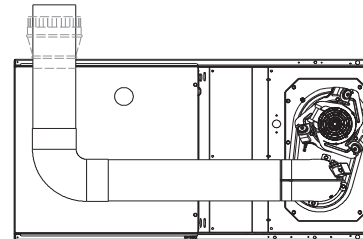
A03216



SEE NOTES: 1, 2, 4, 5, 7, 8, 9
on the page following these figures.

Horizontal Left Application-Vent Elbow Up

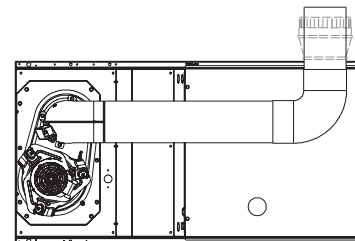
A03215



SEE NOTES: 1, 2, 4, 5, 7, 8, 9
on the page following these figures.

Horizontal Right Application-Vent Elbow Left then Up

A03219



SEE NOTES: 1, 2, 4, 5, 7, 8, 9
on the page following these figures.

Horizontal Left Application-Vent Elbow Right then Up

A03214

Venting notes:

1. For common vent, vent connector sizing and vent material: United States, latest edition of the National Fuel Gas Code (NFGC), ANSI Z223.1/NFPA 54.
2. Immediately increase to 5-in. (127 mm) vent connector outside furnace casing when 5-in. (127 mm) vent connector required, refer to Note 1.
3. Side outlet vent for upflow and downflow installations must use Type B vent immediately after exiting the furnace, except when Downflow Vent Guard is used in downflow position.
4. Type B vent where required, refer to Note 1.
5. 4-in. (102 mm) single wall vent must be used inside furnace casing and the Downflow Vent Guard Kit.
6. Accessory Downflow Vent Guard Kit required in downflow installations with bottom vent configuration.
7. Chimney Adapter Kit required for exterior masonry chimney applications. Refer to Chimney Adapter Kits for sizing and complete application details.
8. Secure vent connector to furnace elbow with (2) corrosion-resistant sheet metal screws, space approximately 180 apart.
9. Secure all other single wall vent connector joints with (3) corrosion-resistant screws spaced approximately 120 apart. Secure Type B vent connectors per vent connector manufacturer's recommendations.

ACCESSORIES

PART NO.	DESCRIPTION	045A036	070A036	070B036	070B048	090B042	090C048	110C060	135D060
ACG1425NCB*	External Filter Rack, 14-1/2 x 25"	X	X	-	-	-	-	-	-
ACG1625NCF*	External Filter Rack, 16 x 25"	-	-	X	X	X	-	-	-
ACG2025NCJ*	External Filter Rack, 20 x 25"	-	-	-	-	-	X	X	-
ACG2424NCL*	External Filter Rack, 24-1/2 x 24"	-	-	-	-	-	-	-	X
325531-402*	Washable filter, 3/4" x 16" x 25"	X	X	X	X	X	-	-	-
325531-403*	Washable filter, 3/4" x 21" x 25"	-	-	-	-	-	X	X	-
325531-404*	Washable filter, 3/4" x 24" x 25"	-	-	-	-	-	-	-	X
NAHB00101CA	Coil Adapter Kits - No Offset	X	X	X	X	X	X	X	X
NAHB00201CA	Coil Adapter Kits - Single Offset	X	X	X	X	X	X	X	X
NAHB00301CA	Coil Adapter Kits - Double Offset	X	X	X	X	X	X	X	X
NAHA01401RA	Return Air Base (Upflow Applications) 14-3/16" wide	X	X	-	-	-	-	-	-
NAHA01701RA	Return Air Base (Upflow Applications) 17-1/2" wide	-	-	X	X	X	-	-	-
NAHA02101RA	Return Air Base (Upflow Applications) 21" wide	-	-	-	-	-	X	X	-
NAHA02401RA	Return Air Base (Upflow Applications) 24-1/2 wide	-	-	-	-	-	-	-	X
NAHA00401DH	Chimney Adapter Kit, up to or equal to 110K BTUh	X	X	X	X	X	X	X	X
NAHA01101SB	Combustible Floor Base (Not required when evaporator coil case is used for downflow)	X	X	X	X	X	X	X	X
NAHB00301VC	Downflow Vent Guard (Not required when vent is routed through cabinet)	X	X	X	X	X	X	X	X
AGAGC8NPS01B*	Natural-to-Propane Conversion Kit†	X	X	X	X	X	X	X	X
AGAGC8PNS01B*	Propane-to-Natural Conversion Kit†	X	X	X	X	X	X	X	X
AGATWNPUA01A	Twinning Kit	-	-	-	-	-	-	-	-

* Purchased through FAST Parts.

† Factory-authorized and field installed. Fuel conversion kits are CSA recognized.

X = Accessory

ORIFICES

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