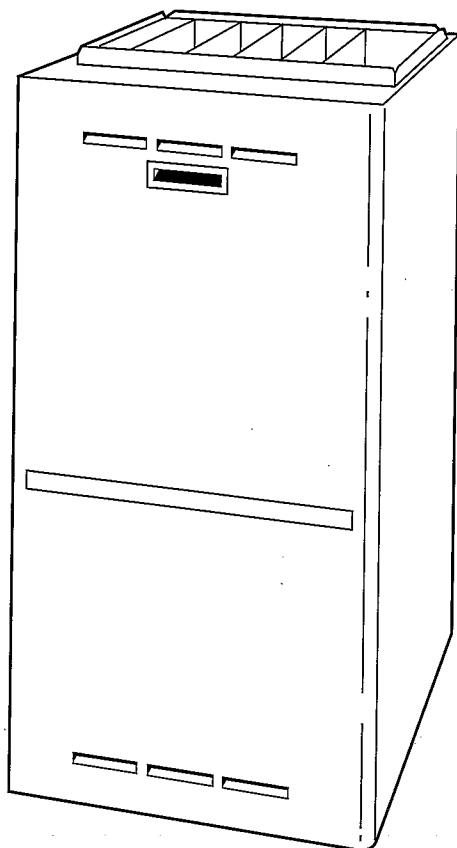




4-WAY MULTIPOISE FIXED-CAPACITY DIRECT-VENT CONDENSING GAS FURNACE

340MAV

Sizes 040 thru 120
Series D



4-WAY MULTIPOISE CONDENSING GAS FURNACE

The model 340MAV Multipoise Condensing Furnace is specifically designed to meet the needs of the new construction market. This high-efficiency furnace utilizes a unique 4-way multipoise design and compact size to fit where other furnaces will not. The model 340MAV can be installed in any of 4 positions including horizontally in attics or crawlspaces, freeing space formerly used as a utility or furnace room. The model 340MAV can be installed in a manufactured (mobile) home when the optional kit is used. Sidewall or through-the-roof venting options and the use of PVC pipe eliminate the need for dedicated chimneys or chaseways to facilitate furnace venting. Time-saving installation features yield a very cost effective way to provide new home buyers with a high-efficiency and high-quality home comfort system.

FEATURES

4-Way Multipoise Design—Allows a model 340MAV to be installed in an upflow, downflow, or horizontal orientation.

The model 340MAV is available in 11 heat/airflow combinations, and when combined with the 4-way design, allows for 44 different applications. Factory configured for upflow application, this furnace can easily be made ready for downflow or horizontal installations.

Sealed Combustion (Direct Vent) System—Enclosed burner assembly isolates operating noise without the expense of

sound deadening devices. The sealed combustion (direct vent) system brings outdoor air directly into the combustion chamber, reducing infiltration of cold air into the structure and reducing heat loss.

3-Pass Primary Heat Exchangers—This design accelerates heat transfer and extracts heat that conventional heat exchangers waste up the flue. The primary heat exchanger is made of aluminized steel for corrosion resistance.

Flow-Through Secondary Heat Exchangers—Each cell is laminated with our patented Everlastic™ polypropylene for greater resistance to corrosion. This breakthrough in heating technology helps extend the life of the furnace for years of dependable performance. The heat exchanger is positioned in the furnace to extract additional heat from the combustion products regardless of furnace orientation.

Warranty—The 340MAV is backed by a 25-year Limited Warranty on the heat exchangers and a 1-year Warranty on all other parts.

Monoport Inshot Burners—Produce precise air-to-gas mixture which gives a clean burn. The large monoport on the inshot or injection-type burners seldom, if ever, needs cleaning.

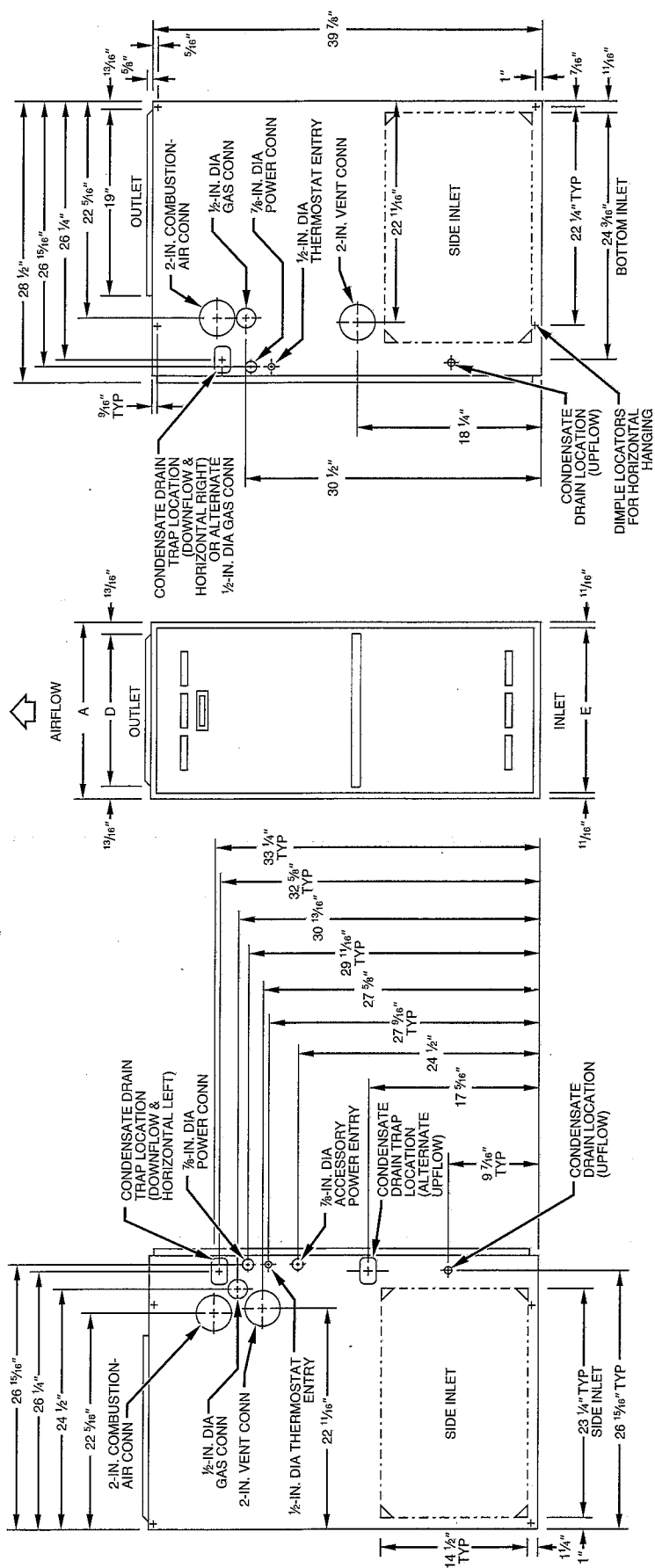
Integrated Control Center—The printed-circuit board and all internal wiring are factory installed. Convenient terminals permit quick-connection of a thermostat and air conditioning control circuits. Connections for a humidifier and air cleaner are also provided.

The control has a built-in status indicator and self-test feature. The status indicator flashes to indicate a problem condition and assists the servicer in diagnosis. The self-test feature allows for a complete check of the major components in only seconds.

Combustion Air and Ventilation—The 340MAV advanced design allows Schedule 40PVC, PVC-DWV, SDR-21 PVC, SDR-26 PVC (not approved in Canada), ABS-DWV, or ABS-F628 Schedule 40 pipe to bring outdoor air into the furnace for combustion. The extracted heat lowers the temperature of the combustion products to a point (typically below 115°F) that any of the approved types of pipe can also be used for venting combustion products outside the structure. The combustion-air and vent pipes can terminate through a side wall or through the roof when using 1 of our approved vent termination kits.

Insulated Casing—Foil-faced insulation in the heat exchanger section cuts heat loss. The casing also has the required openings for left- or right-side connection of gas, electric, drain, and vent connections.

Certifications—The 340MAV units are A.G.A. and C.G.A. design certified for use with natural and propane gases, as well as GAMA efficiency rating certified. The furnace is factory-shipped for use with natural gas. An A.G.A./C.G.A. certified gas conversion kit is required to convert furnace for use with propane gas. The model 340MAV meets California Air Quality Management District emission requirements. The model 340MAV can be installed in a manufactured (mobile) home when the optional kit is used.



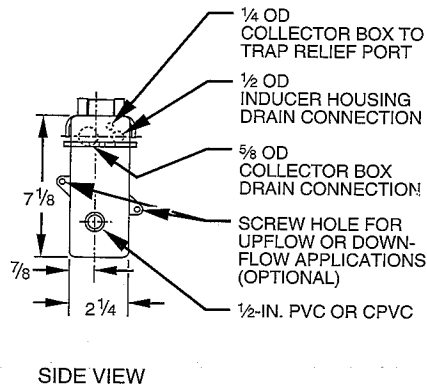
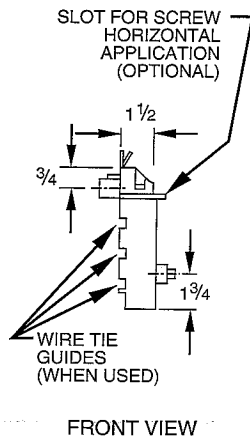
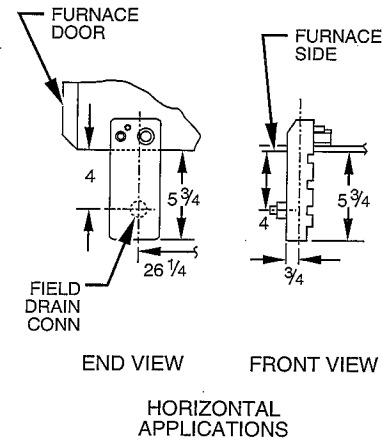
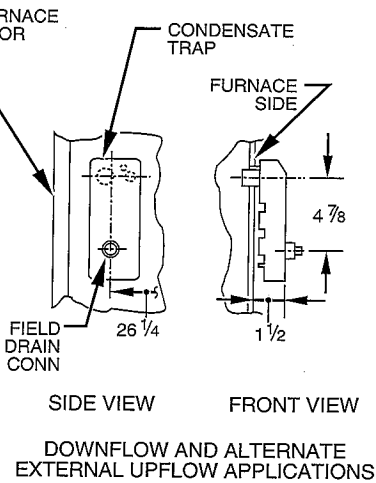
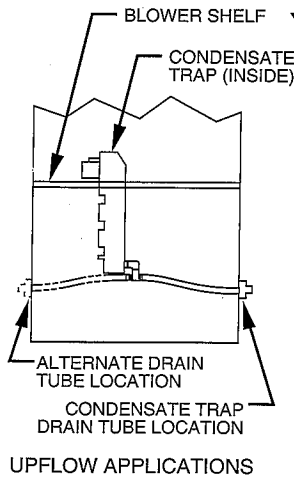
NOTES: Minimum return-air opening at furnace:

1. For 800 CFM—16-in. round or $14\frac{1}{2}$ x 12-in. rectangle.
2. For 1200 CFM—20-in. round or $14\frac{1}{2}$ x 19 $\frac{1}{2}$ -in. rectangle.
3. For 1600 CFM—22-in. round or $14\frac{1}{2}$ x 23 $\frac{1}{4}$ -in. rectangle.
4. For airflow requirements above 1800 CFM, use both side inlets, a combination of 1 side inlet and the bottom, or the bottom only.

DIMENSIONS (In.)

UNIT SIZE	A	D	E	SHIP. WEIGHT (Lb)
024040	17-1/2	15-7/8	16	149
036040	17-1/2	15-7/8	16	152
024060	17-1/2	15-7/8	16	156
036060	17-1/2	15-7/8	16	163
048060	17-1/2	15-7/8	16	166
036080	17-1/2	15-7/8	16	172
048080	17-1/2	15-7/8	16	175
060080	21	19-3/8	19-1/2	197
048100	21	19-3/8	19-1/2	193
060100	21	19-3/8	19-1/2	196
060120	24-1/2	22-7/8	23	228

CONDENSATE TRAP



A93026



APPROVALS
ISO 9001
EN 29001
BS 5750 PART 1
ANSI/ASQC Q91

CERTIFICATION OF MANUFACTURING SITE

MEETS DOE RESIDENTIAL CONSERVATION SERVICES PROGRAM STANDARDS.

Before purchasing this appliance, read important energy cost and efficiency information available from your retailer.

As an ENERGY STARSM Partner, BDP Company has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

SPECIFICATIONS

UNIT SIZE		024040	036040	024060	036060	048060
RATINGS AND PERFORMANCE						
Input Btuh*		40,000	40,000	60,000	60,000	60,000
Output Capacity†	Nonweatherized ICS	37,200	37,200	55,800	55,800	55,800
AFUE%†	Nonweatherized ICS	90.5	90.5	90.5	90.5	90.5
Certified Temperature Rise Range °F		30—60	15—45	45—75	30—60	20—50
Certified External Static Pressure	Heating	0.10	0.10	0.12	0.12	0.12
	Cooling	0.50	0.50	0.50	0.50	0.50
Airflow CFM‡	Heating	850	1125	885	1065	1320
	Cooling	895	1215	900	1200	1545
ELECTRICAL						
Unit Volts—Hertz—Phase		115—60—1				
Operating Voltage Range Min—Max**		104—127				
Maximum Unit Amps		6.1	7.3	6.1	7.1	9.5
Unit Ampacity††		8.4	10.0	8.4	9.8	12.8
Minimum Wire Size		14	14	14	14	14
Maximum Wire Length (Ft)‡‡		44	37	44	38	29
Maximum Fuse Size or Ckt Bkr Amps (Time-Delay Fuse Recommended)		15	15	15	15	15
Transformer (24v)		40va				
External Control	Heating	12va				
	Cooling	21va				
Power Available						
Air Conditioning Blower Relay		Standard				
CONTROLS						
Limit Control		SPST				
Heating Blower Control (Off Delay)		Factory-Set at 135 Sec				
Burners (Monoport)		2	2	3	3	3
Gas Connection Size		1/2-in. NPT				
GAS CONTROLS						
Gas Valve (Redundant)	Manufacturer	White-Rodgers				
	Min Inlet Pressure (In. wc)	4.5 (Natural Gas)				
	Max Inlet Pressure (In. wc)	13.6 (Natural Gas)				
Ignition Device		Hot Surface				
BLOWER DATA						
Direct-Drive Motor HP (Permanent Split Capacitor)		1/5	1/3	1/5	1/3	1/2
Motor Full Load Amps		4.9	5.8	4.9	5.8	7.9
RPM (Nominal)—Speeds		1075—3	1075—4	1075—3	1075—4	
Blower Wheel Diameter x Width (In.)		10 x 6	10 x 7	10 x 6	10 x 7	11 x 8
Filter Size (In.)—Permanent Washable		(1) 16 x 25 x 1				
FACTORY-AUTHORIZED AND LISTED, DEALER-INSTALLED OPTIONS						
Gas Conversion Kit—Natural-to-Propane		KGANP2001ALL				
Gas Conversion Kit—Propane-to-Natural		KGAPN1601ALL				
Twinning Kit—Upflow ONLY		N/A				KGATW0401HSI
Manufactured (Mobile) Home Kit		KGAMH0101KIT				
Downflow Base***		KGASB0201ALL				
Vent Termination Kit (Bracket Only for 2 Pipes)		2-in.—KGAVT0101BRA 3-in.—KGAVT0201BRA				
Concentric Vent Termination Kit (Single Exit)		2-in.—KGAVT0501CVT 3-in.—KGAVT0601CVT				
Sidewall Vent Terminal Cover (For 2 Pipes)		2-in.—KGAVT0301COV 3-in.—KGAVT0401COV				
Condensate Freeze Protection Kit		KGAHT0101CFP				
Side Filter Rack (Without Filter)—Upflow ONLY		KGAFR0206ALL				
Return Filter Plenum (With Washable Filters)—Upflow ONLY		KGARP0201ALL				
Electronic Air Cleaner		Model 901KAX				
Mechanical Air Cleaner		Model MECH				
Humidifier		Models 912D, 912E, 913B, 913C, and 914A				
Heat/Energy Recovery Ventilator		Models VA3B, VB5B, VC5B, VL3A				
Zoning		2-Zone—ZONEKIT2ZBDP 4-Zone—ZONEKIT4ZBDP				

See notes on page 5.

SPECIFICATIONS Continued

UNIT SIZE		036080	048080	060080	048100	060100	060120
RATINGS AND PERFORMANCE							
Input Btuh*		80,000	80,000	80,000	100,000	100,000	120,000
Output Capacity†	Nonweatherized ICS	74,400	74,400	74,400	93,000	93,000	111,600
AFUE%†	Nonweatherized ICS	90.5	90.5	90.5	90.5	90.5	90.5
Certified Temperature Rise Range °F		40—70	30—60	20—50	45—75	30—60	40—70
Certified External Static Pressure	Heating	0.15	0.15	0.15	0.20	0.20	0.20
	Cooling	0.50	0.50	0.50	0.50	0.50	0.50
Airflow CFM‡	Heating	1190	1285	1785	1315	1690	1720
	Cooling	1245	1525	1925/2035	1570	1930/2130	2000/2130
ELECTRICAL							
Unit Volts—Hertz—Phase		115—60—1					
Operating Voltage Range Min—Max**		104—127					
Maximum Unit Amps		7.6	10.0	14.1	10.2	14.8	14.6
Unit Ampacity††		10.4	13.4	18.4	13.5	19.3	19.1
Minimum Wire Size		14	14	12	14	12	12
Maximum Wire Length (Ft)‡‡		36	28	31	27	30	30
Maximum Fuse Size or Ckt Bkr Amps (Time-Delay Fuse Recommended)		15	20	15	20	20	
Transformer (24v)		40va					
External Control	Heating	12va					
Power Available	Cooling	21va					
Air Conditioning Blower Relay		Standard					
CONTROLS							
Limit Control		SPST					
Heating Blower Control (Off Delay)		Factory-Set at 135 Sec					
Burners (Monoport)		4	4	4	5	5	6
Gas Connection Size		1/2-in. NPT					
GAS CONTROLS							
Gas Valve (Redundant)	Manufacturer	White-Rodgers					
	Min Inlet Pressure (In. wc)	4.5 (Natural Gas)					
	Max Inlet Pressure (In. wc)	13.6 (Natural Gas)					
Ignition Device		Hot Surface					
BLOWER DATA							
Direct-Drive Motor HP (Permanent Split Capacitor)		1/3	1/2	3/4	1/2	3/4	3/4
Motor Full Load Amps		5.8	7.9	11.1	7.9	11.1	11.1
RPM (Nominal)—Speeds		1075—4					
Blower Wheel Diameter x Width (In.)		10 x 7	11 x 8	11 x 10	11 x 8	11 x 10	11 x 10
Filter Size (In.)—Permanent Washable		(1) 20 x 25 x 1					(2) 16 x 25 x 1
FACTORY-AUTHORIZED AND LISTED, DEALER-INSTALLED OPTIONS							
Gas Conversion Kit—Natural-to-Propane		KGANP2001ALL					
Gas Conversion Kit—Propane-to-Natural		KGAPN1601ALL					
Twinning Kit—Upflow ONLY		N/A	KGATW0401HSI				
Manufactured (Mobile) Home Kit		KGAMH0101KIT					
Downflow Base***		KGASB0201ALL					
Vent Termination Kit (Bracket Only for 2 Pipes)		2-in.—KGA VT0101BRA 3-in.—KGA VT0201BRA					
Concentric Vent Termination Kit (Single Exit)		2-in.—KGA VT0501CVT 3-in.—KGA VT0601CVT					
Sidewall Vent Terminal Cover (For 2 Pipes)		2-in.—KGA VT0301COV 3-in.—KGA VT0401COV					
Condensate Freeze Protection Kit		KGA HT0101CFP					
Side Filter Rack (Without Filter)—Upflow ONLY		KGA FR0206ALL					
Return Filter Plenum (With Washable Filters)—Upflow ONLY		KGARP0201ALL					
Electronic Air Cleaner		Model 901KAX					
Mechanical Air Cleaner		Model MECH					
Humidifier		Models 912D, 912E, 913B, 913C, and 914A					
Heat/Energy Recovery Ventilator		Models VA3B, VB5B, VC5B, VL3A					
Zoning		2-Zone—ZONEKIT2ZBDP 4-Zone—ZONEKIT4ZBDP					

* Gas input ratings are certified for elevations to 2000 ft. For elevations above 2000 ft, reduce ratings 2% for each 1000 ft above sea level. In Canada, derate the unit 5% from 2000 to 4500 ft above sea level.

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

‡ Air delivery above 1800 CFM requires that both sides, a combination of 1 side and bottom, or bottom only of the furnace be used for return air. Where 2 sets of data are listed, the first set is for bottom only return-air supply. The second set is for both sides, or 1 side and bottom return-air supply. A filter is required for each return-air supply.

** Permissible voltage limits for proper furnace operation.

†† Unit ampacity = 125% of largest component's full load amps plus 100% of all other potential operating components (EAC, humidifier, etc.).

‡‡ Length shown is measured 1 way along wire path between unit and service panel for maximum 2% voltage drop.

*** Required for installation on combustible floors when no coil box is used, or when any coil box other than a BDP cased coil is used.

N/A—Not applicable

ICS—Isolated Combustion System

COMBUSTION-AIR AND VENT PIPING

MAXIMUM ALLOWABLE PIPE LENGTH (FT)

ALTITUDE ABOVE SEA LEVEL (FT)	UNIT SIZE	TERMINATION TYPE	PIPE DIA (IN.)*	NUMBER OF 90° ELBOWS					
				1	2	3	4	5	6
0 to 2000	024040 036040	2 Pipe or 2-In. Concentric	1	5	NA	NA	NA	NA	NA
			1-1/2	70	70	65	60	60	55
			2	70	70	70	70	70	70
	024060 036060 048060	2 Pipe or 2-In. Concentric	1-1/2	20	15	10	5	NA	NA
			2	70	70	70	70	70	70
			1-1/2	10	NA	NA	NA	NA	NA
	036080 048080 060080	2 Pipe or 2-In. Concentric	2	55	50	35	30	30	20
			2-1/2	70	70	70	70	70	70
			2	5	NA	NA	NA	NA	NA
	048100 060100	2 Pipe or 3-In. Concentric	2-1/2	40	30	20	20	10	NA
			3	70	70	70	70	70	70
			060120	2 Pipe or 3-In. Concentric	2-1/2 one disk	10	NA	NA	NA
	3 one disk	35			30	15	NA	NA	NA
	3† one disk	35			35	35	30	30	30
	3† no disk	70			70	70	70	70	70
2001 to 3000	024040 036040	2 Pipe or 2-In. Concentric	1-1/2	67	62	57	52	52	47
			2	70	70	70	70	70	70
	024060 036060 048060	2 Pipe or 2-In. Concentric	1-1/2	17	12	7	NA	NA	NA
			2	70	67	66	61	61	61
	036080 048080 060080	2 Pipe or 2-In. Concentric	2	49	44	30	25	25	15
			2-1/2	70	70	70	70	70	70
	048100 060100	2 Pipe or 3-In. Concentric	2-1/2	35	26	16	16	6	NA
			3	70	70	70	70	66	61
	060120	2 Pipe or 3-In. Concentric	3 one disk	31	26	12	NA	NA	NA
			3† one disk	31	30	30	25	25	24
			3† no disk	63	62	62	61	61	61
	3001 to 4000	024040 036040	2 Pipe or 2-In. Concentric	1-1/2	64	59	54	49	48
2				70	70	70	70	70	70
024060 036060 048060		2 Pipe or 2-In. Concentric	1-1/2	16	11	6	NA	NA	NA
			2	68	63	62	57	57	56
036080 048080 060080		2 Pipe or 2-In. Concentric	2	46	41	28	23	22	13
			2-1/2	70	70	70	70	70	70
048100 060100		2 Pipe or 3-In. Concentric	2-1/2	33	24	15	14	5	NA
			3	70	70	70	66	61	56
060120		2 Pipe or 3-In. Concentric	3 one disk	29	24	10	NA	NA	NA
			3† one disk	29	28	28	23	22	21
			3† no disk	59	59	58	57	57	56
4001 to 5000†	024040 036040	2 Pipe or 2-In. Concentric	1-1/2	60	55	50	45	44	39
			2	70	70	70	70	70	70
	024060 036060 048060	2 Pipe or 2-In. Concentric	1-1/2	15	10	5	NA	NA	NA
			2	64	59	58	53	52	52
	036080 048080 060080	2 Pipe or 2-In. Concentric	2	44	39	26	21	20	11
			2-1/2	70	70	70	70	70	70
	048100 060100	2 Pipe or 3-In. Concentric	2-1/2	31	22	13	12	NA	NA
			3	70	70	67	62	57	52
	060120	2 Pipe or 3-In. Concentric	3† one disk	27	26	26	21	20	19
			3† no disk	56	55	54	53	52	52
	5001 to 6000†	024040 036040	2 Pipe 2-In. Concentric	1-1/2	57	52	47	42	40
2				70	70	70	70	70	70
024060 036060 048060		2 Pipe or 2-In. Concentric	1-1/2	14	9	NA	NA	NA	NA
			2	60	55	54	49	48	47
036080 048080 060080		2 Pipe or 2-In. Concentric	2	41	36	23	18	17	8
			2-1/2	70	70	70	70	70	70
048100 060100		2 Pipe or 3-in Concentric	2-1/2	29	21	12	11	NA	NA
			3	70	67	62	57	52	47
060120		2 Pipe or 3-In. Concentric	3† one disk	26	24	23	18	17	16
			3† no disk	53	52	50	49	48	47

See notes on page 7.

MAXIMUM ALLOWABLE PIPE LENGTH (FT) Continued

ALTITUDE ABOVE SEA LEVEL (FT)	UNIT SIZE	TERMINATION TYPE	PIPE DIA (IN.)*	NUMBER OF 90° ELBOWS					
				1	2	3	4	5	6
6001 to 7000±	024040 036040	2 Pipe or 2-In. Concentric	1-1/2	53	48	43	38	37	32
			2	70	70	68	67	66	64
	024060 036060 048060	2 Pipe or 2-In. Concentric	1-1/2	13	8	NA	NA	NA	NA
			2	57	52	50	45	44	43
	036080 048080 060080	2 Pipe or 2-In. Concentric	2	38	33	21	16	15	6
			2-1/2	70	70	68	67	66	64
	048100 060100	2 Pipe or 3-In. Concentric	2-1/2	27	19	10	9	NA	NA
			3	68	63	58	53	48	43
	060120	2 Pipe or 3-In. Concentric	3† one disk	24	22	21	16	15	13
			3† no disk	49	48	47	45	44	43
7001 to 8000±	024040 036040	2 Pipe or 2-In. Concentric	1-1/2	49	44	39	34	33	28
			2	66	65	63	62	60	59
	024060 036060 048060	2 Pipe or 2-In. Concentric	1-1/2	12	7	NA	NA	NA	NA
			2	53	48	46	41	40	38
	036080 048080 060080	2 Pipe or 2-In. Concentric	2	36	31	19	14	12	NA
			2-1/2	66	65	63	62	60	59
	048100 060100	2 Pipe or 3-In. Concentric	2-1/2	25	17	8	7	NA	NA
			3	63	58	53	48	43	38
	060120	2 Pipe or 3-In. Concentric	3† one disk	22	20	19	14	12	11
			3† no disk	46	44	43	41	40	38
8001 to 9000±	024040 036040	2 Pipe or 2-In. Concentric	1-1/2	46	41	36	31	29	24
			2	62	60	58	56	55	53
	024060 036060 048060	2 Pipe or 2-In. Concentric	1-1/2	11	6	NA	NA	NA	NA
			2	49	44	42	37	35	34
	036080 048080 060080	2 Pipe or 2-In. Concentric	2	33	28	17	12	10	NA
			2-1/2	62	60	58	56	55	53
	048100 060100	2 Pipe or 3-In. Concentric	2-1/2	23	15	7	5	NA	NA
			3	59	54	49	44	39	34
	060120	2 Pipe or 3-In. Concentric	3† one disk	20	18	17	12	10	8
			3† no disk	43	41	39	37	35	34
9001 to 10,000±	024040 036040	2 Pipe or 2-In. Concentric	1-1/2	42	37	32	27	25	20
			2	57	55	53	51	49	47
	024060 036060 048060	2 Pipe or 2-In. Concentric	2	45	40	38	33	31	29
			2	30	25	14	9	7	NA
	036080 048080 060080	2 Pipe or 2-In. Concentric	2-1/2	57	55	53	51	49	47
			2-1/2	21	13	5	NA	NA	NA
	048100 060100	2 Pipe or 3-In. Concentric	3	54	49	44	39	34	29
			3† one disk	18	16	14	9	7	5
	060120	2 Pipe or 3-In. Concentric	3† no disk	39	37	35	33	31	29

* Disk usage—Unless otherwise specified, use perforated disk assembly (factory-supplied in loose parts bag). If stated, unsnap 1/2 perforated disk assembly and use shouldered disk half or no disk assembly.

† Wide radius elbow.

± Vent sizing for Canadian installations above 4500 ft (1370m) above sea level are subject to acceptance by the local authorities having jurisdiction.

NA—Not Allowed; pressure switch will not make.

NOTES:

1. Do not use pipe size greater than those specified in table or incomplete combustion, flame disturbance, or flame sense lockout may occur.
2. Size both the combustion-air and vent pipe independently, then use the larger diameter for both pipes.
3. Assume two 45° elbows equal one 90° elbow. Long radius elbows are desirable and may be required in some cases.
4. Elbows and pipe sections within the furnace casing and at the vent termination should not be included in vent length or elbow count.
5. The minimum pipe length is 5 ft for all applications.

**MAXIMUM ALLOWABLE EXPOSED VENT PIPE LENGTH (FT) WITH INSULATION
IN WINTER DESIGN TEMPERATURE AMBIENT***

UNIT SIZE	WINTER DESIGN TEMP °F	MAXIMUM PIPE DIA (IN.)	INSULATION THICKNESS (IN.)†				
			0	3/8	1/2	3/4	1
024040 036040	20	1-1/2	31	56	63	70	70
	0	1-1/2	16	34	39	47	54
	20	1-1/2	9	23	27	34	39
024060 036060 048060	20	2	45	70	70	70	70
	0	2	25	51	58	70	70
	20	2	16	36	42	51	60
036080 048080 060080	20	2-1/2	55	70	70	70	70
	0	2-1/2	31	61	69	70	70
	20	2-1/2	20	43	49	61	70
048100 060100	20	3	61	70	70	70	70
	0	3	33	65	70	70	70
	20	3	20	45	52	65	70
060120	20	3	70	70	70	70	70
	0	3	40	70	70	70	70
	20	3	26	55	64	70	70

* Pipe length (ft) specified for maximum vent pipe lengths located in unconditioned spaces. Vent pipes located in unconditioned space cannot exceed the total allowable pipe length as specified in Maximum Allowable Pipe Length table.

† Insulation thickness based on R value of 3.5 per in.

This appliance is equipped for use with natural gas at altitudes 0 - 10,000 ft (0-3,050 m). A conversion kit, supplied by the manufacturer, shall be used to convert to propane or elevation.

This direct-vent, forced-air furnace is for indoor installation in a building constructed on site or in a manufactured (mobile) home when using factory authorized kit, see rating plate. For installation in alcove or closet at minimum clearances from combustible material as shown below.

This appliance requires a special venting system. Refer to the installation instructions for parts list and method of installation. This furnace is for use with schedule-40 PVC, PVC-DWV, or ABS-DWV pipe, and must not be vented in common with other gas-fired appliances. Construction through which vent/air intake pipes may be installed is maximum 24 inches (600 mm), minimum 3/4 inches (19 mm) thickness (including roofing materials).

MINIMUM CLEARANCE TO COMBUSTIBLE MATERIAL

TOP / PLENUM	BOTTOM	SIDES	BACK	FRONT	VENT	INCHES
1	0	0	0	3 Ø	0	UPFLOW
1	#	0	0	3 Ø	0	DOWNFLOW
1	0 †	1 *	0	3 Ø	0	HORIZONTAL

For Installation on combustible floors only when installed on special base No. KGASB0201ALL.

* Clearance shown is for air inlet and air outlet end.

Horizontal position: Line contact is permissible only between lines formed by intersections of top and two sides of furnace jacket, and building joists, studs, or framing.

† 120,000 BTU Input Furnaces require 1 inch bottom clearance to combustible materials.

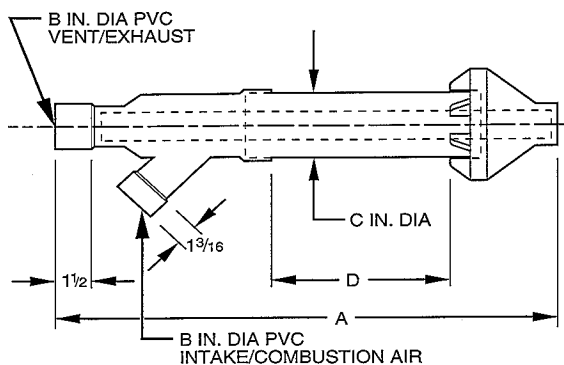
Ø Minimum front clearance for service is 30 inches. (762mm).

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ACCESSORIES

CONCENTRIC VENT



A93294

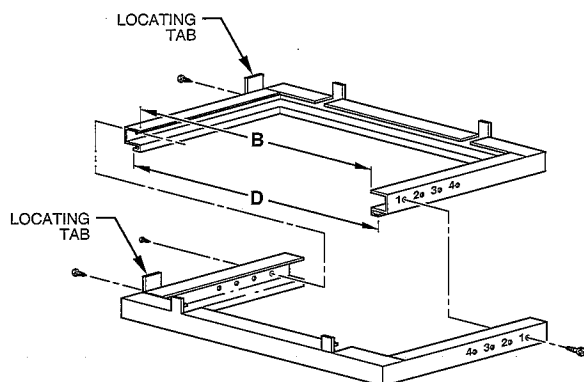
DIMENSIONS (In.)

PART NO.	A*	B	C	D†
KGAVT0501CVT	41-1/8	2	3-1/2	27-1/4
KGAVT0601CVT	46-3/4	3	4-1/2	31-7/8

* Dimension A will change accordingly as dimension D is lengthened or shortened.

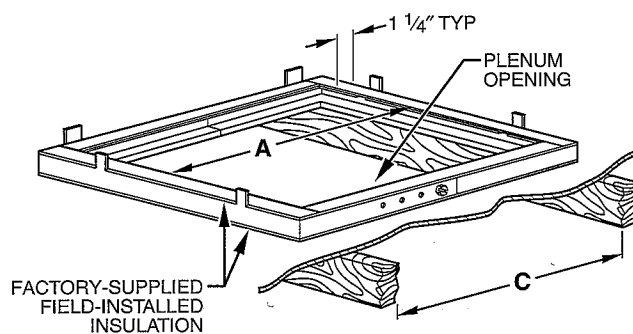
† Dimension D may be lengthened to 60 in. maximum. Dimension D may also be shortened by cutting the pipes provided in the kit to 12 in. minimum.

ACCESSORY DOWNFLOW SUBBASE



Disassembled

A88207



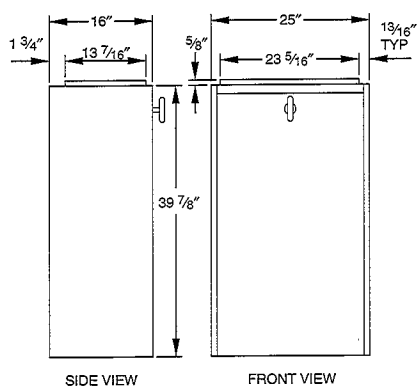
Assembled

A88206

FURNACE WIDTH	PLENUM OPENING*		FRAMED FLOOR HOLE		HOLE NO. FOR WIDTH ADJUSTMENT
	A	B	C	D	
17-1/2	15-1/8	19	16-3/4	20-3/8	3
21	18-5/8	19	20-1/4	20-3/8	2
24-1/2	22-1/8	19	23-3/4	20-3/8	1

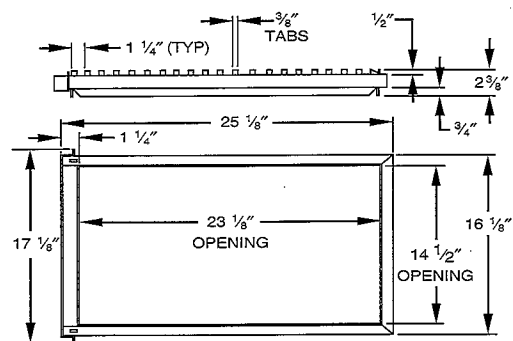
* The plenum should be constructed 1/4-in. smaller in width and depth than the plenum dimensions shown above.

RETURN FILTER PLENUM*



A93078

SIDE FILTER RACK*



A80199

*Includes two 20 x 25 x 1 in. washable filters.

*Accepts one 16 x 25 x 1 in. filter.

AIR DELIVERY—CFM (With Filter)*

UNIT SIZE	RETURN-AIR SUPPLY	SPEED	EXTERNAL STATIC PRESSURE (in. wc)							
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
024040	1 side or bottom	High	1075	1040	995	945	895	840	760	670
		Med-Low	850	825	780	740	685	635	560	480
		Low	740	700	650	620	565	515	455	385
036040	1 side or bottom	High	1470	1415	1400	1285	1215	1120	995	890
		Med-High	1315	1280	1235	1180	1115	1035	930	825
		Med-Low	1125	1110	1085	1045	990	915	830	740
024060	1 side or bottom	High	1100	1065	1005	945	900	805	730	610
		Med-Low	890	865	810	765	705	620	540	475
		Low	745	710	670	625	565	505	425	360
036060	1 side or bottom	High	1430	1375	1325	1275	1200	1135	1040	935
		Med-High	1270	1260	1215	1160	1105	1035	950	850
		Med-Low	1070	1055	1045	1015	975	920	850	750
048060	1 side or bottom	High	1700	1695	1640	1580	1545	1450	1380	1310
		Med-High	1500	1465	1435	1385	1355	1300	1250	1185
		Med-Low	1325	1295	1265	1230	1190	1150	1105	1050
036080	1 side or bottom	High	1535	1470	1405	1330	1245	1160	1065	935
		Med-High	1395	1350	1300	1225	1155	1080	985	880
		Med-Low	1200	1175	1125	1065	1030	970	890	780
048080	1 side or bottom	High	1750	1685	1635	1575	1525	1445	1380	1310
		Med-High	1495	1455	1405	1355	1305	1250	1185	1120
		Med-Low	1310	1260	1225	1170	1125	1095	1040	980
060080	bottom only	High	2200	2175	2085	2025	1925	1820	1735	1635
		Med-High	2100	2025	1945	1865	1785	1700	1620	1540
		Med-Low	1815	1760	1720	1670	1620	1550	1480	1405
048100	1 side or bottom	High	1740	1705	1660	1615	1570	1500	1425	1355
		Med-High	1500	1470	1445	1410	1375	1330	1280	1210
		Med-Low	1340	1315	1300	1270	1235	1200	1140	1095
060100	bottom only	High	2250	2175	2090	2020	1930	1855	1760	1670
		Med-High	2020	1950	1900	1840	1790	1710	1640	1545
		Med-Low	1725	1690	1660	1630	1575	1520	1460	1370
060120	bottom only	High	2350	2250	2160	2070	2000	1885	1790	1635
		Med-High	2100	2015	1955	1875	1810	1710	1650	1540
		Med-Low	1770	1720	1675	1620	1575	1515	1450	1365
060120	both sides or 1 side and bottom	High	2435	2360	2285	2220	2130	2050	1965	1875
		Med-High	2040	2000	1950	1905	1835	1790	1725	1650

* Air delivery above 1800 CFM requires that both sides, a combination of 1 side and bottom, or bottom only of the furnace be used for return air.
A filter is required for each return-air supply.

SERVICE TRAINING

Packaged Service Training programs are an excellent way to increase your knowledge of the equipment discussed in this manual, including:

- Unit Familiarization
- Maintenance
- Installation Overview
- Operating Sequence

A large selection of product, theory, and skills programs is available, using popular video-based formats and materials. All include video and/or slides, plus companion book.

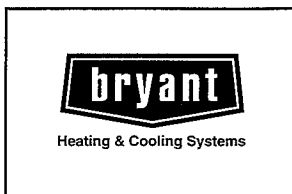
Classroom Service Training plus "hands-on" the products in our labs can mean increased confidence that really pays dividends in faster troubleshooting, fewer callbacks. Course descriptions and schedules are in our catalog.

CALL FOR FREE CATALOG 1-800-962-9212

☐ Packaged Service Training

☐ Classroom Service Training

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SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

UNIT MUST BE INSTALLED IN ACCORDANCE
WITH INSTALLATION INSTRUCTIONS

Cancels: PDS 340M.40.5B