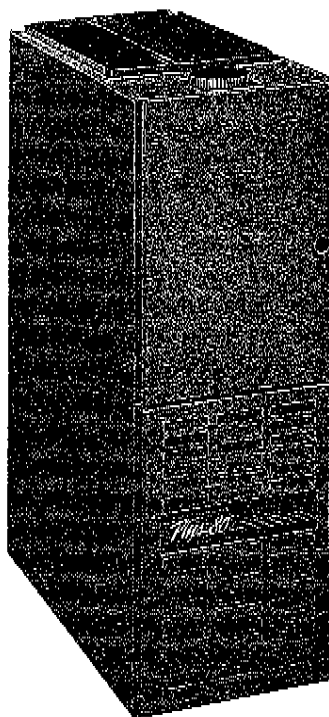
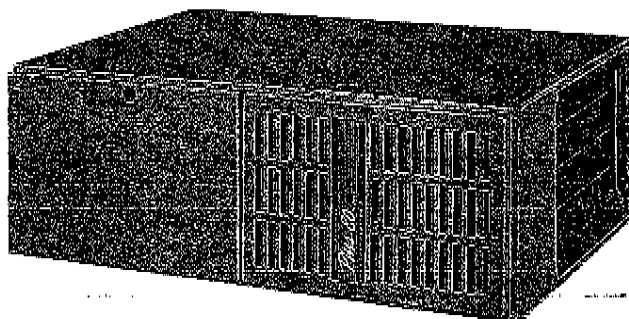




HIGH-EFFICIENCY 2-SPEED DOWNFLOW/HORIZONTAL INDUCED-COMBUSTION FURNACE

331AAVSize 065 thru 125
Series A**DOWNFLOW****HORIZONTAL**

With a unique approach to induced-combustion design, a 40-in. tall cabinet, a 4-pass heat exchanger, an inshot burner system and its safety features, this furnace is without peer. The model 331AAV Two-Speed Downflow/Horizontal Furnace achieves one of the higher Annual Fuel Utilization Efficiency (AFUE) ratings available in a noncondensing, induced-combustion furnace. Its ease and economy of installation, ease of serviceability, economical initial cost, and short payback time put it in a class well ahead of the competition. The model 331AAV Two-Speed Gas Furnace has the kind of overall performance needed in today's homes.

FEATURES

EFFICIENCY—The 331AAV Two-Speed Induced-Combustion Gas Furnace provides the efficiency customers want with 80.0% AFUE.

HOT SURFACE IGNITION—This field proven ignition system will save energy and improve reliability.

ALUMINIZED HEAT EXCHANGER—The patented 4-pass heat exchanger is made of aluminized steel and backed by a 20-year Limited Warranty.

INTELLIGENT CONTROL—The 331AAV Furnace has an intelligent control that monitors the operation of the furnace. This control also has a component-test feature that enables the servicing technician to verify operation of the control, high and low inducer, hot surface ignitor, and low-, medium-, and high-speed blower operation. The control features a 3-amp fuse that protects the transformer and control. We guarantee the reliability of the control with a 3-year Limited Warranty.

40-IN. HEIGHT—The 331AAV Induced-Combustion Furnace with a 40-in. cabinet height simplifies installation in attics, closets, and crawlspaces, especially with a high-efficiency cooling coil.

MULTIPOISED DOWNFLOW OR HORIZONTAL—Our furnace can be used in a downflow, horizontal left, or horizontal right configuration.

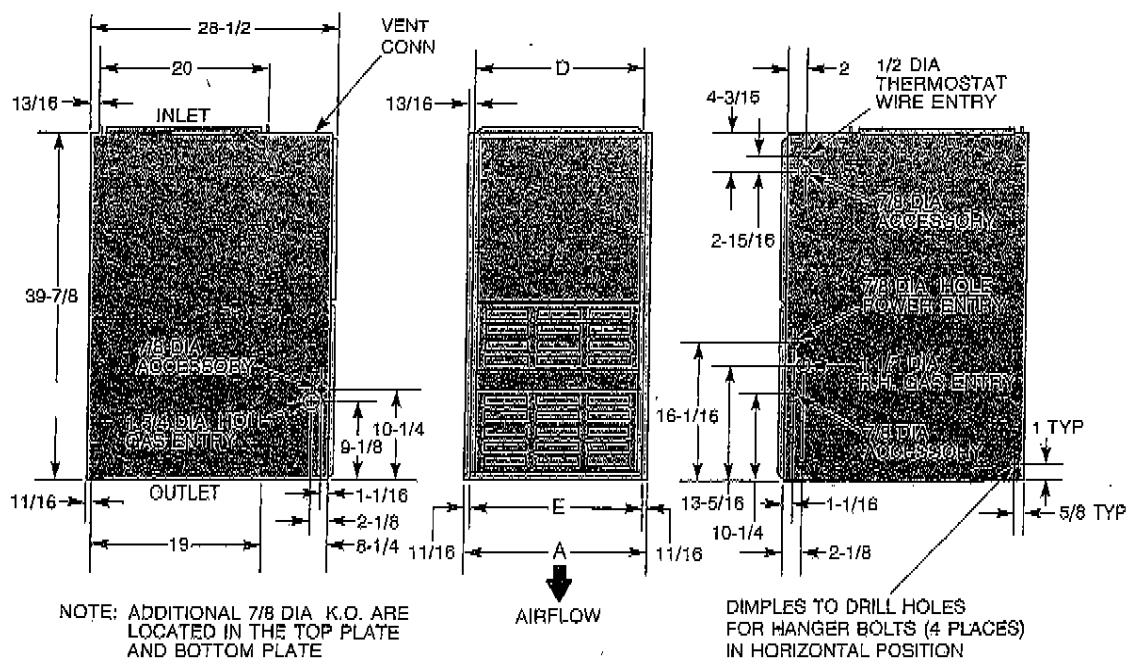
PREPAINTED CABINET—The 331AAV uses prepainted sheet metal for the cabinet. This is the same high-quality finish found on refrigerators and other appliances today. We ensure its durability by using a galvanized steel substrate to provide superior rust protection.

PATENTED DRAFT SAFEGUARD—Our induced-combustion furnace has a patented draft safeguard switch. The safeguard switch will stop furnace operation if the vent system becomes blocked or is not operating properly (Category I installations). An exclusive with the 331AAV Furnace.

EASY INSTALLATION—The model 331AAV has many features that make installation easier: left or right gas and electrical connections, heating and cooling blower speed selector, matching coil sizes, accessory low-voltage connections, and many more.

QUIET OPERATION—A soft mount inducer assembly and 2-stage slow-opening gas valve reduces sound level. The 2-speed operation capability minimizes furnace and air noise for total home comfort.

VENTING—For installation flexibility, furnace venting can be Category I (vertical) or, with a minor field modification kit, Category III (horizontal or vertical) using high temperature plastic pipe.



A88324

DIMENSIONS (in.)

UNIT SIZE	A	D	E	VENT CONN	SHIR WT
038085	14-3/16	12-9/16	12-11/16	4	124
038085	17-1/2	15-7/8	16	4	154
048085	17-1/2	15-7/8	16	4	154
060125	24-1/2	22-7/8	23	5	192

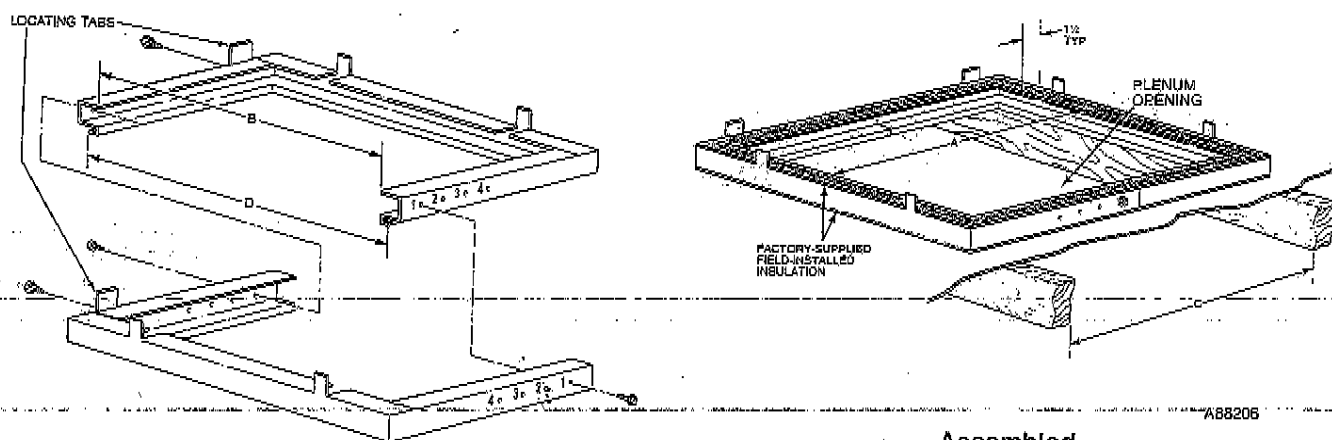
SPECIAL GAS VENTING*

MAXIMUM HORIZONTAL VENT LENGTH†	NO. OF 90° LONG RADIUS (SWEEP) ELBOWS
40 ft	4

*Listed for Category III appliances per UL 1738 (high temperature plastic).

†For 3-in. vents (085 through 085 heating sizes), reduce the vent length 5 ft for each additional 90° elbow. Add 5 ft to the allowable vent length for each 90° elbow less than 4. Length adjustment for 4-in. (105 through 125 heating sizes) vents is 6 ft per sweep elbow.

ACCESSORY DOWNFLOW SUBBASE



A88206

Assembled

A88207

Disassembled

DIMENSIONAL DATA

FURNACE WIDTH	PLENUM OPENING*		FRAMED FLOOR HOLE		HOLE NO. FOR WIDTH ADJUSTMENT
	A	B	C	D	
14-3/16	11-13/16	19	13-7/16	20-3/8	4
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.

SPECIFICATIONS

UNIT SIZE		036085	036085	048085	060125
RATINGS AND PERFORMANCE					
Gas Input Btuh*	High Fire	83,000	84,000	84,000	123,000
	Low Fire	40,500	54,000	54,000	81,000
Output Capacity (Btuh)†	High Fire	51,000	68,000	68,000	99,000
	Low Fire	33,000	44,000	44,000	65,000
Nonweatherized ICS		80.0			
AFUE‡	Nonweatherized ICS	80.0			
	High Fire	30—60	40—70	30—60	45—75
Certified Temperature Rise Range Range (°F)	Low Fire	15—45	25—55	15—45	30—60
	Heat/Cool	0.10/0.50	0.15/0.50	0.15/0.50	0.20/0.50
Certified External Static Pressure	Heating High/Low	1200/1020	1185/965	1355/1170	1690/1480
Airflow CFM	Cooling	1300	1395	1580	2055
ELECTRICAL					
Unit Volts—Hertz—Phase		115—60—1			
Operating Voltage Range		104—127			
Maximum Unit Amps		11.0	12.0	13.2	18.4
Maximum Wire Length (Measured 1 Way)		33	30	28	31
Minimum Wire Size		14			
Maximum Fuse Size		15			
Transformer (24v)		40VA			
External Control	Heating	19VA			
	Cooling	35VA			
Power Available		35VA			
Air Conditioning Blower Relay		Standard			
CONTROLS					
Limit Control		SPST (Auto-Reset)			
Heating Blower Control		Solid-State Time Operation			
Inducer		2-Speed			
Burners (Monoport)		3	4	4	6
Gas Connection Size		1/2-in. NPT			
GAS CONTROLS					
2-Stage Gas Valve (Redundant)		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 (PSC)		1/3	1/3	1/2	3/4
Motor Full Load Amps		5.8	5.8	7.9	11.1
RPM (Nominal)—Speeds		1075-4			
Blower Wheel Diameter x Width (in.)		10 x 6	10 x 7	10 x 8	11 x 10
Filter Size (in.)—Permanent Washable (Supplied)		(2) 14 x 20 x 1			
DEALER-INSTALLED ACCESSORIES					
Category III Vent Conversion Kit		KGASW01012SP			KGASW02012SP
High-Altitude Pressure Switch Kit‡		KGAHA5801PSW			
Category III Vent Conversion Kit		KGASW01012SP			
Gas Conversion Kit—Natural-to-Propane		KGANP24012SP			
Gas Conversion Kit—Propane-to-Natural		KGAPN20012SP			
Duct-Flange Kit		KGARF0110ALL			

* Gas input ratings are certified for elevations to 2000 ft. For elevations above 2000 ft, reduce ratings 4% for each 1000 ft above sea level. Refer to National Fuel Gas Code Table F4. In Canada, derate the unit 10% for elevations 2000 ft to 4500 ft above sea level.

† Tentative capacity in accordance with U.S. Government DOE test procedures, California Seasonal Efficiencies based on California-specified procedures.

‡ 5500 ft and above for Category I or 4000 ft and above for Category III vents.

ICS—Isolated Combustion System

AIR DELIVERY—CFM (With Filter)

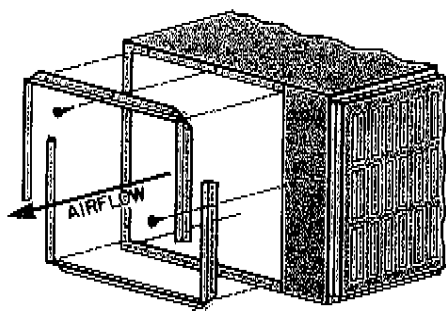
UNIT SIZE	BLOWER MOTOR HP	SPEED	EXTERNAL STATIC PRESSURE (IN. WC)							
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
036085	1/3 PSC	High	—	1490	1425	1365	1300	1240	1175	1100
		Med-High	—	1345	1300	1255	1200	1140	1075	1000
		Med-Low	1200	1180	1140	1100	1060	1015	960	895
		Low	1020	1000	985	950	915	880	835	780
036085	1/3 PSC	High	—	1575	1515	1455	1395	1325	1230	1120
		Med-High	—	1380	1340	1295	1230	1165	1095	1005
		Med-Low	1165	1145	1130	1090	1055	1005	940	870
		Low	965	955	940	910	885	840	785	705
048085	1/2 PSC	High	1855	1765	1710	1665	1580	1570	1410	1310
		Med-High	1595	1570	1530	1485	1410	1355	1280	1200
		Med-Low	1355	1345	1305	1270	1220	1170	1110	1025
		Low	1170	1170	1140	1110	1075	1025	965	890
060125	3/4 PSC	High	—	2250	2190	2130	2055	1960	1875	1760
		Med-High	—	2000	1960	1910	1850	1785	1710	1615
		Med-Low	1700	1690	1670	1650	1610	1560	1490	1435
		Low	1480	1480	1480	1450	1430	1380	1320	1255

—Indicates unstable operating conditions.



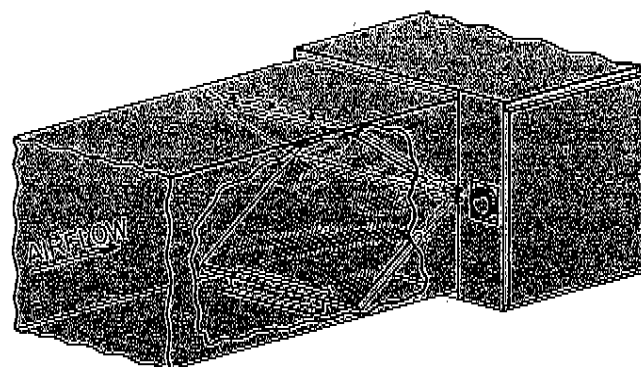
MEETS DOE RESIDENTIAL CONSERVATION SERVICES PROGRAM STANDARDS.

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



**Duct Flanges
(Accessory)**

A82172



**Filter Retainers
(Field Supplied)**

A82173

CLEARANCES FROM COMBUSTIBLE MATERIALS (In.)

UNIT SIZE	065 and 085	125
DOWNFLOW (In Alcove or Closet)		
Sides—Single-Wall Vent (Category I)	1*	0
Type B-1 Double-Wall Vent (Category I)	0	0
Special Gas Vent**—Diameter	3	4
Clearance	0	3
Back	0	0
Top	1	1
Front†—Single-Wall Vent (Category I)	6	6
Type B-1 Double-Wall Vent (Category I)	3	3
Special Gas Vent**—Diameter	3	4
Clearance	5	9
Vent—Single-Wall Vent (Category I)	6	6
Type B-1 Double-Wall Vent (Category I)	1	1
Special Gas Vent**—Diameter	3	4
Clearance	5	9

* For casing widths larger than 14-1/4 in., 0 clearance may be used.

† 18-in. front clearance required for alcove.

‡ Clearance shown is for the outlet end. The inlet end must maintain 6-in. clearance from flue to combustible materials when using single-wall vent.

** Listed for Category III appliances per UL1738 (high temperature plastic pipe).

†† Indicates supply or return sides when furnace is in the horizontal position.

NOTES:

1. Provide 30-in. front clearance for servicing. An open door in front of the furnace can meet this requirement.
2. A minimum clearance of 3 in. must be provided in front of the furnace for combustion air and proper operation.

UNIT SIZE	065 and 085	125
HORIZONTAL (In Alcove, Attic, or Crawlspace)		
Sides†††	1	1
Back	0	0
Top—Single-Wall Vent (Category I)	1	1
Type B-1 Double-Wall Vent (Category I)	1	1
Special Gas Vent**—Diameter	3	4
Clearance	1	3
Front†—Single-Wall Vent (Category I)	6	6
Type B-1 Double-Wall Vent (Category I)	3	3
Special Gas Vent**—Diameter	3	4
Clearance	5	9
Vent—Single-Wall Vent (Category I)	6	6
Type B-1 Double-Wall Vent (Category I)	1	1
Special Gas Vent**—Diameter	3	4
Clearance	5	9
HORIZONTAL (In Closet)		
Sides†††	1	1
Back	3	3
Top—Single-Wall Vent (Category I)	2	2
Type B-1 Double-Wall Vent (Category I)	2	2
Special Gas Vent**—Diameter	3	4
Clearance	2	3
Front—Single-Wall Vent (Category I)	6	6
Type B-1 Double-Wall Vent (Category I)	3	3
Special Gas Vent**—Diameter	3	4
Clearance	5	9
Vent—Single-Wall Vent (Category I)	6	6
Type B-1 Double-Wall Vent (Category I)	1	1
Special Gas Vent**—Diameter	3	4
Clearance	5	9

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

UNIT MUST BE INSTALLED IN ACCORDANCE
WITH INSTALLATION INSTRUCTIONS

CANCELS: PDS 331AAV40.2P

