

EARTH PRODUCTS

UNVENTED (VENT-FREE) UNIVERSAL FIREBOX OWNER'S OPERATION AND INSTALLATION MANUAL









NON-CIRCULATING MODELS

V32S, VFB32NC, V36S, V36SH, VFB36NC1, V42S, V42SH AND VFB42NC1 **CIRCULATING MODELS**

V32, V36, V42, CUVF36C, VFB32C, VFB36C1, VFB42C1, V36H AND V42H **OUTSIDE AIR MODELS**

V32A, V32AS, VFB32AC, VFB32ANC, V36A, V36AS, V36ASH, V36AH, VFB36AC, VFB36ANC, V42A, V42AS, V42ASH, V42AH, VFB42AC, VFB42ANC

A WARNING: If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

FOR USE ONLY WITH A LISTED GAS-FIRED UNVENTED **DECORATIVE ROOM HEATER NOT TO EXCEED 40,000** BTU/HR. DO NOT BUILD A WOOD FIRE.

Carefully review the instructions supplied with the decorative type unvented room heater for the minimum fireplace size requirement.

DO NOT INSTALL AN APPLIANCE IN THIS FIREBOX UNLESS THIS FIREBOX MEETS THE MINIMUM DIMEN-SIONS REQUIRED FOR THE INSTALLATION.

This firebox has been tested and approved under ANSI Z21.91 for use with any ANSI Z21.11.2 approved gas logs.

INSTALLER: Leave this manual with the appliance. CONSUMER: Retain this manual for future reference.

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SAFETY

WARNING: Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual for correct installation and operational procedures. For assistance or additional information consult a qualified installer, service agency or the gas supplier.

This appliance may be installed in an aftermarket,* permanently located, manufactured (mobile) home, where not prohibited by local codes.

* Aftermarket: Completion of sale, not for purpose of resale, from the manufacturer

WARNING: This product contains and/or generates chemicals known to the state of California to cause cancer or birth defects or other reproductive harm.

IMPORTANT: Read this owner's manual carefully and completely before trying to assemble, operate or service this heater. Improper use of this fireplace can cause serious injury or death from burns, fire, explosion, electrical shock and carbon monoxide poisoning.

WARNING: Any change to this firebox or its controls can be dangerous.

WARNING: Do not allow fans to blow directly into the firebox. Avoid any drafts that alter burner flame patterns. Ceiling fans can create drafts that alter burner flame patterns. Altered burner patterns can cause sooting.

WARNING: Do not use a blower insert, heat exchanger insert or other accessory not approved for use with this firebox.

Do not place clothing or other flammable material on or near the appliance. Never place any objects in the firebox or on logs.

SAFETY

Continued

Firebox front and screen become very hot when running heater. Keep children and adults away from hot surface to avoid burns or clothing ignition. Firebox will remain hot for a time after shutdown. Allow surface to cool before touching.

Carefully supervise young children when they are in the room with firebox.

You must operate this fireplace with the provided fireplace screen, hood if provided, in place. Make sure these parts are in place and screens are closed before running firebox. The supplied hood may not be replaced with a hood which may be provided with a log heater.

Keep the fireplace area clear and free from combustible materials, gasoline and other flammable vapors and liquids.

- Do not use this firebox as a wood-burning fireplace. Use only decorative unvented room heaters (log sets).
- Do not add extra logs or ornaments such as pine cones, vermiculite or rock wool. Using these added items can cause sooting.
- Do not use blower accessory with model VFB32NC Series. Use only the provided hood or appropriate hood accessory. See <u>Accessories</u> on page 18.
- Vent-free gas log heaters installed in these fireboxes require fresh air ventilation to run properly. See <u>Air for Combustion and Ventilation</u>, page 7.
- 5. Do not run firebox
 - where flammable liquids or vapors are used or stored
 - · under dusty conditions
- 6. Do not use this firebox to cook food or burn paper or other objects.
- Turn firebox off and let cool before servicing. Only a qualified service person should service and repair firebox.
- 8. Operating firebox above elevations of 4,500 feet could cause pilot outage.
- Do not use the firebox if it has been under water due to the shock hazard that could result with the blower accessary (if installed) in place.

LOCAL CODES

Install and use heater with care. Follow all local codes. In the absence of local codes, use the latest edition of *The National Fuel Gas Code, ANSI Z223.1/NFPA 54**. Firebox must be electrically grounded in accordance with the *National Electrical Code, ANSI/NFPA70* (latest edition).

*Available from:

American National Standards Institute, Inc. 1430 Broadway New York, NY 10018 National Fire Protection Association, Inc. Batterymarch Park

Quincy, MA 02269

State of Massachusetts: The installation must be made by a licensed plumber or gas fitter in the Commonwealth of Massachusetts.

Sellers of unvented propane or natural gas-fired supplemental room heaters shall provide to each purchaser a copy of 527 CMR 30 upon sale of the unit.

Vent-free gas products are prohibited for bedroom and bathroom installation in the Commonwealth of Massachusetts.

PRODUCT FEATURES

OPERATION

This firebox is designed for use with approved ANSI Z21.11.2 decorative type unvented room heaters. (Physical size limitations apply. Refer to minimum firebox requirements supplied with log heater.) It requires no outside venting or chimney making installation easy and inexpensive. When used without the blower, the firebox requires no electricity making it ideal for emergency backup heat.

BLOWER ACCESSORY

The circulating models will accept either a rotary type fan (model BK) or the triple radial fan blower system (model BK3) accessories. The blower circulates heated air from the firebox into the room. Use of blower is optional.

REFRACTORY BRICK LINER

Your firebox may feature a concrete refractory brick liner. As with all concrete liners, this liner may develop slight cracks when exposed to heat. These cracks will not affect the performance of the fireplace or vent-free gas logs.

OUTSIDE AIR KIT ACCESSORY

Fireboxes that include "A" in their model number can accept any AK4 series outside air kit accessory.

The optional AK4 air kit provides additional outdoor air to improve burner efficiency and reduce build-up of condensation in the living space. Follow the instructions included with the air kit.

LOCATING FIREBOX

PLANNING

Plan where you will install the firebox. This will save time and money later when you install the firebox. Before installation, consider the following:

- Where the firebox will be located. Allow for wall and ceiling clearances (see <u>Installa-tion Clearances</u>, page 10).
- 2. Everything needed to complete installation.
- These models CANNOT be installed in a bedroom unless the maximum BTU rating of the installed vent-free log set is less than 10.000 Btu/Hr.
- Proper air for combustion and ventilation (page 7).

PRODUCT SPECIFICATIONS

32" MODELS

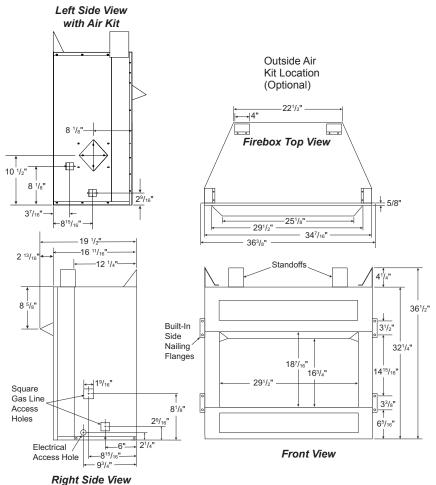


Figure 1 - Firebox Dimensions (32" Models)

PRODUCT SPECIFICATIONS

Continued

36" AND 42" MODELS

Note: If only one dimension is shown, the dimension is the same for both 36" and 42" models.

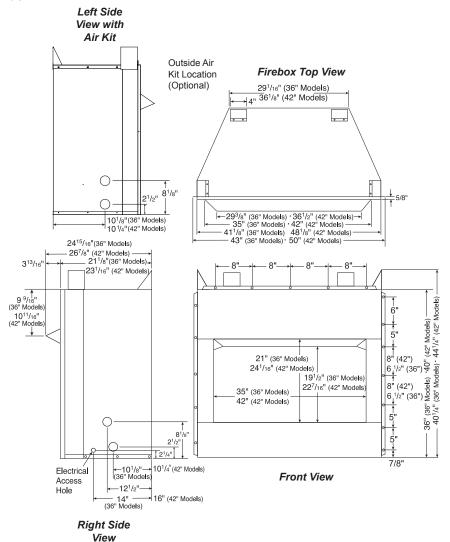


Figure 2 - Firebox Dimensions (36" and 42" Models)

AIR FOR COMBUSTION AND VENTILATION

A WARNING: This heater shall not be installed in a room or space unless the required volume of indoor combustion air is provided by the method described in the National Fuel Gas Code, ANSI Z223.1/NFPA 54, the International Fuel Gas Code, or applicable local codes. Read the following instructions to insure proper fresh air for this and other fuel-burning appliances in your home.

Today's homes are built more energy efficient than ever. New materials, increased insulation and new construction methods help reduce heat loss in homes. Home owners weather strip and caulk around windows and doors to keep the cold air out and the warm air in. During heating months, home owners want their homes as airtight as possible.

While it is good to make your home energy efficient, your home needs to breathe. Fresh air must enter your home. All fuel-burning appliances need fresh air for proper combustion and ventilation.

Exhaust fans, fireboxes, clothes dryers and fuel burning appliances draw air from the house to operate. You must provide adequate fresh air for these appliances. This will insure proper venting of vented fuel-burning appliances.

PROVIDING ADEQUATE VENTILATION

The following are excerpts from National Fuel Gas Code, ANSI Z223.1/NFPA 54, Air for Combustion and Ventilation.

All spaces in homes fall into one of the three following ventilation classifications:

- 1. Unusually Tight Construction
- 2. Unconfined Space
- 3. Confined Space

The information on page 7 through 9 will help you classify your space and provide adequate ventilation.

Unusually Tight Construction

The air that leaks around doors and windows may provide enough fresh air for combustion and ventilation. However, in buildings of unusually tight construction, you must provide additional fresh air.

Unusually tight construction is defined as construction where:

- a. walls and ceilings exposed to the outside atmosphere have a continuous water vapor retarder with a rating of one perm (6 x 10-11 kg per pa-sec-m²) or less with openings gasketed or sealed and
- b. weather stripping has been added on openable windows and doors and
- c. caulking or sealants are applied to areas such as joints around window and door frames, between sole plates and floors, between wall-ceiling joints, between wall panels, at penetrations for plumbing, electrical and gas lines and at other openings.

If your home meets all of the three criteria above, you must provide additional fresh air. See <u>Ventilation Air From Outdoors</u>, page 9.

If your home does not meet all of the three criteria above, proceed to <u>Determining Fresh-Air Flow for Firebox Location</u>, page 8.

Confined and Unconfined Space

The National Fuel Gas Code, ANSI Z223.1/ NFPA 54 defines a confined space as a space whose volume is less than 50 cubic feet per 1,000 Btu per hour (4.8 m³ per kw) of the aggregate input rating of all appliances installed in that space and an unconfined space as a space whose volume is not less than 50 cubic feet per 1,000 Btu per hour (4.8 m³ per kw) of the aggregate input rating of all appliances installed in that space. Rooms communicating directly with the space in which the appliances are installed*, through openings not furnished with doors, are considered a part of the unconfined space.

* Adjoining rooms are communicating only if there are doorless passageways or ventilation grills between them.

AIR FOR COMBUSTION AND VENTILATION

Continued

DETERMINING FRESH-AIR FLOW FOR HEATER LOCATION

Determining if You Have a Confined or **Unconfined Space**

Use this work sheet to determine if you have a confined or unconfined space.

Space: Includes the room in which you will install heater plus any adjoining rooms with doorless passageways or ventilation grills between the rooms.

1.	Determine the volume of the space (length
	x width x height).

Length x Width x Height = cu. ft. (volume of space)

Example: Space size 22 ft. (length) x 18 ft. (width) x 8 ft. (ceiling height) = 3168 cu. ft. (volume of space)

If additional ventilation to adjoining room is supplied with grills or openings, add the volume of these rooms to the total volume of the space.

2. Multiply the space volume by 20 to determine the maximum Btu/Hr the space can support.

(volume of space) x 20 = (Maximum Btu/Hr the space can support)

Example: 3168 cu. ft. (volume of space) x 20 = 63,360 (maximum Btu/Hr the space can support)

3. Add the Btu/Hr of all fuel burning appliances in the space.

Vent-free heater		Btu/Hr
Gas water heater*		Btu/Hr
Gas furnace		Btu/Hr
Vented gas heater		Btu/Hr
Gas fireplace logs		Btu/Hr
Other gas appliances*	+	Btu/Hr
Total	=	Btu/Hr

* Do not include direct-vent gas appliances. Direct-vent draws combustion air from the outdoors and vents to the outdoors.

Example:

Gas water heater		40,000	_Btu/Hr
Vent-free heater	+_	39,000	Btu/Hr
Total	=	79,000	Btu/Hr

4. Compare the maximum Btu/Hr the space can support with the actual amount of Btu/Hr used.

Btu/Hr (maximum the space can support) Btu/Hr (actual amount of Btu/Hr used)

Example: 63,360 Btu/Hr (maximum the space can support) 79,000 Btu/Hr (actual amount of Btu/Hr used)

The space in the above example is a confined

space because the actual Btu/Hr used is more than the maximum Btu/Hr the space can support. You must provide additional fresh air. Your options are as follows:

- A. Rework worksheet, adding the space of an adjoining room. If the extra space provides an unconfined space, remove door to adjoining room or add ventilation grills between rooms. See Ventilation Air From Inside Building, page 9.
- B. Vent room directly to the outdoors. See Ventilation Air From Outdoors, page 9.
- C. Install a lower Btu/Hr heater, if lower Btu/Hr size makes room unconfined.

If the actual Btu/Hr used is less than the maximum Btu/Hr the space can support, the space is an unconfined space. You will need no additional fresh air ventilation.

MARNING: If the area in which the heater may be operated does not meet the required volume for indoor combustion air, combustion and ventilation air shall be provided by one of the methods described in the National Fuel Gas Code, ANSI Z223.1/NFPA 54, the International Fuel Gas Code. or applicable local codes.

AIR FOR COMBUSTION AND VENTILATION

Continued

VENTILATION AIR

Ventilation Air From Inside Building

This fresh air would come from an adjoining unconfined space. When ventilating to an adjoining unconfined space, you must provide two permanent openings: one within 12" of the ceiling and one within 12" of the floor on the wall connecting the two spaces (see options 1 and 2, Figure 4). You can also remove door into adjoining room (see option 3, Figure 3). Follow the National Fuel Gas Code, ANSI Z223.1/NFPA 54, Air for Combustion and Ventilation for required size of ventilation grills or ducts.

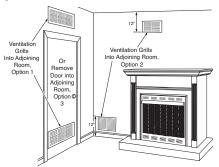


Figure 3 - Ventilation Air from Inside Building

Ventilation Air From Outdoors

Provide extra fresh air by using ventilation grills or ducts. You must provide two permanent openings: one within 12" of the ceiling and one within 12" of the floor. Connect these items directly to the outdoors or spaces open to the outdoors. These spaces include attics and crawl spaces. Follow the *National Fuel Gas Code, ANSI Z223.1/NFPA 54, Air for Combustion and Ventilation* for required size of ventilation grills or ducts.

IMPORTANT: Do not provide openings for inlet or outlet air into attic if attic has a thermostat-controlled power vent. Heated air entering the attic will activate the power vent.

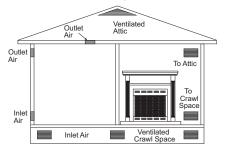


Figure 4 - Ventilation Air from Outdoors

INSTALLATION

WARNING: A qualified service person must install firebox. Follow all local codes.

WARNING: Never install the firebox

- in a bedroom or bathroom*
- · in a recreational vehicle
- where curtains, furniture, clothing or other flammable objects are less than 42" from the front, top or sides of the firebox
- · in high traffic areas
- · in windy or drafty areas
- * Unless the installed log set is rated at 10,000 Btu/Hr or less in a bedroom or 6,000 Btu/Hr or less in a bathroom.

CAUTION: Log heaters installed in this firebox create warm air currents. These currents move heat to wall surfaces next to firebox. Installing firebox next to vinyl or cloth wall coverings or operating firebox where impurities (such as, but not limited to, tobacco smoke, aromatic candles, cleaning fluids, oil or kerosene lamps, etc.) in the air exist, may discolor walls or cause odors.

Continued

IMPORTANT: Vent-free gas log heaters add moisture to the air. Although this is beneficial, installing firebox in rooms without enough ventilation air may cause mildew to form from too much moisture. See <u>Air for Combustion and Ventilation</u>, page 7.

IMPORTANT: Make sure firebox is level. If firebox is not level, log set will not work properly.

Note: Your firebox is designed to be used in zero clearance installations. Wall or framing material can be placed against any exterior surface on the rear, sides, top or bottom of your firebox, except where standoff spacers are integrally attached. If standoff spacers are attached to your firebox, these spacers can be placed directly against wall or framing materials. Use the dimensions shown for rough opening to create the easiest installation.

Use dimensions shown for rough openings to create the easiest installation (see <u>Built-In Firebox Installation</u>, page 11).

INSTALLATION CLEARANCES

WARNING: Maintain the minimum clearances. If you can, provide greater clearances from floor, ceiling and adjoining wall.

Carefully follow these instructions. This will ensure safe installation.

Minimum Wall and Ceiling Clearances (see Figure 5)

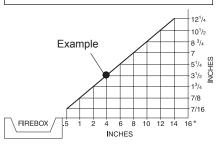
- A. Clearances from the side of fireplace cabinet to any combustible material and wall should follow diagram in Figure 5.

 Example: The face of a mantel, bookshelf, etc. is made of combustible material and protrudes 3 1/2" from the wall. This combustible material must be 4" from the side of the fireplace cabinet (see Figure 5).
- B. Clearances from the top of firebox opening to ceiling should not be less than 42".
- C. When firebox is installed on carpeting or other combustible material, other than wood flooring, firebox should be installed on a metal or wood panel extending the full width and depth of enclosure.
- D. Clearances from bottom of firebox to the floor is 0"

These fireboxes can be installed as freestanding units against a wall with the approved.

optional cabinet mantels (see <u>Accessories</u>, page 18) or as a built-in unit. Clearances are the same for either installation method.

A CAUTION: Do not install the firebox directly on carpet or vinyl.



*Minimum 16" from Side Wall

Figure 5 - Minimum Clearance for Combustible to Wall

Mantel Clearances for Built-In Installation If placing custom mantel above built-in firebox, you must meet the minimum allowable clearance between mantel shelf and top of firebox opening shown in Figure 6, page 11. These are the minimum allowable mantel clearances for a safe installation. Use larger clearances wherever possible to minimize the heating of objects and materials placed on the mantel.

A CAUTION: Do not allow the vent-free gas log heater to touch or extend beyond the fireplace screen.

NOTICE: Surface temperatures of adjacent walls and mantels become hot during operation. Walls and mantels above the firebox may become hot to the touch. If installed properly, these temperatures meet the requirement of the national product standard. Follow all minimum clearances shown in this manual.

Continued

NOTICE: If your installation does not meet the minimum clearances shown, you must do one of the following:

- raise the mantel to an acceptable height
- remove the mantel

BUILT-IN FIREBOX INSTALLATION

Built-in installation of this firebox involves installing firebox into a framed-in enclosure. This makes the front of firebox flush with wall. Optional brass trim accessories are available (see *Accessories*, page 18). The brass trim will extend past sides of firebox approximately 1/2". This will cover the rough edges of the wall opening. If installing a mantel above the firebox, you must follow the clearances shown in Figure 6. Follow the instructions below to install the firebox in this manner

- Frame in rough opening. The firebox framing should be constructed of 2 x 4 lumber or heavier. Use dimensions in Table 1 and rough opening layout in Figure 7a. Adjust framing so that firebox flushes with finished wall surface. If installing in a corner, use dimensions in Figures 7b, 7c and 7d for rough opening.
- Install gas piping to firebox location. See <u>Installing Gas Line</u>, page 12 and <u>Connecting</u> <u>to Gas Supply</u> in log set owner's manual.

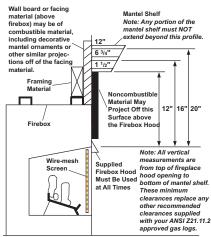
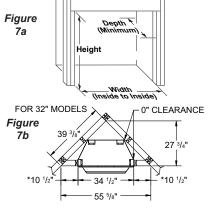
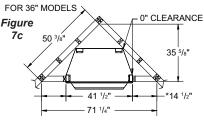


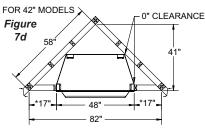
Figure 6 - Minimum Mantel Clearances for Built-In Installation

Table 1

Rough Opening Dimensions for Built-in Installation			
	Front Width		Depth
Model	(Inside to Inside)	Height	(Min.)
32"	34 ⁷ /8"	36 ³ / ₄ "	16 ¹ / ₄ "
36"	41 ¹ /2"	40 1/2"	20 ³ / ₄ "
42"	48 ⁵ /8"	44 ¹ / ₂ "	22 5/8"







^{*} These dimensions allow for min. Clearances to a 45° projected side wall. However, clearances to projected mantel trims and facings are allowed within a min. Of 16" to a perpenducular wall as shown in figure 5, on page 10.

Figure 7 - Rough Opening for Installing in Wall

Continued

IMPORTANT: If installing blower accessory (circulating models with louvers only), see *Hard-Wiring Firebox*, page 16.

- Carefully set firebox in front of rough opening with back of firebox inside wall opening. IMPORTANT: If installing a perimeter trim kit, see instructions included with trim accessory. You must install shoulder screws from trim kit now.
- 4. Carefully insert firebox into rough opening.
- Attach firebox to wall studs using nails or wood screws through holes in nailing flange (see Figure 8).
- If using an optional perimeter trim kit, install the trim after final finishing and/or painting of wall. See instructions included with trim accessory for attaching trim.
- Install and properly test gas log heater. Follow installation instructions included with the vent-free gas log heater that is being installed.

IMPORTANT: When finishing your firebox, combustible materials such as wall board, gypsum board, sheet rock, drywall, plywood, etc. may be butted up next to the sides and top of the firebox. Combustible materials should never overlap the firebox front facing.

WARNING: Do not allow any combustible materials to overlap the firebox front facing.

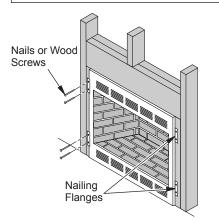


Figure 8 - Attaching Firebox to Wall Studs

IMPORTANT: Noncombustible materials such as brick, tile, etc. may overlap the front facing, but should never cover any necessary openings like louvered slots.

WARNING: Do not allow noncombustible materials to cover any necessary openings like louvered slots.

WARNING: Use only noncombustible mortar or adhesives when overlapping the front facing with noncombustible facing material.

INSTALLING FIREBOX USING OPTIONAL ACCESSORY MANTELS

WARNING: A qualified service person must install firebox. Follow all local codes.

This firebox may be installed using a cabinet mantel accessory against a wall in your home. The firebox and cabinet mantel can be installed directly on the floor. A trim kit is included with the mantel accessories. Follow instructions with mantel for installation.

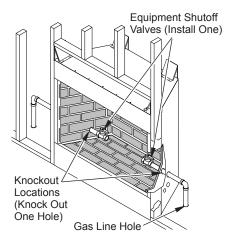


Figure 9 - Installing Gas Line and Equipment Shutoff Valve (Model May Vary From Illustration)

Continued

INSTALLING GAS LINE

NOTICE: A qualified service person must connect heater to gas supply. Follow all local codes.

IMPORTANT: See <u>Connecting to Gas Supply</u> in your log set owner's manual for details on gas hookup.

You may run the gas line from either side of the firebox (see Figure 9). Decide which side you want to run the gas line from.

Note: This is one option for installing shutoff valve. Check local codes for equipment shutoff valve location requirements.

Locate the recessed knockout in one of the firebrick sidewall liners (see Figure 9 on page 12 and Figure 10). Firmly tap the center of the knockout with a chisel until it is released. Carefully chisel the rough edges of the hole you have made to smooth edges. This hole will line up with the hole in the outer casing. Locate the recessed knockout in one of the firebrick sidewall liners (see Figure 9 on page 12 and Figure 10). Firmly tap the center of the knockout with a chisel until it is released. Carefully chisel the rough edges of the hole to smooth edges. This hole will line up with the hole in the outer casing.

A CAUTION: Do not use excessive force to remove the knockout. Too much force may damage the firebrick concrete insert.

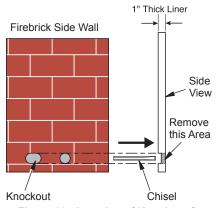


Figure 10 - Location of Knockout for Gas Line

INSTALLING OPTIONAL BLOWER ACCESSORIES

NOTICE: The firebox identification label (including model number, serial number, clearances, etc.) is located in the right side screen pocket area on the front of the firebox. See Figure 21, page 17.

NOTICE: If a log set is installed in the firebox, disconnect log set from gas supply and remove from firebox. Contact a qualified service person to do this.

Note: Appearance of firebox may vary depending on model.

There are two (2) blower accessory options for use in the vent-free fireboxes. Blower accessory models are BK and BK3. Model BK is a rotary squirrel cage type blower with magnetic attachment and variable speed control. The BK3 is a triple fan blower system with an on/off rocker switch.

On 32" models only, the blower must be installed by removing the lower face panel and placing blower into its proper mounting position. The 36" and 42" models can use this method or remove the bottom front refractory brick liner and access panel to allow installation through the firebox bottom (see Figure 11).

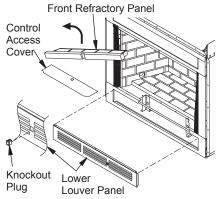


Figure 11 - Accessing Blower Compartment (Controls Not Shown for Clarity)

Continued

Decide which way you intend to gain access into the bottom rear of the firebox to install the blower accessory. The lower front panel can be removed easily by snapping out the front with a flat blade screwdriver. Use caution not to scratch any surfaces. Models with louvered front panels can also be removed by inserting fingertips between slots and gently pulling out. DO NOT FORCE. The panels are actually held in place by means of a retention dimple embossed on the edge of removable panels.

Accessibility to the bottom on 36" and 42" models only, can also be gained through the access panel underneath the bottom front refractory brick liner. Lift the bottom front refractory brick liner up and out of the firebox floor, exposing the rectangular shaped access panel (see Figure 11, page 13). The sides and back refractory brick liner pieces do not have to be removed. Lift access panel out by using finger holes. Blower accessory BK or BK3 can now be installed.

WARNING: If there is a duplex electrical outlet installed in the right side of the bottom of the fireplace base area (see Figure 12), be sure that the electrical power to the outlet is turned off before proceeding with blower installation. Failure to do this may result in serious injury.

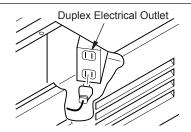


Figure 12 - Accessing Duplex Electrical Outlet Installed in Bottom Right Side of Firebox

Model BK Installation

- Attach the power cord to blower motor by firmly pushing two female terminals at end of power cord onto two spade terminals on blower motor (see Figure 13).
- Attach green ground wire from power cord to blower housing using screw provided (see Figure 13). Tighten screws securely with a phillips screwdriver.
- Place blower against lower rear wall of firebox outer wrapper with exhaust port directed upward. Depending on your model, you may have to carefully route the blower assembly past controls and brackets and position blower inside back opening. The blower will be held in position against the back wall by magnets incorporated onto blower housing (see Figure 13).
- Be certain that all wire terminals are securely attached to terminals on blower motor and that the screw retaining the green ground wire is tight.
- Position speed control bracket over flange on hearth pan by sliding it up between firebox face and hearth pan flange, then down until seated onto lower flange of louver opening (see Figure 14, page 15).
- Mount speed control box by placing plastic control shaft through bottom hole on speed control bracket. Top screw head on control box will fit inside top hole on

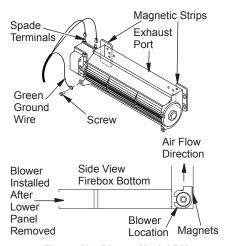


Figure 13 - Blower Model BK

Continued

bracket (see Figure 14). Secure speed control to bracket with lock nut by pushing and turning lock nut with pliers clockwise until it is tight against bracket.

- Remove knockout plug from louver panel by pressing top and bottom retaining clips (see Figure 11, page 13).
- Place louver panel, louvers pointing up, back into framed opening. Align control shaft with rectangular opening by sliding control bracket along flange (see Figure 14).
- Fully seat louver panel into frame opening by gently pressing along ends until all dimpled retainers have snapped in place.
- 10. Place control knob, provided, onto control shaft (see Figure 14).
- 11. Check to make sure power cord is completely clear of blower wheel and there are no foreign objects in blower wheel. Also, double check all wire leads and make sure wire routing is not pinched or in a precarious position. Correct accordingly.

CAUTION: Never touch blower wheel while in operation.

- Turn on power to duplex outlet if previously turned off per warning in column 1, page 14.
- 13. Plug in blower power cord to duplex outlet (see Figure 12, page 14).

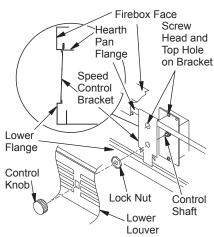


Figure 14 - Attaching Speed Control to Firebox with Panel Louvers

- Turn blower on and check for operation.
 Turn blower off by turning knob fully counterclockwise before continuing.
- Peel off backing paper and stick supplied wiring diagram decal on firebox bottom approximately 12" in from of blower (see Figure 15).
- 16. Replace all panels and/or brick bottom panel if previously removed.

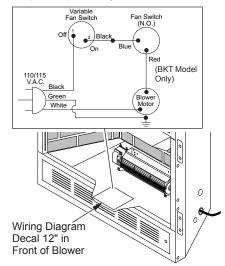


Figure 15 - Location of Wiring Diagram
Decal (Model May Vary From Illustration)

Model BK3 Installation

- Remove knockout plug from louver panel by pressing top and bottom retaining clips (see Figure 11, page 13).
- Place BK3 fan assembly between two leg stands with fan blades pointing toward rear of fireplace (see Figure 16).

Screws

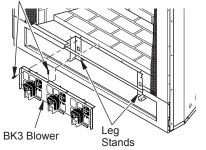


Figure 16 - Mounting BK3 Blower

Continued

3. Using screws provided, fasten upper flange of blower bracket to hearth pan and end flanges to leg stands (see Figure 16, page 15).

Note: The wire assembly must be arranged in front of and away from fan blades to reach power receptacle plug.

- Remove 2 connectors from ON/OFF rocker switch located on wiring harness (see Figure 17).
- 5. Insert rocker switch into lower lover panel with switch lever pointing outward.
- Reconnect previously removed wire connectors onto switch terminals.
- Check to make sure power cord is completely clear of blower and that there are
 no foreign objects in blower. Also, double
 check all wire leads and make sure wire
 routing is not pinched or in a precarious
 position. Correct accordingly.
- Turn on power to duplex outlet if previously turned off per warning in column 1, page 14.
- Plug in blower power cord to duplex outlet (see Figure 12, page 14).
- Using ON/OFF rocker switch to turn blower on and check for operation. Turn blower off before continuing.
- Peel off backing paper and stick supplied wiring diagram decal on firebox bottom approximately 12" in from of blower (see Figure 18).

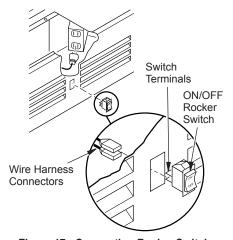


Figure 17 - Connecting Rocker Switch

12. Replace all panels and/or brick bottom panel if previously removed.

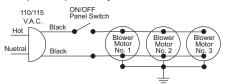


Figure 18 - BK3 Wiring Diagram

HARD-WIRING FIREBOX

NOTICE: A qualified electrician must connect electrical wiring to duplex outlet for built-in installation. Follow all local codes. In absence of local codes follow The National Electric Code ANSI/NFPA 70.

The "Handy Box" with duplex outlet is provided in the firebox located in the lower right base area.

- Remove screw holding duplex outlet cover to handy box. Remove duplex outlet.
- Route electrical cable through strain relief and handy box (see Figure 19).
- Connect electrical cable to duplex outlet. Match wire colors to those on duplex outlet. Be sure to connect the ground wire.
- Place duplex outlet back into handy box and secure with screws. Replace outlet cover.

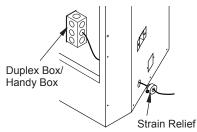


Figure 19 - Hard-Wiring Firebox

Continued

COMBUSTION AIR KIT MODEL AK4 (OPTIONAL)

The outside air kit may be installed on the left side of the fireplace only. The vent can be installed through any outside wall a minimum of three feet below fireplace termination cap. The handle to operate the damper door for the outside air inlet will be located inside the left "screen pocket" of the firebox (see Figure 20). Pull the handle to open or push to close.

CAUTION: Air inlet ducts are not to terminate in attic space.

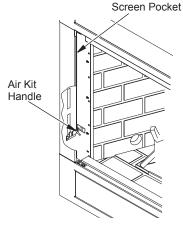


Figure 20 - Air Kit Handle Location

INSTALLING FIREPLACE HOOD AND SCREEN

- 1. Attach hood to firebox using screws provided (see Figure 21).
- 2. Insert each rod through all rings located at top of screen.
- Insert first rod into rear hole in left side of firebox. Fasten rod to rear hole near center of firebox using #10 x 3/8" Phillips screw provided (see Figure 22).
- Insert other rod into front hole on right side of firebox and fasten using remaining Phillips screw.

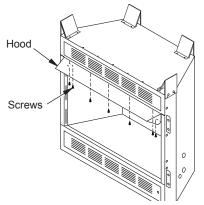


Figure 21 - Screw and Hood Placement (Model May Vary From Illustration)

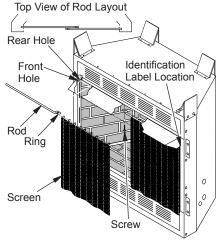


Figure 22 - Installing Fireplace Screen (Model May Vary From Illustration)

REPLACEMENT PARTS

Note: Use only original replacement parts. This will protect your warranty coverage for parts replaced under warranty.

PARTS UNDER WARRANTY

Contact authorized dealers of this product. If they can't supply original replacement part(s), call DESA Heating, LLC at 1-866-672-6040. When calling DESA Heating, LLC, have ready:

- · your name
- vour address
- · model and serial numbers of your heater
- · how heater was malfunctioning
- · purchase date

Usually, we will ask you to return the part to the factory.

PARTS NOT UNDER WARRANTY

Contact authorized dealers of this product. If they can't supply original replacement part(s), call DESA Heating, LLC at 1-866-672-6040 for referral information. A list of authorized dealers can be found by visiting **www.desatech.com**. When calling DESA Heating, LLC, have ready:

- · model and serial numbers of your heater
- · the replacement part number

TECHNICAL SERVICE

You may have further questions about installation, operation, or troubleshooting. If so, contact DESA Heating, LLC at 1-866-672-6040.

When calling please have your model and serial numbers of your heater ready.

You can also visit DESA Heating, LLC's web site at www.desatech.com.

ACCESSORIES

NOTICE: All accessories may not be available for all fireplace models.

Purchase these accessories from your local dealer. If they can not supply these accessories call DESA Heating, LLC at 1-866-672-6040 for information. You can also write to the address listed on the back page of this manual.

CLEANING KIT - CCK

All Models. Your vent-free gas appliance requires regular cleaning and maintenance to prevent performance problems. This kit gives you the tools and instructions to make it easy to clean all critical areas of your appliance.

FIRE CRACKLE - CF6-A

Creates the sound of a real burning fire.

BLOWER KIT

BK - Squirrel Cage Blower With Speed Control

BK3 - Triple Fan Blower System

OUTSIDE AIR KIT

AK4 - Complete Kit w/ Collar, Hood & 3' of Flex Tube

AK4X - Collar and Hood (accepts any length of 4" flex tube)

AK4B - 50 pc. Bulk Collar Only Kits

Optional kits provide additional air to reduce build-up of condensation that occurs in today's tightly constructed homes. For optional use on models with an "A" included in the model number.

REFRACTORY BRICK LINER KIT

BL36H - 36" Textured Herringbone

BL42H - 42" Textured Herringbone **BL36HS** - 36" Smooth Herringbone

BL42HS - 42" Smooth Herringbone

HOODS

H36B - 36" Brushed Brass

H36P - 36" Platinum

H36PB - 36" Polished Brass

H42B - 42" Brushed Brass

H42P - 42" Platinum

H42PB - 42" Polished Brass

ACCESSORIES

Continued

MANTELS

32" WALL MANTELS

W32TU - 32" Unfinished, Traditional

W32TO - 32" Oak Stain, Traditional

W32CO - 32" Oak Stain, Classic

W32DO - 32" Oak Stain, Dentil

W32GO - 32" Oak Stain, Georgian

CMA305UA - 32" Unfinished, Georgian

Design with Columns

CMA306FA - 32" Light Oak Finish, Tradi-

tional Design with Dentil Molding

CMA310F - 32" Cherry Finish, Arch Design CMA311W - 32" Painted White, Traditional

Design with Dentil Molding

CMA312FC - 32" Dark Oak Finish, Classic

Design

GMC13FE - 32" Mantel and Base, Oak Stain

GMC90FA - 32" Light Oak Finish, Georgian

Design with Columns

W32CC - 32" Chateau, Cherry Finish

W32LS - 32" Sonoma Cherry Finish

W32KP - 32" Painted White, Neo-Classical Design

W32MF - 32" Fruitwood Finish

32" CORNER MANTELS

C32TU - 32" Unfinished, Traditional

C32TO - 32" Oak Stain, Traditional

C32CO - 32" Oak Stain, Classic

C32GO - 32" Oak Stain, Georgian

C32HSA - 32" Dark Oak Finish, Classic

Design

36" WALL MANTELS

W36TU - 36" Unfinished, Traditional

W36TO - 36" Oak Stain, Traditional

GMC55FA - 36" Light Oak Finish, Tradi-

tional Design

W36AUA - 36" Unfinished, Traditional Design **W36DS** - 36" Dark Oak Finish, Keystone

Design

36" CORNER MANTELS

C36TU - 36" Unfinished, Traditional

C36TO - 36" Oak Stain, Traditional

C36AUA - 36" Unfinished, Traditional Design GMC56FA - 36" Light Oak Finish, Classic

Design

Note: No 42" mantels offered at this time.

LOUVER TRIM (Rolled Louvers Only)

LT32B - 32" Brushed Brass

LT32P - 32" Platinum

LT36B - 36" Brushed Brass

LT36P - 36" Platinum

LT42B - 42" Brushed Brass

LT42P - 42" Platinum

PERIMETER TRIM

PT32 - 32" Black

PT32B - 32" Brushed Brass

PT32PB - 32" Polished Brass

PT32P - 32" Platinum

PT36 - 36" Black

PT36B - 36" Brushed Brass

PT36PB - 36" Polished Brass

PT36P - 36" Platinum

PT42 - 42" Black

PT42B - 42" Brushed Brass

PT42PB - 42" Polished Brass

PT42P - 42" Platinum

FACE/LOUVER PANEL KITS

Smooth Faced - Black

SP32 - 32" Model, SP36 - 36" Model,

SP42 - 42" Model

Stamped Louver - Black

SL32 - 32" Model, SL36 - 36" Model,

SL42 - 42" Model

Rolled - Black

RL32 - 32" Model, RL36 - 36" Model,

RL42 - 42" Model

Filigree - Black

FP32 - 32" Model, FP36 - 36" Model,

FP42 - 42" Model

Filigree - Brushed Brass

FP32B - 32" Model, FP36B - 36" Model,

FP42B - 42" Model

Filigree- Platinum

FP32P - 32" Model, FP36P - 36" Model,

FP42P - 42" Model

Filigree- Polished Brass

FP32PB - 32" Model. FP36PB - 36" Model.

FP42PB - 42" Model

Extruded- Black

ELK32 - 32" Model, ELK36 - 36" Model,

ELK42 - 42" Model

Extruded-Brushed Brass

ELK32B - 32" Model, ELK36B - 36" Model,

ELK42B - 42" Model

Extruded- Platinum

ELK32P - 32" Model, ELK36P - 36" Model,

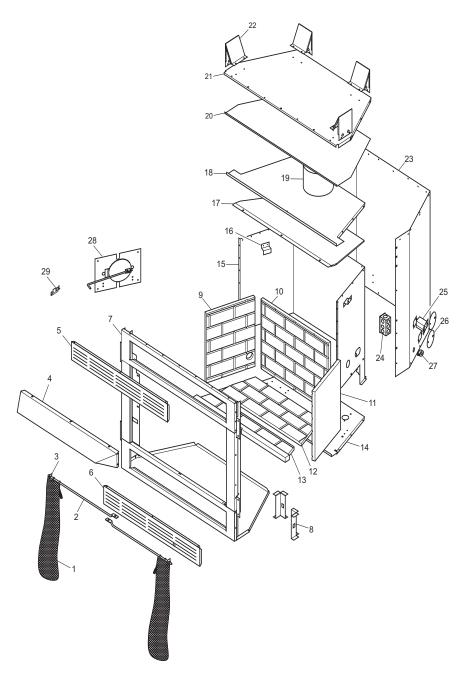
ELK42P - 42" Model

Extruded - Polished Brass

ELK32PB - 32" Model,

ELK36PB - 36" Model, **ELK42PB** - 42" Model

MODELS V32, V32A, V32S, V32AS, VFB32C, VFB32AC, VFB32NC, VFB32ANC



This list contains replaceable parts used in your firebox. When ordering parts, follow the instructions listed under $\underline{\textit{Replacement Parts}}$ on page 18 of this manual.

PART NUMBER

	PARIN			
KEY NO.	V32AS, V32S VFB32NC VFB32ANC	V32, V32A VFB32C VFB32AC	DESCRIPTION	QTY.
1	108441-01	108441-01	Screen	1
2	108700-01	108700-01	Screen Rod	2
3	11418	11418	Push-On Nut	2
4	108414-01	108414-01	Deflector Hood	1
5	108423-01	108423-04	Face Top Panel (VFB32NC Smooth Faced)	1
6	108423-01	108423-07	Face Bottom Panel (VFB32NC Smooth Faced)	1
7	**	**	Face Weldment	2
8	106683-01	106683-01	Firebox Support Leg	2
9	108434-01	108434-01	Left Refractory	1
10	108430-01	108430-01	Rear Refractory	1
11	108432-01	108432-01	Right Refractory	1
12	108426-01	108426-01	Bottom Rear Refractory	1
13	108428-01	108428-01	Bottom Front Refractory	1
14	**	**	Firebox Bottom	1
15	**	**	Firebox Surround	1
16	20027	20027	Refractory Retainer	2
17	**	**	Fireplace Top Insulation	1
18	**	**	Firebox Top	1
19	108415-01	108415-01	Starter Pipe Collar	1
20	**	**	Insulation Pan	1
21	108403-03	108403-03	Fireplace Top	1
22	20280	20280	Top Spacer	4
23	**	**	Fireplace Surround	1
24	24353	24353	Handy Box Assembly	2
25	108654-01	108654-01	Gas Conduit Left and Right Assembly	2
26	21171	21171	Gas Knock-Out Cover	4
27	14123	14123	Strain Relief	1
28	106703-02*	106703-02*	Air Kit Door Assembly	1
29	108425-01*	108425-01*	Air Rod Retainer	1

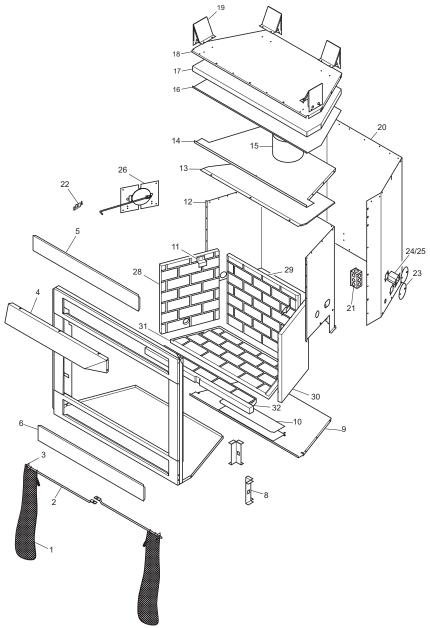
^{*} Part for "A" models only.

^{**} Not a field replaceable part.

MODELS

CUVF36C, V36, V36A, V36S, V36AS, V36ASH, V36H, V36AH, V36SH, VFB36AC, VFB36ANC

V42, V42A, V42S, V42AS, V42ASH, V42H, V42AH, V42SH, VFB42AC, VFB42ANC, VFB36NC1, VFB42NC1, VFB36C1, VFB42C1



This list contains replaceable parts used in your firebox. When ordering parts, follow the instructions listed under *Replacement Parts* on page 18 of this manual.

		PART N	UMBER			
	V36S, V36AS V36ASH V36SH,	CUVF36C V36, V36A V36H, V36AH,	V42S, V42AS V42ASH V42SH,	V42, V42A, V42H, V42AH		
KEY NO.	VFB36NC1	VFB36C1 VFB36AC	VFB42NC1 VFB42ANC	VFB42C1 VFB42AC	DESCRIPTION	QTY.
1	12116	12116	107981-01	107981-01	Screen	2
2	106691-01	106691-01	107839-01	107839-01	Screen Rod	2
3	11418	11418	11418	11418	Push-On Nut	2
4	107944-01	107944-01	107979-01	107979-01	Deflector Hood	1
5	106651-01 —	106684-01 —	107805-01 —	107805-02 —	Closure Top Panel Extruded Louver	1 1
6	106651-01 —	106650-01 —	107805-01 —	107805-03 —	Closure Bottom Panel Extruded Louver	1
7	**	**	**	**	Face Weldment	1
8	106683-01	106683-01	106683-01	106683-01	Firebox Support Leg	2
9	**	**	**	**	Firebox Bottom	1
10	107775-01	107775-01	107775-01	107775-01	Access Panel	1
11	20027	20027	20027	20027	Refractory Retainer	2
12	**	**	**	**	Firebox Surround	1
13	**	**	**	**	Firebox Top Shield	1
14	**	**	**	**	Firebox Top	1
15	106687-01	106687-01	106687-01	106687-01	Damper Can Collar	1
16	**	**	**	**	Insulation Pan	1
17	**	**	**	**	Fireplace Top Insulation	1
18	**	**	**	**	Fireplace Top	1
19	20280	20280	20280	20280	Top Spacer	4
20	**	**	**	**	Fireplace Surround	1
21	110037-01	110037-01	110037-01	110037-01	Handy Box Assembly	1
22	106642-01*	106642-01*	106642-01*	106642-01*	Air Rod Retainer	1
23	21171	21171	21171	21171	Gas Knock-Out Cover	4
24	21379	21379	24460	24460	Gas Conduit	1

^{*} Part for "A" models only.

25 21380

26 106703-01*

21380

KEY	VFB36AC, VFB36C1	V36, V36A		V36H, V36AH		
NO.	VFB36ANC, VFB36NC1	V36S, V36AS	CUVF36C	V36SH, V36ASH	DESCRIPTION	QTY
28	106658-01	106658-02	108164-01	108164-02	Left Refractory	1
29	106660-01	106660-02	108166-01	108166-02	Rear Refractory	1
30	106659-01	106659-02	108165-01	108165-02	Right Refractory	1
31	106661-01	106661-02	108167-01	108167-02	Bottom Rear Refractory	1
32	106662-01	106662-02	108168-01	108168-02	Bottom Front Refractory	1

106703-01* 106703-01* 106703-01*

Gas Conduit

Air Kit Door Assembly

	VFB42AC, VFB42C1 VFB42ANC, VFB42NC1	,	V42H, V42AH V42SH, V42ASH	DESCRIPTION	QTY
28	107812-01	107812-02	108169-02	Left Refractory	1
29	107816-01	107816-02	108171-02	Rear Refractory	1
30	107814-01	107814-02	108170-02	Right Refractory	1
31	107818-01	107818-02	108172-02	Bottom Rear Refractory	1
32	107820-01	107820-02	108173-02	Bottom Front Refractory	1

^{**}Not a field replaceable part.

WARRANTY

KEEP THIS WARRANTY

Model (located on product or identification tag)
Serial No. (located on product or identification tag)
Date Purchased

Keep receipt for warranty verification.

DESA HEATING, LLC LIMITED WARRANTIES

New Products

Standard Warranty: DESA Heating, LLC warrants this new product and any parts thereof to be free from defects in material and workmanship for a period of four (4) years from the date of first purchase from an authorized dealer provided the product has been installed, maintained and operated in accordance with DESA Heating, LLC's warnings and instructions.

For products purchased for commercial, industrial or rental usage, this warranty is limited to 90 days from the date of first purchase.

Factory Reconditioned Products

Limited Warranty: DESA Heating, LLC warrants factory reconditioned products and any parts thereof to be free from defects in material and workmanship for 30 days from the date of first purchase from an authorized dealer provided the product has been installed, maintained and operated in accordance with DESA Heating, LLC's warnings and instructions.

Terms Common to All Warranties

The following terms apply to all of the above warranties:

Always specify model number and serial number when contacting the manufacturer. To make a claim under this warranty the bill of sale or other proof of purchase must be presented.

This warranty is extended only to the original retail purchaser when purchased from an authorized dealer, and only when installed by a qualified installer in accordance with all local codes and instructions furnished with this product.

This warranty covers the cost of part(s) required to restore this product to proper operating condition and an allowance for labor when provided by a DESA Heating, LLC Authorized Service Center or a provider approved by DESA Heating, LLC. Warranty parts must be obtained through authorized dealers of this product and/or DESA Heating, LLC who will provide original factory replacement parts. Failure to use original factory replacement parts voids this warranty.

Travel, handling, transportation, diagnostic, material, labor and incidental costs associated with warranty repairs, unless expressly covered by this warranty, are not reimbursable under this warranty and are the responsibility of the owner.

Excluded from this warranty are products or parts that fail or become damaged due to misuse, accidents, improper installation, lack of proper maintenance, tampering, or alteration(s).

This is DESA Heating, LLC's exclusive warranty, and to the full extent allowed by law; this express warranty excludes any and all other warranties, express or implied, written or verbal and limits the duration of any and all implied warranties, including warranties of merchantability and fitness for a particular purpose to four (4) years on new products and 30 days on factory reconditioned products from the date of first purchase. DESA Heating, LLC makes no other warranties regarding this product.

DESA Heating, LLC's liability is limited to the purchase price of the product, and DESA Heating, LLC shall not be liable for any other damages whatsoever under any circumstances including indirect, incidental, or consequential damages.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

For information about this warranty contact:



108662 01 NOT A UPC

DESA Heating, LLC 2701 Industrial Drive Bowling Green, KY 42101 www.desatech.com 1-866-672-6040

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