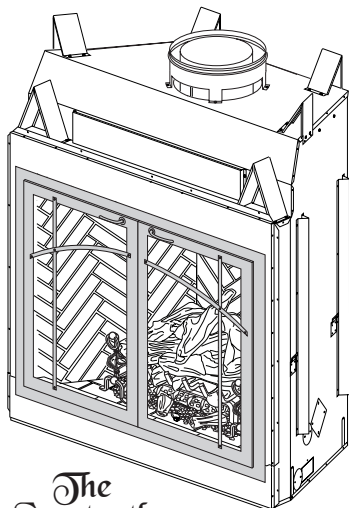


IRONHAUS

Handcrafted Fireplace Systems



The
Sawtooth

MASONRY RADIANT GAS FIREPLACE WITH ELECTRONIC IGNITION OWNER'S OPERATION AND INSTALLATION MANUAL



FIREBOX MODELS
IBVC36, IBVC42 AND IBVC50

NATURAL GAS MODULE MODELS
IBBM-36N-TKA, IBBM-42N-TKA AND
IBBM-50N-TKA

PROPANE/LP MODULE MODELS
IBBM-36P-TKA, IBBM-42P-TKA AND
IBBM-50P-TKA

SPLIT BRICK PANELS WITH BRICKS
SERIES IMBK-36,42,50(SS)(SH)-(R)I)

⚠ WARNING: If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury or death.

FOR YOUR SAFETY

- Do not store or use gasoline or any other flammable vapors or liquids in the vicinity of this or any other appliance.
- **WHAT TO DO IF YOU SMELL GAS :**
 - Do not try to light any appliance.
 - Do not touch any electrical switch;
 - Do not use any phone in your building.
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
 - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency or the gas supplier.

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

For more information, visit www.desatech.com or www.ironhaus.com

⚠ 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.

**NOT FOR USE WITH SOLID FUEL
CHECK LOCAL CODES PRIOR TO INSTALLATION**

SAVE THIS BOOK

This book is valuable. In addition to instructing you on how to install and maintain your appliance, it also contains information that will enable you to obtain replacement parts or optional accessory items when needed. Keep it with your other important papers.

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

This fireplace is manufactured for IRONHAUS under IRONHAUS brand name by DESA Heating, LLC.

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INTRODUCTION

Congratulations on your purchase of a handcrafted Ironhaus Fireplace System and Enclosure. The workmanship and quality of your enclosure is among the highest available in the industry. Ironhaus enclosures are not mass produced. Slight deviations in finish are normal and characteristic of the individual attention given to each piece. You should be able to enjoy this feature for many years to come.

Replacement screens or glass are easily available. Contact your dealer, if applicable, if your mesh screen or glass is damaged for replacement. Thanks again for making an Ironhaus Fireplace System and Enclosure part of your beautiful home!

SAFETY

 **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 fireplace. Improper use of this fireplace can cause serious injury or death from burns, fire, explosions, electrical shock and carbon monoxide poisoning.


 **DANGER: Carbon monoxide poisoning may lead to death!**

This fireplace is a vented product. This fireplace will not produce any gas leakage into your home if properly installed. This fireplace must be properly installed by a qualified service person. If this unit is not properly installed by a qualified service person, gas leakage can occur.

Carbon Monoxide Poisoning: Early signs of carbon monoxide poisoning resemble the flu, with headaches, dizziness or nausea. If you have these signs, the fireplace may not have been installed properly. **Get fresh air at once!** Have fireplace inspected and serviced by a qualified service person. Some people are more affected by carbon monoxide than others. These include pregnant women, people with heart or lung disease or anemia, those under the influence of alcohol and those at high altitudes.

Propane/LP gas and natural gas are both odorless. An odor-making agent is added to each of these gases. The odor helps you detect a gas leak. However, the odor added to these gases can fade. Gas may be present even though no odor exists.

Make certain you read and understand all warnings. Keep this manual for reference. It is your guide to safe and proper operation of this fireplace.

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

1. This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases unless a certified kit is used.
2. For propane/LP fireplace, do not place propane/LP supply tank(s) inside any structure. Locate propane/LP supply tank(s) outdoors. To prevent performance problems, do not use propane/LP fuel tank of less than 100 lbs. capacity.
3. If you smell gas
 - shut off gas supply
 - do not try to light any appliance
 - do not touch any electrical switch; do not use any phone in your building
 - immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions
 - if you cannot reach your gas supplier, call the fire department.
4. Never install the fireplace
 - in a recreational vehicle
 - in high traffic areas
 - in windy or drafty areas
5. This fireplace reaches high temperatures. Keep children and adults away from hot surfaces to avoid burns or clothing ignition. Fireplace will remain hot for a time after shutdown. Allow surfaces to cool before touching.
6. Carefully supervise young children when they are in the room with fireplace.
7. A hearth extension is not required with this appliance. If one is installed, it is for aesthetic purposes only and does not have to meet the standard requirements.
8. Turn fireplace off and let cool before servicing or repairing. Only a qualified service person should install, service or repair this fireplace. Have fireplace inspected annually by a qualified service person.
9. You must keep control compartments, burners and circulating air passages clean. More frequent cleaning may be needed due to excessive lint and dust from carpeting, bedding material, etc. Turn off the gas valve and pilot light before cleaning fireplace.
10. Have venting system inspected annually by a qualified service person. If needed, have venting system cleaned or repaired.

SAFETY

Continued

11. Keep the area around your fireplace clear of combustible materials, gasoline and other flammable vapor and liquids. Do not run fireplace where these are used or stored. Do not place items such as clothing or decorations on or around fireplace.
12. Do not use this fireplace to cook food or burn paper or other objects.
13. Do not use any solid fuels (wood, coal, paper, cardboard, etc.) in this fireplace. Use only the gas type indicated on fireplace nameplate.
14. This appliance, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the *National Electrical Code, ANSI/NFPA 70*.
15. Do not obstruct the flow of combustion and ventilation air in any way. Provide adequate clearances around air openings into the combustion chamber along with adequate accessibility clearance for servicing and proper operation.
16. Do not install fireplace directly on carpeting, vinyl tile or any combustible material other than wood. The fireplace must set on a metal or wood panel extending the full width and depth of the fireplace.
17. Do not use fireplace if any part has been exposed to or under water. Immediately call a qualified service person to arrange for replacement of the unit.
18. Do not operate fireplace if any log is broken.
19. Do not use a blower insert, heat exchanger insert or other accessory not approved for use with this fireplace.
20. Provide adequate clearances around air openings.

UNPACKING

⚠ CAUTION: Do not remove data plates from module. Data plates contain important warranty and safety information.

Note: Unit and all its loose components are attached to carton tray inside box.

1. Remove entire contents of box using tray handles (see Figure 1).
2. Set tray on floor and remove floor media components and remote control.
3. Remove module with log set from tray by cutting zip ties. Discard tray and foam.
4. Check all items for any shipping damage. If damaged, promptly inform dealer where you bought appliance.

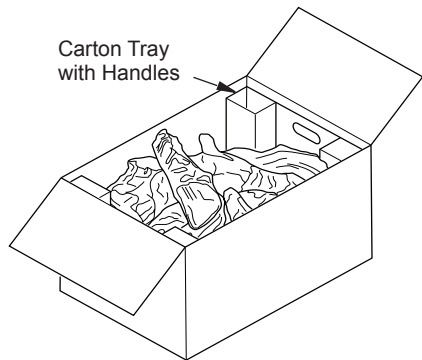


Figure 1 - Log Set in Packing Box

INTRODUCTION

Models IBBM-36(N,P)-TKA, IBBM-42(N,P)-TKA and IBBM50(N,P)-TKA are vented gas appliances that use an electronic control valve and electronic ignition system. A DESA Heating, LLC venting system and vent cap are not supplied but are required for proper operation. If a B-type venting system is installed, transition pipe model BTC-B is required. See venting instructions beginning on page 12.

⚠ WARNING: This gas appliance must not be connected to a chimney flue servicing a solid fuel burning appliance.

BEFORE YOU BEGIN

Before beginning the installation of your appliance, read these instructions through completely.

This Ironhaus appliance and its approved components are safe when installed according to this installation manual and are operated as recommended by DESA Heating, LLC. Unless you use DESA Heating, LLC approved components tested for this appliance, **YOU MAY CAUSE A FIRE HAZARD!**

The DESA Heating, LLC warranty will be voided by and DESA Heating, LLC disclaims any responsibility for the following actions:

- A) Modification of the appliance or any of the components.
- B) Use of any component part not approved by DESA Heating, LLC in combination with this appliance.
- C) Installation and/or operation in a manner other than instructed in this manual.
- D) The burning of anything other than the type of gas approved for use in this gas appliance.

The installation must conform with local codes or, in the absence of local codes, with the current *National Fuel Gas Code, ANSI Z223.1/NFPA 54*.

⚠ WARNING: Installation of this appliance should be done by a qualified service person.

NOTICE: This appliance is not intended to be used as a primary source of heat.

⚠ CAUTION: Do not connect appliance before pressure testing gas piping. Damage to gas valve may result and an unsafe condition may be caused.

The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psig (3.5 kPa).

The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig (3.5 kPa).

For the purpose of input adjustment two pressure taps (for IN and OUT pressures) are provided on the gas control valve for test gauge connections to the appliance.

SELECTING LOCATION

To determine the safest and most efficient location for your appliance, you must take into consideration the following guidelines:

1. The location must allow for proper clearances (see clearance information on page 10).
 2. Consider a location where heat output would not be affected by drafts, air conditioning ducts, windows or doors.
 3. A location that avoids the cutting of joists or roof rafters will make installation easier.
- Figure 1 shows a plan view of a few common locations.

Flush installations are recommended where living space is limited or at a premium and since the space required to enclose the appliance would be located beyond an outside wall, this would also reduce the cutting of joists, roof rafters and such. Check local codes for any restrictions.

Projected installations can extend any distance into the room. A projection may be ideal for a new addition on an existing, finished wall.

Corner installations make use of space that may not normally be used and provides a wider and more efficient range for radiant heat transference.

Internal wall installations provide a discreet option for room separation and can also be ideal as an addition to an existing wall.

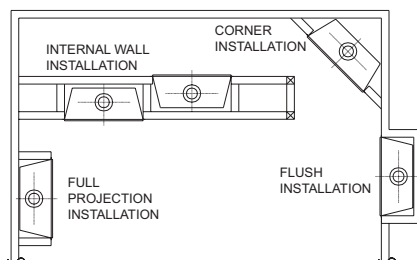


Figure 2 - Possible Locations for Installing Appliance

SPECIFICATIONS

GAS RATING - NATURAL			
	IBBM-36N-TKA	IBBM-42N-TKA	IBBM-50N-TKA
Max. Input Rating:	52,000 Btu/Hr	56,000 Btu/Hr	60,000 Btu/Hr
Manifold Pressure:	3.5" WC (.87 kPa)	3.5" WC (.87 kPa)	3.5" WC (.87 kPa)
Min. Supply Pressure:	4.5" WC (1.12 kPa)	5.0" WC (1.24 kPa)	5.0" WC (1.24 kPa)
Max. Supply Pressure:	10.5" WC (2.66 kPa)	10.5" WC (2.66 kPa)	10.5" WC (2.66 kPa)
Orifice Size:	# 26	# 23	# 18
GAS RATING - PROPANE/LP			
	IBBM-36P-TKA	IBBM-42P-TKA	IBBM-50P-TKA
Max. Input Rating:	46,000 Btu/Hr	52,000 Btu/Hr	57,000 Btu/Hr
Manifold Pressure:	10" WC (2.49 kPa)	10" WC (2.49 kPa)	10" WC (2.49 kPa)
Min. Supply Pressure:	11" WC (2.74 kPa)	11" WC (2.74 kPa)	11" WC (2.74 kPa)
Max. Supply Pressure:	13" WC (3.23 kPa)	13" WC (3.23 kPa)	13" WC (3.23 kPa)
Orifice Size:	# 46	# 44	# 43

*For the purpose of input adjustment.

PRODUCT DIMENSIONS

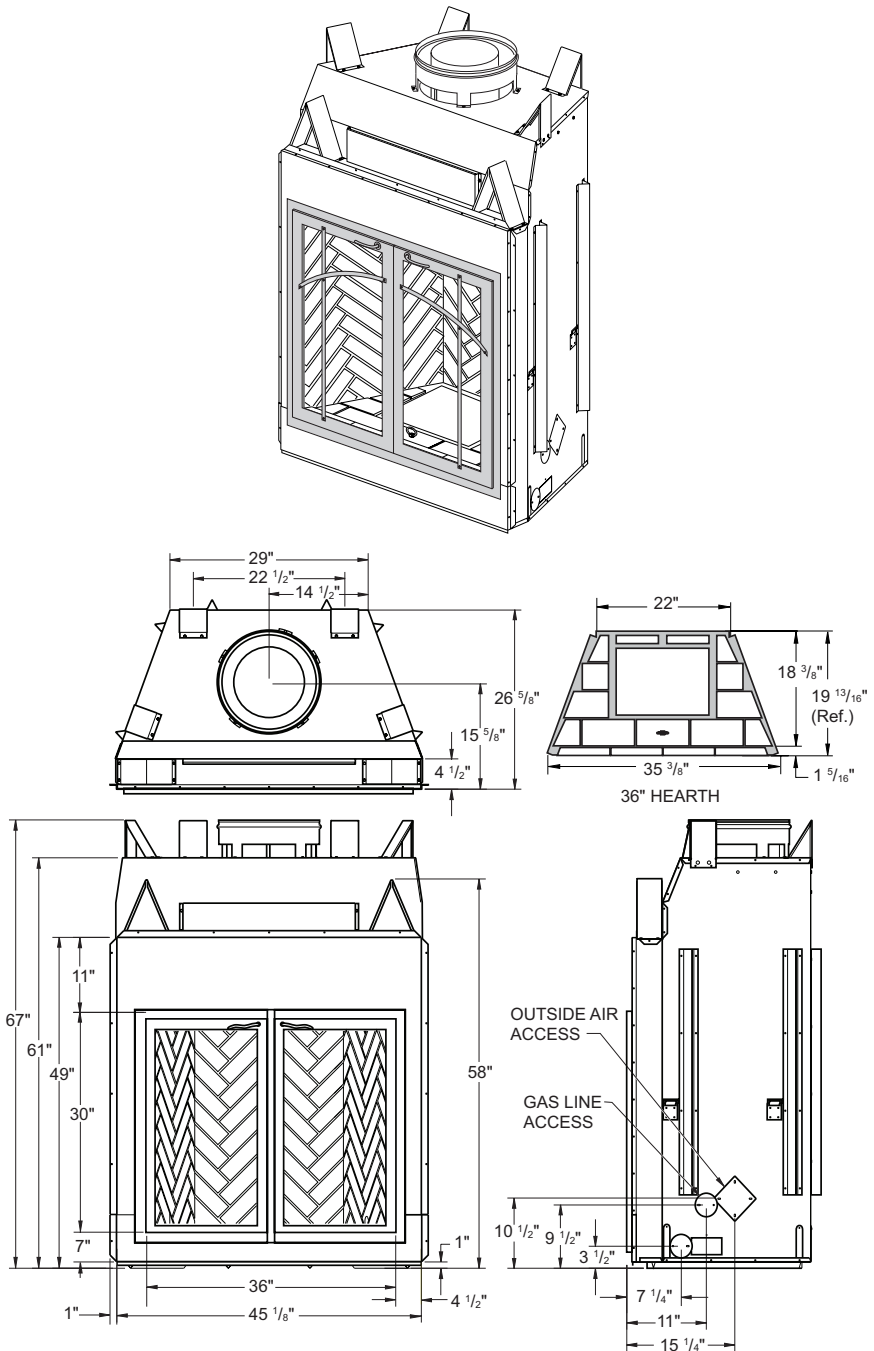


Figure 3 - 36" Model IBVC-36Y

PRODUCT DIMENSIONS *Continued*

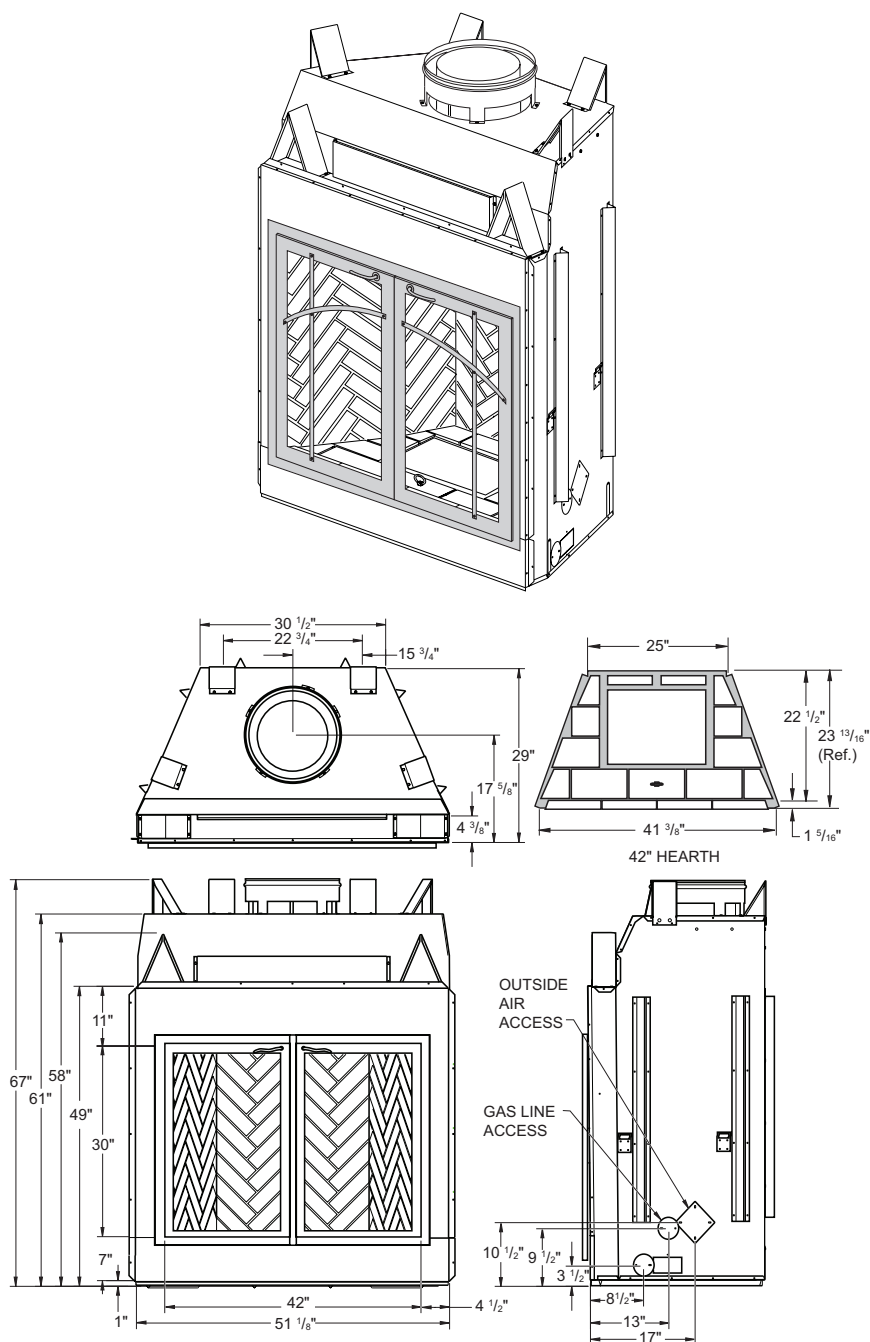


Figure 4 - 42" Model IBVC-42Y

PRODUCT DIMENSIONS *Continued*

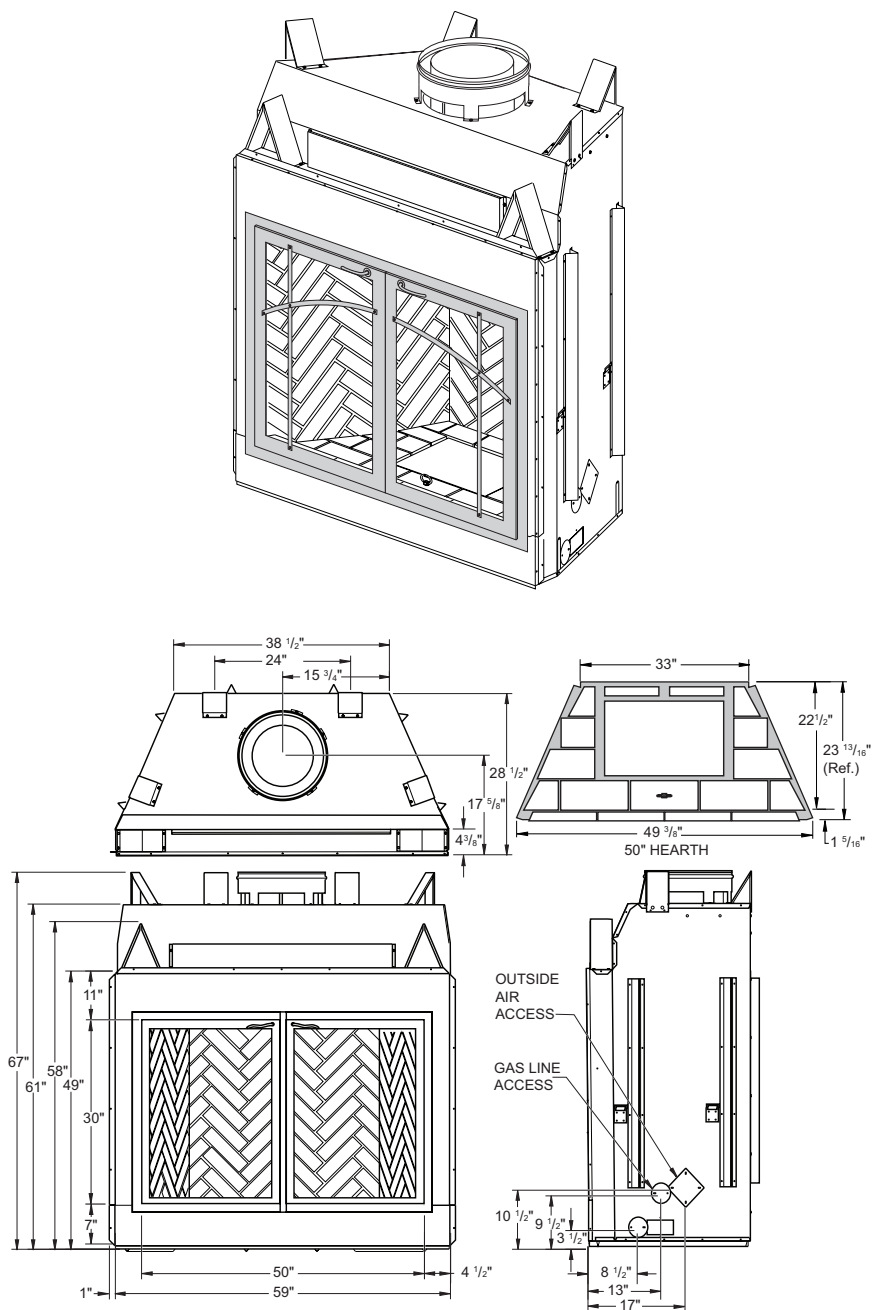


Figure 5 - 50" Model IBVC-50Y

PREINSTALLATION PREPARATION

SELECTING LOCATION

To determine the safest and most efficient location for the fireplace, you must take into consideration the following guidelines:

1. The location must allow for proper clearances (see Figures 6 and 7).
2. Consider a location where fireplace will not be affected by drafts, air conditioning ducts, windows or doors.
3. A location that avoids cutting of joists or roof rafters will make installation easier.
4. An outside air kit is available with this fireplace (see *Optional Outside Air Kit*, page 11).

MINIMUM CLEARANCE TO COMBUSTIBLES

Back and sides of fireplace	1 1/2" min.*
Front of fireplace	48" min.
Floor**	0" min.
Perpendicular wall to opening	12" min.
Top spacers	0" min.
Mantel clearances	see <i>Mantels</i> , page 11
Chimney outer pipe surface	1" min.

* Not required at nailing flanges

** See step 2 of *Framing*



WARNING: Do not pack required air spaces with insulation or other materials.

FRAMING

1. Frame opening for fireplace using dimensions shown in Figures 6 and 7.
2. If fireplace is to be installed directly on carpeting, tile (other than ceramic) or any combustible material other than wood flooring, fireplace must be installed upon a metal or wood panel extending full width and depth of fireplace.
3. Set fireplace directly in front of this opening and slide unit back until nailing flanges touch side framing.
4. Check level of the fireplace and shim with sheet metal if necessary.
5. Before securing fireplace to prepared framing, ember protector (provided) must be placed between hearth extension (not supplied) and under bottom front edge of fireplace to protect against glowing embers falling through. If fireplace is to be installed on a raised platform, a Z-type ember protector (not supplied) must be

fabricated to fit your required platform height. Ember protector should extend under fireplace a minimum of 1 1/2". Ember protector should be made of galvanized sheet metal (28 gauge minimum to prevent corrosion).

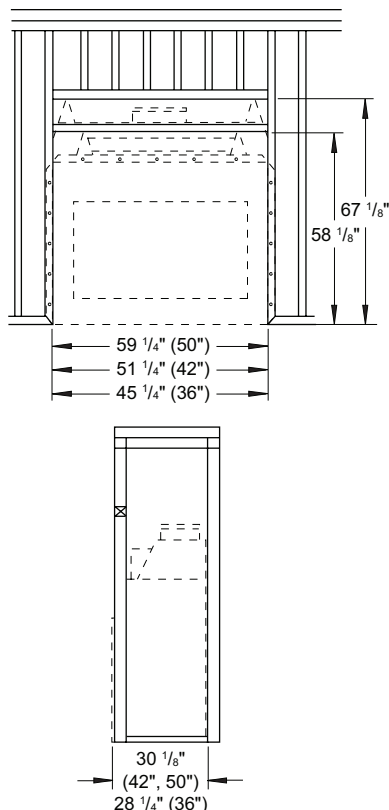


Figure 6 - Rough Opening Dimensions for Installing in a Wall

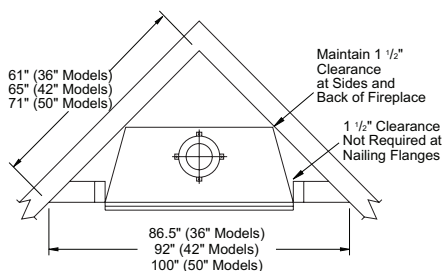


Figure 7 - Corner Installation

PREINSTALLATION PREPARATION

Continued

- Using screws or nails, secure fireplace to framing through flanges located on sides of fireplace.

⚠ WARNING: When finishing appliance, do not overlap combustible material onto the black front face. Brick, tile or other noncombustible materials may be applied to the face provided that any gap is between the material used and the face is caulked with a noncombustible caulking.

OPTIONAL OUTSIDE AIR KIT (MODEL AK4/AK4F)

Installation of an outside air kit should be performed during rough framing of fireplace due to the nature of it's location. Outside combustion air is accessed through a vented crawl space (AK4F) or through a sidewall (AK4). See Figure 39 on page 32 for instruction of operating air kit.

⚠ CAUTION: Combustion air inlet ducts shall not terminate in attic space.

Secure to Collars with Metal Tape, Screws or Straps (Min. of 1/4" x 20" in size)

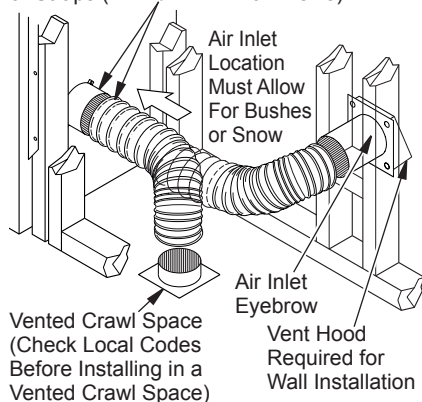
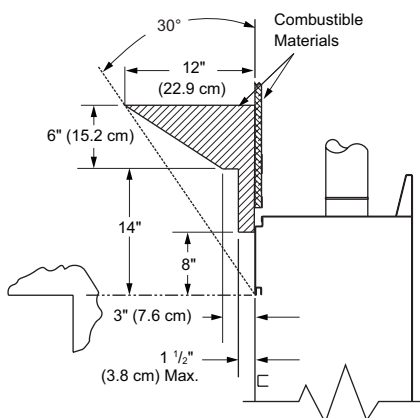


Figure 8 - Outside Air Kit

MANTELS

A combustible mantle shelf maybe installed a maximum 12" (22.9 cm) from the wall. Figure 9 and Figure 10 on page 12 show the minimum allowable distances from various combustible mantle components in relation to the fireplace opening.



**Figure 9 - Mantel Clearances - Side View
(Cross Section)**

PREINSTALLATION PREPARATION

Continued

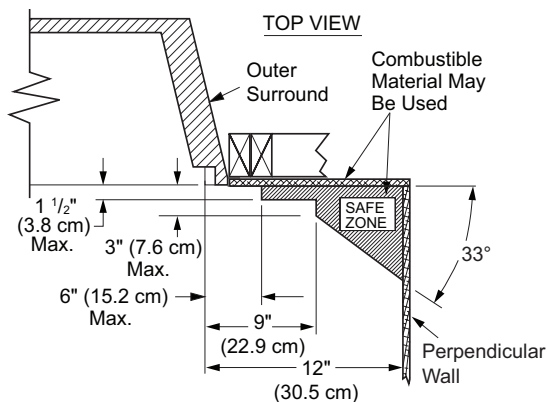


Figure 10 - Side Clearances - Top View (Cross Section)

VENTING INSTALLATION

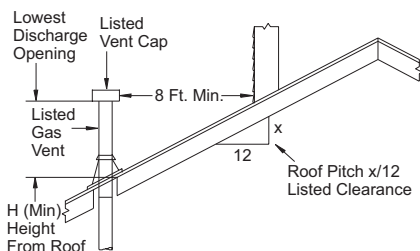
ADESA Heating, LLC or an 8" B-type venting system must be connected to appliance for venting to the outside of building. Transition pipe model BTC-8 is required for use with B-type venting.

Standing codes requirements concerning vent installations may vary within your state, province or local codes jurisdiction. Therefore, it is recommended that you check with your local building codes for specific requirements or in absence of local codes, follow Section 7.0 of the current *National Fuel Gas Code ANSI Z223.1/NFPA 54*.

This gas appliance must be vented to the outdoors only and may not be terminated into an attic space or into a chimney flue servicing a solid-fuel burning appliance.

Vent terminations must be located in accordance with height and proximity rules of NFPA No. 54. These rules apply to vents at 12" diameter or less and require a minimum height in accordance with the roof pitch and a minimum of 8 ft. distance from a vertical wall or obstruction (see Figure 11).

⚠ WARNING: This appliance must be properly connected to a system and must not be connected to a chimney flue servicing a separate solid fuel burning appliance.



Roof Pitch	H (Min.) Feet	Meter
Flat to 6/12	1.0	0.30
6/12 to 7/12	1.25	0.38
Over 7/12 to 8/12	1.5	0.46
Over 8/12 to 9/12	2.0	0.61
Over 9/12 to 10/12	2.5	0.76
Over 10/12 to 11/12	3.25	0.99
Over 11/12 to 12/12	4.0	1.22
Over 12/12 to 14/12	5.0	1.52
Over 14/12 to 16/12	6.0	1.83
Over 16/12 to 18/12	7.0	2.13
Over 18/12 to 20/12	7.5	2.27
Over 20/12 to 21/12	8.0	2.44

Figure 11 - Typical Terminations

VENTING INSTALLATION

Continued

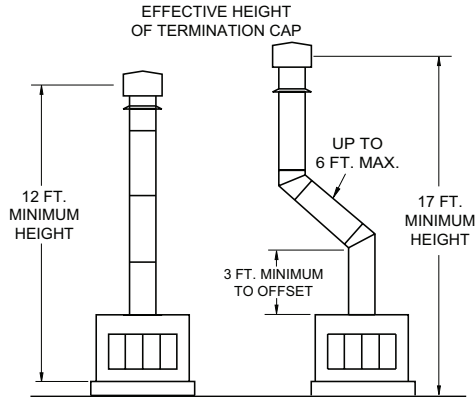
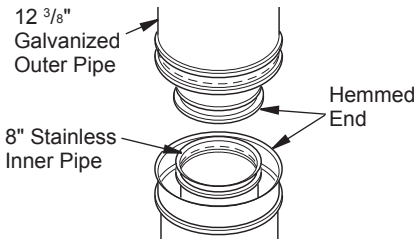


Figure 12 - Typical Residential Installations

VENTING INSTALLATION USING DESA HEATING, LLC VENTING SYSTEM

DESA Heating, LLC chimney system consists of 12", 18", 24", 36" and 48" snap-lock, double-wall pipe segments, planned for maximum adaptability to individual site requirements.

⚠ WARNING: The opening in collar around chimney at top of fireplace must not be obstructed. Never use blown insulation to fill chimney enclosure.



PART NO.	DESCRIPTION
12-8DM	Pipe Section
18-8DM	Pipe Section
24-8DM	Pipe Section
36-8DM	Pipe Section
48-8DM	Pipe Section
RT-8DM	Round Termination
RTL-8DM	Round Termination
RTT-8DM	Round Termination with Slip Section
RTTL-8DM	Round Termination with Slip Section
ET-8DM	Square Chase-Top
ETO-8DM	Square Chase-Top with Mesh
ETL-8DM	Square Chase-Top with Slip Section
ETLO-8DM	Square Chase-Top with Mesh & Slip Section
60E-8DM	60° Offset and Return

Figure 13 - Chimney Pipes and Accessories

VENTING INSTALLATION

Continued

ASSEMBLY AND INSTALLATION OF DOUBLE WALL CHIMNEY SYSTEM

Each double wall chimney section consists of a galvanized outer pipe, a stainless steel inner flue pipe and a wire spacer. Pipe sections must be assembled independently as chimney is installed. When connecting chimney directly to fireplace, inner flue pipe section must be installed first with lanced side up. Outer pipe section can then be installed over flue pipe section with hemmed end up. Press down on each pipe section until lances securely engage hem on fireplace starter. The wire will assure proper spacing between inner and outer pipe sections.

⚠ Opening in collar around chimney at top of fireplace must not be obstructed. Never use blown insulation to fill chimney enclosure.

Continue to assemble chimney sections as outlined, making sure that both inner and outer pipe sections are locked together. When installing double wall snap-lock chimney together, it is important to assure joint between chimney sections is locked. Check by pulling chimney upward after locking. Chimney will not come apart if properly locked. It is not necessary to add screws to keep chimney together.

FIRESTOP SPACERS (V3600FS-8DM)

Firestop spacers are required at each point where chimney penetrates a floor space. Their purpose is to establish and maintain required clearance between chimney and combustible materials. When pipe passes through a framed opening into a living space above, firestop must be placed into ceiling from below as shown in Figure 14.

If area above is a living space, install firestop below framed hole.

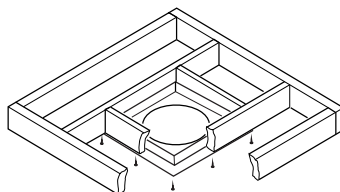


Figure 14 - Firestop Spacer with Living Space Above Ceiling

They also provide complete separation from one floor space to another or attic space as required by most codes. When double wall pipe passes through a framed opening into an attic space, firestop must be placed into an attic floor as shown in Figure 15.

If area above is an attic or insulated area, install firestop above framed hole.

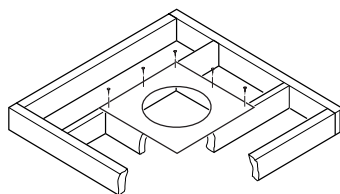


Figure 15 - Firestop Spacer with Attic Space Above Ceiling

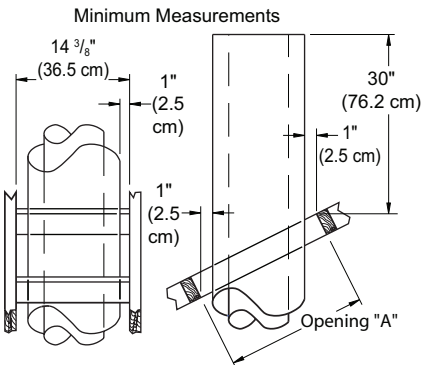
VENTING INSTALLATION

Continued

PENETRATING ROOF

To maintain a 1" clearance to pipe on a roof with a pitch, a rectangular opening must be cut.

1. Determine center point where pipe will penetrate roof.
2. Determine center point of roof. Pitch is the distance the roof drops over a given span, usually 12". A 6/12 pitch means that the roof drops 6" for each 12" measure horizontally down from roof rafters.
3. Use roof opening chart (Figure 16) to determine correct opening length and flashing required.
4. Remove shingles around opening measured. Cut out this section.



Pitch	Slope	Opening "A" Max.	Used Flashing Model No.
Flat	0°	15"	V6F-8DM
0-6/12	26.6°	16 1/8"	V6F-8DM
6/12- 12/12	45.0°	20 3/8"	V12F-8DM

Figure 16 - Roof Opening Measurements

FLASHING INSTALLATION (V6F-8DM OR V12F-8DM)

Determine flashing to be used with roof opening chart. Slide flashing over pipe until base is flat against roof. Replace as many shingles as needed to cover exposed area and flashing base. Secure in position by nailing through shingles (see Figure 17). **DO NOT NAIL THROUGH FLASHING CONE.**

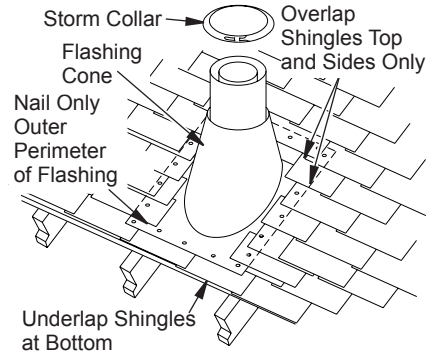


Figure 17 - Flashing Installation

Installing Flashing on a Metal Roof

When installing flashing on a metal roof, it is required that putty tape be used between flashing and roof. Flashing must be secured to roof using #8 x 3/4" screws and then sealed with roof coating to prevent leakage through screw holes. A roof coating must also be applied around perimeter of flashing to provide a proper seal.

Storm Collar Installation (SC1 or SC2)

Place storm collar over pipe and slide down until it is snug against open edge of flashing (see Figure 18). Use SC1 for all round terminations and SC2 for all terminations with slip sections. Apply waterproof caulk around perimeter of collar to provide a proper seal.

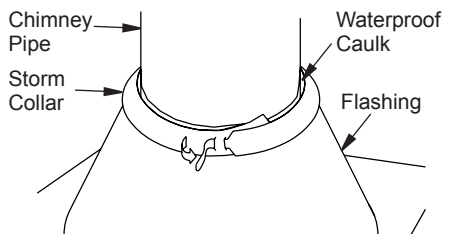


Figure 18 - Storm Collar

VENTING INSTALLATION

Continued

Terminations/Spark Arrestor

Fireplace system must be terminated with listed round top or chase terminations. In any case, refer to installation instructions supplied with termination. Terminations approved for this fireplace are RT-8DM and RTL-8DM that can be used for flashing or chase and ET-8DM, ETO-8DM, ETL-8DM and ETLO-8DM for chase style termination only. Figure 19 shows an RTL-8DM round top termination.

CAUTION: Do not seal openings on the rooftop flashing. Follow the installation instructions provided with the termination being used.

Terminations with 16" slip pipe sections are available. RTT-8DM and RTTL-8DM are approved for flashing installations. When needed, these adjustable terminations may be used in combination with pipe assembly to achieve correct chimney height.

Note: In rare instance there is a problem with side driven rain or wind or chimney is not drafting properly, an ADS-8DM (Anti-Draft Shield) can be used with round terminations.

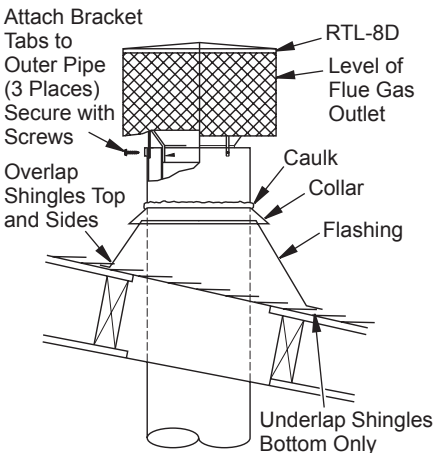


Figure 19 - Termination

VENTING INSTALLATION USING 8" B-TYPE VENTING SYSTEM

Transition pipe model BTC-8 and starter collar are shown in Figure 20. Remove starter collar and set aside. Slide transition pipe over vent collar and attach with a minimum of 4 screws. Replace starter collar over transition pipe and attach using 4 screws located on leg stands. To install b-vent piping, slide first piece of b-vent over transition pipe and attach with either a minimum of 3 screws or other means approved by the vent manufacturer.

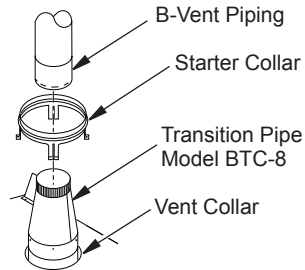


Figure 20 - Installing Transition Pipe and Starter Collar

CHECKING FOR PROPER VENTING

After completing and checking electrical, gas and vent connections, follow the lighting instructions and allow the main burner to run for approximately 5 minutes. Hold a lighted match near the top edge of fireplace opening and play it along entire length of opening (see Figure 21, page 17). Proper venting should tend to draw the flame or smoke into the appliance. Improper venting or escaping of spillage of burned gas, is indicated when the match flickers or goes out.

If the appliance is found to be improperly venting, shut it off and notify your installer or a qualified service agency to inspect the venting system.

NOTICE: This appliance is equipped with a vent safety shutoff switch which will shut down the appliance in the case of a venting problem. Do not bypass the vent safety switch. If the appliance should shut down, contact a qualified installer, service agency or your gas supplier to have the vent inspected before operating.

VENTING INSTALLATION

Continued

Check this area along entire top edge of fireplace opening. Smoke or flame should be drawn into appliance opening.

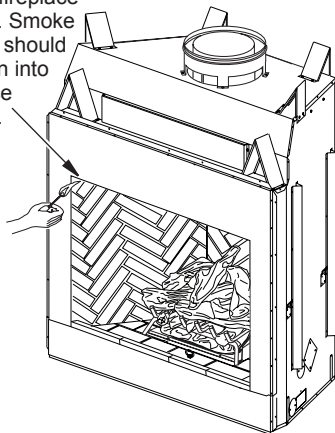


Figure 21 - Checking for Spillage

FINISHING FIREPLACE

Combustible materials, such as wallboard, gypsum board, sheet rock, drywall, plywood, etc. may make direct contact with sides and top around the fireplace face. It is important that combustible materials do not overlap front face itself. Brick, glass, tile or other noncombustible materials may overlap front face provided they do not obstruct essential openings such as louvered slots. When overlapping with a noncombustible facing material, use only noncombustible mortar or adhesive.

INSTALLATION

GAS LINE HOOK-UP

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

⚠ WARNING: Gas line hookup should be done by your gas supplier or a qualified service person.

⚠ WARNING: Before you proceed, make sure your gas supply is OFF.

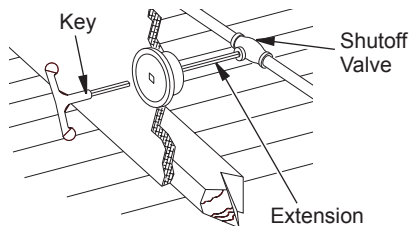
A manual shutoff valve has been included in the appliance's gas supply system. You may consider installing an extra gas shutoff valve outside appliance's enclosure (check with local codes) where it can be accessed more conveniently with a key through a wall as shown in Figure 21.

In conformance with local codes, route a 1/2" NPT gas line to appliance through hole in left or right side of firebox.

⚠ CAUTION: Do not kink flexible gas line.

DESA Heating, LLC recommends that a black iron gas line be routed from the gas source, through a sediment trap (shown in Figure 24, page 18) and into appliance. Once connected through appliance, a flexible gas line may be used for ease of installation to gas control valve (see Figure 25, page 18).

Before connecting black iron gas line to inside of appliance a sediment trap must be included outside appliance between gas line and gas shutoff valve. It must extend down 3" beyond center of pipe. Prepare incoming black iron gas line with teflon tape or pipe joint compound (Check with local building codes).



Typical Exterior Wall Gas Shutoff Installation

Figure 22 - Manual Shutoff Valve Installation

INSTALLATION

Continued

⚠ CAUTION: Compounds used on threaded joints of gas piping shall be resistant to the action of Liquefied Petroleum (LP or propane) and should be applied lightly to ensure excess sealant does not enter the gas line.

⚠ WARNING: All gas piping and connections must be tested for leaks after the installation is completed.

After ensuring that gas valve is on, apply a commercial leak detection solution to all connections and joints. If bubbles appear, leaks can be detected and corrected.

Do not use an open flame for leak testing and do not operate any appliance if a leak is detected.

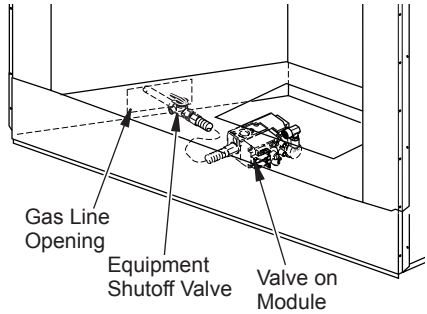


Figure 23 - Installing Gas Line

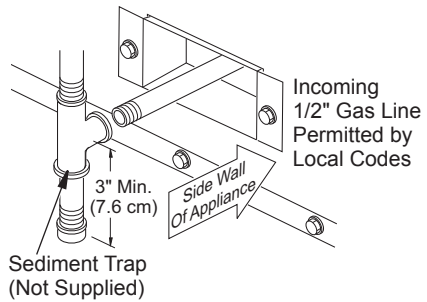


Figure 24 - Sediment Trap

Complete your gas installation by connecting incoming gas line with flexible gas line. Secure tightly with wrench but **DO NOT OVERTIGHTEN**.

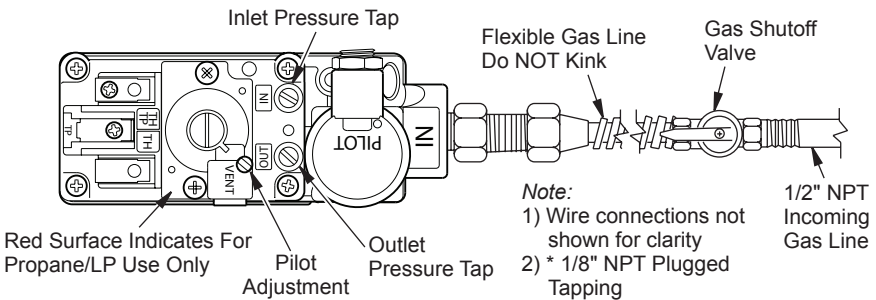


Figure 25 - Connecting Incoming Gas Line to Flex Gas Line

INSTALLATION

Continued

REMOVING AND INSTALLING SMOKE SHELF

IMPORTANT: Smoke shelf must be removed before installing and grouting bricks.

1. Remove screws that attach smoke shelf to firebox top (see Figure 26).
2. Disconnect wires from limit switch.
3. When bricks have been installed and grout has dried completely, connect wires to limit switch and reinstall smoke shelf.

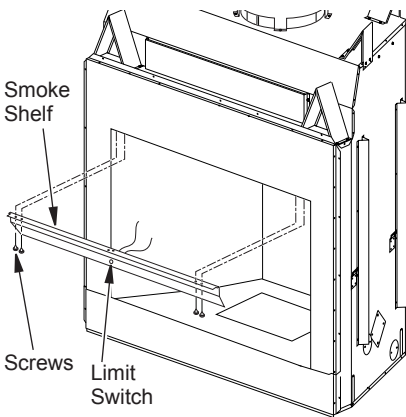


Figure 26 - Removing Smoke Shelf

BRICK PANEL INSTALLATION

IMPORTANT: Installation of brick should be done after the fireplace is placed in a permanent location.

The brick housings are already installed on the panels. When installing brick housing panels into fireplace, wear gloves as edges may be sharp.

1. Beginning with left side panel, place panel, bottom edge first, at an angle into fireplace. Secure to bottom of fireplace with screws provided.
2. Install right side as left side in step 1 using screws provided.
3. Install back panel and secure back to sides and bottom of firebox with screws provided.

4. Using self-tapping screws and a drill, place screws into large holes in back and side panels (see *Parts*, page 38), through wire mesh and into firebox wrapper to secure.

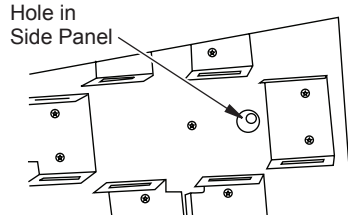


Figure 27 - Hole in Side Panel to Attach to Firebox Wrapper

BRICK INSTALLATION

Each brick housing is stamped with a number (full size bricks are not stamped). These numbers will help identify the brick when installing. It is important to install these bricks exactly as instructed. Press brick firmly into brick housing until it snaps. Groove line on side of brick will come in contact with flange on brick housing. This secures brick into housing (see Figure 28). Smaller bricks may require a small portion of furnace cement applied to back of brick to secure it until grouting has been completed.

Bricks are packaged in separate boxes. Brick matrices on pages 20 through 26 show how bricks are packaged and placed for each size fireplace and number of bricks per box. There are 2 extra full bricks included in Hearth Brick package.

Install bricks one section at a time starting with hearth panel followed by the rear panel, left panel and right panel. It is important to install the bricks in sequence. Please note, full size bricks are NOT stamped.

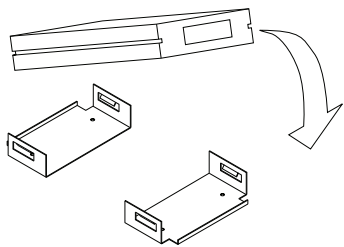
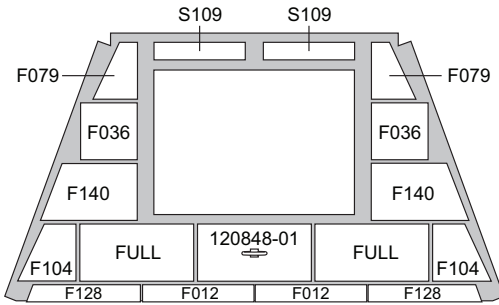


Figure 28 - Installing Bricks into Housings

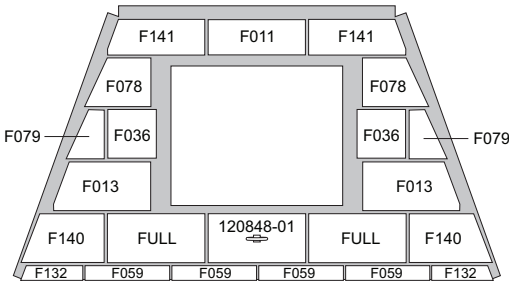
INSTALLATION

Continued



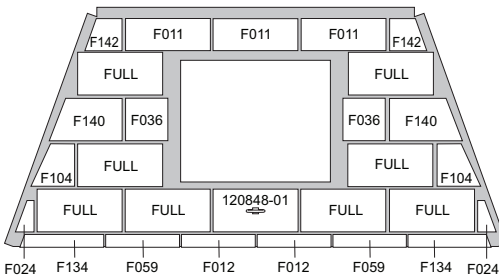
RED	IVORY	QTY
FULL	FULL	
(112140-01)	(112140-05)	4*
ASH BRICK	ASH BRICK	
(120848-01)	(120848-02)	1
F012R	F012W	2
F036R	F036W	2
F079R	F079W	2
F104R	F104W	2
F128R	F128W	2
F140R	F140W	2
S109R	S109W	2

* Includes 2 extra bricks.



RED	IVORY	QTY
FULL	FULL	
(112140-01)	(112140-05)	4*
ASH BRICK	ASH BRICK	
(120848-01)	(120848-02)	1
F011R	F011W	1
F013R	F013W	2
F036R	F036W	2
F059R	F059W	4
F078R	F078W	2
F079R	F079W	2
F132R	F132W	2
F140R	F140W	2
F141R	F141W	2

* Includes 2 extra bricks.



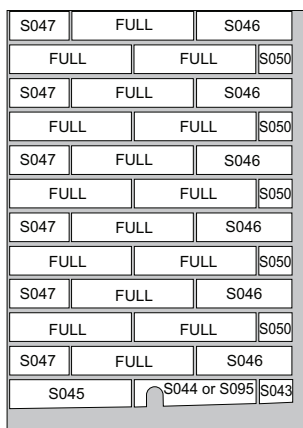
RED	IVORY	QTY
FULL	FULL	
(112140-01)	(112140-05)	10*
ASH BRICK	ASH BRICK	
(120848-01)	(120848-02)	1
F011R	F011W	3
F012R	F012W	2
F024R	F024W	2
F036R	F036W	2
F059R	F059W	2
F104R	F104W	2
F134R	F134W	2
F140R	F140W	2
F142R	F142W	2

* Includes 2 extra bricks.

INSTALLATION

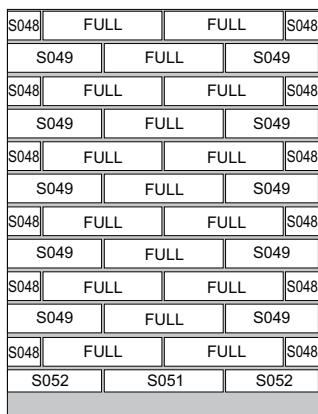
Continued

36" SPLIT STACKED BRICK MATRIX



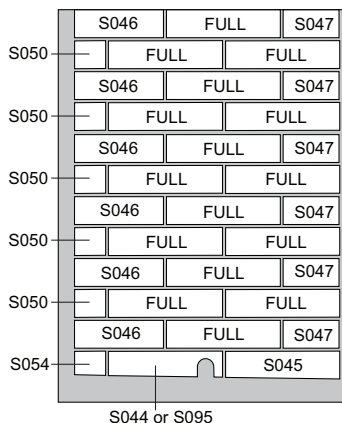
LEFT REFRACTORY

<u>RED</u>	<u>IVORY</u>	<u>QTY</u>
FULL	FULL	16
(112140-02) (112140-06)		
S043R	S043W	1
S044R	S044W	1
S045R	S045W	1
S046R	S046W	6
S047R	S047W	6
S050R	S050W	5
S095R	S095W	1



REAR REFRACTORY

<u>RED</u>	<u>IVORY</u>	<u>QTY</u>
FULL	FULL	17
(112140-02) (112140-06)		
S048R	S048W	12
S049R	S049W	10
S051R	S051W	1
S052R	S052W	2



RIGHT REFRACTORY

<u>RED</u>	<u>IVORY</u>	<u>QTY</u>
FULL	FULL	16
(112140-02) (112140-06)		
S044R	S044W	1
S045R	S045W	1
S046R	S046W	6
S047R	S047W	6
S050R	S050W	5
S054R	S054W	1
S095R	S095W	1

INSTALLATION

Continued

42" SPLIT STACKED BRICK MATRIX

S077	FULL	FULL		S050
S076		FULL	S046	
S077	FULL	FULL		S050
S076		FULL	S046	
S077	FULL	FULL		S050
S076		FULL	S046	
S077	FULL	FULL		S050
S076		FULL	S046	
S077	FULL	FULL		S050
S076		FULL	S046	
S077	FULL	FULL		S050
S076			S045 or S081	

LEFT REFRACTORY

<u>RED</u>	<u>IVORY</u>	<u>QTY</u>
FULL	FULL	17
(112140-02)	(112140-06)	
S045R	S045W	1
S046R	S046W	5
S050R	S050W	6
S076R	S076W	6
S077R	S077W	6
S080R	S080W	1
S081R	S081W	1

S076	FULL	S076	
S077	FULL	FULL	S077
S076	FULL	S076	
S077	FULL	FULL	S077
S076	FULL	S076	
S077	FULL	FULL	S077
S076	FULL	S076	
S077	FULL	FULL	S077
S076	FULL	S076	
S077	FULL	FULL	S077
S076	FULL	S076	
S078	S051	S051	S078

REAR REFRACTORY

<u>RED</u>	<u>IVORY</u>	<u>QTY</u>
FULL	FULL	16
(112140-02)	(112140-06)	
S051R	S051W	2
S076R	S076W	12
S077R	S077W	10
S078R	S078W	2

S050	FULL	FULL	S077
S046	FULL	S076	
S050	FULL	FULL	S077
S046	FULL	S076	
S050	FULL	FULL	S077
S046	FULL	S076	
S050	FULL	FULL	S077
S046	FULL	S076	
S050	FULL	FULL	S077
S046	FULL	S076	
S050	FULL	FULL	S077
S082	S045 or S081	S076	

RIGHT REFRACTORY

<u>RED</u>	<u>IVORY</u>	<u>QTY</u>
FULL	FULL	17
(112140-02)	(112140-06)	
S045R	S045W	1
S046R	S046W	5
S050R	S050W	6
S076R	S076W	6
S077R	S077W	6
S081R	S081W	1
S082R	S082W	1

INSTALLATION

Continued

50" SPLIT STACKED BRICK MATRIX

S076	FULL	S046	
S077	FULL	FULL	S050
S076	FULL	S046	
S077	FULL	FULL	S050
S076	FULL	S046	
S077	FULL	FULL	S050
S076	FULL	S046	
S077	FULL	FULL	S050
S076	FULL	S046	
S077	FULL	FULL	S050
S076	FULL	S046	
S077	S045 or S096	S095	S043

LEFT REFRACTORY

RED	IVORY	QTY
FULL	FULL	16
(112140-02)	(112140-06)	
S043R	S043W	1
S045R	S045W	1
S046R	S046W	6
S050R	S050W	5
S076R	S076W	6
S077R	S077W	6
S095R	S095W	1
S096R	S096W	1

S048	FULL	FULL	FULL	S048
S049	FULL	FULL	S049	
S048	FULL	FULL	FULL	S048
S049	FULL	FULL	S049	
S048	FULL	FULL	FULL	S048
S049	FULL	FULL	S049	
S048	FULL	FULL	FULL	S048
S049	FULL	FULL	S049	
S048	FULL	FULL	FULL	S048
S049	FULL	FULL	S049	
S048	FULL	FULL	FULL	S048
S049	FULL	FULL	S049	
S048	FULL	FULL	FULL	S048
S052	S051	S051	S052	

REAR REFRACTORY

RED	IVORY	QTY
FULL	FULL	28
(112140-02)	(112140-06)	
S048R	S048W	12
S049R	S049W	10
S051R	S051W	2
S052R	S052W	2

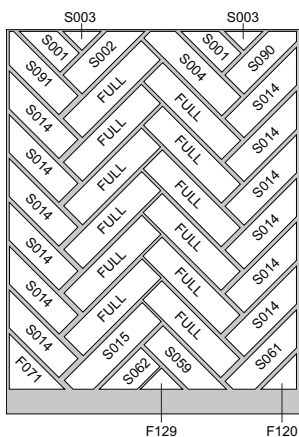
S046	FULL	S076	
S050	FULL	FULL	S077
S046	FULL	S076	
S050	FULL	FULL	S077
S046	FULL	S076	
S050	FULL	FULL	S077
S046	FULL	S076	
S050	FULL	FULL	S077
S046	FULL	S076	
S050	FULL	FULL	S077
S046	FULL	S076	
S054	S095	S045 or S096	S077

RIGHT REFRACTORY

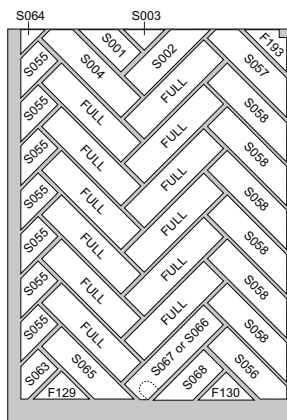
RED	IVORY	QTY
FULL	FULL	16
(112140-02)	(112140-06)	
S045R	S045W	1
S046R	S046W	6
S050R	S050W	5
S054R	S054W	1
S076R	S076W	6
S077R	S077W	6
S095R	S095W	1
S096R	S096W	1

Continued

<u>RED</u>	<u>IVORY</u>	<u>QTY</u>
FULL	FULL	12
2140-02)	(112140-06)	
S001R	S001W	1
S002R	S002W	1
S003R	S003W	1
S004R	S004W	1
S032R	S032W	1
S058R	S058W	7
S069R	S069W	7
S071R	S071W	1
S072R	S072W	1
S073R	S073W	1
S074R	S074W	1
S075R	S075W	1
S103R	S103W	1
F120R	F120W	1
F194R	F194W	1



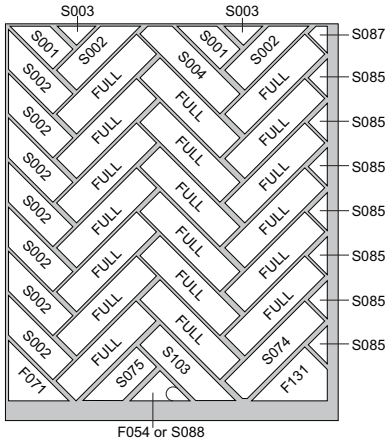
<u>RED</u>	<u>IVORY</u>	<u>QTY</u>
FULL	FULL	12
(112140-02)	(112140-06)	
S001R	S001W	2
S002R	S002W	1
S003R	S003W	2
S004R	S004W	1
S014R	S014W	12
S015R	S015W	1
S059R	S059W	1
S061R	S061W	1
S062R	S062W	1
S090R	S090W	1
S091R	S091W	1
F071R	F071W	1
F120R	F120W	1
F129R	F129W	1



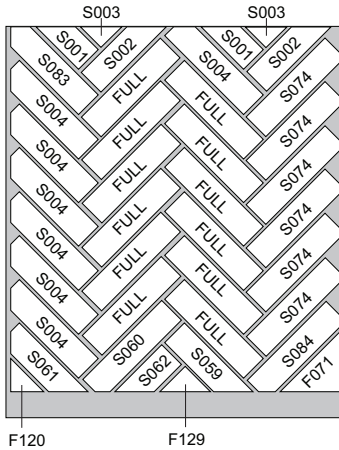
RED	IVORY	QTY
FULL	FULL	
(112140-02)	(112140-06)	12
S001R	S001W	1
S002R	S002W	1
S003R	S003W	1
S004R	S004W	1
S055R	S055W	7
S056R	S056W	1
S057R	S057W	1
S058R	S058W	6
S063R	S063W	1
S064R	S064W	1
S065R	S065W	1
S066R	S066W	1
S067R	S067W	1
S068R	S068W	1
F129R	F129W	1
F130R	F130W	1
F193R	F193W	1

Continued

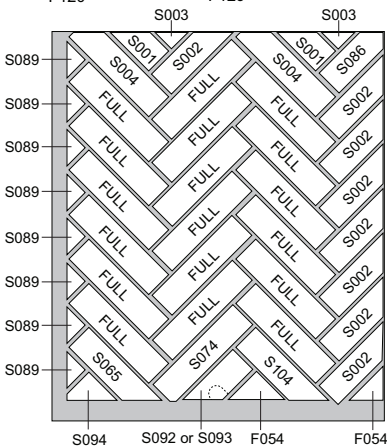
42" SPLIT HERRINGBONE BRICK MATRIX



LEFT REFRACTORY		
RED	IVORY	QTY
FULL	FULL	19
(112140-02)	(112140-06)	
S001R	S001W	2
S002R	S002W	9
S003R	S003W	2
S004R	S004W	1
S054R	S054W	1
S075R	S075W	1
S074R	S074W	1
S085R	S085W	7
S087R	S087W	1
S088R	S088W	1
S103R	S103W	1
F071R	F071W	1
F131R	F131W	1



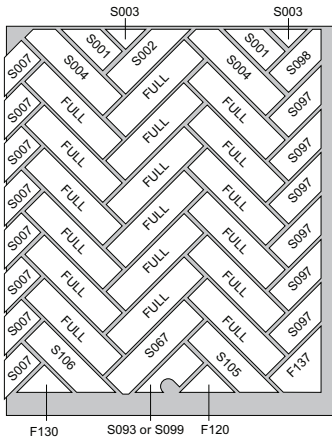
REAR REFRACTORY		
RED	IVORY	QTY
FULL	FULL	12
(112140-02)	(112140-06)	
S001R	S001W	2
S002R	S002W	2
S003R	S003W	2
S004R	S004W	7
S059R	S059W	1
S060R	S060W	1
S061R	S061W	1
S062R	S062W	1
S071R	S071W	1
S074R	S074W	6
S083R	S083W	1
S084R	S084W	1
F120R	F120W	1
F129R	F129W	1



RIGHT REFRACTORY		
<u>RED</u>	<u>IVORY</u>	<u>QTY</u>
FULL	FULL	18
(112140-02)	(112140-06)	
S001R	S001W	2
S002R	S002W	8
S003R	S003W	2
S004R	S004W	2
S065R	S065W	1
S074R	S074W	1
S086R	S086W	1
S089R	S089W	8
S092R	S092W	1
S093R	S093W	1
S094R	S094W	1
S104R	S104W	1
F054R	F054W	2

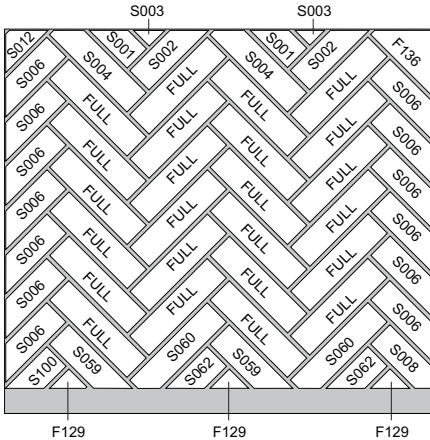
Continued

50" SPLIT HERRINGBONE BRICK MATRIX



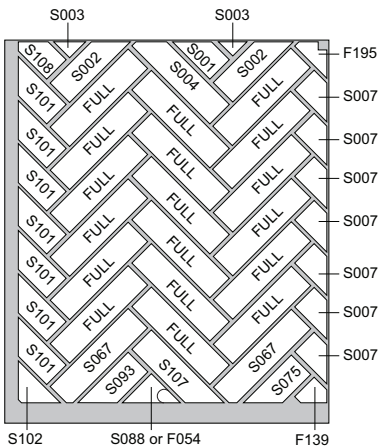
LEFT REFRACTORY

RED	IVORY	QTY
FULL	FULL	
(112140-02)	(112140-06)	18
S001R	S001W	2
S002R	S002W	1
S003R	S003W	2
S004R	S004W	2
S007R	S007W	8
S067R	S067W	1
S093R	S093W	1
S097R	S097W	6
S098R	S098W	1
S099R	S099W	1
S105R	S105W	1
S106R	S106W	1
F120R	F120W	1
F130R	F130W	1
F137R	F137W	1



REAR REFRACTORY

RED	IVORY	QTY
FULL	FULL	
(112140-02)	(112140-06)	24
S001R	S001W	2
S002R	S002W	2
S003R	S003W	2
S004R	S004W	2
S006R	S006W	13
S008R	S008W	1
S012R	S012W	1
S059R	S059W	2
S060R	S060W	2
S062R	S062W	2
S100R	S100W	1
F129R	F129W	3
F136R	F136W	1



RIGHT REFRACTORY

RED	IVORY	QTY
FULL	FULL	
(112140-02)	(112140-06)	18
S001R	S001W	1
S002R	S002W	2
S003R	S003W	2
S004R	S004W	1
S007R	S007W	7
S067R	S067W	2
S075R	S075W	1
S088R	S088W	1
S093R	S093W	1
S101R	S101W	7
S102R	S102W	1
S107R	S107W	1
S108R	S108W	1
F054R	F054W	1
F139R	F139W	1
F195R	F195W	1

INSTALLATION

Continued

GROUTING INSTRUCTIONS

Material provided:

1 or 2 - 10 lb. bags of cement (depending on model)

1 or 2 - 10 lb. bags of sand (depending on model)

Material required:

1 - Piping bag

1 - Joints striker

1 - Heavy duty mixing bucket

1 - Trowel

1. Moisten brick surface with damp sponge or spray bottle just prior to application. When bricks are wet, any excess grout mixture on bricks will easily wipe off.
2. In a heavy duty mixing bucket, pour seven (7) cups of water. Add 5 lbs. (half of a bag) of sand and 5 lbs (half of a bag) of cement. Mix together well using a power drill with mixing wand attachment.
3. The overall length of piping bag should be about 16". If the bag is longer than 16", cut it down to size by removing end with larger opening. This will make the bag easier to handle.
4. Put 2 to 3 cups of grout mixture into piping bag making sure the smaller opening is downward and over a moist towel to avoid spilling. Place a wet towel over the bucket making sure it is directly on the surface of grout mixture. This will keep the mixture moist and it will not dry out before use.
5. Begin grouting by first doing a "Filler Pass". This is done by filling the joint about 3/4 full with grout mixture. It is important to work with only 6 bricks at a time so grout doesn't have time to set up before striking.
6. Complete a "Finishing Pass" around 6 bricks you just put filler pass around. This is done by slowly filling in remainder of the joint with a thick amount of grout mixture. Mixture should be a little higher than the brick surface.

7. Using a trowel, remove excess grout mixture by moving trowel in the direction of the joint. Grout mixture in the joint should now be flush with brick surface.
8. Using a joint striker, force grout mixture into joint and sweep back and forth until grout is smooth and round. If grout becomes too shallow, add more grout mixture with piping bag and strike again.
9. Continue procedure around each group of 6 bricks until an entire panel is finished.
10. Using trowel, scrape in direction of joints to remove any grout that may have collected around bricks during striking. If desired, take a moist sponge and lightly sweep over bricks to remove any grout that may have gotten on bricks. **DO NOT PRESS HARD OR RUB IN A CIRCULAR MOTION.** This will press the grout into brick and turn brick a different color.

**Allow 72 hours before
operating fireplace.**



Figure 29 - Grouting Brick

INSTALLATION

Continued

INSTALLING BATTERIES IN WIRELESS HAND-HELD REMOTE CONTROL AND RECEIVER

NOTICE: Use only alkaline batteries (not included).

Modules have remote control receiver already installed. Batteries should be installed in receiver and AC backup before module is installed into firebox.

Installing Batteries in Remote Receiver

1. If module is installed in firebox, remove floor media logs, embers, ember flakes and lava rock.
2. Remove screws securing module to hearth floor (see [Installing Module](#)). Be careful not to break or chip logs.
3. Gloves must be worn when removing module as there may be sharp edges. Carefully lift module out of firebox being careful with any wires that may be attached.
4. Carefully set module on floor to access battery housings.
5. Remove switch plate from receiver (see Figure 30).

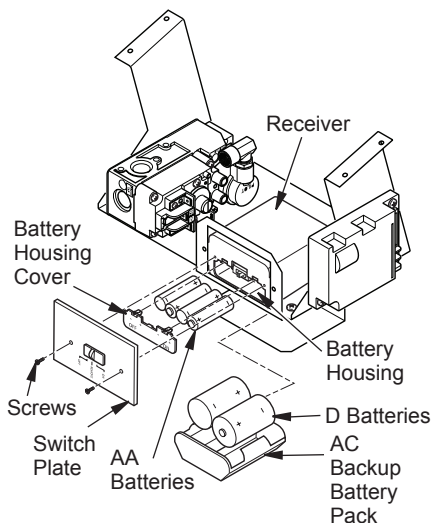


Figure 30 - Installing Receiver Batteries

6. Remove battery housing cover on remote receiver to expose battery housing (see Figure 30).
7. Install 4 AA batteries into housing following positive and negative directions on battery housing cover removed in step 3 (see Figure 30).
8. Replace battery housing cover and switch plate.
9. Install 2 D batteries into AC backup battery pack.
10. See [Installing Module](#) to install module into firebox.

Installing Batteries in Hand-Held Remote Control Unit

1. Remove battery cover on back of remote control unit.
2. Install 3 AAA batteries as instructed in battery housing.
3. Replace battery cover onto remote control unit.

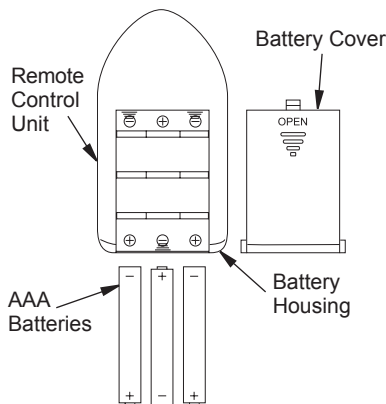


Figure 31 - Installing Battery in Hand-Held Remote Control Unit

INSTALLING MODULE

Before installing module, make sure all batteries have been installed (see [Installing Batteries in Wireless Hand-Held Remote Control and Receiver](#)). See [Removing and Installing Smoke Shelf](#) on page 18 to reinstall limit switch and smoke shelf.

INSTALLATION

Continued

⚠ CAUTION: Gloves should be worn when installing module into fireplace. Metal edges may be sharp.

1. Plug module into J-Box on the right side of firebox floor.
2. Connect shutoff valve of module to flexible gas line.
3. Connect wires from limit switch to module (see *Wiring Diagram*, page 35).
4. Carefully place module into hearth in firebox. Attach using 3 screws each on left and right of module. Be careful not to chip or break logs.

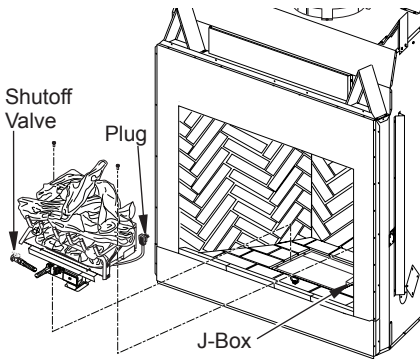


Figure 32 - Installing Module into Firebox

INSTALLING FLOOR MEDIA

1. Ember flakes should be placed upright into grooves between ports on ember bed (see Figure 33).
2. Place lava rock around base of burner on hearth floor. Make sure burner ports are not covered.
3. Gloves must be worn when working with ember material. Pull ember material apart into pieces no larger than a dime. Place pieces loosely and sparingly directly over holes of front burner (ember bed). This will create a glowing ember appearance as flame touches ember material. Do not block pilot ports with embers. It is not necessary to use all ember material provided.
4. Place scrap log pieces randomly as desired on fireplace hearth floor around base of log set.
5. Set andirons in place at sides of grate.

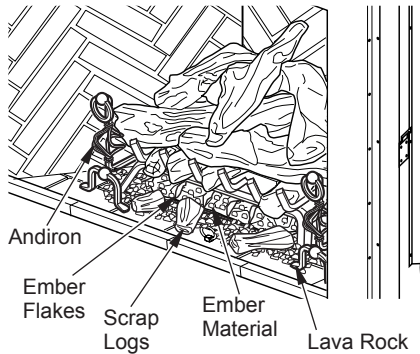


Figure 33 - Installing Floor Media

GLASS DOORS

IMPORTANT: Read all glass door care instructions before starting a fire in your fireplace.

CARE AND USE PRECAUTIONS

A fireplace equipped with glass doors operates much differently than a fireplace with an open front. A fireplace with glass doors has a limited amount of air for combustion.

Do not jar or hit glass panels as they could shatter.

⚠ WARNING: Fireplaces equipped with glass doors should be operated only with doors fully opened or doors fully closed. Doors, if left partly open, may draw gas and flame out of the fireplace opening creating risks of both fire and smoke.

⚠ CAUTION: Door handle may be hot to the touch when opening doors during operation.

Grout around frame if necessary to give your fireplace a more finished appearance.

GLASS DOOR INSTALLATION

It is important that you remove glass doors prior to installing your fireplace. To remove doors, pull up and out to disengage pins. Set doors aside until installation of fireplace is complete. Reinstall doors by seating pin on door into slot on enclosure frame (see Figure 34).

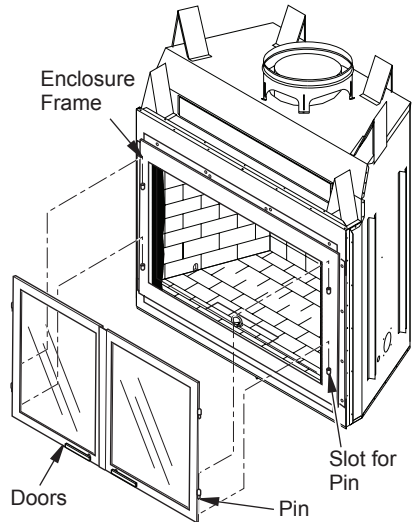


Figure 34 - Installing Glass Doors

Cleaning Glass

Clean glass with a mild soap and water solution. Use a soft bristle brush on smoke stains if necessary being careful not to scrub too hard. Avoid cleaners that contain ammonia, abrasives or other harsh chemicals. Use commercial glass cleaners or those provided by fireplace equipment dealers to clean glass. Allow doors to cool before cleaning.

OPERATION

FOR YOUR SAFETY READ BEFORE LIGHTING

⚠ WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.



- A. This appliance is equipped with an ignition device which automatically lights pilot. Do not try to light pilot by hand.
- B. **BEFORE LIGHTING** smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
 - Do not touch any electric switch; do not use any phone in your building.
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
 - If you cannot reach your gas supplier, call the fire department.
- C. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

LIGHTING INSTRUCTIONS

NOTICE: During initial operation of new heater, burning logs will give off a paper-burning smell. Orange flame will also be present. Open window to vent smell. This will only last a few hours.

1. STOP! Read the safety information above.
2. Turn off all electric power to appliance.
3. Turn wall switch to the OFF position or press OFF on hand-held remote.
4. Fully open glass doors if installed.
5. Remove front refractory brick access panel.
6. Turn equipment shutoff valve clockwise  to the OFF position (see Figure 39). Do not force.
7. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the safety information, column 1. If you don't smell gas, go to the next step.
8. Turn equipment shutoff valve counter-clockwise  to the ON position. Do not force.
9. Replace front refractory brick access panel.
10. Fully close glass doors if installed.
11. Turn on all electric power to appliance.
12. Turn wall switch to the ON position or press ON on hand-held remote.
13. Visually locate pilot. The ignitor should begin to spark and main burner should ignite once flame appears at pilot.
 - If lighting appliance for the first time each season, it may take several attempts before the supply gas can reach the pilot and main burners.
 - If the appliance will not stay lit after several attempts, follow the instructions *To Turn Off Gas To Appliance*, page 32 and call your service technician or gas supplier.

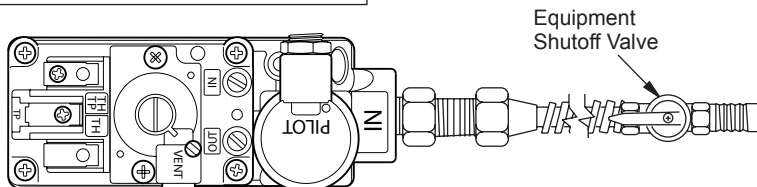



Figure 35 - Turning Equipment Shutoff Valve to the OFF Position

OPERATION

Continued

TO TURN OFF GAS TO APPLIANCE

1. Turn off wall switch or press OFF on hand-held remote.
2. Turn off all electric power to appliance if service is to be performed.
3. Fully open glass doors if installed.
4. Remove front hearth brick and control access panel.
5. Turn gas control knob clockwise  to OFF. Do not force.
6. Replace front refractory brick access panel.
7. Fully close glass doors if installed.

COMBUSTION AIR KIT MODEL AK4 (OPTIONAL)

The outside air kit lever is located at the left and right hand sides of fireplace (see Figure 36). The vent can be installed through any outside wall a minimum of three feet below fireplace termination cap. Lifting lever up will free the outside air door to open. Pulling lever down will lock the door.

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

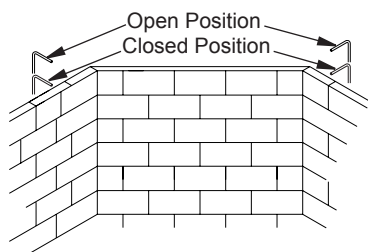


Figure 36 - Outside Air Kit Lever

CLEANING AND MAINTENANCE

⚠ WARNING: Installation and repair should be done by a qualified service person. The appliance should be inspected before each use and at least annually by a qualified service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, pet hair, etc. It is imperative that the control compartments, burners and circulating air system be kept clean.

⚠ WARNING: The logs can be hot. Handle only when cool.

⚠ WARNING: Turn off gas and electrical power before servicing appliance.

⚠ WARNING: Failure to keep the primary air opening(s) of the burner(s) clean may result in sooting and property damage.

⚠ WARNING: Fireplaces equipped with glass doors should be operated only with doors fully opened or doors fully closed. Doors, if left partly open, may draw gas and flame out of the fireplace opening creating risks of both fire and smoke.

CLEANING GLASS

Clean glass with a mild soap and water solution. Use a soft bristle brush on smoke stains if necessary being careful not to scrub too hard. Avoid cleaners that contain ammonia, abrasives or other harsh chemicals. Use commercial glass cleaners or those provided by fireplace equipment dealers to clean glass. Allow doors to cool before cleaning.

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

SERVICE HINTS

When Gas Pressure Is Too Low

- pilot will not stay lit
- burner will have delayed ignition
- fireplace will not produce specified heat
- propane/LP gas supply may be low if using propane/LP gas

If using propane/LP gas, you may feel your gas pressure is too low. If so, contact your local propane/LP gas supplier.

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.

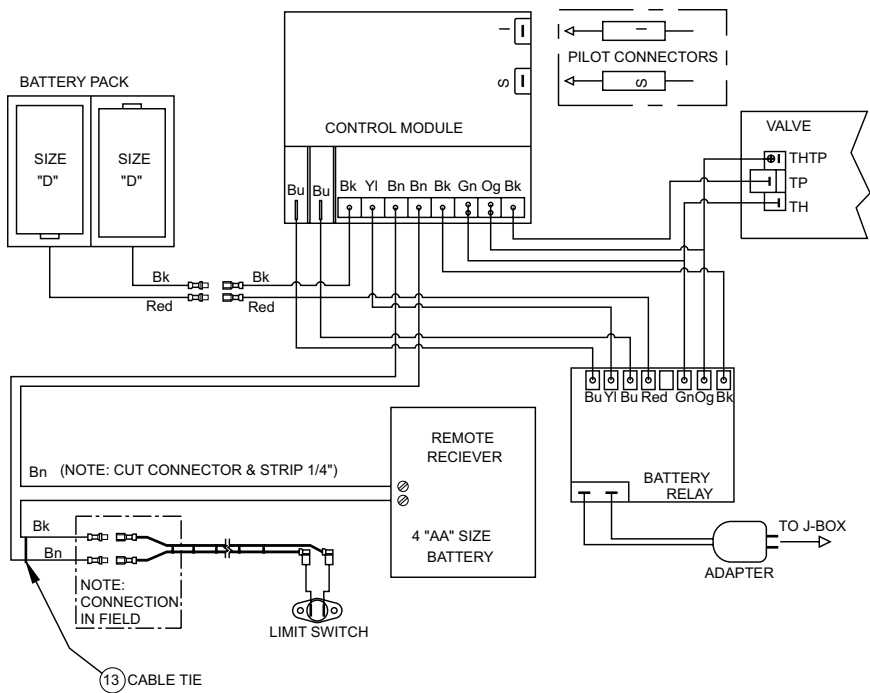
Purchase these accessories from your local dealer. If they can not supply these accessories call DESA Heating, LLC at 1-866-672-6040 for information. You can also write to the address listed on the back page of this manual.

AIR KIT - AK4 AND AK4F

Optional kit helps offset the negative pressure often existing in today's tightly constructed homes.

8" B-TYPE TRANSITION PIPE - BTC-8

WIRING DIAGRAM



TROUBLESHOOTING

Note: Before troubleshooting the system, make sure the gas shutoff valve is ON. The two most common causes of a malfunctioning gas appliance are:

1. *Loose wiring connections*
2. *Construction debris clogging the pilot and/or gas control valve filter*

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Ignitor will not spark or pilot will not light	1. No gas supply or shutoff valve is OFF	1. Check to see if you have gas supply and that equipment shutoff valve is opened
	2. Air in gas line	2. Repeat lighting procedure several times to purge all air out of lines. If after repeated attempts appliance does not light, call for qualified service and repair
	3. Construction debris clogging pilot orifice	3. Remove debris and dirt, inspect and clean any other possible obstructions
	4. Low gas pressure	4. Contact your gas supplier to check pressure
	5. Kinked pilot line	5. Have a qualified technician replace pilot line
	6. Control valve knob is not opening	6. Replace control valve (refer to <u>Replacement Parts</u> , page 34)
	7. No power to unit or the ignition module or power transformer is bad	7. Check that main power is on and that all wire connections are made correctly to ignition model (see <u>Wiring Diagram</u> , page 35). Check for 24 VAC at the secondary side of transformer. If 24 VAC is present and module does not operate, have module replaced otherwise have transformer replaced
Pilot will not stay lit	1. Loose wiring on ignitor wire to ignition module and/or poor ground to ignition module	1. Check wiring connection. Refer to wiring diagram, page 35, and/or check ground wire to ignition module
	2. Pilot flame too low to sense	2. Clean and adjust pilot burner and check gas supply and inlet pressure to unit <i>Note: Have a qualified technician replace pilot assembly if broken or corroded</i>
No gas to burner, although wall switch and valve are set to the ON position	1. Wall switch wires defective or too long	1. Check electrical connections
	2. Thermopile not generating sufficient voltage	2. Recheck problems 1 and 2

TROUBLESHOOTING

Continued



WARNING: If you smell gas

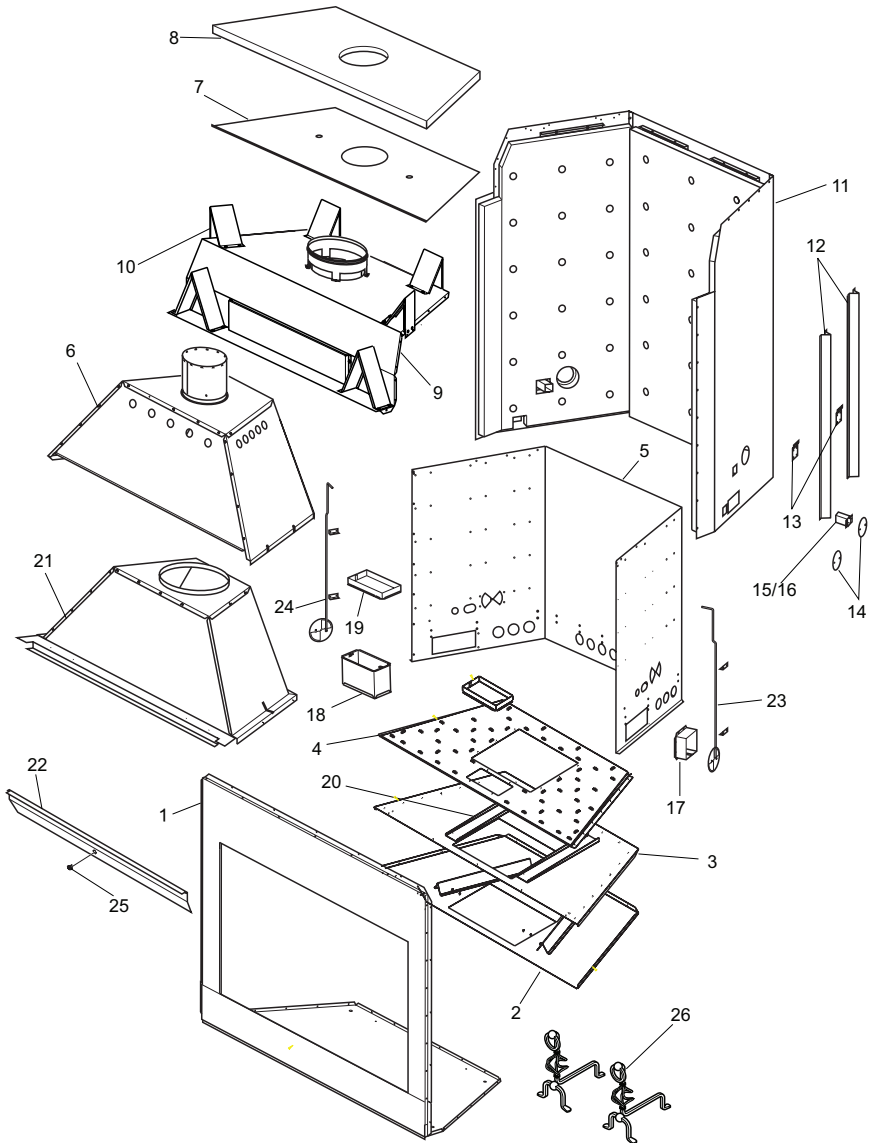
- Shut off gas supply.
- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

IMPORTANT: Operating fireplace where impurities in air exist may create odors. Cleaning supplies, paint, paint remover, cigarette smoke, cements and glues, new carpet or textiles, etc., create fumes. These fumes may mix with combustion air and create odors.

OBSERVED PROBLEM	POSSIBLE CAUSE	REMEDY
Fireplace produces a clicking/ticking noise just after burner is lit or shut off	1. Metal expanding while heating or contracting while cooling	1. This is normal with most fireplaces. If noise is excessive, contact qualified service person
Fireplace produces unwanted odors	1. Fireplace burning vapors from paint, hair spray, glues, etc. (See IMPORTANT statement above) 2. For propane/LP gas, low fuel supply 3. Gas leak. See Warning statement at top of page	1. Ventilate room. Stop using odor causing products while fireplace is running 2. Contact local propane/LP supplier 3. Locate and correct all leaks (see <u>Gas Line Hook-Up</u> , page 17)
Gas odor even when gas control valve is off	1. Gas leak. See Warning statement at top of page 2. Control valve defective	1. Locate and correct all leaks (see <u>Gas Line Hook-Up</u> , page 17) 2. Replace control valve
Gas odor during combustion	1. Foreign matter between control valve and burner 2. Gas leak. See Warning statement at top of page	1. Take apart gas tubing and remove foreign matter 2. Locate and correct all leaks (see <u>Gas Line Hook-Up</u> , page 17)
Dark residue on logs or inside of fireplace	1. Air holes at burner inlet blocked 2. Burner flame holes blocked 3. Improper venting or excessive blockage 4. Excessive amounts of embers and pan material	1. Clean out air holes at burner inlets. Periodically repeat as needed 2. Remove blockage or replace burner 3. Have vent system inspected, including termination cap. Remove any restrictions or obstruction 4. Clear excess embers until a minimum gap of 1/2" remains under grate

PARTS

MODELS IBVC36, IBVC42 AND IBVC50



PARTS

This list contains replaceable parts used in your heater. When ordering parts, follow the instructions listed under Replacement Parts on page 34 of this manual.

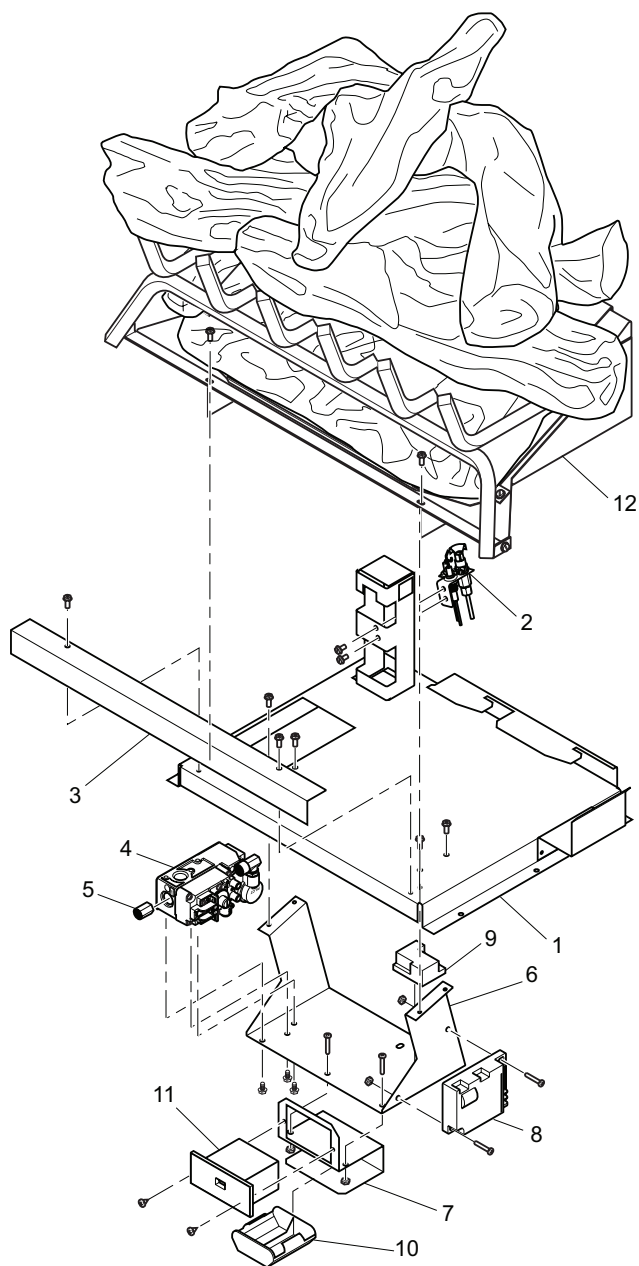
KEY NO.	PART NO.	DESCRIPTION				QTY.
			IBVC36	IBVC42	IBVC50	
1	**	Face Assembly	•	•	•	1
2	**	Firebox Bottom Assembly	•	•	•	1
3	**	Firebox Bottom	•	•	•	1
4	121830-03	Hearth Brick Panel, 36"	•			1
	121830-02	Hearth Brick Panel, 42"		•		1
	121830-01	Hearth Brick Panel, 50"			•	1
5	**	Firebox Surround	•	•	•	1
6	**	Outer Dome Assembly	•	•	•	1
7	**	Insulation Pan	•	•	•	1
8	**	Top Insulation	•	•	•	1
9	121810-03	Fireplace Top Assembly, 36"	•			1
	121810-02	Fireplace Top Assembly, 42"		•		1
	121810-01	Fireplace Top Assembly, 50"			•	1
10	23490SA	Standoff	•	•	•	4
11	**	Fireplace Surround Assembly	•	•	•	1
12	109720-02	Clearance Spacer	•	•	•	6
13	117891-01	Fireplace Handle Bracket	•	•	•	4
14	21171	Gas Conduit Cover	•	•	•	4
15	109752-01	Conduit One	•	•	•	1
16	109752-02	Conduit Two	•	•	•	1
17	110037-01	Electrical Duct Assembly	•	•	•	1
18	**	Ash Box Assembly	•	•	•	1
19	**	Ash Box Ring	•	•	•	1
20	**	Hearth Support Brace	•	•	•	1
21	**	Inner Dome Assembly	•	•	•	1
22	122031-03	Smoke Shelf, 36"	•			1
	122031-02	Smoke Shelf, 42"		•		1
	122031-01	Smoke Shelf, 50"			•	1
23	**	Air Kit Door Assembly, Right	•	•	•	1
24	**	Air Kit Door Assembly, Left	•	•	•	1
25	14574	Spill Switch	•	•	•	1
26	121063-01	Decorative Andiron	•	•	•	2
PARTS AVAILABLE NOT SHOWN						
	GA6060	Lava Rock	•	•	•	1
	26839	Ember Material	•	•	•	1
	112799-01	Ember Flakes	•	•	•	1
	VTA-LS5-2	Scrap Logs	•	•	•	1
	see page 43	Brick Panel Assemblies with Brick Housings (1 each, right, left, rear)	•	•	•	1

** Not a field replaceable part.

PARTS

MODULE MODELS

IBBM-36(N,P)-TKA, IBBM-42(N,P)-TKA, IBBM-50(N,P)-TKA



PARTS

This list contains replaceable parts used in your heater. When ordering parts, follow the instructions listed under Replacement Parts on page 34 of this manual.

KEY NO.	PART NO.	DESCRIPTION	IBBM-36N-TKA	IBBM-36P-TKA	IBBM-42N-TKA	IBBM-42P-TKA	IBBM-50N-TKA	IBBM-50P-TKA	QTY.
1	**	Base Weldment	•	•	•	•	•	•	1
2	122122-01	Pilot, NG	•	•	•	•	•	•	1
	122122-02	Pilot, LP		•	•	•	•	•	1
3	122032-01	Front Cover	•	•	•	•	•	•	1
4	122116-01	Valve, NG	•	•	•	•	•	•	1
	122117-01	Valve, LP		•	•	•	•	•	1
5	14396	Brass Adapter 3/8 X 3/8	•	•	•	•	•	•	1
6	121836-01	Valve Bracket	•	•	•	•	•	•	1
7	121837-01	Battery Bracket	•	•	•	•	•	•	1
8	122118-01	Dexen Control Module	•	•	•	•	•	•	1
9	122119-01	Battery Relay	•	•	•	•	•	•	1
10	122121-01	AC Backup Battery Pack	•	•	•	•	•	•	1
11	120066-01	MLCR Receiver	•	•	•	•	•	•	1
12	122751-03	Logset Assembly, 36"	•	•					1
	122751-02	Logset Assembly, 42"			•	•			1
	122751-01	Logset Assembly, 50"					•	•	1
PARTS AVAILABLE NOT SHOWN									
	120065-01	MLCR Hand-Held Remote	•	•	•	•	•	•	1

** Not a field replaceable part.

BRICK PANEL ASSEMBLIES

PART NO.	DESCRIPTION	IMBK-36SS-(R)(I)	IMBK-36SH-(R)(I)	IMBK-42SS-(R)(I)	IMBK-42SH-(R)(I)	IMBK-50SS-(R)(I)	IMBK-50SH-(R)(I)	QTY.
120842-01	36" Split Stack Left Panel Assembly		•					1
120842-02	42" Split Stack Left Panel Assembly			•				1
120842-03	50" Split Stack Left Panel Assembly					•		1
120845-01	36" Split Herringbone Left Panel Assembly	•						1
120845-02	42" Split Herringbone Left Panel Assembly		•					1
120845-03	50" Split Herringbone Left Panel Assembly				•			1
120843-01	36" Split Stack Right Panel Assembly	•						1
120843-02	42" Split Stack Right Panel Assembly			•				1
120843-03	50" Split Stack Right Panel Assembly					•		1
120846-01	36" Split Herringbone Right Panel Assembly	•						1
120846-02	42" Split Herringbone Right Panel Assembly		•					1
120846-03	50" Split Herringbone Right Panel Assembly				•			1
120844-01	36" Split Stack Rear Panel Assembly	•						1
120844-02	42" Split Stack Rear Panel Assembly			•				1
120844-03	50" Split Stack Rear Panel Assembly					•		1
120847-01	36" Split Herringbone Rear Panel Assembly	•						1
120847-02	42" Split Herringbone Rear Panel Assembly		•					1
120847-03	50" Split Herringbone Rear Panel Assembly					•		1

WARRANTY

KEEP THIS WARRANTY

IRONHAUS DOOR ENCLOSURE LIMITED WARRANTY

IMPORTANT! PLEASE READ THIS WARRANTY BEFORE INSTALLING OR USING IRONHAUS PRODUCTS!

IRONHAUS products, i.e., furnishings (not glass, finish, mesh parts and accessories sold separate from) are warranted to retail purchaser-user to be free from defects on material and workmanship for as long as you own your home (where enclosure was originally installed). Glass carries a 90 day warranty. Finishes are not warranted, except as found faulty upon inspection prior to use.

Because of the nature of IRONHAUS' finishes, instances of damage due to excessive fires, neglect, misuse or abuse will be the sole discretion of IRONHAUS' judgement for remedy. Color finishes, especially custom ordered colors may vary slightly in shade and are not guaranteed to perfectly match or coordinate. Customer accepts risk of any slight shade variations that may occur; however, variations deemed significantly varied may be repainted at IRONHAUS' judgement and discretion. Customer is responsible for following recommended guidelines of care and maintenance of the product and proper operation of same (see Care and Maintenance Instructions).

All fireplace products are warranted as expressed herein in their original installation only. Products installed improperly or in nonconformance with state and local building codes could nullify the warranties expressed and implied herein. Commercial applications are warranted for 90 days on material and workmanship from date of purchase. Transit damage and results from alterations are not covered by this warranty.

IRONHAUS disclaims all other warranties, whether expressed or implied, and specifically disclaims the implied warranties of merchantability and fitness for a particular purpose. In no event shall IRONHAUS be liable, to customer or user, in warranty, contract, negligence, strict liability or otherwise, for any damages, whether incidental or consequential, which are alleged to be caused by one or more of our products. Therefore, the sole and exclusive remedy against us for breach or warranty breach of contract, nor in negligence or strict liability or otherwise shall be vested only in the retail purchaser-user and shall be limited to refund of the purchase price. Installation and removal charges and related labor costs will not be our liability and are not covered by the stated exclusive remedy. Glass, parts and accessories sold separately are sold "as is". Limited warranty is specifically offered to the original retail purchaser-user. The distributor or dealer is authorized to pass that warranty on to the retail purchaser. However, no other authority is given to make warranties or representations on our behalf, and unauthorized extensions of warranties by our customers shall remain the customer's sole responsibility.

The customer is responsible for determining the suitability of our products for customer's use or resale, or for incorporating them into objects or for applications which the customer designs, assembles, constructs or manufactures. A picture of final installation sent to us for our records validates the warranty. If the need arises, to use this warranty, furnish proof and a detailed report to your dealer, or directly to IRONHAUS.

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 two (2) 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 two (2) 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 write to the address on the back cover of this manual.

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
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