

## **OUTDOOR GAS FIREPLACE OWNER'S OPERATION AND INSTALLATION MANUAL**

**MODELS  
DF450SS-G & DF450SS-L  
NATURAL GAS MODELS  
CONVERTIBLE TO PROPANE GAS**



US

PFS F17-038

ANSI Z21.97-2017

• CSA 2.41-2017

Outdoor decorative  
gas appliances

**⚠ WARNING: FOR OUTDOOR USE ONLY.**  
**Decorative Product: Not for use as a heating appliance.**

**⚠ 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.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- A propane cylinder not connected for use shall not be stored in the vicinity of this or any other appliance.

### **— WHAT TO DO IF YOU SMELL GAS**

- Shut off gas to the appliance
  - Extinguish any open flame
  - If odor continues, keep away from the appliance and immediately call your gas supplier or the fire department.
- Installation and service must be performed by a qualified installer, service agency, or the gas supplier.



**Questions, problems, missing parts?** Before returning to your retailer, call our customer service department at 1-855-607-6557, 8:00 am - 4:30 pm CST, Monday through Friday or email [contact@factorybuysdirect.com](mailto:contact@factorybuysdirect.com)

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## SAVE THIS BOOK

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

**⚠ WARNING:** Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Read the installation, operating, and maintenance instructions thoroughly before installing or servicing the equipment.

This appliance is only for use with type of gas indicated on the rating plate. This appliance can be converted to propane gas using the supplied conversion kit.

### **⚠ DANGER**



### **CARBON MONOXIDE HAZARD**

This appliance can produce carbon monoxide which has no odor.


Using it in an enclosed space can kill you.


Never use this appliance in an enclosed space such as a camper, tent, car, or home.

## SAFETY


**IMPORTANT:** Read this owner's manual carefully and completely before trying to assemble, operate, or service this heater. Improper use of this heater can cause serious injury or death from burns, fire, explosion, electrical shock and carbon monoxide poisoning. Failure to follow these instructions will void the warranty.

Installation and repair should be done by a qualified service person. The appliance should be inspected before use and at least annually by a qualified service person. More frequent cleaning may be required as necessary. It is imperative that the control compartment, burners and circulating air passageways of the appliance be kept clean.

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


 **WARNING:** Keep the appliance area clear and free from combustible materials, gasoline, and other flammable vapors and liquids. Do not run fireplace where these are used or stored.


This appliance is only for use with the type of gas indicated on the rating plate. This appliance can be converted to propane gas using the supplied conversion kit


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

**Carbon Monoxide Poisoning:** Early signs of carbon monoxide poisoning resembles the flu, with headaches, dizziness, or nausea. If you have these signs, the fireplace may not be working properly. Get fresh air at once! Have fireplace serviced. 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.

**Natural and Propane Gas:** Natural and Propane gas are odorless. An odor-making agent is added to the gas. The odor helps you detect a gas leak. However, the odor added to the gas can fade. Gas may be present even though no odor exists.

 **WARNING:** Any change to this fireplace or its controls can be dangerous. Do not modify this fireplace under any circumstances. Any parts removed for servicing must be replaced prior to operating fireplace.

 **WARNING:** Clothing or other flammable materials should not be hung from the appliance or place on or near the appliance.

 **WARNING:** Fireplace becomes very hot when running. Fireplace will remain hot for a time after shutoff. Allow surfaces to cool before touching.

Fireplace screens provided should be closed when burner is in use.

This appliance must not be installed indoors or within any structure that prevents or inhibits the exhaust gas from dissipating in the outside atmosphere.

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## SAFETY

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**Children and adults should be alerted to the hazards of high surface temperatures and should stay away to avoid burns or clothing ignition.**

**Young children should be carefully supervised when they are in the area of the appliance.**

**Any guard or other protective device removed for servicing the appliance shall be replaced prior to operating the appliance.**

**Due to high temperatures, the appliance should be located out of traffic and away from furniture.**

**Do not use fireplace to cook food or burn paper or other flammable material.**

1. When connected to a fixed piping system, installation must conform with local codes or in the absence of local codes follow the National Fuel Gas Code ANSI Z223.1 (US).
2. Do not place propane supply tank(s) inside any structure. Propane supply tank(s) must be placed outdoors.
3. Inspect the hose before each use of the appliance. The hose assembly must be replaced before operating the appliance if there is evidence of excessive abrasion or wear, or if the hose is damaged. Use only hose assembly approved for use with this appliance.
4. Provide adequate ventilation and combustion air. Provide adequate accessibility clearance for servicing and operating the appliance. Never obstruct the front opening of the appliance. Do not attach fire screens or glass doors to the face of the appliance unless approved for use with this product.
5. If the fireplace shuts off have it serviced.
6. Do not run fireplace:
  - Where flammable liquids or vapors are used or stored.
  - Under dusty conditions.
7. Do not operate appliance when subject to excessive wind. Position the appliance where it will be shielded and not subject to high winds. See Locating the Fireplace page 8.
8. Always operate fireplace with control knob in either the PILOT/IGN or full on position. Never continuously operate the fireplace at lower than full ON position. Lower flame rate may produce high levels of sooting and flame outage.
9. Do not use 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.
10. Turn off appliance and let cool before servicing. Only a qualified service person should service and a repair appliance.
11. Operating appliance above elevations of 4,500 feet could cause pilot outage.
12. Do not use this appliance as a wood-burning fireplace. Use only the logs provided with the fireplace.
13. Do not add extra logs or ornaments such as pine these added items can cause sooting. Do not add lava rock around base. Rock and debris could fall into the control area of appliance. After servicing, always replace screen before operating appliance.
14. This appliance is designed to be smokeless. If logs ever appear to be smoking, turn off appliance and call a qualified service technician. *NOTE: During initial operating, slight smoke could occur due to log curing and fireplace burning off manufacturing residues.*
15. Solid fuels shall not be burned in this appliance.
16. Do not use this appliance if any log is broken. Do not operate appliance if a log is chipped (dime-sized or larger).
17. During manufacturing, fabricating and shipping, various components of the appliance are treated with certain oils, film or bonding agents. These agents are not harmful, but may produce smoke and odor as they are burned off during initial operation of the appliance.

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## SPECIFICATIONS

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Models DF450SS-G and DF450SS-L		
Ignition	Electronic Ignitor	
Gas Type	Natural	Propane (when converted)
Maximum Input Rating	24,000 BTU/Hr	24,000 BTU/Hr
Regulator Pressure Setting	6" W.C.	6" W.C.
Main Burner Orifice Size	2.05 mm	1.66 mm
Inlet Gas Pressure* (inches of water)	Max. 10.5" W.C.	Max. 13" W.C.
	Normal 7" W.C.	Normal 11 W.C.
	Min. 6.5" W.C.	Min. 8" W.C.
Fireplace Weight	84.5 lbs	
Shipping Weight	92.5 lbs	
Assembled Dimensions (H x W x D)	31.425" x 30.25" x 16.25"	
Carton Dimensions (H x W x D)	31.5" x 32.375" x 18.57"	

\* For purposes of input adjustment.

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## QUALIFIED INSTALLING AGENCY

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Only a qualified agency should install and replace gas piping, gas utilization equipment or accessories, and repair and equipment servicing. The term "qualified agency" means any individual, firm, corporation, or company that either in person or through a representative is engaged in and is responsible for:

- a) Installing, testing, or replacing gas piping or
- b) Connecting, installing, testing, repairing, or servicing equipment; that is experienced in such work; that is familiar with all precautions required; and that has complied with all the requirement of the authority having jurisdiction.

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## PRODUCT FEATURES

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### 2 GAS OPTIONS AVAILABLE

Your appliance is equipped to operate on either Natural or Propane gas. The appliance is shipped from the factory ready for connecting to Natural gas. The appliance can easily

be converted to Propane gas by having your qualified installer follow the instructions on page 17 and the markings on the appliance.

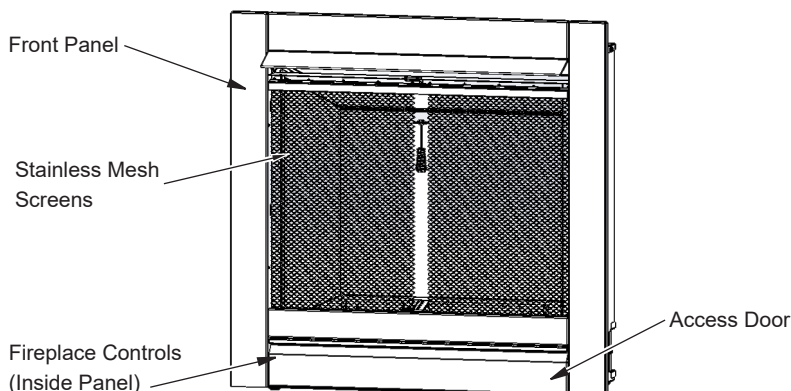
#### WARNING

**This conversion kit shall be installed by a qualified service agency in accordance with the manufacturer's instructions and all applicable codes and requirements of the Authority Having Jurisdiction. If the information in these instructions is not followed exactly, a fire, explosion or production of carbon monoxide may result causing property damage, personal injury or loss of life. The qualified service agency is responsible for the proper installation of this kit. The installation is not proper and complete until the operation of the converted appliance is checked as specified in the manufacturer's instructions supplied with the kit.**

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## PRODUCT IDENTIFICATION

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**Figure 1 - Vent-Free Outdoor Fireplace Insert**

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## UNPACKING

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1. Remove packing strips.
2. Remove the top carton tray and 4 corner supports.
3. Remove the outer carton and upper foam packing containing the 4 standoff brackets with hardware. Retain standoffs and hardware pack for later installation.
4. Remove the box containing the front frame assembly and hardware kit. Set aside for later installation.
5. Lift the fireplace out of the bottom foam packing and lower carton trays. Installation manual and Fire-glass media are located inside the unit.
6. At this time, only remove the protective plastic film from the fireplace surface if it is necessary for assembly to avoid scratching the stainless steel. **The protective plastic film must be removed prior to igniting the appliance.**
7. Check contents for any shipping damage. If the appliance or any components are damaged or missing, promptly contact your dealer where you bought the appliance or call our technical support, at the number shown on page 28.

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## LOCAL CODES

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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\**.

\*Available from:

American National Standards Institute, Inc.  
25 West 43rd Street  
New York, NY 10036

National Fire Protection Association, Inc.  
1 Batterymarch Park  
Quincy, MA 02269-9101

**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.

In the State of Massachusetts the gas cock must be a T-handle type. The State of Massachusetts requires that a flexible appliance connector cannot exceed three feet in length.

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## AIR FOR COMBUSTION AND VENTILATION

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This appliance is intended for installation on an outdoor patio or in your yard. It must never be installed inside a building. It is recommended that this appliance be installed in a sheltered area. Direct wind will cause an erratic flame and possible pilot or main burner outage.

An erratic flame could also lead to excessive sooting. This is not a safety issue but is visually undesirable.

Typically installation may include a covered patio, screened porch, gazebo or outside the wall of a home.

**Ensure the area has adequate ventilation.**

See Locating the Fireplace, page 8.

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## INSTALLATION

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**⚠ WARNING: A qualified service person must install fireplace. Follow all local codes.**

**⚠ WARNING: Never install the appliance**

- **Inside a building**
- **Where furniture, clothing, or other flammable objects are less than 48" from the front, top, or sides of the appliance.**
- **In high traffic areas**
- **In windy or drafty areas**
- **Do not recess the fireplace into exterior walls or existing buildings**

### **Moisture Resistance**

To prevent excessive water collection the fireplace is designed to drain water from the forward openings on the bottom of the fireplace. The installation must provide a way to drain the water from the base of the unit by building or installing a raised platform with openings positioned

under the drain area. Additional space below the unit will also required a drain opening to allow the water to drain from the enclosure.

When installed on exterior walls, the fireplace cabinet should be constructed outside the structure's weather barrier. Where the platform meets the wall, use a flashing detail similar to that required for attached decks. Fireplace cabinet platforms, including hearths, should slope away from the structure at 1/4" per foot. The fireplace can be shimmed level. When installed on surfaces where water may collect or cause damage, a slope of 1/8" to 1/4" per foot. Metal safety strips must be on top of any combustible hearth materials used for moisture management. When purchasing a firebox or fireplace we recommend you also buy a weather cover to protect the unit form moisture. Never install a burner where moisture cannot drain off easily. A weather barrier is recommended, such as a cover to protect the burner from moisture.

It is highly recommended to protect the logs from moisture (rain, snow). Cover the enclosure opening when not in use.

Always ensure the pilot is extinguished prior to covering.

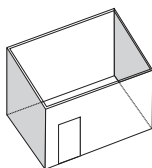
## INSTALLATION

### LOCATING THE FIREPLACE

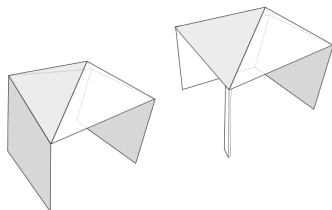
When selecting a location for your fireplace, ensure that the clearances are met.

1. This application must be installed in an open-air situation with natural ventilation, without stagnant areas, where gas leakage and products of combustion are rapidly dispersed.
2. Awnings, furnishings, fabrics and other decorative items, when placed above or near the appliance will be subject to radiant heat and could become damaged.
3. Locate the fireplace where it will be shielded from excessive winds and away from trees, shrubs, landscaping and overgrowth.
4. Typically an outdoor space is not enclosed but, any enclosure in which the appliance is used shall comply with one of the following:

- An enclosure with walls on all sides but at least one permanent opening at ground level and no overhead cover.



- Within a partial enclosure that includes an overhead cover and no more than two walls

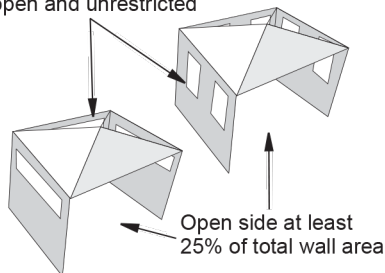


- Within a partial enclosure that includes an overhead cover and more than two walls, the following shall apply:

At least 25% of the total wall area is completely open, and

At least 30% of the remaining wall area is open and unrestricted.

30% or more in total of the remaining wall area is open and unrestricted



#### Screened Porch Installation

The fireplace may be installed safely in a screened porch.

Minimum Porch Area 96 sq. feet (9 sq m)

Minimum Ceiling Height 92" (234 cm)

#### High Altitudes

For altitudes/elevations above 2,000 feet (610 m), ratings should be reduced at the rate of 4% for each 1,000 feet (305 m) above sea level. Contact the manufacturer of your gas company before changing orifice size.

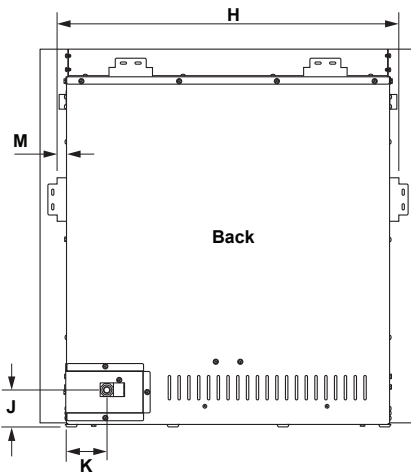
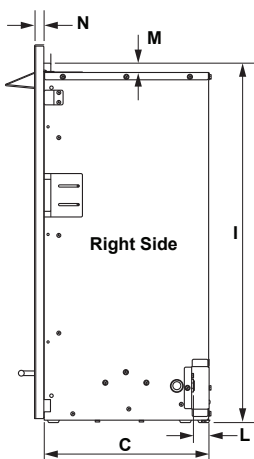
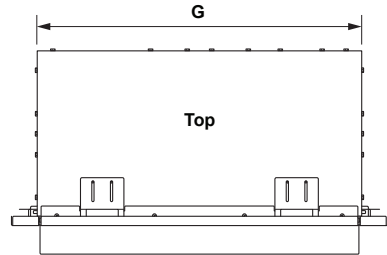
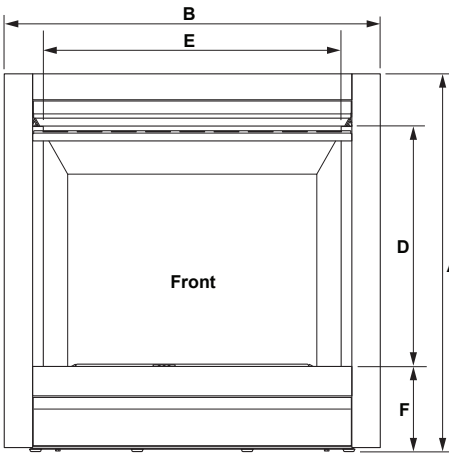
#### CHECK GAS TYPE

Be sure your gas supply is right for your fireplace. Otherwise, call dealer where you bought the fireplace for proper type fireplace.



## INSTALLATION

A	Height with Front Frame	31 $\frac{7}{16}$ "
B	Width of Front Frame	32 $\frac{1}{8}$ "
C	Recessed Unit Depth	13 $\frac{1}{4}$ "
D	Firebox Viewing Height	20 $\frac{3}{8}$ "
E	Firebox Viewing Depth	25 $\frac{3}{4}$ "
F	Floor to Firebox Opening	6 $\frac{7}{8}$ "
G	Recessed Unit Width	26 $\frac{1}{8}$ "
H	Width of Nailing Standoffs	27 $\frac{5}{8}$ "
I	Height to Nailing Standoffs	29"
J	Floor to Gas Inlet	3"
K	Side to Gas Inlet	3 $\frac{1}{4}$ "
L	Depth from Back to Gas Inlet	1 $\frac{1}{4}$ "
M	Standoff Clearances	3/4"
N	Front Frame Depth	3/4"



## INSTALLATION

### CLEARANCES TO COMBUSTIBLES

**⚠ WARNING:** In order to avoid the possibility of exposed insulation or vapor barrier coming in contact with the appliance body, it is recommended that any existing walls used to enclose this appliance should be finished with non-combustible treatments (i.e. stucco/sheetrock etc.), as you would finish any other outside wall of a home. This will ensure that clearance to combustibles is maintained within a cavity.

**⚠ WARNING:** Do not notch the framing around the appliance stand-offs. Failure to maintain air space clearance may cause over heating and fire. Prevent contact with sagging or loose insulation or framing and other combustible materials. Block opening into the fireplace cabinet to prevent entry of blown-in insulation. Make sure insulation and other materials are secured.

**⚠ WARNING:** When constructing enclosure, allow for finishing materials thickness to maintain clearances. Finishing material closer than the minimums listed must be constructed entirely of noncombustible materials. Materials consisting entirely of steel, iron, brick, tile, concrete, slate, glass or plasters, or any combination there of are suitable. Materials that are reported as passing ASTM E 136, standard test method for behavior of materials in a vertical tube furnace at 1382 F (750 C) and UL763 shall be considered noncombustible materials.

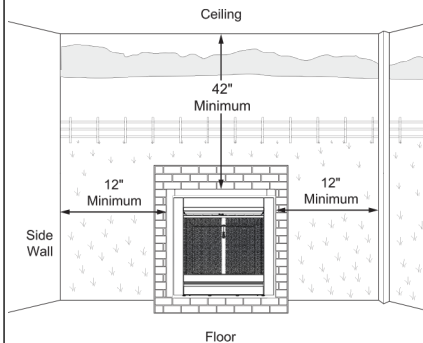
**⚠ WARNING:** You must maintain the minimum clearances. If possible, provide greater clearances from floor, ceiling, and adjoining wall. See figure 2.

**⚠ WARNING:** The appliance requires a minimum enclosure height as measured from the appliance face frame, see Figure 2.

**⚠ WARNING:** Do not use wood or drywall as exterior finish materials when exposed to weathering. Any fire rated drywall is not acceptable for outdoor applications. Use of these materials, along with other non-combustibles, must not be installed within the clearances stated on page 11 and specified for a material.

#### Minimum Clearances For Sides Combustibles Material, Side Wall and Ceiling

- A. Clearances from the side of the fireplace to any combustible material and wall should not be less than 12"
- B. Clearance from the top of the fireplace to the ceiling (if applicable) must not be less than 48"



**Figure 2 - Minimum Clearance for Combustibles**

## INSTALLATION

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

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

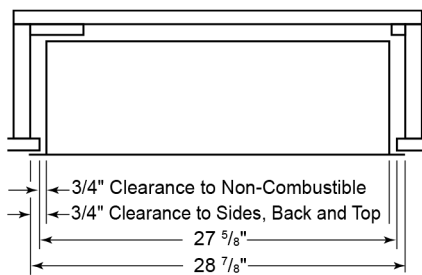
**⚠ WARNING: Never cover any air inlets on the front of the firebox.**

Built-in installation of this fireplace involves installing fireplace into a framed-in enclosure. If installing a built-in mantel above the fireplace, you must follow the clearances shown in Figure 3.

Notice: Surface temperatures of adjacent walls and mantels become hot during operation. Walls and mantels above the fireplace 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 the manual (see Figures 3 and 4).

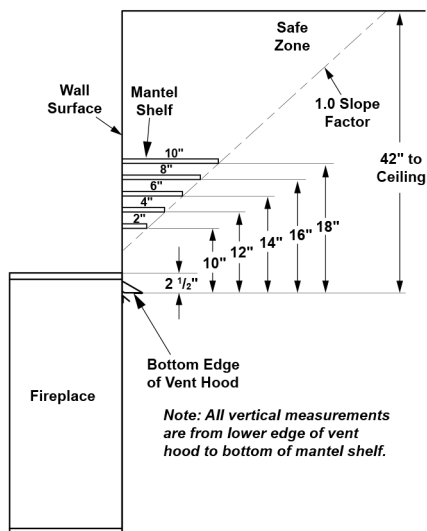
1. Frame in the rough opening. Use dimensions shown in Figure 4 for the rough opening. If installing in a corner, use dimensions shown in Figure 6, for the rough opening. The height is 23 1/4", which is the same as the wall opening.
2. Carefully set fireplace in front of rough opening with back of fireplace inside wall opening.
3. Attach gas line to fireplace gas regulator. See Connecting to Gas Supply, page 18.
4. Check all gas connections for leaks. See Connecting to Gas Supply, page 18.

**IMPORTANT:** When finishing your firebox, materials such as wall board, gypsum board, sheet rock, exterior wallboard, plywood, etc, must have 3/4" clearance to the sides and top of the firebox. Combustible materials should never overlap the firebox front.



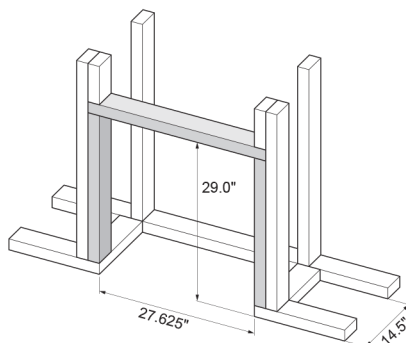
Note: Height of fireplace opening on fascia to be 29"

**Figure 3 - Clearance to Combustibles**



Note: All vertical measurements are from lower edge of vent hood to bottom of mantel shelf.

**Figure 4 - Fireplace Clearances**



**Figure 5 - Rough Opening for Wall Installation**

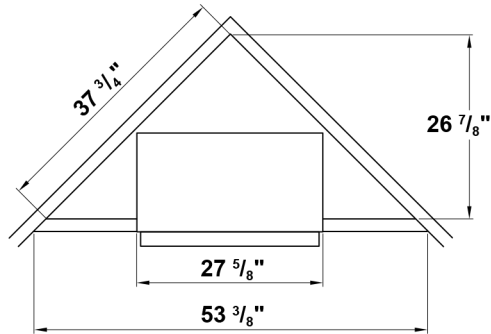
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## INSTALLATION

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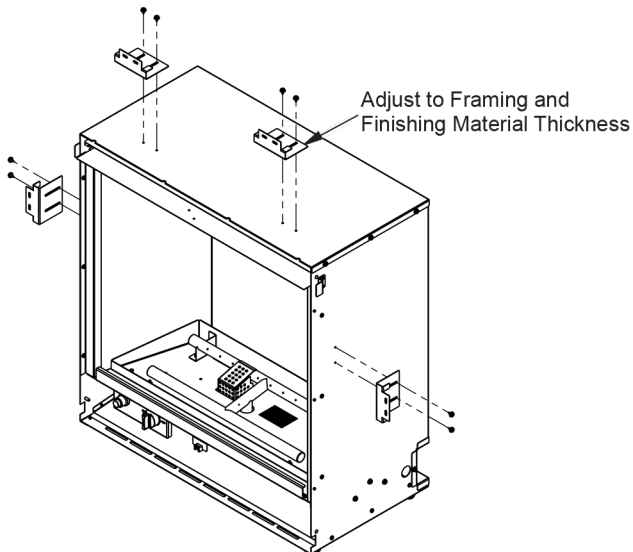
**Figure 6 - Rough Opening for Corner Installation**

### STANDOFF BRACKET INSTALLATION

Install four standoff brackets using the sheet metal screws provided in the hardware kit. See Figure 7.

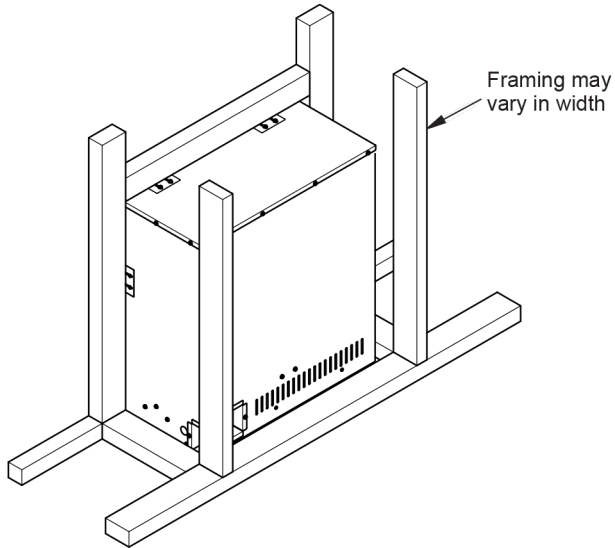
Adjust the standoff brackets based on the estimated thickness of the frame plus the finished hearth.

Before completing, ensure that the front frame assembly can be removed from the fireplace unit at the planned depth. It is important to maintain all stated dimensions of the frame for proper clearances to ensure the removal of the front frame assembly and safe operation of this application.

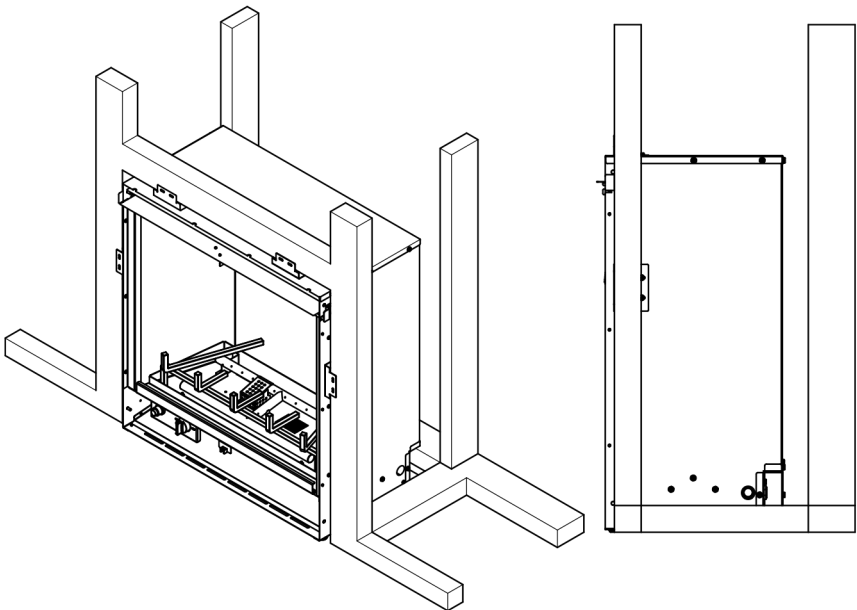


**Figure 7 - Installing Standoff Brackets**

## INSTALLATION



*Figure 8 - Fireplace Framing*



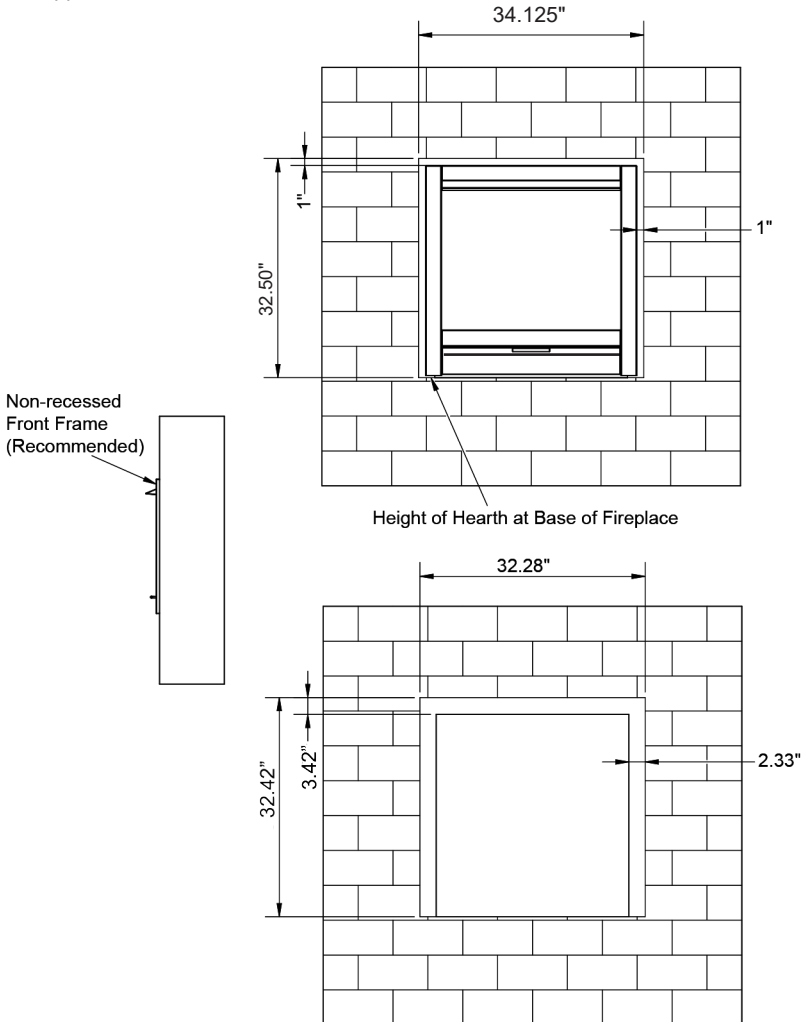
*Figure 9 - Framing*

## INSTALLATION

### FINISHING CLEARANCES FOR REMOVAL FRONT FRAME

Before placing unit into final position it is important to know the total thickness/height of the finished hearth. The base of the fireplace should be level with or higher than the finished hearth height. If material such as brick or stone extends up to or past the removable front frame depth (3/4") when finishing around the front frame, the minimum opening dimensions noted below must be followed to ensure the removal of the faceplate and for the safe operation of the appliance.

Additionally, the standoff brackets should be adjusted so that removable front frame, when attached, extends past the thickness of the finished hearth. The minimum distance to the front frame 9/16" for exterior wallboard when brackets are set full forward. Allow additional thickness for added finish material (i.e. brick, stone, marble etc.) when planning and adjusting of depth of the brackets.



Finishing material clearance in reference to framing Dimensions.  
Unit shown without removeable front frame.

## INSTALLATION

### REMOVABLE FRONT FRAME ASSEMBLY

*Note: Frame parts have a protective film to protect the pieces during shipment. The protective film must be removed before operating the appliance. Only remove film as needed during assembly to protect the front facing surfaces of the parts from being scratched. If removing the protective film is necessary, place parts on a smooth surface.*

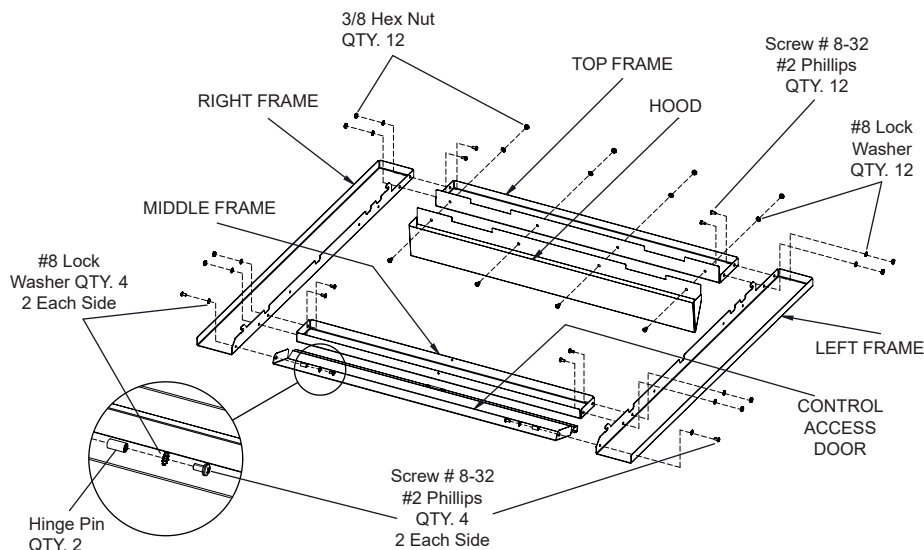
1. Unpack and Identify each Frame part shown in Figure 10.
2. Remove the protective film as needed from the visible surfaces.
3. Arrange all frame parts, except the screen rod cover, face down in the pre-assembled orientation on a protected surface (i.e. using Cardboard / Foam Packaging) as shown in Figure 10.
4. Assemble the Top, Sides and Middle Frame Parts using a No. 2 Phillips screw driver with 3/8 Wrench; 8 - Nuts, Screws and Washers, as shown in Figure 10.
5. Install the Control Access Door in position shown in Figure 10, using 2 -Screws and Washers in combination with 1 - Hinge Pin into each Side Frame using a No. 2 Phillips Screw Driver. See Figure 10.

#### Inspect Contents of Hardware Pack:

- 14 Qty. - 3/8" Hex Nuts 8-32
- 18 Qty. - Screws, #8-32 Phillips Head
- 18 Qty. - Lock Washers #8
- 2 Qty. - Hinge Pins

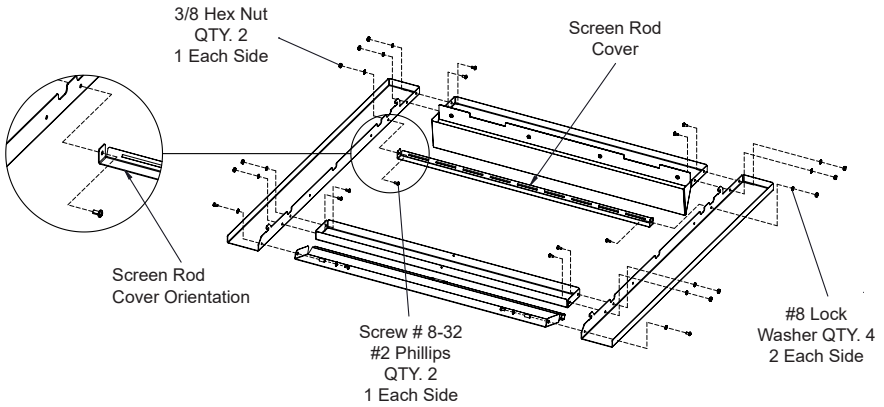
**Hint:** Thread 1 screw with washer into one end of each Hinge Pin, (See Detail in Figure 10.), then insert the open end of the Hinge Pin through the pivot hole located on the lower inside of the Access Door, align with the mounting hole on the outer Side Face Frame and thread another screw and washer. Finish tighten from the inside screw to secure each Pin assembly.

6. Install the Hood to the lower edge of the Top Frame using the same tools in used in Step 4. See Figure 10 for correct hood position.
7. Install the Screen Rod Cover using the same tools with 2 - Screws, Nuts and Washers, see Detail in Figure 11 for correct position.
8. Attach the frame assembly to the fireplace by aligning the notches on the sides of the frame over the 4 mounting pins located on the inside of the fireplace cabinet and slide the frame assembly down to lock the notches onto each pin. See Figure 12.

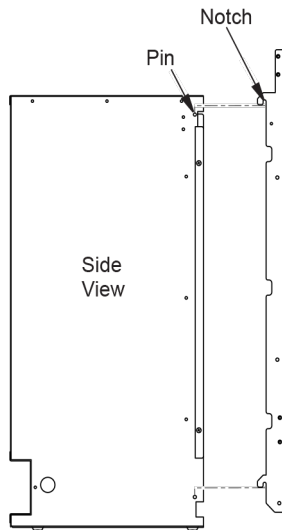


**Figure 10 - Front Frame, Hood and Door Assembly**

## INSTALLATION



**Figure 11 - Front Frame - Screen Rod Cover Assembly**



**Figure 12 - Attaching Front Frame**



## INSTALLATION

### CONVERTING TO PROPANE GAS

1. Disconnect the burner hose from the NG orifice retainer. Disconnect the NG orifice retainer from the burner.
2. Remove the burner plate seal from the NG orifice retainer and transfer it to the LP orifice retainer.
3. Disconnect the pilot gas tube from the NG pilot orifice. Disconnect the NG pilot orifice from the pilot assembly.
4. Connect the LP pilot orifice to the pilot assembly. Reconnect the pilot gas tube.
5. Connect the LP orifice retainer with burner plate seal to the burner. Reconnect the burner hose.
6. Fill in the Conversion Information label included with the conversion kit, peel off backing and apply to lower floor panel to be visible in the control area.

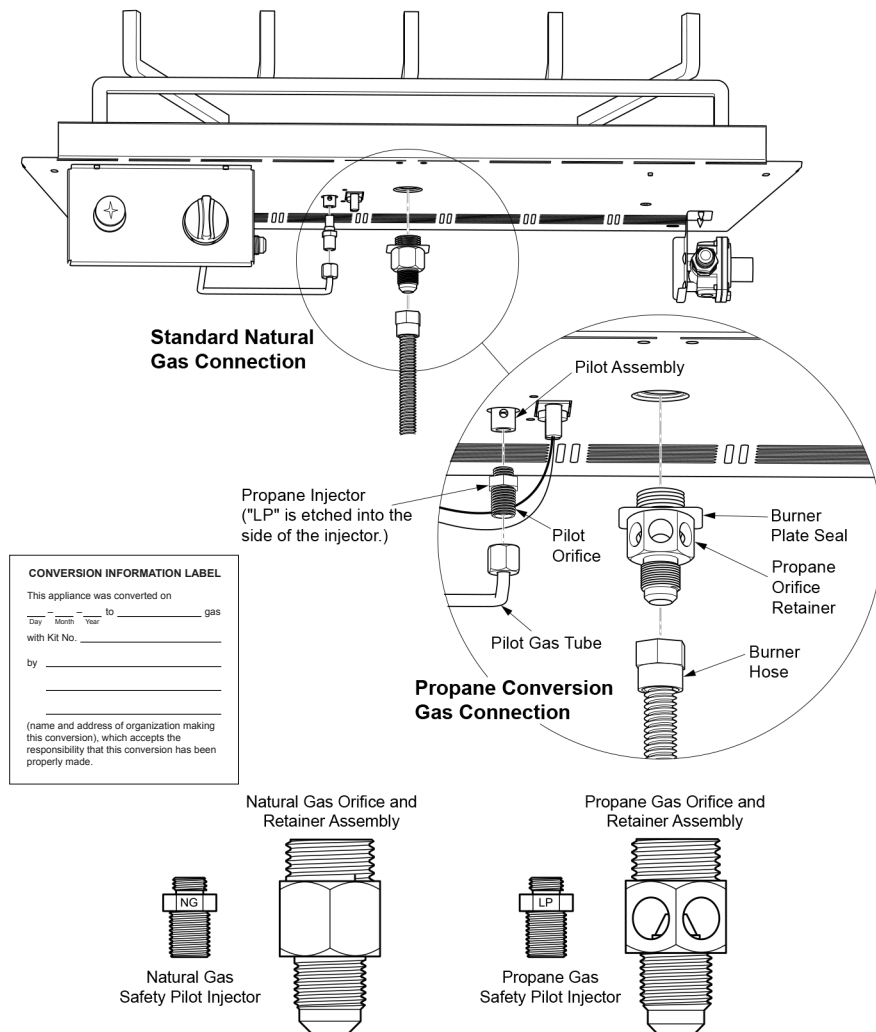


Figure 12 - Propane Conversion

## INSTALLATION

### CONNECTING TO GAS SUPPLY

**⚠ WARNING:** A qualified service technician must connect appliance to gas supply. Follow all local codes.

**⚠ WARNING:** This appliance requires a 3/8" NPT (National Pipe Thread) inlet connection to the pressure regulator.

**⚠ WARNING:** For natural gas, Never connect appliance to private (non-utility) gas wells. This gas is commonly known as wellhead gas.

**⚠ CAUTION:** For propane gas, never connect appliance directly to the gas supply. This appliance requires an external regulator (not supplied). Install the external regulator between the appliance and propane supply. Gas supplier provides external regulator for natural gas. The installer provides the external regulator for propane gas.

**⚠ CAUTION:** For propane gas, never connect appliance directly to the gas supply. This appliance requires an external regulator (not supplied). Install the external regulator between the appliance and propane supply. Gas supplier provides external regulator for natural gas. The installer provides the external regulator for propane gas.

**⚠ CAUTION:** Use only new, black iron or steel pipe. Internally tinned copper tubing may be used in certain areas. Check your local codes. Use pipe of 1/2" diameter or greater to allow proper gas volume to fireplace. If pipe is too small, undue loss of pressure will occur

**⚠ CAUTION:** For natural gas, check your gas line pressure before connecting appliance to gas line. Gas line pressure must be no greater than 10.5" WC for natural gas and 13" WC for propane. If gas line pressure is higher, appliance regulator damage could occur.

**⚠ WARNING:** Do not over-tighten gas connections.

**⚠ CAUTION:** use pipe joint sealant that is resistant to gas (Propane or Natural Gas).

For appliances for use with a fixed fuel piping system and equipped with an appliance gas pressure regulator, 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 psi (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 psi (3.5 kPa).

Before installing appliance, make sure you have the items listed below:

- external regulator for propane unit only (supplied by installer)
- piping (check local codes)
- sealant (resistant to natural gas and propane gas)
- equipment shutoff valve\*
- test gauge connection\*
- sediment trap
- tee joint
- pipe wrench
- flexible gas hose (check local codes)

\* A CSA designed-certified equipment shutoff valve with 1/8" NPT tap is an acceptable alternative to test gauge connection. Purchase the optional CSA design certified equipment shutoff valve for your dealer.

## INSTALLATION

### Typical Inlet Pipe Diameters

Use 3/8" black iron pipe or greater. Installation must include an equipment shutoff valve, union, and plugged 1/8" NPT tap. Locate NPT tap within reach for test gauge hook up. NPT tap must be upstream from the appliance (see Figure 13).

**IMPORTANT:** Install an equipment shutoff valve in an accessible location. The equipment shutoff valve is for turning on or shutting off the gas to the appliance.

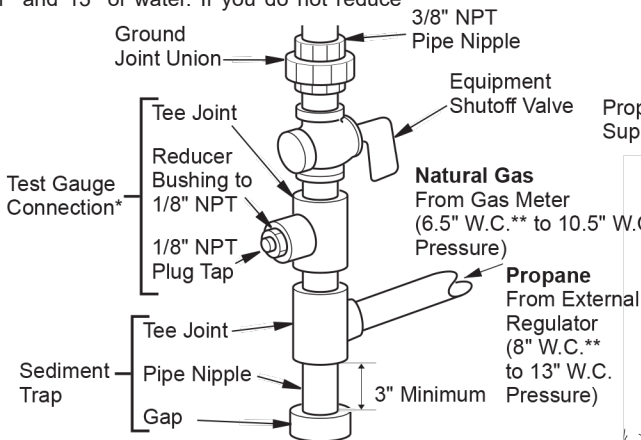
For propane installations, apply pipe joint sealant lightly to male threads. This will prevent excess sealant from going into pipe. Excess sealant in pipe could result in clogged fireplaces valves.

For propane gas, the installer must supply an external regulator. The external regulator will reduce incoming gas pressure. You must reduce incoming gas pressure to between 11" and 13" of water. If you do not reduce

incoming gas pressure, appliance regulator damage could occur. Install external regulator with the vent pointing down as shown in Figure 14. Pointing the vent down protects it from freezing rain or sleet.

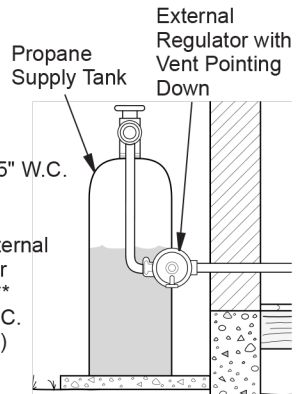
Install sediment trap in supply line as shown in Figure 13. Place sediment trap where it is within reach for cleaning. Place sediment trap where trapped matter is not likely to freeze. A sediment trap traps moisture and contaminants. This keeps them from going into the alter controls. If sediment trap is not installed or installed wrong, fireplace may not run properly.

**⚠ WARNING: Test all gas piping and connections for leaks after installing or servicing. Correct all leaks at once (see page 21).**

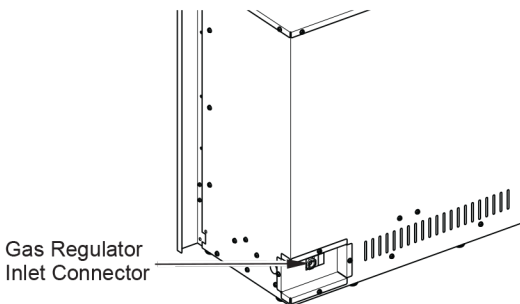


**Figure 13 - Gas Connection**

\* Purchase the optional CSA design-certified equipment shutoff valve from your dealer.



**Figure 14 - External Regulator with Vent Pointing Down**



**Figure 15 - Gas Regulator Location and Gas Line Access into Stove Cabinet**  
[www.factorybuysdirect.com](http://www.factorybuysdirect.com)

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## INSTALLATION

### REMOTE PROPANE GAS ENCLOSURES INSTALLATION GUIDELINES

If the unit is permanently connected to a gas piping system from a remote supply tank, installation must be in accordance with local codes or, in absence of local codes, with the National Fuel Gas codes ANSI Z223/1. NFPA 54.

If constructing an enclosure to conceal the propane cylinder, the enclosure must adhere to the construction requirement below.

Enclosures may be constructed with one side completely open OR if the enclosure is built with 4 sides, a top and a bottom:

- A propane gas cylinder enclosure requires 4 ventilation openings at the top and bottom of the enclosure. The openings must adhere to the minimum requirements according to the capacity of the cylinder (see Figure 16).
- Each opening in the enclosure must be equally sized and spaced at a minimum of 180. Openings must remain unobstructed.
- Top ventilation openings are required on the side walls of the enclosure within 5" of the top of the enclosure. They need to be of equal size, unobstructed and spaced 180 apart. The openings need to be a total area of 1 in<sup>2</sup>/lb (14.2 cm<sup>2</sup>/kg) of fuel storage capacity.
- Bottom opening must provide a minimum of 1/2 square inches for each pound of propane contained in the tank (see example below).
- Every opening must have a minimum dimensions to allow entrance of 1/8" diameter rod.
- Ventilation openings in side walls must not communicate directly with other enclosures of the appliance.
- The cylinder valve must be easily accessible by hand. Connections should be easy to leak test inside the enclosure. A door on the enclosure is acceptable only if easily opened without the use of tools and is nonlocking.
- The enclosure needs to isolate the cylinder from the burner compartment and provide protection from radiation, act as a flame barrier and protect the cylinder from foreign material.
- The enclosure needs to allow connection, disconnection and inspection of the connection of the propane gas cylinder.
- The enclosure should allow testing of any connection on the propane cylinder that might be disturbed during installation.

Propane Tank Enclosure Specifications	
A	Opening 180° apart from each other
B	Minimum of 2" from floor/ground to base of tank
C	Maximum of 1" from to base of tank to bottom of opening

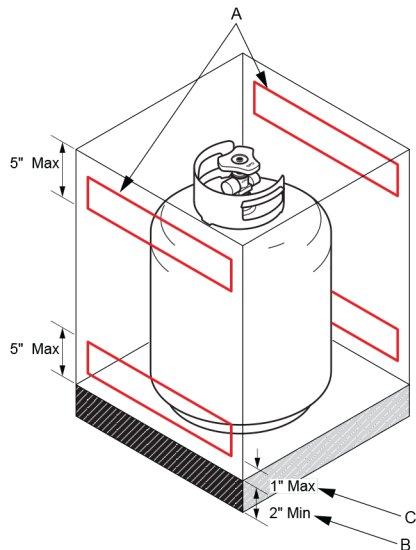


Figure 16 - Propane Tank Enclosure

## INSTALLATION

### CHECKING GAS CONNECTIONS

**⚠ WARNING:** Test all gas piping and connections, internal and external to unit, for leaks after installing or servicing. Correct all leaks at once.

**⚠ WARNING:** Never use an open flame to check for a leak. Apply a noncorrosive leak detection fluid to all joints. If bubbles form, there is a leak. Correct all leaks at once.

#### PRESSURE TESTING GAS SUPPLY PIPING SYSTEM

Test Pressures In Excess Of 1/2 PSIG (3.5 kPa)

1. Disconnect unit with its appliance main gas valve (control valve) and equipment shutoff valve from gas supply piping system. Pressures in excess of 1/2 PSIG will damage the regulator.
2. Cap off open end of gas pipe where equipment shutoff valve was connected.
3. Pressurize supply piping system by either opening propane supply tank valve for propane gas or opening main gas valves located on or near gas meter for natural gas or using compressed air.
4. Check all joints of gas supply piping system. Apply noncorrosive leak detection fluid to all joints. If bubbles form, there may be a leak.
5. Correct all leaks at once.
6. Reconnect unit and equipment shutoff valve to gas supply. Check reconnected fittings for leaks.

Test Pressures Equal to or Less Than 1/2 PSIG (3.5 kPa)

1. Close equipment shutoff valve (see Figure 17).
2. Pressurize supply piping system by either opening propane supply tank valve for propane gas or opening main gas valve located on or near gas meter for natural gas or using compressed air.
3. Check all joints from gas meter to equipment shutoff valve for natural gas or propane supply to equipment shutoff valve for propane (see Figure 18 or 19). Apply a noncorrosive leak detection fluid to all joints. Bubbles forming show a leak.
4. Correct all leaks at once.

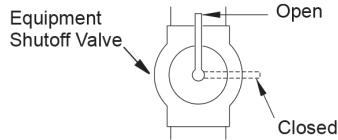


Figure 17 - Equipment Shutoff Valve

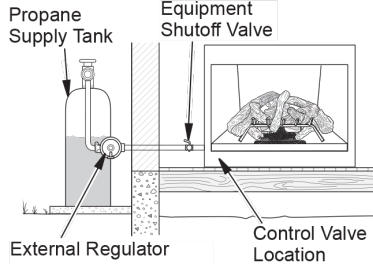


Figure 18 - Checking Gas Joints for Propane Gas

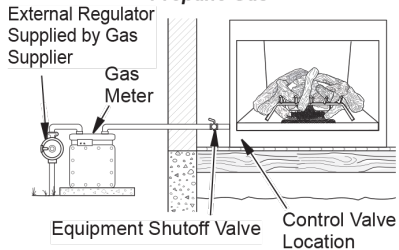


Figure 19 - Checking Gas Joints for Natural Gas

#### PRESSURE TESTING GAS CONNECTIONS

1. Open equipment shutoff valve (see Figure 17).
2. Open main gas valve located on or near gas meter for natural gas or open propane supply tank valve.
3. Make sure control knob of fireplace is in the OFF position.
4. Check all joints from equipment shutoff valve to control valve (see Figure 18 or 19). Apply a noncorrosive leak detection fluid to all joints. Bubbles forming show a leak.
5. Correct all leaks at once.
6. Light fireplace (see [Lighting Instructions](#) on page 24).
7. Turn off fireplace (see [To Turn Off Gas Appliance](#) on page 25).

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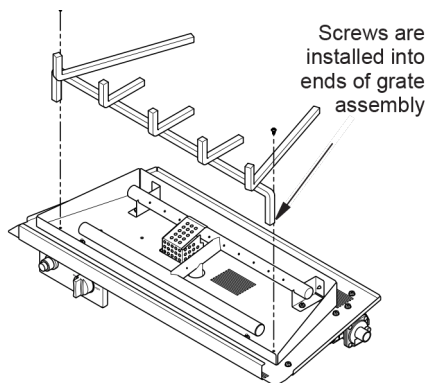
## INSTALLATION

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### INSTALLING GRATE (OPTIONAL ACCESSORY FOR DF450SS-G)

Install grate before placing glass media into burner pan (see above). Place grate assembly onto burner pan. Secure with 2 screws as shown in Figure 20.



*Figure 20 - Installing Grate*

### INSTALLING GLASS MEDIA



1. For model DF450SS-L, install grate before placing glass media for easier installation. See above.
2. Place glass media evenly in the burner pan as shown in Figure 21. Do not cover pilot assembly.



*Figure 21 - Glass Media  
(BL450SS-G Shown)*

## INSTALLATION

### INSTALLING LOGS (OPTIONAL ACCESSORY FOR DF450SS-G)

**⚠ WARNING:** Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this fireplace may result in property damage or personal injury.

**⚠ CAUTION:** After installation and periodically thereafter, check to ensure that no yellow flame comes in contact with any log. With the fireplace set to High, check to see if yellow flames contact any log. If so, reposition logs according to the log installation instructions in this manual. Yellow flames contacting logs will create soot.

It is very important to install the logs exactly as instructed. Do not modify logs. Use only logs supplied with fireplace. Each log is marked with a number. This number will help you identify the logs when installing.

1. Place log #1 onto the rear grate;prongs (see Figure 22).
2. Place logs #2 and #3 onto the front of the grate assembly (see Figure 22).

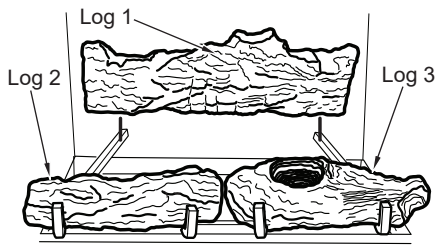


Figure 22

3. Place log #4 into the groves on the left sides of log #1 and #2 (see Figure 23).
4. Place log #5 into the groves on the right sides of logs #1 and #3 (see Figure 23).

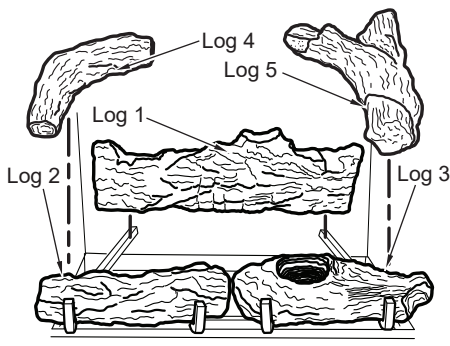


Figure 23

5. Place log #6 into the groves on the left sides of log #2 and #4 (see Figure 24).
6. Place log #7 into the groves on the right sides of log #3 and #5 (see Figure 24).

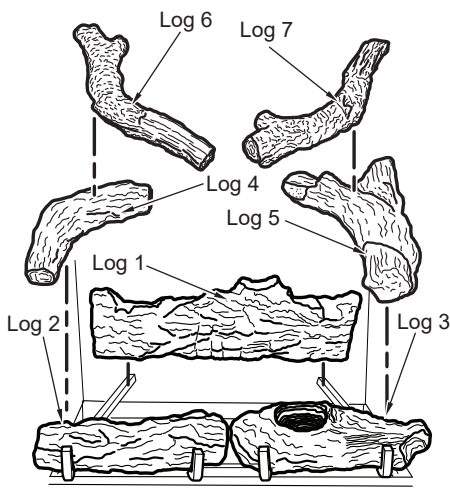


Figure 24



## 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 has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.

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 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.

C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified technician. Force or attempted repair may result in a fire or explosion.

D. Do not use this appliance if any part has been under water. Immediately call a qualified 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

**⚠ WARNING: You must operate this fireplace with the screen in place. Make sure screen is installed before running fireplace.**

**NOTICE: During initial operation of new fireplace, burning logs (optional accessory) will give off a paper-burning smell. Orange flame may also be present. This will only last a few hours.**

1. STOP! Read the safety information above.
2. Make sure control knob is in the OFF position. If not, push knob in slightly and turn clockwise ↻ to the OFF position.  
NOTE: Manual control knob cannot be turned from PILOT to OFF unless knob is pushed slightly. Do not force.
3. Make sure equipment shutoff valve is fully open.
4. Wait 5 minutes to clear out any gas. Then smell for gas around fireplace and near the floor. If you smell gas, STOP! Follow "B" in the safety information above. If you do not smell gas, go to the next step.

5. Push in control knob slightly and turn counterclockwise ↻ to the PILOT position. Keep control knob pressed in for five seconds.

*Note: The first time the fireplace is operated after connecting the gas supply, the control knob should be pressed for about 30 to 60 seconds. This will allow air to bleed from the gas system. If pilot does not stay lit, refer to Troubleshooting, pages 29 through 32. Also contact a qualified service technician or gas supplier for repairs. If the ignitor or electrode are not working properly and until repairs are made, light pilot with match.*

- If control knob does not pop up when released, contact a qualified service technician or gas supplier for repairs.
6. With control knob pressed in, push down and hold ignitor button for a few seconds. This will light the pilot. The pilot is attached to the rear of the burner. If needed keep pressing ignitor button until pilot lights.

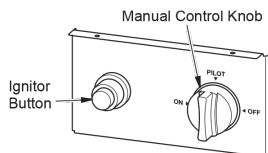


Figure 25 - Fireplace Controls




## OPERATION

*Note: If pilot does not stay lit, refer to Troubleshooting, pages 29 through 32. Also contact a qualified service technician or gas supplier for repairs. To light pilot with match, see Manual Lighting Procedure.*

7. Keep control knob pressed in for 30 seconds after lighting pilot. After 30 seconds, release control knob. If control knob does not pop up when released, contact a qualified service person or gas supplier for repairs.

*Note: If pilot goes out, repeat steps 3 through 7. This fireplace has a safety interlock system. Wait one (1) minute before lighting pilot again.*

8. To light the burner, partially press down the control knob slightly and rotate counterclockwise . Release the downward pressure on the knob while continuing to turn until the knob locks in the ON position. The main burner should ignite. Do not operate between locked positions.

9. Make sure fireplace screen is in place before operating fireplace.
10. If fireplace will not operate, follow the instructions To Turn Off Gas To Appliance, and call your service technical or gas supplier.

**⚠ CAUTION: Do not try to adjust heating levels by using the equipment shutoff valve.**

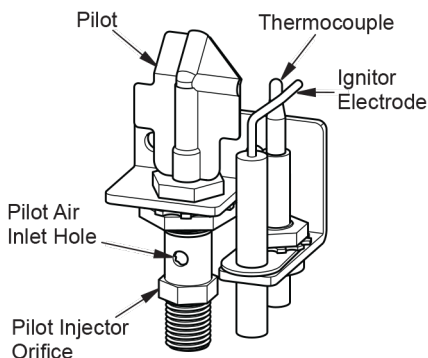




Figure 26 - Pilot

## TO TURN OFF GAS TO APPLIANCE

### Shutting Off Fireplace

1. Push in control knob slightly and turn clockwise  to the OFF position. Do not force.
2. Close equipment shutoff valve.

### Shutting Off Burner Only (pilot stays lit)

Push in and turn knob clockwise  to the PILOT position.

## MANUAL LIGHTING PROCEDURE

1. Open Screen.
2. Follow steps 1 through 7 under Lighting Instructions, page 24.
3. With control knob in the PILOT position, strike a match, and hold near pilot. Press in control knob; pilot should light.
4. Keep control knob pressed in for 30 seconds after lighting pilot. After 30 seconds, release control knob.
5. Make sure the fireplace screen is in place before operating fireplace.

## INSPECTING BURNERS

**IMPORTANT:** Owner's should check pilot flame pattern and burner flame pattern often. Incorrect flame patterns indicate the need for cleaning (see Care and Maintenance, page 27) or service.

**⚠ WARNING: Only a qualified service person should service and repair fireplace. This includes maintenance requiring replacement or alteration of components.**

## INSPECTING BURNERS

### PILOT FLAME PATTERN

Figure 27 shows a correct and incorrect pilot flame pattern. The incorrect pilot flame is not touching the thermocouple. This will cause the thermocouple to cool, which shuts the fireplace off. There should not be excessive flames present under pilot shield. If unit has been converted to propane gas and the pilot injector orifice has not been replaced, there will be excessive pilot flames. Install propane injector orifice if this is the case.

If pilot flame pattern is incorrect, as shown

- turn fireplace off (see [To Turn Off Gas to Appliance](#), page 25)
- see [Troubleshooting](#) pages 29 through 32

**Notice:** Do not mistake orange flames with yellow tipping. Dirt or other fine particles enter the fireplace and burn causing brief patches of orange flame.

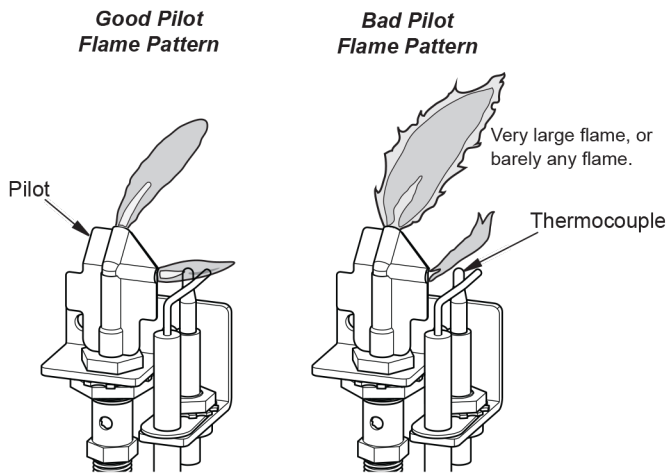


Figure 27 - Pilot Flame Pattern

### BURNER FLAME PATTERN

For model DF450SS-G the burner flames should rise approximately 3" to 6" above the burner.

For model DF450SS-L Figure 28 shows a correct burner flame pattern. Figure 29 shows an incorrect burner flame pattern

(actual logs will vary from those shown). If burner flame pattern is incorrect then:

- turn fireplace off (see [To Turn Off Gas to Appliance](#), page 25).
- see [Troubleshooting](#) pages 29 through 32

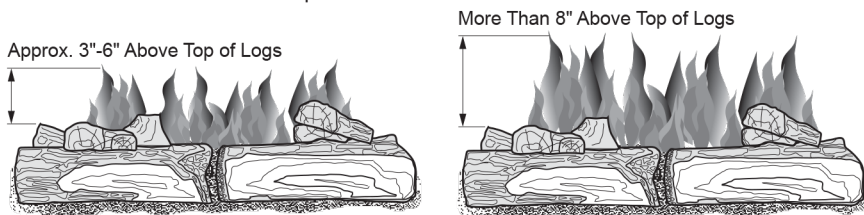


Figure 28 - Correct Burner Flame Pattern

Figure 29 - Incorrect Burner Flame Pattern

### BURNER PRIMARY AIR HOLES

Air is drawn into the burner through the holes in the fitting at the entrance to the burner. These holes may become blocked with dust or lint. Periodically inspect these holes for any blockage and clean as necessary. Blocked air holes will create soot.

## CARE AND MAINTENANCE

**⚠ WARNING:** Turn off appliance and let it cool before servicing.

**⚠ CAUTION:** you must keep control areas, burner, and circulating air passageways of appliance clean. Inspect these areas of appliance before each use. Have appliance inspected yearly by a qualified service technician. Appliance may need more frequent cleaning due to excessive lint from carpeting, bedding material, pet hair, etc.

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

### MAIN BURNER

Periodically inspect all burner flame holes with the fireplace running. All slotted burner flame holes should be open with yellow flame present. All round burner flame holes should be open with a small blue flame present.

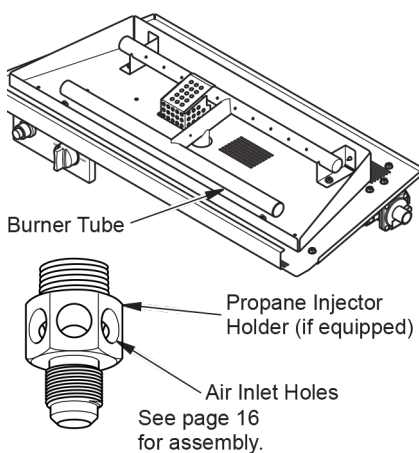
Some burner flame holes may become blocked by debris or rust, with no flame present. If so, turn off the fireplace and let it cool, and remove blockage or replace burner. Blocked burner flame holes will create soot.

### BURNER INJECTOR HOLDER AND PILOT AIR INLET HOLE

We recommend that you clean the unit every 2,500 hours of operation or every three months. We also recommend that you keep the burner tube and pilot assembly clean and free from dust and dirt. To clean these parts we recommend using compressed air no greater than 30 PSI. Your local computer store, hardware store, or home center may carry compressed air in a can. You can use a vacuum cleaner in the blow position. If using compressed air in a can, please follow the directions on the can. If you don't follow directions on the can, you could damage the pilot assembly.

1. Shut off the unit, including the pilot. Allow the unit to cool for at least thirty minutes.
2. Remove any glass and burner media from burner pan to expose the pilot and burner ports. Store and retain all glass and media for reapplication after inspection and cleaning (see [Glass Media Installation](#), page 22).
3. Inspect burner, pilot and primary air inlet holes on propane injector holder (if equipped for propane gas) for dust and dirt (see Figure 30).
4. Blow air through the ports/slots and holes in the burner. Also clean the pilot assembly.

5. Recheck the propane injector holder (if equipped) located under the burner pan. Remove any large particles of dust, dirt, lint, or pet hair with a soft cloth or vacuum cleaner nozzle.
6. Blow air into the primary air holes on the injector holder
7. In case any large clumps of dust have now been pushed into the burner. Repeat steps 4 through 6.



**Figure 30 - Burner and Propane Injector Holder (if equipped)**

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## CARE AND MAINTENANCE

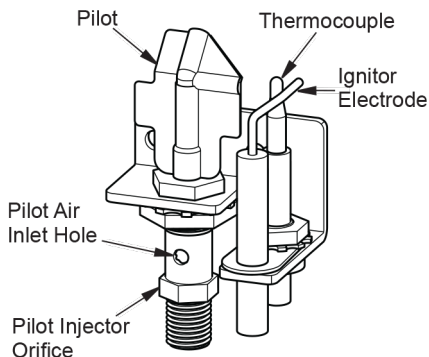
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### PILOT

**⚠ CAUTION: Never use a wire, needle, or similar object to clean pilot. This can damage pilot unit.**

Use a vacuum cleaner, pressurized air, or a small, soft bristled brush to clean.

A yellow tip on the pilot flame indicates dust and dirt in the pilot assembly. There is a small pilot air inlet hole about 2" from where the pilot flame comes out of the pilot assembly (see Figure 31). With the unit off, lightly blow air through the air inlet hole. You may blow through a drinking straw if compressed air is not available.



**Figure 31 - Pilot Inlet Air Hole**

### CABINET

#### Air Passageways

Use a vacuum cleaner or pressurized air to clean.

#### Exterior

This appliance is built using mostly high-grade stainless steel to resist rust. In outdoor applications, all stainless steel will become dull, and depending on the environment and the materials used in the installation, may develop some surface oxidation (rust). This does not effect the performance for the fireplace, and does not require any action to correct. To avoid these issues, clean as required with stainless steel cleaner or WD40.

When installation application includes highly acidic applications such as mortar or stone or etching, do not remove the protective PVC film from the stainless steel until after this application is complete. Once the film has been removed we recommend that the appliance be cleaned with a stainless steel cleaner immediately.

Please note that areas where the film has been formed (corners, hems, etc.) may require extra cleaning due to the properties of the film. Ensure that all protective film has been removed from the fireplace prior to burning the appliance.

### LOGS

1. If you remove logs for cleaning, refer to [Installing Logs](#), page 23, to properly replace logs.
2. Replace log(s) if broken or chipped (dime-size or larger).

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## SERVICE HINTS

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- pilot will not stay lit
- burners will have delayed ignition
- fireplace will not produce specified heat
- propane gas supply might be low (propane units only)

You may feel your gas pressure is too low. If so, contact your local gas supplier.

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## TECHNICAL SERVICE

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You may have further questions about installation, operation, or troubleshooting. If so, contact Factory Buys Direct.com at 1-855-607-6557.

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

## TROUBLESHOOTING

**⚠ WARNING:** If you smell gas:

- Shut off gas supply.
- Do not try to light any appliance.
- Do not touch any electrical switch.
- Immediately call your gas supplier. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

**⚠ WARNING:** Only a qualified service technician should service and repair fireplace. Make sure that power is turned off before proceeding. Turn off and let cool before servicing.

**⚠ CAUTION:** Never use a wire, needle, or similar object to clean pilot. This can damage pilot unit.

**⚠ CAUTION:** Any alteration to the product that causes sooting or carboning that results in damage is not the responsibility of the manufacturer.

*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. These odors will disappear over time.*

*Note: All troubleshooting items are listed in order of operation.*

Problem	Possible Cause	Corrective Action
When ignitor button is pressed in, there is no spark at pilot.	<ol style="list-style-type: none"><li>1. Ignitor electrode is positioned wrong. Ignitor electrode is broken.</li><li>2. Ignitor electrode is not connected to ignitor cable.</li><li>3. Ignitor cable is pinched or wet.</li><li>4. Broken ignitor cable.</li><li>5. Bad ignitor.</li><li>6. Low battery.</li></ol>	<ol style="list-style-type: none"><li>1. Replace electrode.</li><li>2. Replace ignitor cable.</li><li>3. Free ignitor cable if pinched by any metal or tubing. Keep ignitor cable dry.</li><li>4. Replace ignitor cable.</li><li>5. Replace ignitor.</li><li>6. Replace battery.</li></ol>

## TROUBLESHOOTING

Problem	Possible Cause	Corrective Action
When ignitor button is pressed in, there is a spark at pilot but no ignition.	<ol style="list-style-type: none"> <li>1. Gas supply is turned off or equipment shutoff valve is closed.</li> <li>2. Control knob not fully pressed in while pressing ignitor button.</li> <li>3. Air in gas lines (new installation or recent gas interruption).</li> <li>4. Pilot's tube/orifice is clogged or obstructed by burner media.</li> <li>5. Incorrect inlet gas pressure or inlet regulator is damaged.</li> <li>6. Control knob not in PILOT position.</li> <li>7. Low natural gas supply pressure or empty propane supply tank.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn on gas supply or open equipment shut off valve.</li> <li>2. Fully press in control knob while pressing ignitor button.</li> <li>3. Continue holding down control knob. Repeat igniting operation until air is removed.</li> <li>4. Remove glass / lava rock away from pilot flame area. Inspect and clean air holes near pilot orifice (see <u>Care and Maintenance</u>, page 27) or remove and replace pilot assembly.</li> <li>5. Check inlet gas pressure or replace inlet gas regulator.</li> <li>6. Turn control knob to PILOT position</li> <li>7. Contact your local gas utility or propane gas supplier.</li> </ol>
Pilot lights but flame goes out when control knob is released.	<ol style="list-style-type: none"> <li>1. Control knob is not fully pressed in.</li> <li>2. Control knob is not pressed long enough.</li> <li>3. Equipment shutoff valve is not fully open.</li> <li>4. Thermocouple connection is loose at control valve.</li> <li>5. Pilot flame not touching thermocouple to cool, causing pilot flame to go out. This problem could be caused by the following: <ol style="list-style-type: none"> <li>A. Low gas pressure</li> <li>B. Dirty or partially clogged pilot</li> </ol> </li> <li>6. Thermocouple damaged.</li> <li>7. Control valve damaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Press in control knob fully.</li> <li>2. After pilot lights, keep control knob pressed in 30 seconds. .</li> <li>3. Fully open equipment shutoff valve.</li> <li>4. Hand tighten until snug, and then tighten 1/4 turn more.</li> <li>5. A) Contact local natural or propane gas company. B) Clean pilot (see <u>Care and Maintenance</u>, page 27) or replace pilot assembly.</li> <li>6. Replace thermocouple.</li> <li>7. Replace control valve.</li> </ol>
Burner does not light after pilot is lit.	<ol style="list-style-type: none"> <li>1. Burner orifice is clogged.</li> <li>2. Burner orifice diameter is too small.</li> <li>3. Inlet gas pressure is too low.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean burner orifice (see <u>Care and Maintenance</u>, page 27) or replace burner orifice.</li> <li>2. Replace burner orifice.</li> <li>3. Contact local gas supplier.</li> </ol>
Delayed ignition of burner.	<ol style="list-style-type: none"> <li>1. Manifold pressure is too low.</li> <li>2. Burner orifice is clogged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Contact local gas supplier.</li> <li>2. Clean burner (see <u>Care and Maintenance</u>, page 27) or replace burner orifice.</li> </ol>

## TROUBLESHOOTING

Problem	Possible Cause	Corrective Action
Burner backfiring during combustion.	<ol style="list-style-type: none"> <li>1. Burner orifice is clogged or damaged.</li> <li>2. Gas regulator is damaged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean burner orifice (. see <u>Care and Maintenance</u>, page 27) or replace burner orifice</li> <li>2. Replace gas regulator..</li> </ol>
High yellow flame during burner combustion.	<ol style="list-style-type: none"> <li>1. Not enough air.</li> <li>2. Gas regulator is defective.</li> <li>3. Inlet gas pressure is too low.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check burner for dirt and debris. If found clean burner (see <u>Care and Maintenance</u>, page 27).</li> <li>2. Replace gas regulator..</li> <li>3. Contact local gas supplier.</li> </ol>
Gas odor during combustion.	<ol style="list-style-type: none"> <li>1. Foreign matter between control valve and burner.</li> <li>2. Gas leak. (See Warning Statement at top of page 29).</li> </ol>	<ol style="list-style-type: none"> <li>1. Contact a qualified service technician to remove foreign matter..</li> <li>2. Locate and correct all leaks (see <u>Checking Gas Connections</u>, page 21)</li> </ol>
Slight smoke or odor during initial operation.	<ol style="list-style-type: none"> <li>1. Residues from manufacturing process.</li> </ol>	<ol style="list-style-type: none"> <li>1. Problem will stop after a few hours of operation.</li> </ol>
Fireplace produces a whistling noise when burner is lit.	<ol style="list-style-type: none"> <li>1. Air in gas line.</li> <li>2. Air passageways on fireplace are blocked.</li> <li>3. Dirty or partially clogged burner orifice. .</li> </ol>	<ol style="list-style-type: none"> <li>1. Operate burner until air is removed from line. Have gas line checked by local gas supplier.</li> <li>2. Observe minimum installation clearances (Figure 2, page 10)</li> <li>3. Clean burner (see <u>Care and Maintenance</u>, page 27) or replace burner orifice.</li> </ol>
Fireplace produces a clicking/ticking noise just after burner is list or shut off.	<ol style="list-style-type: none"> <li>1. Metal is expanding while heating or contracting while cooling.</li> </ol>	<ol style="list-style-type: none"> <li>1. This is common with most fireplaces. If noise is excessive, contact qualified service technician.</li> </ol>
White powder residue forming within burner box or on adjacent walls or furniture.	<ol style="list-style-type: none"> <li>1. When heated, the vapors from furniture polish, wax, carpet cleaners, etc., turn into white powder residue.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn fireplace off when using furniture polish, wax, carpet cleaner or similar products.</li> </ol>
Fireplace produces unwanted odors..	<ol style="list-style-type: none"> <li>1. Fireplace is burning vapors from paint, hair spray, glues, etc. See <b>IMPORTANT</b> statement, page 27.</li> <li>2. Gas leak. See <i>Warning Statement</i> at the top of page 29.</li> <li>3. Low fuel supply.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn off fireplace and remove vapors from the area.</li> <li>2. Locate and correct all leaks (see <u>Checking Gas Connections</u>, page 21)</li> <li>3. Refill supply tank (propane models).</li> </ol>

## TROUBLESHOOTING

Problem	Possible Cause	Corrective Action
Fireplace shuts off in use.	<ol style="list-style-type: none"> <li>1. Not enough fresh air is available.</li> <li>2. Gas leak See <i>Warning Statement</i> at the top of the page 29.</li> <li>3. Low fuel supply.</li> </ol>	<ol style="list-style-type: none"> <li>1. Refer to <u><a href="#">Air for Combustion and Ventilation</a></u>, page 7.</li> <li>2. Contact local gas supplier.</li> <li>3. Clean pilot (see <u><a href="#">Care and Maintenance</a></u>, page 27)</li> <li>4. Refill supply tank (propane tank).</li> </ol>
Gas odor exists even when control knob is in OFF position.	<ol style="list-style-type: none"> <li>1. Gas leak. See <i>Warning Statement</i> at top of page 29.</li> <li>2. Control valve is defective.</li> </ol>	<ol style="list-style-type: none"> <li>1. Locate and correct all leaks (see <u><a href="#">Care and Maintenance</a></u>, page 27)</li> <li>2. Contact customer service.</li> </ol>
Soot appearing on logs or upper mantel facing.	<ol style="list-style-type: none"> <li>1. Not enough combustion/ventilation in the air.</li> <li>2. Damaged or misplaced logs or debris in burner media.</li> <li>3. Excessively sustained high winds.</li> </ol>	<ol style="list-style-type: none"> <li>1. Refer to <u><a href="#">Air for Combustion and Ventilation</a></u>, page 7.</li> <li>2. Correct log position or replace damaged logs (see <u><a href="#">Inspecting Burners</a></u>, page 25, <u><a href="#">Installing Glass Media</a></u>, page 22, <u><a href="#">Installing Logs</a></u>, page 23)</li> <li>3. See <u><a href="#">Locating the Fireplace</a></u>, page 8</li> </ol>

## 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 parts, call Customer Service toll free at 1-855-607-6557 for referral information.

When calling Customer Service or your dealer, have ready:

- Your name
- Your address

- Model and serial number of your heater
- How heater was malfunctioning
- Type of gas used (Propane or Natural gas)
- Purchase date
- Usually, we will ask you to return the defective part to the factory

### PARTS NOT UNDER WARRANTY

Contact authorized dealers of this product. If they can't supply original replacement part(s) call Customer Service toll free at 1-855-607-6557 for referral information.

When calling Customer Service have ready:

- Model number of your heater
- The replacement part number



## MODELS DF450SS-G & DF450SS-L



## PARTS

### MODELS DF450SS-G & DF450SS-L

This list contains replaceable parts used in your heater. When ordering parts, follow the instructions listed under Replacement Parts on page 32 of this manual.

ITEM	DF450SS-G	DF450SS-L	DESCRIPTION	QTY
1	**	**	Firebox Body	1
2	162007-02	162007-01	Left Stainless Liner	1
3	162006-02	162006-02	Rear Stainless Liner	1
4	162008-02	162008-01	Right Stainless Liner	1
5	162282-01	162282-01	Left Column	1
6	162283-01	162283-01	Right Column	1
7	16184-01	16184-01	Hood	1
8	161880-01	161880-01	Front Frame Assembly	1
9	161927-01	161927-01	Pilot Wind Cover	1
10	162525-01	162525-01	Electronic Ignitor, Single Terminal	1
11	162479-01	162479-01	Pilot Injector NG	1
	162479-02	162479-02	Pilot Injector Propane Gas	1
12	161917-01	161917-01	Manual Control Valve	1
13	162206-01	162206-01	Fitting, 5/8" - 18 UNF x 3/8" - 18 NPT	2
14	161933-01	161933-01	Manual Control Knob	1
15	162546-01	162546-01	Orifice and Retainer Assembly NG	1
	162547-01	162547-01	Orifice and Retainer Assembly Propane Gas	1
16	161931-01	161931-01	Fitting, 5/8" -18 UNF x 9/16" - 24 UNEF	1
17	161915-1	161915-01	Regulator, Single Fuel	1
18	161911-01	161911-01	Draw Screen	2
19	161963-01	161963-01	Draw Screen Rod	1
20	161918-01	161918-01	Pilot Assembly, NG	1
21	----	161846-01	Grate Assembly	1
22	----	162345-00	Concrete Log Set	1
<b>PARTS AVAILABLE - NOT SHOWN</b>				
	162348-04	162348-04	Glass Media - Premium. Reflective Clear	1
	161332-01	161332-01	AAA Battery	1
	162472-01	162472-01	Hardware Bag & Propane Conversion Kit Assembly	1
	162547-01	162547-01	Conversion Kit - Propane Orifice and Retainer Asby.	1
	162479-02	162479-02	Conversion Kit - Injector, Propane Safety Pilot	1

\*\*Not a field replaceable part.

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## ACCESSORIES

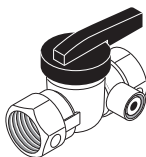
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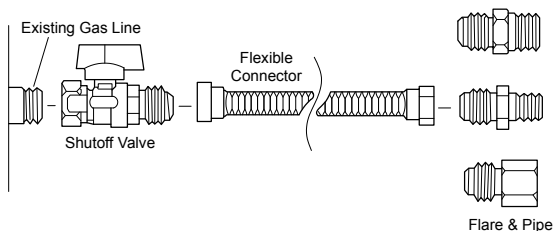
To purchase these heating accessories please visit our website [www.factorybuysdirect.com](http://www.factorybuysdirect.com) or give us a call at 1-855-607-6557.

### EQUIPMENT SHUTOFF VALVE

For all models. Equipment shutoff valve with 1/2" NPT tap.



### INSTALLATION KITS



### OPTIONAL FIRE GLASS MEDIA

#### Non-Reflective Glass Media

14CRGM - Fire Glass 1/4 in for Fire Pans, 10 lb Bag, Classic Clear

14BLKGM - Fire Glass 1/4 in for Fire Pans, 10 lb Bag, Classic Black

14COGM - Fire Glass 1/4 in for Fire Pans, 10 lb Bag, Classic Copper

14EMGM - Fire Glass 1/4 in for Fire Pans, 10 lb Bag, Classic Emerald

#### Reflective Glass Media

\*\*14RCRGM - Fire Glass 1/4 in for Fire Pans, 10 lb Bag, Premium Reflective Clear Fire

14RBLKGM - Fire Glass 1/4 in for Fire Pans, 10 lb Bag, Premium Reflective Black

14RCOGM - Fire Glass 1/4 in for Fire Pans, 10 lb Bag, Premium Reflective Copper

14REMGM - Fire Glass 1/4 in for Fire Pans, 10 lb Bag, Premium Reflective Emerald

\*\*Comes Standard w/ DF450SS-G Outdoor Fireplace

### OPTIONAL LOG & GRATE UPGRADE

LS450SS-G - 7 pc. Concrete Log Set for 450 Stainless Outdoor Fireplace with Grate

### OPTIONAL FIBER BRICK LINERS

FLB450-VR - Fiber Liner, Vintage Red, 3 piece set

FLB450-S - Fiber Liner, Sandstone, 3 piece set

FLB450-SG - Fiber Liner, Slate Gray, 3 piece set

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## WARRANTY

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### KEEP THIS WARRANTY

Model \_\_\_\_\_

Serial No. \_\_\_\_\_

Date Purchased \_\_\_\_\_

Keep receipt for warranty verification.

**REGISTER YOUR PRODUCT AT [WWW.FACTORYBUYSDIRECT.COM](http://WWW.FACTORYBUYSDIRECT.COM)**

### FACTORY BUYS DIRECT LIMITED WARRANTIES

#### New Products

**Standard Warranty:** Factory Buys Direct warrants this new product and any parts thereof to be free from defects in material and workmanship for a period of one (1) year from the date of first purchase from an authorized dealer provided the product has been installed, maintained and operated in accordance with Factory Buys Direct'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:** Factory Buys Direct warrants factory reconditioned products and any parts thereof to be free from defects in material and workmanship for a period 30 days from the date of first purchase from an authorized dealer provided the product has been installed, maintained and operated in accordance with Factory Buys Direct's warnings and instructions. No return will be authorized. Parts will be provided to repair the product.

#### 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 Factory Buys Direct Authorized Service Center or a provider approved by Factory Buys Direct. Warranty parts must be obtained through authorized dealers of this product and/or Factory Buys Direct who will provide original factory replacement parts. Failure to use original factory replacement parts will void this warranty.

Traveling, 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 Factory Buys Direct'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 one (1) year on new products and 30 days on factory reconditioned products from the date of first purchase.

Factory Buys Direct makes no other warranties regarding this product.

Factory Buys Direct's liability is limited to the purchase price of the product and Factory Buys Direct shall not be liable for any other damages whatsoever under any circumstances including direct, 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.



**FACTORY  
BUYS  
DIRECT.COM**

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