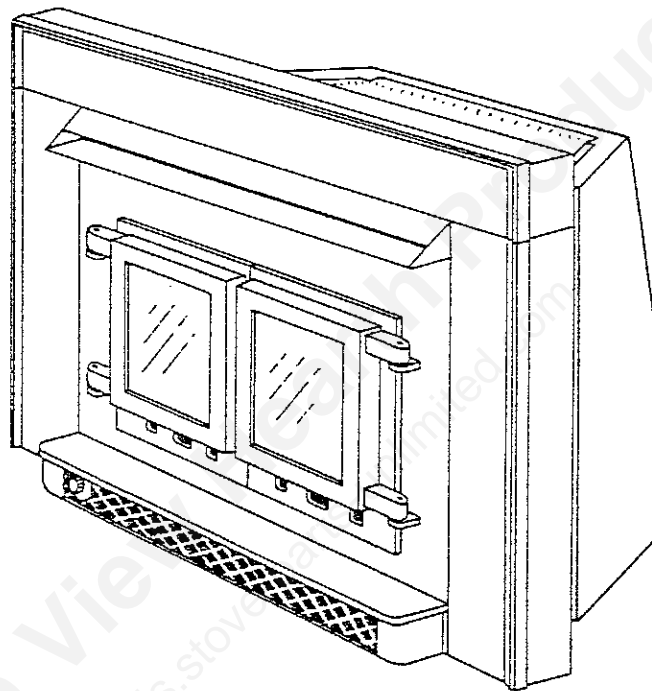


owners manual

Forester

Fireplace Insert Heater



MODELS: FH-24 — FH-30

FOR INSTALLATION IN MASONRY FIREPLACES

CAUTION:

Read All Instructions
Carefully Before Starting
The Installation or
Operating The Heater.

- Installation
- Operation
- Repair Parts

Save This Manual
For Future Reference.



UNITED STATES STOVE COMPANY

P. O. Box 5349, Chattanooga, TN 37406

FORM 85282 5/80 A

tools and materials needed

TOOLS

Tape Measure
Screwdriver
Pliers

MATERIALS

(See Hearth Leveling Instructions, Page 6)
One bag concrete - sand mix

door handle instructions

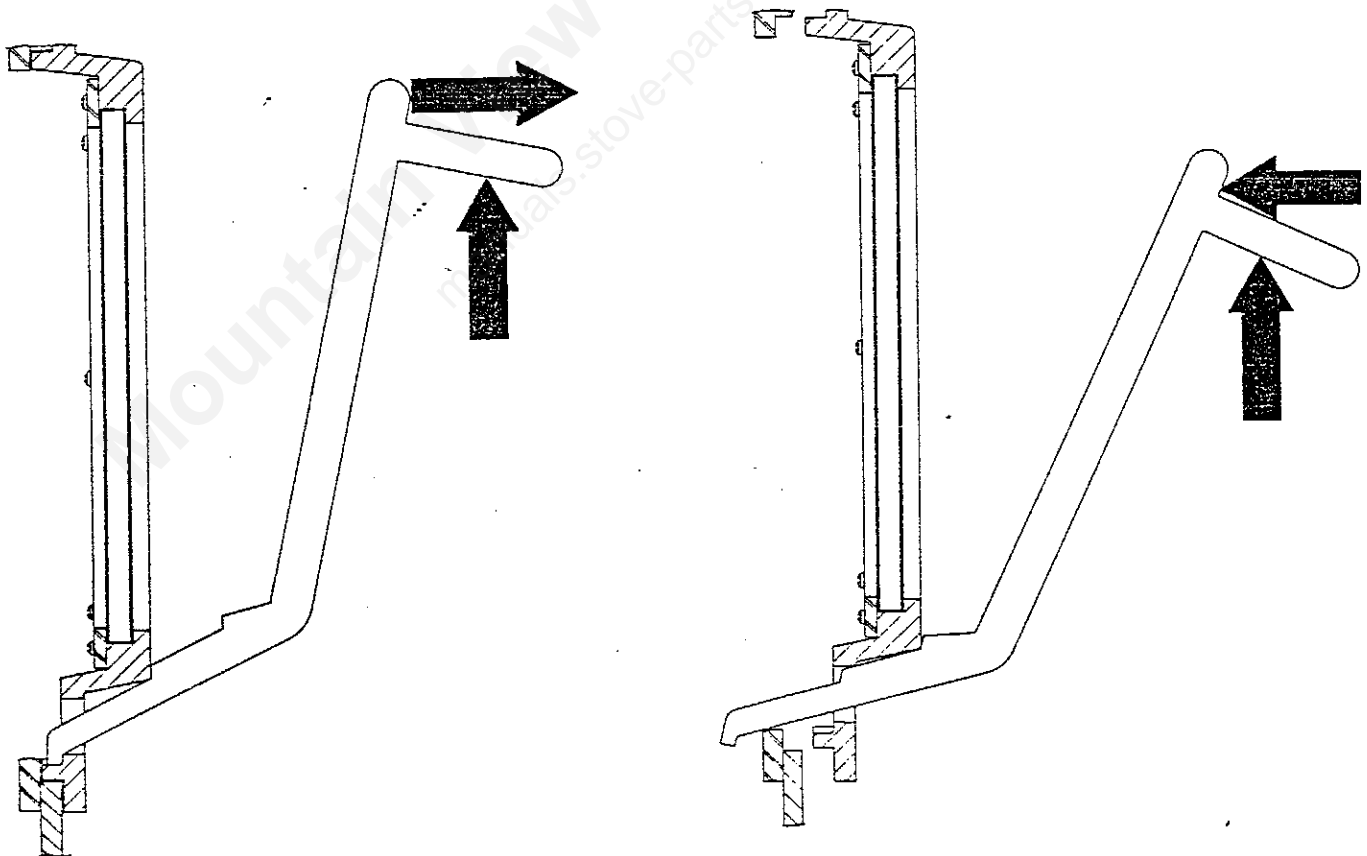
The special Forester Door Handle is used to OPEN and CLOSE both the Doors and Air Shutter. Store the handle near the Fireplace - DO NOT LEAVE IT ON THE HEARTH EXTENSION WHERE IT CAN GET HOT.

To Open the Doors

1. Open the air shutters
2. Insert handle in right hand door as shown below.
3. Lift and pull door open.
4. Open left hand door the same way.

To Close the Doors

1. Insert handle in left hand door as shown below.
2. Push door closed.
3. Insert handle in right hand door.
4. Push closed - then lift and push to engage latch.



rules for safe installation and operation

Read these rules and instructions carefully. Failure to follow them could cause a malfunction of the heater. This could result in death, serious bodily injury and/or property damage.

1. Check your local building and fire codes. This installation must comply with their rulings.
 2. Install the Fireplace Heater only in a masonry fireplace with a masonry chimney.
DO NOT install this Fireplace Heater in a factory-built metal fireplace.
DO NOT connect this Fireplace Heater to a metal factory-built chimney.
DO NOT use this Fireplace Heater as a free-standing heater. It must be installed in a masonry fireplace.
 3. Be sure the masonry fireplace chimney is clean and in a safe condition. Inspection by a Mason or a Chimney Sweep is recommended.
 4. Make sure the masonry chimney is high enough to give a good draft.
 5. Inspect the chimney before and frequently during the heating season for any deposit of creosote or soot. Such deposits must be removed. See CHIMNEY MAINTENANCE, Page 9.
 6. A grate may be used in this heater.
 7. Provide air for combustion from outside the house into the room where the Fireplace Heater is located. Opening a nearby window approximately 1/4 inch will be adequate.
 8. **CAUTION:** The special enamel used on your Fireplace Heater may give off some smoke while it is curing during the first few fires. Build small fires at first.
 9. **CAST IRON PARTS AND THE CAST REFRACTORY BASE MUST BE "SEASONED" TO AVOID CRACKING. BUILD ONLY SMALL FIRES DURING THE FIRST FEW DAYS OF USE.**
 10. To prevent injury, do not allow anyone to use the heater who is unfamiliar with its operation.
 11. For additional information on using your Fireplace Heater safely, obtain a copy of the National Fire Protection Association (NFPA) publication "Using Coal and Wood Stove Safely" NFPA No. HS-10-1978. The address of NFPA is 470 Atlantic Avenue, Boston, MA 02210.
 12. **DISPOSAL OF ASHES** - Place ashes in a metal container with a tight fitting lid. Keep the closed container on a noncombustible floor or on the ground well away from all combustible materials. Keep the ashes in the closed container until all cinders have thoroughly cooled. The ashes may be buried in the ground or picked up by a refuse collector.
 13. Keep the ashpit section free of excess ashes.
 14. Observe clearances to combustible materials specified in this manual to avoid a fire hazard.
- CAUTION:** Do not touch the metal or glass surfaces of the heater until it has thoroughly cooled.

locating the fireplace heater

The heater is to be located in an existing solid masonry fireplace. DO NOT INSTALL THIS HEATER IN A FACTORY-BUILT METAL OR ZERO CLEARANCE FIREPLACE.

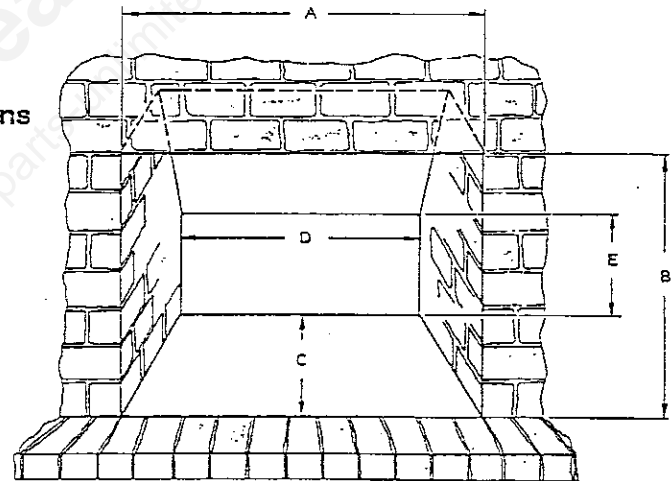
The fireplace must have a masonry chimney with an approved flue tile liner. Inspect the chimney

carefully to be sure that it is clean and that the tile and masonry is in a safe condition.

Measure the fireplace width, height and depth as shown in the following Table. The fireplace opening dimensions must fall within the dimensions shown in this Table for proper and safe installation.

FIREPLACE OPENING DIMENSIONS	FH-24		FH-30	
	MORE THAN	LESS THAN	MORE THAN	LESS THAN
A	29"	38"	35"	44"
B	27"	32"	27"	32"
C	17½"	—	17½"	—
D	19"	—	25"	—
E	15"	—	15"	—

Fig. 1 Fireplace Opening Dimensions



FIREPLACE HEATER DIMENSIONS

	FH-24	FH-30
A	40"	46"
B	21"	27"
C	17-3/8"	17-3/8"
D	14-1/4"	14-1/4"
E	18-1/2"	24-1/4"
F	3-1/2"	3-1/2"
G	32-1/2"	32-1/2"
H	14	14

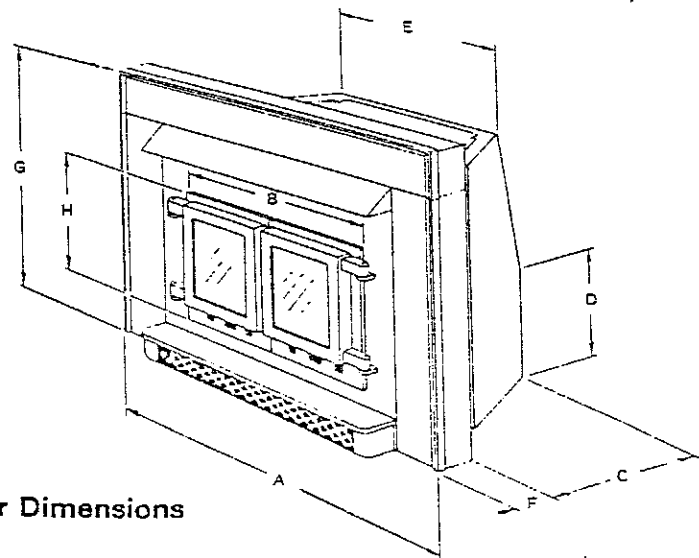


Fig. 2 Fireplace Heater Dimensions

minimum clearances to combustible surfaces

The clearances shown below must be maintained between the edge of the Fireplace Heater and decorative wooden mantels or mantel supports. If the wood trim or mantel of your fireplace is closer to the heater than these dimensions, they must be moved to at least the dimensions shown. Failure to observe these clearances could result in ignition of

the mantel or wood trim.

The brick or stove hearth extension of your fireplace must extend a minimum of 16" in front of the Fireplace Heater. Brick, patio stone or other non-combustible material should be used to extend the noncombustible surface to a distance of at least 24" as shown in Figure 3.

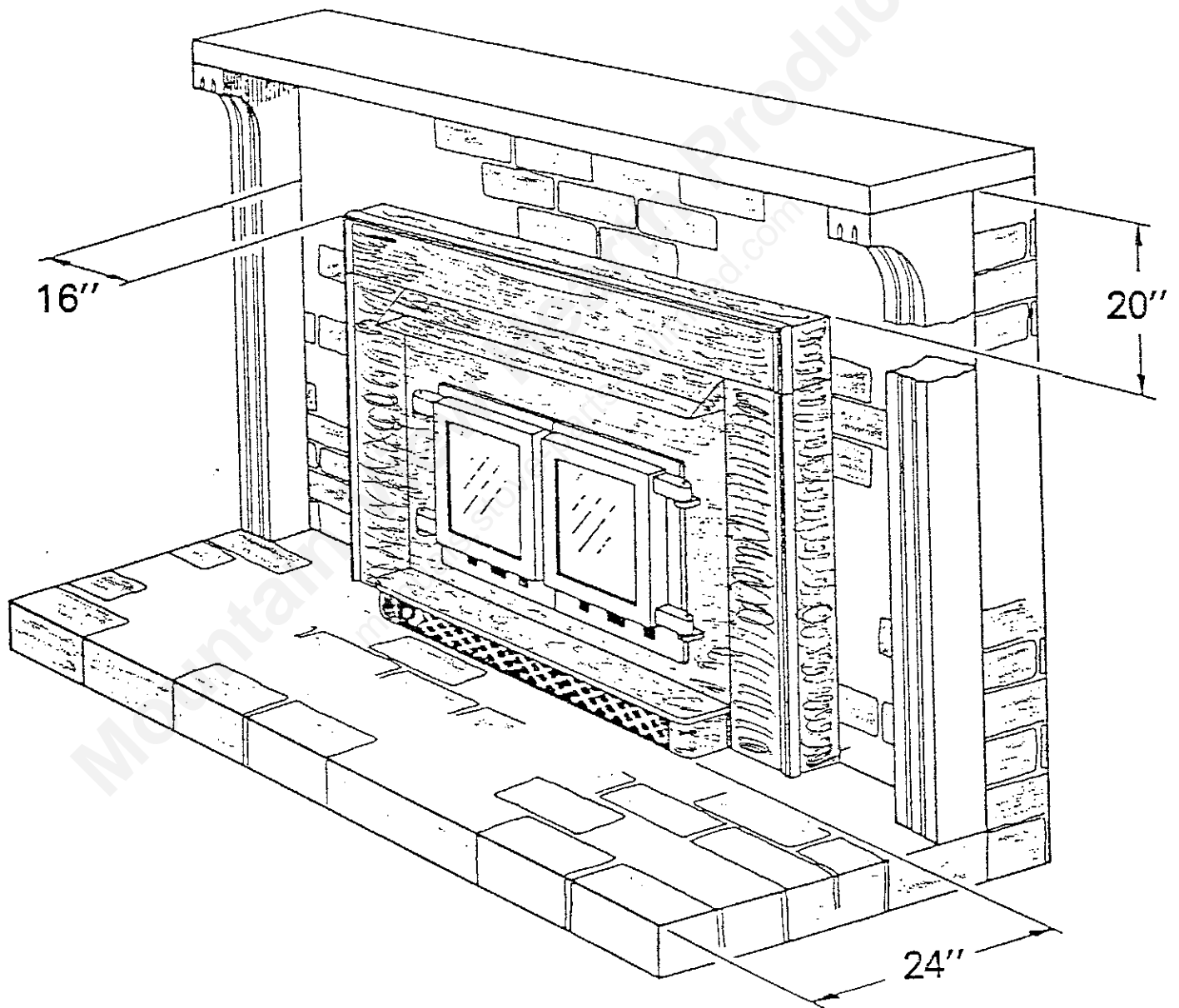


FIGURE 3

Installation instructions

DAMPER The damper in the masonry fireplace must be removed or blocked open. In any case, the damper should be completely removed so that it cannot accidentally cause the damper to close when the heater is installed.

LEVELING The heater must be level when it is installed to assure a uniform burn and to facilitate a proper fit of the trim to the front of the masonry fireplace. In addition to being level, the heater should be flush with the hearth extension so that the heater can easily slide into or out of the fireplace opening. Two methods are shown below for making the heater level and flush with the hearth extension:

Method 1 - Concrete Method - If the bottom of your present fireplace is uneven or is lower than the hearth extension, it may be filled with ready mixed concrete. By mixing the concrete a little on the wet side, it will flow and be virtually self leveling.

If you have an ash cleanout door, it should be lifted enough to sit flush with the new fireplace hearth.

Method 2 - Shim Method - Sixteen (16) galvanized steel shims are supplied with the parts bag. These shims can be placed under the runners on the base of the fireplace Heater to provide leveling and to align the heater flush with the hearth extension.

Determine the number of shims required at the front and back of the fireplace using a level and a ruler. The shims may be taped together to give four packets. They may be placed two at the back and two at the front so that the runners on the bottom of the Fireplace Heater will sit directly on the shims.

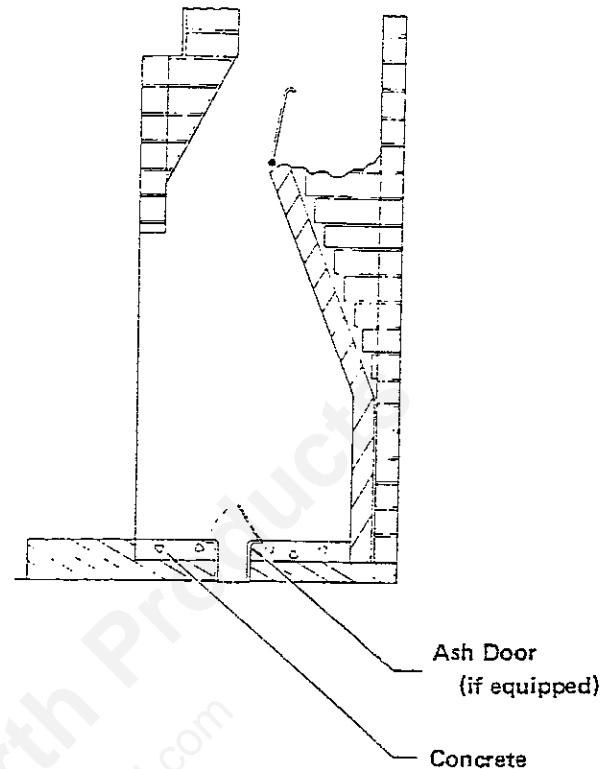


Fig. 4 Concrete Method

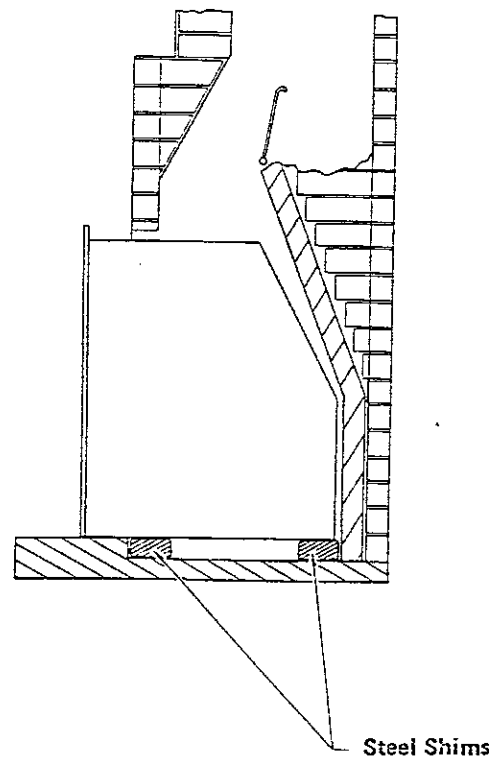


Fig. 5 Shim Method

assembly instructions

After the fireplace hearth has been leveled, the Fireplace Heater should be slid into position. Carefully check to see that the flue opening in the Fireplace Heater is unobstructed and that the smoke leaving the heater can rise directly into the fireplace chimney.

The cast iron Fireplace Heater doors may be removed by lifting them off their hinges. This will reduce the weight of the entire heater making it easier to slide in and out.

TRIM ASSEMBLY

Slide the heater out about 6" to install trim.

1. Attach the outlet air deflector by placing it over the studs on top of the Fireplace Heater.
2. Attach the right and left side trim pieces. There are two wing nuts used on each piece. The side trim should be raised until it is flush with the top of the Fireplace Heater before tightening the wing nuts (Fig. 6).
3. Place the top section of the Fireplace Heater trim in place as shown in Figure 7. Using two wing nuts at each end, fasten the top trim to the side trim pieces, then install the remaining two wing nuts on the bolts in the center of the top trim and tighten all of the wing nuts securely (Fig. 7).
4. Remove protective covering from **Brass Trim**.

GASKET INSTALLATION

The adhesive backed gasket attaches to the back side of the trim that you've just installed. This gasket will seal against the brick front of your fireplace (Fig. 8).

1. Measure and cut the gasket material into three pieces. The two side pieces are 32¼" long. The top gasket is 40" long for the FH-24 and 46" long for the FH-30.
2. Carefully remove the backing from the top gasket and install it across the full width of the top trim.
3. Remove the backing from each side trim gasket and install them.
4. Slide the Fireplace Heater back into your fireplace until the gasket seals securely against the fireplace front.

NOTE: If your fireplace front is irregular preventing the gasket from completely sealing, please order additional gasket material. It is important that the fireplace trim seal against the front of your fireplace to obtain proper drawing in the chimney and to prevent heat loss when the Fireplace Heater is not in operation.

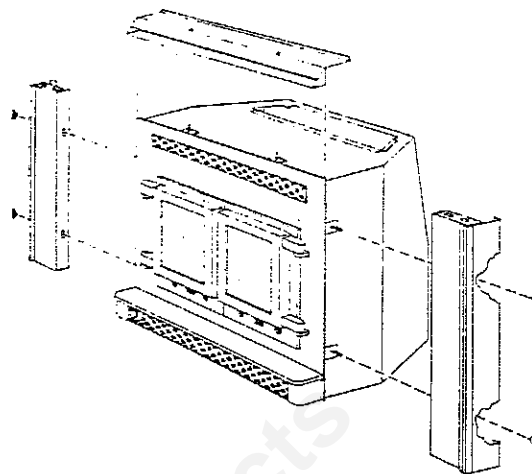


Fig. 6 Side Trim Assembly

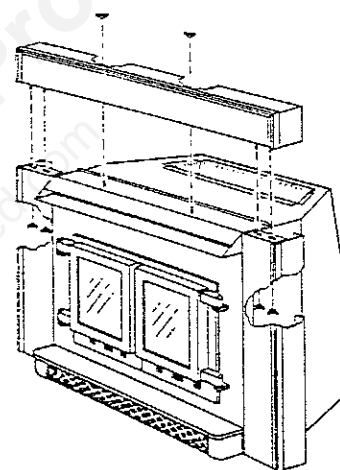


Fig. 7 Top Trim Assembly

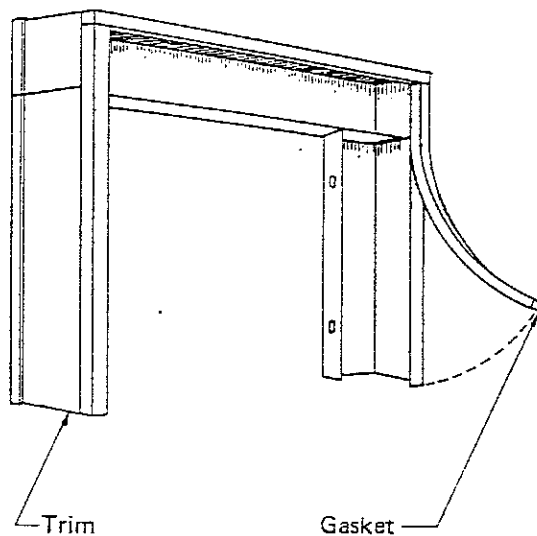


Fig. 8 Gasket Installation

operating instructions

FUEL

Use hardwood that has been split and air-dried for at least six months to obtain maximum burning efficiency. The use of a grate is recommended but not required.

LIGHTING INSTRUCTIONS.

1. Open the air shutter on each door (Fig. 9).
2. Open both doors and place paper and kindling in the firebox.
3. Open the damper fully. The handle is inside the left hand door.
4. Light the fire and close the doors until the kindling is burning.
5. Open the doors and add fuel as desired.

EXTENDED OPERATION

1. The temperature in the room and the rate at which wood is burned can be controlled by adjusting the air shutter (Fig. 9). Using the removable door handle, close the air shutter partially or fully to reduce the rate of burn and to reduce the rate of temperature in the room. Open the air shutters to their full open position for maximum room temperature and maximum rate of burn.
2. Fuel should be added in small amounts to give more complete combustion and uniform room temperature.
3. The Fireplace Heater may be burned with the doors open or closed. If the doors are open, be sure to draw the firescreen closed to reduce the possibility of sparks flying into the room.
NOTE: The doors should be fully opened or fully closed. The heater should not be operated with the doors in a partially open position.
4. Always open the air shutters fully before opening the doors. This will improve the chimney draft and reduce the possibility of small amounts of smoke coming into the room when the doors are opened.
5. Empty the ashes regularly. Do not allow ashes to build up to the grate. Such a build up will cause warpage and burnout. Dispose of hot ashes properly (see Note 12, Page 3).

CAUTION

Use the door handle or a poker to adjust the air shutter. Never touch the air shutter while the heater is hot.

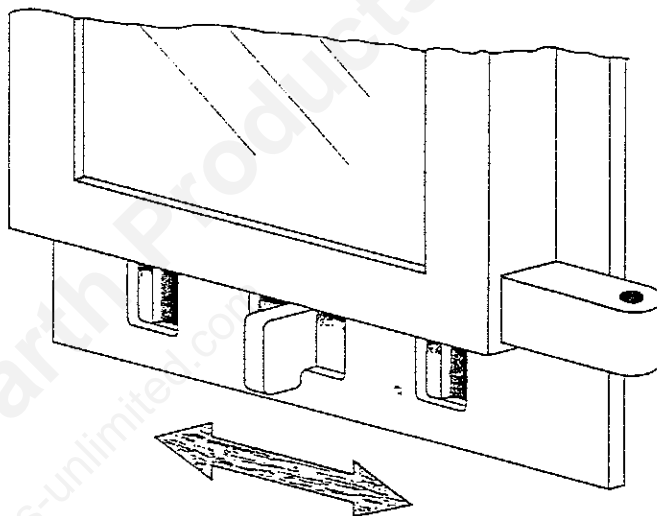


Fig. 9
Adjusting the air shutter

CAUTION

Never use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start or "freshen up" a fire in this heater. Keep all such liquids well away from the heater while it is in use.

OPENING AND CLOSING THE DOORS

The doors are opened or closed with the removable door handle, which fits in the air shutter opening. Never touch the doors while the heater is hot. (Pg. 2)

chimney maintenance

Creosote - Formation and Need for Removal

When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited this creosote makes an extremely hot fire.

The chimney should be inspected at least twice monthly during the heating season to determine if a creosote build up has occurred.

If creosote has accumulated it should be removed to reduce the risk of a chimney fire.

Chimney fires burn very hot. If the chimney catches fire, immediately call the fire department, then reduce the fire by closing the inlet air control. Pour a large quantity of coarse salt, baking soda or cool ashes on top of the fire in the firebox. CAUTION: A chimney fire may cause ignition of wall studs or rafters which you thought were a safe distance from the chimney. If you have a chimney fire, have your chimney inspected by a qualified person before using again.

service hints

Do not expect a heater to draw. It is the chimney that creates the draft. Smoke spillage into the house or excessive build up of water or creosote in the chimney are warnings that the chimney is not functioning properly. Correct the problem before using the heater.

Possible causes are:

1. The chimney used for this heater must not be used for any other appliance.
2. The chimney used for this heater must not be used to ventilate cellar or basement.
3. If there is a cleanout door at the base of the fireplace chimney, close it tightly.
4. If the chimney is remaining too cool, water will condense in the chimney and run back into the fireplace. Creosote formation will be rapid and may block the chimney. Operate the heater at a high enough fire to keep the chimney warm preventing condensation.
5. If the chimney does not seem to draw or if smoke spills into the house from around the

trim, be sure that the trim gasket is sealing tightly against the fireplace front.

6. If the fire burns well but sometimes smokes or burns slowly, it may be caused by the chimney top being lower than another part of the house or a nearby tree. The wind blowing over a house or tree falls on top of the chimney like water over a dam, beating down the smoke. The top of the chimney should be at least 2 feet higher than any point of the roof within 10 feet.

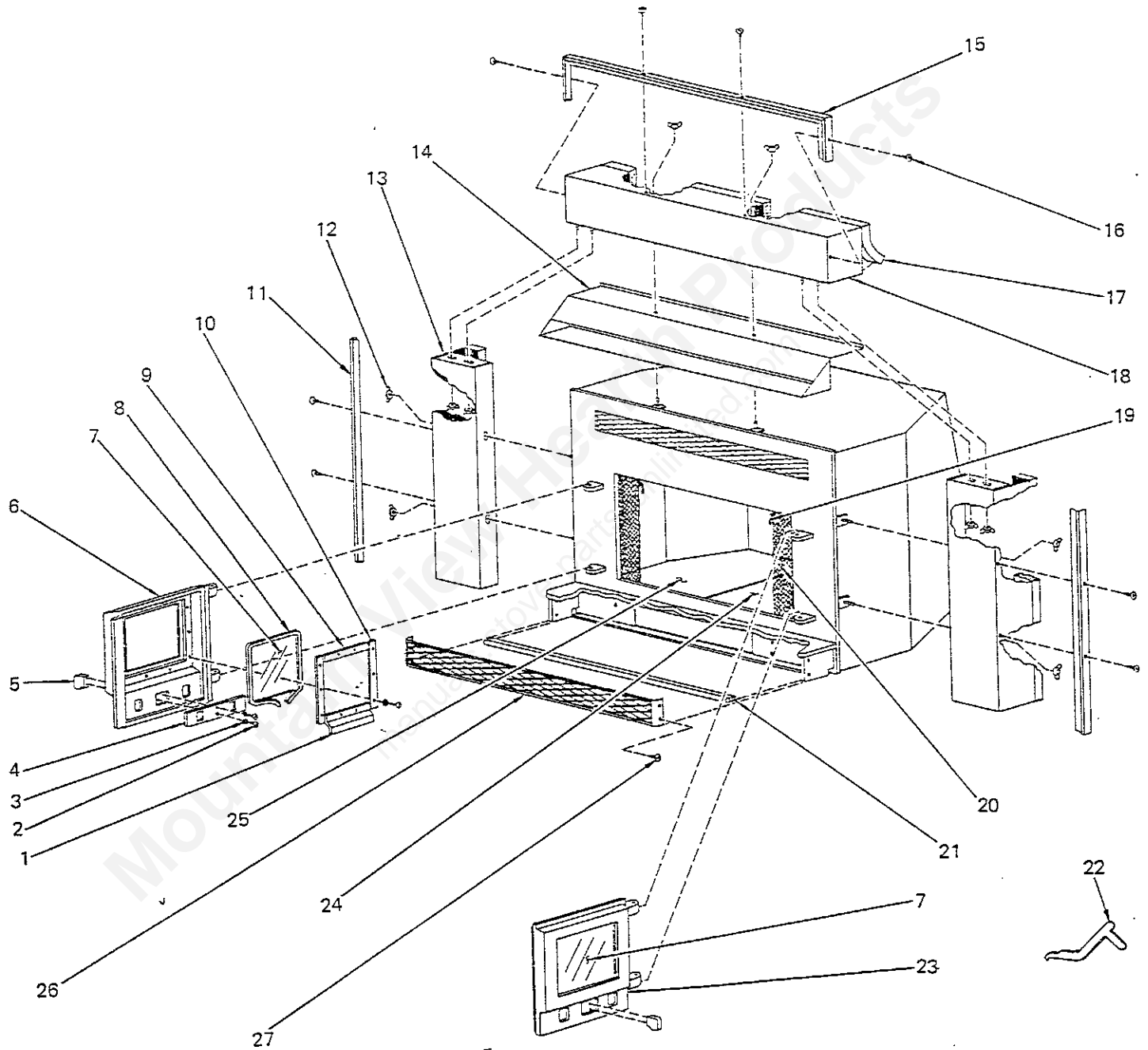
Glass Cleaning - To clean the glass in your heater, wait until it has cooled. Spray the glass lightly with a mild oven cleaner. Follow instructions of the cleaner manufacturer.

Caring for Enameled Parts - This heater has an enameled front. Enamel baked onto the steel or iron is very durable but it will not stand rough handling or abuse. When installing your heater, use care in handling. Clean with soap and warm water when heater is not hot. DO NOT use any acids or scouring soap as these wear and dull the finish. ENAMEL DISCOLORATION WILL OCCUR IF THE HEATER IS OVERFIRED. FOLLOW OPERATING INSTRUCTIONS CAREFULLY.

repair parts

FORESTER FIREPLACE INSERT HEATER

Models FH-24 and FH-30



repair parts

WOOD BURNING FIREPLACE HEATER

Models FH-24 and FH-30

Key No.	Part No.		Description
	FH-24	FH-30	
1	21785	21786	Bottom Glass Retainer (2 Req'd.)
2	83189	83189	10-24 x 1/2 Machine Screw (24 Req'd.**)
3	83020	83020	No. 10 Lockwasher (24 Req'd.**)
4	21778	21778	Draft Slide (2 Req'd.)
5	21779	21779	Draft Control Handle (2 Req'd.)
6	21770	21772	Door L/H
7	89155	89156	Glass (2 Req'd.)
8	89047	89048	Glass Gasket (2 Req'd.)
9	21780	21781	Top Glass Retainer (2 Req'd.)
10	21781	21781	Side Glass Retainer (4 Req'd.)
11	86231	86231	Side Corner Trim
12	83041	83041	1/4-20 Wing Nuts (10 Req'd.)
13	67621	67621	Side Trim (2 Req'd.)
14	21753	21754	Air Outlet Duct
15	86229	86230	Top Corner Trim
16	83190	83190	No. 8 x 1/2 Brass Screw (8 Req'd.)
17	88050	88050	Top Trim Gasket - 10 foot roll
18	67618	67619	Top Trim
19	89166	89166	Pull, Firescreen (2 Req'd.)
20	89165	89165	Firescreen (2 Req'd.)
21	21783	21784	Floor Gasket
22	40164	40164	Removable Door Handle
23	(21769)	21771	Door R/H
24	89158	89162	Hearth Refractory - R/H
25	89160	89161	Hearth Refractory - L/H
26	67601	67602	Hearth Extension Grill
27	83005	83005	10-24 x 1/2 Machine Screw (4 Req'd.)
*	21787	21787	Leveling Shim (16)
*	G-26	G-30	Accessory Grate
*	85282	85282	Owners Manual

* Not Illustrated

** FH-30 26 Req'd.

owners manual

HOW TO ORDER REPAIR PARTS

THIS MANUAL WILL HELP YOU TO OBTAIN EFFICIENT, DEPENDABLE SERVICE FROM THE HEATER, AND ENABLE YOU TO ORDER REPAIR PARTS CORRECTLY.

KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.

WHEN WRITING, ALWAYS GIVE THE FULL MODEL NUMBER WHICH IS ON THE NAMEPLATE ATTACHED TO THE BACK OF THE HEATER.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION AS SHOWN IN THIS LIST:

1. The PART NUMBER
2. The PART DESCRIPTION
3. The MODEL NUMBER
4. The NAME of ITEM

UNITED STATES STOVE COMPANY
P. O. Box 5349
Chattanooga, Tennessee 37406