

**Sears**

**owners  
manual**

**MODEL NUMBER**

**143.8417**

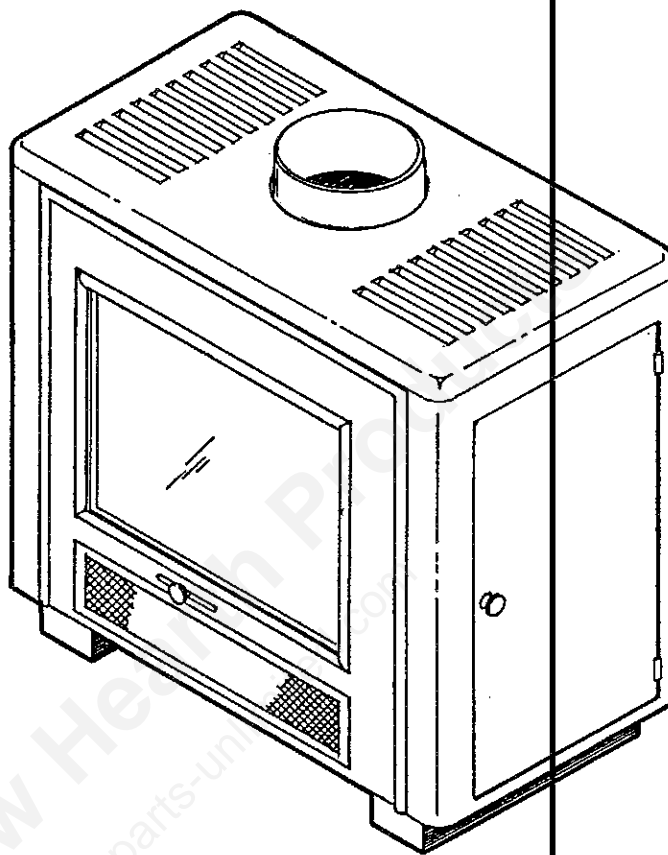
**WARNOCK / HERSEY**

**CAUTION:**

**Read All Instructions  
Carefully Before Start-  
ing the Installation or  
Operating the Heater.**

**DO NOT USE THIS  
HEATER IN MOBILE  
HOMES OR TRAILERS**

**SAVE THIS MANUAL  
FOR  
FUTURE REFERENCE**



**CATALYTIC  
CIRCULATOR  
HEATER**

- **Assembly**
- **Installation**
- **Operation**
- **Repair Parts**

**Sears, Roebuck and Co., Chicago, Ill. 60684 U.S.A**

PRINTED IN U.S.A

FORM 85678 2/89

# introduction!

Please read our instructions before you install and use your new Circulator Heater. This will help you obtain the full benefits from the heater.

If you want your heater professionally installed, contact your SEARS SALESPERSON. They will arrange for prompt, quality installation by SEARS AUTHORIZED INSTALLERS.

## SEARS INSTALLATION POLICY

All installation labor arranged by SEARS shall be performed in a neat, workman-like manner in accordance with generally accepted trade practices. Further, all installations shall comply with all local

laws, codes, regulations, and ordinances. The customer shall also be protected, during installation, by insurance relating to property damage, workmen's compensation and public liability.

## SEARS INSTALLATION WARRANTY

In addition to any warranty extended to you on the Sears merchandise involved, which warranty becomes effective the date the merchandise is installed, should the workmanship of any Sears

arranged installation prove faulty within one year, Sears will, upon notice from you, cause such faults to be corrected at no additional cost to you.

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## tools and materials needed

### TOOLS

Pencil  
6 Foot Folding Rule or Tape  
Tin Snips  
Drill, Hand or Electric  
Drill Bit (For Sheet Metal Screws)  
1/8" Dia.  
Gloves  
Screwdriver (Blade-Type)  
5/16" Nut Driver  
or 5/16" Socket w / Ratchet

### MATERIALS

Chimney Connector-6" dia. Black or Blued Steel (24 ga. minimum): Straight or Elbow (as required)  
1/2" Sheet metal screws (10A x 1/2")  
6" Inside diameter Underwriters Laboratories (UL) Listed Residential Type and Building Heating Appliance Chimney or existing masonry chimney.  
Floor Protector Material 37" x 52 1/4"  
as specified on Page 4.  
Furnace Cement (Rutland Black Code 78 or Equivalent is recommended)

# rules for safe installation and operation

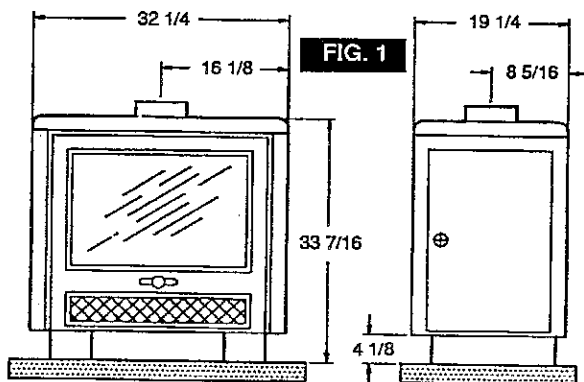
**SAFETY NOTICE:** If this heater is not properly installed, a house fire may result. For your safety, follow the installation directions. Contact local building or fire officials about restrictions and installation inspection requirements in your area.

Read these rules and the instructions carefully.

1. Check your local codes. The installation must comply with their rulings.
2. Do not install this heater in a mobile home or trailer.
3. Always connect this heater to a chimney and vent to the outside. Never vent to another room or inside a building.
4. Do not connect a wood burning heater to an aluminum Type B gas vent. This is not safe and is prohibited by the National Fire Protection Association Code. This heater requires a masonry or a UL Listed Residential Type and Building Heating Appliance Chimney. Use a 6" diameter Chimney or larger, that is high enough to give a good draft.
5. Be sure that your Chimney is safely constructed and in good repair. Have the chimney inspected by the Fire Department or a qualified inspector. Your insurance company may be able to recommend a qualified inspector.
6. Inspect chimney connector and chimney twice monthly during the heating season for any deposit of creosote or soot which must be removed (see Chimney Maintenance, page 15).
7. Provide air for combustion from outside the house into the room where the heater is located. If the intake is not in the same room, air must have free access to the room.
8. **CAST IRON PARTS MUST BE "SEASONED" TO AVOID CRACKING. BUILD ONLY SMALL FIRES ON FIRST USE.**
9. To prevent injury, do not allow anyone to use this heater who is unfamiliar with the correct operation of the heater.
10. For further information on using your heater safely, obtain a copy of the National Fire Protection Association (NFPA) publication "Chimneys, Fireplaces, Vents, and Solid Fuel Burning Appliances" NFPA No. 211. The address of the NFPA is Batterymarch Park, Quincy, MA 02269.
11. Keep the ashpit section free of excess ashes. Do not allow ashes to stack higher than the sides of the ash pan.
12. **DISPOSAL OF ASHES.** Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed on a noncombustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.
13. **CAUTION**—the special paints used on your heater may give off some smoke and / or odors while they are curing during first few fires. Build small fires at first. The metal used in construction of the heater has a light coating of oil. This could give off smoke and / or odors when heater is used for the first couple of times. This should disappear after a short period of time. Once this burn-off has occurred, it should not reoccur.
14. **CARING FOR PAINTED PARTS**—this heater has a painted outside jacket, which is 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. **PAINT DISCOLORATION WILL OCCUR IF THE HEATER IS OVERFIRED. FOLLOW OPERATING INSTRUCTIONS CAREFULLY.**
15. Keep the feed door, ash door, cabinet door closed at all times except while tending the heater.
16. Use coal only. **DO NOT USE** the coal bricks that are manufactured from coal dust and a wax-type binder.

## CAUTION:

Do not touch the heater until it has cooled.



## Circulator Dimensions

# locating the heater

## AS A LOCATION IS SELECTED, KEEP THE FOLLOWING IN MIND :

1. The chimney connection should be as short as possible. The heater must have its own chimney. Do not connect this unit to a chimney flue serving another appliance. If there is no chimney near where you wish to place the heater, you can use a UL Listed Residential Type and Building Heating Appliance Chimney (Fig. 6).
2. Place the heater on solid masonry or solid concrete. When the heater is used on a combustible floor, use a non-combustible floor protector 3/8" millboard having a thermal conductivity of  $K=0.84$  BTU in/ft.<sup>2</sup>hr. deg. F with 28 gauge sheet metal or a U.L. listed floor protector. Have the floor protector extend 16" beyond the door side of the heater and under the connector pipe in the back (Fig. 5, and 6).
3. Check Figures 2, 3, and 4. Be sure you have the clearances shown from the heater and the connector pipe to combustible surfaces. If you have a solid brick or stone wall behind your heater, you can place the heater as close as you wish to the wall. If the wall is only faced with brick or stone, treat it as a combustible wall.

### MINIMUM CLEARANCE TO COMBUSTIBLE WALLS

FIG. 2

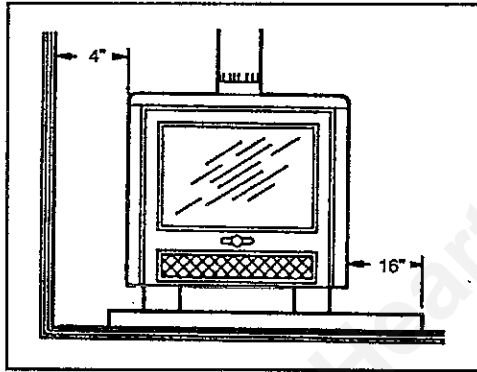
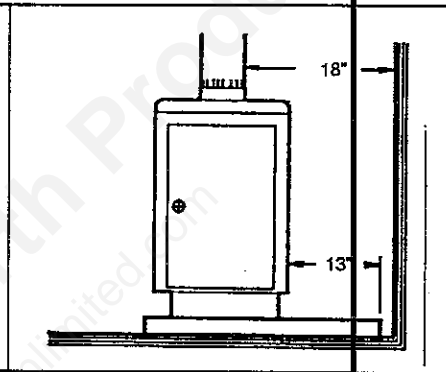


FIG. 3



**CAUTION**  
Keep furnishings and other combustible materials away from the appliance.

#### NOTE: BEFORE FIRING HEATER

1. Remove plastic knob from inside of cabinet door and install on outside. (See Page 10).
2. Slide firebricks toward the rear so no gaps remain between them.

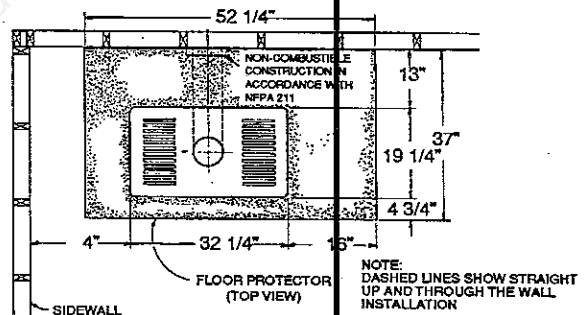


FIG. 4

## chimney connection

### MASONRY CHIMNEY

Before using an existing masonry chimney, clean the chimney and inspect the flue liner to be sure it is safe to use. Make repairs before attaching the heater. Look at Fig. 5. The connector pipe and fittings you will need to connect directly to a masonry chimney are shown.

If the connector pipe must go through a combustible wall before entering the masonry chimney, consult a qualified mason or chimney dealer. The installation must conform to local fire codes.

Do not connect this heater into the same chimney flue as the fireplace or flue from another heater.

The chimney used for a heater must not be used to ventilate the cellar or basement. If there is a cleanout opening at the base of the chimney, close it tightly.

### UL LISTED CHIMNEY

Carefully follow chimney manufacturer's instructions. Use only a UL Listed Residential Type and Building Heating Appliance Chimney. If your chimney starts at the ceiling (Fig. 6), you will need a 6" elbow and enough 6" pipe to reach the ceiling. You will also need the connector adapter Sears Stock No. 42-99185.

The top of the chimney must be at least 3 feet above the roof and be at least 2 feet higher than any point of the roof within 10 feet (Fig. 6).

## BAROMETRIC DRAFT REGULATOR (Optional)

In some installations it may be desirable to install a barometric draft regulator in the chimney connector. A barometric draft regulator should be located in the same room (Pressure zone) as the heater. When installing a barometric draft regulator, follow the manufacturer's instructions.

### HOW TO DETERMINE IF ALTERNATE FLOOR PROTECTION MATERIALS ARE ACCEPTABLE

1. First and foremost, floor protection materials must be non-combustible. In general metals, brick, stone, mineral fiber boards, etc. are non-combustible. Any organic materials (i.e. plastics, wood, paper products, etc.) are combustible and must not be used.
2. The floor protector specified may include some form of thermal resistance such as R-value or K-factor or C-factor. These terms are often confusing and may make it difficult to readily determine if an alternate floor protection system meets the specification.

#### Definitions:

K-value or K-factor: This is a measure of the rate of heat transfer through a 1 foot by 1 foot area of material one inch thick.

C-value or Thermal Conductance: This is the rate of heat transfer through a 1 foot by 1 foot area of material at whatever thickness the material is.

R-value: This is the thermal resistance and is equal to  $1 / C$  and is given for the material thickness.

R / inch: This is the inverse of the K-value and is the thermal resistance of a 1 inch thickness of material.

(Other values used commonly include U,  $R_u$ ,  $H_m$ ,  $H_c$ ,  $R_h$ , and  $R_c$ : These generally are values for built up sections such as walls or roofs and airfilm properties. These values are not used for floor protector analysis.)

The easiest means of determining if a proposed alternate floor protector meets requirements listed in the appliance manual is to follow this procedure:

- (a) Convert specification to R-value:
  - R-value given - no conversion needed.
  - K-value is given with a required thickness (T) in inches:  $R = 1/K \cdot T$
  - C-value is given:  $R = 1/C$  (2)
  - R / inch is given with a required thickness (T) in inches:  $R = R / \text{inch} \cdot T$  (3)
- (b) Determine the R-value of the proposed alternate floor protector.
  - Use the formula in step (a) to convert values not express as "R"
  - For multiple layers, add R-values of each layer to determine overall R-value.
- (c) If the overall R-value of the system is greater than the R-value of the specified floor protector, the alternate is acceptable.

#### EXAMPLE 1:

The specified floor protector should be 3/4 inch thick material with a K-value of .84.

The proposed alternate is 4" brick with a C-value of 1.25 over 1/8" mineral board with a K-value of .29.

Step (a): Use formula (1) to convert specification to R-value.

$$R = 1 / K \cdot T = 1 / .84 \times 3 / 4 = 1 / .84 \times .75 = .893$$

Step (b): Calculate R of proposed system. 4" brick of C = 1.25

$$R \text{ brick} = 1 / C = 1 / 1.25 = .80$$

1/8" mineral board of K = .29

$$R \text{ mineral} = 1 / .29 \times 1 / 8 = 1 / .29 \times .125 = .431$$

$$\text{Total } R = R \text{ brick} + R \text{ mineral board} = .8 + .431 = 1.232$$

Step (c): Compare proposed system R of 1.232 to specified R of .893. Since proposed system R is greater than required, the system is acceptable.

#### EXAMPLE 2:

The specified floor protector must have a R-value of 3 or more. The proposed floor protector is a metal box filled with vermiculite (K=.47) 1 - 1/4" deep.



(Note: R values for sheet metal are negligible and therefore not counted)

$$R \text{ vermiculite} = 1 / K \times 1 - 1 / 4 = 1 / .47 \times 1.25 = 2.66$$

Since 2.66 is less than the R-3 required, the proposed floor protector is not adequate. The minimum thickness of vermiculite necessary can be calculated as follows:

$$R = 3 = 1 / .47 \times T$$

$$T = 3 \times .47 = 1.41 \text{ inches}$$

Therefore the proposed construction would be acceptable if the thickness is increased to at least 1.41 inches of vermiculite.

Thermal values for most materials can usually be provided by the supplier of manufacturer. For common building materials and more complete description of thermal properties, see **ASHRAE Handbook Fundamentals** published by the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., 1791 Tullie Circle N.E., Atlanta, GA 30329.

# venting into a fireplace

Many people may wish to convert an existing fireplace. Usually, safe connection of stovepipe to a masonry chimney requires more effort than connection to a prefabricated chimney. There are two methods (Type A and Type B) to accomplish this. No matter which method you choose, the fireplace must be tightly closed and sealed at the damper in the flue. Good sealants are high-temperature caulking, ceramic wool, and furnace cement. Always remember to inspect the masonry chimney and fireplace. If necessary, clean the flue and smoke shelf before beginning your installation. Install the heater into the fireplace so that the system can be dismantled for cleaning and inspection.

Before deciding to convert your fireplace, keep in mind that some fireplaces and existing chimneys are unsafe. They must be structurally sound, and the flue liner must be in good condition. Clearances to combustibles are explained in the previous section on masonry chimneys. If you have any question regarding the condition of the chimney, consult a qualified engineer, competent mason, or knowledgeable inspector.

Many prefabricated fireplaces fall into the "zero-clearance fireplace" category. This is a factory-built metal fireplace with multi-layered construction, it is designed to provide enough insulation and / or air cooling so that the base, back, and sides can be safely placed in direct contact with combustible floors and walls. Although many prefabricated fireplaces have been tested by nationally recognized organizations for use as fireplaces, they have not been tested to accept airtight heaters. In fact, their use as such may void the manufacturer's warranty.

Steel-lined fireplaces, on the other hand, can be used with airtight heaters. These units use a 1 / 4 - inch firebox liner and an air chamber in connection with 8 inches of masonry to meet code. They contain all the essential parts of a fireplace; firebox, damper, throat, smoke shelf, and smoke chamber. Many of them look exactly like a masonry fireplace and must be checked closely for above requirements before installing a heater into them.

Another method frequently used by some people is to vent the heater directly into the fireplace. This does not meet code since the heater is being vented into another appliance – the fireplace. This method should not be attempted because combustion products will deposit and build up in the firebox or fireplace. Be certain not to install a hazard in your house.

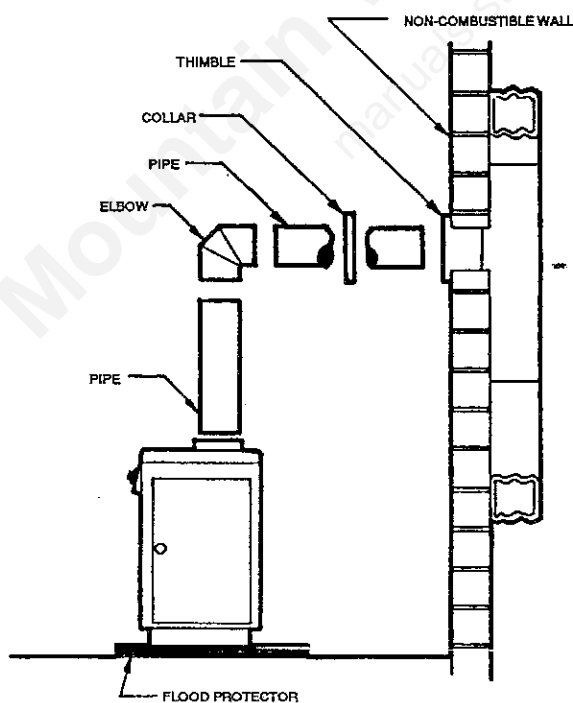


FIG. 5

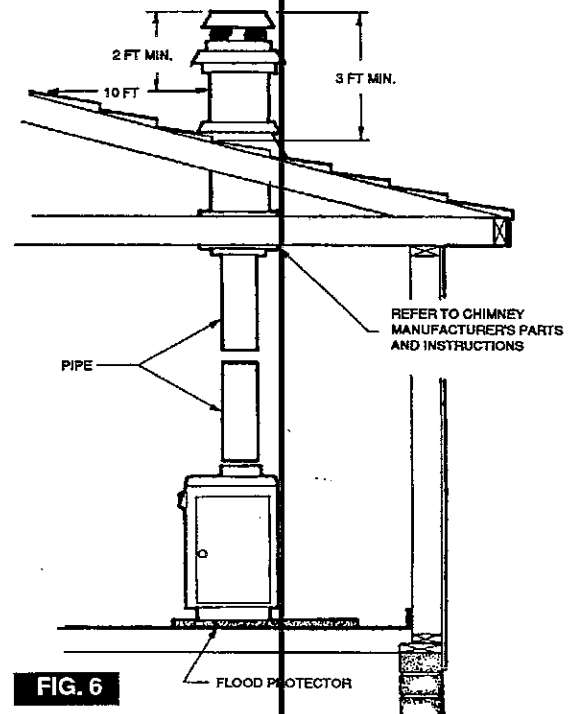


FIG. 6

# Type A Installation

Connection of the stovepipe directly into the existing masonry chimney over the fireplace opening is the most desirable method. This installation performs better, yielding more heat and better draft; it is also easy to clean and inspect for soot and creosote. Before beginning this type of installation plan carefully; a high degree of skill is required to insure safety.

An entry port for the stovepipe must be cut through the chimney with minimum damage to the fireclay liner. Some involved measurements may be required to locate the flue liner exactly. Before cutting, take time to mark the size and position of the entry port. Position the entry port so that at least 8 inches of the flue liner remain below the port.

Keep in mind that wood mantels and combustible trim around the fireplace must have adequate clearances from the heater and stovepipe or must be protected in approved manner. Also, be sure to leave at least an 18-inch clearance between the top of the stovepipe and the combustible ceiling or other combustibles. Placing the center of the entry port 2 feet below the ceiling will insure proper clearance for 6-inch, 8-inch, and 10-inch stovepipes.

Next, install a fireclay (at least 5 / 8 inch thick) or metal thimble, being sure that the thimble is flush with the inner flue lining; secure the thimble in place with refractory mortar. The thimble should be surrounded on all sides with 8 inches of brickwork (solid masonry units) or 24 inches of stove.

Install the stovepipe as far as possible into the thimble, but not past the inside of the flue lining. There should be a small airspace (approximately 1 / 2 inch ) between the stovepipe and thimble, allowing for expansion of the stovepipe. Seal this airspace with high-temperature caulking or ceramic wool. Finally, be sure to wire the damper closed and apply the same sealant you used at the stovepipe and thimble junction.

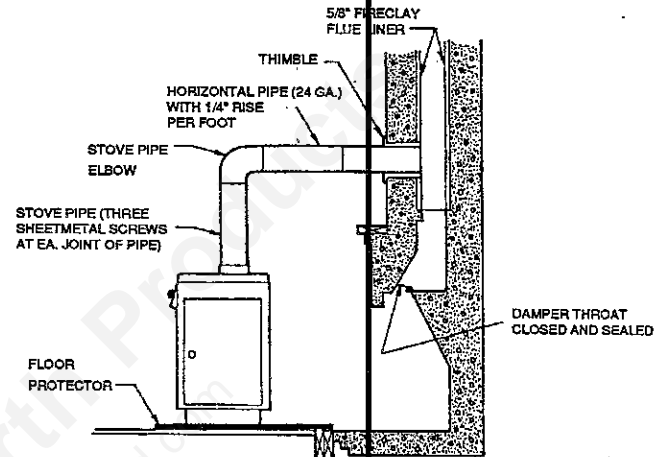


FIG. 7

TYPE A  
FIREPLACE CONVERSION

## Rules For Connector Pipe Installation

1. The crimped end of the stovepipe fits inside the heater flue collar. Install additional pipe and elbow with the **CRIMPED END TOWARD THE HEATER**. This will allow any condensation in the flue to run back into the heater.
2. Slope any horizontal pipe upward toward the chimney to least 1/3 inch for each foot of horizontal run.
3. You must have at least 18 inches of clearance between any horizontal piping and the ceiling.
4. The pipe cannot extend into the chimney flue (Fig. 8).
5. Seal each connector pipe joint with furnace cement. Also seal the pipe at the chimney.
6. Use 3 sheet metal screws at each joint to make the piping rigid.
7. Do not put a damper in a connector pipe.
8. It is recommended that no more than two 90° bends be used in the stovepipe installation as more than two may decrease the amount of draw and possibly cause smoke spillage.

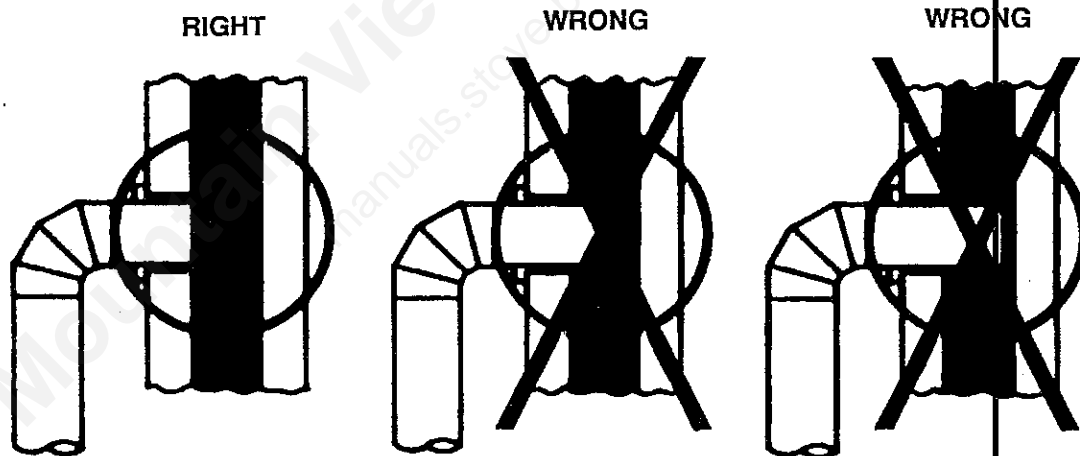


FIG. 8

# Cabinet Door Catch Assembly

The door knob is mounted inside of the cabinet door to facilitate shipping and must be reversed for proper usage. To get cabinet door open, place hand under cabinet frame (right hand side - cabinet door side) and push door out.

## INSTALL THE CABINET DOOR KNOB USING THE STEPS BELOW:

1. Remove the machine screw and door knob (Fig. 9)
2. Place door knob on outside of cabinet door. Then place machine screw through hole and into door knob and tighten (Fig. 10)

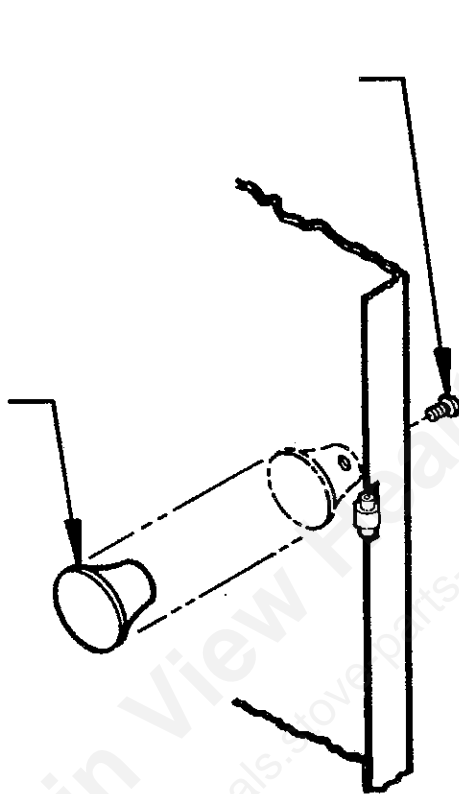


FIG. 9

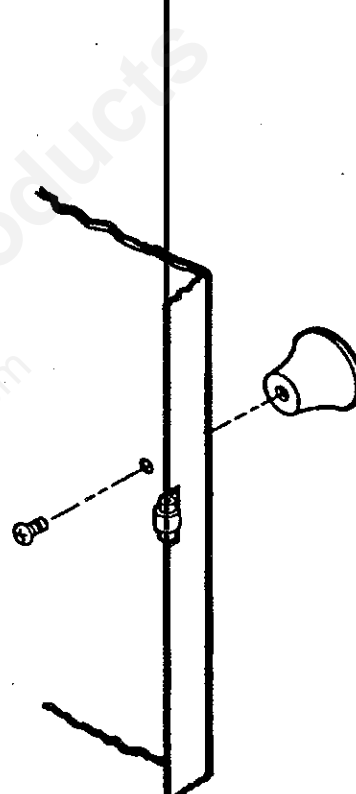


FIG. 10

## FEED / ASH DOOR HANDLE ASSEMBLY

### Read and Complete Before Firing Unit

1. Remove wooden handle from inside of the ash pan.
2. Place the metal hook of the wooden handle through the hole in the end of the cast iron door handle.
3. Using pliers close the metal hook so the wooden handle cannot be removed.

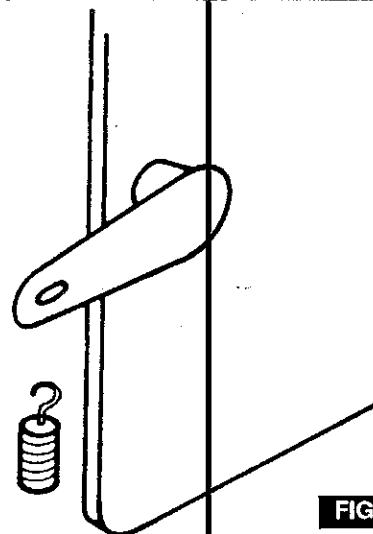


FIG. 11

# operating instructions

## FUEL

Hardwood, 20" to 24" should be split and air dried (seasoned) for 6 months to obtain maximum burning efficiency.

Use wood or wood-like materials only.  
Do not use coal. Coal or charcoal will damage the catalytic combustor.

## LIGHTING THE FIRE

1. Set the Thermostat on "High" setting to provide maximum draft and turn the bypass lever to "open" position. (Page 11, Fig. 12)
2. Open the feed door and place paper and kindling on the grate for starting the fire.
3. Light paper and kindling and close feed door securely.
4. Add fuel after fire is burning briskly. Use care not to smother the kindling fire.
5. After fire is established, wait five minutes and turn bypass lever to "close" position. (See Page 11, Fig 12)
6. The Catalyst Temperatures should exceed 800°F within thirty minutes after closing bypass. This is the catalytic combustor temperature, \*not the flue gas temperature. If temperature fails to rise above 800°F after fire has been established for a minimum of 30-45 minutes with the bypass closed, this may indicate a non-functional or weak combustor, at which time replacement is necessary to maintain proper operation of your stove. (See Page 11 for Replacement Instructions.)
7. Set thermostat to maintain desired temperature. "Medium" setting is normally satisfactory. Set higher or lower for your comfort.

## ADDING FUEL

When possible add small amounts of fuel each hour or so instead of adding large quantities of fresh fuel every eight to ten hours. This will give more complete combustion and keep the catalytic combustor at a higher and more efficient operating temperature.

1. Turn bypass lever to "open" position before opening feed door to add fuel.
2. Empty ash pan regularly. Do not allow ashes to build up to the grate level, as grate will warp and burnout will occur. Dispose of hot ashes properly. (See Note 12 on Page 3.)

\*A temperature monitoring port has been provided on the top of your heater. For access with commercially available temperature probes, remove screws on the rear of the top panel, lift the top and remove 1/4" plug from the top of the combustion chamber. Replace the top panel with screws and insert the probe to monitor catalyst temperature 1" downstream from catalytic combustor.

### CAUTION

OVERFIRING THE APPLIANCE MAY CAUSE A HOUSE FIRE. IF A UNIT OR CHIMNEY CONNECTOR GLOWS, YOU ARE OVERFIRING.

### CAUTION

DO NOT OPERATE WITH FEED OR ASH DOOR OPEN. THIS HEATER IS DESIGNED FOR THERMOSTATIC OPERATION. OPERATION WITH EITHER DOOR OPEN WILL OVERHEAT AND DAMAGE THIS HEATER.

### CAUTION

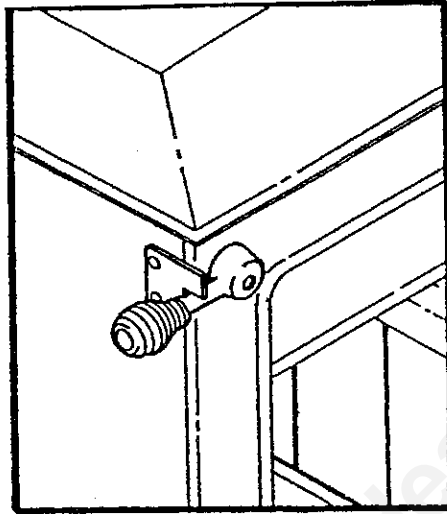
NEVER USE GASOLINE, GASOLINE - TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID, OR SIMILAR LIQUIDS TO START OR "FRESHEN UP" A FIRE IN THE HEATER.

### CAUTION

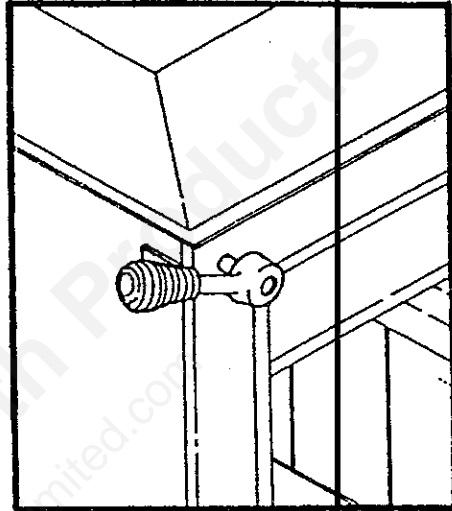
KEEP ALL FLAMMABLE LIQUIDS, ESPECIALLY GASOLINE, FROM THE VICINITY OF THE HEATER WHETHER IN USE OR IN STORAGE.

### CAUTION

BUILD A FIRE ON INTEGRAL GRATE THAT IS PROVIDED WITH THE HEATER.



**BYPASS OPEN**



**BYPASS CLOSED**

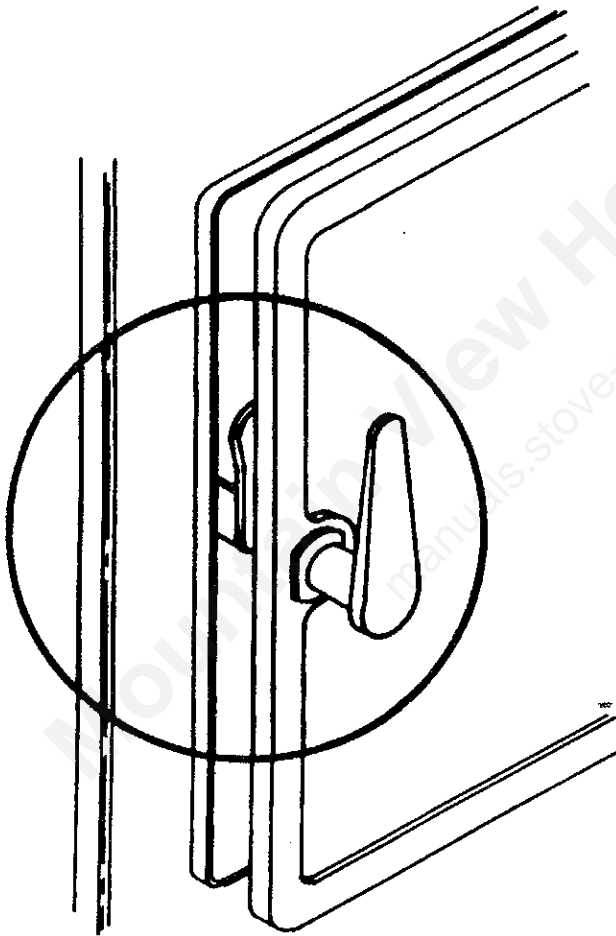
### **CATALYTIC INSPECTION OR REPLACEMENT** (Refer to Repair Parts Drawing)

1. Remove the two stainless steel coupler nuts, Part No. 83378 and the air mixer box, Part No. 68211. The catalytic combustor assembly can now be removed by drooping straight down and removing through the feed door. (A Note of Importance: If the catalytic assembly is removed for any reason, the combustor gasket, Part No. 88058 must be replaced. )
2. To replace catalytic combustor assembly: place gasket over flange on combustor assembly, align holes in gasket with holes in combustor assembly flange, place assembly in stove with stainless steel screws through gasket and flange of combustor assembly. Hold in place and install mixer box on same screws. Replace and tighten stainless steel coupler nuts. Be certain perforated screen is pointed into the heater as shown in Repair Parts Drawing.

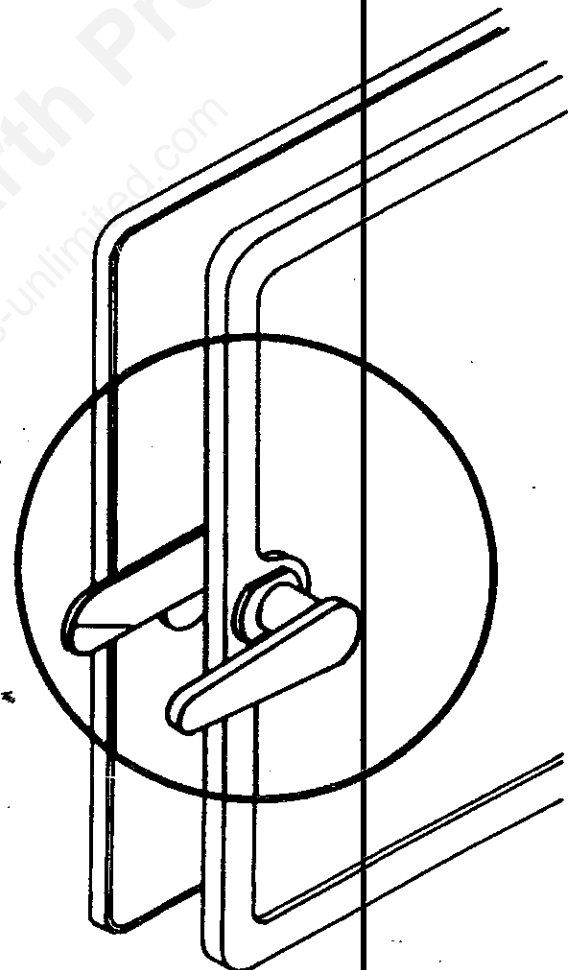
# Instructions for Two-Step Latch Operation

1. Follow these instructions to operate your unit safely when operating the feed door.
2. Turn handle clockwise to the 12 o'clock position, pull the door open until you engage the second step. (Fig. 13)
3. Hold the door in that position for approximately 10 seconds.
4. Then to open door, run the handle counter clockwise to the 9 o'clock position and then continue to pull the door open. (Fig. 14)
5. To close and latch the door, reverse steps 4 thru 2.

**NOTE**  
THIS NEW LATCHING MECHANISM MEETS  
CODES AND REGULATIONS AND PROVIDES  
MORE SAFETY FOR THE USER OF THIS STOVE.



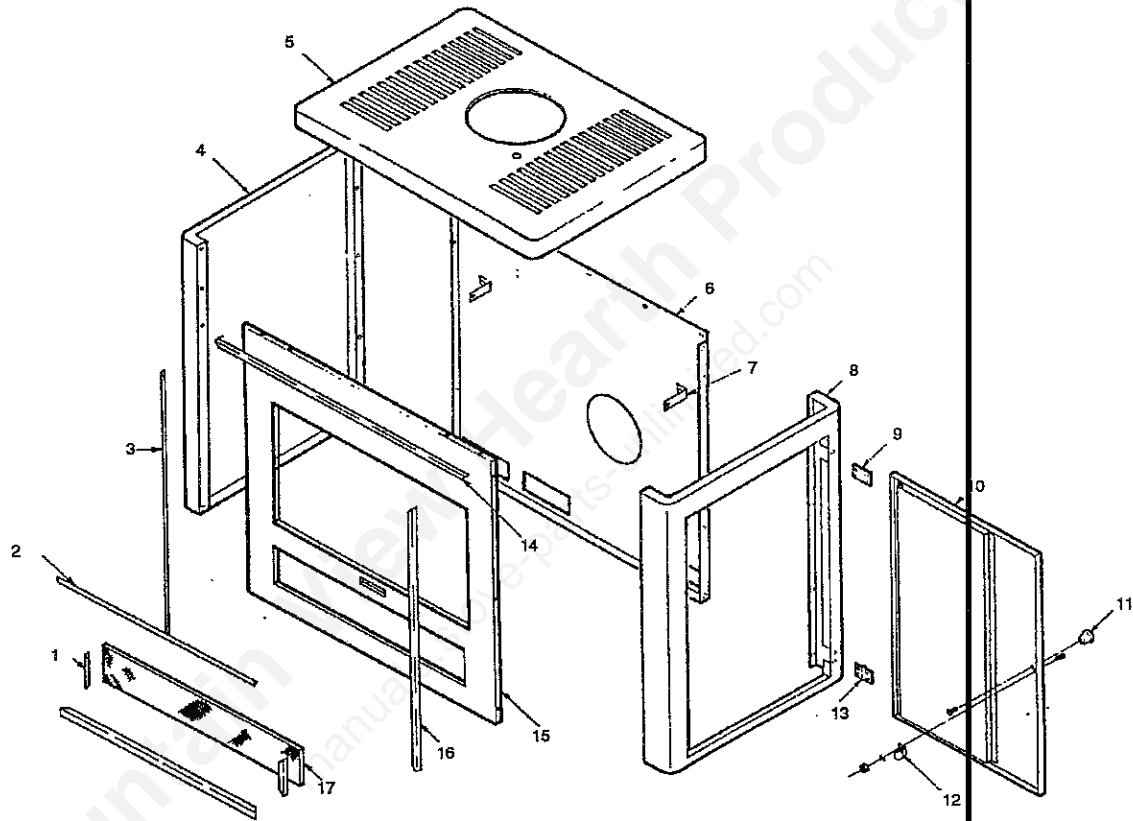
**FIG. 13**



**FIG. 14**

# repair parts

SEARS CATALYTIC CIRCULATOR HEATER  
MODEL NO. - 143.8417



# repair parts

SEARS CATALYTIC CIRCULATOR HEATER  
MODEL NO. – 143.8417

Key No.	Description	Qty.	Part Number
1	Right / Left Mesh Trim	2	89411
2	Top / Bottom Mesh Trim	2	89410
3	Left Cabinet Front Trim	1	89413
4	Cabinet Left End Panel	1	68439
5	Cabinet Top Panel	1	68213
6	Cabinet Back Panel	1	68060
7	Back Brace	2	21063
8	Cabinet Right End Panel	1	67968
9	Cabinet Door Hinge	1	89065
10	Cabinet Door	1	67969
11	Cabinet Door Knob	1	89062
12	Spring Latch	1	83093
13	Cabinet Door Knob	1	89065
14	Top Cabinet Front Trim	1	89414
15	Cabinet Front Panel	1	68446
16	Right Cabinet Front Trim	1	89412
17	Mesh Insert	1	68447



# repair parts

SEARS CATALYTIC CIRCULATOR HEATER  
 MODEL NO. -- 143.8417

Key No.	Description	Qty.	Part Number
1	Firebox	1	68187
2	Flue Collar	1	40246
3	Flue Collar Gasket	1	88032
4	Smoke Curtain	1	22090
5	Door Pin	2	83114
6	Feed Door	1	40186
7	3/8" Rope Gasket	44"	88033
8	Door Handle	1	40091
9	Wood Handle	1	67567
10	3/8" Rope Gasket	29"	88033
11	Ash Door	1	40187
12	Comubstor Gasket	1	88058
13	Catalytic Combustor	1	89355
14	Air Mixer Box	1	68211
15	Air Mixer Box Screen	1	22607
16	Spacer	2	83861
17	Brick Retainer, Rear	1	17350
18	Front Liner	1	22247
19	Grate Retainer	2	66080
20	Fire Grate	2	40076
21	Base	1	67859
22	Bypass door Handle	1	40253
23	Spring Handle	1	89415
24	Ash Pan	1	67444
25	Draft Slide	1	22842
26	Draft Slide	1	22844
27	Brass Knob	1	89336
28	Glass Frame	1	68452
29	Right / Left Glass Trim	2	89382
30	Top / Bottom Glass Trim	2	89381
31	Log Retainer	1	67796
32	Glass Panel	1	89409
33	Firebox	1	68454
*	Gasket, Glass	66"	88047

\* Not Shown

## 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 heater. Possible causes are:

1. The connector pipe may be pushed into the chimney too far, stopping the draft (Fig 8).
2. Do not connect two heaters into the same chimney flue.
3. The chimney used for a heater must not be used to ventilate the cellar or basement. If there is a cleanout opening at the base of the chimney, it must be closed tightly.
4. If the chimney is too cool, water will condense in the chimney and run back into the stove. Creosote formation will be rapid and may block the chimney. Operate the heater at a high enough fire to keep the chimney warm preventing this condensation.
5. 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 a 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 3 feet above the roof and be at least 2 feet higher than any point of the roof within 10 feet (Fig. 6)

### NOTE:

A draft reading of .05 to .06 W.C. is suggested for proper burning of this unit.

## chimney maintenance

### Creosote – Formation and Need for Removal

Even though reduction of creosote formation is one of the primary advantages of a catalytic combustor equipped heater, some creosote forming gases will escape unburned during normal operation. In the event the combustor ceases to function, creosote can be expected to accumulate. Consequently, flues and chimneys should be inspected regularly (every two to three months of operation) and any creosote build up removed. Failure to do this could result in a chimney fire.

Creosote may be removed by using a chimney brush or other commonly available materials.

Chimney fires burn very hot. If the chimney connector should glow red, immediately call the fire department, then reduce the fire by closing the inlet air control.

### 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.

**Sears**

**owners  
manual**

**MODEL NUMBER**

**143.8417**

**WARNOCK / HERSEY**

**CAUTION:**

**Read All Instructions  
Carefully Before Start-  
ing the Installation or  
Operating the Heater.**

**DO NOT USE THIS  
HEATER IN MOBILE  
HOMES OR TRAILERS**

**SAVE THIS MANUAL  
FOR  
FUTURE REFERENCE**

**CATALYTIC  
CIRCULATOR  
HEATER**

Now that you have purchased your Catalytic Circulator Heater should a need ever exist for repair parts of service, simply contact any Sears Service Center. Be sure to provide all pertinent facts when you call or visit.

The Model Number will be found on a plate mounted on the back of the heater. Always mention the Model Number when requesting service or repair parts for your Heater.

**WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THIS  
FOLLOWING INFORMATION AS SHOWN IN THIS LIST.**

1. The PART NUMBER
2. The PART DESCRIPTION
3. The MODEL NUMBER: 143.8417
4. The NAME OF ITEM:

**Catalytic Circulator Heater**

If the part you need is not stocked locally, your order will be transmitted to a Sears Repair Parts Distribution Center for quick handling.

When Sears arranges the installation, you can be sure the job is done right. We will arrange for professional workmanship . . . and we'll take care of the entire project. What's more, during installation you get insured protection . . . against property damage and also against accidents to workmen. All you have to do is talk to your Sears salesperson or call your nearest Sears store today for detailed information.

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