

# Sears

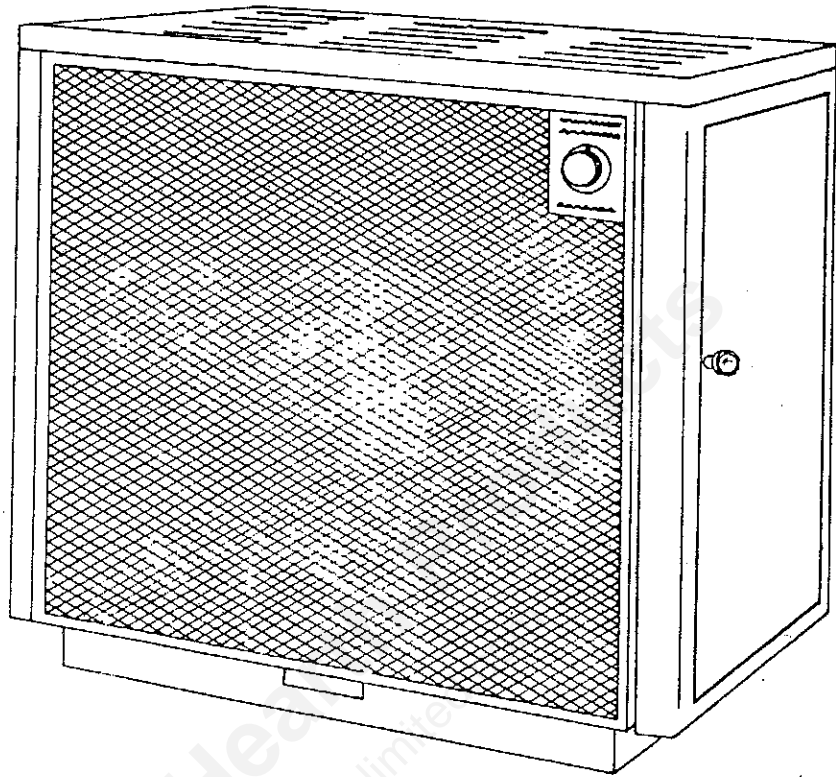
## owners manual

MODEL NUMBER  
143.84065

**CAUTION:**  
Read All Instructions  
Carefully Before Start-  
ing The Installation.

Do Not Use This  
Heater in Mobile  
Homes or Trailers

Save This Manual For  
Future Reference.



# **AUTOMATIC WOOD BURNING CIRCULATOR**

- Installation
- Operation
- Repair Parts

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

PRINTED IN U.S.A.

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# introduction

Please take a few minutes to read our instructions before you install and use your new Wood Burning Circulator heater. This will help you obtain the full benefits from your heater. This will also help you avoid any needless service costs that result from causes we cannot control.

If you want your heater professionally installed, contact your SEARS SALESMAN. HE 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, workmanlike 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 GUARANTEE

In addition to any warranty extended to you on SEARS merchandise involved, which warranty becomes effective the date the merchandise is installed, SEARS guarantees all SEARS-arranged installations, as follows: Should the workmanship prove faulty within one year, SEARS will, upon notice from you, cause such faults to be corrected at no additional cost to you.

# rules for safe installation and operation

1. Read these rules and the instructions carefully. Failure to follow them could cause malfunction of the heater. This could result in death, serious bodily injury, and/or property damage.
2. Check your local codes. The installation must comply with their rulings.
3. Do not install this heater in a mobile home or trailer.
4. Always connect this heater to a chimney and vent to the outside. Never vent to another room or inside a building.
5. 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 Class "A" masonry or All-Fuel pre-fabricated chimney. Pre-fabricated chimneys must be listed by Underwriters Laboratories (UL) Inc. The inside diameter must be at least 6 inches.
6. Make sure the chimney is high enough to give a good draft. Keep the chimney and pipe clean inside to avoid blockage. Otherwise smoking will result.
7. Provide air for combustion from the outside into the room where the heater is located. If the intake is not in the same room, the air must have free access to the room.
8. Keep the ashpit section free of excess ashes. Failure to do so will cause grate warpage and burn out.
9. CAST IRON PARTS MUST BE "SEASONED" TO AVOID CRACKING. BUILD ONLY SMALL FIRES DURING YOUR EARLY USE. Never build extremely large fires in your heater.
10. To prevent injury do not allow anyone who is unfamiliar with the operation to use the heater.

**CAUTION:** Do not touch the heater until it has cooled.

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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)

### MATERIALS

6" Vent Pipe, 6" Elbow, Collar, Thimble; as Required  
1/2" Sheet Metal Screws

# 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 any other appliance to the same flue.

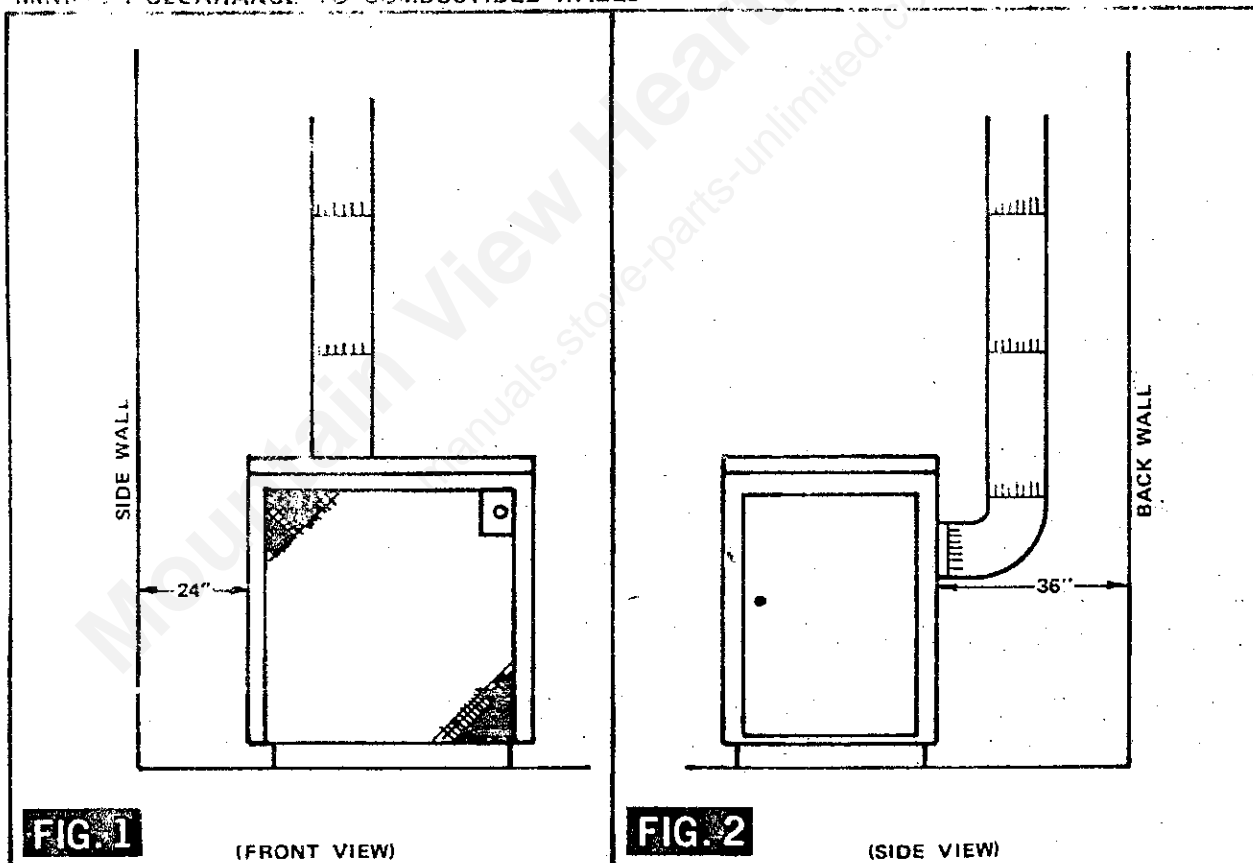
If there is no chimney near where you wish to place the heater, you can use a UL Listed E" Type "A" Prefabricated All-Iron Chimney. (Fig. 4) See your Sears Salesman.

2 The heater may be placed on a combustible floor, provided you use a piece of 3/8" mill board or a "stove board" of not less than 24 gauge sheet metal that extends 18 inches beyond the side of the heater where ashes are removed.

If you wish you can place the heater on a fireproof base of concrete patio block. They are available at your local building supply dealer.

3 Check Figs. 1 and 2. You should have at least the clearances shown from the heater and the vent pipe to combustible surfaces.

## MINIMUM CLEARANCE TO COMBUSTIBLE WALLS



# installation

Look at Fig. 3. The vent pipe and fittings you will need to connect to a masonry chimney or a 6" ALL-FUEL CHIMNEY on the outside wall are shown.

If your ALL-FUEL CHIMNEY starts at the ceiling (Fig. 4) you will need a 6" elbow, and enough 6" pipe to reach the ceiling.

Connect the heater to the chimney. The crimped end of the vent pipe fits inside the heater flue collar. Additional pipe and elbow should be installed CRIMPED END TOWARD THE HEATER. This will allow any condensation in the flue to run back into the heater.

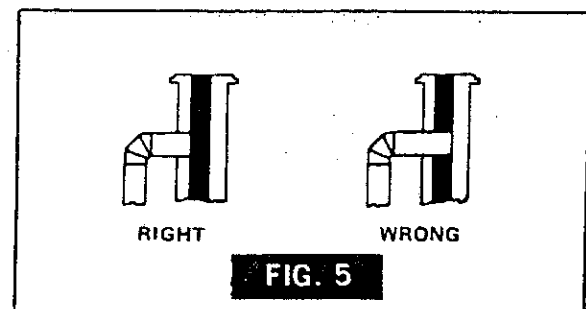
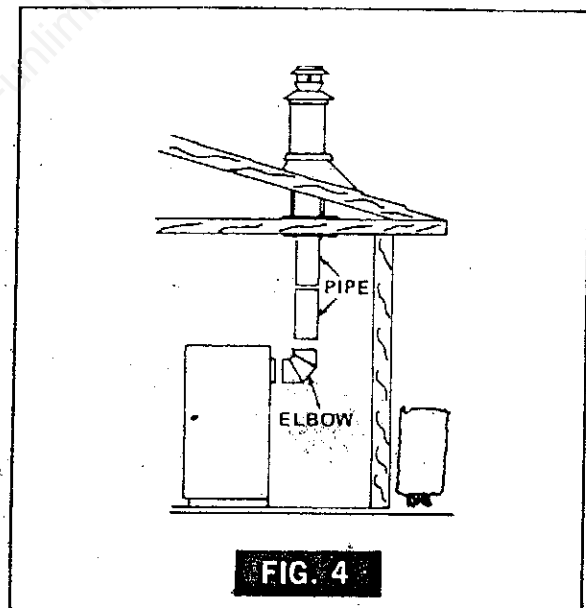
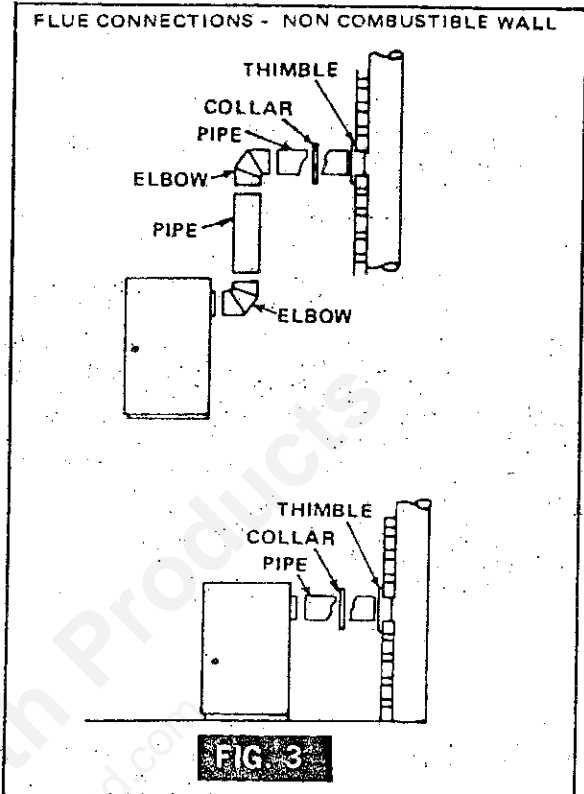
These rules apply to the vent pipe installation.

1. Avoid using more than 2 elbows.
2. Any horizontal pipe should be pitched upward toward the chimney at least 1/4 inch for each foot of horizontal run.
3. Be sure that you have at least 18 inches of clearance between the horizontal piping and the ceiling.
4. Be sure the pipe does not extend into the chimney flue (Fig. 5).

For better performance seal each vent pipe joint with furnace cement. Also seal the pipe at the chimney. Finally use 3 sheet metal screws at each joint to make the piping rigid.

## NOTE: BEFORE FIRING HEATER

1. Remove plastic knob from inside of main door and install on outside.
2. Slide firebricks toward the rear so no gaps remain between them.



# operation

1. Set thermostat on High to provide maximum draft.
2. Open feed door and lay the fire. Use ample kindling to insure a quick start.
3. Light fire and close feed door.
4. Open ash door if more rapid start is desired.
5. Close ash door after fire is burning briskly.

## CAUTION

DO NOT OPERATE THIS HEATER CONTINUOUSLY WITH ASH DOOR OPEN. THIS HEATER IS DESIGNED FOR THERMOSTATIC OPERATION. CONTINUOUS OPERATION WITH THE ASH DOOR OPEN WILL OVERHEAT UNIT.

6. Set thermostat to maintain desired temperature in room. Medium setting is normally satisfactory. Set higher or lower for maximum comfort.

Hardwood cut to 24" maximum length and split 3" to 6" cross section is recommended for best operation efficiency.

## NOTE

NOT FOR COAL BURNING. THIS HEATER IS DESIGNED FOR BURNING WOOD OR WOOD-LIKE MATERIALS ONLY. FUELING WITH COAL OR CHARCOAL WILL DESTROY THE GRATES OR FIRE BOX.

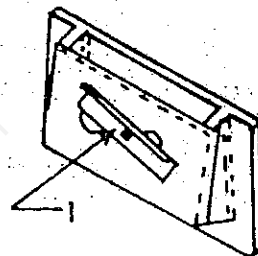
## MINIMUM FIRE

When wood is burned very slowly for a long time, tars and distillates are formed. They are deposited on the inside of the vent pipe. These tars may ignite and burn.

The tar forming can be reduced. Adjust the "minimum fire" air shutter on the draft control. To reduce the tars, turn air shutter (No. 1) so that a larger opening is exposed.

NOTE: Increase the minimum fire only as needed. Increasing the minimum fire may cause over heating on warm days.

FIG 6



# adjusting

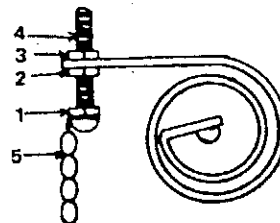
The thermostat control was calibrated at the factory. The location of the heater may require a change in Calibration.

1. Operate heater as received. Follow the operating Instructions.
2. If the room temperature is not satisfactory, the thermostat operating range may be changed as follows:
  - A. To increase the amount of heat at a high setting, adjust the chain suspension bolt to increase the draft damper opening.
    - 1) Loosen lock nut (No. 2, Fig. 7) on under side of bi-metal approximately 1/4".
    - 2) Tighten lock nut (No. 3) on top of bi-metal to raise the adjusting bolt.
  - B. To decrease the amount of heat at low setting:
    - 1) Check fire and ash doors to be sure that they are closed tightly.
    - 2) Check the vent pipe to see that it is sealed in the flue collar.

3. If no air leaks are found, adjust the chain suspension bolt to decrease draft damper opening.
  - a) Loosen lock nut (No. 3, Fig. 7) on top of bi-metal approximately 1/4".
  - b) Tighten lock nut (No. 2) under bi-metal to lower the suspension bolt.

MORE THAN ONE RECALIBRATION MAY BE NECESSARY

FIG 7 RECALIBRATING THERMOSTAT

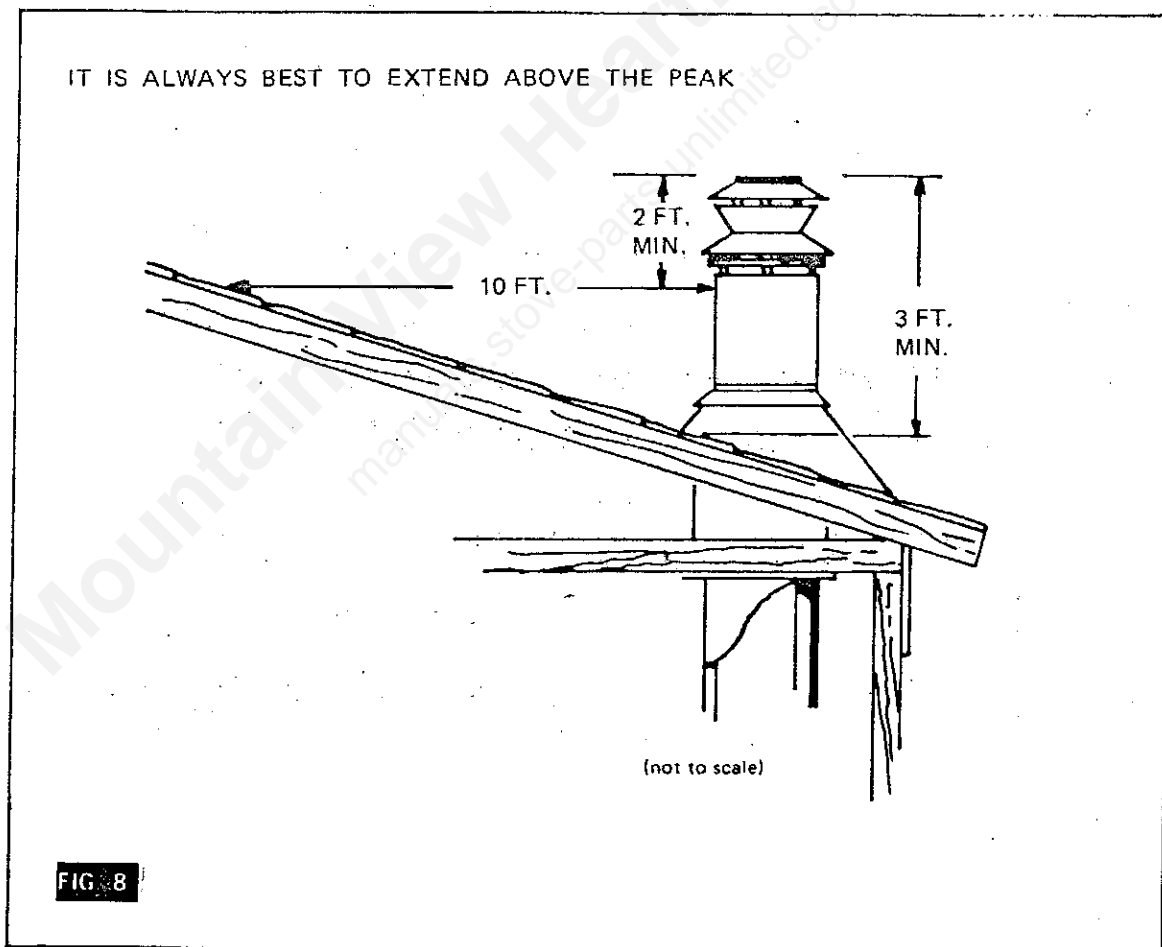


# service hints

1. Do not expect a heater to draw. It is the chimney that creates the draft.
2. The vent pipe may be pushed into the chimney too far, stopping the draft.
3. Do not connect two heaters into the same chimney flue. If it cannot be avoided, be sure that one pipe is higher than the other so that the two openings will not be opposite each other.
4. 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.
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. 8).

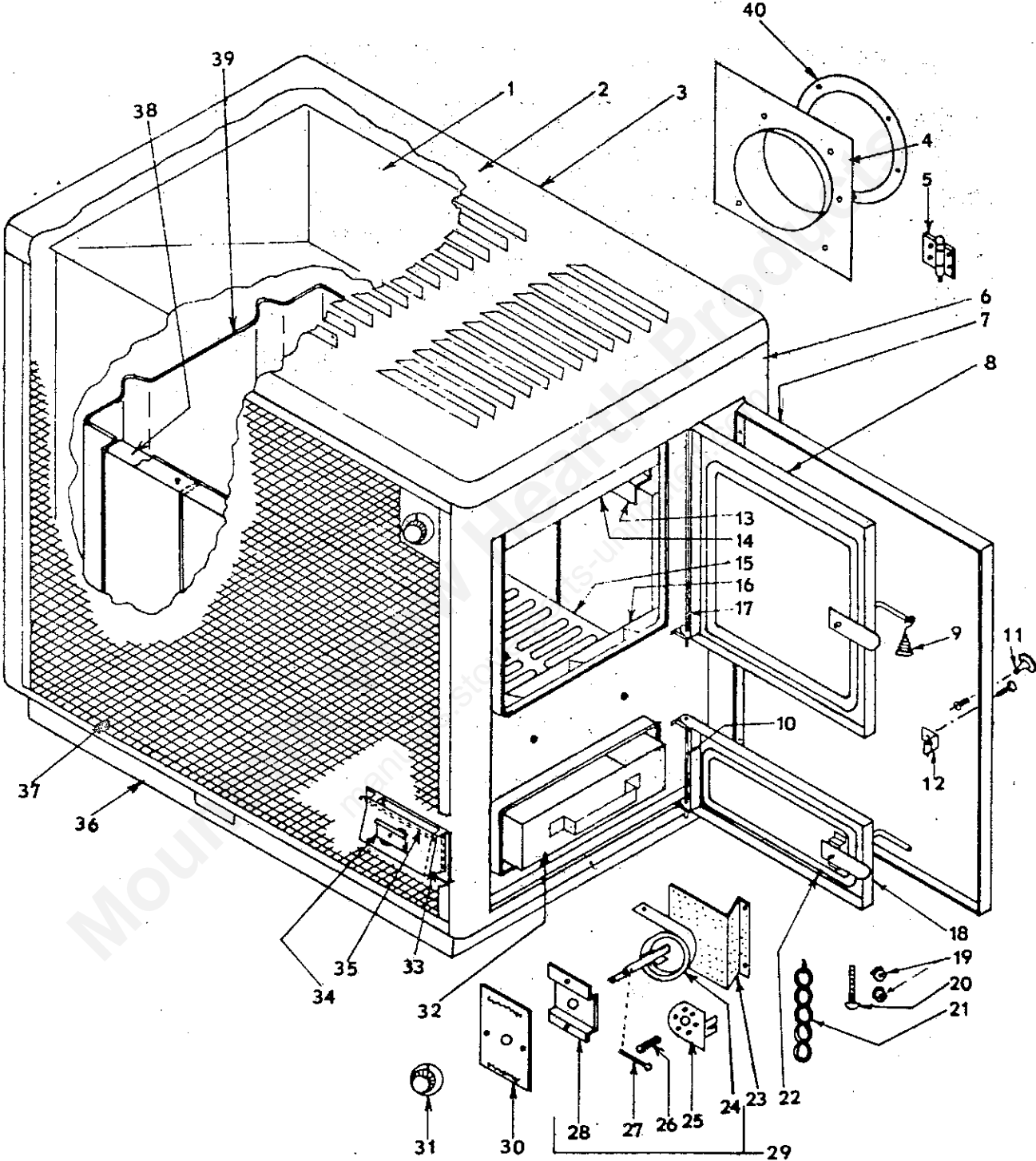
## CARING FOR ENAMELED PARTS

This heater has enameled outside jacket. Enamel baked onto the steel or iron and is very serviceable, but it will not stand rough handling or abuse. When setting up 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 glass like finish.



# repair parts

SEARS AUTOMATIC WOODBURNING CIRCULATOR  
MODEL NUMBER 143.84065



# repair parts

## SEARS AUTOMATIC WOODBURNING CIRCULATOR MODEL NUMBER 143.84065

Key No.	Part No.	Description
1	67169	Heat Jacket
2	65930	Cabinet Top
3	66440	Cabinet Back
4	66960	Flue Collar
5	89065	Door Hinge (2 req.)
6	67194	Cabinet Right End
7	21118	Cabinet Door
8	67950	Feed Door
9	89001	Coil Wire Handle
10	20960	Door Pin 6"
11	89062	Door Knob
12	83093	Stove Spring
13	17350	Brick Top Clamp
14	00800	Smoke Curtain
15	86086	Grate (Cast) (2 req.)
16	17120	Metal Liner Front
17	20950	Door Pin 13-5/8"
18	67960	Ash Pit Door
19	83081	* Nut Hex. No. 6-32
20	83080	* Screw Round Head No. 6-32- 1 1/2
21	89064	Chain
22	88033	Ceramic Glass Rope (73" for both doors)
23	17060	Thermostat Shield
24	67134	Thermostat Coil & Shaft
25	18640	Lock Plate
26	89041	Spring
27	84016	Cotter Key
28	17230	Thermostat Bracket
29	67187	Thermostat Ass'y
30	85079	Thermostat Dial Indicator
31	89063	Thermostat Knob
32	65980	Ash Pan
33	21039	Draft Manifold
34	67132	Draft Damper
35	17200	Draft Damper Pin
36	65960	Base
37	65950	Front Frame Ass'y
38	89066	Fire Brick (10 req.)
39	17130	Metal Liner Back
+	66000	Cabinet Left Side
+	66080	Grate Support
+	17260	Back Brace
+	17210	Smoke Curtain Hinge Pin
40	88032	Flue Collar Gasket
+	85145	Owners Manual
+	67266	Base Bottom

+ Not Illustrated

\* Standard Hardware Item—May be purchased locally

**Sears**

**owners  
manual**

**MODEL NUMBER**

**143.84065**

**HOW TO ORDER  
REPAIR PARTS**

**SEARS SERVICE  
IS AT YOUR SERVICE  
WHEREVER YOU LIVE  
OR MOVE IN THE U.S.A.**

# **AUTOMATIC WOOD BURNING CIRCULATOR**

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.

All parts listed herein may be ordered through any SEARS, ROEBUCK AND CO., retail or catalog store.

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

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

Your Sears merchandise takes on added value when you discover that Sears has over 2,000 Service Units throughout the country. Each is staffed by Sears-trained, professional technicians using Sears approved parts and methods.

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

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