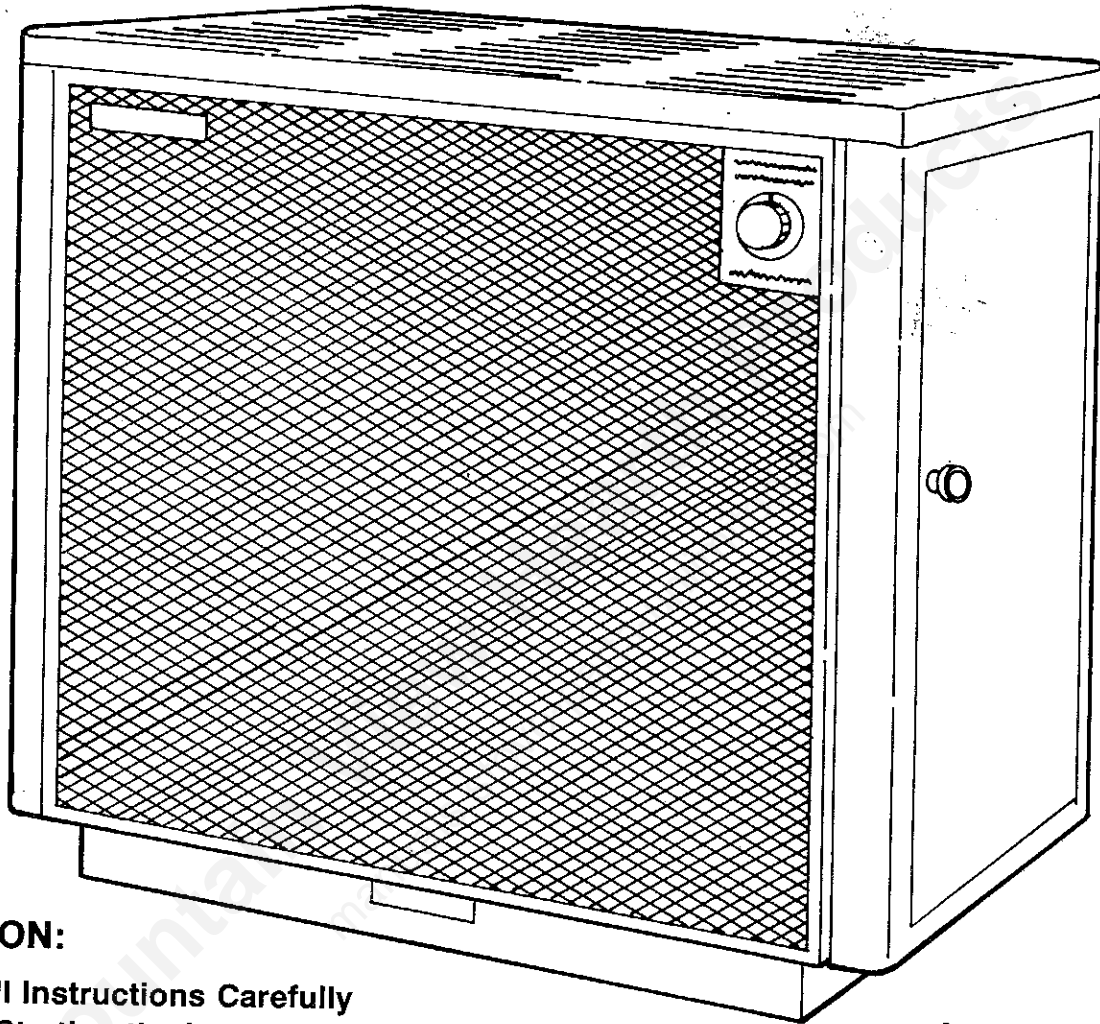


owners manual

# Wonder Wood

## AUTOMATIC WOOD BURNING CIRCULATOR



**CAUTION:**

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

- Assembly
- Installation
- Operation
- Repair Parts

### Model 2651

Save This Manual  
For Future Reference.



UNDERWRITERS  
LABORATORIES  
INC.®  
LISTED

DO NOT USE THIS HEATER  
IN A MOBILE HOME OR TRAILER



**UNITED STATES STOVE COMPANY**

South Pittsburg, TN, 37380  
Home heating equipment made in America since 1869

FORM 85239 8/78

# CONGRATULATIONS!

You've purchased one of America's Finest Woodburning Heaters.

By heating with wood you're helping CONSERVE AMERICA'S ENERGY!

Wood is our Renewable Energy Resource. Please do your part to preserve our wood supply.

Plant at least one tree each year. Future generations will thank you.

# rules for safe installation and operation

1. Read these rules and the 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.
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. Make sure the chimney is high enough to give a good draft.
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. The inside diameter must be at least 6 inches.
6. The chimney connector and chimney must be checked at least once each heating season. Any accumulation of soot or creosote must be removed before the heater is used. Failure to keep soot and creosote removed will cause smoking and chimney fires.
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.
11. For further information on using your heater safely, obtain a copy of the National Fire Protection Association publication "Using Coal and Wood Stoves Safely" NFPA No. HS-8-1974. The address of the NFPA is 470 Atlantic Avenue, Boston, MA 02210.
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 floor or on the ground, well away from all combustible 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.

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

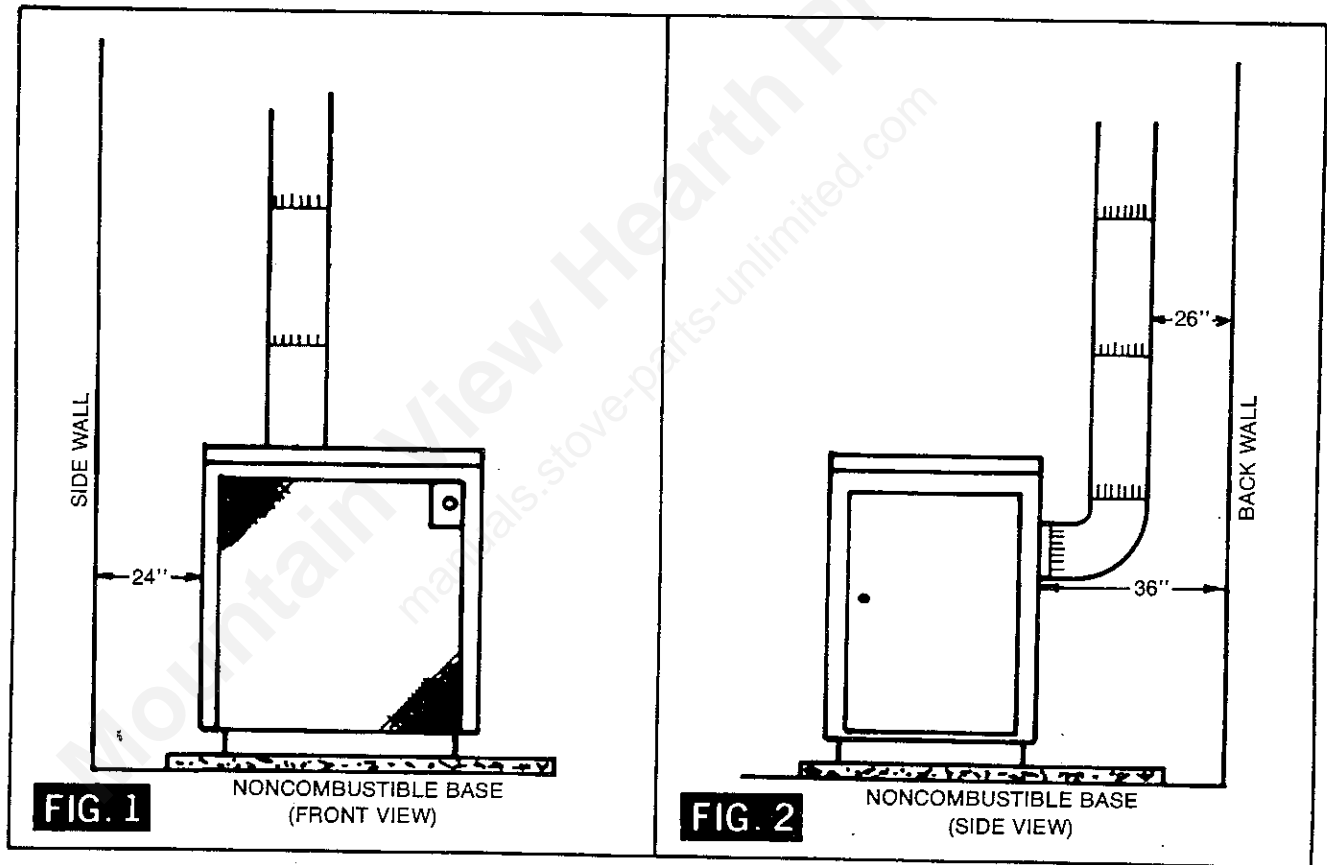
6" Pipe, 6" Elbow, Collar, Thimble; as required  
1/2" Sheet metal screws  
6" Inside diameter Class "A" All-Fuel  
factory built chimney or existing masonry chimney.  
Noncombustible base material, 3 ft. x 5 ft.

# 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 Listed 6" Type "A" Pre-fabricated All-Fuel Chimney (Fig 4).
2. Place the heater on a base of brick, patio stone or other noncombustible material. The base should extend at least 18" beyond the door side of the heater and should extend under the connector pipe in the back.
3. Check Figures 1 and 2. You should have at least 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



### NOTE: BEFORE FIRING HEATER

Remove plastic knob from inside of main door and install on outside.

# chimney connection

## MASONRY CHIMNEY

Look at Figure 3. The connector pipe and fittings you will need to connect to a masonry chimney are shown.

Do not connect two heaters into the same chimney flue.

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.

## ALL-FUEL CHIMNEY

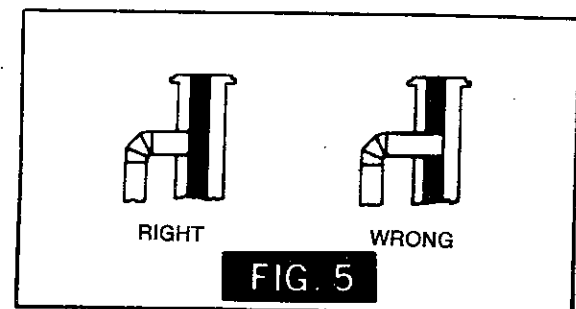
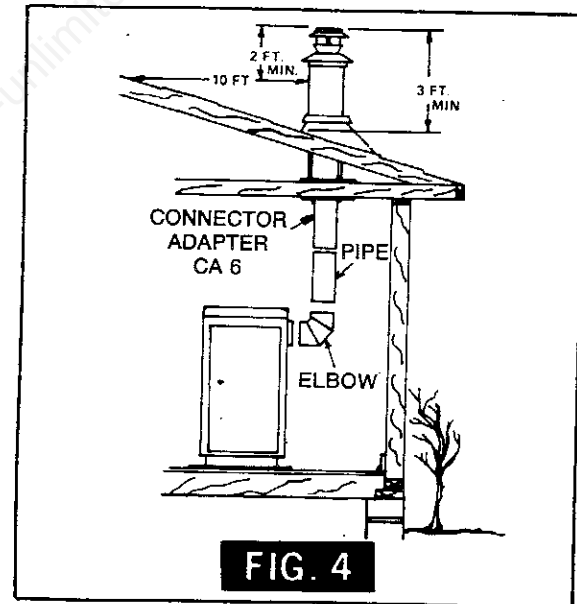
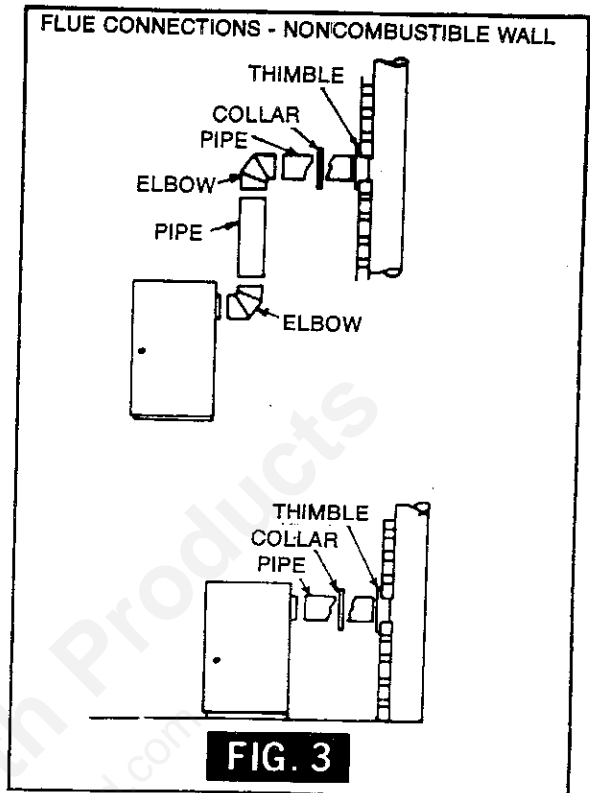
Carefully follow chimney manufacturer's instructions. Use only TYPE "A" ALL-FUEL CHIMNEY.

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

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 (Figure 4).

## RULES FOR STOVEPIPE INSTALLATION

1. The crimped end of the stovepipe 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.
2. Any horizontal pipe should be pitched upward toward the chimney at least  $\frac{1}{4}$  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 (Figure 5).
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 the stovepipe.



# operation

1. Set the 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. Set thermostat to maintain desired temperature in room. "MEDIUM" setting is normally satisfactory. Set higher or lower for maximum comfort.
5. Do not add wood above the firebrick.

## CAUTION

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

## FUEL

USE HARDWOOD - 20" TO 24" LONG  
Split wood and air dry (season) for 6 months.

USE WOOD OR WOOD-LIKE  
MATERIALS ONLY  
Do Not Use Coal - Coal or Charcoal  
will destroy the Grates or Fire Box

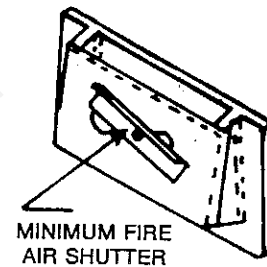
## MINIMUM FIRE

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 so that a larger opening is exposed.

NOTE: Increase the minimum fire only as needed. Increasing the minimum fire may cause overheating at "LOW" thermostat setting.

FIG. 6



# adjusting the thermostat

The thermostat control was calibrated at the factory. The operation of the heater may require a change in calibration. Calibration adjustments should be made at room temperature.

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 wire linkage to increase the draft damper opening.

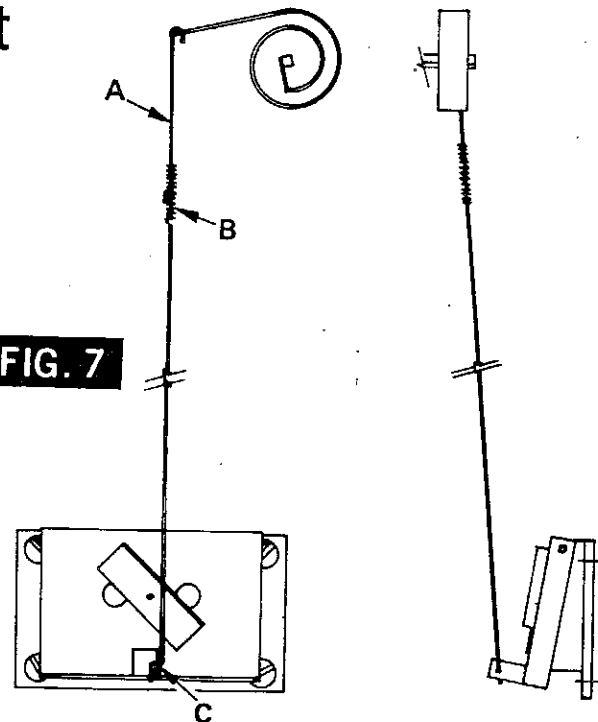
1. Unhook linkage wire at Point "C".
2. Take Point "A" in left hand and "B" in right hand, then turn "B" clockwise approximately 3 turns.
3. Then hook linkage wire back to draft control damper door at Point "C".

B. To decrease the amount of heat at "LOW" setting:

1. Check feed 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 and at all joints.
3. If no air leaks are found, adjust linkage as in (A) except turn "B" counter clockwise approximately 3 turns.

More than one recalibration may be necessary to achieve proper calibration.

FIG. 7



NOTE: At room temperature (72°) and "LOW" setting, the draft damper door should be closed.

# service hints

Do not expect a heater to draw. It is the chimney that creates the draft. If there is not enough draft, check these points:

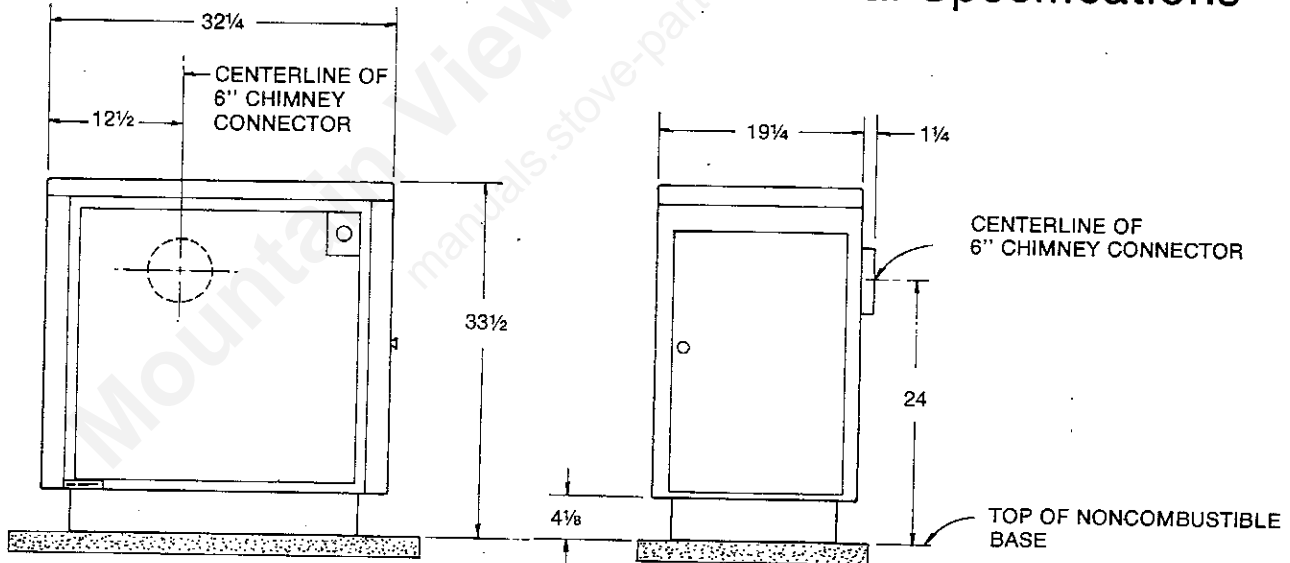
1. The connector pipe may be pushed into the chimney too far, stopping the draft (Fig 5).
2. Do not connect two heaters into the same chimney flue. If it cannot be avoided, be sure that one pipe is higher than the other so that the two openings will not be opposite each other. (Never connect two appliances using different fuels to 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 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. 4).

## CARING FOR ENAMELED PARTS

This heater has an enameled outside jacket. Enamel baked onto the steel or iron 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 finish.

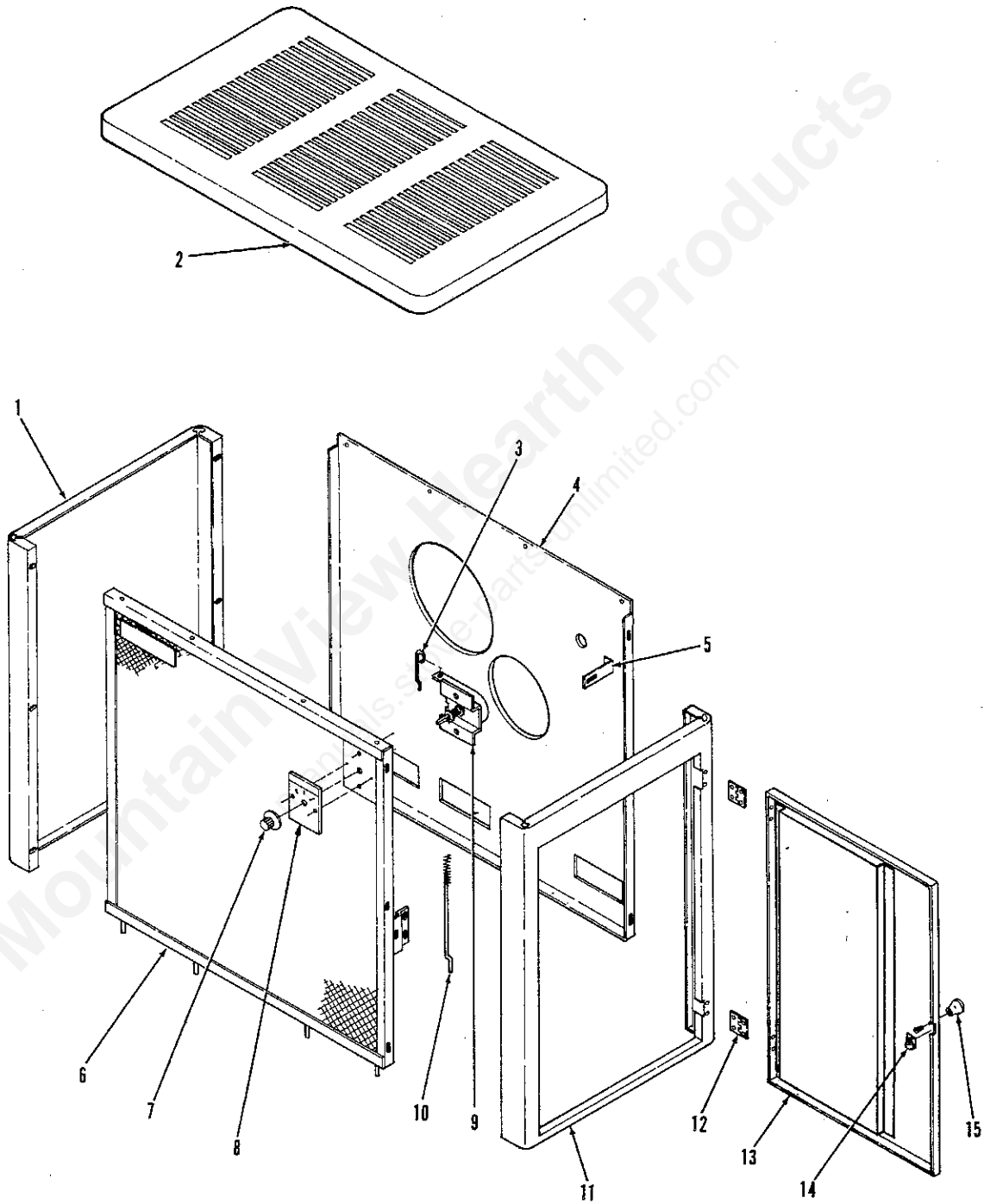
## Automatic Circulator Dimensional Specifications



# repair parts



AUTOMATIC WOODBURNING CIRCULATOR  
MODEL NUMBER 2651



# repair parts



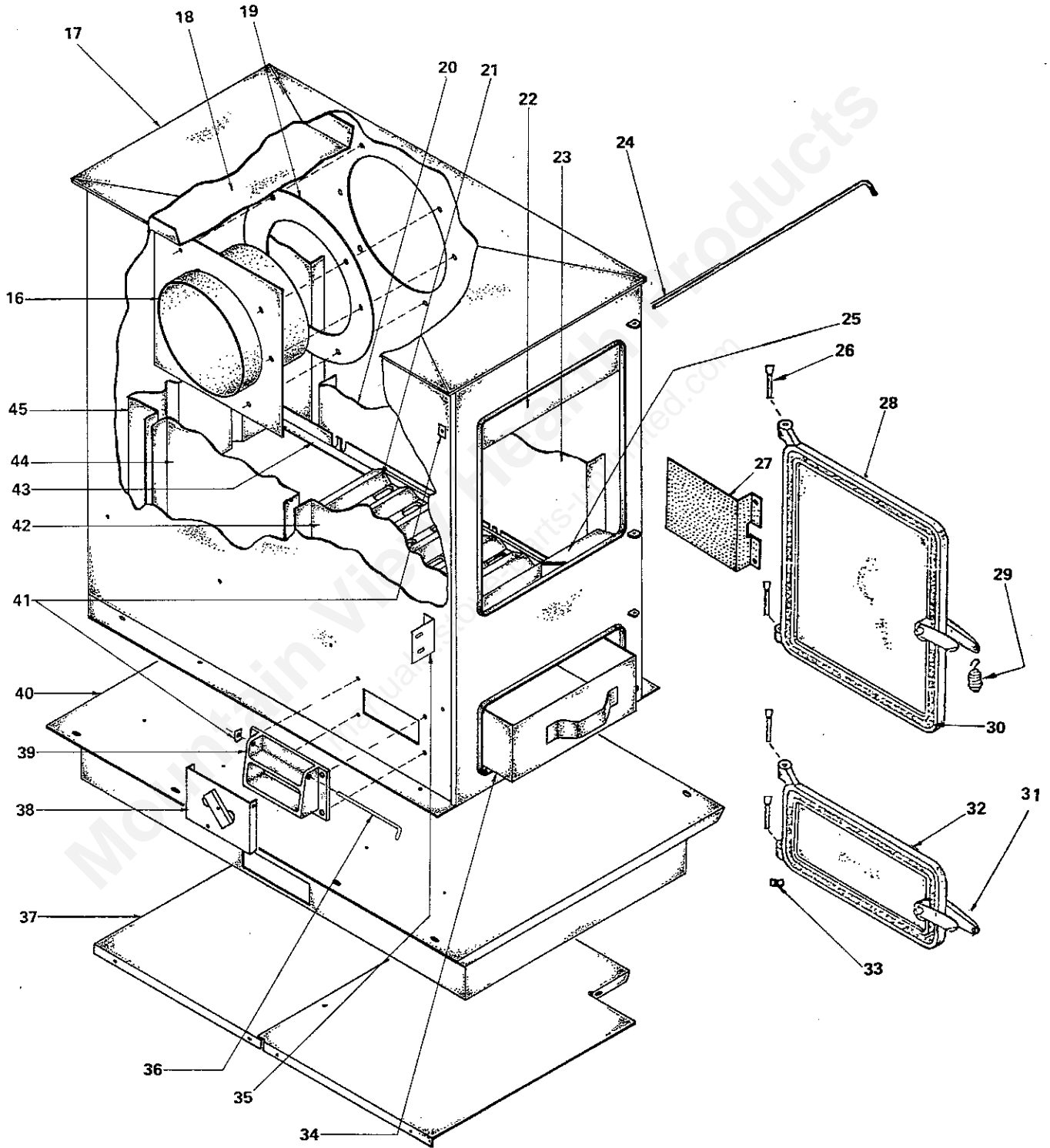
**AUTOMATIC WOODBURNING CIRCULATOR  
MODEL NUMBER 2651**

Key No.	Part No.	Description
1	66000	Cabinet Left Side
2	65930	Cabinet Top
3	86192	Thermostat Linkage
4	66440	Cabinet Back
5	21063	Back Brace
6	67445	Cabinet Front
7	89142	Thermostat Knob
8	85204	Thermostat Dial Indicator
9	67187	Thermostat Assembly
10	86191	Thermostat Linkage Adjuster
11	67194	Cabinet Door Frame
12	89065	Door Hinge (2 required)
13	67243	Cabinet Door
14	83093	Stove Spring Latch
15	89062	Door Knob

# repair parts



## AUTOMATIC WOODBURNING CIRCULATOR MODEL NUMBER 2651



# repair parts



**AUTOMATIC WOODBURNING CIRCULATOR  
MODEL NUMBER 2651**

Key No.	Part No.	Description
16	66960	Flue Collar
17	67169	Heat Jacket Asm.
18	21542	Top Liner
19	88032	Flue Collar Gasket
20	21541	Liner Right Rear
21	40055	Fire Grate (2 required)
22	21591	Smoke Curtain
23	21543	Liner Right Front
24	17210	Hinge Pin (Smoke Curtain)
25	17120	Front Line (22247)
26	21430	Hinge Pin (4 required)
27	17060	Thermostat Baffle
28	67367	Feed Door Asm.
29	89001	Handle (Wire Coil)
30	88042	Rope Gasket (73 inches)
31	LK-26	Latch Kit
32	67368	Ash Door Asm.
33	83819	Spring Clip (4 required)
34	67444	Ash Pan
35	17270	Front Brace
36	17200	Hinge Pin (Draft Damper)
37	67266	Floor Shield Kit
38	67132	Draft Control Damper
39	40075	Draft Damper Frame
40	65960	Base Asm.
41	83830	Spring Clip (2 required)
42	21544	Liner Left Front
43	66080	Grate & Liner Support
44	21540	Liner Left Rear
45	21539	Liner Back
*	85239	Owners Manual

# 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 151  
South Pittsburg, TN 37380