

Sears

owners manual

MODEL NUMBER

143.841540

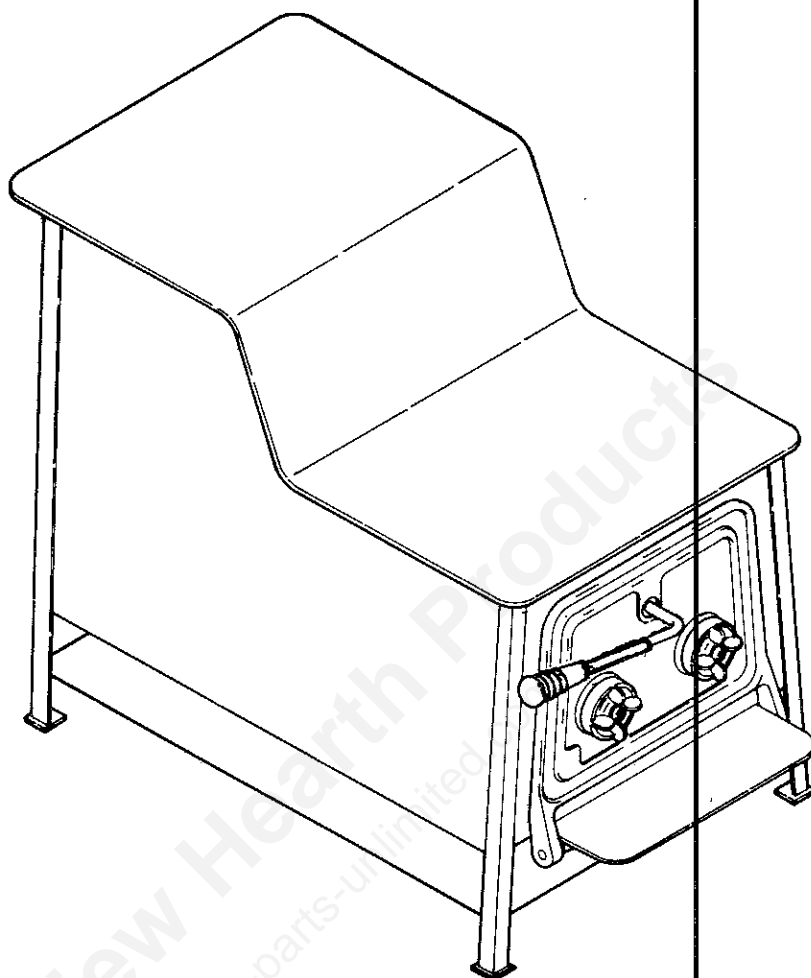
143.841550

CAUTION:

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

Do Not Use This
Heater in Mobile
Homes or Trailers

Save This Manual
For Future Reference



AIR-TIGHT WOOD BURNING ROOM HEATER

- Assembly
- Installation
- Operation
- Repair Parts

introduction!

Please 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, 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.

Tools and Materials Needed

TOOLS

Pencil
6 Foot Folding Rule or Tape
Tin Snips
Drill, Hand or Electric
Drill Bit (For Sheet Metal
Screws)

MODEL 143.841540

6" Pipe, 6" Elbow, Collar, and Thimble;
as required (24 Gauge min.)
1/2" Sheet metal screws
6" Inside diameter Underwriters
Laboratories (UL) Listed Residential
Solid Fuel Factory-Built Chimney
or existing masonry chimney.
Floor Protector Material 2'-6" x 5'-0"
as specified on page 4.

MATERIALS

MODEL 143.841550

8" Pipe, 8" Elbow, Collar, and Thimble;
as required (24 Gauge min.)
1/2" Sheet metal screws
8" Inside diameter Underwriters
Laboratories (UL) Listed Residential
Solid Fuel Factory-Built Chimney
or existing masonry chimney.
Floor Protector Material 3'-0" x 5'-6"
as specified on page 4.

rules for safe installation and operation

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.

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. Make sure the chimney is high enough to give a good draft.
 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 Solid Fuel Factory-Built Chimney.
 5. Inspect chimney connector and chimney before and frequently during the heating season for any accumulation of creosote or soot which must be removed (see CHIMNEY MAINTENANCE, page 7).
 6. 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.
 7. Keep the ashpit section free of excess ashes.
 8. **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.
 9. To prevent injury, do not allow anyone who is unfamiliar with the operation to use the heater.
 10. For further information on using your heater safely, obtain a copy of the National Fire Protection Association (NFPA) publication "Using Coal and Wood Stoves Safely" NFPA No. HS-10-1978. The address of the (NFPA) is 470 Atlantic Avenue, Boston, MA 02210.
 11. **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 combustable 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.
- NOTE: This heater is provided with a removable slide out ash pan for heater clean out and transporting of ashes to another location to cool or to be disposed.

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

heater dimensional specifications

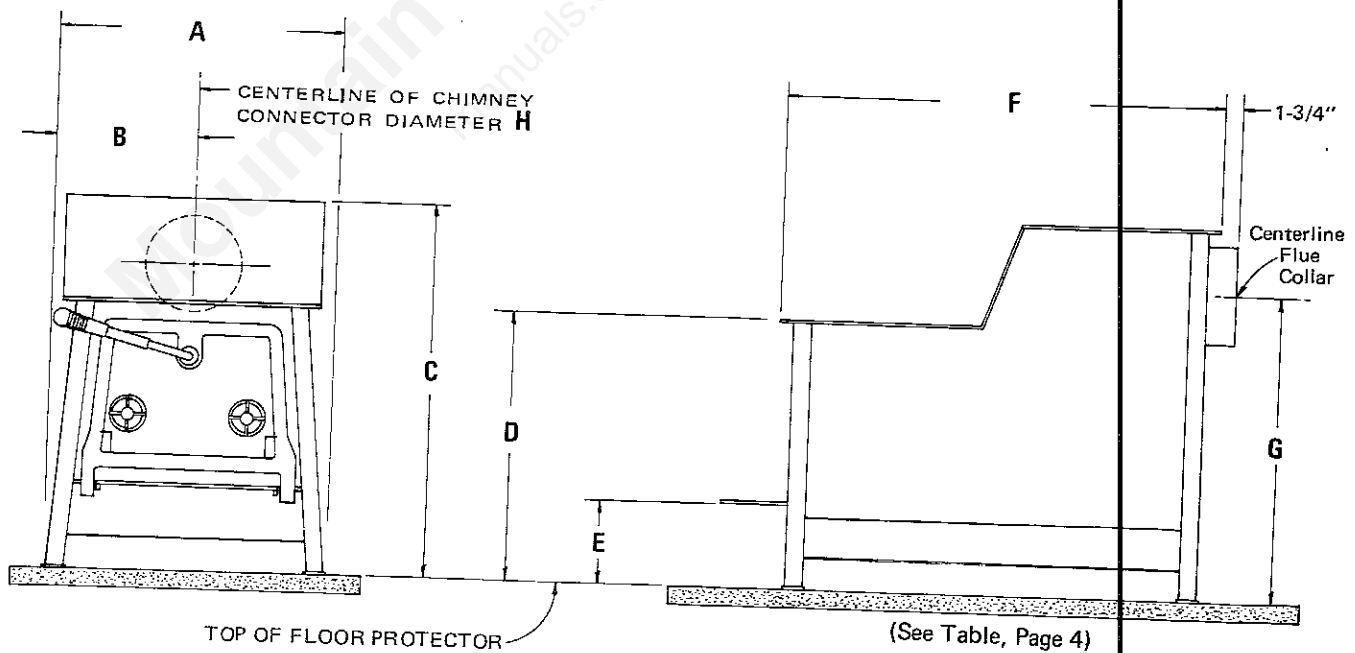


FIG. 1

Table for Fig. 1

Letter	Model Number 143.841540	Model Number 143.841550
A	19"	24"
B	9½"	12"
C	31½"	33½"
D	23"	25"
E	7½"	9½"
F	31½"	36"
G	27⅛"	28⅛"
H	6"	8"

Table for Fig. 2 and Fig. 3

	143.841540	143.841550
A	36"	42"
B	25"	23"
C	36"	36"

Table for Fig. 4

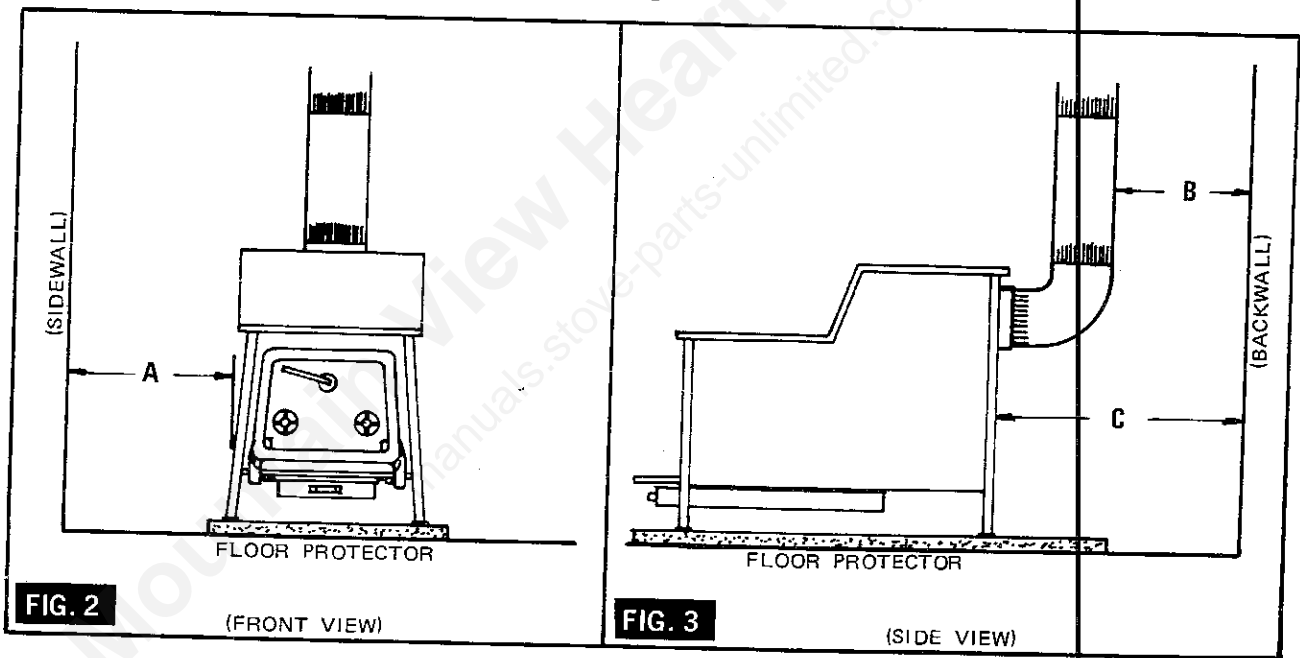
	143.841540	143.841550
A	36"	42"
B	36"	36"
C	25"	23"
D	30"	36"
E	46½"	52½"
F	11½"	11½"
G	19"	24"
H	5½"	6"
J	17"	17"
K	60"	66"
L	2"	2"

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 Residential Solid Fuel Factory-Built Chimney (Fig. 6).
2. Place the heater on solid masonry or solid concrete. When the heater is used on a combustible floor surface, a floor protector of brick or 2-1/4" patio stone should be used. The floor protector should extend 11-1/2" beyond the hearth extension of the heater and should extend under the connector pipe in the back (Fig. 4).
3. Check Figures 2, 3 and 4. 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.

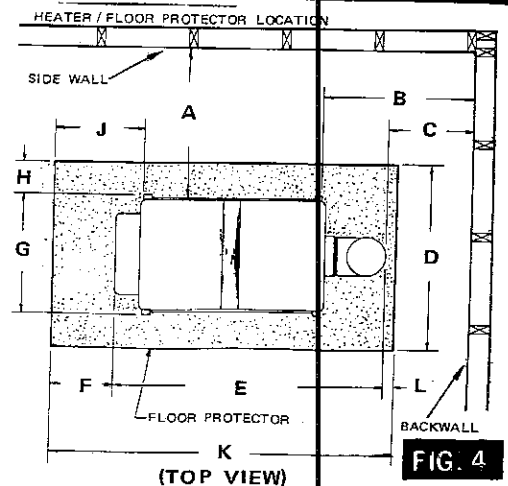
MINIMUM CLEARANCE TO COMBUSTIBLE WALLS



(See Table, Page 4)

NOTE: BEFORE FIRING HEATER

Remove Ash Pan, Owners Manual, and handle knob assembly from inside of heater. Screw the knob (Item 12, page 8) onto the handle (Item 3), and slide the ash pan into position underneath the heater.



chimney connection

MASONRY CHIMNEY

Before using an existing masonry chimney, clean the chimney and have the flue liner inspected to be sure it is safe to use. Make any necessary repairs before attaching the heater.

Look at Figure 5. The connector pipe and fittings you will need to connect directly to a masonry chimney are shown.

If it is necessary to pass 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, it must be closed tightly.

LISTED CHIMNEY

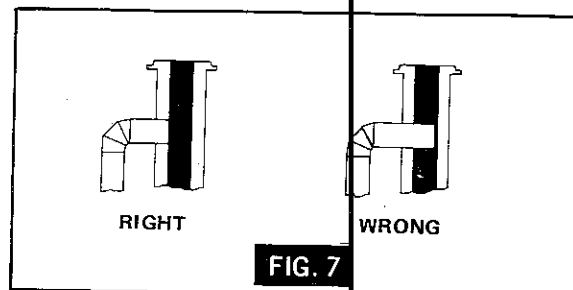
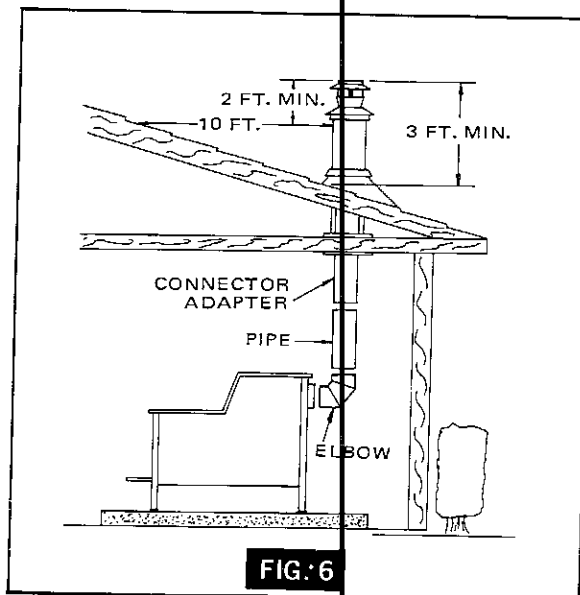
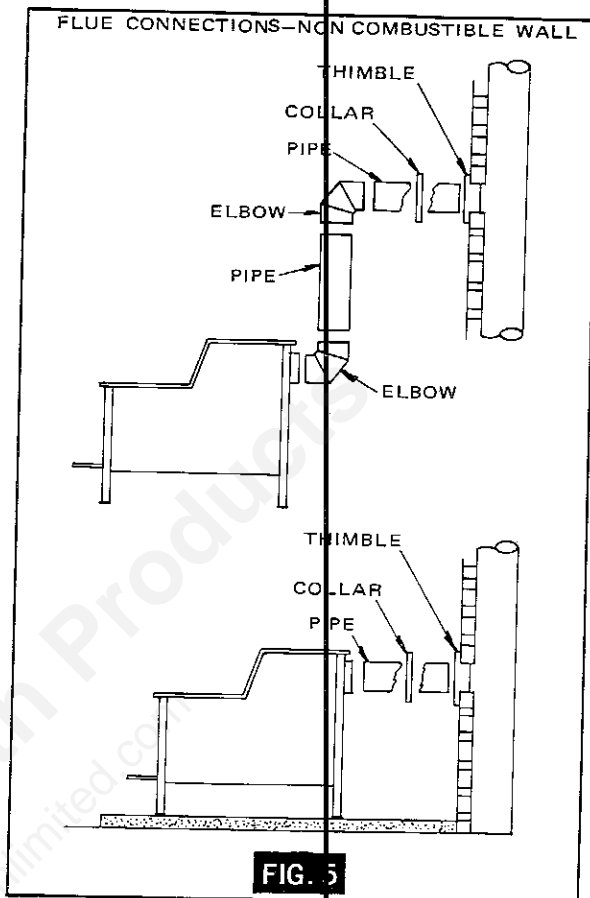
Carefully follow chimney manufacturer's instructions. Use only a UL LISTED RESIDENTIAL SOLID FUEL FACTORY-BUILT CHIMNEY.

If your chimney starts at the ceiling (Fig. 6), you will need a 6" (8" for 143.841550) elbow and enough 6" (8" for 143.841550) pipe to reach the ceiling.

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).

RULES FOR STOVEPIPE 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. Pitch any horizontal pipe 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 (Fig. 7).
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 stovepipe.



operating instructions

FUEL

Use hardwood, 20" to 24" long (24" to 30" on Model 143.841550) that has been split and air dried (seasoned) for 6 months to obtain maximum burning efficiency.

Use Wood or Wood like materials only—Do not use coal or charcoal.

LIGHTING

1. Turn the draft knobs counterclockwise (open) until they stop to provide maximum draft.
2. Open feed door and place paper and kindling on hearth for starting the fire.
3. Light the fire and close the feed door.
4. Add wood after fire is burning briskly. Use care not to smother the kindling fire.
5. Adjust the draft knobs to maintain a comfortable room temperature. Turn the knobs clockwise to reduce the burning, thereby decreasing the room temperature. Turn the knobs counterclockwise to speed up the burning, thereby increasing the room temperature.

ADDING FUEL

When possible, add small amounts of fuel each hour or so instead of adding large quantities of fresh fuel every 12 to 18 hours. This will give more complete combustion and less build-up of tars or soot in the chimney.

1. Fully open the draft control knobs before opening the feed door.
2. After adding fuel, operate heater one half hour with draft wide open to reduce creosote formation in the chimney.

MINIMUM FIRE

Turn the draft control knobs clockwise until they are completely closed to provide minimum draft for overnight burning. A small amount of air will still find its way into the firebox to prevent any build-up of unburned gases.

CAUTION

Do not use grate or elevate fire-build fire directly on hearth.

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.

CAUTION

Keep all flammable liquids, especially gasoline from the vicinity of the unit whether in use or in storage.

draft knob adjustment

Proper location of adjusting nuts

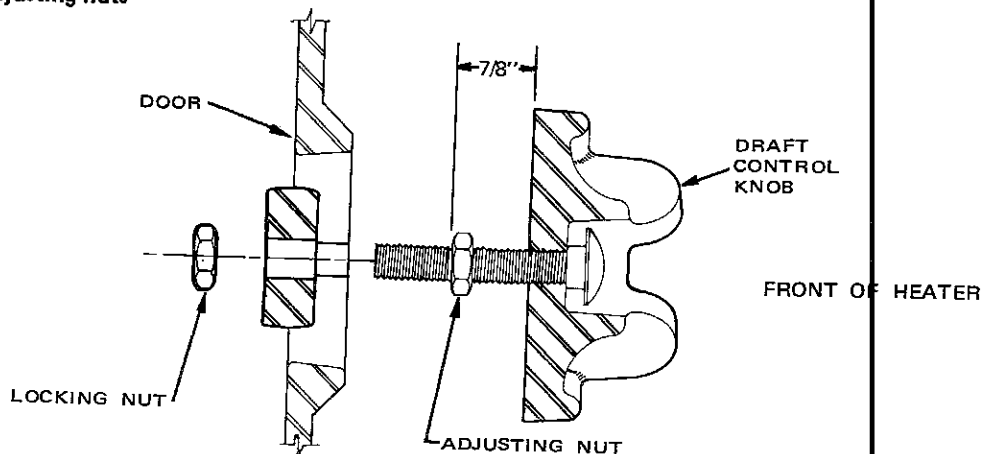


FIG. 8

service hints

Do not expect a heater to draw. It is the chimney that creates the draft. Insufficient draft may cause slow burning or smoking. Possible causes are:

- 1 . The connector pipe may be pushed into the chimney too far, stopping the draft (Fig. 7).
- 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 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 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).
- 5 . Soot or creosote buildup can block the chimney.

chimney maintenance

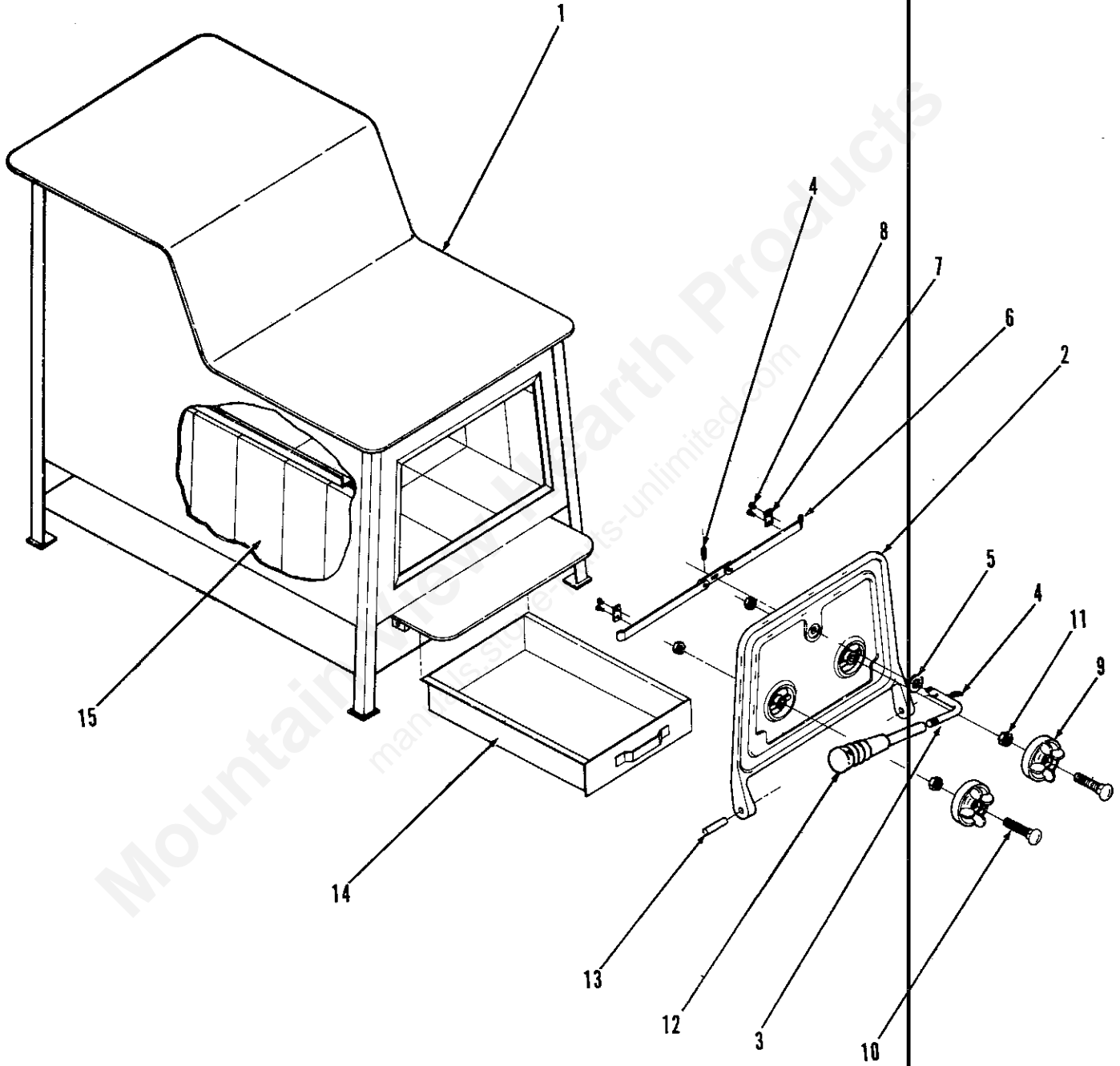
When solid fuel is burned slowly, it produces creosote or soot which will build up on the flue lining and when ignited, makes an extremely hot chimney fire. (This is especially true with unseasoned wood).

Inspect the chimney connector and chimney before and frequently during the heating season to find out if a creosote or soot build-up has occurred. If there is a build-up of creosote or soot, remove it to reduce the risk of a chimney fire and help to eliminate smoking problems.

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 and 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 for damage by a qualified person before using again.

repair parts

SEARS AIR-TIGHT WOOD BURNING ROOM HEATER
MODEL NUMBER 143.841540 & 143.841550



repair parts

AIR-TIGHT, WOOD BURNING ROOM HEATER-
MODELS 143.841540 and 143.841550

Key No.	Part No.		Description
	143.841540	143.841550	
1	67519	67518	Body
2	21644	21643	Door
3	21639	21639	Handle
4	83838	83838	1/8 Dia. x 7/8 Stainless Steel Roll Pin (2 Req'd)
5	83835	83835	5/8 Washer
6	67533	67532	Lock Bar
7	21637	21637	Latch Retainer (2 Req'd)
8	83179	83179	¼ -20 x ½ Hex Hd. Mach. Screw-Stainless (4 Req'd)
9	40152	40152	Draft Control Knob (2 Req'd)
10	83177	83177	3/8-16 x 2¼ Carriage Bolt-Stainless (2 Req'd)
11	83178	83178	3/8-16 Jamb Nut-Stainless (4 Req'd)
12	67568	67568	Handle Knob
13	83832	83832	5/16 Dia. x 2" Roll Pin (2 Req'd)
14	67529	67529	Ash Pan
15	89066	89066	Firebrick (24 Req'd-143.841540; 32 Req'd-143.841550)
†	85238	85238	Owners Manual (F642-18778)

† Not Illustrated

optional accessories (not illustrated)

Heater Model No.	No.	Description
143.841540	42-84016	6" Pipe x 24" long
	42-84017	6" Elbow
	42-99185	6" Connector Adaptor
	42-84018	6" Collar
143.841550	42-84023	8" Pipe x 24" long
	42-84071	8" Elbow
	42-84013	8" Connector Adaptor
	42-84031	8" Collar

brick replacement instructions

- 1 . Place 3 bricks (4 on Model 143.841550) on end against the inside back of the heater.
- 2 . Place 6 bricks (7 on Model 143.841550) on end against the two side walls underneath the brick retainer (Slide the bricks back against the rear brick.)
- 3 . Install the bottom brick.
 - a . Place 2 brick lengthwise (9") across the back against the rear brick. (Applicable to Model 143.841550 only.)
 - b . Place the remaining brick (9 on Model 143.841540, 12 on Model 143.841550) in place with the 9" length running front to back. (3 rows deep, 3 rows across the Model 143.841540; 3 rows deep, 4 rows across on Model 143.841550)

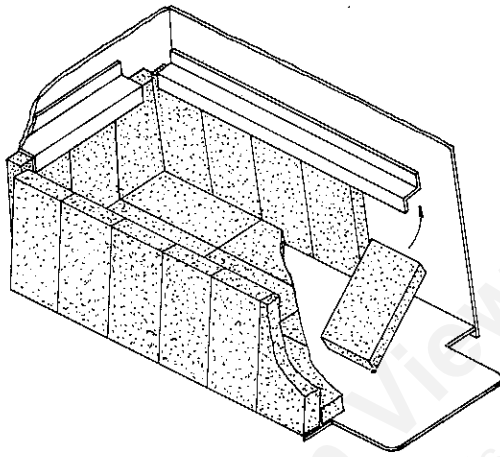


FIG. 9 MODEL 143.841540

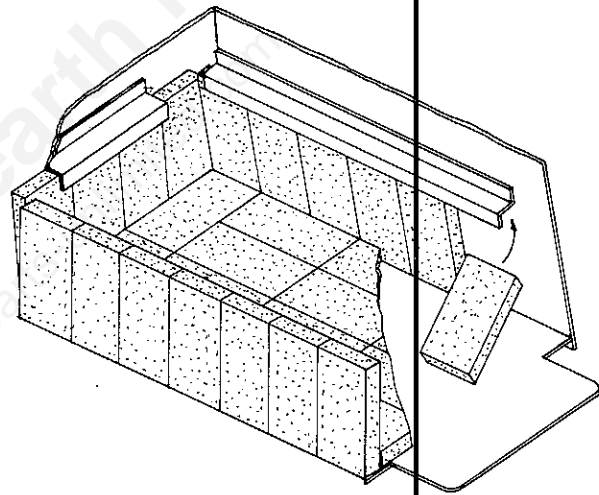


FIG. 10 MODEL 143.841550

Body Cutaways Showing Brick Alignment

Sears

owners manual

MODEL NUMBER

143.841540

143.841550

HOW TO ORDER REPAIR PARTS

TELL SEARS YOU WANT IT INSTALLED --- THEN RELAX

AIR-TIGHT WOOD BURNING ROOM HEATER

Now that you have purchased your Air-Tight Woodburning Heater, should a need ever exist for repair parts or service, simply contact any Sears Service Center and most Sears, Roebuck and Co. stores. 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 THE FOLLOWING INFORMATION AS SHOWN IN THIS LIST.

1. The PART NUMBER
2. The PART DESCRIPTION
3. The MODEL NUMBER
4. The SERIAL NUMBER

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.