

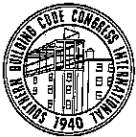
Sears

owners manual

MODEL NUMBER

143.841541

143.841551



"THE STANDARD CODES"

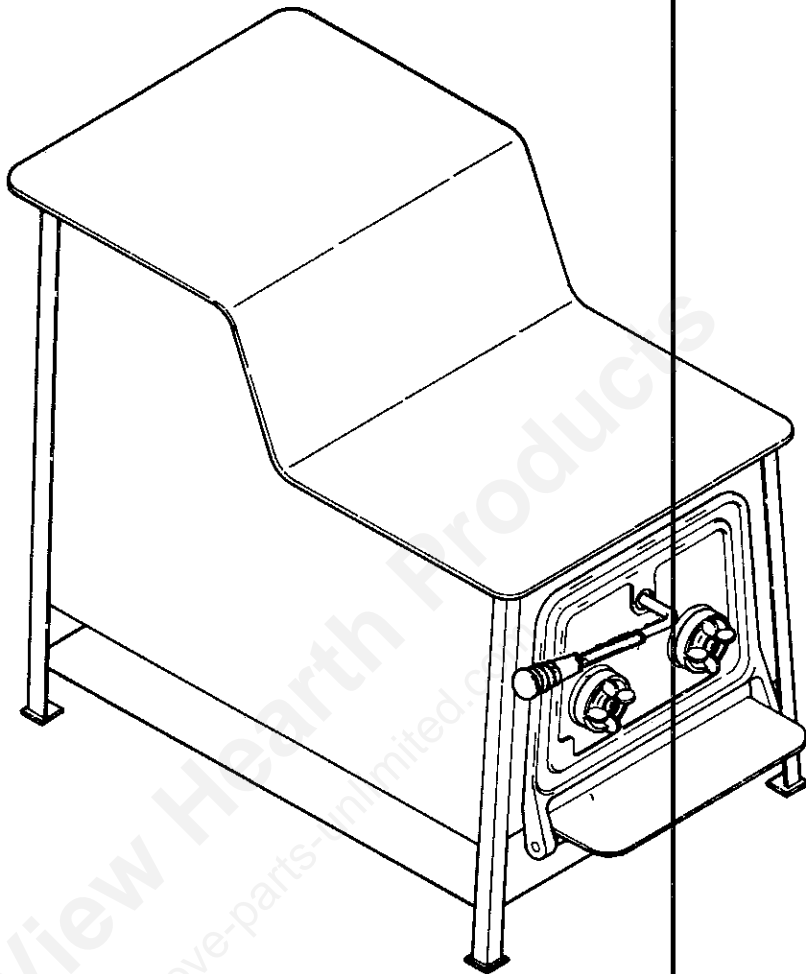
**SBCCI
REPORT
7975-79**

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)

MATERIALS

MODEL 143.841541

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.

MODEL 143.841551

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. **CAUTION** - The special enamels used on your heater may give off some smoke while they are curing during first few fires. Build small fires at first.
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 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 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.

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 for disposal.
12. **CARING FOR ENAMELED PARTS** -This heater has an enameled outside jacket. 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.**
13. **Keep** the ashpit section free of excess ashes.

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

heater dimensional specifications

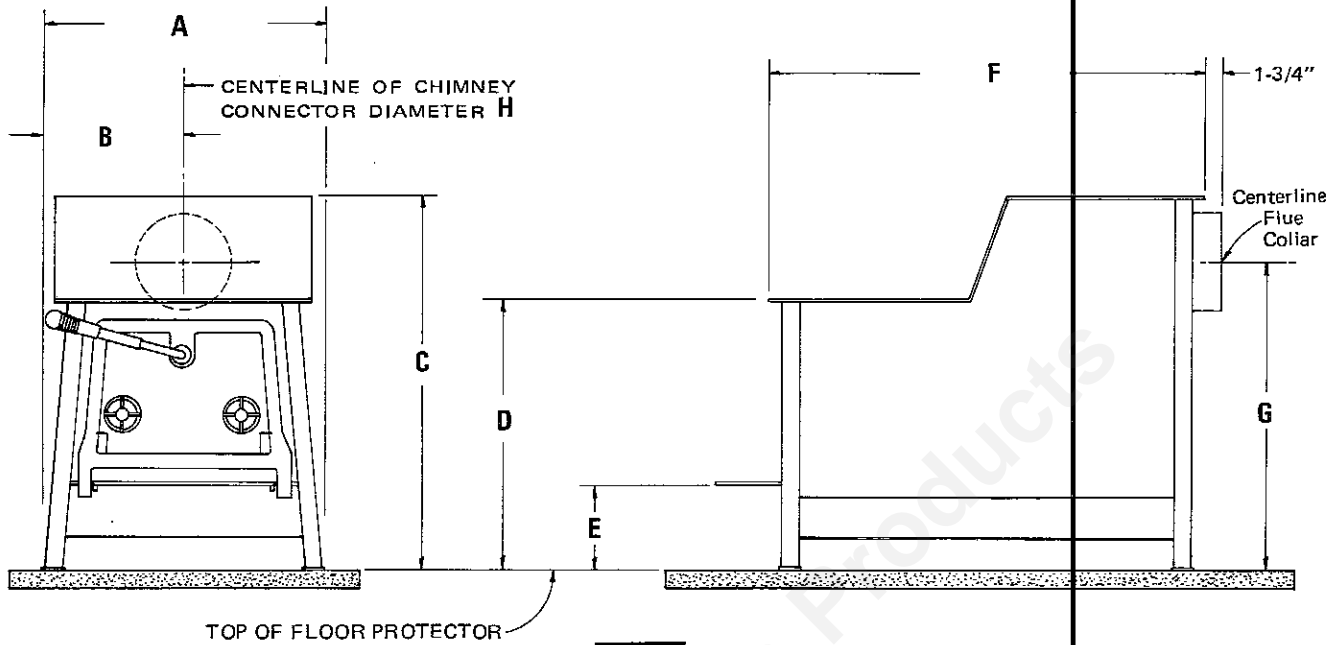


FIG. 1

Table for Fig. 1

Letter	Model Number 143.841541	Model Number 143.841551
A	19"	24"
B	9½"	12"
C	31 ½"	33 ½"
D	23"	25"
E	7 ½"	9 ½"
F	31 ½"	36"
G	27 ⅛"	28 ⅛"
H	6"	8"

Table for Fig. 2 and Fig. 3

	143.841541	143.841551
A	36"	42"
B	25"	25"
C	36"	36"

Table for Fig. 4

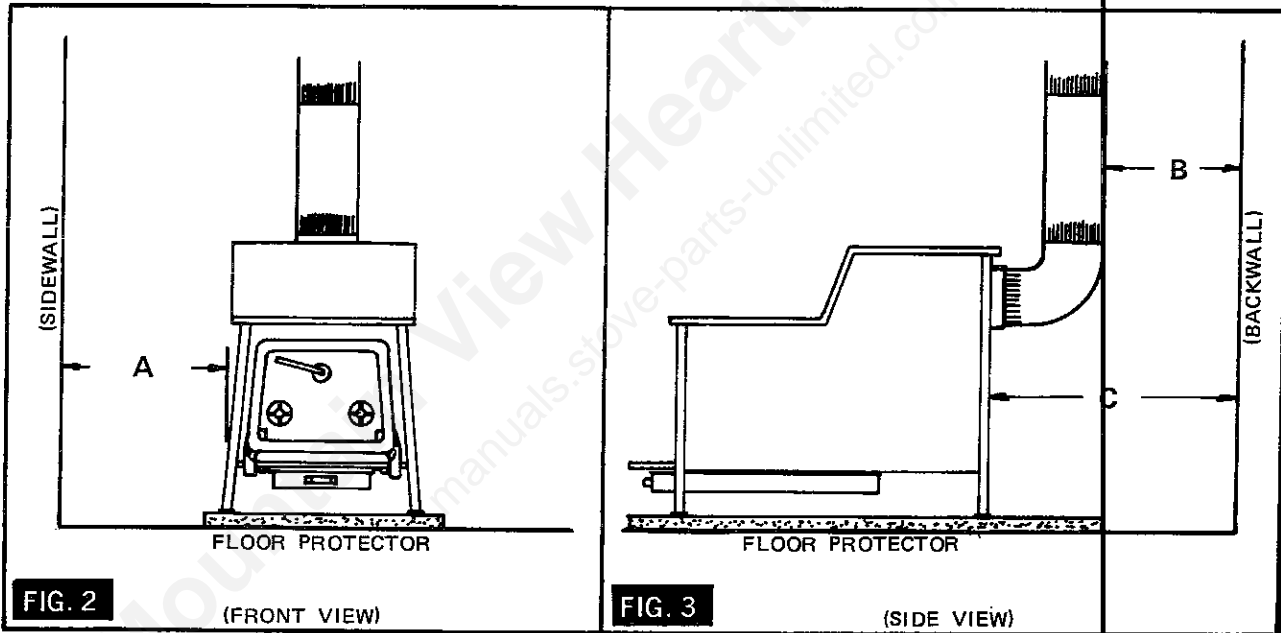
	143.841541	143.841551
A	36"	42"
B	36"	36"
C	25"	23"
D	30"	36"
E	46 ½"	52 ½"
F	11 ½"	11 ½"
G	19"	24"
H	5 ½"	6"
J	17"	17"
K	60"	66"
L	2"	2"

locating the heater

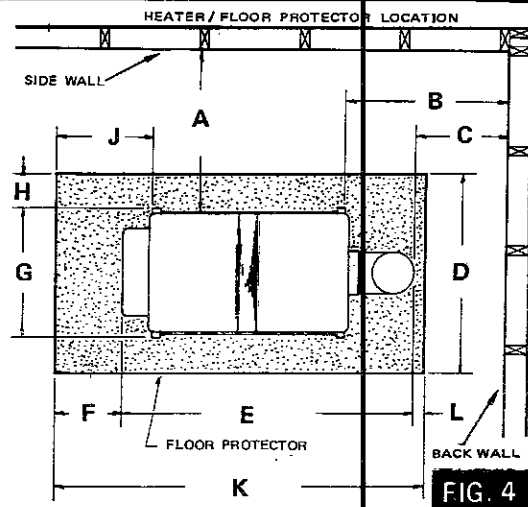
AS A LOCATION IS SELECTED, KEEP THE FOLLOWING IN MIND:

1. Keep the chimney connection as short as possible. The heater must have its own chimney flue. 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, use a floor protector of brick or 2-1/4" thick patio stone. Have the floor protector extend 11-1/2" beyond the door side of the heater and 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



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. Inspect the flue liner to be sure it is safe to use. Make 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 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

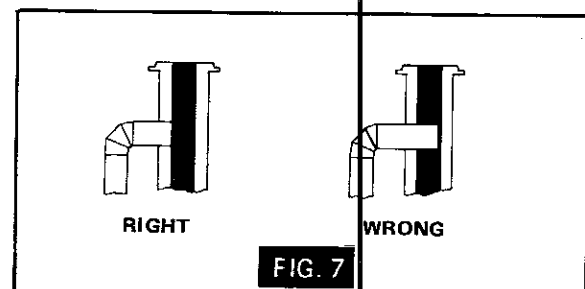
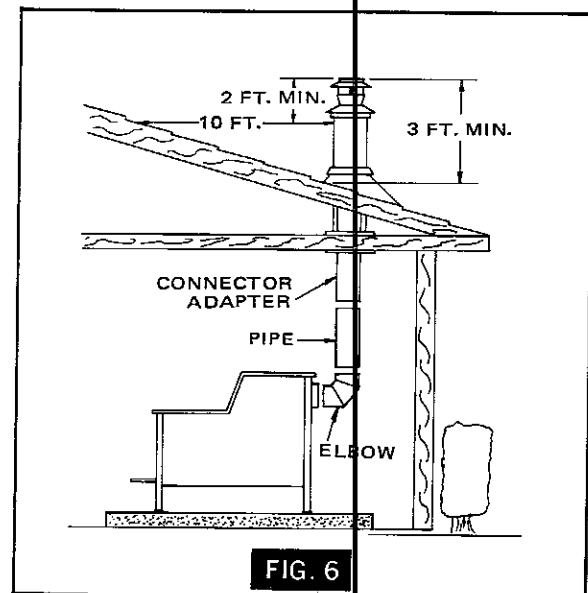
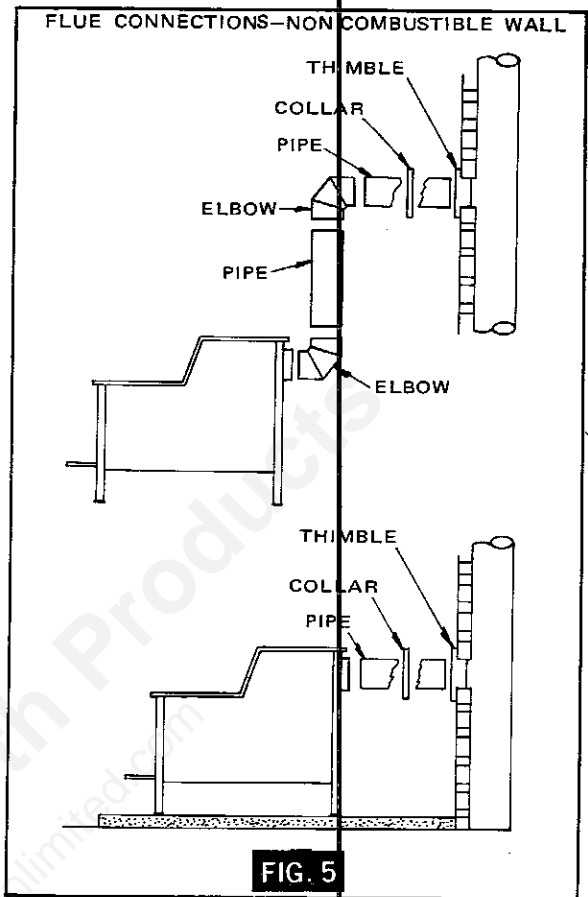
Carefully follow chimney manufacturer's instructions. Use only a UL LISTED RESIDENTIAL SOLID FUEL FACTORY-BUILT CHIMNEY.

If your chimney starts at the ceiling (Fig. 6), you will need a 6" (8" for 143.841551) elbow and enough 6" (8" for 143.841551) 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 connector pipe fits inside the heater flue collar. Install additional pipe and elbow **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 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 connector pipe.



operating instructions

FUEL

Use hardwood, 20" to 24" long (24" to 30" on Model 143.841551) that has been split and air dried (seasoned) for 6 months.

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

LIGHTING

1. Turn the draft knobs counterclockwise (open) until they stop for 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, and lower the room temperature. Turn the knobs counterclockwise to speed up the burning, and raise the room temperature.

ADDING FUEL

When possible, add small amounts of fuel each hour instead of large amounts every 8 to 10 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 for 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. Keep all such liquids well away from the heater while it is in use.

draft knob adjustment

Proper location of adjusting nuts

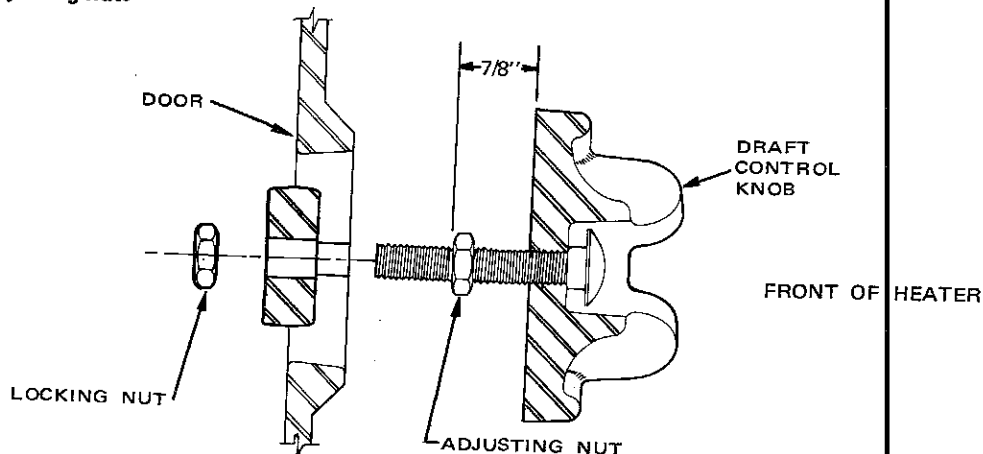


FIG. 8

service hints

Do not expect a heater to draw. It is the chimney that creates the draft. Smoke spillage into the house or excessive build-up of water or creosote in the chimney are warnings that the chimney is not drawing 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. 7).
- 2 . Do not connect two heaters into the same chimney flue.
- 3 . Do not use the chimney to ventilate the cellar or basement. If there is a cleanout opening at the base of the chimney, close it tightly.
- 4 . If the chimney is too cool, moisture will condense in the chimney and run back into the heater. Creosote formation will be rapid and may block the chimney. Build your heater fire large enough to keep the chimney warm to prevent 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).

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 connector and chimney should be inspected at least twice monthly during the heating season to determine if a creosote buildup 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 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 by a qualified person before using again.

brick replacement instructions

- 1 . Place 3 bricks (4 on Model 143.841551) on end against the inside back of the heater.
- 2 . Place 6 bricks (7 on Model 143.841551) 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 bricks lengthwise (9") across the back against the rear brick. (Applicable to Model 143.841551 only.)
 - b . Place the remaining brick (9 on Model 143.841541, 12 on Model 143.841551) in place with the 9" length running front to back. (3 rows deep, 3 rows across the Model 143.841541; 3 rows deep, 4 rows across on Model 143.841551)

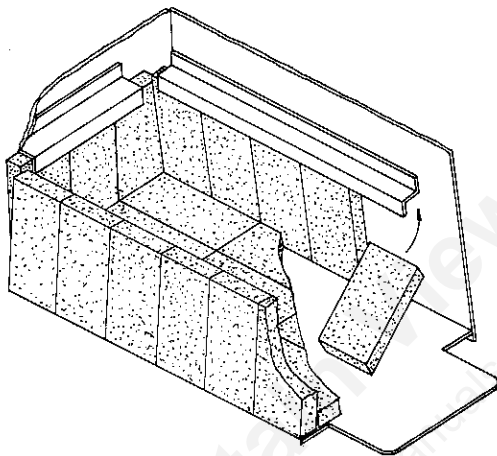


FIG. 9 MODEL 143.841541

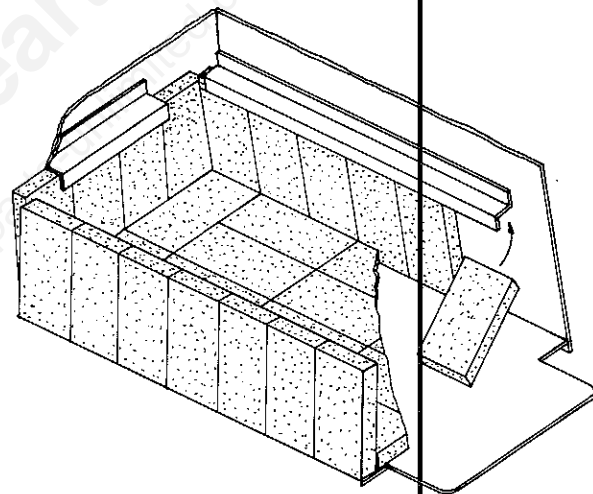
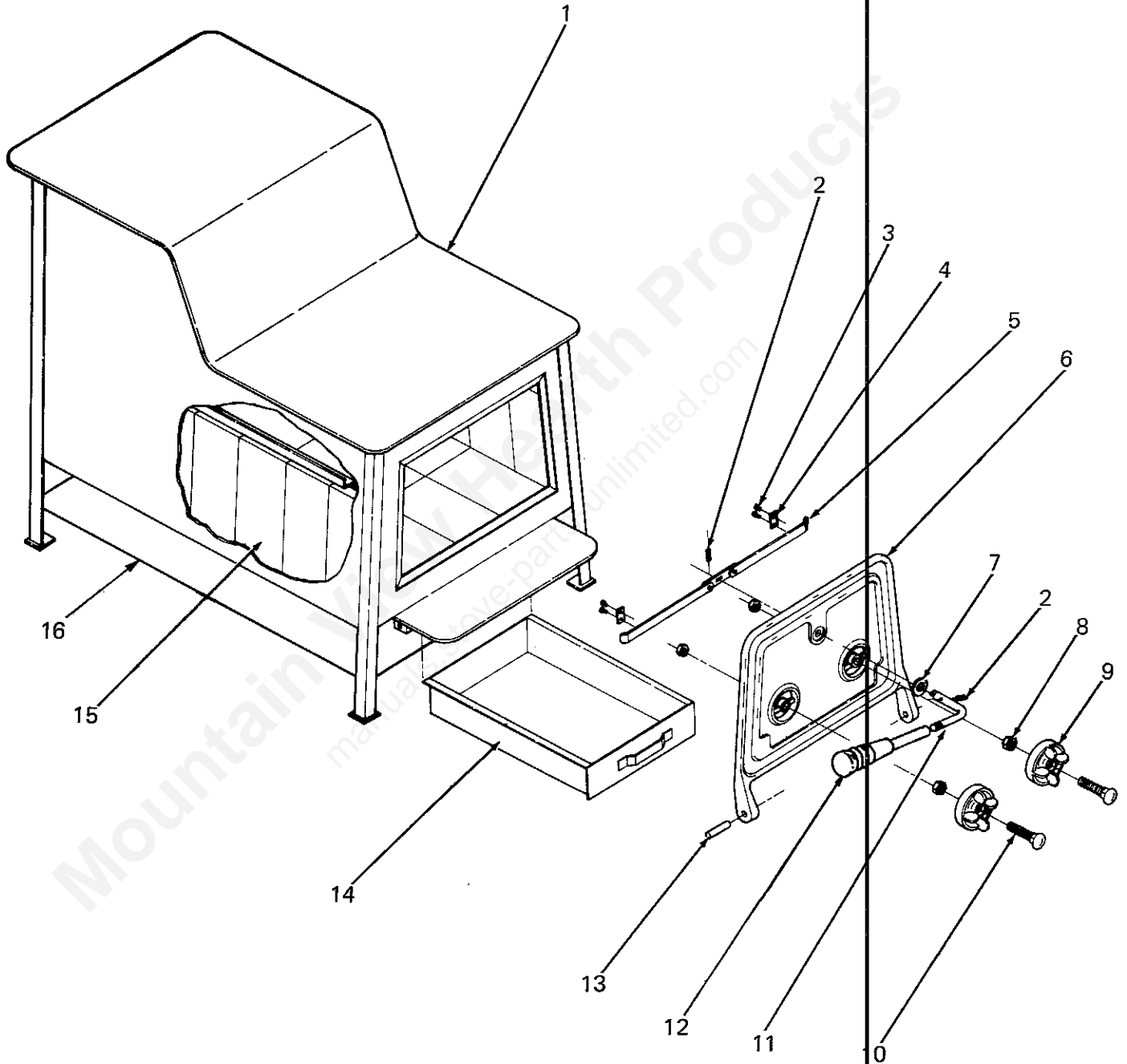


FIG. 10 MODEL 143.841551

Body Cutaways Showing Brick Alignment

repair parts

SEARS AIR-TIGHT WOOD BURNING ROOM HEATER
MODEL NUMBER 143.841541 & 143.841551



repair parts

AIR-TIGHT, WOOD BURNING ROOM HEATER-
MODELS 143.841541 and 143.841551

Key No.	Part No.		Description
	143.841541	143.841551	
1	67519	67518	Body
2	83838	83838	1/8 Dia. x 7/8 Stainless Steel Roll Pin (2 Req'd)
3	83179	83179	1/4-20 x 1/2 Hex Hd. Mach. Screw-Stainless (4 Req'd)
4	21637	21637	Latch Retainer (2 Req'd)
5	67533	67532	Lock Bar
6	21695	21694	Door
7	83835	83835	5/8 Washer
8	83178	83178	3/8-16 Jamb Nut-Stainless (4 Req'd)
9	40152	40152	Draft Control Knob (2 Req'd)
10	83177	83177	3/8-16 x 2 1/4 Carriage Bolt-Stainless (2 Req'd)
11	21639	21639	Handle
12	67583	67583	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-143.841541; 32 Req'd-143.841551)
16	21686	21687	Heat Shield
†	85238 3/80	85238 3/80	Owners Manual (F642-7380)

† Not Illustrated

optional accessories (not illustrated)

Heater Model No.	No.	Description
143.841541	42-84016	6" Pipe x 24" long
	42-84017	6" Elbow
	42-99185	6" Connector Adaptor
	42-84018	6" Collar
143.841551	42-84023	8" Pipe x 24" long
	42-84071	8" Elbow
	42-84013	8" Connector Adaptor
	42-84031	8" Collar

Sears

owners manual

MODEL NUMBER

143.841541

143.841551

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.

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