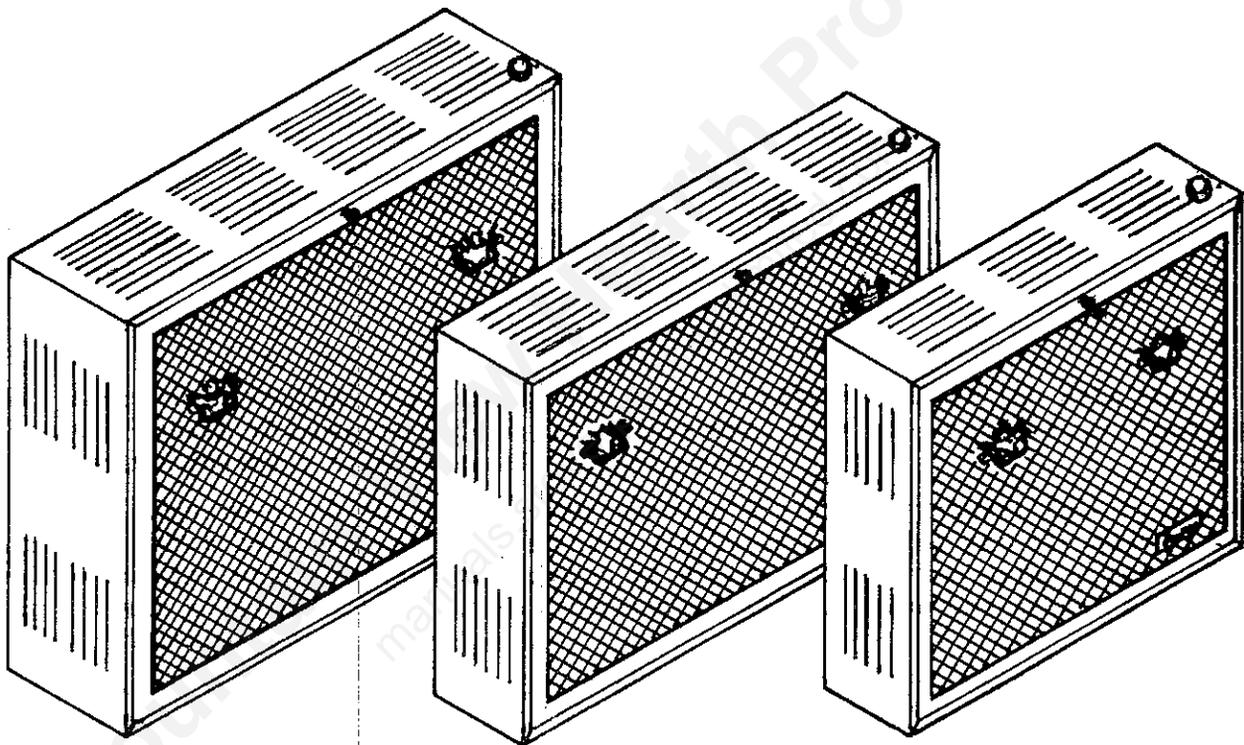


owner's manual

INSTRUCTIONS FOR INSTALLING AND
OPERATING — WITH REPAIR PARTS LIST

**GAS FIRED
SEALED COMBUSTION SYSTEM
WALL FURNACE
THRU-THE-WALL**



VT-45 G

VT-30 A-G

VT-20 G

FOR USE WITH NATURAL AND L.P. GASES

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.

Lawson Division

UNITED STATES STOVE COMPANY, SOUTH PITTSBURG, TENNESSEE

FORM 9270-2

INSTALLATION . . .

The Manufacturer does not guarantee the performance of this heater unless these instructions are followed. This heater has been factory inspected prior to shipment and found to be in good condition. File claim with the transportation company immediately if damages have occurred in shipment.

All Models may be installed on outside wall with overall thicknesses ranging from 4-5/8" to 12". **CAUTION:** Maintain minimum of 2" overlap on flue extension tubes.

Read the following instructions thoroughly before starting the installation and do not deviate from the step by step sequence:

1. Determine the approximate location within the room in which the heater is to be installed. Refer to Figure 3 for minimum side wall dimensions.
2. If the heater is to be installed on a plaster board or similar type wall construction, be sure that the wall will support this unit.
3. Determine the location of the wall studs to insure that one will not interfere with the hole which must be provided through the outside wall for the telescopic vent. If a stud should interfere it is advisable to shift the position of heater either right or left enough that the stud will be cleared when hole is cut. Figure 2 and Figure 3 will give additional help in determining the vertical and horizontal center lines of the hole. If the heater is to be installed above the baseboard, add the distance that you desire to the vertical height shown in Figure 3.
4. Proceed now to cut the above mentioned hole:
[9" diameter for VT-20 G] [10½" diameter for VT-30 AG] [9½" diameter for VT-45 G]
5. At this point it is advisable to provide the hole either in the wall or floor for gas supply line. Figure 3 shows the location of the gas supply line if it were brought up through the floor or directly through the wall.
6. Remove the Cabinet from the Inner Unit Assembly. (To do this remove the screws from around the edges of the Cabinet Back). Lift the Cabinet up and forward to disengage the flanges shown in Figures 6 and 10. The screws removed are for shipping purposes only and should be discarded. **They are not to be fastened back to the heater.** On Model VT-45, remove Cabinet Front for access to screw at bottom center. See Figure 6-A.
7. Install the inner unit assembly by entering the vent tube into the hole in wall until the unit is flush against the wall. Secure the unit with the six long wood screws from the parts bag. See Figure 5.
8. Plumb the gas supply line into the controls. **Note:** Install trap, manual valve and union ahead of controls. See Figure 4. Compounds used on threaded joints of gas piping shall be resistant to the action of liquefied petroleum gases.

INSTALLATION CLEARANCES:

Minimum to ceiling above — 36"
Minimum to floor below — 1/2"
Minimum to side walls — 6"

INSTALLATION . . .

GENERAL INSTRUCTIONS FOR OUTSIDE VENT

Install the outside vent:

(A) When installing unit under a window sill or ledge, a frame must be constructed and mounted on the outside of the house as shown in Figure 8 and Figure 9. This is done to prevent the blockage of air in and around the outside vent. Add the thickness of the frame shown in Figure 8 and Figure 9 to overall thickness of wall if frame is used. After determining the overall thickness of the wall and frame, if frame is used, subtract this dimension from 12". The remainder is the amount to be cut from air and vent tubes.

Example: If overall thickness of your wall, including frame, if frame is used, is 7-3/8"

12" Maximum wall thickness, including frame, if frame is used.

7-3/8" Your wall thickness, including frame, if frame is used.

4-5/8" Amount to be removed from end of vent and air tube.

Be careful not to distort or bend the extension tubes. Some models are equipped with vent assembly (Type A) and some with (Type B). Carefully follow appropriate instructions.

INSTALLATION TYPE A VENT ASSEMBLY REFER TO FIGURE 7 AND 7A

1. Attach Air Inlet Extension Tube, with gasket, to back of heat Exchanger, metal screws provided in parts bag.
2. Insert Wall Shield Tube into inside of collar on main back of heater.
3. Place a bead of common caulking compound in caulk well on back side of wall plate completely around wall plate.
4. Press wall plate collar into air extension and also into wall shield tube with alignment spacers in place. Secure wall plate to wall with four wood screws from parts bag. If necessary, place (wood) between wall and wall plate.
5. Press flue outlet extension tube over flue collar on heat exchanger.
6. Press vent plate collar into flue outlet extension and secure wall plate to vent plate assembly with self tapping screws through plate brackets.

INSTALLATION TYPE B VENT ASSEMBLY REFER TO FIGURE 7B AND 7C

1. Enter the air inlet extension tube into the air inlet collar on heat exchanger until the outside sealer plate is flush against the wall. Use caulking for seal against wall.
2. Insert the flue outlet extension over the flue outlet collar and slide this assembly forward until the four spacers are touching outside sealer plate. Now secure this assembly to the wall with the four remaining screws from parts bag.

NOTE: If securing brackets do not touch wall, place block of wood between wall and brackets.

INSTALLATION . . .

Install the optional fan assembly, Model F-30 for VT-20 and VT-30, Model F-31 for VT-45, if purchased. See separate instructions packed with this kit.

If the heater is a Cabinet Mounted Thermostat Model, proceed to install the thermostat:

CAUTION: Uncoil capillary tube connecting control valve to thermobulb and thermostat being extremely careful not to bend sharply or kink the capillary tubes. The heater will not perform satisfactorily if the capillary tubes have been kinked.

Stand Cabinet upright on floor in front of heater as shown in Fig. 10-A. Remove knob and nut from thermostat. Insert shaft of thermostat up through hole in cabinet and secure with nut. Be sure flat of thermostat shaft aligns with flat of knockout hole in cabinet. Press knob on thermostat shaft.

Insert thermobulb down through holes in thermobulb clip as shown in Fig. 10.

Remove rubber band holding thermobulb and thermostat to control valve.

Install the Cabinet. (Refer to Figure 10).

- (A) Lift the cabinet enough to clear tabs on bottom of cabinet back, then place it over inner unit and lower over the metal tabs.
- (B) The flanges on the cabinet side should slide down behind the metal tabs that are formed on the heater back. The top flange will fit behind the top of the heater back.
- (C) Install the toggle switch on the right side of the cabinet if the fan assembly kit has been purchased.
- (D) Replace screw through Cabinet Bottom into Cabinet anchor bracket. Discard tubular spacer on Model VT-45. (See Figure 6-A).

LIGHTING INSTRUCTIONS

Before the heater is placed in operation test the line for leaks with soapy water. Pilot lighting instructions are written on the nomenclature plate which is attached to the front of the Combustion Chamber Cover Plate. A lighter door has been provided on the Combustion Chamber Cover Plate as shown in Figure 1. After lighting the pilot, close the lighter door.

ADJUSTING AIR ON MAIN BURNER

Set the control so that the main burner will operate and after the Main Burner has ignited, loosen thumbscrew holding air adjustment door and rotate door clockwise until air adjustment hole is completely exposed.

Make any adjustment to the main burner through the air adjustment hole by turning air adjustment bolt clockwise or counter-clockwise. Turning the air adjustment bolt clockwise will **decrease** the amount of primary air to the main burner. Turning the air adjustment bolt counter-clockwise will increase the amount of primary air to the main burner.

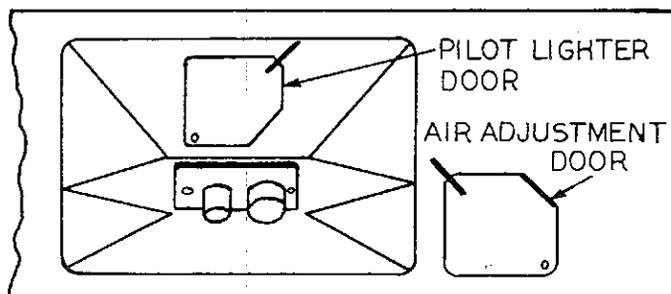
The flame on the Main Burner should be a sharp blue flame after adjustments have been made.

DO NOT SCREW AIR ADJUSTMENT BOLT OUT OF BURNER.

BE SURE TO CLOSE AIR ADJUSTMENT DOOR COMPLETELY AND SECURE WITH THUMBSCREW AFTER ADJUSTMENT HAS BEEN MADE.

IMPORTANT: THE CONTROL COMPARTMENT MUST BE KEPT CLEAN. Remove dust and lint with a small brush vacuum cleaner.

FIGURE 1.



INSTALLATION . . .

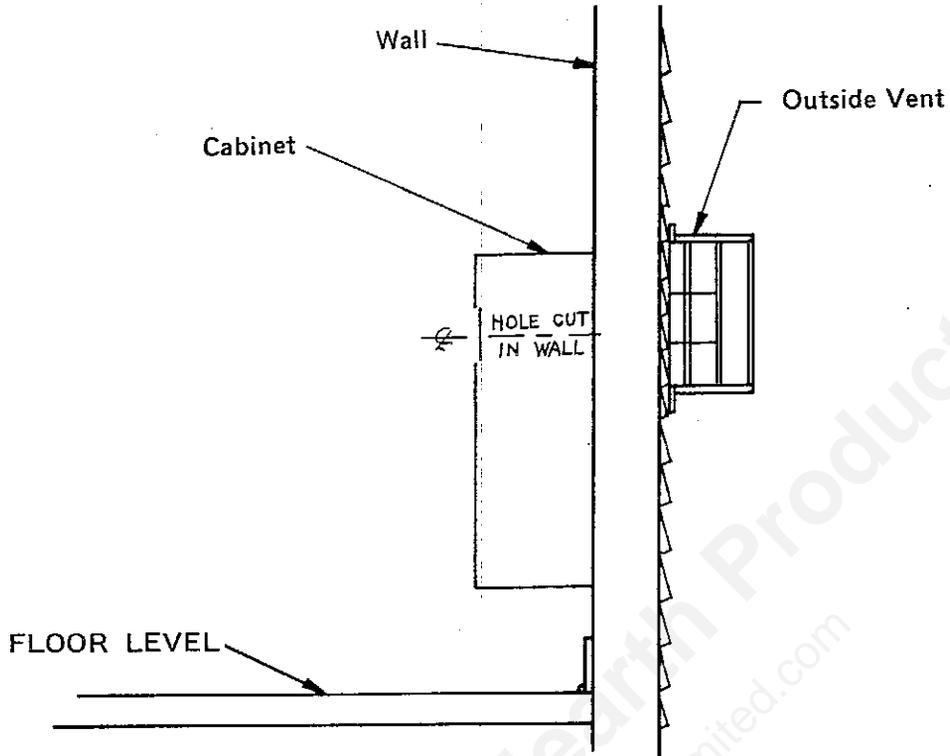


FIGURE 2

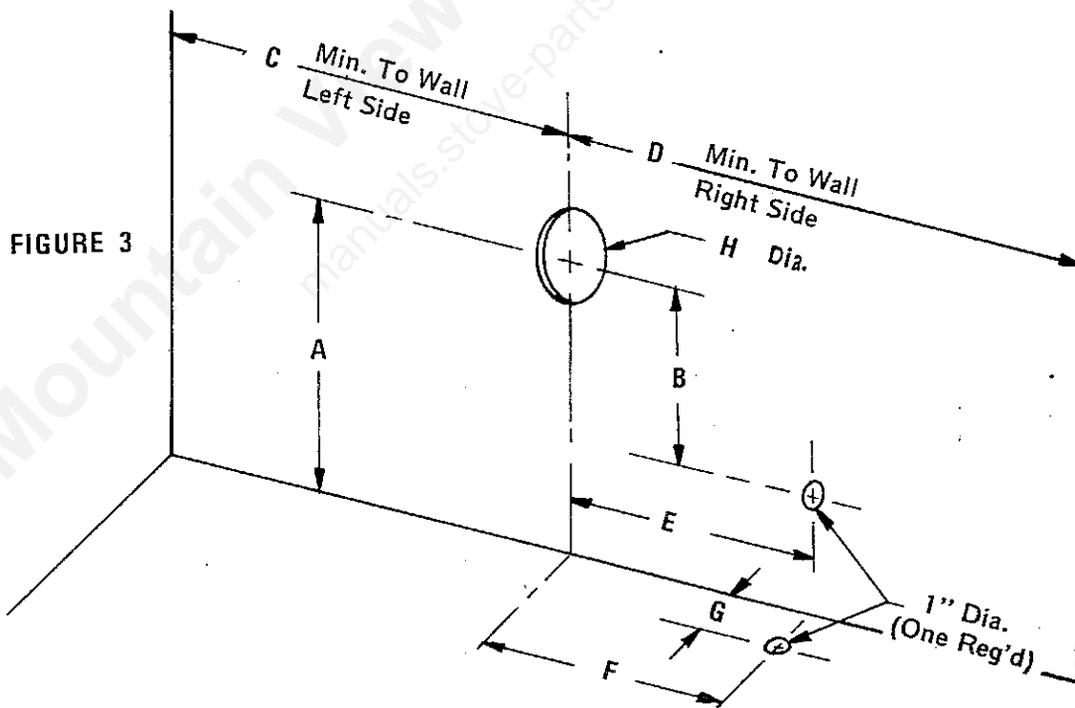
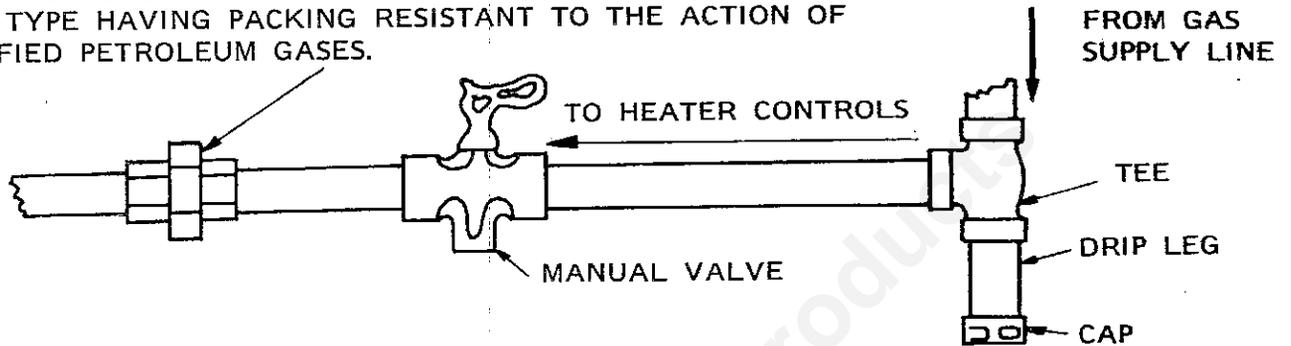


FIGURE 3

MODEL NO.	A	B	C	D	E	F	G	H
VT-20	19 7/8	5 7/16	19	22	14	13	2	9
VT-30	19 1/4	5 3/4	22 1/4	25 3/4	17 3/4	17	2	10 1/2
VT-45	20 3/4	5 3/4	22 1/4	25 3/4	17 3/4	17	4 3/4	9 1/2

INSTALLATION . . .

THIS UNION SHOULD BE EITHER A GROUND JOINT TYPE OR A FLANGED JOINT TYPE HAVING PACKING RESISTANT TO THE ACTION OF LIQUEFIED PETROLEUM GASES.



NOTE: INSTALL TRAP, MANUAL VALVE AND UNION AHEAD OF CONTROLS AS SHOWN.

FIGURE 4

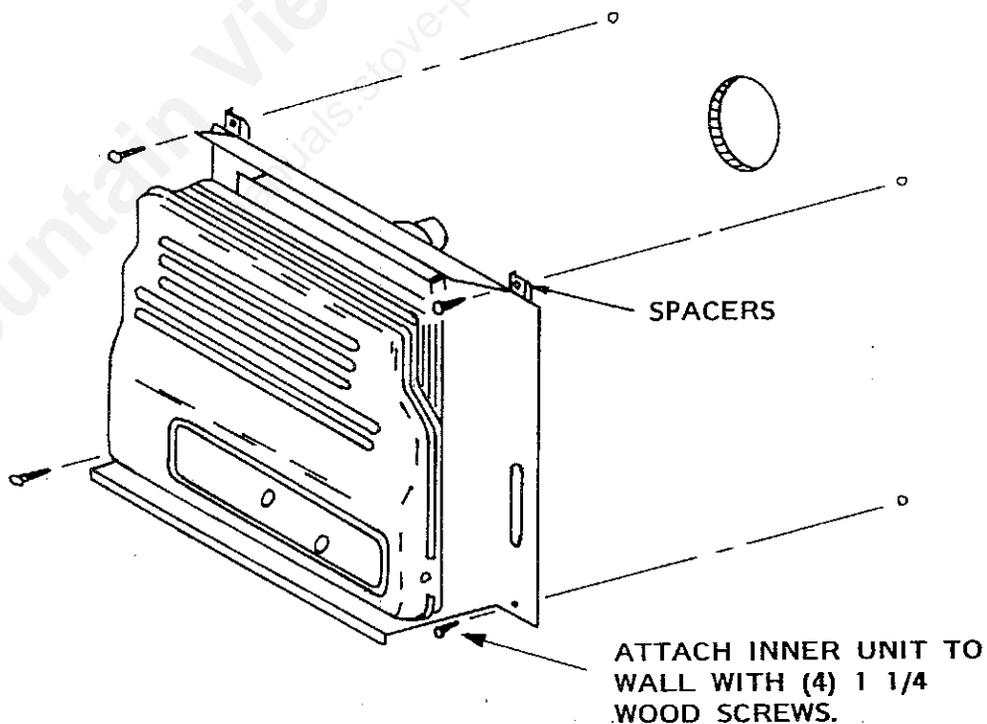
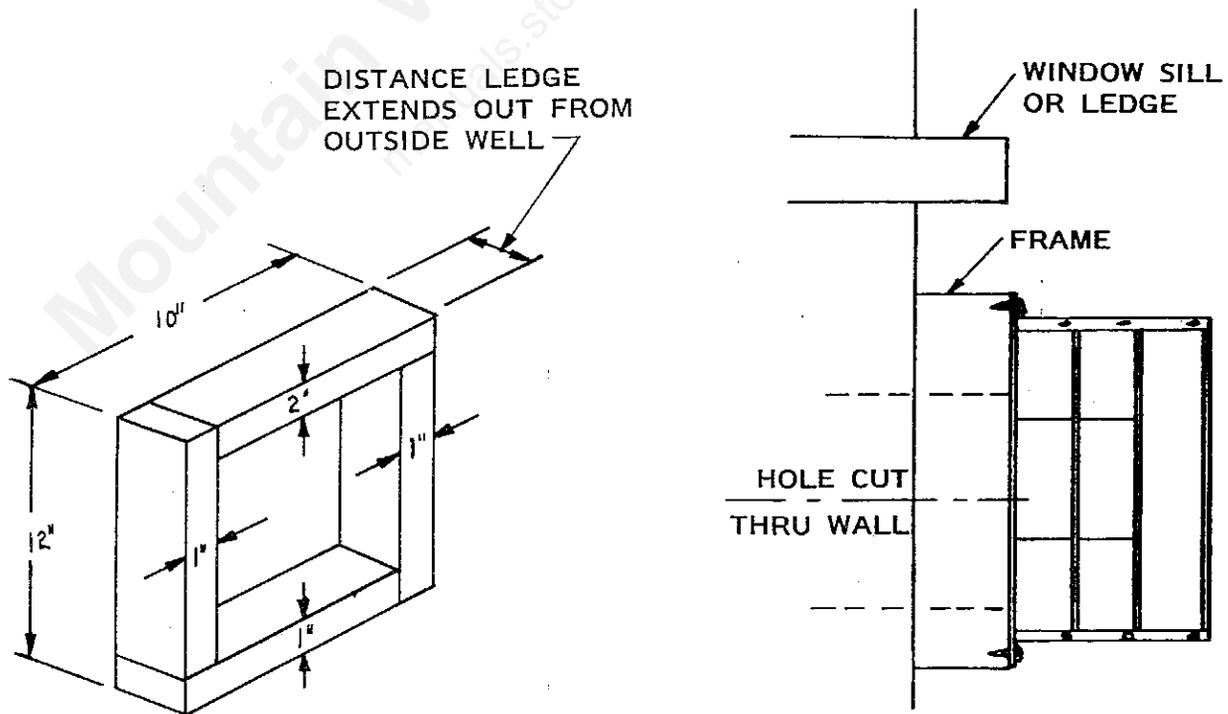
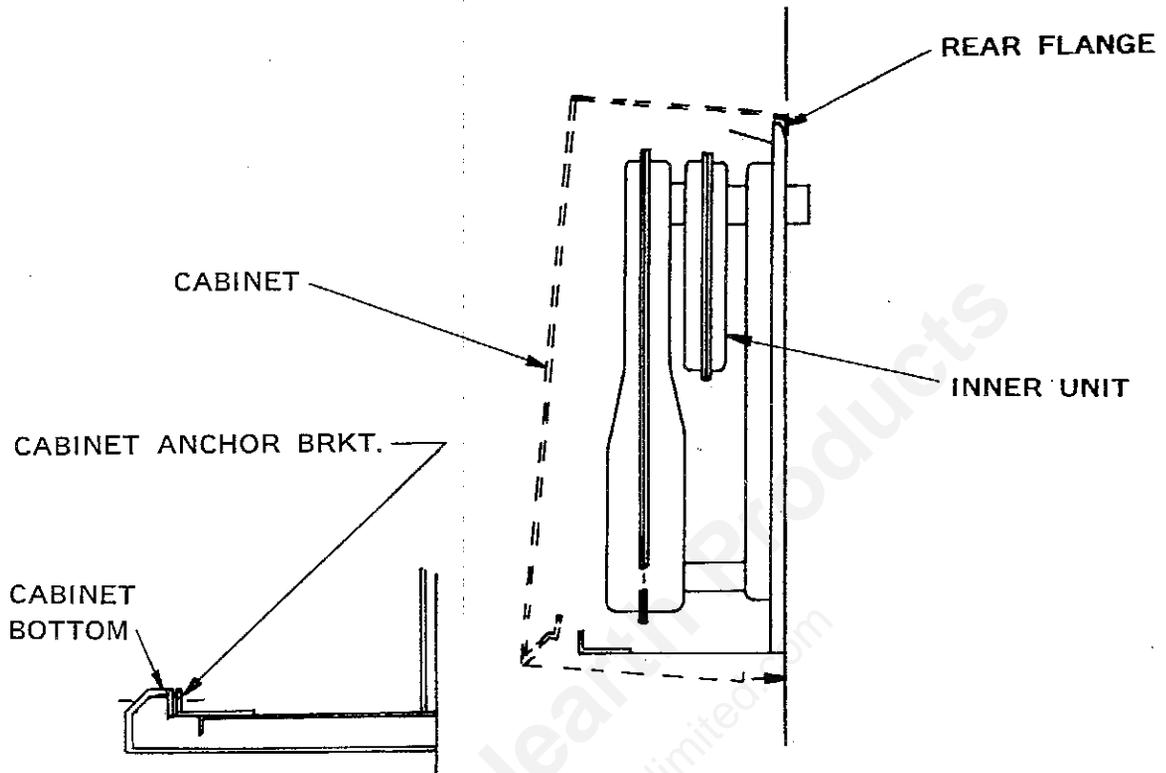


FIGURE 5

INSTALLATION . . .



INSTALLATION . . .

TYPE "A" VENT ASSEMBLY

TYPE "B" VENT ASSEMBLY

FIGURE 7

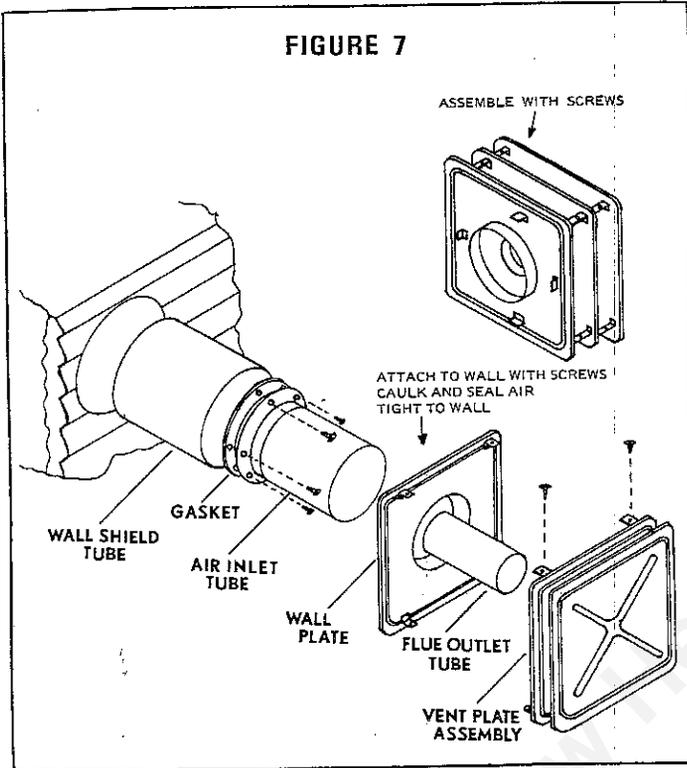


FIGURE 7B

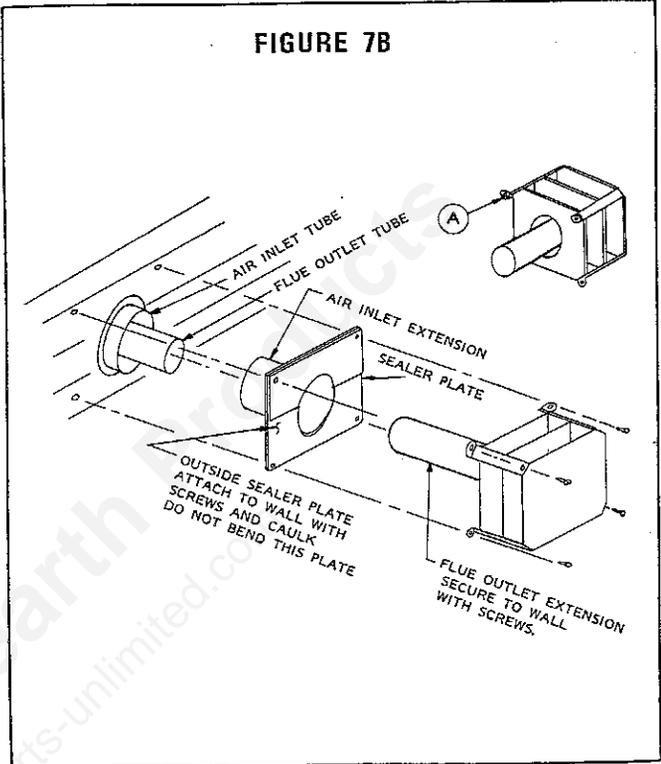


FIGURE 7A

IF NECESSARY, PLACE SPACER (WOOD OR METAL) BETWEEN WALL AND BRACKET

IMPORTANT

SEALER PLATE MUST BE SEALED AIR TIGHT TO WALL WITH CAULKING COMPOUND.
CAULK BETWEEN OUTSIDE WALL AND SEALER PLATE

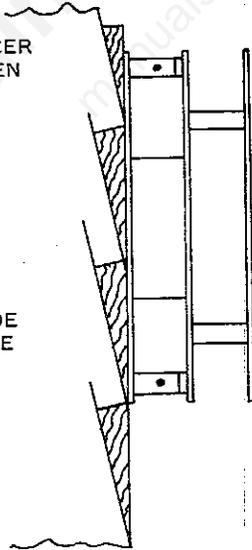
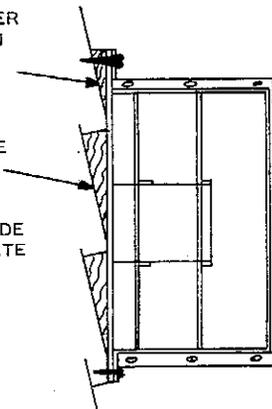


FIGURE 7C

IF NECESSARY, PLACE SPACER (WOOD OR METAL) BETWEEN WALL AND BRACKET

IMPORTANT

SEALER PLATE MUST BE SEALED AIR TIGHT TO WALL WITH CAULKING COMPOUND.
CAULK BETWEEN OUTSIDE WALL AND SEALER PLATE



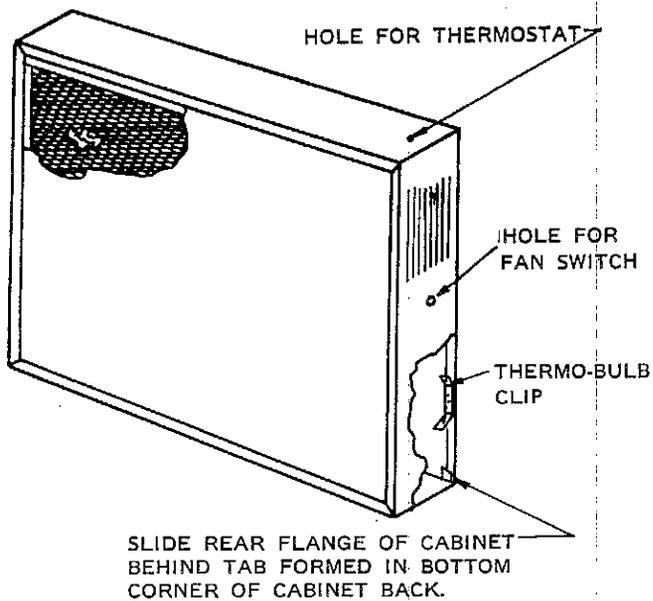


FIGURE 10

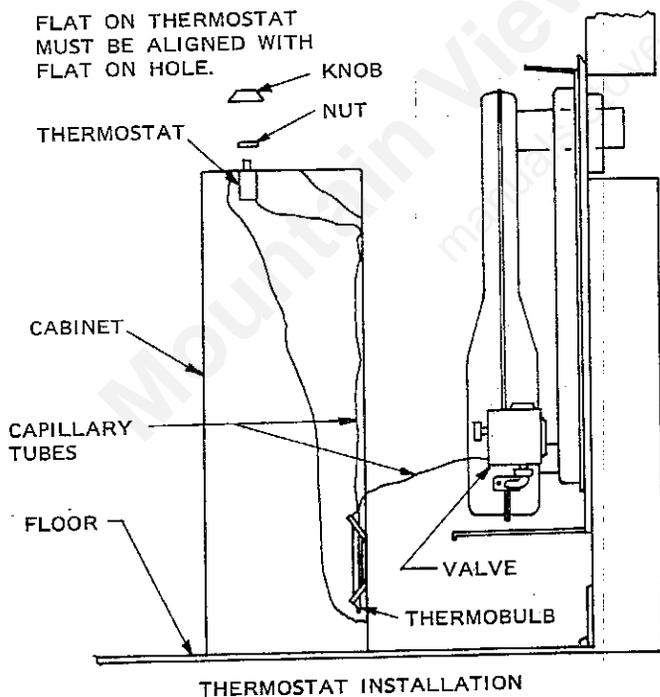
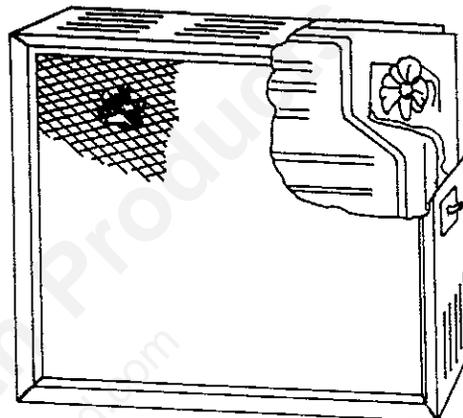


FIGURE 10A

OPTIONAL FAN KITS

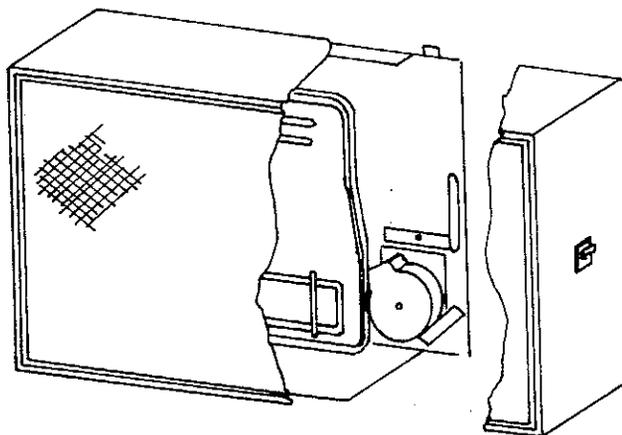
FAN KIT NO. F-30

FOR USE ON HEATER MODEL NO. VT-20G & VT-30A-G

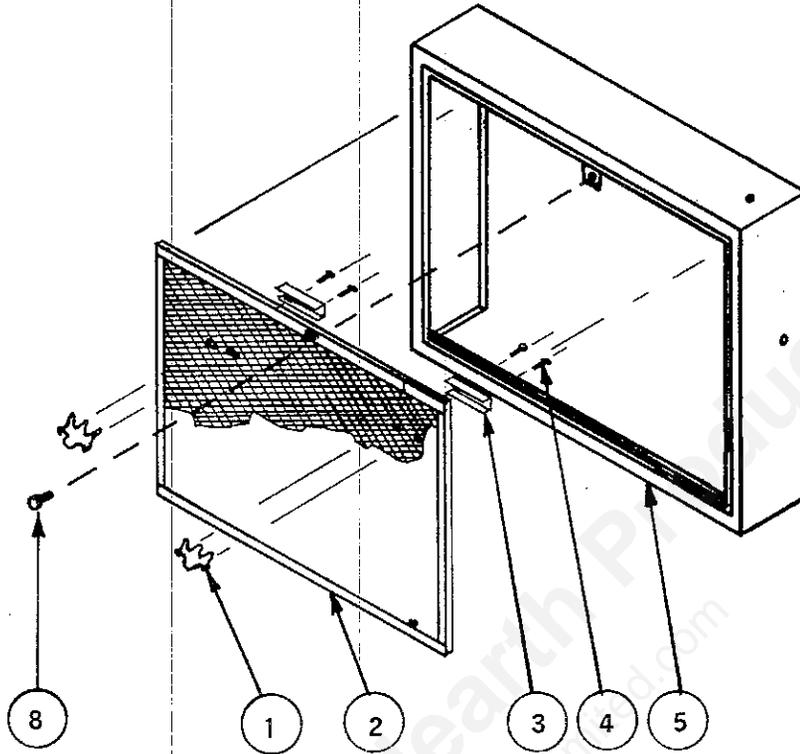


FAN KIT NO. F-31

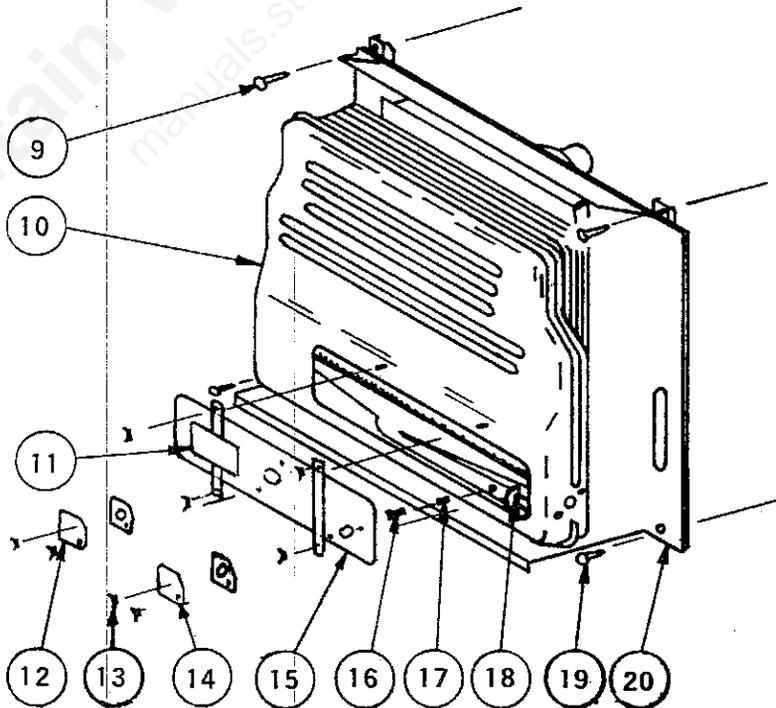
FOR USE ON HEATER MODEL VT-45G



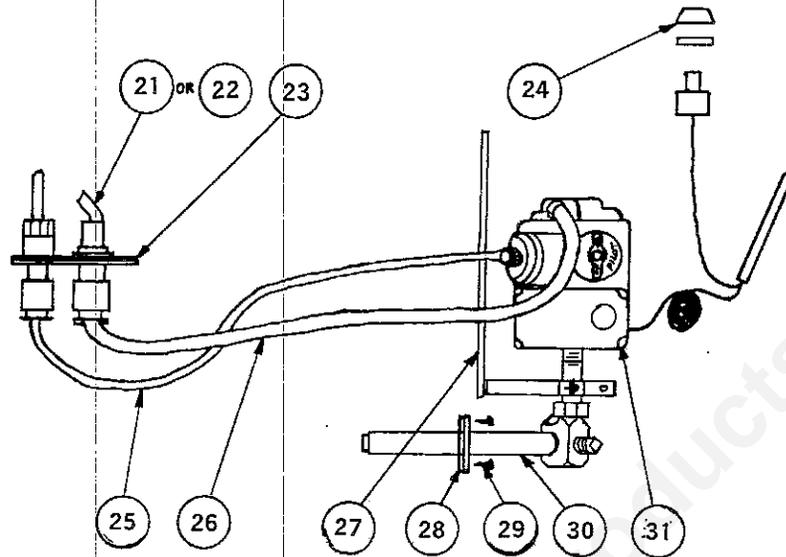
CABINET ASSEMBLY



COMBUSTION UNIT



CONTROL VALVE UNIT



PARTS LIST

Key No.	Description	Model Number		
		VT-20	VT-30	VT-45
1	Handle - Brass - Eagle (2)	9396	9396	9396
2	Cabinet Front	6480	6481	6482
3	Bracket, Handle (2)	1145	1145	1145
4	Screw No. 10-24 x 3/4 Tr. Hd.			
5	Cabinet	6473	6474	6475
8	Knurled Head Screw	9014	9014	9014
9	Screw No. 10 x 1 1/4	9257	9257	9257
10	Combustion Unit	6451	6452	6453
11	Rating Plate	9381	9381	9381
12	Pilot Door	6472	6472	6472
13	Wing Nut	9295	9295	9295
14	Air Adjusting Door	1475	1475	1475
15	Burner Access Door	6470	6470	6470
16	Air Adjusting Screw	9318	9318	9318
17	Air Adjusting Screw Spring	9317	9317	9317
18	Burner	6492	6492	6492
19	Screw No. 10x1/2 Tr. Hd.	5303	5303	5303
20	Main Back	6476	6477	6477
21	Pilot Burner - Nat.	9264	9264	9264
22	Pilot Burner - LP	9125	9125	9125
23	Pilot Gasket	9303	9303	9303
24	Knob with Nut	9207	9207	9207
25	Thermocouple	9426	9426	9426
26	Pilot Tube	9517	9517	9517
27	Control Shield	6495	6495	6495
28	Manifold Gasket	9237	9237	9237
29	Screw No. 10x5/8 Tr. Hd.			
30	Manifold	9265	9265	9265
31	Unitrol - 7000ASR-1H Nat.	9127	9127	9127
	Unitrol - 7000 AS-1H LP	9126	9126	9126

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 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

Lawson Division

UNITED STATES STOVE COMPANY • SOUTH PITTSBURG, TENNESSEE