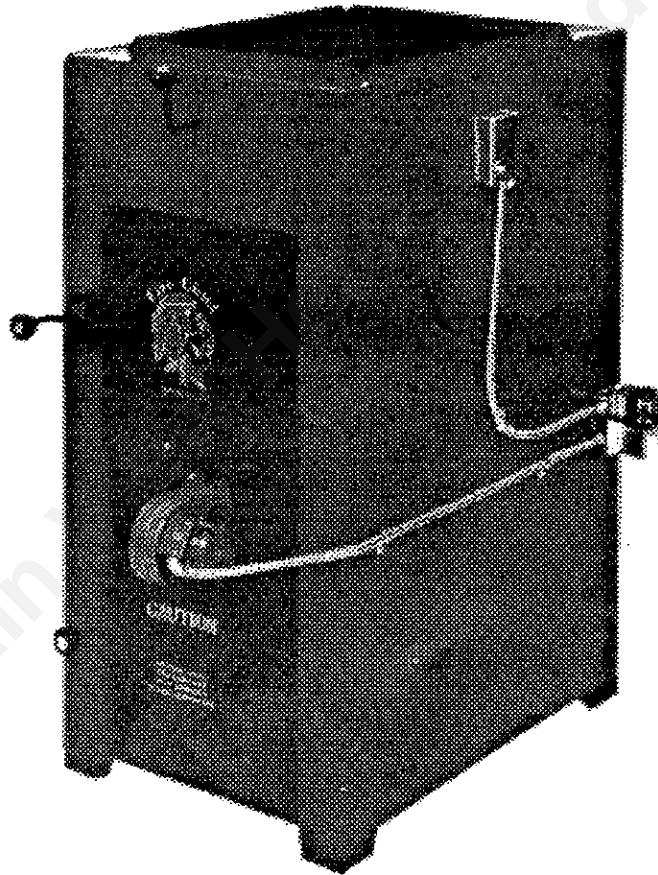


FIRE CHIEF

WOOD & COAL FURNACES

MODEL FC400 (WOOD ONLY)

MODELS FC500, FC700, FC1100 (WOOD & COAL)



OWNER'S MANUAL



UL391 Tested by PFS

MANUFACTURED BY:

Victorian Sales
1808 Larkin Williams Road
Fenton, Missouri 63026
(314) 343-4747



851209B 5/97

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IMPORTANT

Congratulations, you have selected the finest quality wood and coal burning furnace manufactured with pride in the USA. Please take a few moments to carefully read the owner's manual. By taking the time to familiarize yourself with your new Fire Chief, you will be able to look forward to years of trouble-free, dependable service.

- * **FIRST:** Check your local codes. This installation must comply with their rulings.
- * **DO NOT** install this furnace in a modular home, mobile home or trailer.
- * **ALWAYS** have a smoke-detector installed in your home.
- * To prevent injury or damage, do not allow anyone who is unfamiliar with the furnace operate it.
- * Spend some time familiarizing yourself with your furnace, the different settings and their effects on burning patterns. It is impossible to state how each setting will affect your furnace due to variations in settings, fuels and temperatures.

TRANSPORTATION DAMAGES

Every effort has been made to insure that your Fire Chief will arrive in perfect condition. If upon unpacking your Fire Chief, you find damage has occurred during transit, notify your supplier immediately. Your supplier will advise you as to what actions must be taken to correct the problem.

DISCLAIMER NOTICE

The listed BTU rating of your new Fire Chief was obtained under ideal laboratory testing conditions. The actual BTU output you experience may vary somewhat depending on the type, condition and moisture of the fuel used, the damper adjustment, chimney type and other variable factors. Therefore, the manufacturer disclaims any guarantee to the BTU output or capacity of your unit.

MANUFACTURER'S NOTICE

Please be advised that we periodically make changes to improve our products. Therefore the information in this manual may not be completely compatible with your unit.

**THIS IS A WOOD AND COAL BURNING
FURNACE (FC400 - WOOD ONLY)
AND SHOULD NOT BE ALTERED
IN ANY WAY!**

**ALWAYS KEEP YOUR WOOD COVERED YEAR ROUND. DRY WOOD
WILL PRODUCE MORE BTU OUTPUT AND LONGER BURN TIMES.**

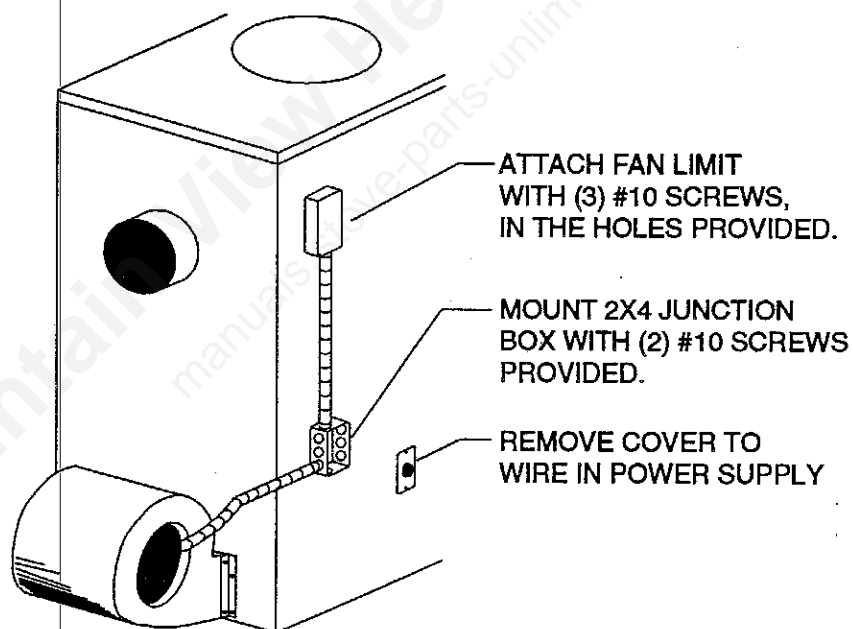
ASSEMBLY INSTRUCTIONS

MODEL FC400

Please review the parts list contained on pages 14 and 15 of this manual to be assured that you have received all of the required components. If your inspection reveals a discrepancy, contact VICTORIAN SALES at the address and number listed in the back cover.

NOTE: For your convenience the Fire Chief FC400 has been factory assembled and pre-wired.

- 1.) Fasten the right and left side angle brackets to the circulation blower using 4 - 1/4" bolts and nuts. (Figure 1, Page 5)
- 2.) Align main circulating blower into position at the rear of the furnace and bolt securely into place using 4 - 1/4" bolts. (Figure 2, Page 5)
- 3.) Attach the Fan Limit Control to the left side of the unit with 3 - #10 screws using the pre-punched holes provided. (See Illustration Below)
- 4.) Secure the 2x4 Junction Box using the 2 - #10 screws provided and wire as shown on page 7.



ASSEMBLY INSTRUCTIONS

MODELS FC500, FC700, & FC1100

Please review the parts list contained on pages 16 Thru 19 of this manual to be assured that you have received all of the required components. If your inspection reveals a discrepancy, contact VICTORIAN SALES at the address and number listed in the back cover.

NOTE: For your convenience the Fire Chief has been factory assembled and pre-wired.

- 1.) Fasten the right and left side angle brackets to the circulation blower using 4 - 1/4" bolts and nuts. (Figure 1)
- 2.) Align main circulating blower into position at the rear of the furnace and bolt securely into place using 4 - 1/4" bolts. (Figure 2)
- 3.) Attach forced draft motor to front of furnace using 3 - #10 screws. (Figure 3, page 5)
- 4.) Position 3/8" conduit clip to the pre-punched hole on the side of the unit as shown in Figure 3, page 5. Also attach the 4x4 junction box to the right side of the unit using 2 - #10 screws provided in the parts bag. (See Figure 3).
- 5.) Fasten Fan Limit control to the right side of the unit with 3 - #10 screws using pre-punched holes provided. (See Figure 3, page 5).
- 6.) Assemble Filter box as shown in Figure 4a, page 5. Set filter box to rear of furnace, cover rear distribution blower. Raise filter box off floor approximately 4". Make sure filter box is pressed tightly to back of furnace. Use 6 #8 self-tapping screws to attach filter box to the back of the furnace. (See Figure 4b). Run blower motor wires through electrical conduit to 3-speed switch and connect wires. (See Wiring diagram Page 6). **NOTE:** Filter not included with unit; filter size: 18"x25"x1".
*** Inspect air filter regularly. The air filter in the filter box should be changed at least every 30 days.**
- 7.) Attach the thermostat to the wall using 2 - #18 wires (not provided). We recommend locating the Fire Chief thermostat as near to the original thermostat as possible.
- 8.) Examine shaker grate assembly to verify that it has not loosened during transit. It should be positioned to rest evenly on the bottom of the fire chamber. Adjust accordingly if necessary.

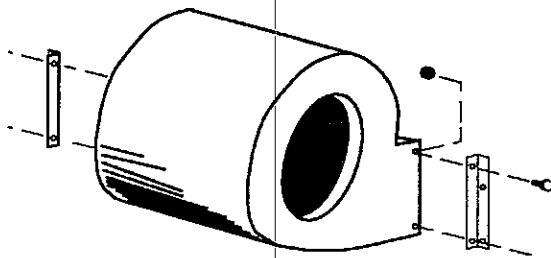


Figure 1

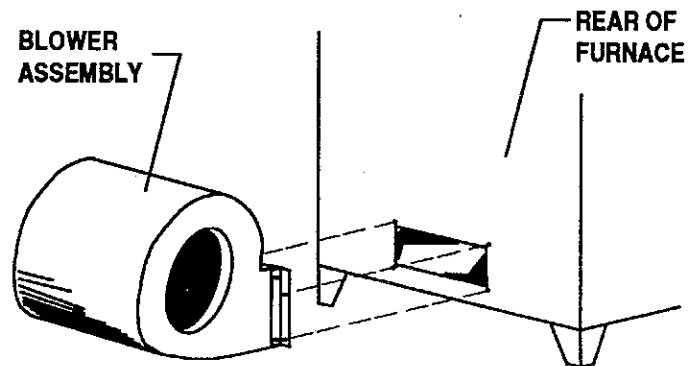


Figure 2

ASSEMBLY INSTRUCTIONS CONT..

MODELS FC500, FC700, FC1100

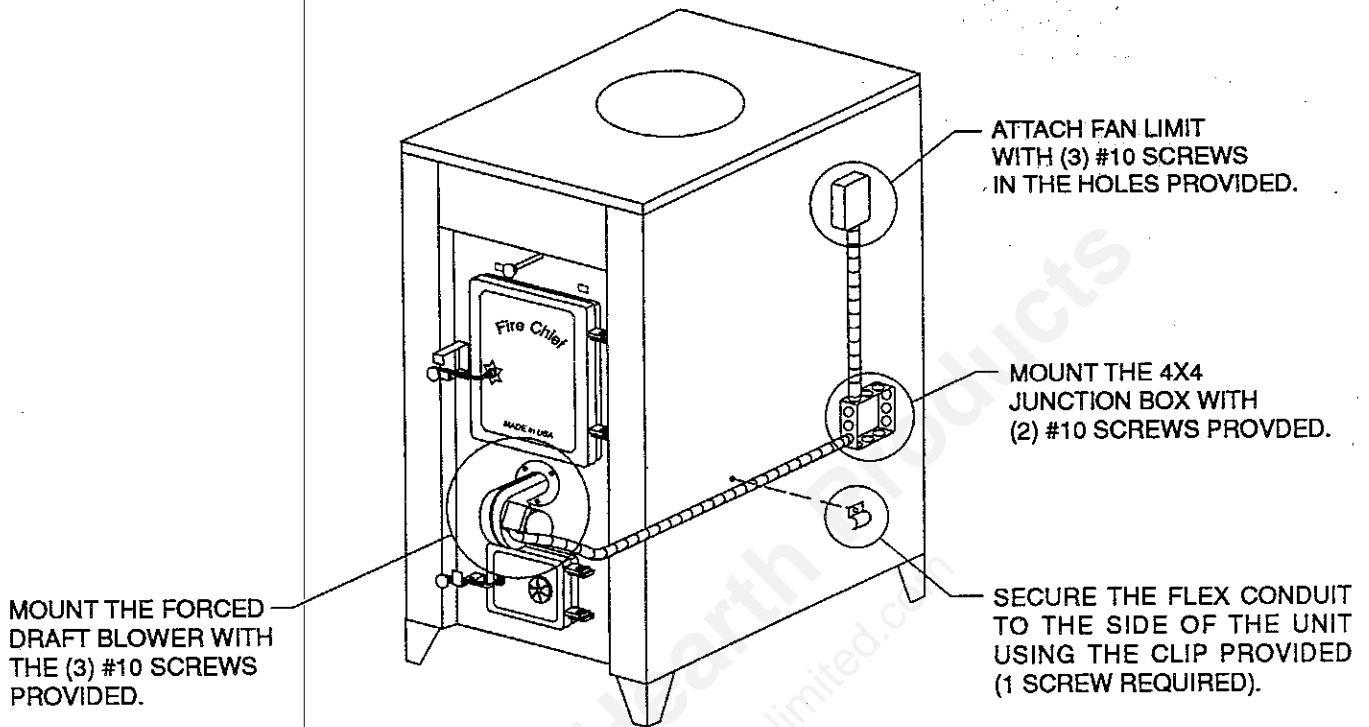


Figure 3

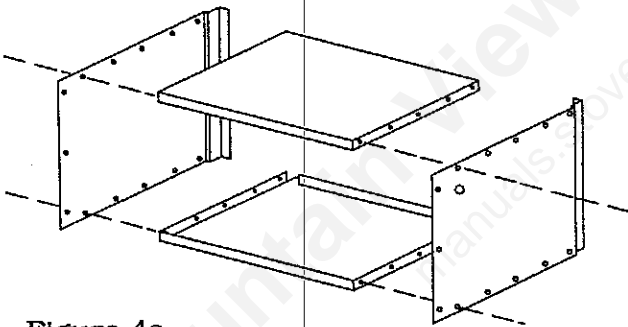


Figure 4a - ASSEMBLE FILTER BOX USING THE SCREWS PROVIDED. NOTE: THE SIDE WITH THE 1" HOLE IN THE CORNER MUST BE MOUNTED ON THE RIGHT SIDE OF THE UNIT.

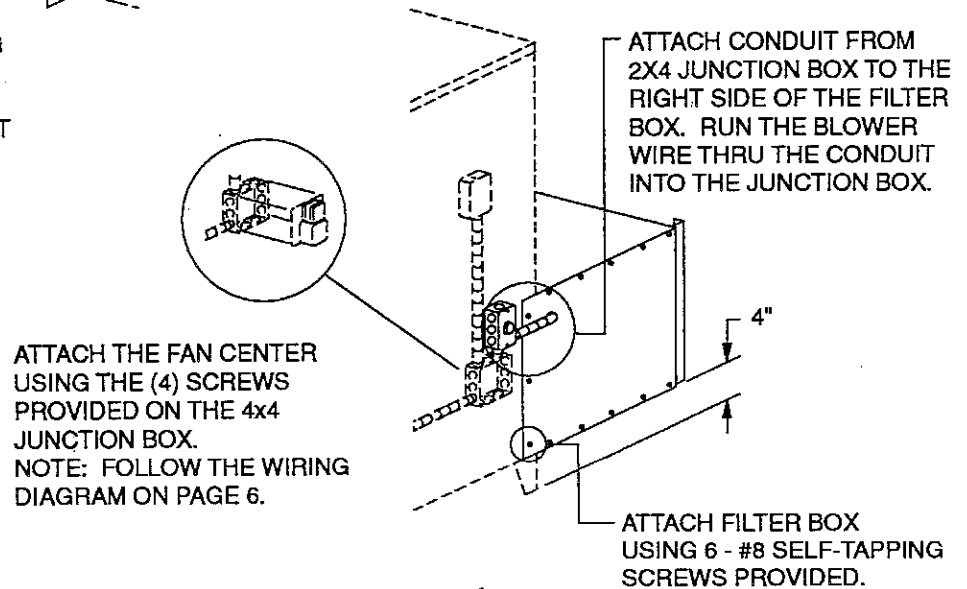
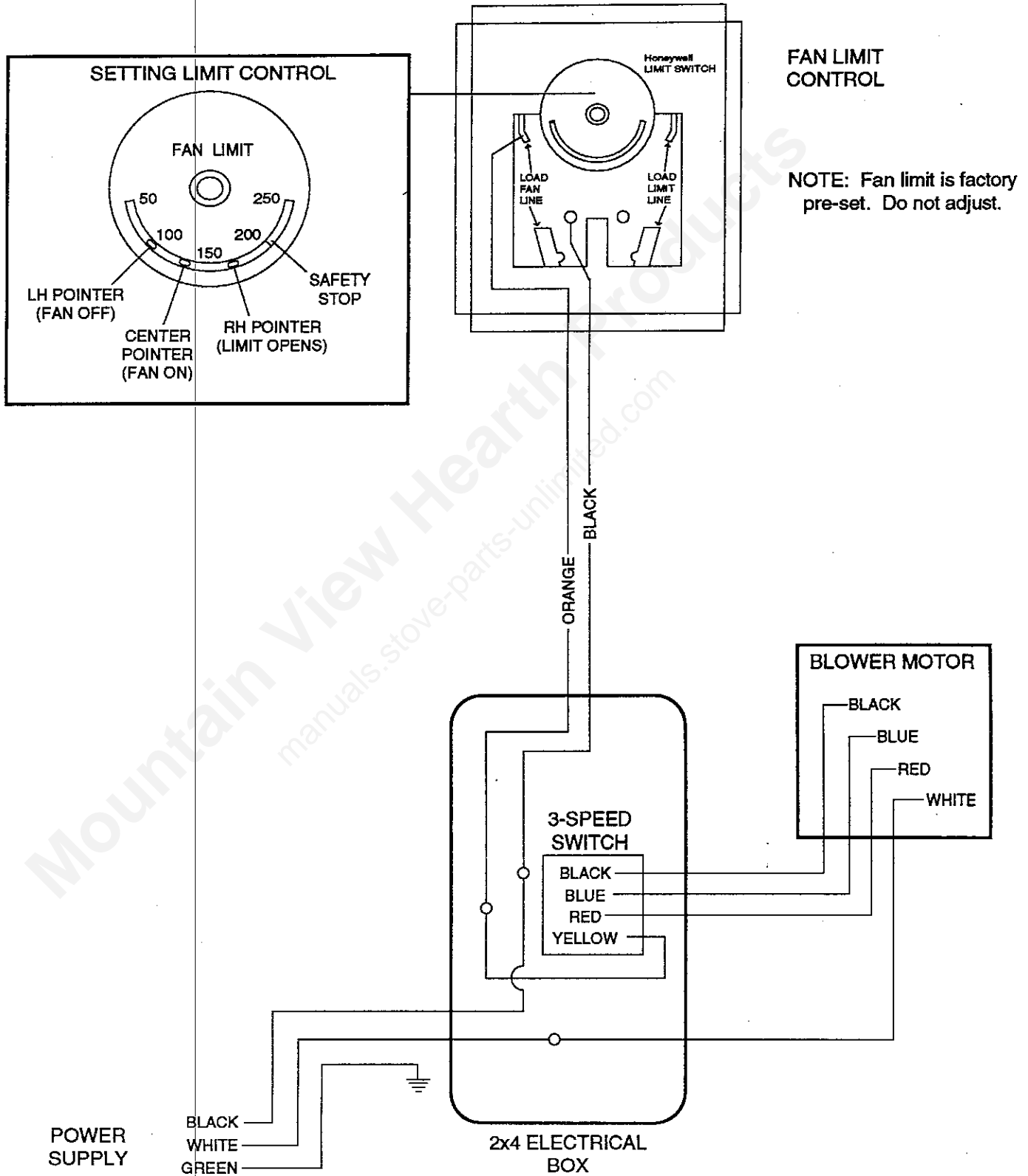


Figure 4b

WIRING DIAGRAM FOR MODEL FC400



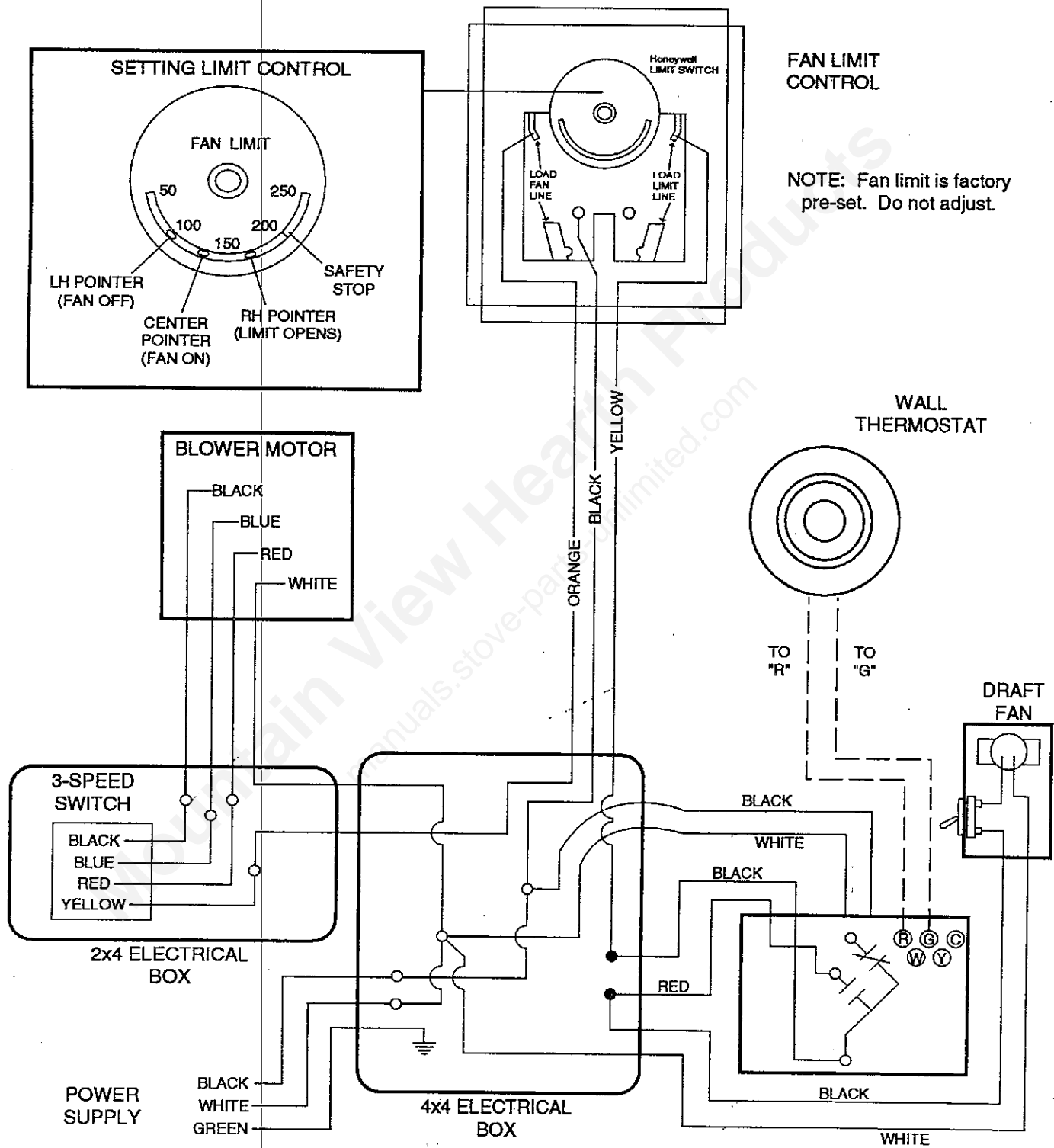
FAN LIMIT CONTROL

NOTE: Fan limit is factory pre-set. Do not adjust.

ALL WIRING SHOULD BE DONE BY A QUALIFIED ELECTRICIAN

WIRING DIAGRAM

FOR MODELS FC500, FC700, & FC1100



FAN LIMIT CONTROL

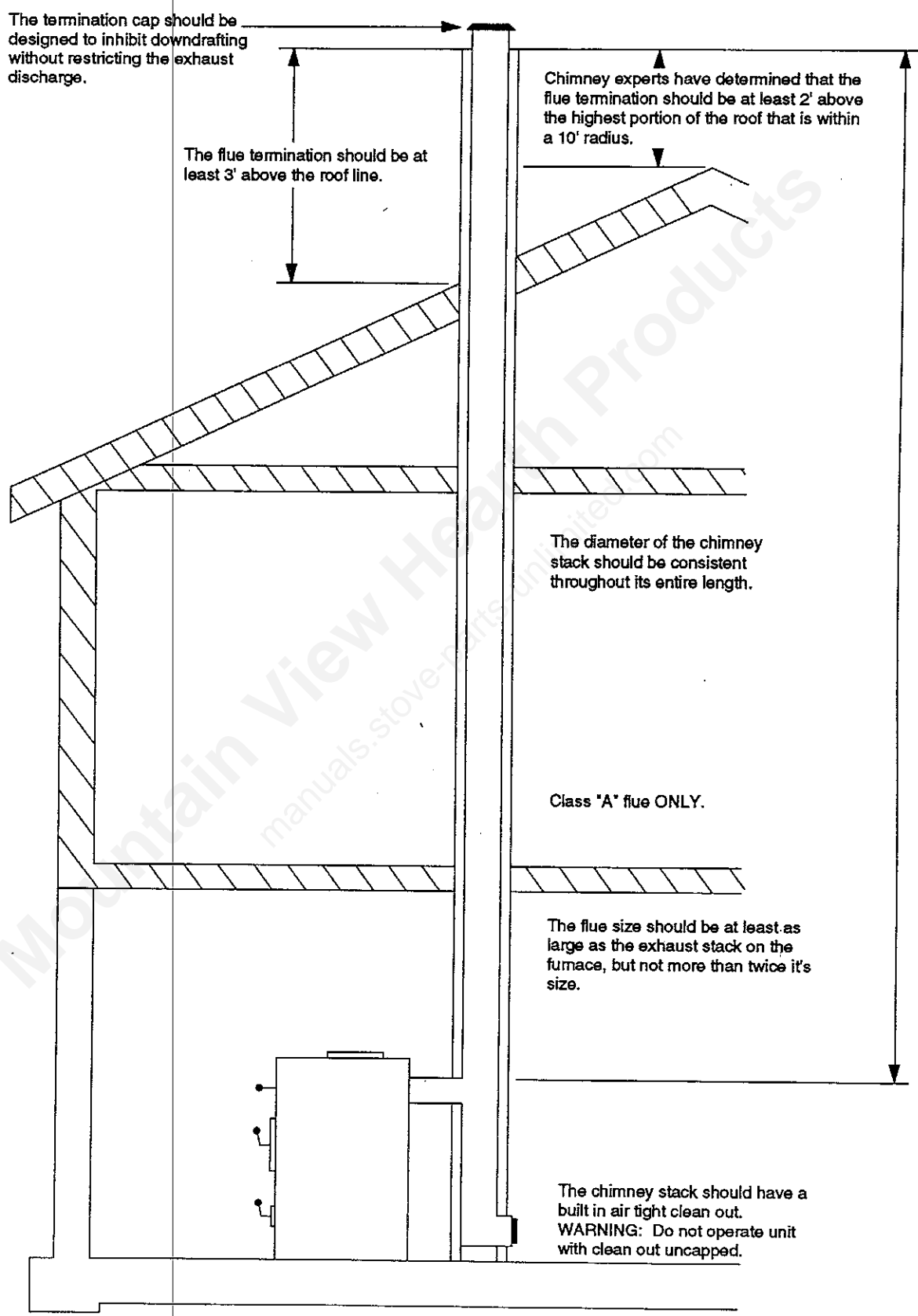
NOTE: Fan limit is factory pre-set. Do not adjust.

WALL THERMOSTAT

DRAFT FAN

ALL WIRING SHOULD BE DONE BY A QUALIFIED ELECTRICIAN

FLUE RECOMMENDATIONS



The termination cap should be designed to inhibit downdrafting without restricting the exhaust discharge.

The flue termination should be at least 3' above the roof line.

Chimney experts have determined that the flue termination should be at least 2' above the highest portion of the roof that is within a 10' radius.

The diameter of the chimney stack should be consistent throughout its entire length.

Class "A" flue ONLY.

The flue size should be at least as large as the exhaust stack on the furnace, but not more than twice it's size.

The chimney stack should have a built in air tight clean out.
WARNING: Do not operate unit with clean out uncapped.

SPECIFICATIONS:

Laboratory testing has proven that a central solid fuel furnace provides the most viable solution to the current problem of utility dependence. In consideration of this fact, the Fire Chief has been engineered to accommodate the heating requirements of the average sized home, even in the coldest winter months. It is constructed with high grade, heavy gauge steel (7 & 10), and is continually welded to assure the utmost in structural strength. In addition, the heat exchanger is lined with firebrick to ensure many years of productive service. The design of the secondary combustion chamber increases fuel efficiency by reburning smoke and wood gases before they are vented up the chimney. The cast iron doors are custom fitted providing an air tight seal, thereby greatly extending the fire cycle. We have also included a heavy gauge cast iron grate to aid in ash removal and reduce maintenance. Furthermore, we added a thermostatically controlled forced draft (models FC500, FC700, FC1100) and circulation blower system. These fully-automatic components furnish rapid heat disbursement to your home, minimizing the recovery time whenever the thermostat demands heat.

LOCATION AND INSTALLATION:

NOTE:

- 1.) Before beginning your installation consult the proper authorities for local codes governing all such applications.
- 2.) Do not connect your Fire Chief into any flue that services another appliance.

Your new Fire Chief must be placed on a non-combustible floor. If your unit is an add-on, it should be positioned as close to the chimney as possible.

RECOMMENDATION:

We recommend purchasing a Chimfex Brand dry chemical flue fire extinguisher. These are readily available at most stove shops and hardware stores. We also recommend the installation of smoke detectors on each level of you home. Finally, we recommend installing a fire extinguisher within the furnace room or area.

FLUE TYPE AND SPECIFICATIONS:

Safety requirements demand that your new Fire Chief be connected to a Class "A" all fuel chimney ONLY. Class "A" by definition refers to either a flue lined masonry chimney, or a Class "A" all fuel factory built type. Although experts have expressed differing opinions as to which system is superior, we feel it is a matter of what you find most suitable. Regardless of your choice of flue type, it must be a minimum of 6 inches in diameter for models FC400, FC500 and for the FC700, and a minimum of 8" for the model FC1100. In order to create the best draft efficiency the flue size should not be in excess of 12 inches. The stove pipe required to connect your furnace to the flue should be a minimum of 24 gauge thickness. NEVER USE GALVANIZED PIPE. The horizontal run should not exceed five feet, and should have a minimum of a two inch rise per foot. No installation should have more than two elbows, and that a 45 degree elbow is always preferable to a 90 degree elbow. As a safety precaution, all sections should be fastened together with at least three sheet metal screws. For your convenience, the male ends should point toward the furnace to form dripless connections, thereby preventing any creosote leakage from the joints. We do not recommend installing a heat reclaimer in the stove pipe because it reduces the stack temperature, thus causing creosote accumulation. Finally, we recommend installing a manually operated cast iron damper in the stove pipe between the furnace and the chimney flue. The addition of the damper will greatly assist you in regulating you fire. Always install a tee with a clean out cap to the flue outlet on the back of the furnace. This allows for easy clean out of the flue.

ALWAYS KEEP YOUR WOOD COVERED YEAR ROUND.

DRY WOOD WILL PRODUCE MORE BTU OUTPUT AND LONGER BURN TIME.

WARNING:

- 1.) Never use galvanized pipe in your connection because it produces poisonous gases when subjected to extreme temperatures.
- 2.) Use ONLY Class "A" masonry or manufactured Class "A" all fuel chimney.
- 3.) INSPECT flues periodically for structural integrity.
- 4.) CLEAN flues regularly to prevent creosote accumulation.
- 5.) NEVER leave ash pan in furnace during operation.

FORCED HOT AIR CIRCULATION:

The plenum size of your Fire Chief must not be reduced to less than 12 inches round, and must provide a minimum of 18 inches between the top of your Fire Chief and the main trunk connection. The unit must maintain the following clearances to combustibles in inches:

Heat Plenum	3"	Chimney Connector	18"
Front	36"	Rear	31"
Side	12"	Main Furnace	12"

These tolerances are minimums and should be strictly adhered to because during a power outage a dangerous level of heat accumulation may develop.

DUCT RUNS:

Duct work should be designed so the external static pressure does not exceed .02 Water Column inches while developing air velocities of 600 feet to 1,000 feet per minute in the main trunk duct and 400 feet to 600 feet per minute at the registers. The heat outlet area should never be less than 12 inches round. The Fire Chief MUST be installed with a cold air return system. This system should be no smaller than the heat outlet to readily transfer the cold air back to the furnace.

FUEL RECOMMENDATIONS:

We advise using only hard woods rather than highly resined wood such as pine. Firewood should be cut at least one full season prior to the time of its intended use. Firewood should be stacked in order to provide free flow of air between the logs, thus allowing more rapid seasoning. If wood is to be stored outside, it should be covered completely year round to protect it from exposure and moisture.

WARNING:

NEVER fuel your furnace with wet, unseasoned wood or wood that has been exposed to a recent rainfall. Burning wood with a high moisture content will cause a rapid accumulation of hazardous creosote, which has been proven the most common cause of flue fires.

NEVER burn plastics, any wood products containing glue or those that have been treated with chemical preservatives. The combustion of these substances may release harmful toxic gases.

DANGER:

Due to the risk of uncontrollable fire or explosion, DO NOT attempt to use gasoline, flammable liquids, refuse oil or garbage as an agent for combustion.

PERFORMANCE OF UNIT:

Your new Fire Chief is classified as having air tight construction. This type of design should enable you to experience an average fire time of between six and eight hours per full load of fuel. However, abnormally cold weather may reduce the fire time somewhat; therefore, if your fire cycle is significantly less, for instance two to four hours, you are over-firing your unit. This type of occurrence is usually symptomatic of heat demands in excess of furnace capacity. Therefore, contact an authorized professional to determine if your unit is improperly sized for your home. **NOTE:** Over-firing or deliberate abuse can be readily ascertained upon inspection and will VOID your warranty.

FIRING YOUR UNIT:

MODEL FC400:

Remove ash pan from the unit, close ash door, adjust the spin drafts and flue damper to a fully opened position. Then, crumple a few large sheets of paper and place in firebox. Add small pieces of kindling, then light the paper and close the flue door. It will require about twenty minutes to establish a bed of hot embers. Afterwards add larger pieces of firewood. Within thirty to forty minutes, readjust the spin drafts and the flue damper to obtain optimum performance.

MODELS FC500, FC700, FC1100:

First adjust the thermostat to a setting that is higher than the present temperature of your home, and turn the manual switch on the draft blower to the ON position. Next, remove ash pan from the unit, close ash door, adjust the spin draft and flue damper to a fully opened position, and pull the by-pass rod all the way out. Then, crumple a few large sheets of paper and place in firebox. Add small pieces of kindling, then light the paper and close the flue door. It will require about twenty minutes to establish a bed of hot embers. Afterwards add larger pieces of firewood, and push the by-pass rod completely in. Within thirty to forty minutes, readjust the spin draft and the flue damper to obtain optimum performance. Finally, adjust the thermostat to a comfortable temperature setting.

NOTE:

- 1.) Your new Fire Chief is capable of producing a very high output of BTU's. Therefore, DO NOT fuel your furnace to capacity on the initial firing. Instead we recommend becoming thoroughly familiar with your unit before operating it at capacity.
- 2.) Because the steel in the furnace is new there may be oil or paint on the metal, which could produce an odor during the break-in period. We recommend you provide adequate ventilation within the home to accommodate this possibility.

CAUTION:

- 1.) DO NOT operate with fuel or ash door open.
- 2.) DO NOT operate with by-pass rod open. Handle must be pushed all the way in except when refueling. (MODELS FC500, FC700, FC1100)
- 3.) Flue setting maximum 0.6 W.C., minimum 0.4 W.C.
- 4.) DO NOT leave the ash pan inside the furnace during operation.

GENERAL OPERATION:

NOTE: (MODELS FC500, FC700, FC1100)

- 1.) Always pull the by-pass rod all the way out before opening the fuel door.
- 2.) Turn the manual switch on the draft blower to "OFF" position before opening fuel door.

When opening the fuel door during operation, wait ten seconds after releasing the first latch, then proceed to the fully open position. This dual latch system has been incorporated as a safety feature designed to eliminate the possibility of gaseous ignition. Laboratory testing has determined that when incomplete combustion occurs the partially spent fuel sometimes concentrates large amount of potentially hazardous gases within the fire chamber. If the door is opened suddenly under these conditions, oxygen may combine with these gases and cause ignition. Therefore, USE CAUTION when opening the loading door.

When reloading a unit with hot embers, spread the hot embers evenly over the grate. Place smaller pieces of wood on the hot coals and add larger pieces of wood on top of them.

Finally, due to the wide variety of temperature ranges during the winter, you may experience periods when it is not necessary to fully load the fire chamber in order to maintain an overnight burn. Your unit will operate at the highest efficiency by adding fuel in amounts to maintain comfortable temperatures in your home.

WARNING:

In the event of a chimney fire, take the following actions immediately:

- 1.) Activate and toss a ChimFex Brand dry chemical flue fire extinguisher into the fire chamber.
- 2.) Close the ash door, fuel door and spin draft.
- 3.) Alert the whole household and prepare to evacuate if necessary.
- 4.) Call your local fire department.

ASH REMOVAL:

In order to remove ashes, open ash door and slide ash pan to the rear of the furnace. Remove the pan from the furnace and dump ashes into an airtight METAL container. Always place this container on a non-combustible surface.

DANGER:

Emptying hot ashes into a combustible container is an extreme fire hazard.

NOTE:

- 1.) As previously mentioned, the ash pan should be removed from the unit during operation. We recommend this precautionary measure because if the ash pan is allowed to remain inside the unit during operation, it will become dangerously hot to touch and block the air flow under the grates.
- 2.) We advise removing ashes at least once a day or as often as necessary to ensure that the ashes never accumulate to the grate level. If ash build-up is allowed at the grate level, it will cause premature failure and deterioration of the grates, thereby voiding the warranty on the grates. The unacceptably high temperatures will result because the ashes have restricted the flow of cooling air beneath the grate. This flow of air was designed to not only cool the grate, but to also provide the chamber with warmed air for combustion. If the ash level is improperly maintained the fire chamber will be starved for combustion air, consequently reducing overall efficiency.
- 3.) Wood ash is an especially potent fertilizer.

CREOSOTE PREVENTION:

To help prevent the formation of creosote within the flue, always burn dry, seasoned wood. Dry wood burns hotter, allowing the flue gases to maintain a temperature above 212 degrees which should prevent the formation of creosote within the flue. If the flue gas temperature falls below 212 degrees, condensation occurs causing the formation and accumulation of creosote within the flue. As an added safety measure, periodic flue inspections are advised throughout the heating season to determine if creosote build-up has occurred. The venting system should be cleaned and inspected prior to each heating season.

**ALWAYS KEEP YOUR WOOD COVERED YEAR ROUND.
DRY WOOD WILL PRODUCE MORE BTU OUTPUT AND LONGER BURN
TIME.**

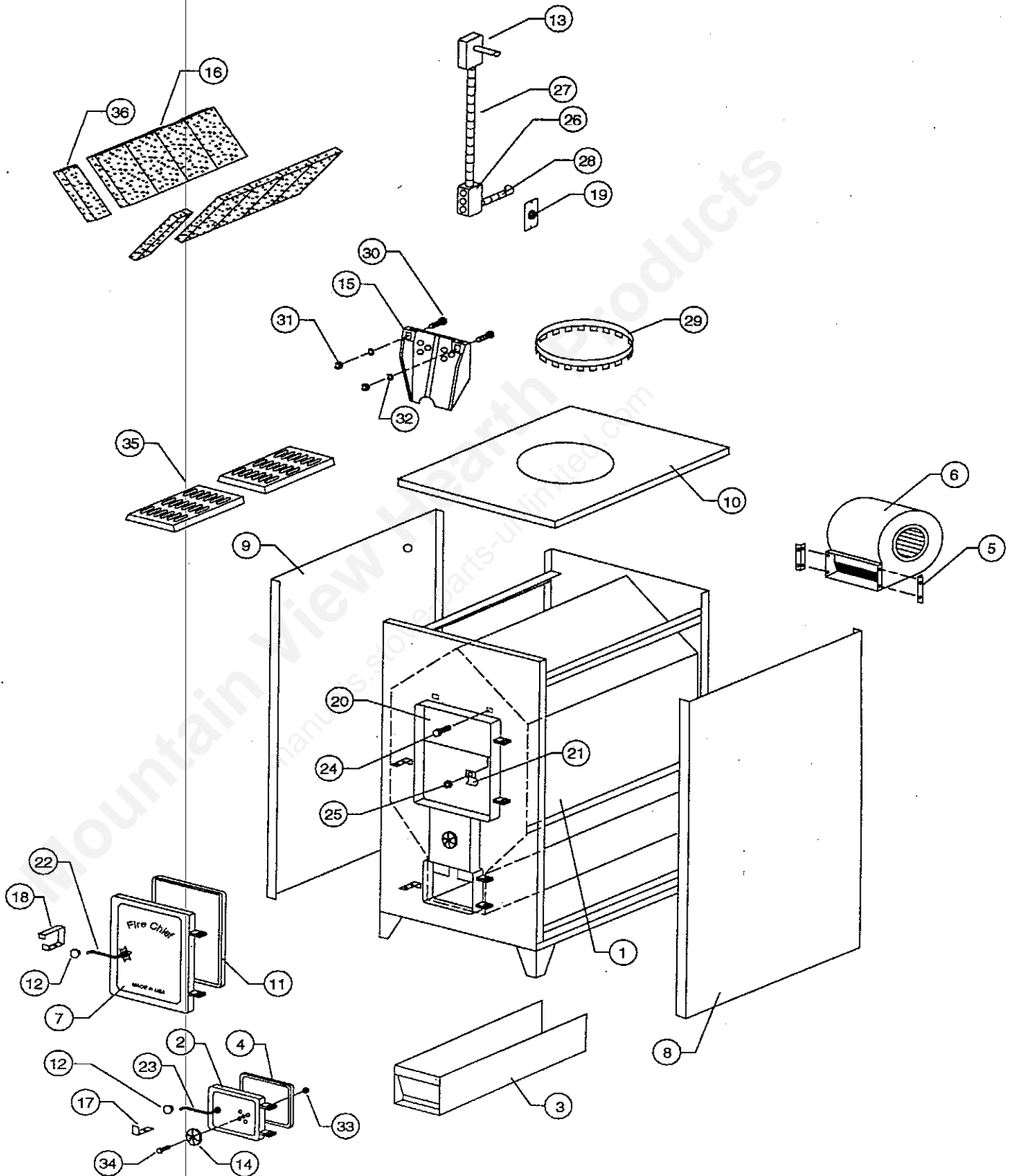
MODEL FC400 PARTS LIST

(SEE PAGE 15 FOR PARTS DIAGRAM)

ITEM #	DESCRIPTION	PART #	QTY.
1	FIREBOX ASSEMBLY	69105	1
2	ASH DOOR (24381) ASSEMBLY	69015	1
3	ASH PAN ASSEMBLY	69014	1
4	ROPE GASKET (ASH DOOR) 1/2"	88057	25"
N/S	DOOR PINS (FUEL & ASH DOOR)	C21395	4
5	BLOWER BRACKET	24385(R), 24386(L)	1EA.
6	CIRCULATING BLOWER ASSEMBLY	69022	1
7	FUEL DOOR (24380) ASSEMBLY	69016	1
8	SHROUD - RIGHT SIDE ASSEMBLY	69106	1
9	SHROUD - LEFT SIDE ASSEMBLY	69107	1
10	SHROUD - TOP	24546	1
11	ROPE GASKET (FUEL DOOR) 1/2"	88057	45"
12	KNOBS	89794	2
13	FAN LIMIT	80145	1
14	SPIN DRAFT	24382	1
15	REAR CAST IRON BAFFLE	40362	1
16	SIDE FIREBRICK	89066	8
17	ASH DOOR LATCH	24320	1
18	FUEL DOOR LATCH	24369	1
19	3-SPEED BLOWER SWITCH	80395	1
20	SMOKE CURTAIN	24328	1
21	SMOKE DOOR CLIP	23787	2
22	FEED DOOR HANDLE	24390	1
23	ASH DOOR HANDLE	24391	1
24	1/4X1-1/4" CARR. BOLT	83445	2
25	1/4" LOCK NUT	83261	2
26	2X4 JUNCTION BOX	80125	1
27	CONDUIT ASSEMBLY	69025	1
28	CONDUIT ASSEMBLY	69026	1
29	STUB COLLAR	89799	1
30	5/16-18 X 2-3/4" HEX BOLT	83469	2
31	5/16-18 HEX LOCK NUT	83423	2
32	9/16 I.D. FLAT WASHER	83446	2
33	5/16-18 HEX LOCK NUT	83423	1
34	5/16-18 X 1-3/4 BOLT	83471	1
35	WOOD GRATE	40371	2
36	HALF-BRICK	24550	2

N/S = NOT SHOWN

PART DIAGRAM (MODEL FC400)



MODEL FC500 PARTS LIST

(SEE PAGE 19 FOR PARTS DIAGRAM)

ITEM #	DESCRIPTION	PART #	QTY.
1	FIREBOX ASSEMBLY	69009	1
2	ASH DOOR (40352) ASSEMBLY	69015	1
3	ASH PAN ASSEMBLY	69014	1
4	ROPE GASKET (ASH DOOR) 1/2"	88057	25"
N/S	DOOR PINS	C21395	4
5	BLOWER BRACKET	24385(R), 24386(L)	1EA.
6	CIRCULATING BLOWER ASSEMBLY	69022	-
*	BLOWER (HOUSING & WHEEL)	89798	1
*	3-SPEED BLOWER MOTER	80393	1
7	FORCED DRAFT BLOWER	80392	1
8	FUEL DOOR (40351) ASSEMBLY	69016	1
9	SHROUD - RIGHT SIDE ASSEMBLY	69035	1
10	SHROUD - LEFT SIDE ASSEMBLY	69036	1
N/S	CABINET SIDE INSULATION	24365	2
11	SHROUD - FRONT	24329	1
12	SHROUD - TOP	24332	1
13	ROPE GASKET (FUEL DOOR) 1/2"	88057	45"
14	KNOBS	89794	3
15	FAN LIMIT	80145	1
16	SLIDER ASSEMBLY	69010	1
17	SPIN DRAFT	24382	1
18	SHAKER GRATE - FRONT	40354	1
19	SHAKER GRATE - REAR	40355	N/A
20	SHAKER GRATE - SMALL MIDDLE	40364	1
21	SHAKER GRATE - MIDDLE	40356	N/A
22	GRATE HOUSING - FRONT	40357	1
23	GRATE HOUSING - REAR	40358	N/A
24	GRATE HOUSING - SMALL MIDDLE	40365	1
25	GRATE HOUSING - MIDDLE	40359	N/A
26	SHAKER GRATE HANDLE	40360	1
27	FRONT CAST IRON AIR BAFFLE	40361	1
28	REAR CAST IRON BAFFLE	40362	1
29	WALL THERMOSTAT	80394	1
30	SIDE FIREBRICK	89066	10
31	SHAKER GRATE RETAINER	40363	1
32	ASH DOOR LATCH	24320	1
33	FUEL DOOR LATCH	23786	1
34	CONDUIT ASSEMBLY	69024	1
35	RETURN AIR FILTER BOX	-	-
*	LEFT SIDE	24360	1
*	RIGHT SIDE	24361	1
*	TOP	24362	1
*	BOTTOM	24363	1
36	3-SPEED BLOWER SWITCH	80395	1
37	FAN RELAY CENTER	80396	1
38	SMOKE CURTAIN	24328	1
39	SMOKE DOOR CLIP	23787	2
40	FEED DOOR HANDLE	89789	1
41	ASH DOOR HANDLE	89790	1
42	SLIDER ROD	89793	1
43	4X4 JUNCTION BOX	80231	1
44	1/4X1-1/4" CARR. BOLT	83445	2
45	1/4" LOCK NUT	83261	2
46	2X4 JUNCTION BOX	80125	1
47	CONDUIT ASSEMBLY	69025	1
48	CONDUIT ASSEMBLY	69026	1
49	STUB COLLAR	89799	1
50	CONDUIT CLIP	89801	1
51	5/16-18 X 2-3/4" HEX BOLT	83469	2
52	5/16-18 HEX LOCK NUT	83423	2
53	9/16 I.D. FLAT WASHER	83446	2
54	5/16 HEX LOCK NUT	83421	2
55	7/16 I. D. WASHER	83470	2
56	3/8 X 1 HEX BOLT	83419	2
57	5/16-18 HEX LOCK NUT	83423	1
58	5/16-18 X 1-3/4 BOLT	83471	1

N/A = NOT AVAILABLE FOR THIS MODEL

N/S = NOT SHOWN

* = INCLUDED IN ASSEMBLY

MODEL FC700 PARTS LIST

(SEE PAGE 19 FOR PARTS DIAGRAM)

ITEM #	DESCRIPTION	PART #	QTY.
1	FIREBOX ASSEMBLY	69009	1
2	ASH DOOR (40352) ASSEMBLY	69015	1
3	ASH PAN ASSEMBLY	69014	1
4	ROPE GASKET (ASH DOOR) 1/2"	88057	25"
N/S	DOOR PINS	C21395	4
5	BLOWER BRACKET	24385(R), 24386(L)	1EA.
6	CIRCULATING BLOWER ASSEMBLY	69022	-
*	BLOWER (HOUSING & WHEEL)	89798	1
*	3-SPEED BLOWER MOTER	80393	1
7	FORCED DRAFT BLOWER	80392	1
8	FUEL DOOR (40351) ASSEMBLY	69016	1
9	SHROUD - RIGHT SIDE ASSEMBLY	69035	1
10	SHROUD - LEFT SIDE ASSEMBLY	69036	1
N/S	CABINET SIDE INSULATION	24365	2
11	SHROUD - FRONT	24329	1
12	SHROUD - TOP	24332	1
13	ROPE GASKET (FUEL DOOR) 1/2"	88057	45"
14	KNOBS	89794	3
15	FAN LIMIT	80145	1
16	SLIDER ASSEMBLY	69010	1
17	SPIN DRAFT	24382	1
18	SHAKER GRATE - FRONT	40354	1
19	SHAKER GRATE - REAR	40355	N/A
20	SHAKER GRATE - SMALL MIDDLE	40364	N/A
21	SHAKER GRATE - MIDDLE	40356	1
22	GRATE HOUSING - FRONT	40357	1
23	GRATE HOUSING - REAR	40358	N/A
24	GRATE HOUSING - SMALL MIDDLE	40365	N/A
25	GRATE HOUSING - MIDDLE	40359	1
26	SHAKER GRATE HANDLE	40360	1
27	FRONT CAST IRON AIR BAFFLE	40361	1
28	REAR CAST IRON BAFFLE	40362	1
29	WALL THERMOSTAT	80394	1
30	SIDE FIREBRICK	89066	12
31	SHAKER GRATE RETAINER	40363	1
32	ASH DOOR LATCH	24320	1
33	FUEL DOOR LATCH	23786	1
34	CONDUIT ASSEMBLY	69024	1
35	RETURN AIR FILTER BOX	-	-
*	LEFT SIDE	24360	1
*	RIGHT SIDE	24361	1
*	TOP	24362	1
*	BOTTOM	24363	1
36	3-SPEED BLOWER SWITCH	80395	1
37	FAN RELAY CENTER	80396	1
38	SMOKE CURTAIN	24328	1
39	SMOKE DOOR CLIP	23787	2
40	FEED DOOR HANDLE	89789	1
41	ASH DOOR HANDLE	89790	1
42	SLIDER ROD	89793	1
43	4X4 JUNCTION BOX	80231	1
44	1/4X1-1/4" CARR. BOLT	83445	2
45	1/4" LOCK NUT	83261	2
46	2X4 JUNCTION BOX	80125	1
47	CONDUIT ASSEMBLY	69025	1
48	CONDUIT ASSEMBLY	69026	1
49	STUB COLLAR	89799	1
50	CONDUIT CLIP	89801	1
51	5/16-18 X 2-3/4" HEX BOLT	83469	2
52	5/16-18 HEX LOCK NUT	83423	2
53	9/16 I.D. FLAT WASHER	83446	2
54	5/16 HEX LOCK NUT	83421	2
55	7/16 I. D. WASHER	83470	2
56	3/8 X 1 HEX BOLT	83419	2
57	5/16-18 HEX LOCK NUT	83423	1
58	5/16-18 X 1-3/4 BOLT	83471	1

N/A = NOT AVAILABLE FOR THIS MODEL

N/S = NOT SHOWN

* = INCLUDED IN ASSEMBLY

MODEL FC1100 PARTS LIST

(SEE PAGE 19 FOR PARTS DIAGRAM)

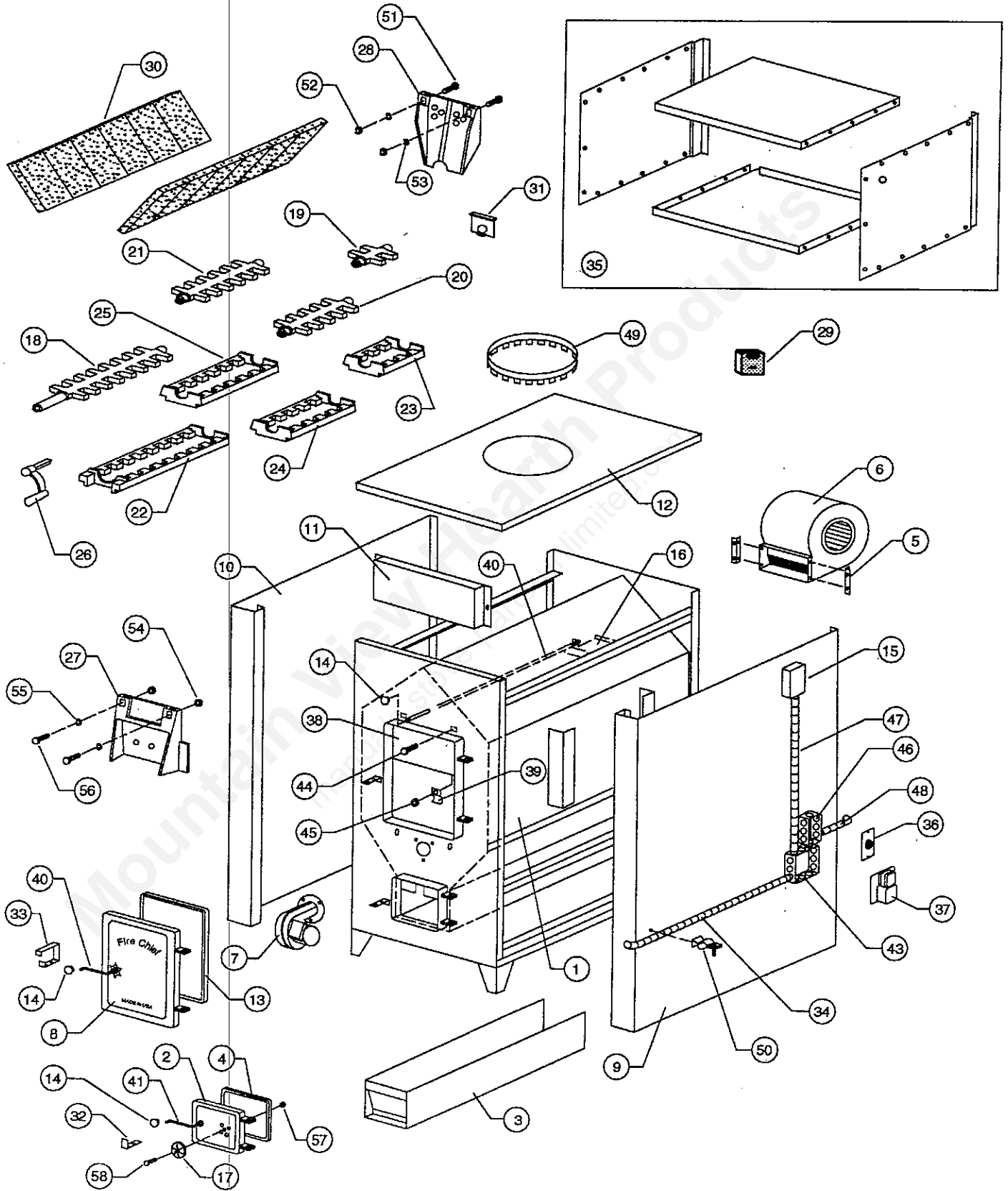
ITEM #	DESCRIPTION	PART #	QTY.
1	FIREBOX ASSEMBLY	69009	1
2	ASH DOOR (40352) ASSEMBLY	69015	1
3	ASH PAN ASSEMBLY	69014	1
4	ROPE GASKET (ASH DOOR) 1/2"	88057	25"
N/S	DOOR PINS	C21395	4
5	BLOWER BRACKET	24385(R), 24386(L)	1EA.
6	CIRCULATING BLOWER ASSEMBLY	69022	-
*	BLOWER (HOUSING & WHEEL)	89798	1
*	3-SPEED BLOWER MOTER	80393	1
7	FORCED DRAFT BLOWER	80392	1
8	FUEL DOOR (40351) ASSEMBLY	69016	1
9	SHROUD - RIGHT SIDE ASSEMBLY	69035	1
10	SHROUD - LEFT SIDE ASSEMBLY	69036	1
N/S	CABINET SIDE INSULATION	24365	2
11	SHROUD - FRONT	24329	1
12	SHROUD - TOP	24332	1
13	ROPE GASKET (FUEL DOOR) 1/2"	88057	45"
14	KNOBS	89794	3
15	FAN LIMIT	80145	1
16	SLIDER ASSEMBLY	69010	1
17	SPIN DRAFT	24382	1
18	SHAKER GRATE - FRONT	40354	1
19	SHAKER GRATE - REAR	40355	1
20	SHAKER GRATE - SMALL MIDDLE	40364	N/A
21	SHAKER GRATE - MIDDLE	40356	1
22	GRATE HOUSING - FRONT	40357	1
23	GRATE HOUSING - REAR	40358	1
24	GRATE HOUSING - SMALL MIDDLE	40365	N/A
25	GRATE HOUSING - MIDDLE	40359	1
26	SHAKER GRATE HANDLE	40360	1
27	FRONT CAST IRON AIR BAFFLE	40361	1
28	REAR CAST IRON BAFFLE	40362	1
29	WALL THERMOSTAT	80394	1
30	SIDE FIREBRICK	89066	16
31	SHAKER GRATE RETAINER	40363	1
32	ASH DOOR LATCH	24320	1
33	FUEL DOOR LATCH	23787	1
34	CONDUIT ASSEMBLY	69024	1
35	RETURN AIR FILTER BOX	-	-
*	LEFT SIDE	24360	1
*	RIGHT SIDE	24361	1
*	TOP	24362	1
*	BOTTOM	24363	1
36	3-SPEED BLOWER SWITCH	80395	1
37	FAN RELAY CENTER	80396	1
38	SMOKE CURTAIN	24328	1
39	SMOKE DOOR CLIP	23787	2
40	FEED DOOR HANDLE	89789	1
41	ASH DOOR HANDLE	89790	1
42	SLIDER ROD	89793	1
43	4X4 JUNCTION BOX	80231	1
44	1/4X1-1/4" CARR. BOLT	83445	2
45	1/4" LOCK NUT	83261	2
46	2X4 JUNCTION BOX	80125	1
47	CONDUIT ASSEMBLY	69025	1
48	CONDUIT ASSEMBLY	69026	1
49	STUB COLLAR	89799	1
50	CONDUIT CLIP	89801	1
51	5/16-18 X 2-3/4" HEX BOLT	83469	2
52	5/16-18 HEX LOCK NUT	83423	2
53	9/16 I.D. FLAT WASHER	83446	2
54	5/16 HEX LOCK NUT	83421	2
55	7/16 I. D. WASHER	83470	2
56	3/8 X 1 HEX BOLT	83419	2
57	5/16-18 HEX LOCK NUT	83423	1
58	5/16-18 X 1-3/4 BOLT	83471	1

N/A = NOT AVAILABLE FOR THIS MODEL

N/S = NOT SHOWN

* = INCLUDED IN ASSEMBLY

PART DIAGRAM (MODELS FC500, FC700, FC1100)



TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	SUGGESTED REMEDY
1.) Bug found in wood.	A) Wood has rotted or has been laying on the ground for an extended period of time.	A) Inspect the wood for obvious signs of insect infestation such as burrows and avoid using if possible. If such wood must be used do not store indoors.
2.) Draft blower will not run. NOTE: Please verify switch is in the "ON" position. (MODELS FC500, FC700, FC1100)	A) Defective toggle switch on draft blower. B) Defective wall thermostat C) Defective fan relay. D) Defective Draft Motor. E) Improper wiring.	A) Replace toggle switch. B) This can be checked by turning the thermostat to a temperature setting that is higher than the temperature in your home. If the draft blower does not operate at this time, the thermostat may be defective. Replace if necessary. C) Replace fan relay. D) Replace draft motor. E) Review wiring diagram. If wired correctly, seek professional assistance.
3.) Draft blower runs continuously. (MODELS FC500, FC700, FC1100)	A) Defective wall thermostat. B) Thermostat wire is short C) Defective fan in relay center. D) Home is not being supplied with sufficient amount of heat to satisfy the wall thermostat.	A) Check by turning indicator to a lower setting than the temperature in your home. If the draft blower continues to run, the thermostat may be defective. Replace if necessary. B) Check for defective wiring. C) Replace fan relay center. D) Have a professional heating contractor determine proper size unit and insulation factor of your home.
4.) Circulation blower does not run.	A) Defective fan limit control. B) Defective motor. C) Improper wiring.	A) Check by moving the "ON" position indicator to position where the blower should turn on. If the blower fails to run, replace the fan limit. B) Contact your supplier for replacement. C) Review wiring diagram. If wired correctly, seek professional assistance.

TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	SUGGESTED REMEDY
5.) Circulation blower runs continuously.	<p>A) Manual button on fan limit is in "ON" position.</p> <p>B) "OFF" setting on fan limit control is low.</p> <p>C) Defective Fan Limit.</p> <p>D) Improper wiring.</p>	<p>A) Move button to "OFF" or "AUTO" position.</p> <p>B) Remove cover on fan limit and check for proper setting. The point indicators should be set at 110 degrees "OFF" and 160 degrees "ON". DO NOT attempt to adjust the fan limit by manually adjusting the dial.</p> <p>C) Check by moving "ON" or "OFF" point indicator to a temperature position where blower should turn off. If the blower continues to run, replace the limit.</p> <p>D) Review wiring diagram. If unit is wired correctly, seek professional assistance.</p>
6.) Circulation blower vibrates during operation.	<p>A) Allen screw on squirrel cage is not tight enough.</p> <p>B) Balance weights on squirrel cage have become dislocated.</p> <p>C) Defective main bearings.</p>	<p>A) Check squirrel cage alignment and position so that it does not drag on housing during rotation; then tighten allen screw sufficiently to fasten squirrel cage securely to shaft.</p> <p>B) You may attempt to adjust the weights yourself to obtain an acceptable balance. If you are unsuccessful, contact your supplier.</p> <p>C) Return blower to your supplier for replacement.</p>
7.) Odor detected in home during initial firing.	<p>A) There is an oil film that has remained on the steel after the manufacturing process. Firing the unit has raised the temperature of the firebox to a level that is sufficient to vaporize the residue.</p> <p>B) Unit is not connected to return air and is drawing smoke fumes from the flue.</p>	<p>A) The odor should disappear after hours of usage.</p> <p>B) Connect to return air duct system.</p>
8.) Smoke from fire chamber is puffing back through forced draft motor. (MODELS FC500, FC700, FC1100)	<p>A) Excessively long run of stove pipe from furnace to flue.</p> <p>B) Too many elbows.</p>	<p>A) Relocate the unit so that the horizontal run does not exceed five feet and has a two inch rise per foot.</p> <p>B) The run should not contain more that two elbows.</p>

TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	SUGGESTED REMEDY
8.) Continue...	<p>C) Insufficient flue size.</p> <p>D) Cast iron damper in closed position.</p> <p>E) Down draft on Chimney caused by one or more of the following:</p> <ul style="list-style-type: none"> * Flue has a cold spot which inhibits exhaust discharge from rising properly. This symptom may occur in factory built flues if the insulation has settled or a seam has ruptured. However, in masonry flues, mortar loss may be causing the aspiration of cooler outside air into the stack. * There is an obstruction outside of the chimney, such as a tree. * Flue is located too close to the peak of the roof or does not rise above it to provide proper draft. * Flue is located too close to another building. * Obstruction in chimney. <p>* Excessive ash accumulation.</p>	<p>C) Replace with a larger flue providing a minimum of fifty square inches of draft area, but not more than one hundred square inches of draft area. If flue is within these specifications check the draft with a gauge. Your flue should provide between .04 and .06 W. C. inches.</p> <p>D) Open damper.</p> <ul style="list-style-type: none"> * Check entire flue for structural integrity and leakage. Correct necessary. * Remove obstruction. * Relocate flue termination or increase height as required. * Relocate flue termination. * Check entire chimney system including stove pipe run. Utilize chimney cleaning device to remove any foreign matter. * Remove if necessary.
9.) Excessive smoke discharge from fuel door during reloading.	<p>A) Exhaust by-pass in closed position.</p> <p>B) Cast iron damper in closed position.</p> <p>C) Excessively lengthy run of stove pipe from furnace flue.</p> <p>D) Too many elbow.</p> <p>E) Insufficient draft.</p> <p>F) Obstructed flue or clogged chimney cap.</p> <p>G) Excessive smoke accumulation.</p>	<p>A) Always pull exhaust by-pass rod completely forward before opening loading door.</p> <p>B) Open damper.</p> <p>C) See remedy #8</p> <p>D) See remedy #8</p> <p>E) See remedy #8</p> <p>F) See remedy #8</p> <p>G) See remedy #8</p>
10.) Flames discharging from fuel door during reloading.	<p>A) Opening the door has provided additional oxygen which has ignited accumulated gases from partially spent fuel.</p> <p>B) Cast iron Damper in the closed position.</p>	<p>A) Always open the door cautiously and allow the safety latch system to perform its designed function of containing ignited gases within the fire chamber.</p> <p>B) Open damper.</p>

TROUBLESHOOTING

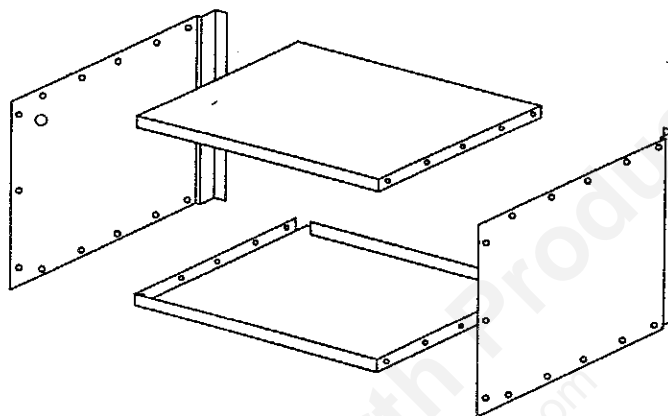
PROBLEM	PROBABLE CAUSE	SUGGESTED REMEDY
10.) Continue...	<p>C) Insufficient natural draft or an obstruction in the flue system.</p> <p>D) Fire chamber filled to capacity with unburned fuel.</p>	<p>C) See remedy #8</p> <p>D) Do not attempt to overload unit.</p>
11.) Excessive dirt accumulation surrounding air registers in the home.	<p>A) Smoke discharge from loading door during reloading.</p> <p>B) Unit is not connected to return air duct and is drawing dirt from furnace room floor and discharging through the home.</p>	<p>A) Always pull exhaust by-pass rod completely forward before opening loading door.</p> <p>* Check for proper draft with gauge. If inadequate, see remedy #8.</p> <p>B) Connect to return air duct system.</p>
12.) Home does not achieve comfortable temperatures.	<p>A) Improper connection to the existing furnace.</p> <p>B) Improperly sized ducting.</p> <p>C) Excessive dirt accumulation in air filter.</p> <p>D) Combustion chamber not receiving an adequate amount of oxygen.</p> <p>E) Inadequate insulation in the home.</p> <p>F) Your unit is of inadequate size for your home.</p>	<p>A) Refer to information in the manual relating to the proper installation procedures or contact your local heating and cooling contractor.</p> <p>B) Refer to information in the manual relating to proper ducting procedures or contact your local heating and cooling contractor.</p> <p>C) Check and replace if necessary.</p> <p>D) Furnace room may be too air tight. We recommend installing an aperture to the outside consisting of a minimum of fifteen square inches.</p> <p>E) Provide additional insulation.</p> <p>F) Consult a professional heating and cooling contractor to determine correct sizing.</p>
13.) Rapid accumulation of creosote in furnace and flue.	<p>A) Fueling unit with wet or unseasoned wood.</p>	<p>A) Completely avoid using if at all possible. If circumstances necessitate the use of wet or unseasoned wood, the fuel the furnace with smaller loads. This will call for the thermostat to call for heat more often, which will initiate the running of the draft blower. Consequently, the resultant fires will be hotter, thereby retarding the accumulation of creosote.</p>

TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	SUGGESTED REMEDY
<p>13.) Continue...</p>	<p>B) Use of highly resined wood such as pine.</p> <p>C) Underfiring the unit has caused low flue gas temperature.</p> <p>D) Insufficient flue draft.</p> <p>E) Using uninsulated stove pipe for the chimney flue, especially if the construction is on the exterior of the home.</p> <p>F) Improper connection in stove pipe causing air leakage or a structural defect in the chimney itself.</p> <p>G) Firebox not receiving adequate amount of oxygen.</p>	<p>B) Completely avoid using if at all possible. If hardwoods are not available then fuel the furnace with smaller loads. This will cause the thermostat to call for heat more often, which will initiate the running of the draft blower. Consequently, the resultant fires will be hotter, thereby retarding the accumulation of creosote.</p> <p>C) Install flue gas thermometer and maintain stack temperatures between 200 and 300 degrees fahrenheit.</p> <p>D) See remedy #8</p> <p>E) DANGER: Never use uninsulated stove pipe as chimney. If must not be used on the inside of your home because the high stack temperatures create an extreme fire hazard. Uninsulated pipe cannot be used as an outside flue, as it causes rapid cooling of the stack gases, thereby causing them to condense as creosote inside the flue.</p> <p>F) Inspect entire flue run from the exhaust stack of the furnace to the termination cap. Repair where necessary.</p> <p>G) Furnace room may be too air tight to supply sufficient amount of oxygen for combustion. We recommend installing an aperture to the outside consisting of a minimum of fifteen square inches.</p>

OPTIONAL EQUIPMENT

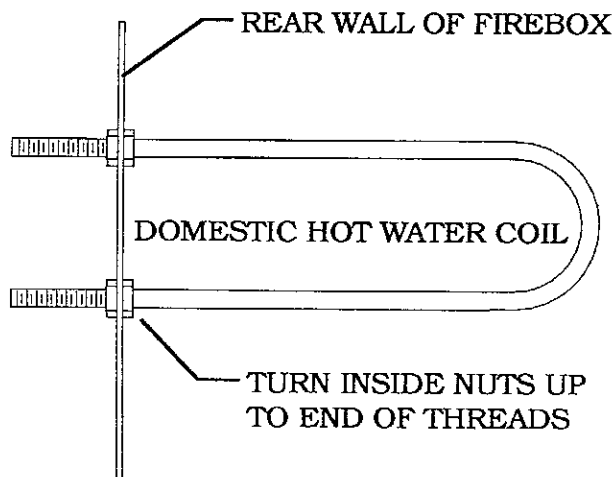
RETURN AIR FILTER BOX FOR MODEL FC400



DOMESTIC HOT WATER COIL

INSTALLING DOMESTIC HOT WATER COIL

1. Drill two (2) one inch holes at the rear of the furnace just above the firebrick using the template and hole saw provided in the hot water coil kit.
2. Place one nut on each end of the coil and thread each as far as it will go.
3. Open the loading door and insert the coil through the holes at the end of the firebox.
4. From the rear of the furnace, thread on the remaining two nuts and tighten firmly.
5. Have a qualified plumber connect your domestic hot water pipe to the coil with appropriate fittings.

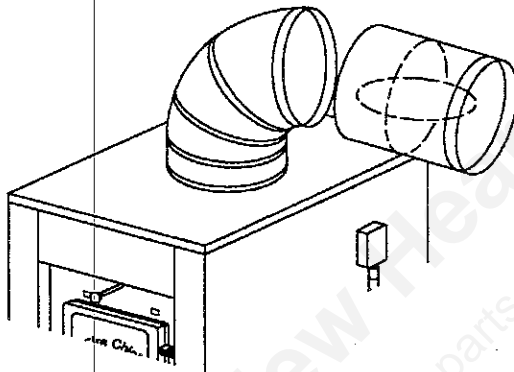


OPTIONAL EQUIPMENT

BACK DRAFT DAMPER

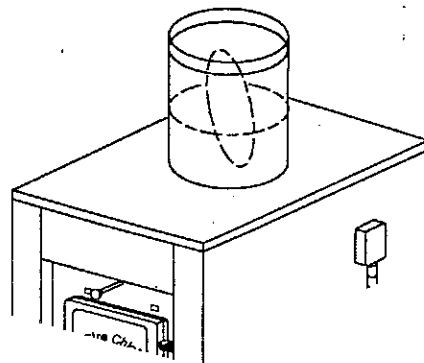
The back draft damper may be installed in either a vertical or horizontal section of the 12" round hot air duct. It should be positioned as close to the plenum opening of the Fire Chief as practical. Press the female end of the back draft damper over the Fire Chief furnace collar or male end of the duct pipe. When properly placed, the arrows on the air flow decal should point away from the Fire Chief.

HORIZONTAL INSTALLATION



NOTE: POSITION SO
THAT AIR FLOW WILL
OPEN DAMPER IN
DIRECTION OF DUCTWORK

VERTICAL INSTALLATION



NOTE: POSITION SO
THAT AIR FLOW WILL
OPEN DAMPER FROM
BOTTOM

Certificate of Limited Warranty

EXTENT OF COVERAGE:

Victorian Sales warrants (to the original owner only) the firebox to be free of defects in material and workmanship for five years from the date of purchase. The cast iron grates, cast iron front and rear baffle are warranted for the life of the Fire Chief furnace. This warranty applies only if the unit is installed and operated in accordance with the instructions in the owners manual. Please be advised that the firebrick and door gaskets are excluded from this warranty. All electrical components are warranted for one year by the manufacturer. Furthermore, some aesthetic deterioration can be expected as the result of normal operation, and therefore, the physical appearance is not guaranteed to remain unchanged.

In order to exercise the aforementioned warranty, a certified professional must determine this appliance to be defective. He must submit a written statement to Victorian Sales detailing his/her assessment of the problem. This analysis must be accompanied by dated documentation substantiating proof of purchase. Victorian Sales will then authorize specific remedial measures. Victorian Sales will not honor expenses incurred from any action that was not expressly consented to in writing. The owner is hereby notified that he will be obligated to assume all liability for removal, reinstallation, and any labor cost involved in servicing the unit. The merchandise in question must be shipped via prepaid freight to Victorian Sales. Victorian Sales will return the repaired or replacement part to the purchaser on a freight collect basis.

This warranty will be rendered null and void if this unit exhibits symptoms of obvious over-firing, deliberate abuse or negligence, improper installation, or is used for commercial purposes. Finally, we will not be responsible for any claim not stated in our warranty, nor does any implied warranty extend beyond the limits stated above.

**ALWAYS KEEP YOUR WOOD COVERED YEAR ROUND.
DRY WOOD WILL PRODUCE MORE BTU OUTPUT AND
LONGER BURN TIME.**

FIRE CHIEF

**WOOD & COAL
FURNACES**

MANUFACTURED BY:

Victorian Sales • 1808 Larkin Williams Road • Fenton, Missouri 63026 • (314) 343-4747