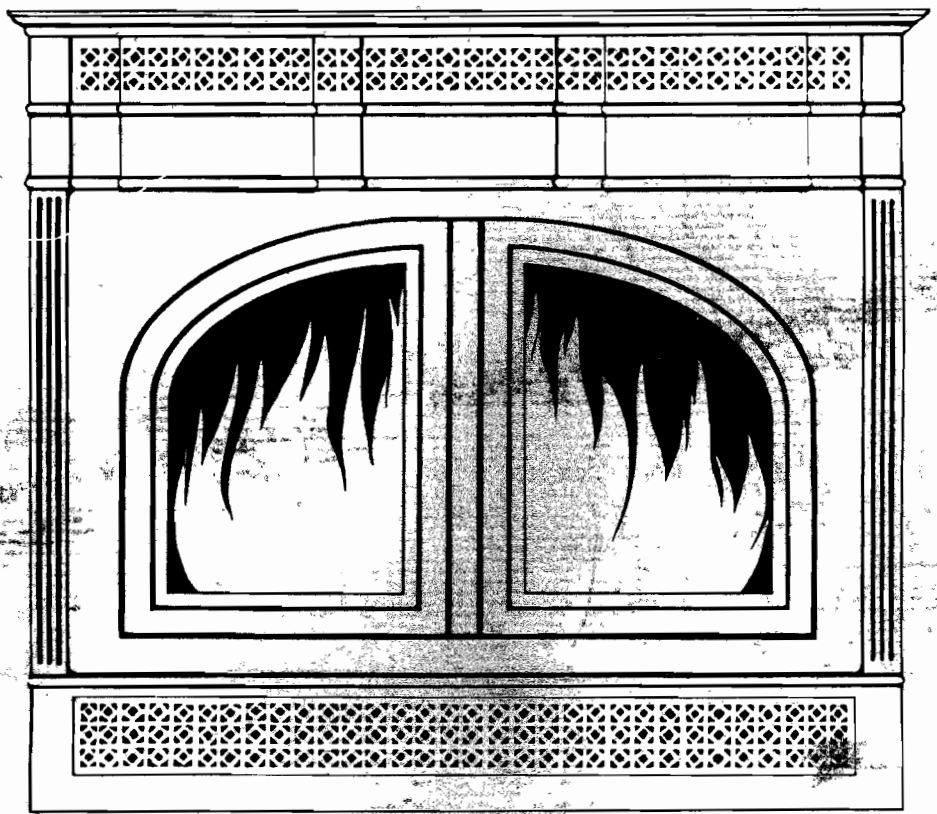
The OWNER'S MANUAL for The Shelburne Fireplace-Stove

A Complete Guide to
Safe Operation, Proper Maintenance
and More Efficient Burning



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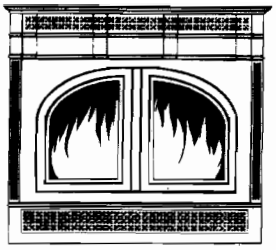


The Vermont Stove Company

Route 7, Shelburne, Vermont 05482 • 802/985-2592

OPERATION MANUAL FOR THE SHELBURNE FIREPLACE-STOVE

INTRODUCTION

We are indeed pleased that very soon you will be part of the growing "family" of Shelburne Fireplace-Stove Owners, and appreciate the confidence in us you have shown by placing your order. We will do our very best to continue earning your trust, and we want to help you any way we can to make sure you enjoy and benefit from the remarkable potential of your Shelburne stove for many years to come.

Operating your Shelburne Fireplace-Stove efficiently and safely involves a serious commitment from you. It is a commitment both to the art of woodburning, and to the well-being of you and your family. A thorough reading of this Manual is a "must" before you begin operating your stove, and we urgently recommend that you do so now or at your earliest opportunity -- before your stove arrives.

The Shelburne is a precision instrument and will respond accordingly to your developing skill, your attentiveness and care. Changing weather factors and varying conditions from household to household affect its performance; in spite of our guidelines it may take weeks or even months before you learn how to get the most from your stove.

Solutions to those problems likely can be found in these pages -- or from us, either by phone or mail.

So please be patient. Experiment slowly. Be open to the fact that problems are likely to occur.

As you know, you are protected by our Pledge of Satisfaction that allows you to return your stove to us within 30 days for refund of its purchase price. Should you have a problem, we do ask that you make a concerted effort to solve it (with our help if necessary) before deciding to return your stove. Please don't feel under time pressure -- according to this Pledge, you have a full 30 days from the day your stove is installed to make your decision. And if you need more time to solve any problem, we will grant you a 30-day extension. Just write, or give us a call. And please don't ever hesitate to ask for help or advice if you need it. We'll probably have the answer, and we will be glad to share it with you.

We ask a good deal from you in learning to properly use your Shelburne Fireplace-Stove; it involves responsibilities similar to car ownership. Caution, common sense and good maintenance are essential to your safety.

But in return, your stove will greatly reward you. Not only in the hundreds -- even thousands -- of fuel dollars it can save you over the years, but by its beauty in your home, the increased confort it will bring to your family -- and in the satisfaction that comes with mastering this superbly engineered fireplace heat reclaimer.

PREPARING FOR DELIVERY

At time of shipment we will send you a postcard notifying you of the projected delivery date. We recommend that you arrange to pick up your stove at the nearest motor freight terminal, or have it delivered to a nearby loading dock owned by a friend or neighborhood business.

If you will have your stove delivered to your home, here are some suggestions that can help ease an otherwise arduous experience:

1. Be ready on short notice, if you can. We instruct the carrier to call you to set up a delivery appointment, but you may get only a couple of hours' notice.

2. Have two or three husky people available to help you unload the stove from the truck--the most strenuous part of the delivery process. (Carriers are required only to make tailgate delivery, but often these folks are willing to lend a hand.)

3. You may want to build a temporary unloading dock, 46" high and about 6 x 4 ft., strong enough to hold 600 lbs. Or--

4. It it's available, request a truck with a hydraulically operated tail-gate that will lower the stove to the ground. (You may have to pay an additional $20 to $35 on your delivery bill for this service.)

All this may sound formidable, but it's a one-time situation that can be handled with a minimum of struggle if you plan ahead.

MOVING THE STOVE INTO YOUR HOME

Experience has shown ways to take most of the struggle out of this job. Again, you'd do well to make preparations beforehand:

1. Get your friends to help -- ideally, three or four husky people.

2. Uncrate the stove before moving it. (Emerging from its wooden shell, the Shelburne looks like an ugly duckling. But installed in your fireplace with only its cast-iron facade visible, it reveals its true handsomeness.)

3. Strip the stove down. Remove the doors, the firebrick, exhaust manifold, ash pan door and ash pan. It takes just a few minutes and you'll reduce the unit's weight to about 400 lbs. (Caution: you may want to remove the insulation from the sides and back to prevent damage)

4. To move the stove into your home:

   a. Slide two sturdy 2 x 6" boards or two pairs of 2 x 4's under the unit. Position one helper at each end and lift together (each person lifting approximately 100 lbs.). Or--

   b. Use an appliance dolly (your local truck-rental outlet should be able to rent one to you or you may be able to borrow a dolly from the carrier who delivers your stove. Or--

   c. Make your own dolly by placing boards on top of wooden dowells then positioning the stove on the boards.

PREPARING TO INSTALL YOUR STOVE

May we ask you one last time to double-check your fireplace measurements. Nothing would be more frustrating than to position the stove on your hearth, only to find it won't fit! So please take a moment now to confirm the following measurements:

Your new Shelburne is 26½" high, it requires at least 16" of fireplace depth and is 27½" wide Will it fit your fireplace?

You chose flanges in either a 6", 8" or 10" width. On our Order Form we cautioned you to allow for at least a one-inch overlap onto your fireplace masonry. The one-inch overlap on all three sides is an absolute minimum for safety (one and one half inches is better). If you originally shaved that figure at all, please reconsider and if necessary, tell us to ship the next larger-size flanges before your stove is sent to you.

Measure the depth of the lintel (the steel plate at the top of your fireplace opening that supports the masonry). It should be no more than 5" wide; if it's wider, it will deflect exhaust smoke from the unit.

SHOULD YOU ENCOUNTER ANY MEASUREMENT PROBLEMS, OR IF YOU ANTICIPATE ANY UNUSUAL DIFFICULTIES IN TERMS OF MOVING OR INSTALLING YOUR STOVE, PLEASE PICK UP THE PHONE AND CALL US NOW. LET'S TALK IT OVER; WE'LL PROBABLY BE ABLE TO HELP YOU FIND THE SOLUTION.

...As you read this Manual, you'll gain a basic understanding of how the Shelburne works to heat your home -- which will be enhanced as you operate it after it's installed. The Shelburne uses a blower to transfer the stove's heat to your room, and won't produce heat efficiently without the blower operating. Recently we took steps to reduce the sound the blower makes. What noise still remains is that of ordinary air passing through the fan -- similar to that made by exhaust fans over the oven, bathroom exhaust fans, portable humidifier fans or even car heater fans.

We particularly recommend that you read the section on trouble-shooting problems with the Shelburne installed in your fireplace, which appears at the back of this manual. It's valuable reading because it deals with the concept that the Shelburne operates as part of a system involving your chimney, the construction of your home, the fuel you use and how you operate your stove.

CHECK YOUR FIREPLACE AND CHIMNEY

As mentioned in our color brochure, your fireplace and chimney must not only be the correct size to accept your stove, but also be in excellent repair. Check your local building codes for approval of The Shelburne Fireplace-Stove. INSPECTION BY YOUR FIRE DEPARTMENT, INSURANCE COMPANY, BUILDING INSPECTOR, ETC. SHOULD BE PERFORMED PRIOR TO INSTALLATION. Remember, your chimney should be lined with tile, and the tile section joints cemented together.

If you recently had your chimney relined with tiles or a steel or stainless steel liner, make sure that the installation was inspected. Also, make sure your chimney is clean and free of creosote and soot, as well as fly ash (light, clinging ash). It is recommended that all chimneys have a cap. A cap will prevent moisture from entering the chimney thereby reducing creosote, acid formation and rust of your damper and stove. The fireplace floor should be smooth, even and level to permit your Shelburne to roll easily in and out on your hearth.

PREPARING TO INSTALL YOUR SHELBURNE

You should remove the damper from your fireplace prior to installing your stove. If this is not possible, secure it in a permanent open position so it will not close by accident. If it is possible to control your chimney damper with the Shelburne in place, you can close the damper when the Shelburne is not in use.

If your state or local codes require a direct connection to the damper check with your local stove stores for adapter kits, (see the Appendix for instructions).

Clean out all ashes from the fireplace, especially on the hearth. Special care should be taken to make sure the hearth will extend a minimum of 18" in front of the Shelburne and 8" on the sides. The stove should also be 36" from any other combustible material. If you have a wooden mantle or fireplace face that is within 28" of the top flange of the Shelburne, check it from time to time to see if it is too hot to the touch. If it gets hot, install a piece of sheet metal or copper around the front and bottom with

one inch spacers. The one inch air space allows for cooling. If these clearances are not available, check with your fire department, insurance company or chimney sweep for information on proper protection. Or check the back of this manual.

Before installing your stove make sure a grounded outlet is available close enough to plug in the stove blower cord. This requires a three slot receptacle.

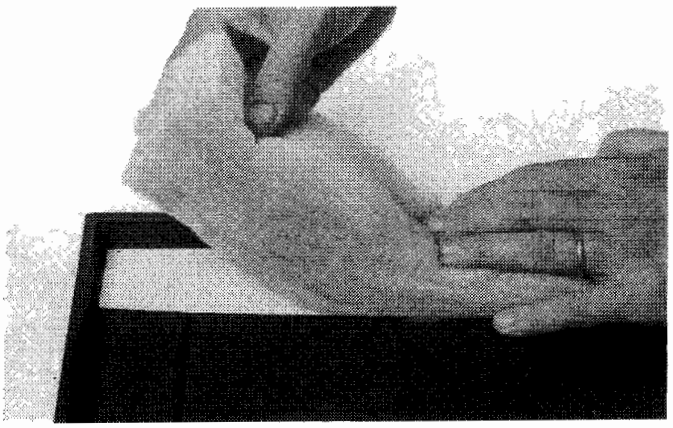
For extra safety, we recommend you obtain smoke and/or fire alarms and install them according to the manufacturers' instructions. Your home should also be equipped with fire extinguishers. One should be kept near the stove.

ASSEMBLING AND INSTALLING THE SHELBURNE

Your Shelburne comes in two packages One containing the stove, insulation screen and two flanges. The second contains the single top flange. Get two or more people to help you unload the larger carton. After the stove has been removed from the box, unpack the screen and flanges.

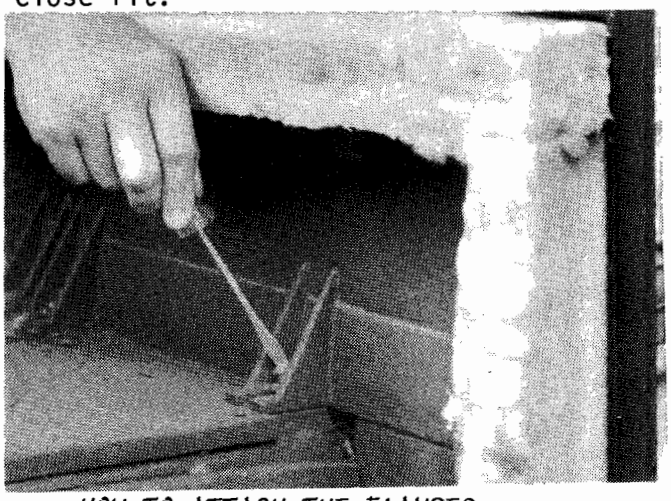
THE TAPE

All that is needed to prepare to attach the insulation is to peel away the plastic covering on the exposed side of the tape. When the tape is exposed, place the insulation on top of the tape.



MOUNTING THE INSULATION TO THE FLANGES

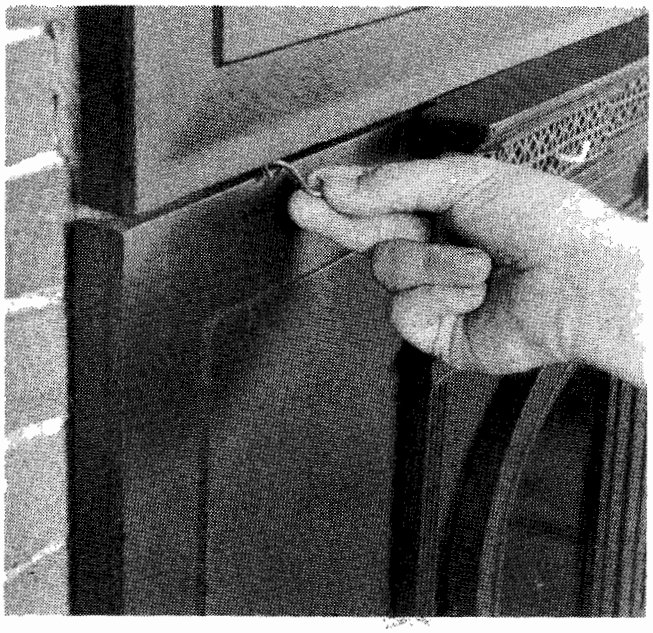
Attach the side flanges to the stove using a screwdriver and screws to mount each flange. Make sure the washer and lock nut go on nearest the screw head. Then attach the top flange. Adjust for close fit.



HOW TO ATTACH THE FLANGES

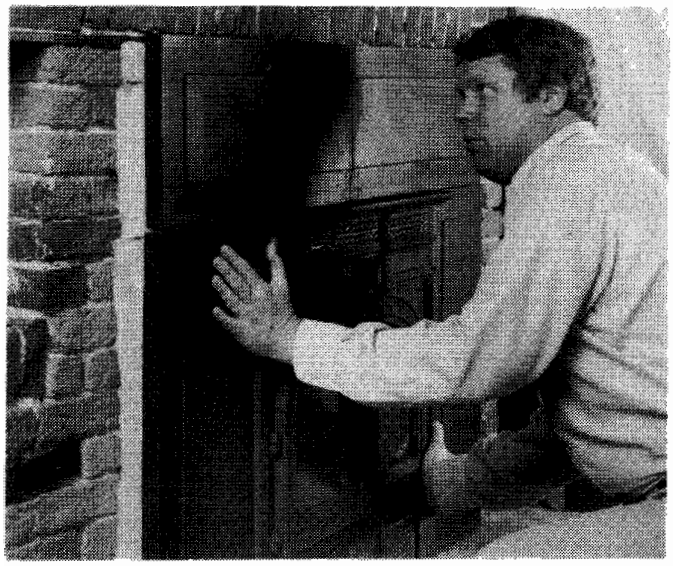
Install the "S" hook over the right or left flange to hold your universal tool.

Make sure the blower cord is held out of the way while the stove is being rolled into your fireplace cavity. Do not plug in until after the Shelburne has been fully installed.



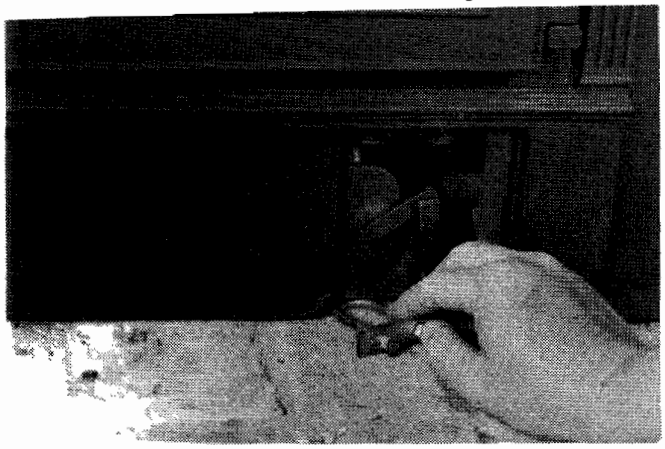
ATTACHING THE "S" HOOK AND UNIVERSAL TOOL

You are ready to install the Shelburne into the fireplace. Roll the unit into the fireplace slowly and carefully. Special caution must be taken to prevent abrasion to the ceramic insulation. Do not bump or push against insulation. If the fireplace floor is uneven, get some help in moving the unit. Uneven surfaces may cause the castings to scrape and may damage the cast face or flanges. Gently roll the Shelburne in until the insulation is compressed and the flanges are secure against the fireplace.



COMPRESSING THE INSULATION TO THE FIREPLACE FACE

Hold the unit securely against the fireplace face, lower the bottom grill, and insert the "U Bolt" under the right hand side of the ash pan door just below the hinge. The U Bolt acts like a check. It holds the stove in place. Some homes may not need this.



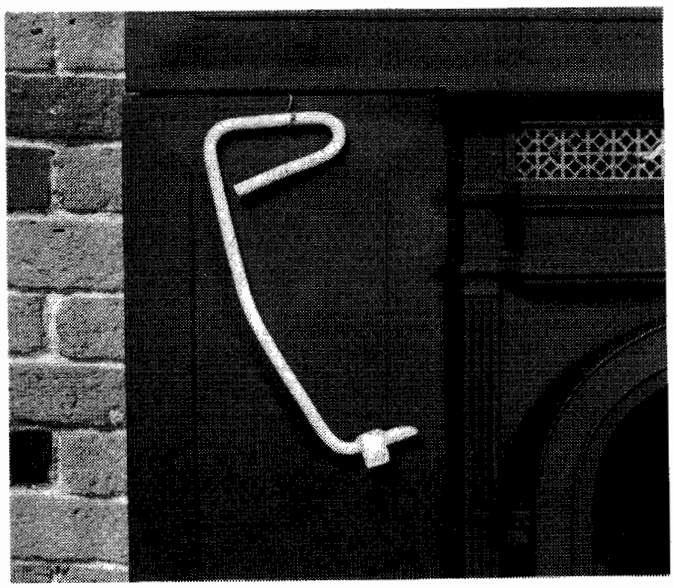
INSTALLING THE "U BOLT"

THE SHELBURNE'S VARIOUS PARTS

Review your color brochure again for the function of the various parts before going on to this section.

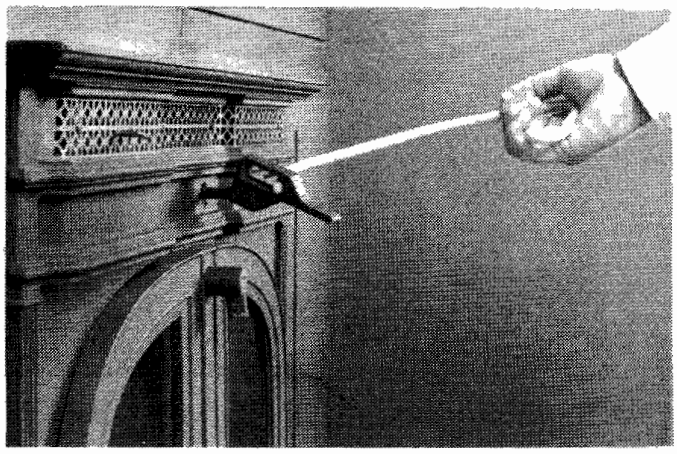
THE UNIVERSAL TOOL

1. The Universal Tool is specifically designed so that you do not have to touch any part of the stove that may be hot.



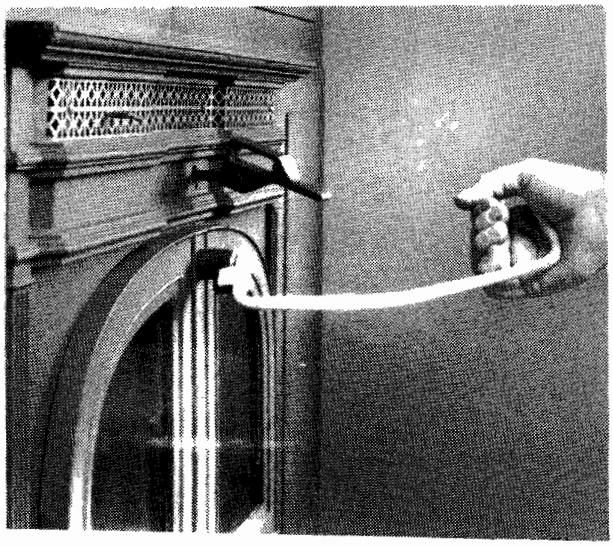
THE UNIVERSAL TOOL

2. The Universal Tool goes onto the special damper handle that must be pulled before the doors can be opened. This is so you don't open the doors without opening the damper.



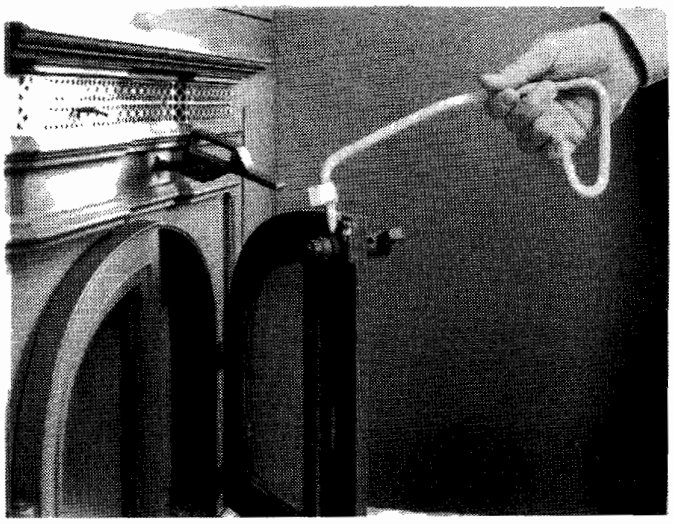
PULLING OUT THE DAMPER HANDLE

3. The Universal Tool is put in the slot, turned clockwise to open the front door.



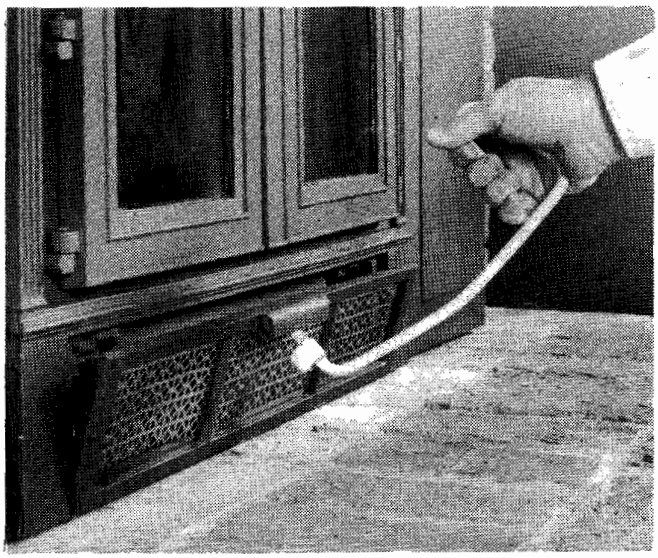
OPENING THE FRONT DOOR LATCH

4. Turn the tool downwards, reach behind the doors and pull open.



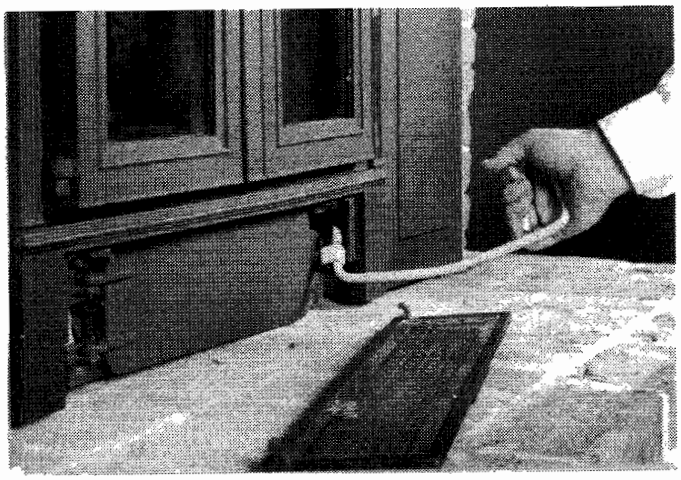
PULLING THE DOORS OPEN

5. Pull the brass bottom grill down to have access to the ash pan.



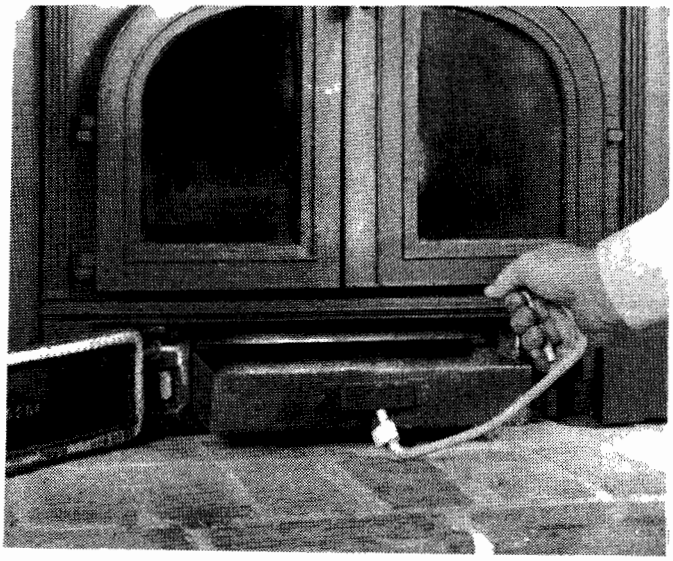
REMOVING BOTTOM GRILL

6. The Universal Tool is used then to open the ash pan door.

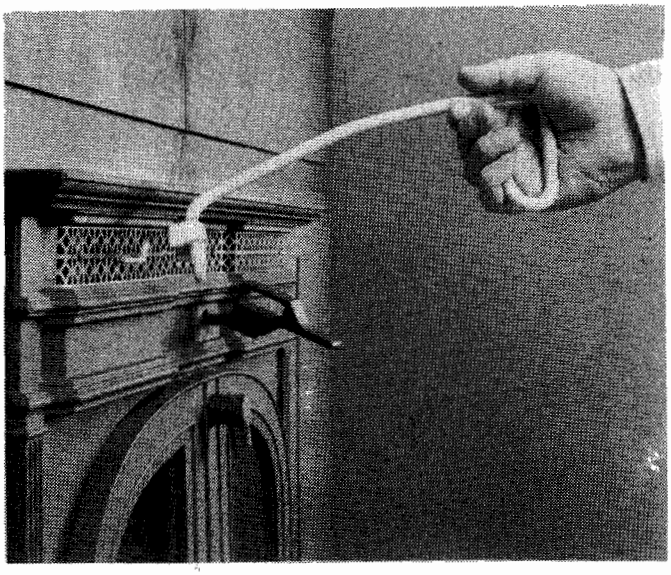


OPENING ASH PAN DOOR

7. Pull out the ash pan for emptying.

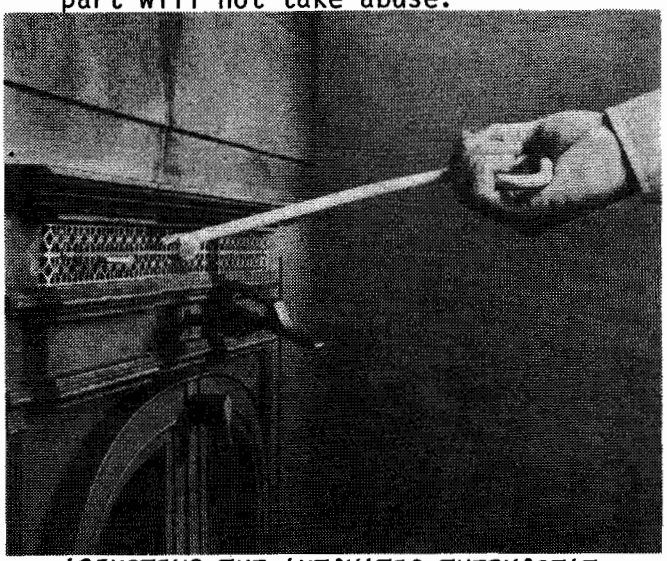


PULLING OUT THE ASH PAN



ADJUSTING THE AUTOMATIC THERMOSTAT FOR MORE AIR

8. The Universal Tool also adjusts the automatic bimetal ic thermostat. Fit the tool around the damper handle, and turn clockwise for less air and heat or putting the fire out. Counter-clockwise for more air and more heat. Gently adjust the thermostat. This part will not take abuse.



ADJUSTING THE AUTOMATIC THERMOSTAT FOR LESS AIR

STARTING YOUR SHELBURNE

A Special Note on Curing Your Stove:

Your first two or three fires should be low to medium in size. Do not build a large fire or burn the stove at high temperatures. This will give the castings and paint a chance to cure and to adjust to extreme temperature changes. There may be a chemical or metalic smell during this curing period. This is just excess paint burning off. It does not harm the stove's finish and the odor will disappear as the stove cures. This may appear in the form of smoke. Ventilate if the smell or smoke bothers you.

Build a fire by using three to four handfuls of loosely balled newspaper placed on the bottom, adding a good bit of kindling (approximately 5" in diameter worth) and several small logs (2" to 3" in diameter).

CREOSOTE FORMATION

Always use wood that is aged one year and cured and stored in a dry place. "Green" wood contributes to excessive creosote buildup as well as reduces the stove's heating efficiency by up to 40%.

Hotter fires and good dry wood are the keys to reducing creosote formation. Never-the-less, routine and thorough inspection of your fireplace and chimney are essential to safe solid fuel burning.

CAUTION:

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.

Before lighting the fire, start a strong draft by warming the chimney. Roll a piece of newspaper the long way, light it, and put it up through the damper into the fireplace cavity and chimney. This will help prevent smoking problems, and start a positive up-draft.

CAUTION:

DURING EARLY FALL AND LATE SPRING EQUAL TEMPERATURES INDOORS AND OUT MAY CAUSE THE CHIMNEY TO REVERSE ITSELF. DO NOT OPERATE IN WARMER WEATHER.

Now you are ready to light your first fire.

Check your chimney damper to make sure it is open.

Using your Universal Tool, in this order, (1) close the doors, and (2) open the thermostat wide by gently turning it counter clockwise. Leave the Shelburne damper open to help the fire get started more quickly.

Stay in the room until the fire catches (10 to 15 minutes). Once the fire has taken, set the thermostat to the desired temperature/heat output. Experiment with the various settings. Generally, a one-half damper opening will give you moderate heat. Then turn on the blower and set to the desired heat.

CAUTION:

NEVER USE GASOLINE, GASOLINE TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID OR SIMILAR LIQUIDS TO START OR "FRESHEN UP" A FIRE IN THIS STOVE. KEEP ALL SUCH LIQUIDS WELL AWAY FROM THE HEATER WHILE IT IS IN USE. NEVER USE THE UNIT AS AN INCINERATOR. DO NOT BURN LARGE AMOUNTS OF PAPER OR TRASH.

To add more fuel, follow these steps in the order given:

1. Turn off the blower.
2. Open the damper by using the Universal tool to pull the damper handle away from the stove face.
3. Close the automatic thermostat.
4. WAIT ONE FULL MINUTE FOR SMOKE AND GASSES TO CLEAR FROM THE FIREBOX.
5. Open both front doors with the Universal Tool.

Now you are ready to put in more wood. To get the most from each pound of wood, strive for a medium fire. This is a fire with low flames and a one-or two-inch base of coals. An efficient fire will produce very little smoke and will leave only fine powdery ash.

One sign that the Shelburne is burning at its most efficient level is the horizontal blue-and-white flame pattern you will see resulting from secondary combustion of unburnt volatiles are visible through the glass doors. This can be seen at the back of the stove near the secondary air tube. Experimenting with various fuel loads and thermostat settings will soon give you a "feel" for efficient fire tending.

After adding fuel: use the Universal Tool to: (1) close and latch the doors, (2) close the damper by pushing the damper handle in, (3) reset the thermostat and (4) turn on the blower.

CAUTION:

RISK OF EXCESSIVE TEMPERATURES. KEEP ASH DOOR CLOSED DURING FIRING.

DO NOT fill the firebox with wood and close the thermostat to a low setting. This will slow combustion too much and will not only waste fuel, but also lead to a dangerous creosote build-up. Adding a log every hour or so is better than adding a large wood charge all at once.

Creosote formation will be minimized by firing the stove hot for 10 to 15 minutes right after adding more fuel. This hot fire burns off the moisture and non-combustibles that form creosote.

After a bit of trial and error you'll find you can control your Shelburne to hold a fire properly overnight. When wanting longer fires, avoid filling the firebox all at once. Add a log every 20 minutes or so until you have filled the firebox. Burn the stove hot for a few minutes after each log is added. Then set (perhaps a quarter setting) the thermostat for the night. By doing this

you will avoid smothering the fire and creating excessive creosote. Experiment to find a thermostat setting that will leave live coals in the morning. Charred or unburnt chunks of wood that remain in the morning indicate a thermostat setting that is too low.

BURNING THE STOVE WITH THE DOORS OPEN

The Shelburne has been designed to burn well with the doors open if you wish to both see and hear the crackling flames of an open fire. If you have a power failure the doors may be opened to provide heat to the room and to avoid excessive heat buildup in the fireplace.

To burn the unit open, follow our instructions for adding fuel, and be sure to use the firescreen. When burning the stove in the open (fireplace) position, special care must be taken to:

1. Make sure the blower is turned off when there is no screen
2. Make sure the screen is in place at all times so sparks will not jump out onto your floor.

The blower is designed so that sufficient heat is moved off the Shelburne and conveyed into the room. The blower is not designed to move heat around complex room situations or for long distances. You may need small booster fans for this.

The blower has a special shut-off to thermally protect it from excessive heat. If you run the stove for long periods without the blower, or there is a power failure, the thermal protector may take over and shut off the blower. To get the blower to run again, shut it off and let the fire cool way down or let it go out. After it has cooled, turn on the blower.

Also, the motor and bearings need to be kept cool. Continuous use of the blower will keep these components cooler. Even when burning your Shelburne open, the fan should be kept on and at a lower speed. Don't forget to keep the firescreen on.

There is no blower thermostat because most are set to go off at 105°F. During the latter stages of an all night fire (5-8th hours) there is a lot of heat from the stove that ranges between 65° and 105°. With our blower-this heat is available to you. The blower only uses a little more than a 100 watt bulb so, it does no harm to keep it on.

CAUTION:

EXCESSIVE HEAT CAUSED BY LONG-CONTINUOUS USE OF THE SHELBURNE WITHOUT THE BLOWER ON MAY CAUSE DAMAGE TO THE BLOWER.

The blower should be operated at a low speed when the doors are open and the screen is on.

CAUTION:

ALWAYS SHUT OFF THE BLOWER WHEN OPENING THE STOVE DOORS. NEVER OPERATE THE BLOWER WITHOUT THE SCREEN INSTALLED.

WHAT TO DO IF THERE IS A CHIMNEY FIRE

If your chimney is not cleaned periodically and the stove is not burned properly, excessive creosote will build up on the chimney's interior and in the stove. This creosote can be ignited by temperatures over 600°F. When ignited, the creosote will cause a chimney fire. If you sense (it will be a loud swoshing type sound) a chimney fire:

1. Shut down the thermostat immediately to cut off the draft.
2. Get everyone out of the house.
3. Call the fire department.
4. If closing the draft has not reduced the fire, throw large quantities of course salt on the flames and close the stove doors.

CAUTION:

DO NOT THROW WATER ON THE FIRE--THE CHIMNEY AND STOVE MAY CRACK.

All families should have a "fire-plan" even if they do not have a woodstove. Your fire department will be glad to work one out with you. The key to any plan's effectiveness is to practice what to do in case of an emergency.

CLEANING AND MAINTENANCE

Cleaning the Glass Doors:

The glass doors may have to be cleaned from time to time if deposits build up on the glass. Such a buildup occurs when low firebox temperatures, especially in the initial stages of new fire, promote creosote development. Generally brown colored glass indicates creosote build up. Hot flames will clean the glass off if logs are arranged in such a fashion so that the primary air forces the flames up against the window.

Another way to clean the glass is to run the fire at high temperatures for about 15 minutes, then let the fire cool down and go out. (The heat loosens up the deposits). Let the doors cool. Carefully remove the doors by pulling them straight up. If they stick, work the doors back and forth while lifting them. Take them to the kitchen and wash them with a strong solution of ammonia and water, or with a special product formulated for stove glass. Most fireplace shops carry such cleaning compounds.

Never use caustic or strong abrasive compounds. A mild abrasive such as "Bon Ami" works well. Oven cleaner is good if applied selectively to glass only by a brush (no sprays). Also, make sure the glass is at room temperature, not hot or it will etch.

Removing Ashes:

Make sure the fire is completely out before removing the ashes. Shut off the blower, then lower the bottom grill, open the ash pan door, and remove the ash pan. If ashes build up around the ash pan they may be removed with a fireplace shovel.

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. Never use a plastic container.

Periodically Inspect Stove Parts:

Any of the Shelburne's moving parts as well as the door glass and gasketing should be continually checked for wear. Do not try to use the stove if all parts are not operating properly. Make sure the fire is out before making any repairs.

1. Hinges: Tighten if loose on firebox doors or ash pan door. The doors are designed so that you can adjust them if a better fit is needed. (By the way, part of the design, does include a 1/8" small hole at the bottom and top of where the doors meet, With a fire burning, and by standing at the right angle, you may observe this from time to time).

   To adjust the doors, let the fire go out. Look inside the stove-on the right and left of the inside of the face are two bolts each that hold the door hinges. Clean these bolts with a wire brush. Apply "W. D.-40" to loosen up the bolts. Wait 5 min. Loosen and adjust to need.

2. Gasketing: On firebox doors, ash pan door, and wherever firebox meets the front casting: Check for wear or deterioration. Replace if necessary, using high-temperature or furnace cement as an adhesive.

3. Glass: Check for cracks, fractures, etc. Write for replacement parts if necessary.

4. Firebrick: Replace any brick that splits or cracks.

5. Door Handles: Inspect both the front door and ash pan door handles for excessive wear. If any problem at all, replace.

6. Automatic Thermostat: The automatic thermostat should be checked frequently. Inspect the handle, coil, chain, connections and damper flap by removing the top brass grill. This essential system should be kept in good repair and replaced when showing wear. To get more heat, shorten the chain by one or two links. To get less heat, make chain connection one or two links longer. Always operate it with a gentle touch.

7. Damper Arm and Damper: These should be inspected whenever the stove is out of the fireplace. Check to see that they operate smoothly and properly. Remove the assembly for repair or replacement, if necessary.

8. The Blower and Cord: Unplug the blower and inspect it when the stove is removed from the fireplace. Vacuum the motor and blade at least several times a year. If there are any problems with the blower, have a licensed electrician remove and replace the necessary parts (see wiring diagram in the back).

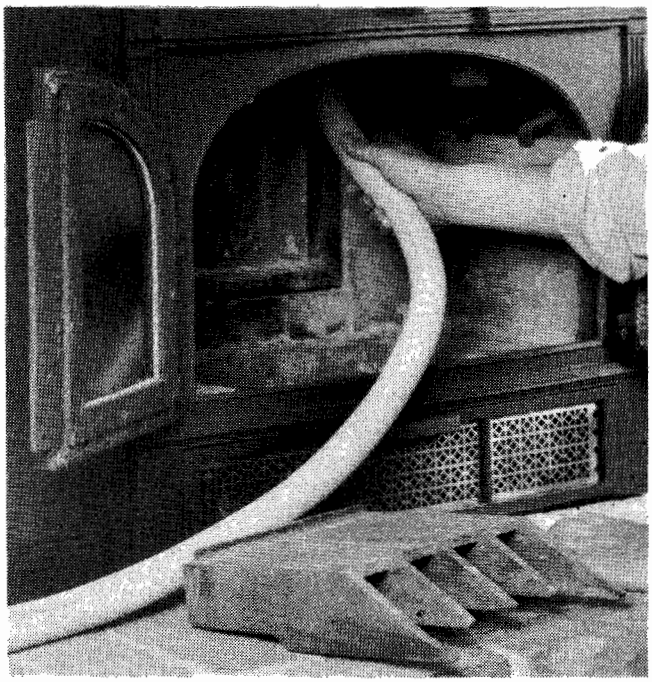
9. Insulation: Special care should be taken to avoid damaging the insulation. If a piece comes off, clean off the steel of residual cement, buy refractory (high temperature) cement. Spread on evenly and thoroughly and apply insulation.

10. The Cast Iron Face Bolts: Check the eight face bolts located inside the firebox to see that they are secure (not torqued down hard). If loose, tighten finger tight plus one full turn.

Cleaning The Stove Parts:

Secondary Air Tube Holes may clog from time to time. Make sure the fire is completely out, then remove the ash from around the firebricks. Put a vacuum cleaner nozzle directly to the secondary air tube holes. (Be careful not to suck up ashes from the firebox; they will quickly clog the vacuum filter).

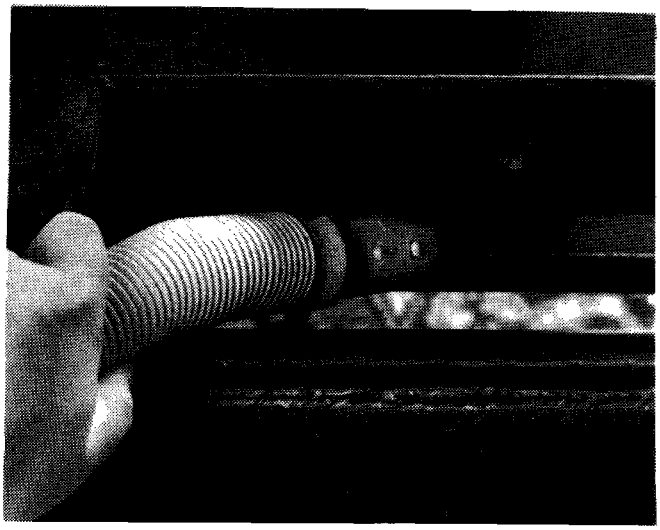
The Baffle Chamber should be cleaned when the fire is out and the stove is out of the fireplace. (Between the top of the firebox and the automatic thermostat is a hollow baffle chamber. This space prevents the heat and smoke from escaping up the chimney too rapidly). From time to time, the baffle chamber may have to be cleaned. Most of the time, only fly ash will build up in the chamber. Remove the cast iron rear exhaust chamber and use the nozzle of your vacuum cleaner hose to clean out the right and left sides of the baffle system.



CLEANING THE BAFFLE SYSTEM THROUGH THE EXHAUST MANIFOLD

Open the stove damper then clean from the top of the stove inside the exhaust port. Use the vacuum to remove the fly ash around the right and left hand sides. Plan to replace your vacuum filter after this process. Repeat on the bottom portion

(through the exhaust manifold) again. Firing the stove up hot several times daily for 15 minutes will prevent creosote buildup.



CLEANING FROM THE STOVE EXHAUST PORT

The Brass Grills: The solid brass top grill will become darker because of heat and the bottom grill may darken at a different color because of room air being drawn across it. Any ordinary brass cleaner can be used to clean both grills.

Touch Up Paint: A high temperature paint may be used to touch up scrapes that might occur. Follow the exact directions on the can. Prepare the spots to be touched up by rubbing first with steel wool, then cleaning with a slightly moist cloth and then applying paint.

Spots or smudges on the face or flanges of your Shelburne can be cleaned by running a lightly moist cloth across the spot.

HOW TO REMOVE THE SHELBURNE FOR INSPECTION AND CLEANING:

At least monthly, you should inspect your fireplace cavity and chimney for creosote.

1. Let the fire go out completely, by closing the air intake damper.
2. Turn off the blower, and unplug the unit.
3. Empty the ashes.
4. Pull the front lower grill down and remove the "U Bolt".
5. Gently ease the Shelburne out of the fireplace. If the fireplace floor is rough, get some help in moving the unit. Scraping the stove against stone or brick may cause damage. Be extra careful not to damage both the ceramic stove insulation or the flange insulation.

Then inspect the fireplace cavity, as well as the entire chimney. If there appears to be excessive creosote build up clean the chimney or contact a chimney sweep. If you have any questions as to the chimney's condition have it inspected by a qualified person.

OTHER INFORMATION

The Rheostat and Electrical Interference

If your home has a non-grounded electrical system or the rheostat is mounted on the same circuit as your stereo, radio or TV, there is a remote possibility for interference. If this happens and the system is grounded, move to another circuit. If your home is non-grounded - ground this outlet.

Location of Safety Testing Plate

On the lower right hand side (behind the flange) of your stove is the E.T.L. testing label that specifies your stove has been tested to UL 737 and 1482 standards.

Hotter Fires

The key to starting a good fire and gaining a good draft is to establish a very hot fire. If you have a hard time determining what is hot - purchase a "chimguard" from any stove dealer or write to us. Mount this thermometer on the face above the top right door. Your best-most efficient fires will deliver face temperatures of between 400-800°F. Indicators of insufficient heat from a hot fire are (1) heavy creosote build up on glass (2) poor draught, (3) creosote build up in firebox and (4) black creosote deposit on damper handle rod-visible when damper is open.

WARRANTY

For answers to any questions or problems, call or write:

Vermont Stove Company
Route 7
Shelburne, VT 05482

Phone: (802) 985-2592

Office Hours:
9:00 AM - 5:00 PM
Monday through Friday

For further information on using your heater safely, obtain a copy of the National Fire Protection Association publication "Using Coal and Wood Stoves Safely", NFPA No. HS-8-1974. The address of the NFPA is 470 Atlantic Avenue, Boston, MA 02210

Additional Recommended Reading:

- Heating With Wood by Larry G ay Published by Garden Way Publishing.
- Chimney and Stove Cleaning by Christopher Curtis and Don Post by Garden Way Publishing.
- Making Your Fireplace More Efficient by Paul Bortz, Published by Garden Way Publishing.

Appendix: 1. Further references

2. Parts Number (top assembly) for the Stove (Exploded and Numbered).

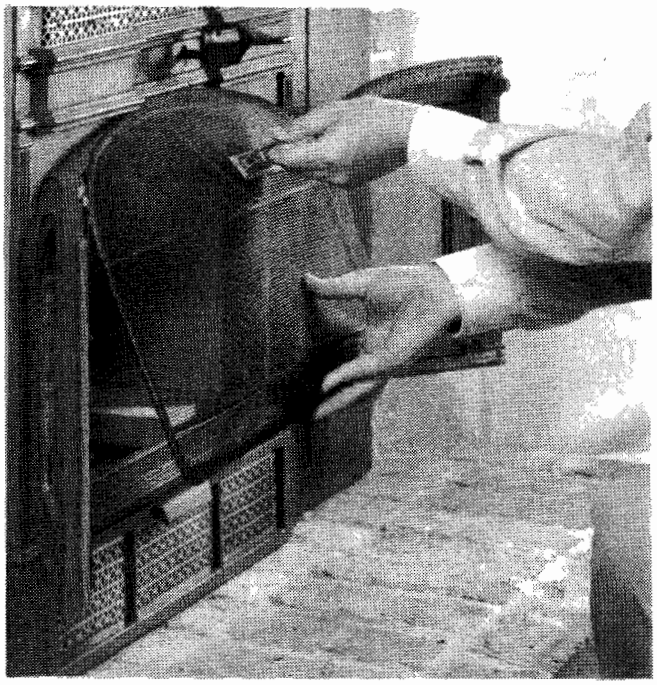
3. Wiring Diagram

4. Adapting Directly to the Damper.

A SPECIAL NOTE:

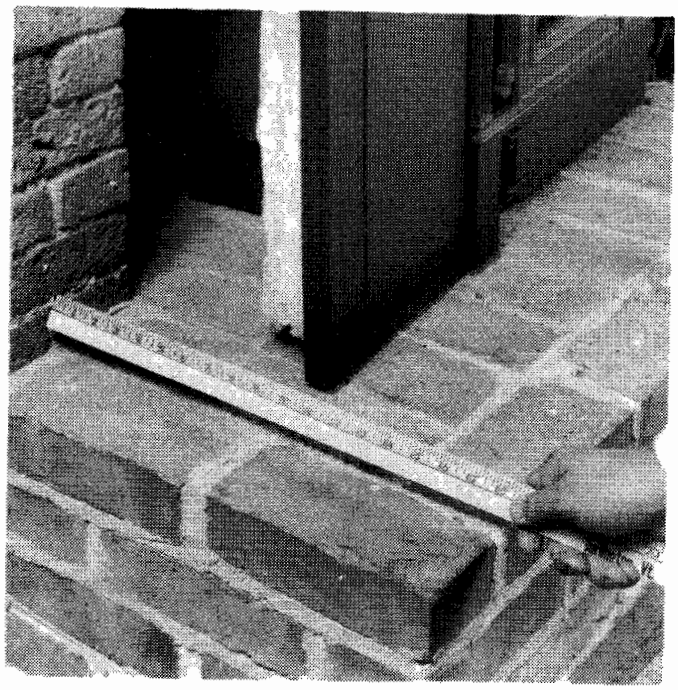
PLEASE DROP US A LINE IF YOU HAVE SUGGESTIONS ON ASSEMBLY, INSTALLATION, OPERATION OR CLEANING AND MAINTENANCE THAT WOULD BE HELPFUL TO OTHER SHELBURNE FIREPLACE STOVE OWNERS.

INSTALLING THE SCREEN



Another Method of Mounting the Screen

Another way to mount the screen is to first mount the bottom two hooks. Then, holding the screen with one hand, take your other hand, depress the top spring mount and slide in the top of the stove by pushing the screen forward. Be very careful when the stove is hot. You may need insulated gloves to use this method.



HEARTH 18" INFRONT

The Vermont Stove Company

Route 7, Shelburne, Vermont 05482 • 802/985-2592

Bulletin #A-11

ADAPTING THE SHELBURNE FIREPLACE STOVE DIRECTLY TO THE DAMPER

A direct connection from the Shelburne to damper may be desirable. Oregon requires it. Or, you may be relining an older chimney with a special liner.

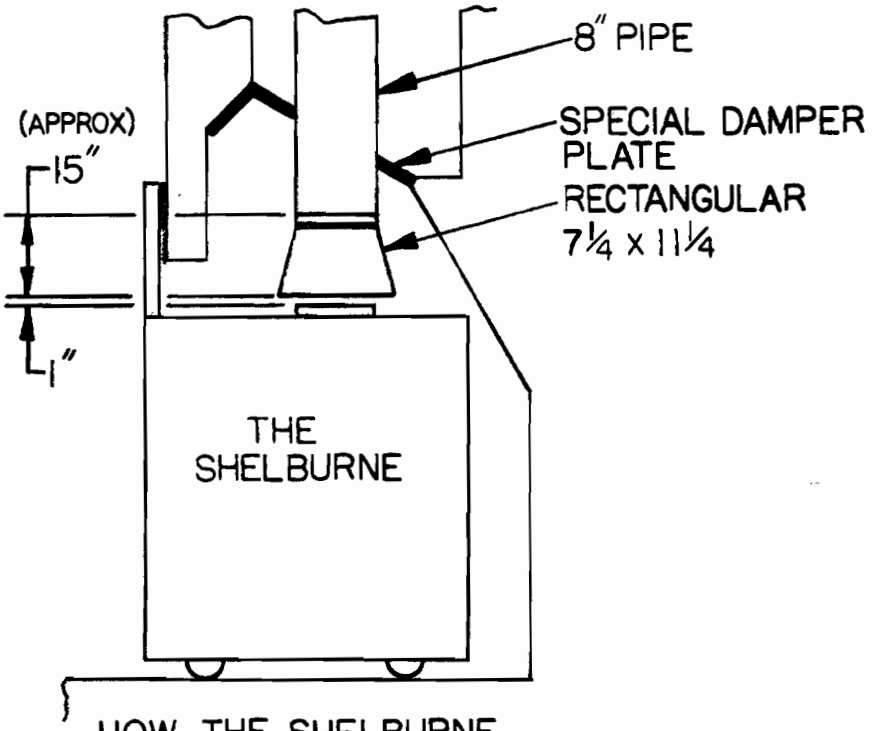
The diameter of the liner should be a minimum of 8". Stainless is better than most other liners. A chimney cap is a must.

You will have to make a custom hood (like a kitchen stove exhaust hood) that adapts the Shelburne to the 8" in diameter pipe. This hood should be at least 2" wider and 2" deeper (13¼"x7¼") than the actual exhaust of the Shelburne. The other end should be 8" oval in size.

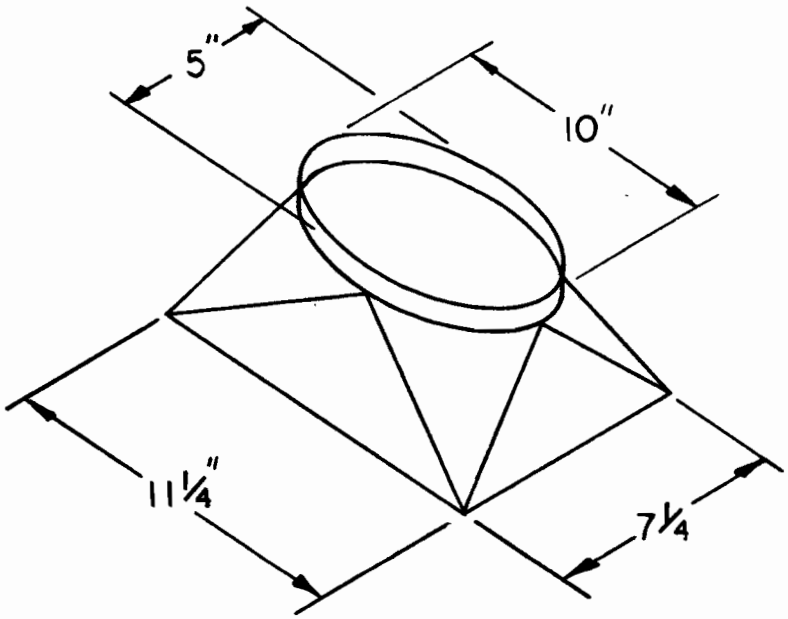
You can purchase custom plates for adapting to your damper from ADAPT-A-PLACE, Fire and Wood Stove Shop, 3635 Parkman Road, N.W. Southington, Ohio 44470 (Tel. 216 898-7197). All you have to do after you purchase this is to cut a 24 gauge 8" in diameter pipe to connect the hood to the adapter.

Line up the whole installation so that when you slide the Shelburne in the hood rests about one inch above and centered over the stove.

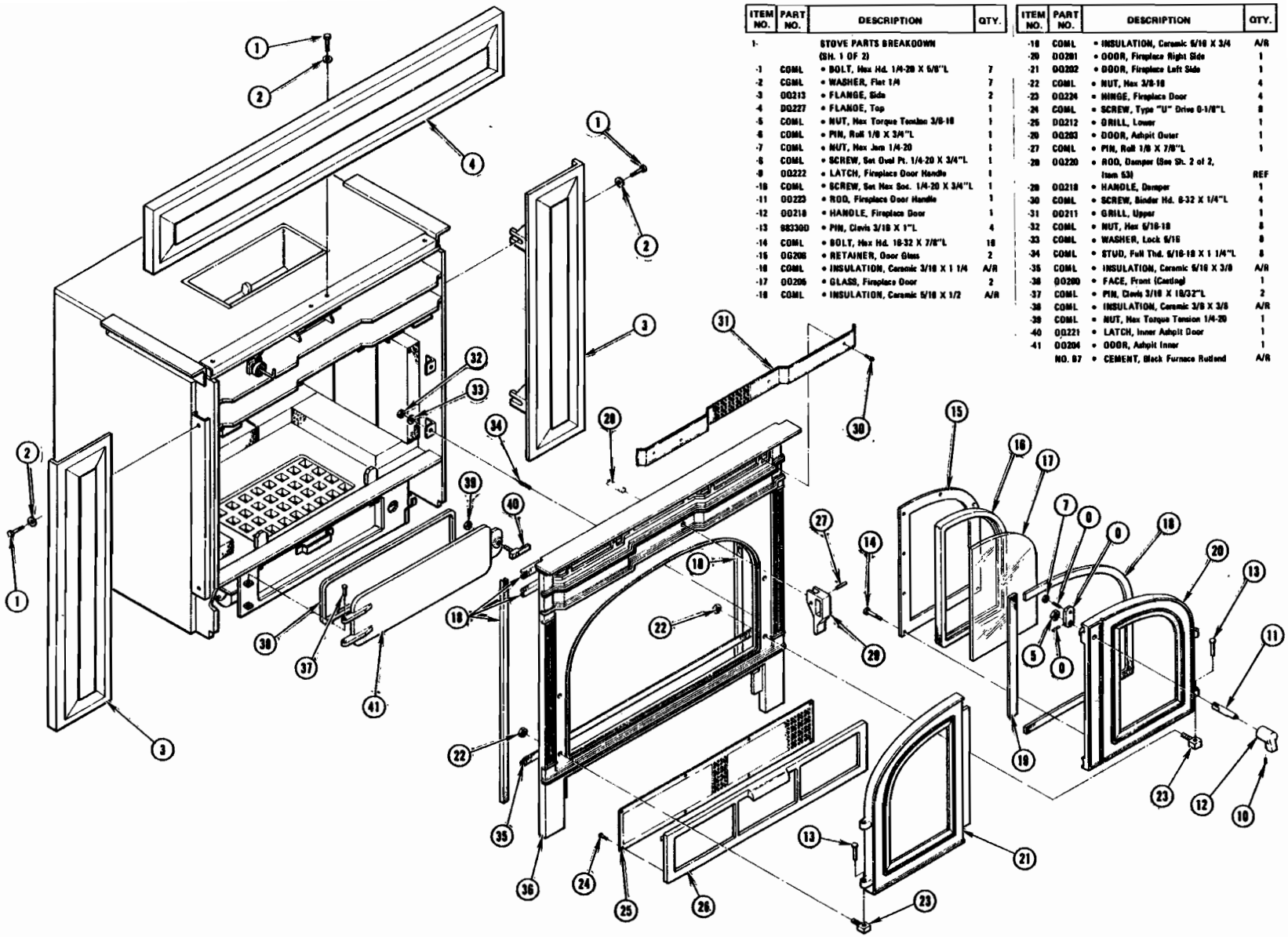
Check the plans for installation and actual installation with your fire department, insurance company or building inspector.



HOW THE SHELBURNE CONNECTS DIRECTLY TO THE FLUE



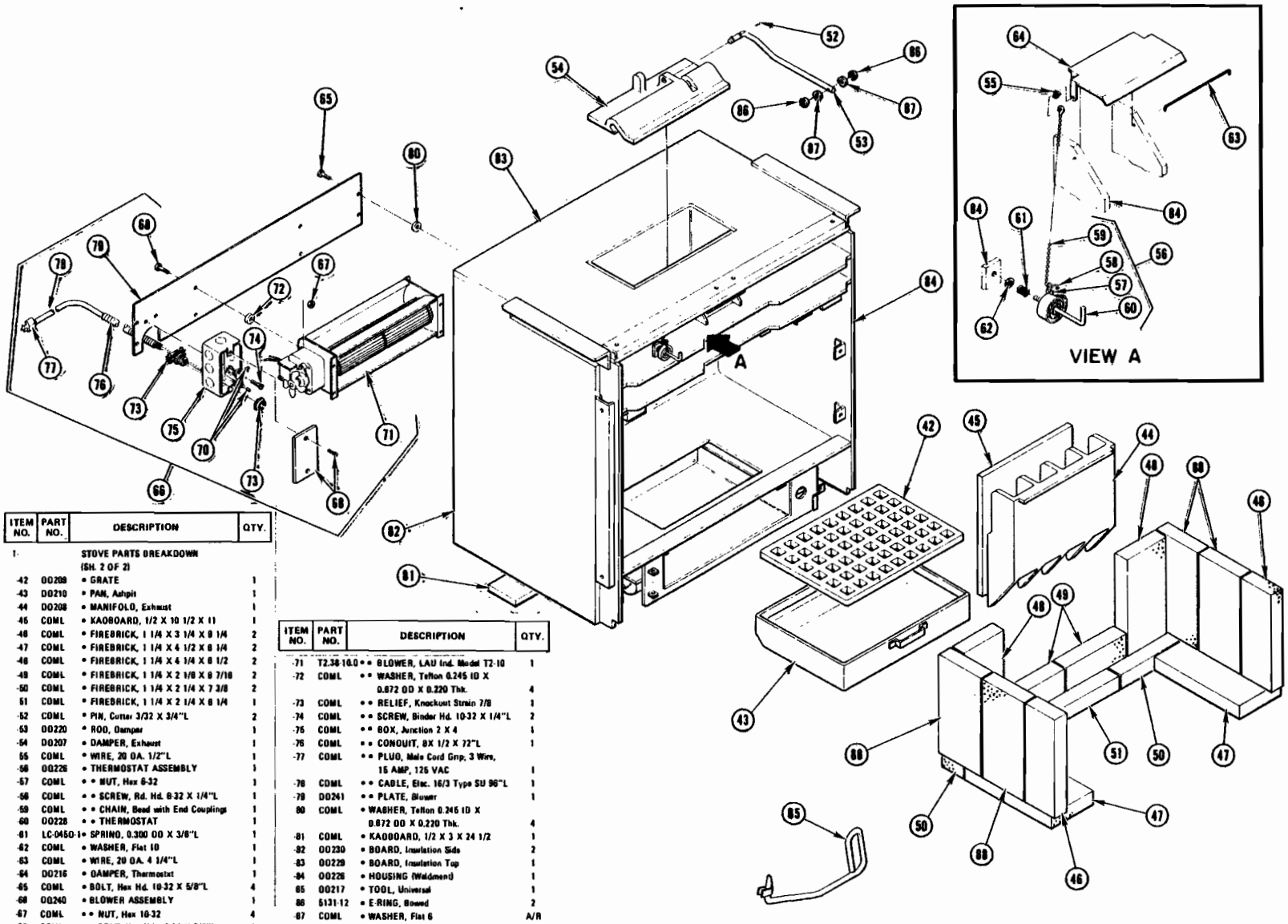
CUSTOM ADAPTER FOR DIRECT CONNECTION OF THE SHELBURNE TO A FIREPLACE DAMPER



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1-		STOVE PARTS BREAKDOWN (SH. 1 OF 2)	
-1	COML	• BOLT, Hex Hd. 1/4-28 X 5/8"L	7
-2	COML	• WASHER, Flat 1/4	7
-3	00213	• FLANGE, Side	2
-4	00227	• FLANGE, Top	1
-5	COML	• NUT, Hex Torque Tension 3/8-16	1
-6	COML	• PIN, Roll 1/8 X 3/4"L	1
-7	COML	• NUT, Hex Jam 1/4-20	1
-8	COML	• SCREW, Set Oval Pt. 1/4-20 X 3/4"L	1
-9	00222	• LATCH, Fireplace Door Handle	1
-10	COML	• SCREW, Set Hex Soc. 1/4-20 X 3/4"L	1
-11	00223	• ROD, Fireplace Door Handle	1
-12	00218	• HANDLE, Fireplace Door	1
-13	983300	• PIN, Clevis 3/16 X 1"L	4
-14	COML	• BOLT, Hex Hd. 10-32 X 7/8"L	10
-15	00208	• RETAINER, Door Glass	2
-16	COML	• INSULATION, Ceramic 3/16 X 1 1/4	A/R
-17	00206	• GLASS, Fireplace Door	2
-18	COML	• INSULATION, Ceramic 5/16 X 1/2	A/R

ITEM NO.	PART NO.	DESCRIPTION	QTY.
-19	COML	• INSULATION, Ceramic 5/16 X 3/4	A/R
-20	00201	• DOOR, Fireplace Right Side	1
-21	00202	• DOOR, Fireplace Left Side	1
-22	COML	• NUT, Hex 3/8-16	4
-23	00224	• HINGE, Fireplace Door	4
-24	COML	• SCREW, Type "U" Drive 0-1/8"L	8
-25	00212	• GRILL, Lower	1
-26	00203	• DOOR, Ashpit Outer	1
-27	COML	• PIN, Roll 1/8 X 7/8"L	1
-28	00220	• ROD, Damper (See Sh. 2 of 2, Item 53)	REF
-29	00219	• HANDLE, Damper	1
-30	COML	• SCREW, Binder Hd. 8-32 X 1/4"L	4
-31	00211	• GRILL, Upper	1
-32	COML	• NUT, Hex 5/16-18	8
-33	COML	• WASHER, Lock 5/16	8
-34	COML	• STUD, Full Thd. 5/16-18 X 1 1/4"L	8
-35	COML	• INSULATION, Ceramic 5/16 X 3/8	A/R
-36	00200	• FACE, Front (Casting)	1
-37	COML	• PIN, Clevis 3/16 X 19/32"L	2
-38	COML	• INSULATION, Ceramic 3/8 X 3/8	A/R
-39	COML	• NUT, Hex Torque Tension 1/4-20	1
-40	00221	• LATCH, Inner Ashpit Door	1
-41	00204	• DOOR, Ashpit Inner	1
	NO. 87	• CEMENT, Black Furnace Rutland	A/R

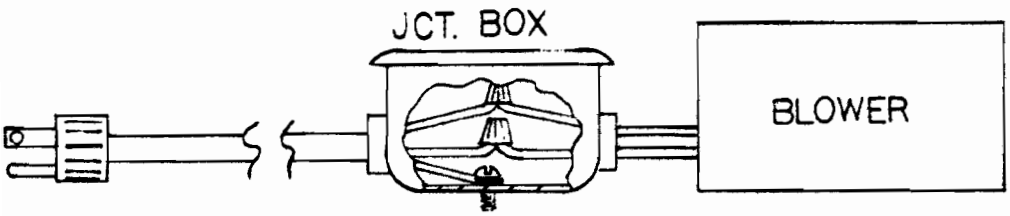
Figure 1. Stove Parts Breakdown (Sheet 1 of 2)



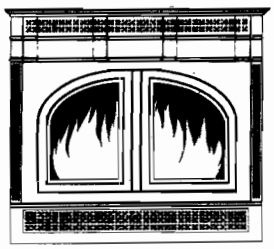
ITEM NO.	PART NO.	DESCRIPTION	QTY.
1-		STOVE PARTS BREAKDOWN (SH. 2 OF 2)	
-42	00208	• GRATE	1
-43	00210	• PAN, Ashpit	1
-44	00208	• MANIFOLD, Exhaust	1
-45	COML	• KAOBOARD, 1/2 X 10 1/2 X 11	1
-46	COML	• FIREBRICK, 1 1/4 X 3 1/4 X 8 1/4	2
-47	COML	• FIREBRICK, 1 1/4 X 4 1/2 X 8 1/4	2
-48	COML	• FIREBRICK, 1 1/4 X 4 1/4 X 8 1/2	2
-49	COML	• FIREBRICK, 1 1/4 X 2 1/8 X 8 7/16	2
-50	COML	• FIREBRICK, 1 1/4 X 2 1/4 X 7 3/8	2
51	COML	• FIREBRICK, 1 1/4 X 2 1/4 X 8 1/4	1
-52	COML	• PIN, Cotter 3/32 X 3/4"L	2
-53	00220	• ROD, Damper	1
-54	00207	• DAMPER, Exhaust	1
55	COML	• WIRE, 20 GA. 1/2"L	1
-56	00226	• THERMOSTAT ASSEMBLY	1
-57	COML	• • NUT, Hex 6-32	1
-58	COML	• • SCREW, Rd. Hd. 6-32 X 1/4"L	1
-59	COML	• • CHAIN, Bead with End Couplings	1
-60	00228	• • THERMOSTAT	1
-61	LC-0450-1	• SPRING, 0.300 OD X 3/8"L	1
-62	COML	• WASHER, Flat 10	1
-63	COML	• WIRE, 20 GA. 4 1/4"L	1
-64	00216	• DAMPER, Thermostat	1
-65	COML	• BOLT, Hex Hd. 10-32 X 5/8"L	4
-66	00240	• BLOWER ASSEMBLY	1
-67	COML	• • NUT, Hex 10-32	4
68	COML	• • BOLT, Hex Hd. 10-32 X 7/8"L	4
69	COML	• • COVER, Junction Box, Blank	1
-70	COML	• • CAP, Wire 18 AWG	2

ITEM NO.	PART NO.	DESCRIPTION	QTY.
-71	T2.38-10.0	• • BLOWER, LAU Ind. Model T2-10	1
-72	COML	• • WASHER, Teflon 0.245 ID X 0.672 OD X 0.220 Thk.	4
-73	COML	• • RELIEF, Knockout Strain 7/8	1
-74	COML	• • SCREW, Binder Hd. 10-32 X 1/4"L	2
-75	COML	• • BOX, Junction 2 X 4	1
-76	COML	• • CONDUIT, 8X 1/2 X 72"L	1
-77	COML	• • PLUG, Male Cord Grip; 3 Wire, 15 AMP, 125 VAC	1
-78	COML	• • CABLE, Elec. 16/3 Type SU 96"L	1
-79	00241	• • PLATE, Blower	1
80	COML	• WASHER, Teflon 0.245 ID X 0.672 OD X 0.220 Thk.	4
-81	COML	• KAOBOARD, 1/2 X 3 X 24 1/2	1
-82	00230	• BOARD, Insulation Side	2
-83	00229	• BOARD, Insulation Top	1
-84	00226	• HOUSING (Weldment)	1
85	00217	• TOOL, Universal	1
86	5131-12	• E-RING, Bowed	2
-87	COML	• WASHER, Flat 6	A/R
-88	COML	• FIREBRICK, 1 1/4 X 4 1/2 X 8 1/2	4
	NO. 87	• CEMENT, Black Furnace Rutland	A/R

Figure 1. Stove Parts Breakdown (Sheet 2 of 2)



ELECTRICAL SCHEMATIC



The Vermont Stove Company

Route 7, Shelburne, Vermont 05482 • 802/985-2592

TROUBLE SHOOT PROBLEMS WITH THE SHELBURNE INSTALLED IN A FIREPLACE

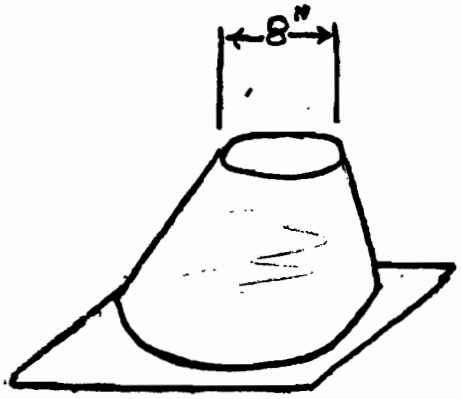
Key Concept. If you are having a problem with your Shelburne installed in the fireplace - the key to finding the solution lies in thinking system. Your new heating system involves the interactions of these various components: 1) the chimney, 2) home construction, 3) the weather, 4) how you operate the Shelburne, 5) the Shelburne Fireplace-Stove and 6) the kind of fuel.

All of these components interact giving you an entire system. To properly function, the various parts of the system should interact to produce heat at a maximum and safe output range. Remember, cautious experimentation will yield maximum results. It may take 2 to 3 months to learn how to get the most from your stove.

I. The chimney, its construction and composition is frequently the number one consideration in a successful system. Generally, if there were any problems with draw or smoking prior to the installation of the Shelburne, this problem, until remedied, may persist.

QUESTION	CONSIDERATION	REMEDY
1. How tall is the chimney?	The mimimum height should be 15 feet. But, the taller the chimney-the harder it is to heat up and thus get a good draw.	If below 15', add an extension. If a very high chimney-it will take a lot longer to heat up the chimney in the initial fire-up period.
2. Is the chimney an inside or outside chimney?	Inside chimneys heat up sooner and hold the heat better.	Outside chimneys, especially on the North or East side are cooler and must be heated longer during initial fire-up.
3. What is the chimney made of?	Field stone is usually thicker and therefore takes longer to heat up.	Again, make sure initial firing is longer and hotter in order to warm up the chimney.

QUESTION	CONSIDERATION	REMEDY
4. Is there a flue cap?	It is not only safer to have a spark arrestor, but also protects your chimney and Shelburne from corrosion from rain water.	Put on a flue cap if there is not one. On the other hand, if you have problems with the draw, test without the cap, if it works better, you may have to alter the cap.
5. How many flues are there in the chimney? Is there more than one chimney?	If there is more than one flue in the chimney, one is usually, higher than the other so that one does not exhaust into the other, and cause the 2 separate chimneys to interact.	If the flues are the same level, you may have to extend one higher than the other. If more than 2 chimneys, block off one and test the results. Correct if necessary.
6. How far is the chimney above the peak of the house?	Ordinarily, a chimney should be 2 feet above the peak of the roof or 2 feet above any portion falling horizontally within 10 feet.	Experiment with raising the height of the chimney.
7. How large is your flue?	Generally, the Shelburne requires an 8"x12" tile flue or 8" in diameter stove pipe.	If the size is too much larger than this, you may want to reduce the size by 1) Adding an 8" cone to the top. 2) Close down the chimney damper more and fix it in that position. Test. 3) Or line the chimney with an 8" diameter pipe. 4) Or if problems occur under windy conditions-add a Vacu-Stack.
8. Has the chimney been cleaned and inspected recently?	Thorough, periodic inspections and cleanings are a must. Especially check the smoke shelf.	A build-up of deposits on the smoke shelf may seriously affect the draw.



← A custom "cone" cap.

Vacu-Stack
Improved Consumer Products
Box 1264
Attleboro Falls, Mass
617-695-7000 02763

QUESTION	CONSIDERATION	REMEDY
9. Has the damper been removed or fixed in the open position?	For ease of cleaning, as well as safety in the event of a chimney fire, the damper should be removed or fixed in an open position.	Correct if necessary. See exception in #7, 2.
10. How large is the fireplace cavity that the stove fits in?	Generally, the Shelburne requires only 3" clearance on all sides for good operation. Space in excess of this may cause excessive cooling or eddies in the fireplace cavity.	If larger than needed, consider reducing the cavity size with brick. Or do a direct connection to the chimney damper
11. How wide is the lintel (steel piece at the top of the face) and its height above the stove?	When the Shelburne is installed, its exhaust is 5" from the face. The more clearance above and depth wise from the lintel the better. Ideally, the stove's exhaust should have a direct shot to the chimney damper.	Necessary clearances should be obtained from the lintel. If the stove exhaust does not line up with the opening, consider: 1) Putting in a 10" 24 gauge pipe from the damper to the exhaust. 2) Do a direct connection to the damper.
12. Do you have an ash pit clean-out at the base of the fireplace?	The slightest leak in the seal of the ash clean out may cause a negative pressure in the fireplace cavity beneath the stove.	If you have an ash clean, seal it with stove cement. Also check the basement clean out door.
13. If you have a mantel or wooden fireplace face, how far is it from the stove?	Generally, the flanges, without the blower going, conduct heat. Mantels should be at least 12" away and the wooden face at least 9". The wood should never be warm to the touch.	If the Shelburne is too close, you should add protectors. Write us for Bulletin #A-7.

II. The manner in which your home is constructed and the placement of the windows, doors, other fireplaces and heating systems may affect the burning in the fireplace.

1. How new is your home? Is it well built? Is it designed for electric heat?	Older homes of excellent construction or newly built homes, especially those designed for electric heat, may well be so tight they do not permit a good draw.	Consider cracking a window or introducing outside air for combustion to overcome a too tight home.

QUESTION	CONSIDERATION	REMEDY
2. What kind of a heating system do you have?	Forced air, oil or gas furnaces that have hot air ducts or cold air returns near the stove may work against a good draw. This creates a negative pressure. Even the demands of both a gas and oil furnace for combustion and barometric draft air may affect stove operation. Also, exhaust fans in the kitchen and bath may affect your draft.	Test the Shelburne with and without these systems in operation. Correct to remedy. Seal off ducts if necessary.

III. The weather may have a significant effect upon your entire heating system.

1. When you used the open fireplace, were there any weather conditions you recall under which the fireplace burned not as well as under other conditions?	Most fireplaces have times when they burn better than at other periods.	Correct the operation of the Shelburne to compensate for less ideal burning conditions.
2. When it is windy, do you get some back puffing?	Windy conditions can create eddys at the top of the chimney and negative pressures around and in the home.	A Vacu-Stack special chimney may remedy this situation. See Sec. I, No. 7.
3. Do rainy or cloudy-low pressure systems affect the chimney draw?	Low pressure systems often negatively affect chimney draws.	Correct Shelburne operation to compensate or cease operation under these conditions.
4. Is the outside temperature close to the inside temperatures in the home?	The closer the temperatures between indoors and out-the harder to maintain a good draw.	Burn the Shelburne when temperature differences inside and out are 20°F or higher. Or build very hot little fires.

IV. How the owner operates the Shelburne has a major impact on how well the heating system works.

QUESTION	CONSIDERATION	REMEDY
1. Have you had a chance to re-read the Owners Manual?	Most suggestions in the manual are proven success tips.	Have a spouse or good friend try to operate the stove from the manual.
2. Do you keep the ash pan empty all the time?	In most cases, when there are no ashes above or below the brick, the air circulating below cools the fire thus preventing hot thorough combustion.	Let ashes build up to the firebrick or cover the top of the grate with a metal piece.
3. Do you burn with the damper closed when the doors are closed?	Because of the exhaust manifold, even when the damper is open, efficient heat transferrence takes place. If you have smoking this may prevent it.	Try burning the Shelburne, when the doors are closed, with the damper in the open position.

V. The type of Stove and its construction may affect the operation of your installation.

1. Is there too much clearance between the bottom of the fireplace and the flanges and stove?	Because of the clearance needed for the wheels to operate, the Shelburne usually sets 1/8" above the fireplace. In some cases, this may allow for too much air leakage.	If there is too much space; remove the stove: 1) Apply high temperature tape to the bottom of the flanges and sides or, 2) Build a curb/wall of insulated glass cemented to the fireplace floor. Push the stove back against this to cover cracks. 3) Or do a direct connection to the damper.
2. Is there a larger than 1/16" gap between the stove and its flanges?	If the gap is too large, excess room air may be escaping into the fireplace/smoke cavity helping create eddys.	Remove stove. Cement flanges with stove/furnace cement or fill with high-temp. tape.

QUESTION	CONSIDERATION	REMEDY
3. Do you get smoking in the room when the blower is on?	The chimney must be well heated to begin a good draw. The ash pan door must be sealed and closed tightly.	Warm up chimney with hot fires. Make sure ash pan door is closed tightly. Is it sealed well?

VI. The type of fuel you burn may affect your ability to burn fires efficiently.

1. How old is your fire wood?	Wood should be one year old, grey in color and checked on the ends. Split wood dries faster than round.	If wood is not aged, stack criss-crossed in South and cover. Store one weeks worth of wood continuously in your home.
2. Where is your fire wood stored?	Wood stored outside will absorb outside moisture. Moisture levels higher than 20% significantly affect efficiency and length of burn.	See #1 of this section.
3. What size wood are you using?	Our findings are that split (not round) 5" in diameter (and 18" long) wood seems to be the ideal size for better combustion.	Adjust the wood size to your Shelburne.
4. What kind of wood are you burning?	The hardwoods have up to 2 times the BTU's per piece of most softwoods. Hardwood means ½ the time cutting and loading and twice the heat of softs.	Consider going to hard or mix hard with softer woods.

CAUTION

If your new Shelburne fails to operate in anything, but the conventional manner, immediately cease operation and contact us.

Please feel free to pass on any tips that you think may be of help to other Shelburne owners.