

EFEL NORTH AMERICA, INC.

HARMONY CATALYTIC WOOD STOVE

MODEL # 386.75

REAR VENT MODEL

INSTALLATION, OPERATION AND MAINTENANCE MANUAL

EFEL North America, Inc.

577 Main St.

Hudson, MA 01749

## INTRODUCTION:

This manual describes the Installation and Operation of the Harmony Catalytic Wood Stove, Model No. 38675.

This heater meets the U.S. Environmental Protection Agency's emission limits for wood heaters sold between July 1, 1990 and July 1, 1992.

Under specific test conditions, this heater has been shown to deliver heat at rates ranging from 7,100 to 51,000 BTU/Hr.

## Tamper Warning:

THIS WOOD HEATER CONTAINS A CATALYTIC COMBUSTOR, WHICH NEEDS PERIODIC INSPECTION AND REPLACEMENT FOR PROPER OPERATION. IT IS AGAINST THE LAW TO OPERATE THIS WOOD HEATER IN MANNER INCONSISTENT WITH OPERATING INSTRUCTIONS IN THIS MANUAL OR IF THE CATALYTIC ELEMENT IS DEACTIVATED OR REMOVED.

THIS MODEL ARDEN HARMONY WOOD STOVE is certified for venting in the rear position only. If any attempt is made to vent this appliance in the top vent position, permanent damage will occur to the stove. It is against the law to operate this wood heater in a manner inconsistent with operational instructions.

## Catalyst Information:

The catalytic combustor applied with this heater is a Corning Long Life Combustor, Part No. EF 833280. Please review the catalytic combustor warranty also supplied with this wood heater. Warranty claims should be addressed to:

Corning Glass Works  
Warranty Claims Department  
Electronic Materials Plant A Dock  
Addison Road  
Painted Post, NY 14870

Please see the catalytic warranty section of this manual for full warranty information.

## OPERATING INSTRUCTIONS

### WARNING:

THIS ROOM HEATER IS A HEAT PRODUCING APPLIANCE AND MAY CAUSE SEVERE BURNS IF TOUCHED. KEEP CHILDREN AWAY.

DO NOT OVERFIRE. IF ANY PORTION OF UNIT OR CHIMNEY CONNECTOR STARTS TO GLOW, YOU ARE OVERFIRING.

THIS UNIT IS DESIGNED AS A RADIANT ROOM HEATER AND SHOULD BE USED FOR NO OTHER PURPOSE.

THIS MODEL, ARDEN HARMONY WOOD STOVE, IS CERTIFIED FOR VENTING IN THE REAR POSITION ONLY. IF ANY ATTEMPT IS MADE TO VENT THIS APPLIANCE IN THE TOP VENT POSITION, PERMANENT DAMAGE WILL OCCUR TO THE STOVE. IT IS AGAINST THE LAW TO OPERATE THIS WOOD HEATER IN A MANNER INCONSISTENT WITH OPERATIONAL INSTRUCTIONS.

### WARNING:

DO NOT TAMPER WITH COMBUSTION AIR CONTROLS BEYOND THEIR NORMAL ADJUSTMENT CAPACITIES.

SIDE FEED DOOR MUST BE CLOSED DURING FIRING EXCEPT WHEN ADDING FUEL.

FRONT FIREBOX DOOR MUST BE CLOSED DURING FIRING OF THE HEATER.

KEEP ASH DRAWER CLOSED DURING FIRING OF THE HEATER TO AVOID DEVELOPING EXCESSIVE TEMPERATURES.

1. Your EFEL Harmony is designed with a high performance catalytic combustion system. The Harmony Catalytic is supplied separately by our dealer. This is part number EF 833280.
2. Catalytic Installation Instructions - Reference Figure 7.
  1. Remove the screws holding the cast iron retainer in place. (Seven (7) screws)
  2. Remove the retainer plate No. 4 and the gasket pieces No. 3.
  3. Open the box containing your Harmony Catalyst Part No. EF 833280, this part is ready for installation.
  4. The foil gasket marked #1 of illustration #3 is supplied with the catalyst. Gently push the catalyst into place.
  5. Replace the gasket material #3 onto the cast iron retainer.
  6. Secure the retainer in place with the number of screws provided.

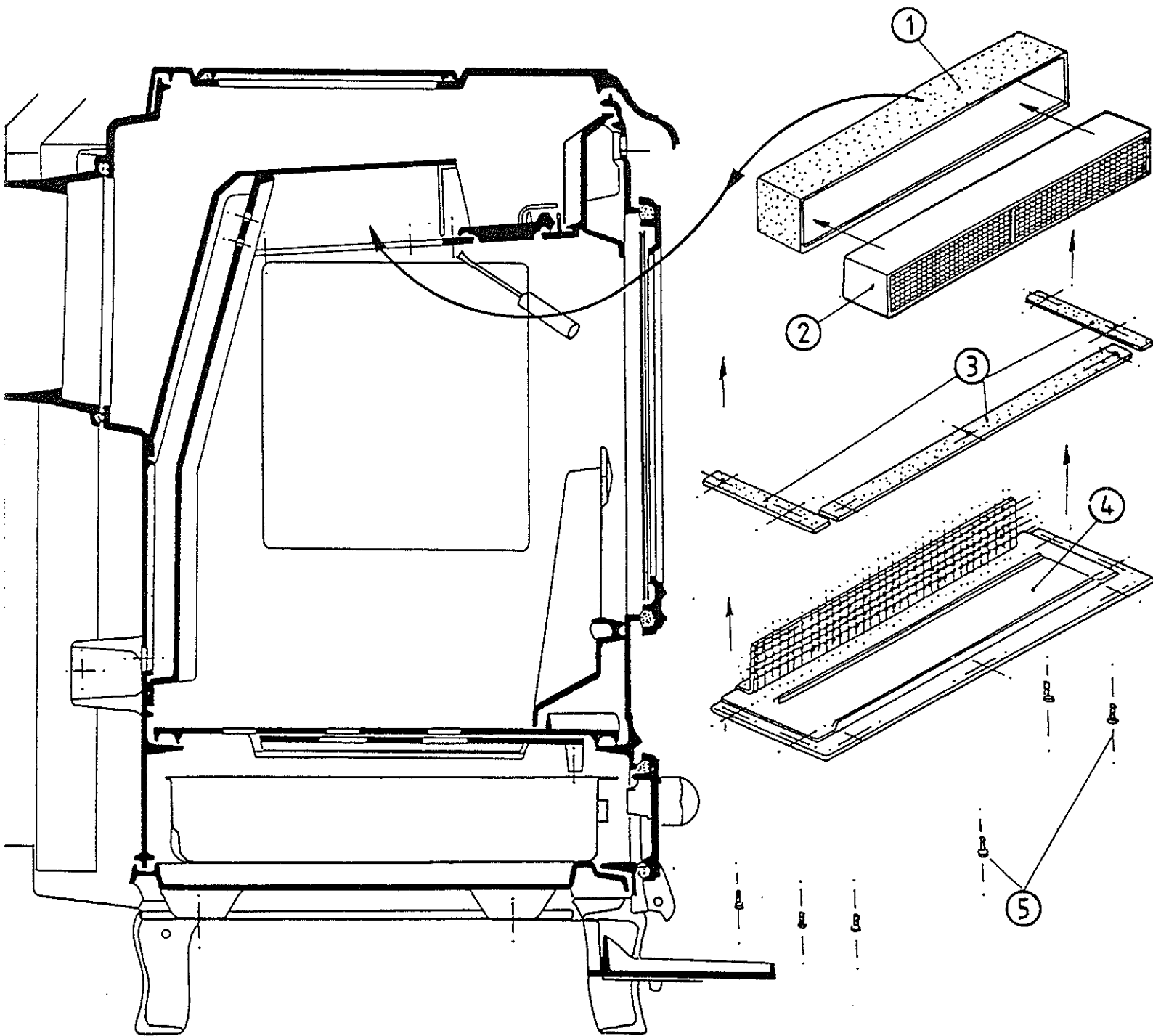


Illustration 7.

## HOW TO OPERATE YOUR STOVE FOR THE CLEANEST BURN

1. Clean and remove ashes from the firebox and ash pan.

**NOTE:** "Whenever ashes get 3 to 4 inches deep in your firebox or ash pan and when the fire has burned down and cooled, remove excess ashes. Leave an ash bed approximately 1 inch deep on the firebox bottom to help maintain a hot charcoal bed".

"Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground away from all combustible materials, pending final disposal. The ashes should be retained in the closed container until all cinders have thoroughly cooled".

2. Open By-Pass damper and primary air setting to maximum. See Figures 8 & 9D.

3. Low Burn - Cleanest Burn

- A. Light stove with paper and kindling, primary air and by-pass baffle are open to maximum settings. Load fuel through side door only. Do not load fuel outside of the log retainer.
- B. Add more kindling after five minutes.
- C. Load approximately +/- 11 lbs. of wood, leaving the primary air and by-pass baffle open.
- D. Allow this wood to burn down to a charcoal stage or until you no longer see flames.
- E. Load your stove with the desired amount of wood through the side door. Leave the primary air and by-pass baffle open until you have established a hot fire.

**NOTE:** By this time, your thermostat probe on the top of the unit will be indicating that the catalyst is in the normal operating range.

- F. Now, close your primary air setting to the low position and close the by-pass. Your stove is now operating at its cleanest and most efficient level.
4. Medium Low Burn - Follow steps 3-A through 3F.
  5. Medium High Burn - Follow steps 3A through 3F.
  6. High Burn - Follow steps 3A through 3E only. For the cleanest high burn with the Harmony, you must leave the by-pass baffle open.
  7. READ MAINTENANCE INSTRUCTIONS

## FUEL SELECTION:

For best operation of your stove, it is recommended that you use seasoned fire wood that has been air dried for at least one heating season, (i.e. 1 year). By doing so, you will help achieve the best stove performance with the optimum overall efficiency.

This heater is designed to burn natural wood only. Higher efficiencies and lower emissions generally result when burning air dried seasoned hardwoods, as compared to softwoods or to green freshly cut hardwoods.

- DO NOT BURN:
- . Treated wood or lumber
  - . Coal - Any Type
  - . Garbage
  - . Cardboard
  - . Any chemical solvents
  - . Colored Paper or Newsprint
  - . Trash

Burning treated wood, garbage, solvents, colored paper or trash may result in release of toxic fumes and may poison or render ineffective the catalytic combustor.

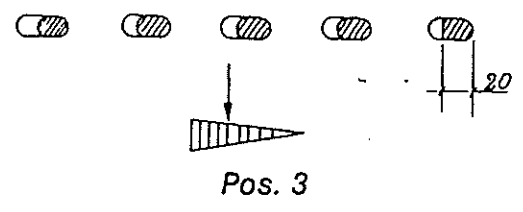
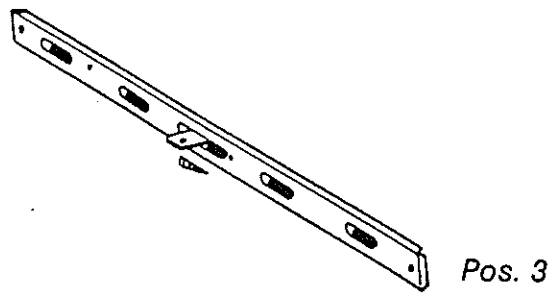
Burning coal, cardboard or loose paper can produce soot, or large flakes of char or fly ash that can coat the combustor, causing smoke spillage into the room and rendering the combustor ineffective.

ALL FUEL SHOULD BE LOADED THROUGH THE SIDE LOADING DOOR ONLY.

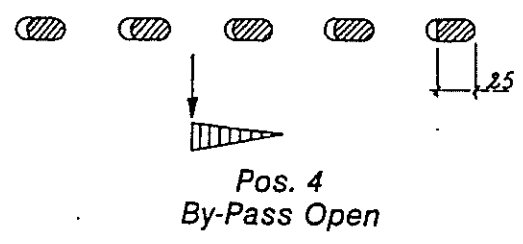
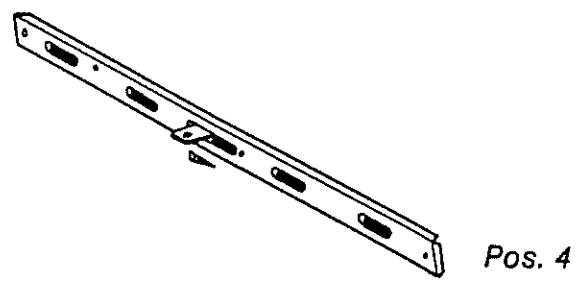
DO NOT LOAD FUEL OUTSIDE OF THE LOG RETAINER.

1. First six fires should be small in order to properly cure the cast iron parts and paint. DO NOT start with a large fire, as you may damage the stove and void your warranty.
2. Open the by-pass baffle, open primary air control, illustration #8 & 9D. During the curing process, use small amounts of kindling, gradually increasing the intensity of the fire. You will notice a slight odor, as painted surfaces cure.
3. DO NOT BURN treated wood, coal, garbage, charcoal, solvents, colored paper or trash.
4. Burning treated wood, garbage, solvents, colored paper or trash may result in release of toxic fumes and may poison or render ineffective the catalytic combustor.
5. Burning coal, cardboard or loose paper can produce soot or large flakes of char or fly ash that can coat the combustor, causing smoke, spillage into the room, and rendering the combustor ineffective.

6. Be sure to provide combustion air into the dwelling when using a solid fuel burning appliance. A partially open window or outside air register in the vicinity of the unit would be acceptable.
7. CAUTION: Heating the air in a closed building decreases the relative humidity of air, which will dry wood and other combustible materials. This drying lowers the ignition temperature of these materials thus increasing fire hazards. To reduce the risk of fire, some provision should be made for replenishing moisture to the air whenever a structure is being heated for extended periods.
8. DRAFT CONTROL: The Harmony draft control is located at the top of the stove on the front panel. With the lever in the extreme right position, you will have a minimum draft. By sliding the draft control lever to the left, you can gradually increase the flow of air to the stove. Through a period of trial and error, you will find the most appropriate setting for your particular application. See Illustration No. 9A,B,C D.



9C



9D

Illustration 9.



## INSTALLATION INSTRUCTIONS

DO NOT INSTALL IN A MOBILE HOME

READ ALL INSTRUCTIONS CAREFULLY BEFORE STARTING THE INSTALLATION.

UNIT MUST BE PROPERLY INSTALLED OR LISTING WILL BE VOID.

INSTALLATIONS OTHER THAN THOSE SPECIFICALLY COVERED HEREIN HAVE NOT BEEN CONFIRMED BY TEST AND ARE NOT COVERED BY THE LISTING.

### STANDARD INSTALLATION:

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#### REAR VENT --- 24 GAUGE SINGLE WALL PIPE

Please refer to Illustrations Nos. 4a, 4b

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1. Install a 6-inch diameter, 24 gauge black or blued steel pipe on the flue collar of the unit. Rotate the elbow so the open end is pointing straight upward.
2. Position the unit no closer than the minimum clearances to combustible materials. Check that no overhead cross members in the ceiling or roof will be cut. Reposition unit if necessary being careful not to move closer than the minimum clearances.

The minimum clearances to combustible materials are as follows: {in.(mm)}  
--- Local building officials may require greater clearances.

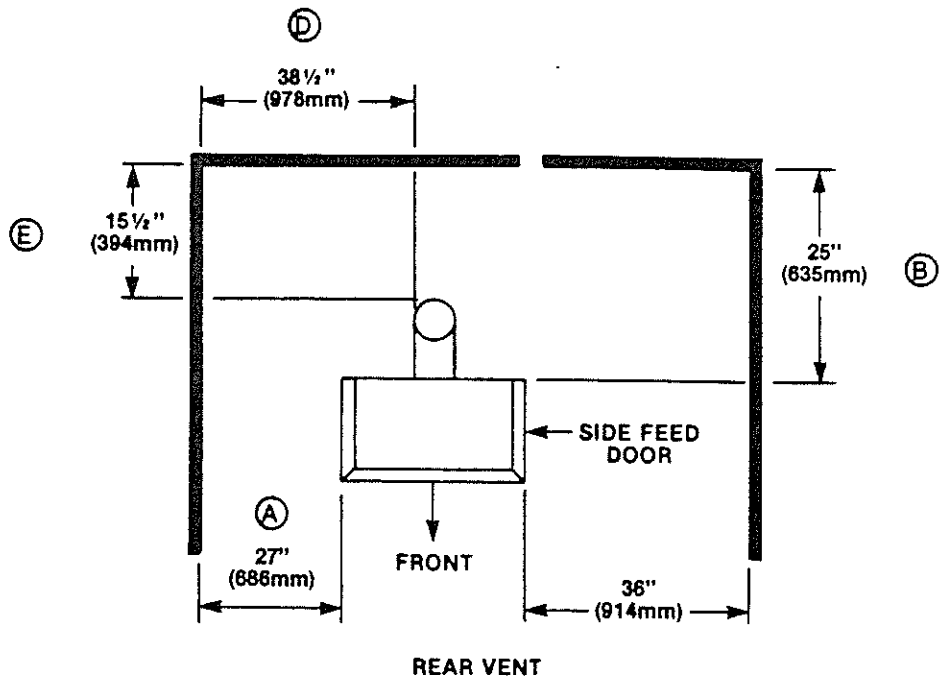
CLEARANCES INDICATED ARE MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS, AS DETERMINED BY TESTING METHODS. YOUR LOCAL BUILDING DEPARTMENT MAY REQUIRE GREATER CLEARANCES (i.e., MINIMUM 18" CLEARANCE FROM COMBUSTIBLE MATERIAL FOR SINGLE WALL CONNECTOR PIPE).

ALL INSTALLATIONS SHOULD BE INSPECTED BY YOUR LOCAL BUILDING DEPARTMENT PRIOR TO INITIAL USE.

#### Harmony Rear Vent - 24 Gauge Single Wall Pipe

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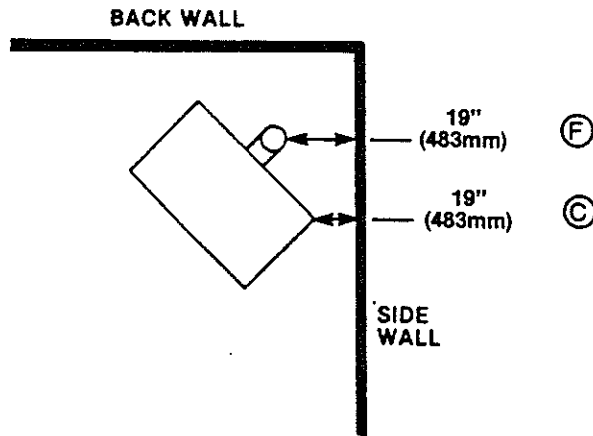
- |    |                 |  |
|----|-----------------|--|
| A) | 27" (686mm)     | inches to the side wall as measured from the side of the unit                        |
| B) | 25" (635mm)     | inches to the back wall as measured from the back of the unit                        |
| C) | 19" (483mm)     | inches to the side wall as measured from the rear vertical corner of the stove       |
| D) | 38-1/2" (978mm) | inches to the side wall as measured from the chimney connector                       |
| E) | 15-1/2" (394mm) | inches to the back wall as measured from the chimney connector                       |
| F) | 19" (483mm)     | inches to the side wall as measured from the chimney connector (corner installation) |



*Illustration 4A.  
Rear Vent Installation (Harmony Catalytic Wood Stove with Single Wall Pipe)*

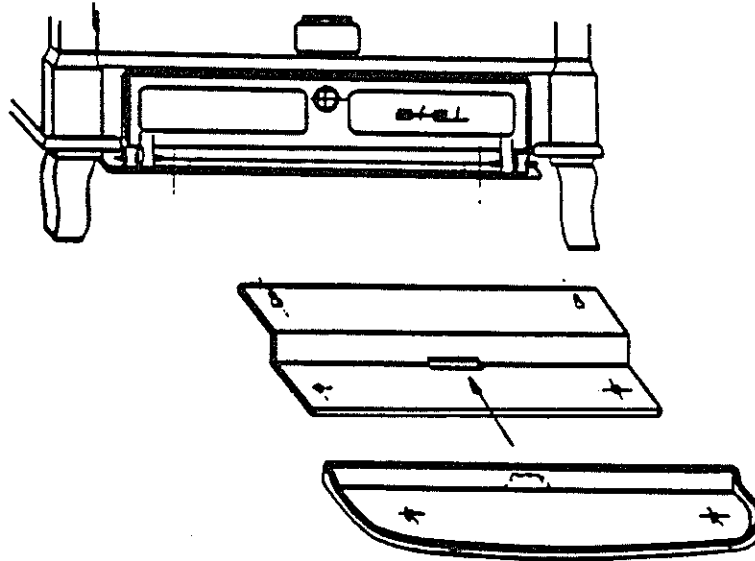
**SPECIAL NOTE:**

The 36 inch minimum clearance on the right side of the stove is shown for practical consideration only. The unit is certified for a 27" inch (686mm) minimum clearance. In reality, this may not be practical for loading wood and working around the stove.



*Illustration 4B.  
Rear Vent, Corner Installation (Harmony Catalytic Wood Stove with Single Wall Pipe)*

4. All stoves come complete with a bottom and rear heat shield in place. Make sure they are securely in place.
5. Harmony Ash Lip: With the stove still on its back, attach the ash lip retainer with the two (2) screws provided. Place the stove in an upright position and attach the ash lip.



*Illustration 2.*

#### PROPER DRAFT & OPERATIONAL & MAINTENANCE PROCEDURES

It is very important that your chimney system be in good working order. If the proper draft is not maintained, your stove may not function at its best efficiency.

Should you have any questions regarding the proper draft conditions required for your stove, please consult your local dealer.

Recommended Draft Setting: -0.5 to -0.6.

THIS MODEL, ARDEN HARMONY WOOD STOVE, IS CERTIFIED FOR VENTING IN THE REAR POSITION ONLY. IF ANY ATTEMPT IS MADE TO VENT THIS APPLIANCE IN THE TOP VENT POSITION, PERMANENT DAMAGE WILL OCCUR TO THE STOVE. IT IS AGAINST THE LAW TO OPERATE THIS WOOD HEATER IN A MANNER INCONSISTENT WITH OPERATIONAL INSTRUCTIONS.

# HARMONY CATALYTIC WOOD STOVE MODEL

## ASSEMBLY INSTRUCTIONS

Your unit requires some assembly.

1. Remove all parts from shipping carton and check for damaged or missing parts. If any damaged pieces are found, contact the shipping company or your local dealer immediately. Do not install unit using damaged parts.

The following parts should be included with each unit:

One (1) catalytic combustor, Part #EF 833280 (Supplied by your retailer)

One (1) assembled heater

One (1) flue collar attached in rear vent position

Four (4) legs

One (1) accessory tool

One (1) slicing knife

One (1) wall storage bracket

One (1) ash lip and bracket

Two (2) rear heat shields (attached)

One (1) bottom heat shield (attached)

One (1) package bolts & nuts

One (1) catalytic temperature monitor. (Supplied by your retailer)

2. Place your heater on a soft surface. If working on a carpeted floor, it is advisable to protect the carpeting with an old blanket or sheet.
3. With the stove on its back, place the legs on the bottom of the stove and attach with the washers and nuts. The Harmony Wood is designed to have the four (4) legs attached to the four (4) tie rods which extend through the bottom of the stove. These tie rods are protected by a wood pallet that is secured in place by four (4) screws. Remove the four (4) screws before attaching the legs. The legs are placed over the tie rod. Next, place one of the large steel washers, locking washer and nut. Secure in place. See Illustration No. 1

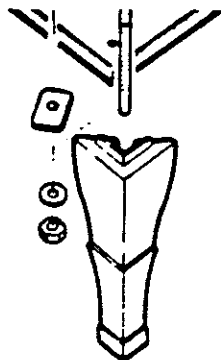


Illustration 1.

## TROUBLE SHOOTING FOR THE CATALYST

1. It is important to inspect both your catalyst and your chimney system on a regular basis. The catalytic converter supplied with this stove has a minimum life expectancy of two to six years. This condition may vary depending upon the type of installation and the amount of wood burned. If you notice a build-up of creosote in your chimney, this is a sure sign that the catalyst is losing some of its operating efficiency.
2. Your catalyst can be visually inspected while the stove is in operation. Simply look up into the top of the stove while it is operating at a medium to medium high setting; you will notice a distinct glow coming from the catalyst. You may also remove surface probe and look inside.
3. Reference the temperature monitoring guidelines as outlined to determine if the catalyst is functioning properly.
4. If a visual inspection of the catalyst cannot determine product failure, you will have to remove the catalyst from the stove.
5. Make sure the catalyst and stove is completely cold.
6. Reverse the instructions used for catalyst installation. Reference Figure (7). Compare your catalyst to the photography as shown in Figure (13).
7. Gently remove the catalyst from the stove. NOTE: The catalyst is enclosed in a stainless steel jacket and gasket blanket.
8. Carefully inspect the catalyst for a build-up of fly ash that may have clogged any of the cells in the catalyst. Gently blow through the honeycomb structure to remove the build-up of any ash. Small cracks in the structure of the honeycomb will not affect the performance of the catalyst. If pieces of the catalyst are missing or are falling out, please contact your local dealer regarding replacement. Illustration #13.
9. In order for a replacement catalyst to be provided, it will be necessary to return the damaged catalyst. Please reference the catalyst warranty section of this manual for replacement.
10. If the catalyst appears in good form, replace and secure.
11. SAVE THIS MANUAL FOR FUTURE REFERENCE .

# EFEL NORTH AMERICA, INC. LIMITED WARRANTY

We warrant to the original retail purchaser of a cast iron or steel stove supplied by us as follows:  
We will replace, at Hudson, Massachusetts, any stove part(s) covered by this Limited Warranty (other than Hi-Temp glass, if any, catalytic core, if any, trim or accessories) or the entire stove at our option, which prove to be defective in material or workmanship under normal home use by the original retail purchaser within three (3) years after the date of the original purchase, except those parts subject to normal wear and tear.

### Limited Three (3) Year Warranty:

EFEL North America, Inc. warrants that your stove will be free of defects in materials and workmanship for a period of three (3) years from date of purchase, except those parts that are subject to normal wear and tear; coal grates, coal hoppers, gasketing, coal linkages, glass doors, handles and catalyst.

Parts subject to normal wear and tear are warranted to be free of defects in material and workmanship for a period of one (1) year from date of purchase. These parts are coal grates, coal hoppers, gasketing, coal linkages and handles. Any of these parts found to be defective will be repaired and replaced at no charge.

You must pay any and all labor and shipping charges or other expenses of removing, inspecting or returning to us any defective part(s) trim, accessories or stove, or of shipping to you, installing or inspecting any replacement part(s), or stove furnished by us, and we will not be responsible for such charges or expenses under this Limited Warranty.

This warranty shall not apply, and we shall have no obligations hereunder with respect to any stove, part, trim or accessory which has been subject to accident, abuse, alternation, misuse or neglect, or which has not been installed, inspected, operated and maintained in accordance with all applicable local codes and regulations and in accordance with the manufacturer's printed instructions, or which, if such stove has a catalytic core, has, contrary to the instructions in the owner's manual been used with incorrect fuels, such as newspaper logs, artificial pressed logs, coal, or anything other than natural woods.

### EXCLUSIONS & LIMITATIONS

A. OUR WARRANTY DOES NOT COVER DAMAGE RESULTING FROM OVERFIRING THE STOVE. OVERFIRING CAN BE IDENTIFIED BY WARPED PLATES AND AREAS WHERE THE PAINT PIGMENT HAS BEEN BURNED OFF. OVERFIRING OF ENAMEL STOVES IS IDENTIFIED BY CHIPPING, CRACKING, BUBBLING AND DISCOLORATION OF THE PORCELAIN ENAMEL FINISH.

B. EFEL NORTH AMERICA, INC OFFERS NO WARRANTY ON PORCELAIN ENAMEL PARTS SUBJECT TO ABNORMALLY HIGH TEMPERATURES OR THERMAL SHOCK. ABNORMALLY, HIGH TEMPERATURES AND THERMAL SHOCK RESULT IN CHIPPING, CRACKING, BUBBLING AND DISCOLORATION AND CRAZING OF THE PORCELAIN SURFACES.

C. DAMAGE TO A STOVE WHILE IN TRANSIT IS NOT COVERED BY THIS WARRANTY, BUT IS SUBJECT TO A CLAIM AGAINST THE CARRIER. CONTACT EFEL NORTH AMERICA, INC. IMMEDIATELY.

OUR OBLIGATION UNDER THIS WARRANTY SHALL BE LIMITED TO THE FURNISHING OR REPLACEMENT PARTS, TRIM OR ACCESSORIES, OR A REPLACEMENT STOVE AT OUR OPTION, AND WE SHALL IN NO EVENT BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR OTHER MONETARY DAMAGES. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE LIMITATIONS OR EXCLUSIONS IN THIS PARAGRAPH MAY NOT APPLY TO YOU.

ALL IMPLIED WARRANTIES OF PRODUCTS COVERED BY THIS LIMITED WARRANTY, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE ARE LIMITED TO A PERIOD OF THREE (3) YEARS FROM THE DATE OF ORIGINAL PURCHASE.

EXCEPT AS EXPRESSLY STATES IN THIS LIMITED WARRANTY, WE NEITHER ASSUME, NOR AUTHORIZE ANYONE ELSE TO ASSUME FOR US, ANY LIABILITY OR OBLIGATION IN CONNECTION WITH THE SALE OF ANY STOVE TO WHICH THIS WARRANTY APPLIES OR OF ANY PARTS, TRIM OR ACCESSORIES THEREFORE.

IN ORDER FOR THIS WARRANTY TO BE VALID, THE ATTACHED CARD MUST BE COMPLETED AND MAILED, WITHIN THIRTY (30) DAYS AFTER ORIGINAL PURCHASE TO US AT THE ADDRESS SHOWN BELOW.

ANY CLAIM UNDER THIS LIMITED WARRANTY SHOULD BE SUBMITTED FIRST TO THE DEALER FROM WHICH THE STOVE WAS PURCHASED. IF SUCH DEALER CANNOT BE LOCATED, THE WARRANTY CLAIM, IN WRITING, SHOULD BE MAILED TO US AT THE ADDRESS SHOWN BELOW, INDICATING THE MODEL NUMBER, SIZE AND SERIAL NUMBER, IF ANY, OF THE STOVE AND THE PLACE, PRICE AND DATE OF PURCHASE.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE.

EFEL NORTH AMERICA, INC.  
577 MAIN STREET  
HUDSON, MASSACHUSETTS 01749

-----  
DETACH AND RETURN TO EFEL NORTH AMERICA, INC.  
WARRANTY CARD

NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
MODEL # \_\_\_\_\_ DATE PURCHASED \_\_\_\_\_  
SERIAL # \_\_\_\_\_ PURCHASE PRICE \_\_\_\_\_  
WHERE PURCHASED \_\_\_\_\_  
SUGGESTIONS, COMMENTS \_\_\_\_\_

-----  
RETAIN A COPY FOR YOUR RECORDS

3. Install chimney and accessories through ceiling and roof directly above the unit per chimney manufacturer's instructions. Chimney must have approved residential type as required by your building department. Before chimney is installed, use a "plumb-bob" to assure the chimney is directly above elbow on unit. See Typical Installation, Illustration #5

**NOTE:** It is important that you install the chimney in accordance with the manufacturer's installation instructions and clearance specifications.

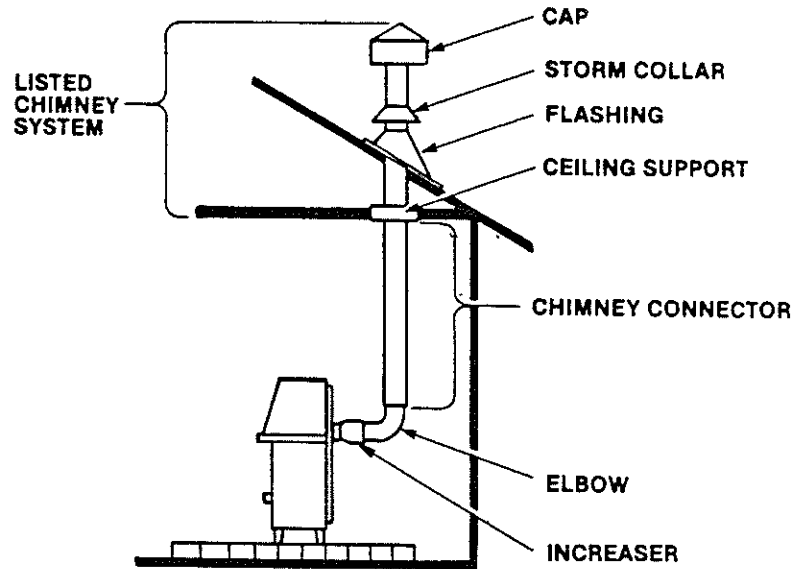
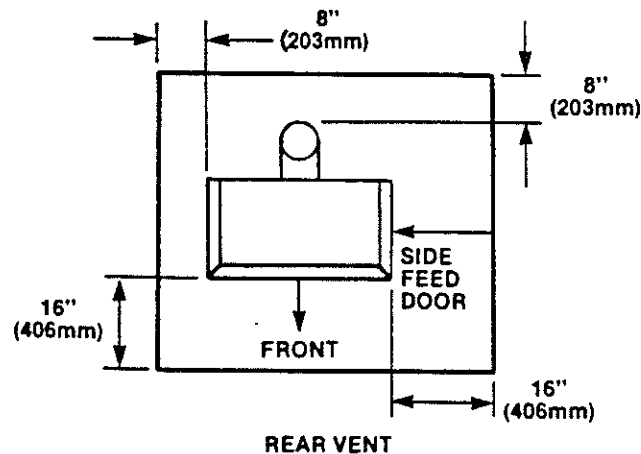


Illustration 5.

4. A non-combustible floor protector (hearth extension) must be installed under the unit. The floor protector must be a minimum single layer of 2-1/2 inch thick common solid brick, over 26 gauge sheet metal, or equivalent to 3/4" - 19mm millboard or equivalent board. Brick must be mortared or otherwise suitably fastened in place. Check with local building authorities as to what other materials are acceptable. The floor protector must extend a minimum of 16 inches beyond the front opening, 16 inches beyond the side feed opening, 8 inches beyond the back of the chimney connector and 8 inches beyond the left side of the unit. Mark the position of the required floor protector on the floor.

See Illustration No. 6



5. Remove unit and install the floor protector.
6. Position unit on the floor protector at the proper clearances with the elbow directly under the chimney. Do not connect this heater to a chimney servicing another appliance.
7. Slide a section of chimney connector up into the chimney several inches. Install additional sections of chimney connector as needed between the elbow and the connection section slid up into the chimney. The crimped ends should all point down. Position all seams toward the back for aesthetics. The chimney connector must not pass through an attic or roof space, a ceiling wall of combustible construction without special consideration (contact your local building department).

The chimney connector must be 6-inch diameter black or blued steel, of 24 gauge minimum, 1 notch crimped end down.

**NOTE:** For the State of Massachusetts, all chimney connectors must be 22 gauge minimum black or blued steel.

8. Slide the top section of chimney connector down to engage the lower section of chimney connector. The top section of chimney connector must still extend up into the chimney a minimum of 2 or 3 inches.
9. Check that all clearances are still within the allowable.
10. Secure adjoining sections of chimney connector and elbow to each other with three stainless steel metal screws equally spaced around each joint. Secure elbow to flue collar using holes provided. **DO NOT** secure chimney connector to chimney with screws.



## STOVE GASKETS

In order to keep your stove at a peak operating efficiency, it is recommended that you inspect the gaskets for proper seals.

The following drawings specify the gaskets which may have to be replaced every two years if leaks develop:

1. Flue Collar Gasket (Figure G1) 1/4 x 23.5 inches long.
2. Side Loading Door Gasket (Figure G2) 1/2 x 34 inches long.
3. Ash Pan Door Gasket (Figure G3-A) 1/2 x 44.5 inches long.
4. Front Door Gasket (Figure G3-B) 1/2 x 61.5 inches long.
5. Glass Door Gasket (Figure G3-C) 4 pieces fiber ceramic - must be ordered direct from your local dealer.

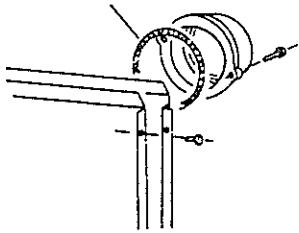


Figure G1

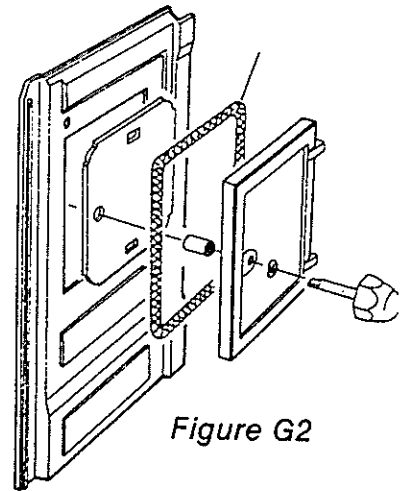


Figure G2

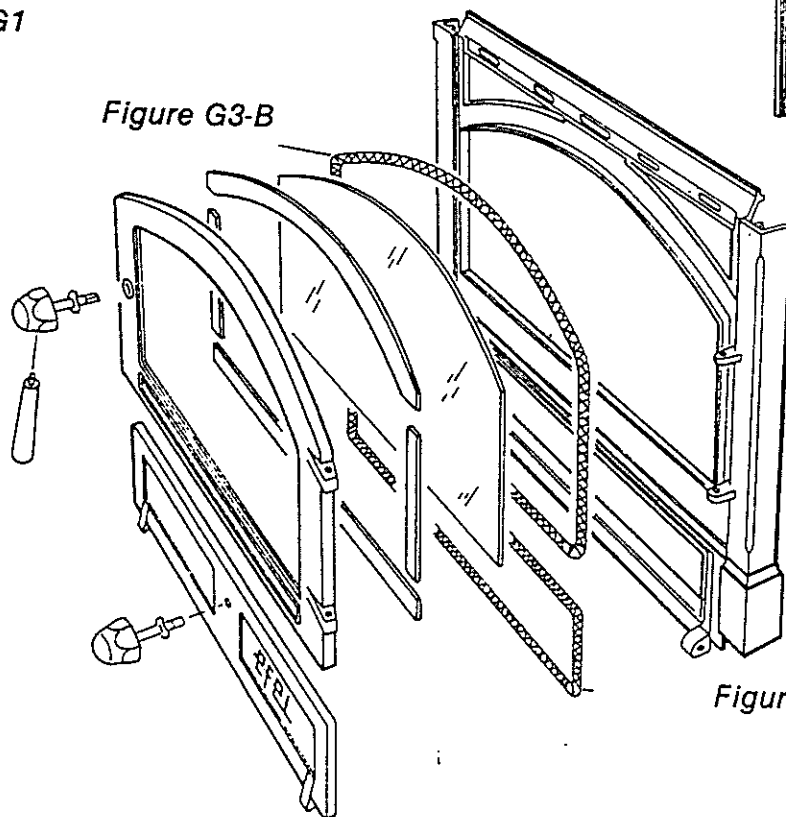


Figure G3-A

## MONITORING YOUR CATALYST

1. It is important to periodically monitor the operation of the catalytic combustor to ensure that it is functioning properly and to determine when it needs to be replaced. A non-functioning combustor will result in a loss of heating efficiency and an increase in creosote and emissions. The following is a list of items that should be checked on a periodic basis.

- A. Visual Inspection of Catalyst

Your catalyst should be visually inspected at least three times during the heating season to determine if physical degradation has occurred. Actual removal of the combustor is not recommended unless more detailed inspection is warranted because of decreased performance. If any of these conditions exists, refer to catalyst trouble shooting section of this owner's manual.

- B. Temperature Monitoring of Catalyst

A surface thermometer should be placed on the top center of the stove. The following are guidelines when using the surface thermometer, which indicates the heat output of your stove and how the catalyst is functioning:

Low to Medium Output	350 degrees to 500 degrees F
Medium Output	500 degrees to 600 degrees F
High Output	600 degrees to 750 degrees F

- C. Included with your catalyst is a catalytic thermometer. This thermometer drops into the monitoring hole on the top of your stove. There are three (3) stages in which this thermometer operates:

0 to 500 degrees F the catalyst is inactive  
510 to 1700 degrees F the catalyst is active  
Over 1700 degrees F, you are running the catalyst too hot.

Please reference Surface Temperature Monitor Guidelines.

### SPECIAL NOTE:

Operating the Harmony Catalytic Wood Stove with surface temperatures of 1000 degrees F for extended periods of time can damage the cast iron burn plates and cause chipping and crazing of the enamel finish.

9. CAUTION: UNATTENDED FIRES

Many structure fires have resulted when a slow burning fire has been left unattended for any extended period of time (such as when "banking" a fire for a long overnight burn). These fires normally occur because combustible materials close to an appliance become heated to the ignition point by an overfired appliance which the operator thought was safely "throttled down".

Fire intensity is a function of several factors. One of these factors is DRAFT. Normally, increasing draft increases fire intensity. Conversely, increasing the fire intensity will increase draft. Draft can also be affected by external factors such as wind strength and direction, outside temperature, air flow in or out of the structure, and so forth. If one of these factors changes, the draft of a low-burning appliance may increase. This increased draft may cause dangerously high temperatures to develop, possibly causing failure of the unit or flue, or ignition of nearby combustibles. Closing down the combustion air flow ("draft") controls (even on a thermostatically controlled unit) may not guarantee that this will not happen.

Exercise extreme caution if a fire must be left unattended.

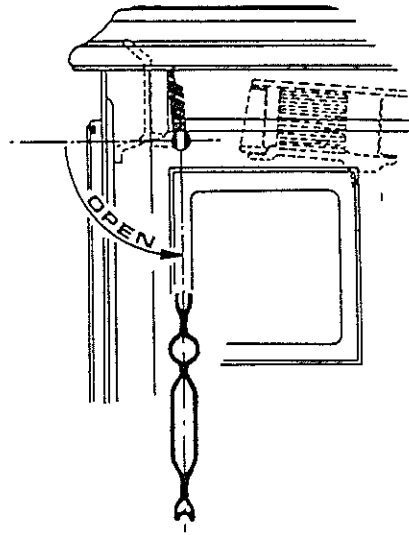
Always build wood fires directly on the integral grate. Do not use andirons or elevate fire.

CAUTION:

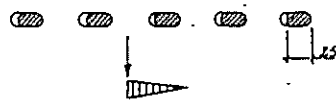
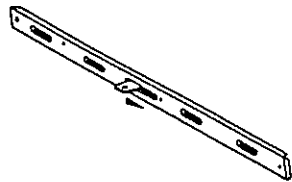
Always check for high flames when opening feed door by partially opening door for a few seconds before opening fully.

OPERATING YOUR STOVE

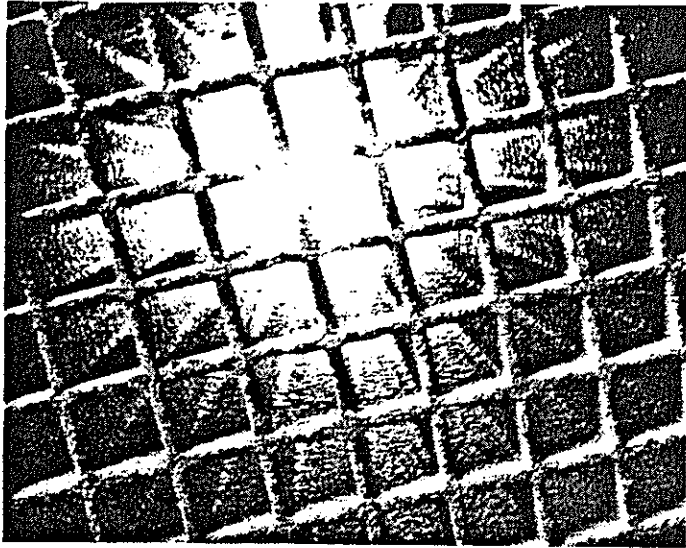
1. Open the by-pass baffle, illustration #8.



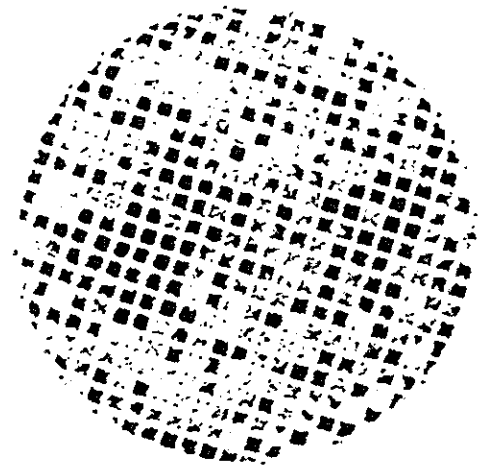
2. Open primary air setting to maximum - see illustration #9D.



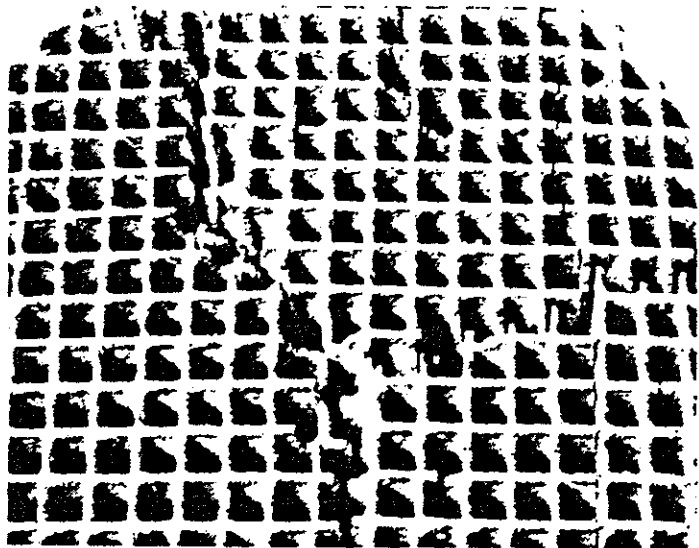
Pos. 4 BY PASS OPEN



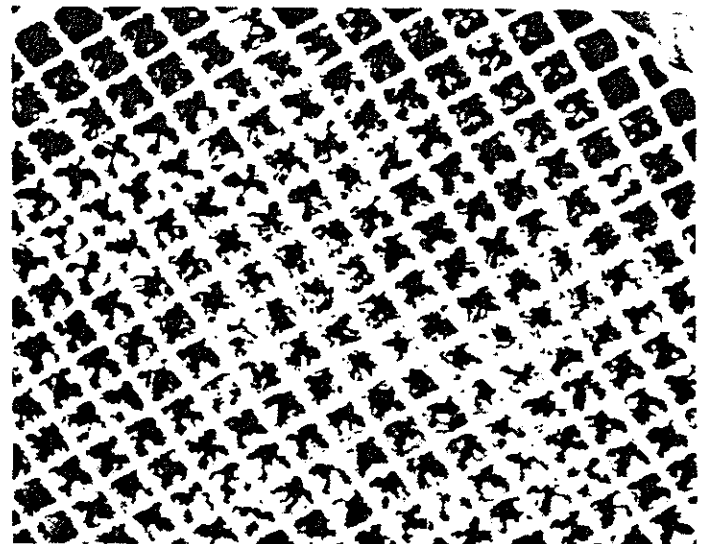
*Healthy Combustor*



*Fly-Ash Plugging*



*Thermal Cracking*



*Peeling*

*Illustration 15.*

CATALYTIC WARRANTY & MAINTENANCE INSTRUCTIONS

1. Please reference your Corning Long-Life<sup>TM</sup> Catalytic Combustor limited warranty which is shipped with your stove.
2. Your EFEL Harmony is designed with a high performance catalytic combustion system. The Harmony Catalytic is supplied separately by our dealer. This is part number EF 833280.
3. Replacement of Catalyst: If it is determined that your catalyst has failed, you will have to package the catalyst and ship it too:

Corning Glass Works  
Warranty Claims Department  
Electronic Materials Plant A Dock  
Addison Road  
Painted Post, NY. 14870

4. No package will be received by Corning Glass Works unless accompanied by the following information:
  - A. Return authorization from EFEL North America.
  - B. Corning Glass Works Warranty claim form.
  - C. Dated proof of purchase.
  - D. Check for proper amount (including postage and handling).
  - E. Corning Long-Life<sup>TM</sup> Catalytic Combustor.

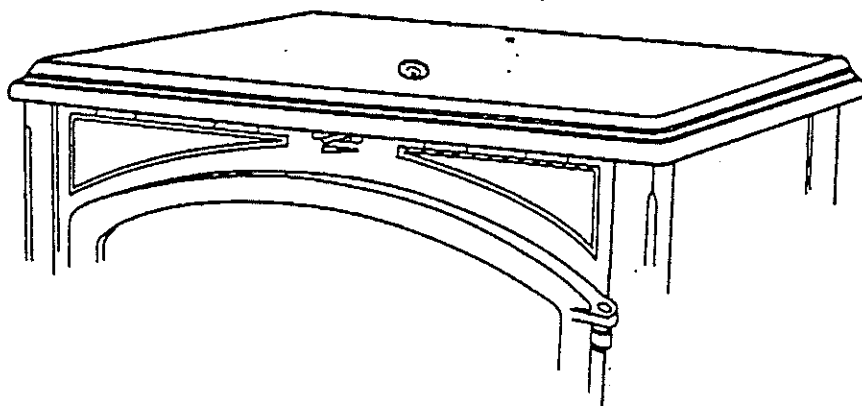
4. Now, load your stove with the desired amount of fuel. Allow this fuel charge to ignite, approximately 5 minutes.
5. Close your by-pass damper and adjust the primary air setting to the desired setting, Figure 9A, 9B, 9C, 9D low, medium, medium high & high.
6. If you adjust the primary air too soon on low burn, your glass door will become dirty. This will burn off later when a bed of coals has properly developed.
7. ON THE HIGH BURN RATE - FOR THE HARMONY CATALYTIC - THE HIGHEST RESULTS FOR EFFICIENCY ARE ACHIEVED, THE BY-PASS BAFFLE IS PERMANENTLY OPENED. THIS IS BECAUSE OF THE UNIQUE PATENTED SECONDARY AIR SYSTEM, WHICH DELIVERS A PRESET AMOUNT OF SECONDARY AIR TO ENHANCE THE COMBUSTION PROCESS. (ALWAYS LEAVE THE BY-PASS OPEN ON A HIGH BURN RATE.)

CAUTION - ALWAYS INSURE THAT YOU CLOSE THE BY-PASS BAFFLE ON LOW, MEDIUM, MEDIUM HIGH AND HIGH SETTINGS.

RE-FUELING:

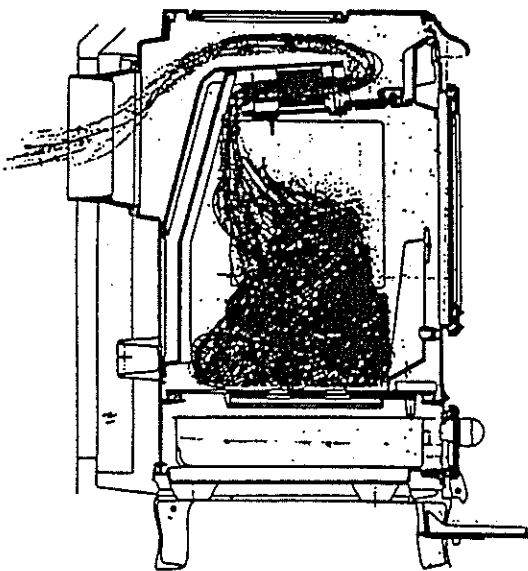
- A. Open by-pass damper; open primary setting to the maximum setting. Figure (8) and (9D).
- B. Re-load fuel through the side door only.
- C. Operate the stove at a medium to high setting for approximately 10 minutes to ensure that the catalyst reaches approximately 600 degrees F. Check the temperature probe provided with your stove. Figure (12).
- D. Close the by-pass damper and adjust your primary air setting.

NOTE: Do not burn at high fire rate for extended periods of time, as damage to stove and enamel may occur. Cracking of the enamel finish is fine lines that are visible by close inspection. This cracking in no way affects the finish or function of your stove.

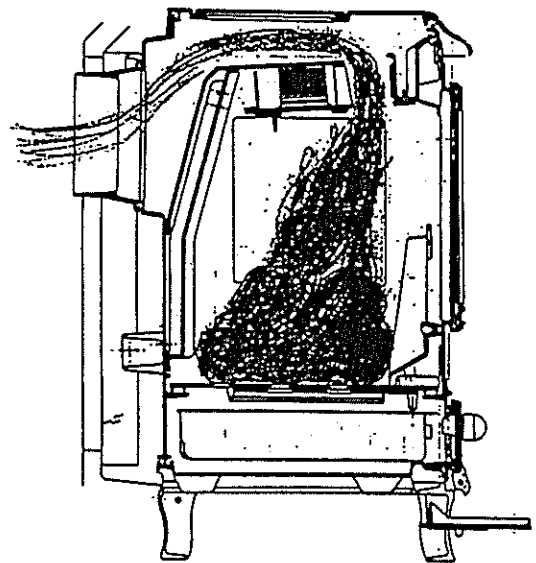


*Illustration (12).*

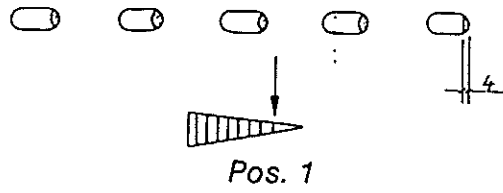
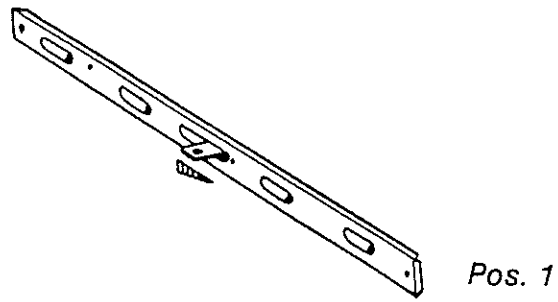
*Illustration (10)  
By-Pass Open*



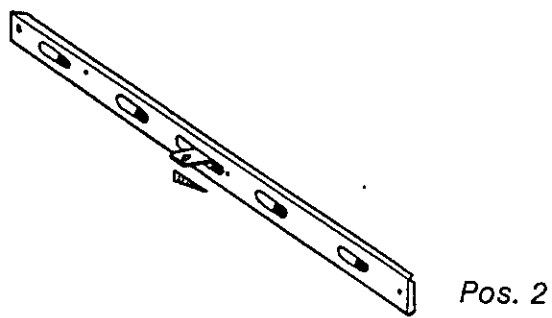
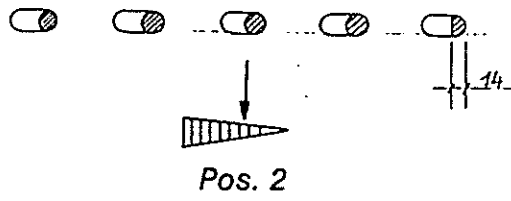
*Illustration (11)  
By-Pass Closed*







9A.



9B.

Illustration 9.

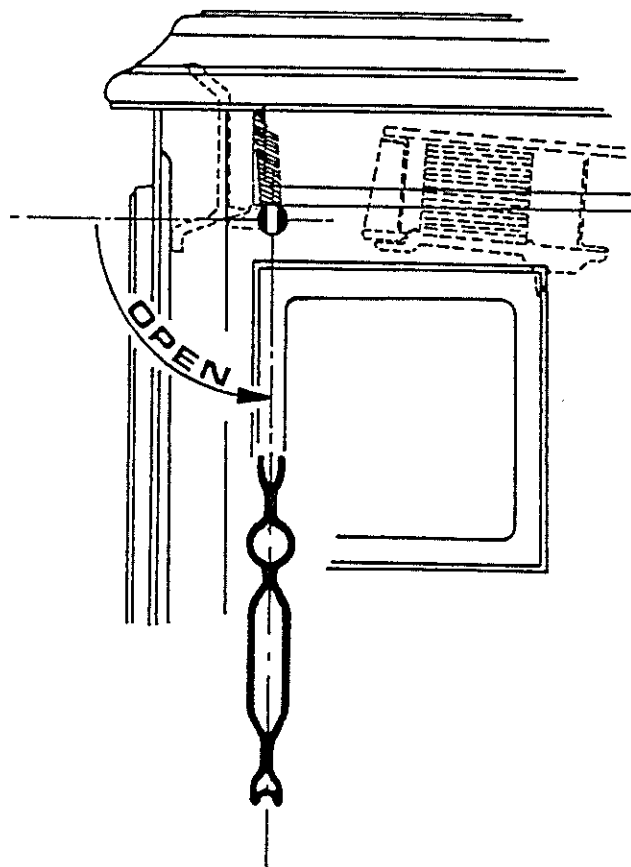
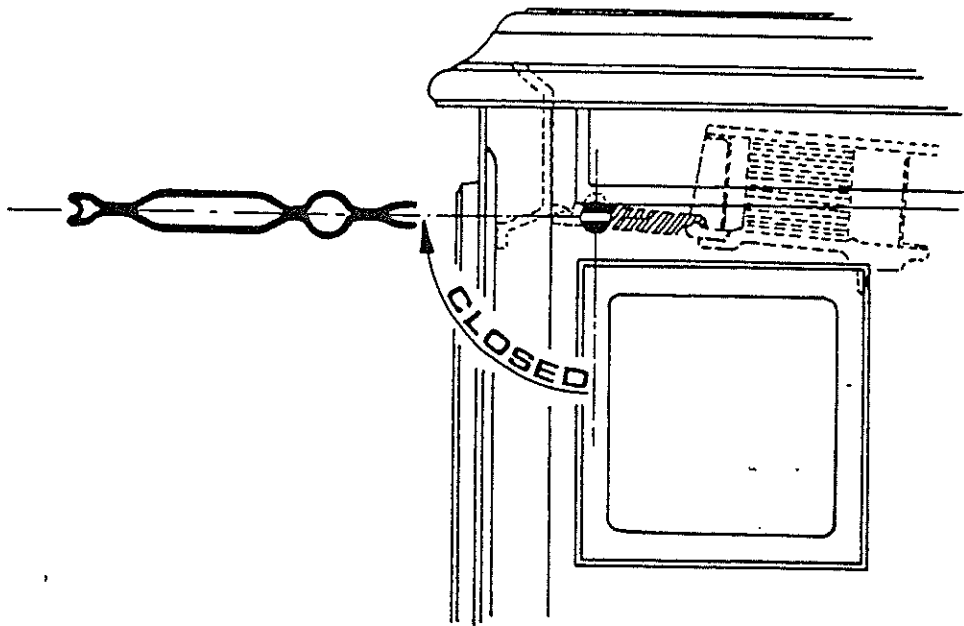


Illustration 8.