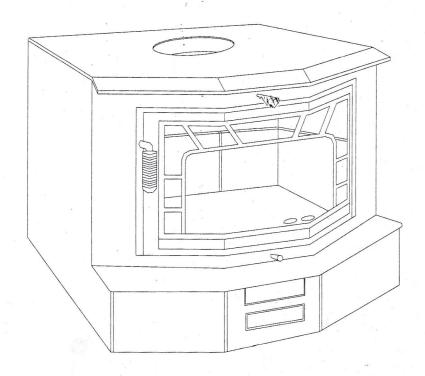
Appalachian's 32-BW



INSTALLATION AND OPERATION PROCEDURES

FIREPLACE INSERT - FREESTANDING

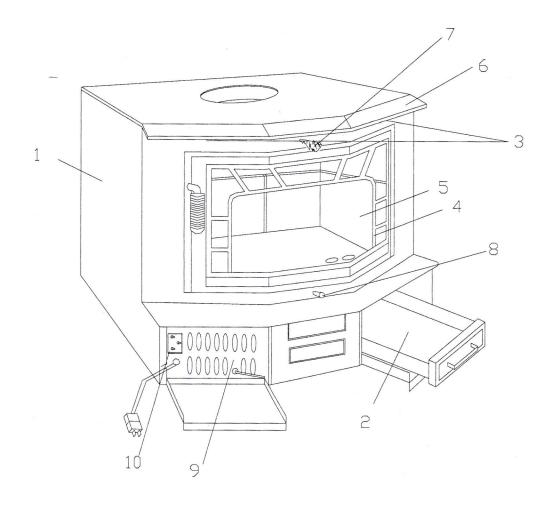
© 1993 Appalachian Stove & Fabricators, Inc.

1. FEATURES AND OPERATING CONTROLS

Before installing and operating the Model 32-BW stove, familiarize yourself with its features.

- 1. <u>Quality steel construction</u> assures years of dependable service. The firebox is constructed of 4 gauge plated steel.
- 2. Ash pan for easy removal of ash.
- 3. Warm air outlets distribute heated air from around the firebox.
- 4. <u>Single Cast Bay Window Door</u> seals the firebox for high efficiency.
- 5. <u>Firebrick firebox liner</u> boosts burning efficiency by reflecting radiant heat back into the fire, which results in a more thorough and cleaner burn.
- 6. <u>Warm air deflector</u> on the top of the stove edge directs heated air downward and across the floor for maximum comfort.

- 7. <u>Sliding damper</u> helps increase heat extraction by controlling the escape of hot combustion gasses and smoke. The sliding damper is opened by pulling the control handle out and closed by pushing the handle in.
- 8. <u>Draft control</u> regulate the burning rate and the heat output of the stove. The larger the fire, the more heat the unit will produce. The drafts are opened by pulling out the draft slide and may be left in any intermediate position. Start up air may only be opened during the building of the fire (5 minute max.).
- 9. <u>Front mounted blower -</u> circulates air around the fire chamber for increased heat. The easily mounted blower allows for quick access, if service is needed.
- 10. Three speed switch assists in the adjustment of air circulation around the firebox. The automatic position is thermostatically controlled, the blower comes on when the activation temperature is reached. The manual position allows for blower start up at any time.



III. FIREPLACE INSERT INSTALLATION

1. STOVE COMPONENTS

- A) Model 32-BW Stove
- B) Adhesive Backed Insulation
- C) Top Trim Panel (1)
- D) Side Trim Panels (2)
- E) Firebrick Firebox Liner
- F) Assembly Screws
- G) Ash Pan
- H) Blower Assembly

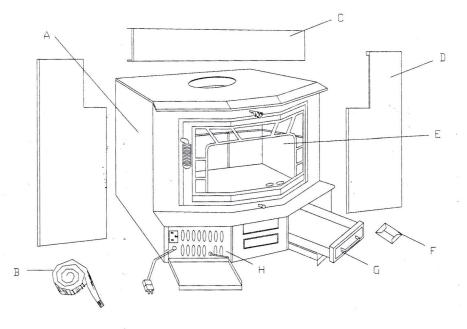


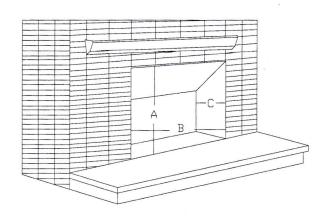
FIGURE 4
FIREPLACE UNIT STOVE COMPONENTS

2. PREPARATION

To facilitate the installation of your Model 32-BW stove:

- A) Clear the area around the fireplace of furniture, rugs, etc.
- B) Place drop clothes or other protective materials on the floor and hearth to protect against damage.
- C) Remove ashes and clean the firebox floor.
- D) Remove the damper plate, if possible, or block it open using non-combustible materials, such as brick or rock.
- E) Insert the interior of the firebox and flue for possible deterioration of mortar joints, loose bricks, and excessive creosote buildup.
- F) Make sure ash dump is closed and sealed.

NOTE: Clean flue BEFORE installing stove.



Dimension (Minimum)

A B C 22 ½" 32" 25 1/4"

FIGURE 5

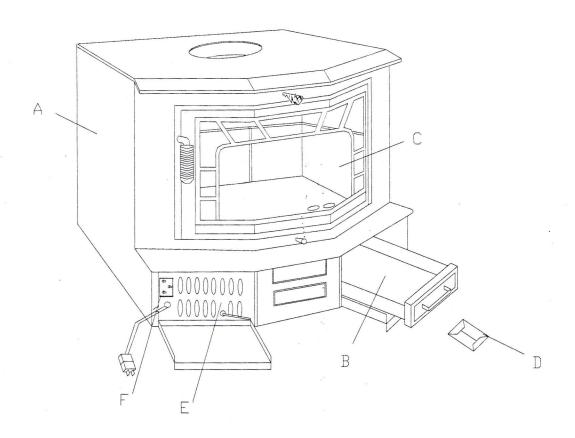


FIGURE 7
FREESTANDING STOVE COMPONENTS

1. STOVE COMPONENTS

The following components are included with the 32-BW freestanding model:

- A) Model 32-BW stove
- B) Ash Pan
- C) Firebrick Firebox Liner
- D) Assembly Screws
- E) Blower Assembly
- F) Control Panel Assembly
- G) Pedestal (Not Shown)

2. PREPARATION

Proper preparation and planning of the installation will simplify the process and help achieve effective operation of the unit.

- A) Select the location for the stove installation. The stove should be positioned so that the air flows to the rest of the home in the most direct route possible.
- B) Locate the approximate penetration point of the chimney structure. Avoid roof areas such as valleys, ridges, dormers and hips.

Place the floor protector in position, if the installation is being made on a combustible floor. (Section II)

Place the stove in position and check clearances. (Section II)

NOTE: Use of aluminum type 13 gas vent for solid sel is unsafe and prohibited by the National Fire Protection Association Code.

After the stove is positioned, suspend a plumb bob over the center of the damper opening to determine the chimney penetration point.

The Model 32-BW stove must be connected ONLY to a UL listed class A all fuel burning heating appliance chimney. CAUTION: SOME CHIMNEYS ARE AVAILABLE WITH A UL LISTING THAT ARE NOT CLASS A AND ARE NOT SAFE FOR USE WITH A SOLID FUEL APPLIANCE.

Install the chimney following the manufacturer's instructions exactly. DO NOT DEVIATE FROM THESE INSTRUCTIONS!

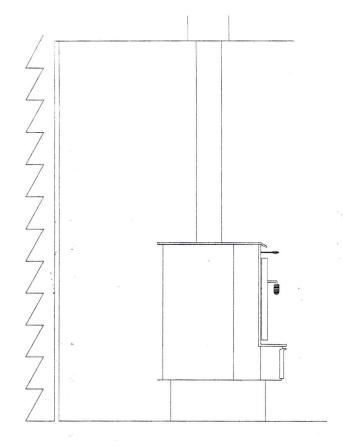
The chimney should extend a minimum of 3 feet from the roof structure or 2 feet higher than the highest point within 10, whichever is greater. This assures proper chimney function and reduces the possibility of back drafts.

NOTE: All installations must meet local building and fire codes. Check with local building officials for assistance in getting permits, inspections and good advice.

7. IMPORTANCE OF PROPER DRAFT

Draft is the force that moves air from the appliance up through the chimney. The amount of draft in your chimney depends on the length of the chimney, local geography, nearby obstructions, and other factors. Too much draft may lead to excessive temperatures in the appliance and may damage the catalytic combustors. Inadequate draft may cause backpuffing into the room and "plugging" of the chimney catalyst.

NOTE: An uncontrollable burn or a glowing red stove part or chimney connector indicates excessive draft.



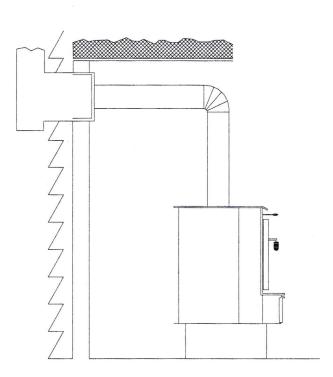


FIGURE 9
INSTALLATION INTO FACTORY-BUILT CHIMNEY

VI. CATALYTIC COMBUSTORS

1. GENERAL INFORMATION

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 a manner inconsistent with the operating instructions in this manual, or if the catalytic element is deactivated or removed.

The combustors supplied with this heater are Applied Ceramics Versagrid Catalytic Converter. Consult the catalytic combustor warranty also supplied with this heater.

Warranty claims should be addressed to: Applied Ceramics - Customer Service Department P.O. Box 29664 Atlanta, GA 30359

Warranty Claims MUST have the following items:

- 1. Warranty Claim Form
- 2. Dated Proof of Purchase
- 3. Check for proper amount (including postage and handling)
- 4. APPLIED CERAMICS Catalytic Combustor

2. CATALYST MONITORING

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.

Check the following items on a periodic basis:

* Visually inspect combustors at least three times during the heating season to determine if physical degradation has occurred. Actual removal of the combustor is not recommended unless a more detailed inspection is warranted because of a decrease in performance. If any of these conditions exist, refer to the Catalyst Troubleshooting Guide on the following page.

- * This catalytic heater may be equipped with a temperature probe to monitor catalyst operation. Proper functioning combustors typically maintain temperatures in excess of 500 degrees F and often reach temperatures in excess of 1000 degrees F. If catalytic temperatures are not in excess of 500 degrees, refer to the Catalyst Troubleshooting Guide or further information located in this manual.
- * To determine if the catalyst is working, compare the amount of smoke leaving the chimney when the smoke is going through the combustor and catalyst light-off has been achieved to the amount of smoke leaving the chimney when the smoke is not routed through the combustor (bypass mode damper open).
- 1. Light the stove in accordance with the instructions given on how to achieve catalyst light off.
- 2. With the smoke routed through the catalyst, go outside and observe the emissions from the chimney.
- 3. Engage the bypass mechanism (open the damper) and again observe the emissions leaving the chimney.

Significantly more smoke should be seen when the exhaust is not routed through the combustor (bypass mode - damper open). Be careful not to confuse smoke with steam from wet wood.

The 32-BW was designed to allow the owner to monitor the catalyst temperatures. A small port is located on the top of the stove. The port is positioned to allow for temperatures to be taken approximately 1" behind the right catalyst. The port may be used by removing the optional screw and inserting a thermocouple attached to a monitor. The thermocouple and monitor should be compatible and should read temperatures to approximately 1800 degrees F. The opening in the stove is 1/4" diameter.

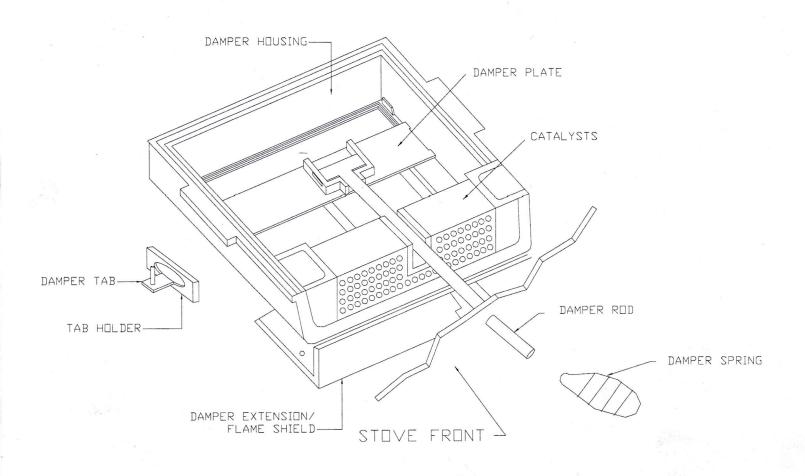
Front Mounted Catalytic Probe

Locate the screw above the door and to the left of the damper. Remove the screw and insert a catalytic probe.

4. CATALYST REPLACEMENT

To replace damaged or non-functioning catalytics follow these steps:

- A) Loosen the damper tab bolts with 9/16" socket to allow the damper tab to slide back and lower the cast housing as shown.
- B) Remove the mixing plate, sealing plate and catalyst. Clean the area where the catalyst sits to remove old gasketing. Inside the stove, check the area where the damper was located and clean away old gasketing, if necessary.
- C) Install the new catalysts. Uncanned catalysts (catalyst not in metal housing) should be wrapped with 1/16" gasketing before installing. Locate the catalysts $\frac{1}{2}$ " from the front of the damper housing. Reinstall the sealing.
- D) New gasketing should be installed to allow for a seal between the damper housing and the firebox top. This may be done by putting a layer of gasketing around the top where the housing will be located. In both cases the use of an adhesive to hold the gasketing in place will make the installation easier.
- E) Remount the cast housing in the back of the stove. Tighten damper tab bolts. Make sure the damper slides easily. Use furnace cement to seal gaps between the sealing plate and catalysts, rod guide and the top of the firebox.



6. ACHIEVING CATALYST LIGHT OFF WHEN REFUELING

During the refueling and rekindling of a "charcoal phase" fire, operate the stove at a medium or high firing rate for about 10 minutes to ensure that the catalyst reaches approximately 600 degrees F.

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 emissions.

VIII. MAINTENANCE

There are several areas of the stove and chimney system that will need periodic maintenance to ensure safe and efficient operation.

1. ASH REMOVAL

When ashes get 3 to 4 inches deep in your firebox, wait until the stove has cooled, then remove the grate at the bottom of the heater into the ash pan below. Carefully remove the pan. 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.

NOTE: For the most efficient stove operation leave a minimum of 2" ash in the firebox at all times. This will help maintain a hot charcoal bed.

NOTE: DO NOT OVERFIRE THIS HEATER.

Attempts to achieve heat output rates that exceed heater design specifications can result in permanent damage to the heater and to the catalytic combustor.

2. CARE OF THE GLASS

The glass supplied with your stove is designed to withstand extremely high temperatures. However, like any glass product, IT CAN BE BROKEN! Take care not to bump it with a log or a poker, and be sure the wood is entirely inside the stove before attempting to close the door.

Periodically opening the drafts and allowing the fire to burn brightly will help reduce the soot buildup on the glass. The glass may be cleaned with a NON-ABRASIVE cleaner such as a spray glass cleaner or oven cleaner. One of the simplest and most effective ways of cleaning the glass is to dip a dampened rag in the ashes and scrub the surface clean. The application of a non-stick cooking spray to the inner surface of the glass will help keep it clean.

3. CHIMNEY CARE

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. The chimney connector and chimney should be inspected at least twice yearly 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.

NOTE: Insert model stoves should be removed from the fireplace for cleaning. Slide the stove out and place it on a piece of cardboard or drop cloths to protect the floor. The fireplace and throat of the chimney CANNOT be properly cleaned with the stove in place.

4. STOVE FINISH

All the stoves are finished with a specially formulated high temperature paint. During the first few firings of the stove, a slight odor of paint may be noticed. This is normal during the curing process and the fumes are not hazardous. If they should cause irritation, simply crack a window or door for a few minutes to disperse the fumes.

NOTE: Although non-toxic, the fumes MAY set off a smoke detector located near the stove.

5. BLOWER CARE

The blower should be removed and cleaned every four months. Unplug the blower before removing or servicing.

TO OIL THE BLOWER:

The blower should be oiled at least two times per season with SAE-20. The oil ports (2) are located on the opposite ends of the center hub on the top side of the blower (see illustration - next page).

X. LIMITED WARRANTY

The Appalachian Stove is warrantied to be free of defects in materials and workmanship for a period of five years from the date of purchase when used in accordance with the recommendations of the manufacturer, with the following exceptions: electrical, limited to the warranties offered by those respective manufacturers (1 yr.); glass, refractory, firebrick, andirons and decorative trim have no warranty.

Defective parts will be repaired or replaced at the manufacturer's option. Parts which are returned to Appalachian Stove and Fabricators, Inc. within 30 days of purchase and found to be defective on inspection will be replaced without charge for the new part. After 30 days, parts covered by the warranty will be repaired or replaced free with the exception of freight charges which become the responsibility of the purchaser. All replacement parts are shipped F.O.B. factory (freight collect). This warranty does not cover damage caused by alteration, repairs, abuse, tampering, or improper operation of this unit. It does not cover damage from handling or acts of God.

This warranty is in lieu of all other warranties expressed, implied or statutory, and the manufacturer expressly excludes any implied warranty of fitness for a particular purpose or an implied warranty of merchantability, and all other obligations or liabilities of the manufacturer who neither assumes nor authorizes any person to assume for it any other obligations or liability in connection with its products. In addition, the manufacturer shall be held free and harmless from liability from damage to property or injury to persons related to the operation, proper or improper use of the equipment. This warranty applies only to the original purchaser. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.

All claims made by the purchaser under this warranty should be directed through the dealer from whom the unit was purchased. If the dealer cannot be contacted after reasonable effort, claims may be placed with Appalachian Stove and Fabricators, Inc.

Stove Model: _____



APPALACHIAN STOVE & FABRICATORS, INC. 329 EMMA ROAD ASHEVILLE, NC 28806

Phone: (828) 253-0164

Fax: (828) 254-7803

XI. WARRANTY REGISTRATION NAME: ADDRESS: _____ZIP_____ STOVE MODEL: SERIAL NUMBER: DATE OF PURCHASE: DEALER NAME: _____ CITY: ______STATE: _____ HOW DID YOU HEAR ABOUT APPALACHIAN STOVE? TYPE OF HEAT YOU PRESENTLY HAVE? _____ APPROXIMATE SQUARE FEET OF HOME: NUMBER OF ROOMS: TYPE OF CONSTRUCTION: BRICK LOG FRAME MASONRY HOW DO YOU PLAN ON USING YOUR STOVE? PRIMARY HEAT SUPPLEMENTAL HEAT ARE THERE OTHER FEATURES OR ACCESSORIES YOU WOULD LIKE TO SEE OFFERED?