

MODEL 81C CATALYTIC UNIT



DISCLAIMER ⚠
PEDESTALS, LEGS & COLLARS NOT INCLUDED | SOLD SEPARATE

FIREPLACE FREESTANDING FEATURES

PREPARATIONS INSTALLATION
OPERATION MAINTENANCE SAFETY

SAFETY NOTICE ⚠

IF THIS HEATER IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT. FOR YOUR SAFETY, FOLLOW THE INSTALLATION INSTRUCTIONS. CONTACT THE AUTHORITY HAVING JURISDICTION (SUCH AS MUNICIPAL BUILDING DEPARTMENT, FIRE DEPARTMENT, FIRE PREVENTION BUREAU, etc.) CONSULT BEFORE INSTALLATION TO DETERMINE THE NEED TO OBTAIN A PERMIT. KEEP THESE INSTRUCTIONS FOR FUTURE USE.

TESTED AND LISTED BY:



PFS/TECO, COTTAGE GROVE, WI

**MANUFACTURED BY NEW BUCK CORPORATION
200 ETHAN ALLEN DRIVE
P.O. BOX 69
SPRUCE PINE, N.C. 28777
www.buckstove.com**

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SECTION I

When installed and operated as specified in these instructions, and as stipulated on operation and installation labels affixed to unit, **The New Buck Corporation** room heater Model 81C is one of the safest and most efficient heating systems available. The unit is designed to burn wood fuel only.

Please read this entire manual before you install and use your new room heater. Failure to follow instructions may result in property damage, bodily injury or even death.

- **NOTE: When burning any unit or appliance that combusts fuel for heat, we highly recommend use of smoke and carbon monoxide detectors in your home.**

Early signs of carbon monoxide poisoning resemble flu, with headaches, dizziness and/or nausea. If you have these signs, heater may not be working properly. Get fresh air at once!

Throughout manual, you will see this  symbol. This indicates areas of importance regarding safety. Please make a special note of these areas.



Warning: PAINT. This product can expose you to chemicals including ethyl benzene, which is known to the state of California to cause Cancer. For more information, go to www.P65Warnings.ca.gov

Install and use only in accordance with manufacturer's installation and operating instructions. Do not connect this unit to a chimney flue serving another appliance.

ROOM HEATER FEATURES

Before attempting to install or operate your heater, it is a good idea to familiarize yourself with features and operating controls of unit. (See page 3 for reference).

OPERATING CONTROLS

WARNING: Model 81C was not designed for fire grates.

NOTE: Do not use grate, or elevate fire. Build fire directly on firebrick.

1. **Bypass Damper:** The bypass damper control is located in top center of heater front just under top. It is operated by pushing or pulling rod. The damper is fully open when handle is pulled out and fully closed when it is pushed in. The damper must be **OPEN** before door is opened.
2. **Blower Control:** The blower control (Rheostat) is located on side of the unit. The rheostat is used to vary speed of blower. It can be set at any position. It must be turned on to activate automatic thermostat on stove.
3. **Primary Air Controls:** The primary air control (4) is located at right bottom side of hearth. It is operated by moving handle **out** to open (to allow air into the firebox) or **in** (to control or close off) air into firebox. Shotgun air control (4A) is located at left bottom side of hearth. It is operated by moving handle **in** to open (to allow air to center of firebox) or **out** (to control or close off).
4. **Warm Air Outlets:** Provides heat extraction from top of firebox.
5. **Baffles:** Directs air flow around unit for maximum heat transfer.
6. **Air Inlet:** Allows cool air near floor to be circulated through blower and back into warm air chamber of heater.
7. **Door:** Provides an "airtight" feature. The door allows a much higher burning efficiency than can be obtained with an open firebox.
8. **Hearth Extension:** Offers protection from spilled ashes and cinders.
9. **Power Cord:** Provides electrical power to operate blower.
10. **Catalyst:** Enables Unit to burn cleanly and efficiently.
11. **Catalyst Probe:** Probe is located right of the bypass damper rod. It is used to determine (catalyst) temperature.
12. **Automatic/Off/Manual Switch:** Located behind right cover door under hearth. In the "Manual" position, the blower operates continuously. In "Automatic" position, blower is controlled by internal thermostat which reacts to temperature of air between the stove walls. (Not same as the temperature showing on the Catalyst Probe.)

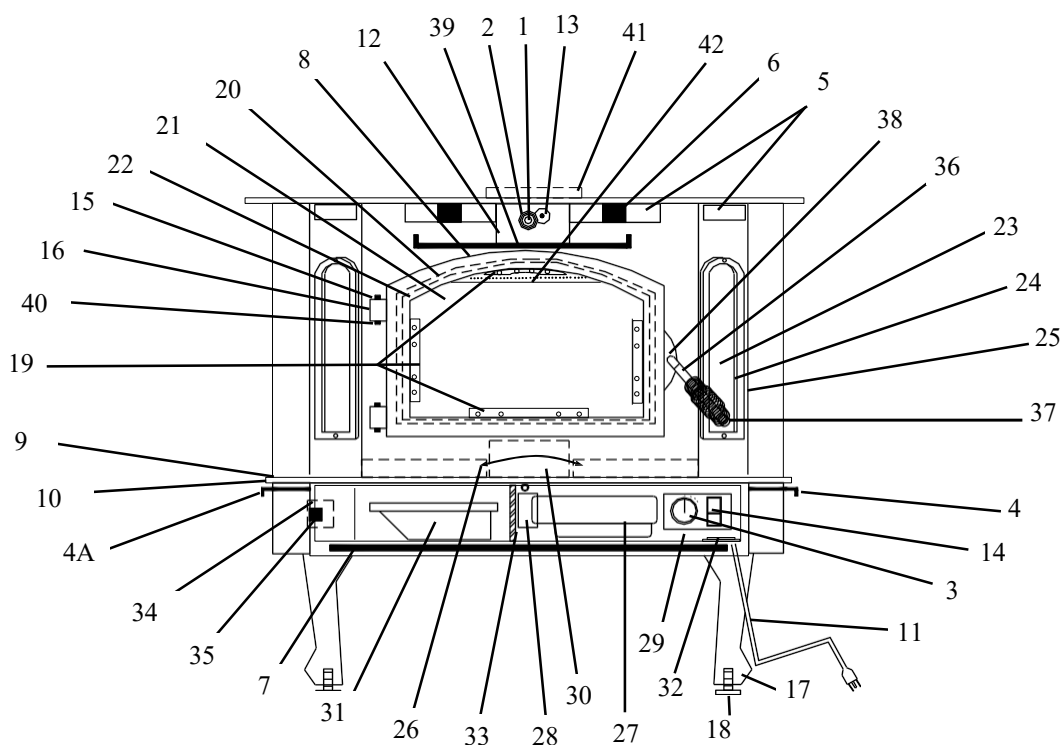
SAFETY STANDARD COMPLIANCE

The Model 81C catalytic solid fuel (wood) burning combination room heater/fireplace stove manufactured by New Buck Corporation complies with UL 1482 for residential freestanding (wood) fireplaces when constructed and installed in accordance with **PFS** approved documentation.

EPA COMPLIANCE STATUS

This manual describes installation and operation of the **New Buck Corporation Model 81C** wood heater. This heater meets the U.S. Environmental Protection Agency's Emission limits for wood heaters sold after May 15th 2020. Under specific test conditions, this heater has been shown to deliver heat at rates ranging from approximately 13,300 to 27,700 BTU/hr for the Model 81C. A weighted average was used to calculate the overall efficiency across all of the burn rate categories using the higher heating value (HHV 80.0%).

MODEL 81C WOOD STOVE IDENTIFICATION



- | | |
|--|------------------------------------|
| 1. Bypass Damper | 24. Side Glass Gasket |
| 2. Bypass Damper Spring Handle | 25. Overlays |
| 3. Blower Control (Rheostat) | 26. Firebrick |
| 4. Primary Air Control Air Wash Rod for Both Sides | 27. Motor |
| 4a. Shot Gun Air Control | 28. Motor Mount Bracket |
| 5. Warm Air Outlets | 29. Cover Door |
| 6. Baffles (Interior of Stove) | 30. Shot Gun Air Box |
| 7. Air Inlet | 31. Ash Pan |
| 8. Door | 32. Disc Thermostat |
| 9. Hearth Extension | 33. Cover Door Hinge |
| 10. Hearth Trim | 34. Magnet Holder |
| 11. Power Cord | 35. Cover Door Magnet |
| 12. Catalyst (Interior Firebox) | 36. Door Handle |
| 13. Catalyst Probe | 37. Spring Handle |
| 14. Automatic / Off / Manual Switch | 38. -Door Latch |
| 15. Door Hinge Cap | -Door Latch Screw |
| 16. Hinge Block | -Door Handle Bushing |
| 17. Legs | -Door Handle Spacer |
| 18. Leveling Screws | -Door Latch Flat Washer |
| 19. Glass Clips/Small; Side, Top, Bottom | -Door Latch Screws (Phillips Head) |
| 20. Door Gasket | -Door Latch Screws (Allen Head) |
| 21. Door Glass | 39. Lower Heat Shield |
| 22. Door Glass Gasket | 40. Hinge Pins |
| 23. Side Glass | 41. 6" Flue Exit |
| | 42. Air Wash Screen |

FEDERAL COMPLIANCE WARNING

This wood heater has a manufacturer-set minimum low burn rate that must not be altered. It is against federal regulations to alter this setting or otherwise operate this wood heater in a manner inconsistent with operating instructions in this manual.

CATALYST EQUIPPED

"This wood heater contains a catalytic combustor, which needs periodic inspection and replacement for proper operation.



Warning: INTERAM GASKET. This product can expose you to chemicals including aluminosilicate, which is known to the state of California to cause Cancer. For more information, go to www.P65Warnings.ca.gov

"Combustors 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 Troubleshooting section of this owner's manual."

CATALYST WARRANTY

The combustor supplied with this heater is a set of (2) (2" x 3-1/2" x 6" x 25" cells). A catalytic combustor that fails due to a defect in function, workmanship, or materials is covered under a 1-year warranty period. Contact any Authorized Buck Stove Dealer who will instruct you on the proper procedure.

New Buck Corporation does not handle catalyst replacements. Customer can order directly from Applied Ceramics.

Applied Ceramics
Customer Service Department
P.O. Box 29664
Atlanta, GA 30359
770-448-6888

**DO NOT USE CHEMICALS OR FLUIDS TO START THE FIRE.
DO NOT BURN GARBAGE OR FLAMMABLE FLUIDS."**

PROPER FUEL SELECTION

For best results, this heater is designed to burn (dry), natural seasoned hardwood. Higher efficiencies and lower emissions generally result when burning air dried natural seasoned hardwoods, as compared to softwoods or freshly cut hardwoods. Green or freshly cut hardwoods (wood with high moisture content) will not produce the BTU's needed to heat your home. The result will be low temperature reading on the catalyst probe, thus low BTU output.

DO NOT BURN:

Treated or painted wood, coal, garbage, cardboard, solvents, colored paper, or trash. Coal and artificial logs burn much hotter than wood and could cause damage, through overheating. Burning treated wood, garbage, solvents, colored paper or trash may result in the release of toxic fumes and may poison or otherwise render the catalytic combustor ineffective. Burning cardboard, loose paper, and trash will add significantly to ash and soot build-up, and it will not produce much heat. Fly ash from improper fuel can also coat or plug the combustor, causing smoke spillage into the room.

- UNSEASONED WOOD
- TREATED/PAINTED WOOD
- GARBAGE
- CARDBOARD
- SOLVENTS
- COLORED PAPER
- TRASH
- LAWN CLIPPINGS
- RUBBER PRODUCTS
- CONSTRUCTION OR DEMOLITION DEBRIS



DO NOT BURN!

- PLASTICS
- PETROLEUM PRODUCTS
- PAINT/PAINT THINNERS
- MATERIALS CONTAINING ASBESTOS
- DRIFTWOOD
- ASPHALT PRODUCTS
- RAILROAD TIES
- MANURE/ANIMAL REMAINS
- PLYWOOD/PARTICLE BOARD

ACHIEVING CATALYTIC LIGHT-OFF

The temperature in stove and gases entering combustor must be raised to between 700 ° F to 900° F for catalytic activity to be initiated. The temperature can be determined by the Catalyst Monitor Probe. During start up of a cold stove a medium to high firing rate must be maintained for about 15-20 minutes before pushing in the damper. This can be achieved by starting fire with dry kindling, paper and small split wood. Have the Bypass Damper fully open (pulled out). This ensures that the stove, catalyst and fuel are all stabilized at proper operating temperatures. Even though it is possible (and likely) to have gas temperatures reach 600 ° F within two to three minutes after a fire is started, if the fire is allowed to die down immediately it may go out or the combustor may stop working. Once the combustor starts working, heat generated in it by burning smoke will keep it working.

ACHIEVING CATALYTIC LIGHT-OFF WHEN REFUELING

During refueling and rekindling of a cool fire, or a fire that has burned down to charcoal phase, operate stove at a medium to high firing rate for about 15 minutes to ensure that catalyst reaches approximately 800° F.

CATALYST MONITORING

It is important to periodically monitor operation of 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. See Troubleshooting section for detailed instructions **BEFORE** attempting to remove catalyst.

This catalytic heater is equipped with means to monitor catalyst operation. Properly functioning combustors typically maintain temperatures in excess of 1000 ° F. If catalyst temperatures are not in excess of 500 ° F, refer to Catalyst Troubleshooting section of this owner's manual.



CAUTION AGAINST OVER-FIRING

Do not over-fire this heater.

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

ASH REMOVAL



CAUTION: Never remove ashes from heater with blower running. Be sure to turn room air blower off before removing ashes

Whenever ashes build up in firebox and when fire has burned down and cooled, remove excess ashes. Leave an ash bed approximately 1 inch deep on firebox bottom to help maintain a hot charcoal bed. To remove ashes the dump is located at left inner bottom. By lifting dump door, place ashes through the dump opening. The ashes fall directly into ash pan. The ash pan is located at left side under the hearth behind cover door.

NOTE: Be sure to turn room air blower off before removing ashes. Open cover door and slide ash pan out.

NOTE: Fueling and ash removal door (s) must remain closed when in operation.

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 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: Be sure to turn room air blower back on when job is completed.

NOTE: The room heater is not to be connected to any air distribution duct.

CREOSOTE - FORMATION AND NEED FOR REMOVAL

When wood is burned slowly, it produces tar and other organic vapor, which combined with expelled moisture forms creosote. The creosote vapors condense in a relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on flue lining. When ignited, this creosote makes an extremely hot fire.

Select an installation location that will give best airflow from front of heater to remainder of home.

INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS MODEL 81C

BEFORE INSTALLING YOUR NEW BUCK STOVE,
READ THE ENTIRE INSTRUCTION MANUAL

IMPORTANT INSTRUCTIONS WARNING

THIS UNIT GENERATES HIGH HEAT, SO TREAT IT WITH CARE. **HOT WHILE IN OPERATION.** KEEP CHILDREN, CLOTHING AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS. DO NOT USE CHEMICALS OR FLUIDS TO START THE FIRE. DO NOT BURN GARBAGE OR FLAMMABLE FLUIDS. DO NOT CONNECT TO ANY DISTRIBUTION DUCT OR SYSTEM. READ ALL INSTRUCTIONS BEFORE INSTALLING AND USING THE APPLIANCE. FAILURE TO FOLLOW INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE, BODILY INJURY OR EVEN DEATH. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCES.

- The New Buck Corp. Model 81C has been tested to UL 1482 Standards and listed by PFS/TECO. Standard for Room Heaters, Solid Fuel Type.
- Install and operate your unit according to instructions provided in this manual. Local building codes may apply; therefore, contact your local building inspector for necessary installation requirements and permits which may go beyond these instructions. Contact your insurance company for coverage and installation inspection.
- **DO NOT INSTALL IN SLEEPING ROOMS.**
- **NOTE: When burning any unit or appliance that combusts fuel for heat, such as coal, oil, wood or natural and (L.P.) liquid petroleum gas. Correctly place monitors in those areas that are expected to produce Carbon Monoxide (CO). Consult with your local fire safety officials to learn more**
- Examine the masonry fireplace and chimney prior to installation of fireplace accessory to determine that construction meets the minimum fireplace construction requirements illustrated in the instructions. Make sure that it is free from cracks, loose mortar, creosote deposits and other blockage, or other signs of deterioration.

CAUTION

DO NOT USE MORE THAN ONE STOVE TO A CHIMNEY. DO NOT USE A FLUE INTENDED FOR A GAS APPLIANCE. DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE. DO NOT CONNECT TO ANY AIR DISTRIBUTION DUCT OR SYSTEM.

CAUTION

YOUR CHIMNEY MUST BE CORRECTLY SIZED. A CHIMNEY THAT IS TOO SMALL OR LARGE IN DIAMETER, OR TOO SHORT, CAN CAUSE YOUR STOVE TO SPILL SMOKE WHEN THE DOOR IS OPENED.

INTRODUCTION

Your new MODEL 81C is a catalytic unit designed to meet the most stringent emissions standards with the use of a catalytic combustor.

For peak performance, we suggest the use of natural seasoned hard wood, loading wood from front to rear.

NOTE: Soft woods such as pine, create more creosote, clogging of chimney and produce a less efficient burn performance.

You should not burn trash or garbage, artificial or paper logs, gift wrapping, treated or painted wood or any type of coal or flammable fluids.

**DO NOT USE CHEMICALS OR FLUIDS TO START THE FIRE.
DO NOT BURN GARBAGE OR FLAMMABLE FLUIDS.”**

This heater is equipped with a standard room air blower. For operation and use of these electrical assemblies, see instructions provided in this manual starting on page 37.

*Model 81C: Motor Assembly—MA 910714

CHIMNEY HEIGHTS

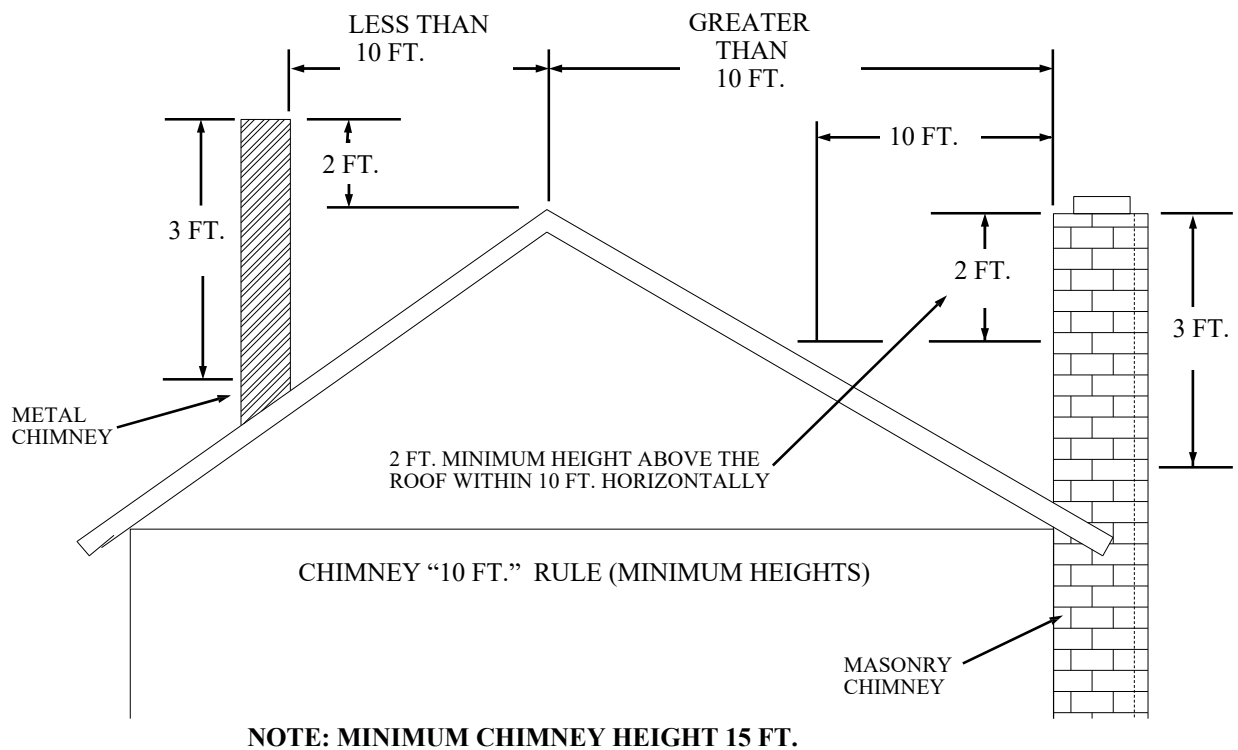
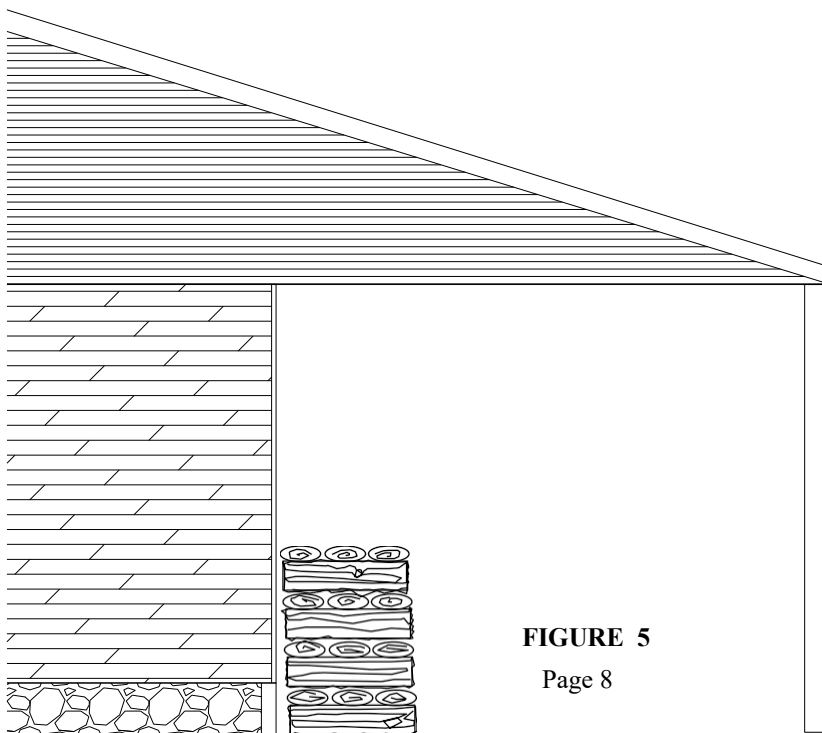


FIGURE 4

HOW TO STACK WOOD



Stack wood in crisscross pattern under a shelter to allow air flow to dry wood and to keep wood from rain. Green wood may have 50-60% moisture content. Wood seasoned outside uncovered may have 40% moisture content. Wood properly seasoned in a covered environment will have less than 20% moisture content

FIGURE 5

CAUTION

THE UNIT IS PAINTED WITH A SPECIALLY FORMULATED HIGH TEMPERATURE PAINT THAT CURES DURING THE FIRST TWO OR THREE FIRINGS. YOU MAY NOTICE A SLIGHT SMOKING EFFECT AND AN ODOR OF BURNING PAINT WHEN YOU BUILD THE FIRST FIRES. THIS IS NORMAL AND IS NOT A CAUSE FOR ALARM. IN SOME CASES, THESE FUMES WILL ACTIVATE A SMOKE ALARM. OPENING A WINDOW NEAR THE UNIT WILL ALLOW THESE FUMES TO ESCAPE. DO NOT BUILD A LARGE, ROARING FIRE UNTIL THIS CURING IS COMPLETE OR HEATER FINISH MAY BE DAMAGED.

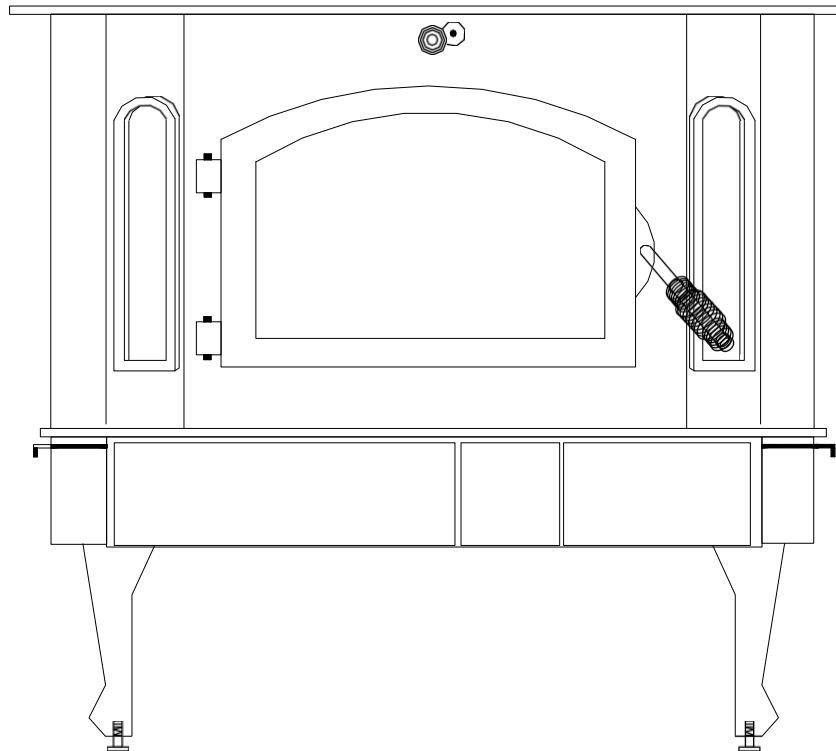
The connector and/or chimney should be inspected at least once a month during heating season to determine if a creosote buildup has occurred.

CAUTION

NEVER USE GASOLINE, GASOLINE-TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID OR SIMILAR LIQUIDS TO START OR "FRESHEN UP" A FIRE IN THE HEATER. KEEP ALL SUCH LIQUIDS WELL AWAY FROM THE STOVE WHEN IT IS IN USE. ALL FLUIDS OF THIS TYPE GIVE OFF VOLATILE FUMES AND CAN AND WILL EXPLODE! DON'T TAKE A CHANCE WITH THE SAFETY OF YOUR HOME AND FAMILY.

SECTION III

RESIDENTIAL FREESTANDING INSTALLATION



INSTALLATION PRECAUTION

Select an installation location that will give best airflow from front of heater to remainder of home.

Extensive field and laboratory testing has shown that catalytic stoves perform best as freestanding stoves when:

1. A rain cap is installed on the chimney.
2. Height of chimney is at least 15 feet high.
3. Location of chimney is on interior. (Not on an outside wall)
4. To be installed as a freestanding room heater with the clearances in the manufacturer's installation instructions. Not be installed in any factory-built fireplace.

Satisfactory results have been reported with installations other than listed above. However, draft problems are possible if a hot chimney is not maintained.

CAUTION: Do not connect this unit to a chimney flue serving another appliance.

PREPARING STOVE FOR INSTALLATION

1. Inspect unit for any obvious physical damage.
2. Plug power cord into a 115V AC outlet. Set switch to “Manual” and rheostat to “High” position to ensure motor operates properly. Route power cord to prevent damage to cord insulation from heat and sharp objects. Keep cord out of way of traffic to prevent damage caused by tripping, etc.
3. Check primary air control and shotgun air control to ensure that they both slide freely.
4. Remove the manual bag and items from within firebox. Spread a dropcloth on floor behind heater. Next, tilt heater so that back is on drop cloth.
5. **(Leg Kit):** If legs are to be used, obtain four legs, attach legs to holes in bottom of unit with bolts and washers supplied with leg kit. (See Figure 12).
6. **(Pedestal Kit):** If pedestal kit is being used an outside air is required for residential freestanding installation (page 34 Out Side Air Installation). Place pedestal against bottom of heater (angle side to heater). Center pedestal front to rear and also center left and right. Mark screw locations with pen or pencil on bottom of stove through outer holes of stand mounting angles. Set stand aside and drill four 7/32" holes in heater bottom. Then mount pedestal to bottom of heater with screws provided. (See Figure 13).
7. Obtain four (4) 3/16" self-tapping screws and secure pedestal to heater.
8. Reposition heater to upright position.

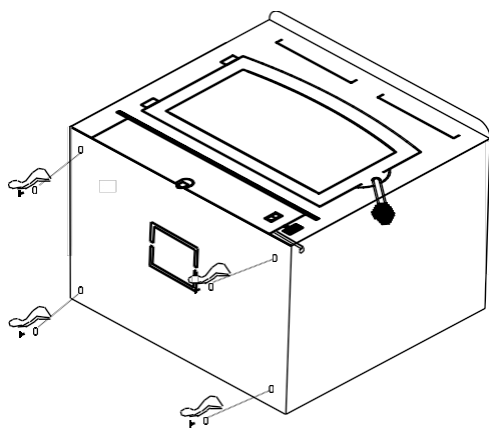


FIGURE 12

HOLES FOR MOUNTING PEDESTAL

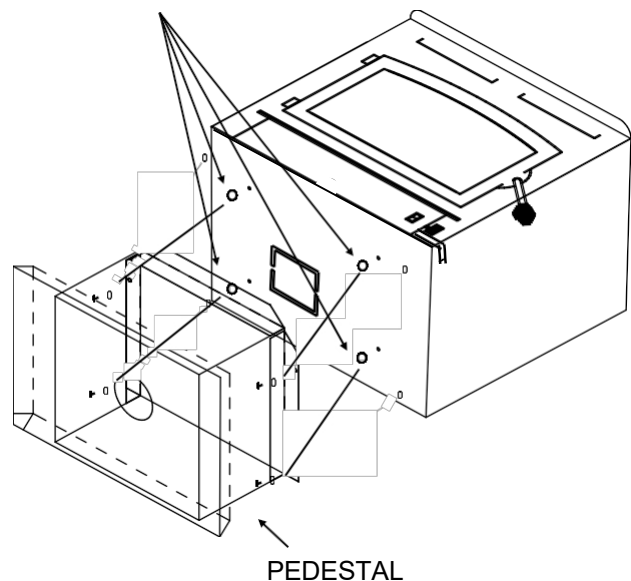


FIGURE 13

MINIMUM CLEARANCES

Floor Protection:

When installing a heater, a floor protector must be used. Floor protector must have a minimum of 1.1 R-Value non-combustible material.

How to use alternate materials and how to calculate equivalent thickness

Most people have heard of R-Values, which are used for rating common building materials such as fiberglass insulation and glass. However, many texts which cover stoves and fireplaces use K-Values instead of R-Values. Although the two are somewhat related, there are differences.

R-Value: The higher the R-Value, the better the insulating properties of the subject materials. R-Values are most often used to express the thermal resistance (ability to stop heat flow) of a building wall, ceiling or floor. Because of this, most R-Values are calculated at normal temperatures of approx. 75 F. R-Values are easy to add together so calculating the total R-Value of a wall is simply done by adding the values for the sheetrock, insulation, sheathing and siding.

K-value is a measure of heat conductivity of a particular material. Specifically, it is the measure of the amount of heat, in BTUs per hour, that will be transmitted through one square foot of material that is one inch thick to cause a temperature change of one degree Fahrenheit from one side of the material to the other. The lower the K-value for a material, the better it insulates. If the K-value of the material is known, the R-value per inch can be determined by dividing 1 by the K-value (R-value per inch = $1/K$ value). The LOWER a K-Value, the better its performance as an insulator.

R or K values have nothing to do with whether a material is flame proof, flame resistant or combustible. Styrofoam, cork, wood and polyester are just some examples of materials which are good insulators but will burn or smoke dangerously when exposed to excess heat.

Technical - For those who desire to calculate their own K or R values, please use the following formulas:

1. R value can be calculated by dividing the thickness by the K value.

For US calculations, we use inches as the unit of measurement.

“In the inch-pound units, thermal resistance is measured in degrees F times square feet of area times hours of time per Btus of heat flow.”

$R\text{-value} = \text{thickness} / K\text{-value}$

2. K value is the inverse of the R-Value. If one is known, the other can be calculated.

“units of Btu-inch/hour per square foot per degree F”

$\text{Thickness}/k \text{ value} = R \text{ value}$

or:

Divide the inches of thickness by R.

$k = \text{inches of thickness} / R$

Common K and R Values Chart				
Material	K value	R Value	inches-K value .84	inches-R value of 1
per inch				
Micore 300*	0.43	2.33	0.5	0.43
Wonderboard (ce	1.92	0.52	2.3	1.92
Common Brick	5	0.2	6	5
Cement Mortar	5	0.2	6	5
Ceramic Tile	12.5	0.08	14.9	12.5
Marble	11	0.09	13.1	11
Air Space (ventila	0.7	1.43	0.8	0.7
sand and gravel	1.7	0.59	2	1.7
Drywall (gypsum)	1	1	1.2	1
Rockwool or Fiber	0.3	3.33	0.4	0.3
Units	K per unit	R per unit		
per unit				
8" Concrete Block	1	1		
Glass Block - 4"	2	0.5		
* These materials or equiv are some of the best to use for relatively thin hearth protection				

K-Value Example: A wood stove may call for a floor which has a K factor of 1 or less. A product such as Micore 300 Board from USG has a K-Value of approx .43 per inch. Therefore a 1/2" thickness of this board would have a K-Value of .86, which meets the requirement of our example stove.

R-Value Example: A stove or fireplace may call for a floor with an R-Value of 1.5. The same board above is rated as having an R-Value of 2.33 for a one inch thickness. Therefore, 3/4" of the Micore 300 Board would meet the specifications for this stove.

Summary: R and K values are related, but K is the value commonly used for specifying materials for use with stoves and fireplaces. Be sure that your choice of insulating material for high temperature applications is noncombustible.

With K values, the lower value is a better insulator. With R Values, the highest number is better.

For low profile hearths, it is best to use manufactured materials such as Micore and Cement Board (Durock, Wonderboard, etc.) as these will allow hearth thicknesses of from 1/4" to 2" with most stoves and fireplaces. Most other common building materials will require at least 3" of thickness and usually much more.

Example of Hearth Calculations - this is for a Hearth requirement of approx $R=1.15$ (figures taken from Ceramic Tile manufacturers trade association)

The assembly that we will evaluate is a $\frac{3}{8}$ " layer of Micore 230 and a layer of $\frac{1}{2}$ " Util-A-Crete. The first step is to convert the k values of the materials in question into R so that we may add them up and determine if they will provide the necessary insulation value required by the manufacturer.

Micore 230 has a k value of .43 so –

$1 \text{ divided by } k = 2.32 \text{ times the thickness } .375 (\frac{3}{8}) = 0.87$

Util-A-Crete (cement tile backer board) has a k value of 1.6 so – $1 \text{ divided by } k = .625 \text{ times the thickness } .5 (\frac{1}{2}) = 0.3125$

Add the values together $0.87 \text{ plus } 0.3125 = 1.1825$ This R- value is an acceptable assembly.

What if we decide to use only one material? In this example, only Util-A-Crete cement board?

We could use the published R-Value of Util-A-Crete which is .31 in the $\frac{1}{2}$ " material and add them up to the value of the minimum required which is $R=1.16$

$1.16 \text{ divided by } .31 = 3.74$ This assembly would require 3.74 layers of $\frac{1}{2}$ " Util-A-Crete to reach the necessary R-value required. Obviously, you would have to round up to the next layer, which would mean that you would have two inches of Util-A-Crete.

Chimney

This model is designed for connection to any listed 2100° UL103 HT chimneys and parts. Follow chimney's manufacturer's instructions carefully.

NOTE: This Room Heater must be connected to:

1. A code approved masonry chimney with a flue liner.

CAUTION

SPECIAL METHODS ARE REQUIRED WHEN PASSING THROUGH A WALL OR CEILING. SEE INSTRUCTIONS AND BUILDING CODES. DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.

DETERMINING CHIMNEY LOCATION

A. Ceiling Exits: (Using 6" Single Wall Pipe and UL 103 HT type chimney system listed with manufacturer in this section of manual).

1. Suspend a plumb bob from ceiling above unit so weight is hanging in center of flue exit. (A small weight on a string will serve as a plumb bob). Mark ceiling where string is suspended to locate center of chimney. (See Figure 14).
2. After locating center of hole, install ceiling support box, chimney, flashing and rain cap, per chimney manufacturer's instructions.
3. Now connect stove and ceiling support box using #24 ga. minimum blue or black steel connector pipe. **(DO NOT USE GALVANIZED PIPE)**. Connect each section so crimped end faces downward and secure each section to each other using at least three (3) sheet metal screws or rivets.

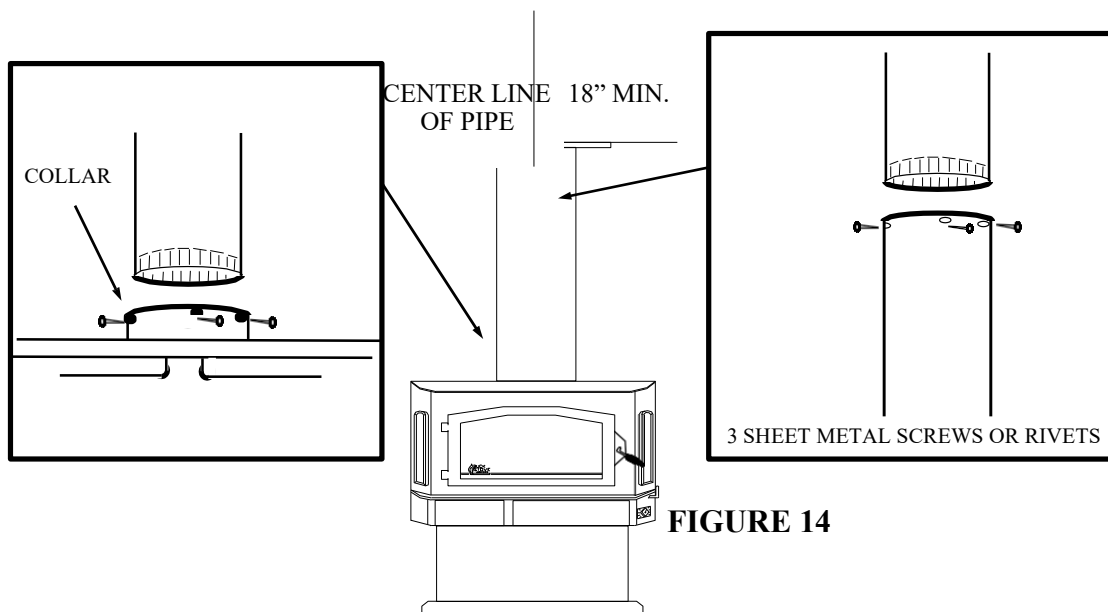
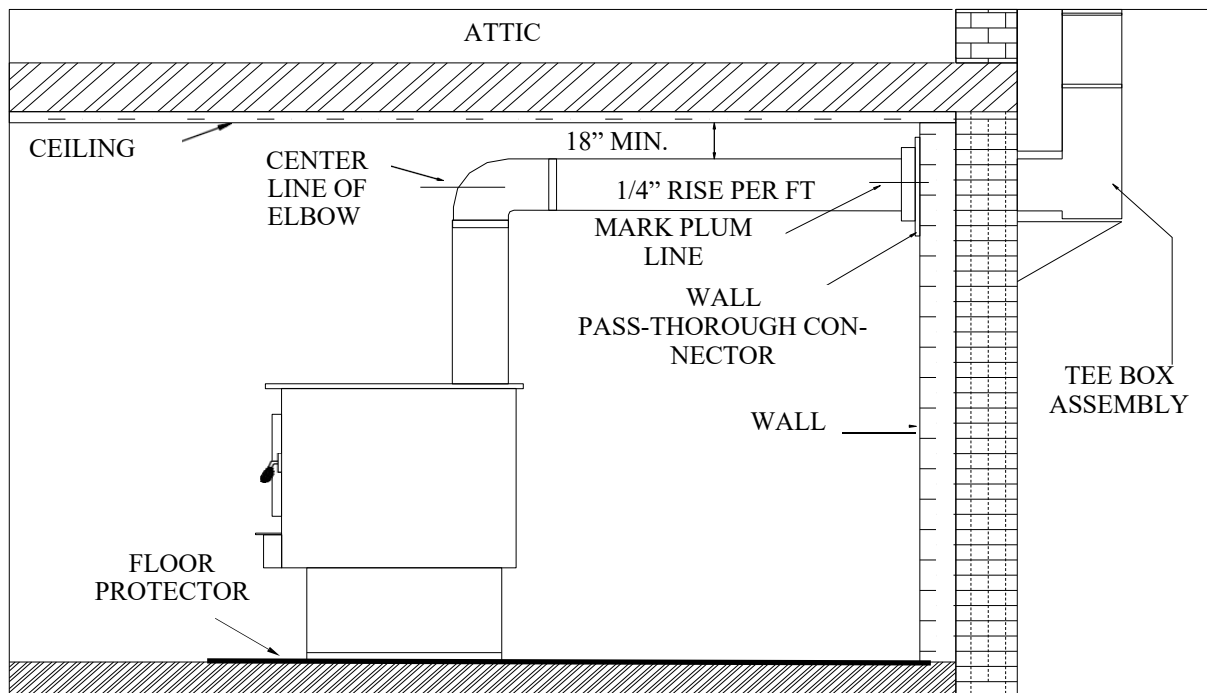


FIGURE 14

B. Wall Exit Into Metal Tee-Box

1. Mark the plumb line on wall directly behind center of heater. (See Figure 15). Floor protector must be under horizontal pipe exit.
2. Place vertical portion of heater pipe and elbow in position and project a point onto plumb line level with center of the elbow. (See Figure 15).
3. Measure up so there will be at least 1/4" rise per foot of horizontal connector pipe. When using #24 ga. minimum blue or black steel pipe maintain 18" between pipe and ceiling (See Figure 15). This will give you center of hole for chimney penetration.
4. After locating center of penetration, install tee box and chimney, per chimney manufacturer's specifications.
5. Connect chimney collar to tee-box using #24 ga. minimum blued or black steel connector pipe. **(DO NOT USE GALVANIZED PIPE)**. Connect each section so crimped end faces downward and secure each section to each other using three (3) sheet metal screws or rivets. (See Figure 14, Page 23).
6. For closer clearances to the ceiling use double wall or triple wall type A or 2100 HT pipe and follow those manufactures clearance instructions.



Wall Exit Into Metal Tee-Box

FIGURE 15

C. Wall Exit Into Masonry (Using Single Wall Pipe)

1. Before connecting this unit to a masonry chimney, determine that masonry fireplace wall pass through connector thimble meets **NFPA-211** Code and local building codes and is a minimum of 18" from ceiling. If connector thimble does not meet these codes, the pass through connector must be modified. (See Figure 16).

Connectors may pass through walls or partitions constructed of combustible material if connector is:

- (a) Either listed for wall pass through or is routed through a device listed for wall pass through and is installed in accordance with conditions of listing.
- (a) Selected or fabricated in accordance with conditions and clearances as stated in **NFPA-211** Code. Any unexposed metal that is used as part of a wall pass through system and is exposed to flue gases shall be constructed of stainless steel or other equivalent material that will resist corrosion, softening, or cracking from flue gases at temperatures up to 1800° F.

NOTE: In addition, a connector to a masonry chimney shall extend through wall to inner face or liner but not beyond and shall be firmly cemented to masonry.

EXCEPTION: A thimble may be used to facilitate removal of chimney connector for cleaning, in which case, thimble shall be permanently cemented in place with high-temperature cement.

2. Once through-the-wall thimble codes are met, simply connect chimney collar to wall pass through connector using #24 ga. minimum, blued or black steel connector pipe as follows:
 - (a) Maintain 1/4" rise per foot (horizontal length) from appliance to chimney.
 - (b) Connect each section so crimped end faces downward or back toward unit.
 - (c) Secure each section to each other using at least three (3) sheet metal screws or rivets. (See Page 23, Figure 14).
 - (d) Use three (3) sheet metal screws to fasten pipe to connector collar on heater. (See Page 23, Figure 14).
 - (e) For closer clearances to the ceiling use double wall or triple wall type A or 2100 HT pipe and follow those manufactures clearance instructions.

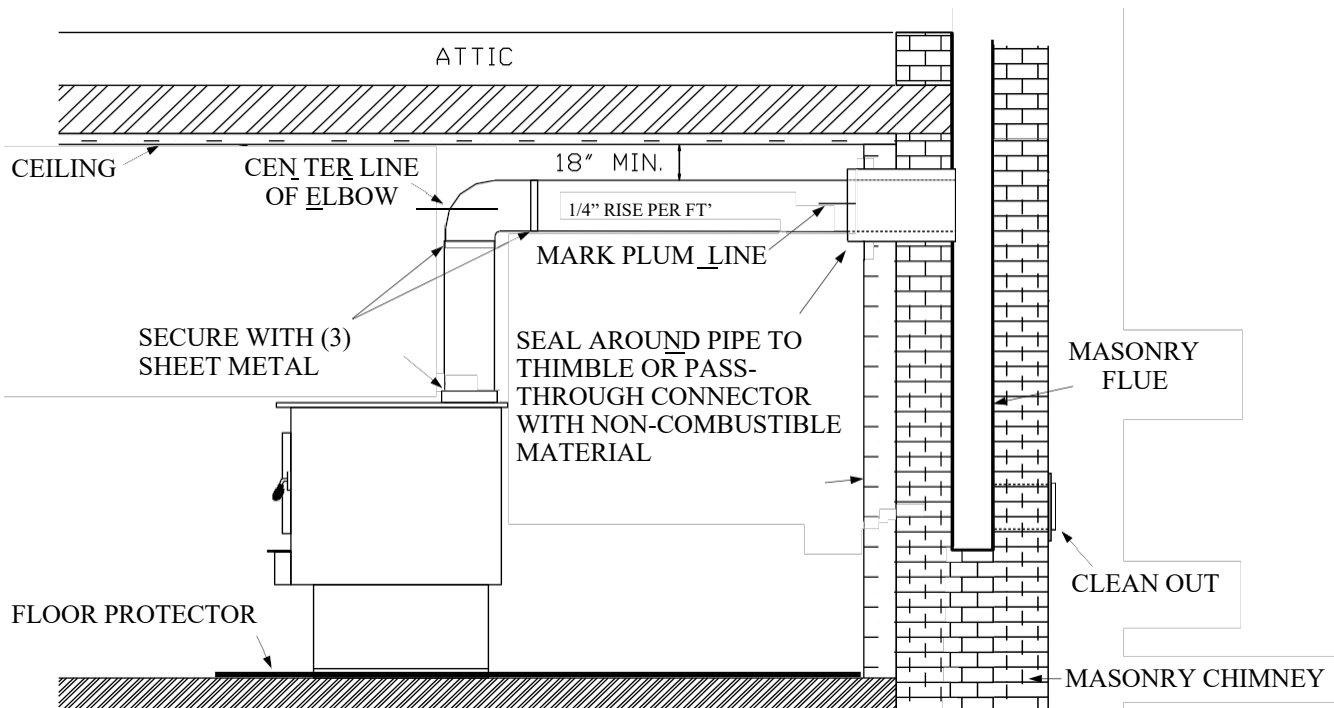


Figure 16

FINAL CHECK

1. Recheck specified clearances. (See Page 27)
2. Remove all foreign material from firebox area.
3. Open primary air draft, shotgun air draft, and damper bypass make sure ash pan drawer is sealed properly.
4. Plug power cord into a 115V AC outlet. Set switch to “Manual” and rheostat to “High” position to ensure motor operates properly. Route cord to prevent damage to cord insulation from heat and sharp objects. Keep cord out of way of traffic to prevent damage caused by tripping, etc.
4. Place crumpled pieces of newspaper in stove. Light it and close door. Ensure that stove draws properly through primary draft.
5. Check for smoke leaks around door.

CAUTION

Open door and check for smoke escaping from front of stove. Smoking usually indicates a defective or poorly positioned chimney. Some chimneys with a marginal draft can be preheated by lighting newspaper and holding it near open damper with a poker or fire tong. Once the chimney heats up, a proper draft can usually be obtained.

CAUTION

The unit is painted with a specially formulated high temperature paint that cures during the first two or three firings. You may notice a slight smoking effect and an odor of burning paint when you build first fires. This is normal and is not a cause for alarm. In some cases, these fumes will activate a smoke alarm. Opening a window near unit will allow these fumes to escape. DO NOT build a large, roaring fire until this curing is complete or heater finish may be damaged.

CLEARANCES FOR MODEL 81C

MINIMUM CLEARANCES TO COMBUSTIBLES

FREESTANDING

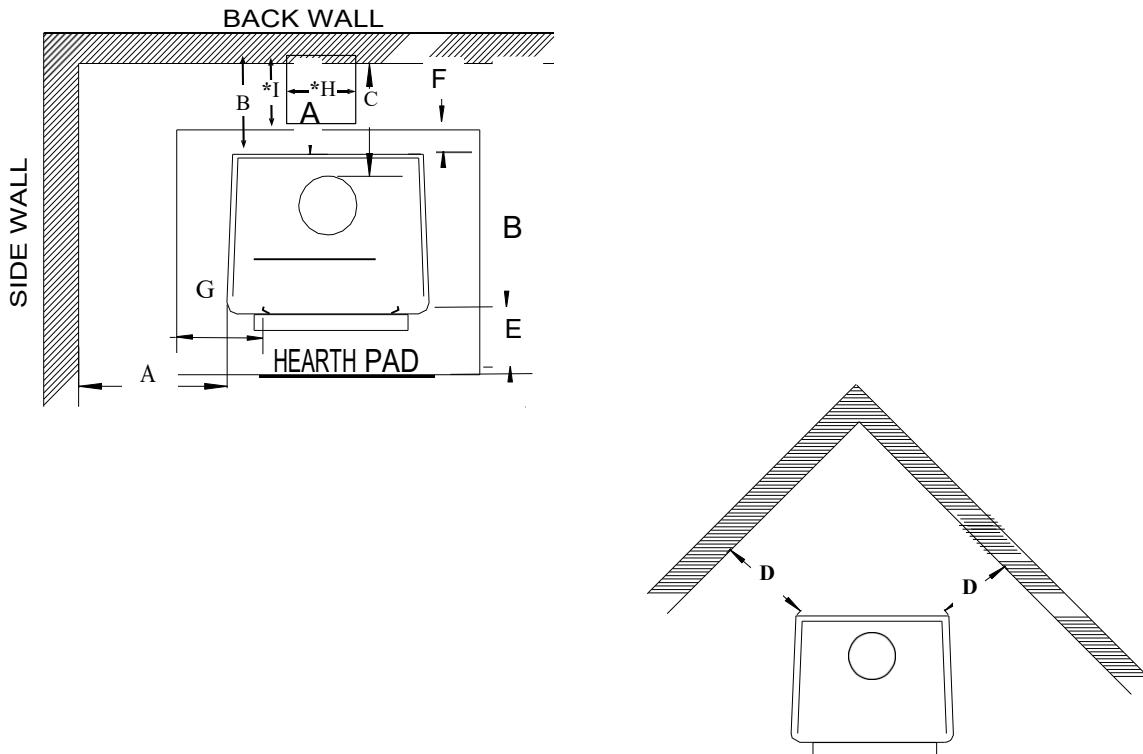


FIGURE 18

	A	B	C	D	E	F	G	*H	*I
MODEL 81C	23"	23"	25"	16"	16"	8"	8"	10"	FULL LENGTH PIPE TO WALL

NOTE: All clearances are to combustibles without low clearance shields and using single wall pipe and minimum floor protector. Clearances above may be reduced by using close clearance shields. Follow **NFPA-211** codes if available or follow instructions on next page.

* For wall exit, floor protector must be under horizontal pipe full length of pipe. There must be 2" on each side of pipe. Maintain 18" between pipe and ceiling.

CLEARANCES FOR MODEL 81C

MINIMUM CLEARANCES TO COMBUSTIBLES USING SINGLE WALL CHIMNEY CONNECTOR AND OPTIONAL SHIELDS, PERMANENTLY LOCATED MANUFACTURED HOME AND ALCOVE INSTALLATIONS

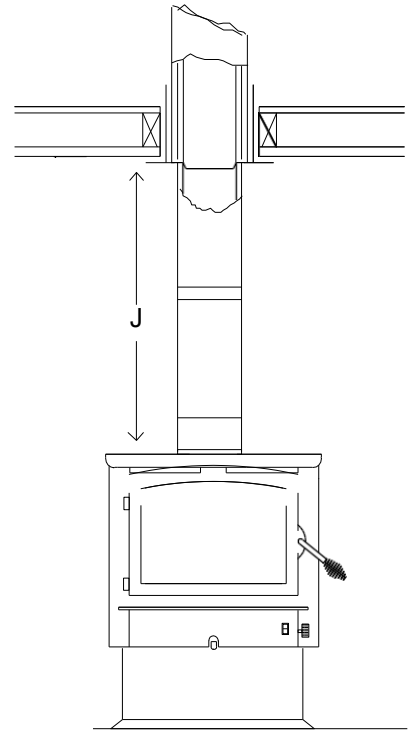
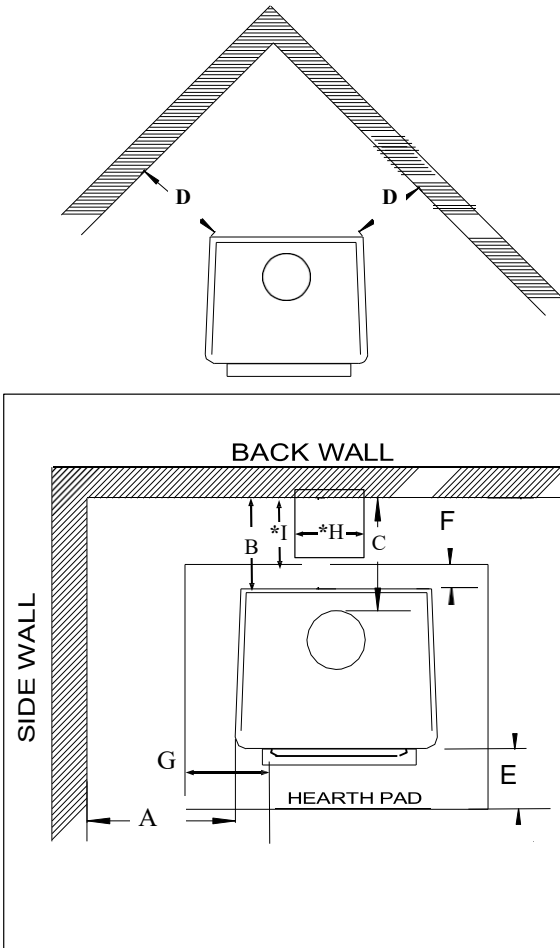


FIGURE 19

	A	B	C	D	E	F	G	*H	*I	J
MODEL 81C	12"	16"	16.5"	12"	16'	8"	8"	10"	FULL LENGTH PIPE TO WALL	53''

NOTE: All clearances are to combustibles using single wall pipe and all close clearance shields and minimum floor protector.

* For wall exit, floor protector must be under horizontal pipe full length of pipe. There must be 2" on each side of pipe. Maintain 18" between pipe and ceiling.

INSTALLATION OF (OPTIONAL) CLOSE CLEARANCE SHIELDS

1. Center rear close clearance shield with back of stove. Mark back of stove, using holes in rear shield as reference. Drill pilot holes using a 1/8 drill bit. Using self-tapping screws, secure back shield to back of stove (See figure 20).
2. Insert front end of side shield behind front of stove. Align top of side shield with top of back shield. Mark holes on back shield through holes in back of side shield. Using four self tapping screws, drill four holes in the locations marked. Tighten bottom screws and leave top screws loose for step 3. Use same step to install side shield on opposite side of stove. (See figure 21).
3. Insert pipe shield where back shield and top back side shield meets. Tighten screws. (See figure 22).

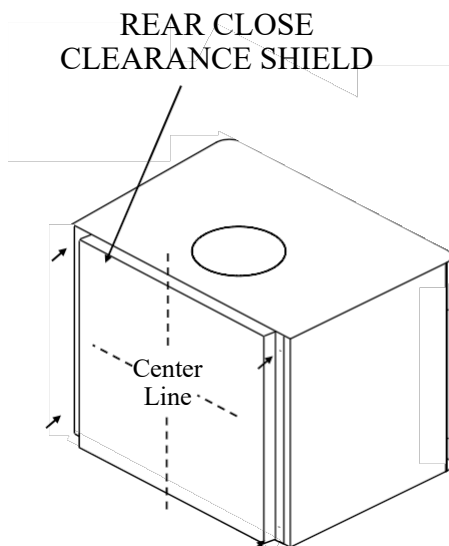


FIGURE 20

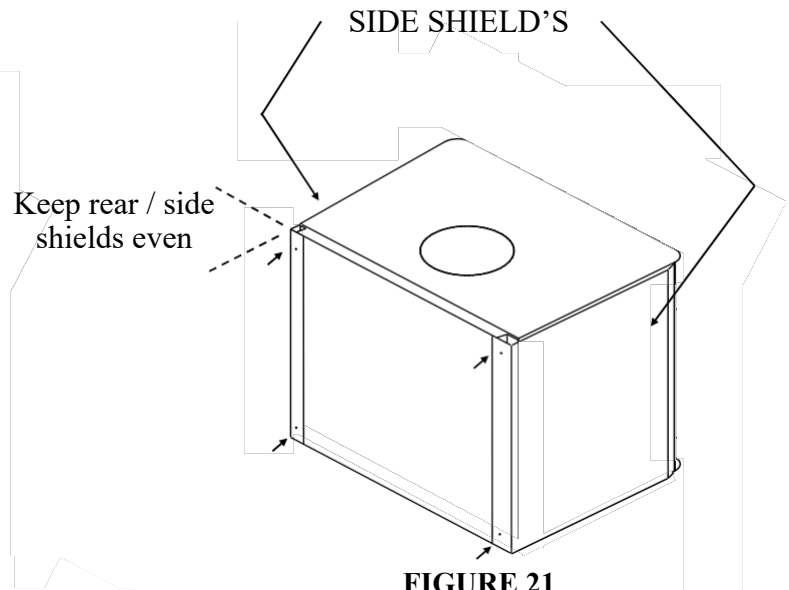


FIGURE 21

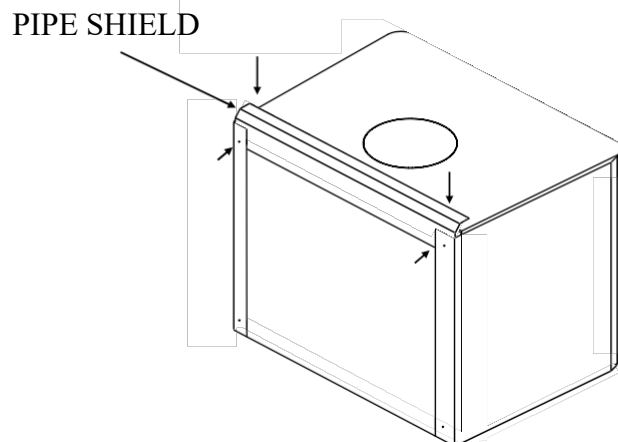


FIGURE 22

SECTION IV

FREESTANDING PERMANENTLY LOCATED MANUFACTURED HOME INSTALLATION

FOR MINIMUM CLEARANCES SEE PAGE 28.

Floor Protection:

When installing a heater, a floor protector must be used. Floor protector must have a minimum of 1.1 R-Value non-combustible material.

How to use alternate materials and how to calculate equivalent thickness

Most people have heard of R-Values, which are used for rating common building materials such as fiberglass insulation and glass. However, many texts which cover stoves and fireplaces use K-Values instead of R-Values. Although the two are somewhat related, there are differences.

R-Value: The higher the R-Value, the better the insulating properties of the subject materials. R-Values are most often used to express the thermal resistance (ability to stop heat flow) of a building wall, ceiling or floor. Because of this, most R-Values are calculated at normal temperatures of approx. 75 F. R-Values are easy to add together so calculating the total R-Value of a wall is simply done by adding the values for the sheetrock, insulation, sheathing and siding.

K-value is a measure of heat conductivity of a particular material. Specifically, it is the measure of the amount of heat, in BTUs per hour, that will be transmitted through one square foot of material that is one inch thick to cause a temperature change of one degree Fahrenheit from one side of the material to the other. The lower the K-value for a material, the better it insulates. If the K-value of the material is known, the R-value per inch can be determined by dividing 1 by the K-value ($R\text{-value per inch} = 1/K \text{ value}$). The LOWER a K-Value, the better its performance as an insulator.

R or K values have nothing to do with whether a material is flame proof, flame resistant or combustible. Styrofoam, cork, wood and polyester are just some examples of materials which are good insulators but will burn or smoke dangerously when exposed to excess heat.

Technical - For those who desire to calculate their own K or R values, please use the following formulas:

1. R value can be calculated by dividing the thickness by the K value.

For US calculations, we use inches as the unit of measurement.

“In the inch-pound units, thermal resistance is measured in degrees F times square feet of area times hours of time per Btus of heat flow.”

$R\text{-value} = \text{thickness} / K\text{-value}$

2. K value is the inverse of the R-Value. If one is known, the other can be calculated.

“units of Btu-inch/hour per square foot per degree F”

$\text{Thickness}/k \text{ value} = R \text{ value}$

or:

Divide the inches of thickness by R.

$k = \text{inches of thickness} / R$

Common K and R Values Chart				
Material	K value	R Value	inches-K value .84	inches-R value of 1
per inch				
Micore 300*	0.43	2.33	0.5	0.43
Wonderboard (ce	1.92	0.52	2.3	1.92
Common Brick	5	0.2	6	5
Cement Mortar	5	0.2	6	5
Ceramic Tile	12.5	0.08	14.9	12.5
Marble	11	0.09	13.1	11
Air Space (ventila	0.7	1.43	0.8	0.7
sand and gravel	1.7	0.59	2	1.7
Drywall (gypsum)	1	1	1.2	1
Rockwool or Fiber	0.3	3.33	0.4	0.3
Units	K per unit	R per unit		
per unit				
8" Concrete Block	1	1		
Glass Block - 4"	2	0.5		
* These materials or equiv are some of the best to use for relatively thin hearth protection				

K-Value Example: A wood stove may call for a floor which has a K factor of 1 or less. A product such as Micore 300 Board from USG has a K-Value of approx .43 per inch. Therefore a 1/2" thickness of this board would have a K-Value of .86, which meets the requirement of our example stove.

R-Value Example: A stove or fireplace may call for a floor with an R-Value of 1.5. The same board above is rated as having an R-Value of 2.33 for a one inch thickness. Therefore, 3/4" of the Micore 300 Board would meet the specifications for this stove.

Summary: R and K values are related, but K is the value commonly used for specifying materials for use with stoves and fireplaces. Be sure that your choice of insulating material for high temperature applications is noncombustible.

With K values, the lower value is a better insulator. With R Values, the highest number is better.

For low profile hearths, it is best to use manufactured materials such as Micore and Cement Board (Durock, Wonderboard, etc.) as these will allow hearth thicknesses of from 1/4" to 2" with most stoves and fireplaces. Most other common building materials will require at least 3" of thickness and usually much more.

Example of Hearth Calculations - this is for a Hearth requirement of approx $R=1.15$ (figures taken from Ceramic Tile manufacturers trade association)

The assembly that we will evaluate is a $\frac{3}{8}$ " layer of Micore 230 and a layer of $\frac{1}{2}$ " Util-A-Crete. The first step is to convert the k values of the materials in question into R so that we may add them up and determine if they will provide the necessary insulation value required by the manufacturer.

Micore 230 has a k value of .43 so –

$1 \text{ divided by } k = 2.32 \text{ times the thickness } .375 (\frac{3}{8}) = 0.87$

Util-A-Crete (cement tile backer board) has a k value of 1.6 so – $1 \text{ divided by } k = .625 \text{ times the thickness } .5 (\frac{1}{2}) = 0.3125$

Add the values together $0.87 \text{ plus } 0.3125 = 1.1825$ This R- value is an acceptable assembly.

What if we decide to use only one material? In this example, only Util-A-Crete cement board?

We could use the published R-Value of Util-A-Crete which is .31 in the $\frac{1}{2}$ " material and add them up to the value of the minimum required which is $R=1.16$

$1.16 \text{ divided by } .31 = 3.74$ This assembly would require 3.74 layers of $\frac{1}{2}$ " Util-A-Crete to reach the necessary R-value required. Obviously, you would have to round up to the next layer, which would mean that you would have two inches of Util-A-Crete.

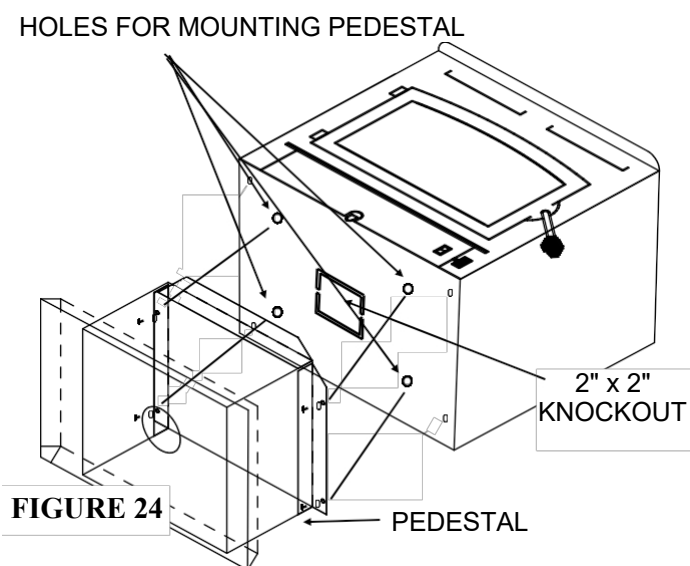
TOOLS FOR INSTALLATION

Drop cloth, 3/32" Metal drill bit, 5/16" magnetic socket chuck adapter, 5/16" wrench (box or socket) or adjustable wrench, Jigsaw with masonry, metal and wood blades

WARNING: DO NOT INSTALL IN A SLEEPING ROOM

PREPARING STOVE FOR INSTALLATION

1. Remove protective plastic wrapping from unit, inspect unit for any obvious physical damage.
2. Plug power cord into a 115V AC outlet. Set switch to "Manual" and rheostat to "High" position to ensure motor operates properly. Route power cord to prevent damage to cord insulation from heat and sharp objects. Keep cord out of way of traffic to prevent damage caused by tripping, etc.
3. Check primary air control and shotgun air control to ensure that they both slide freely.
4. Remove any items from within firebox. Spread a dropcloth on floor behind heater. Next, tilt heater so that back is on drop cloth.
5. **Pedestal Kit: For Permanently Located Manufactured Home installation a pedestal kit is required and outside air is required, see *Out Side Air Installation* next page.**
 - Before attaching heater to stand, take a large flat screwdriver or pliers and remove the 2" x 2" knockout on bottom of unit. (See Figure 24).
 - Place pedestal against bottom of heater (angle side to heater). Center pedestal front to rear and also center left and right. Mark screw locations on bottom of stove through outer holes of stand mounting angles. Set pedestal aside and drill four 3/16" holes in heater bottom. Then mount pedestal to bottom of heater with screws provided 1/4"-14 x 1". (See Figure 24).
6. Remove screws and remove pedestal. Reposition heater to upright position.



Out Side Air Installation

CAUTION

THE STRUCTURAL INTEGRITY OF PERMANENTLY LOCATED MANUFACTURED HOME FLOOR MUST BE MAINTAINED. (MOVE OPENING AND/OR REPOSITION HEATER LOCATION IF NECESSARY).

1. Select an installation location that will give best airflow from front of heater to remainder of home making sure minimum clearance specifications are met. See minimum clearance to combustibles (See Page 28).
2. Place protective floor pad in position. For minimum floor protection (See Page 30).
3. Place pedestal on pad.
4. Mark on pad the outside air opening in bottom of pedestal stand.
5. Mark center line of outside air opening. Set pedestal aside for now.
6. **CAUTION! The structural integrity of home floor must be maintained.**
Cut a 4 1/4" diameter hole in pad and continue through floor.
(Move opening and/or reposition heater location if necessary).
7. Now, reposition pedestal stand and set on pad being sure to line stand up with outside air opening.
12. Obtain outside air duct from box in pedestal kit marked FA P81BOA.
13. Slip duct down through 4-1/4" hole until face of outside air duct with screen wire, contacts bottom of pedestal.
15. Set heater back onto pedestal and resecure using screws.
16. NOTE: If home is underpinned, you must duct through underpin as shown. (See Figure 26).

FIGURE 26

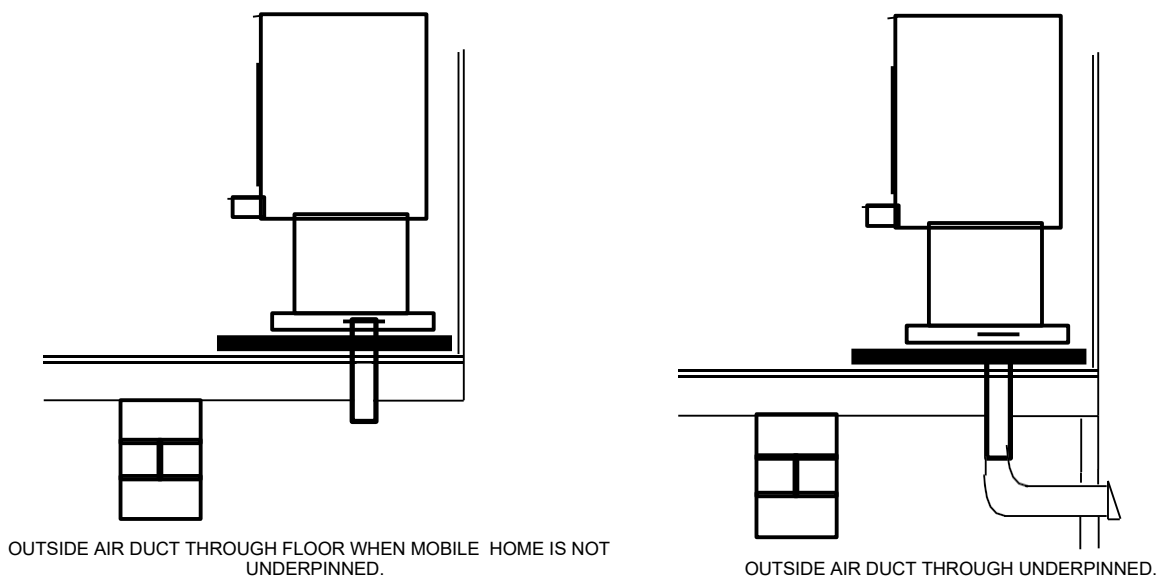
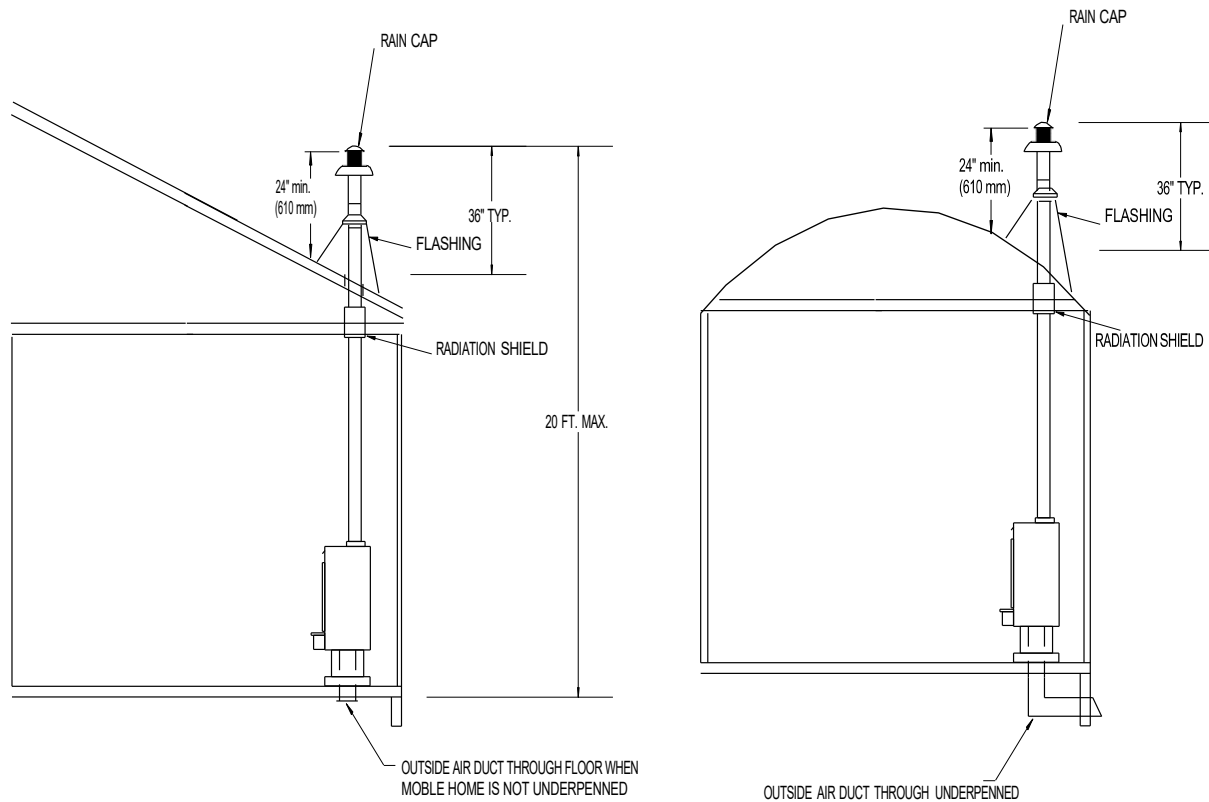


FIGURE 27



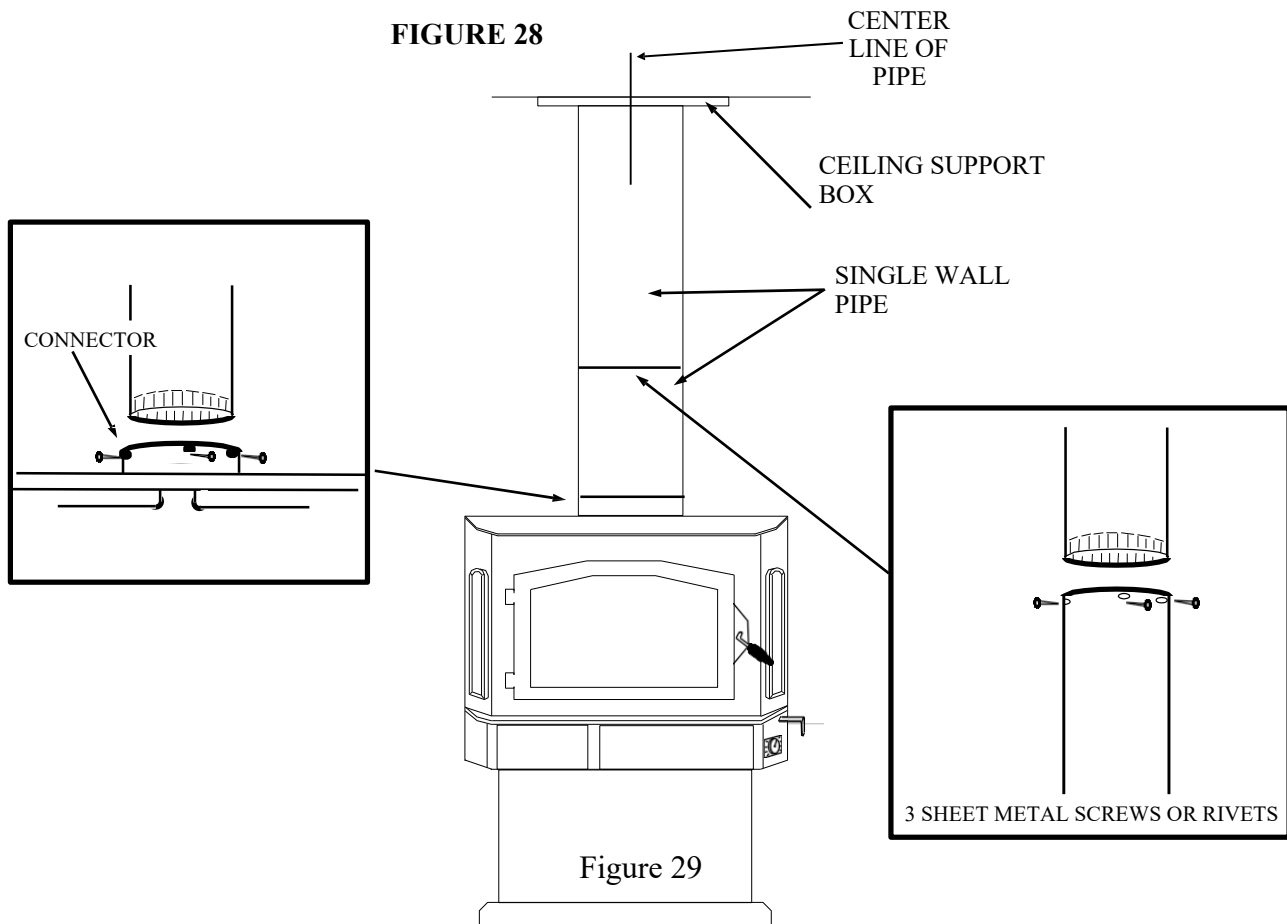
Ceiling Exit (Using Close Clearance Listed Chimney)

1. Suspend a plumb bob from ceiling above unit so that weight is hanging in center of flue exit. (A small weight on a string will serve as a plumb bob). Mark ceiling where string is suspended to locate center of chimney hole. (See Page 36, Figure 28).
2. After locating center of hole, install ceiling support box, chimney or chimney connector, flashing and rain cap using listed 2100° HT chimney only.

CAUTION

REFER TO CHIMNEY MANUFACTURERS INSTRUCTIONS FOR ASSEMBLY AND DISASSEMBLY OF CHIMNEY PARTS. BE SURE TO FOLLOW CHIMNEY INSTRUCTIONS FOR PROPER CLEARANCES TO COMBUSTIBLE AND PROPER AIR SPACING REQUIRED.

3. Add additional pipe until both of the following are met:
 - (a) Chimney pipe is 3' higher than roof at point where it penetrates roof.
 - (b) Chimney pipe height is at least 2' higher than any part of roof within 10' of chimney. (See Figure 27).



FINAL CHECK

1. Recheck specified clearances.
2. Remove all foreign material from firebox area.
3. Open primary air draft, shotgun air draft, and damper bypass make sure ash pan drawer is sealed properly.
4. Plug power cord into a 115V AC outlet. Set switch to “Manual” and rheostat to “High” position to ensure motor operates properly. Route power cord to prevent damage to cord insulation from heat and sharp objects. Keep cord out of way of traffic to prevent damage caused by tripping, etc.

4. Place crumpled pieces of newspaper in stove. Light it and close door. Ensure that stove draws properly through primary draft.
5. Check for smoke leaks around door.
6. Pull bypass door out and open door check for smoke escaping from front of stove. Smoking usually indicates a defective or poorly positioned chimney. Some chimneys with a marginal draft can be preheated by lighting newspaper and holding it near open damper with a poker or fire tong. Once chimney heats up, a proper draft can usually be obtained.

CAUTION

THE UNIT IS PAINTED WITH A SPECIALLY FORMULATED HIGH TEMPERATURE PAINT THAT CURES DURING FIRST TWO OR THREE FIRINGS. YOU MAY NOTICE A SLIGHT SMOKING EFFECT AND AN ODOR OF BURNING PAINT WHEN YOU BUILD THE FIRST FIRES. THIS IS NORMAL AND IS NOT A CAUSE FOR ALARM. IN SOME CASES, THESE FUMES WILL ACTIVATE A SMOKE ALARM. OPENING A WINDOW NEAR THE UNIT WILL ALLOW THESE FUMES TO ESCAPE. DO NOT BUILD A LARGE ROARING FIRE UNTIL THIS CURING PROCESS IS COMPLETE OR HEATER FINISH MAY BE DAMAGED.

SECTION V

WOOD HEATER SAFETY

Certain safety hazards are inherent in any wood heater installation. You should be aware of these so that a safe and proper installation can be made.

1. **FAULTY CHIMNEY:** An older masonry chimney should be thoroughly checked to be sure there are no holes or weak spots which could allow sparks or hot gases to escape.
2. **HEAT CONDUCTION:** Placing combustible materials too close to a heater or chimney can be a fire hazard.

By keeping these particular hazards in mind as you install and use your room heater you can ensure a safe, reliable installation.

The chimney should be inspected once every two months. Any build-up of creosote should be removed to prevent risk of a chimney fire. To remove chimney, remove screws or fasteners, remove pipe and clean with steel brush. Replace chimney or and replace screws and/or fasteners.

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 a relatively cool chimney flue of a slow burning fire. As a result, creosote residue accumulates on flue lining. When ignited, this creosote makes an extremely hot fire.



CAUTION

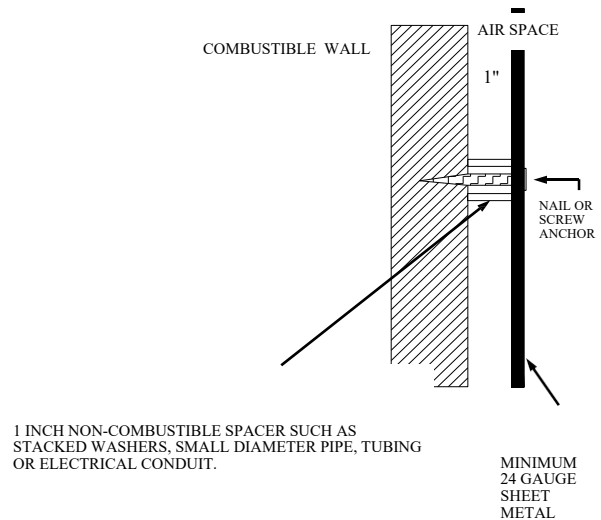
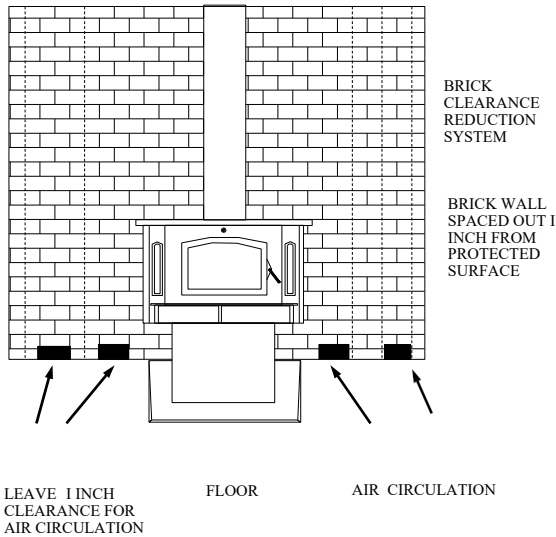
NEVER USE GASOLINE, GASOLINE TYPE LANTERN FUEL, KEROSENE, HARCOAL LIGHTER FLUID OR SIMILAR LIQUIDS TO START OR "FRESHEN UP" A FIRE IN THE HEATER. KEEP ALL SUCH LIQUIDS WELL AWAY FROM THE STOVE WHEN IT IS IN USE. ALL FLUIDS OF THIS TYPE GIVE OFF VOLATILE FUMES AND CAN AND WILL EXPLODE! DON'T TAKE A CHANCE WITH SAFETY OF YOUR HOME AND FAMILY.

CAUTION: Never remove ashes from your heater with blower running.

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 ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in closed container until all cinders have thoroughly cooled.

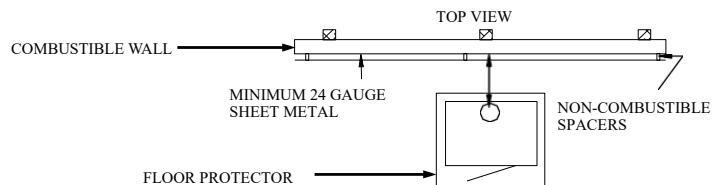
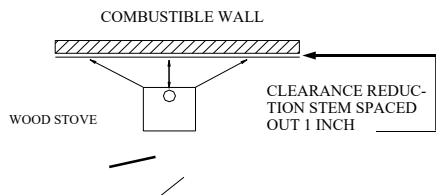
ALTERNATIVES FOR WALL PROTECTION

Example: The rear clearance for the Model 81C from page 27 is 23" (Letter B). This clearance may be reduced by 50% to 11.5" by using either of the wall protection devices mentioned below.



BRICK WALLS MAY BE ATTACHED TO COMBUSTIBLE WALLS USING WALL TIES IF BRICK IS USED. BE SURE FLOOR CAN WITHSTAND WEIGHT OF BRICK.

DO NOT USE FASTENERS DIRECTLY BEHIND CHIMNEY CONNECTOR OR STOVE.



Tested and Listed Wall Protector

Clearances to combustibles may be reduced if a tested and listed wall protector is installed over a combustible surface when the following conditions exist:

1. A dead air space of 1" separates listed and tested wall protector from combustible surface.
2. The tested and listed wall protector extends from floor to ceiling with a 1" clearance for air circulation at both floor and ceiling.
3. The 1" spacers (preferably ceramic rather than metal) must be located at corners rather than behind heater or chimney connector.

Unlisted and Untested Wall Protector

Wall protectors may be constructed of masonry, 24 gauge or thicker sheet metal, or non-combustible 1/2" thick insulation board. Conditions 2 and 3 above must be observed but, the air space in condition 1 must be increased to 1 1/2".

OPERATION

This section of the manual is to help you get maximum efficiency and maximum smoke (particulate) reduction from your Model 81C heater. If you should experience any difficulty or have questions concerning your heater, contact your Model 81C dealer for assistance.

1. To maximize the efficiency of your wood stove make sure it is sized properly for the space you plan to heat. Consult with your dealer for sizing your stove correctly.
2. Use dry, seasoned wood only. Using wet wood will greatly reduce your efficiency.
3. Consult with your installer/dealer to correctly place the stove in your home. An incorrectly placed stove can greatly reduce efficiency.

Maximizing the efficiency of your stove will heat your house quickly, burn cleaner and use less wood.

Dry your split wood and stacked crisscross to allow for proper seasoning for 6-12 months (See Page 9 Bottom Picture) when ready to burn place the wood from front to back position in heater.

"This wood heater has a manufacturer set closed burn rate that must not be altered. It is against federal regulations to alter this setting or otherwise operate this wood heater in a manner inconsistent with operating instruction in this manual."

NOTE: Following all suggested operating and maintenance procedures will help minimize visual emissions.

GUIDE TO THE DIFFERENT BURNING QUALITIES OF WOOD

Type of Wood	Ease of Starting	Coal in Qualities	Amount of Sparks
Apple	Poor	Excellent	Few
Ash	Fair	Good	Few
Beech	Poor	Good	Few
Birch	Good	Excellent	Moderate
Cherry	Poor	Excellent	Few
Cedar	Excellent	Poor	Many
Elm	Fair	Good	Very Few
Hemlock	Good	Low	Many
Hickory	Fair	Excellent	Moderate
Locust	Poor	Excellent	Very Few
Maple	Poor	Excellent	Few
Oak	Poor	Excellent	Few
Pine	Excellent	Poor	Moderate

The National Audubon Society recently charted the heat produced by a wood fire. They noted that heat produced by a wood fire varies greatly with kind of wood burned. Beech is considered best wood for a fire. A cord of well-seasoned Beech will produce as much heat as 169 gallons of fuel oil; Sugar Maple and Red Oak produce as much heat as 166 gallons of fuel oil; followed by White Ash 154; American Elm 130; White Birch 124; and White Pine 94.

BUILDING A FIRE:

1. Place “Manual/Off/Automatic” switch in “Automatic” (bottom) position for thermostat control operation. Turn rheostat knob clockwise (it will click from “Off” position to “On”) so you can vary the speed of motor.
2. Open door.
3. While looking inside firebox, operate damper bypass plate in and out observing movement. This should operate freely and close completely. Open damper bypass. (Pull Out)
4. Open air controls on each side of stove (Pull Out Right Side, Push In Left Side)

The Model 81C is not designed for use with grates and irons or other methods of supporting the fuel.

NOTE: Do not use grate or elevate fire. Build wood fire directly on the firebrick of fire box

DO NOT BUILD A LARGE ROARING FIRE! Initially, build 2-3 small fires in order to cure the paint on your stove.

5. Lay several pieces of dry kindling on top of newspaper.
6. Load heater with 2 or 3 pieces of (naturally seasoned hard wood), 2"-3" in diameter **placing on top of Kindling**
7. Light newspaper, leave the door open around 2" inches for 1 1/2 to 2 1/2 minutes: Don't leave fire unattended with the door open! Shut the door.
8. After 15 to 20 minutes, close the by-pass damper completely (PUSH IN).
9. After embers and a coal bed have been established, load heater with natural seasoned hard wood, **placing it from front to rear.**
10. Remember on a new stove **DO NOT FILL** firebox during your first 2 to 3 fires! Build 2-3 small fires in order to cure the paint on your stove.

NOTE: THE FUELING DOOR MUST REMAIN CLOSED DURING OPERATION.

NOTE: Your stove is equipped with a automatic thermostat. When the stove gets hot enough, the thermostat will activate the room air blower. Set fan speed according to desired heat output.

NOTE: When refueling or removing ashes turn “OFF” room air blower. Be sure to turn room air blower back on when finished.

NOTE: Do not run power cord underneath heater, or in walk way or heavy traffic areas.

Wood Loading

During refueling, open (pull out) bypass damper to allow smoke in the firebox to escape - wait a few seconds. Open fuel door, if there happens to be any raw pieces left over place them in the rear East/West direction. Slowly add wood North/South direction, front to back. The door should be open less than one minute, close door and bypass damper. Open primary air control wide open for 5-10 minutes to charge wood, making sure the stove is burning clean and the catalyst is above 900° Fahrenheit before shutting down the burn setting.

- ♦ After most of wood has burned and if you are not planning on reloading immediately, it may be necessary to open damper bypass, then door, and rake wood and coals into a pile near front center of firebox. (Be certain wood chunks are pulled out of rear corners.) Close door and damper bypass. This step will assure continued combustion and thorough burning of wood.

Operating Burn Rates

You will have to experiment with burn rate until you find the particular setting for heating your home. Chimney drafts, tightness of house, doors, windows, insulation in house and atmospheric conditions all influence which setting you must have, so it may take several firings to learn setting necessary for your installation. Heating capacity is based on BTU output and conditions listed above. These conditions will affect heating capability of your heater.

Although catalytic stoves decrease ash residue, routine removal of excess ash is still necessary.

Low Burn Rate

For the cleanest operation and lowest emissions, operate the appliance with dry, seasoned cordwood and maintain an active flame whenever possible. When operating at low burn rates:

1. Allow the appliance and chimney system to reach normal operating temperature before reducing the air control to a low burn setting.
2. Load only seasoned cordwood with a moisture content of 20% or less.
3. Avoid placing excessively large pieces of wood into the firebox when operating at low burn settings. A mixture of small and medium sized splits generally provides more consistent combustion.
4. After reloading, operate the appliance with the air control open until the new fuel load is burning well and the catalyst is active before reducing the air supply.
5. If flames disappear completely for extended periods, visible smoke increases, or the glass darkens rapidly, increase the air setting slightly to maintain good combustion.

IMPORTANT: Do not immediately move the air control to the lowest setting after refueling. Allow the fuel load to become fully ignited and the catalyst to reach operating temperature before reducing the air control.

SECTION VII

PREVENTIVE MAINTENANCE / REPLACEMENT PARTS

THE CATALYSTS

Warning: This product can expose you to chemicals including aluminosilicate. Which is known to the state of California to cause Cancer. For more information, go to www.P65Warning.ca.gov

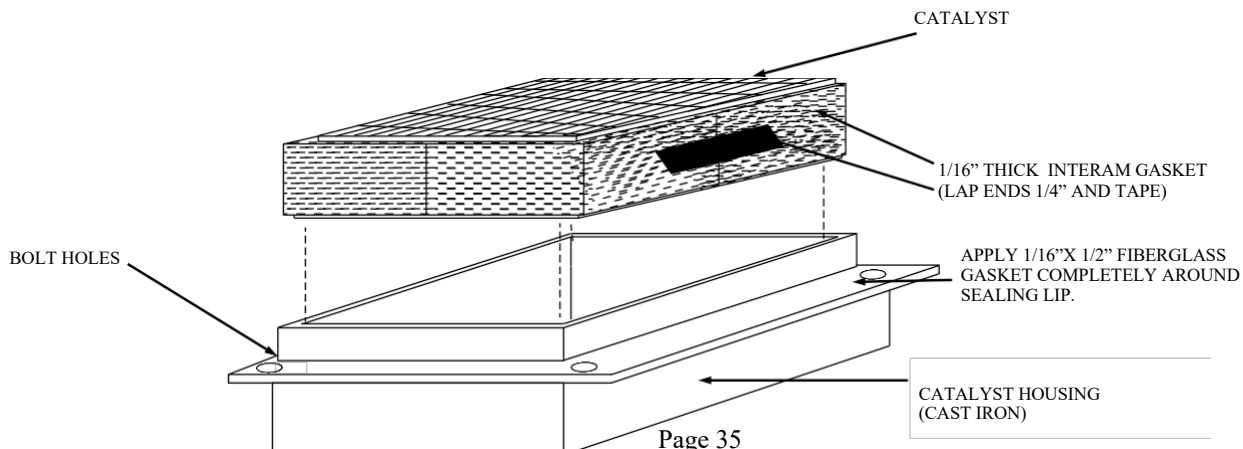
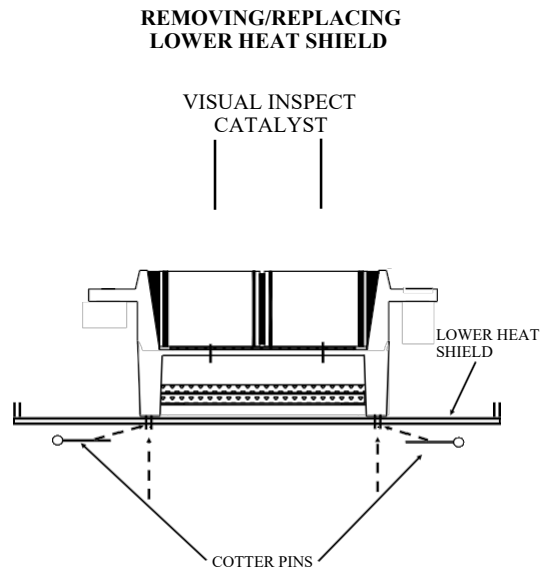
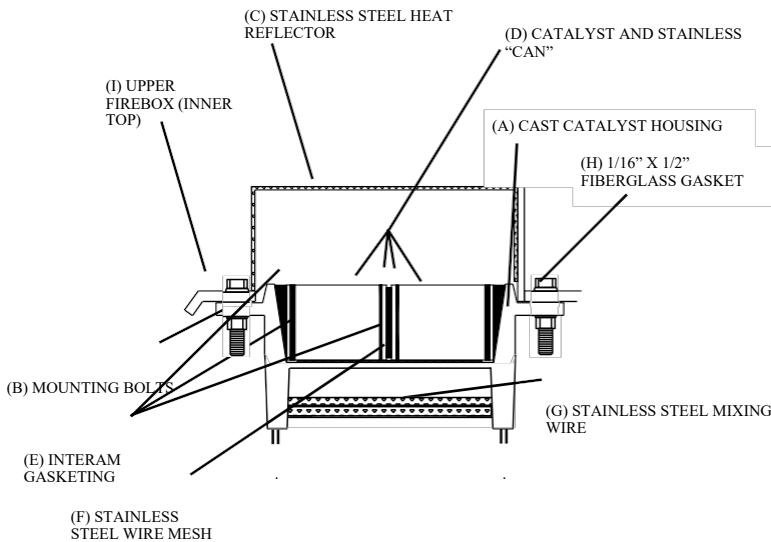
The catalysts in your stove are designed for many years of use. If after several years of use, the efficiency of stove decreases or if a notable amount of smoke is observed, catalysts may need to be replaced. See Catalyst Warranty prior to replacement. The following points are some general guidelines from catalyst manufacturer.

1. Do not “hot fire” stove. For many years retailers and installers have advised customers to build an extra hot fire to burn creosote deposits in fire system. This advice may be acceptable for non-cat stoves, but can be death to a catalyst. Why? Because the catalyst is reducing the particulate, or creosote buildup, therefore need to “hot fire” is eliminated. Proper chimney cleaning procedure should be followed.
2. Direct Flame contact is death to a catalyst. A catalyst burns by-products in the smoke. The gases such as CO, HC, and O₂ ignite with each other in a chemical reaction in presence of the catalyst (while passing through the honeycomb configuration). Direct flame inhibits this reaction by changing chemical make-up of catalyst breaking down substrate or ceramic. This problem is called **flame impingement**. Today’s modern stoves are designed so that flame impingement is unlikely. However, a strong, fast draft can pull flame into catalyst. Or, a hot fire, with all air controls and/or the ash door open can literally torch the catalyst. The remedy for hot fire related flame is to advise customers not to “hot fire” the stove. The customer will enjoy their catalysts longer and with better performance if these guidelines are followed. Fly ash problems also can be reduced by controlling draft.
3. The **“Glow” Misconception**: A catalyst can glow during certain stages of combustion. The determination that a catalyst is not working simply because it does not glow is inaccurate. During low burn cycle, when catalyst is doing the bulk of its work, it usually does not glow. Also, extremely dry wood (oak, ash, etc.) can burn clean enough not to produce a glow in converter. In most new stoves, you cannot see the catalyst.
4. **Light Off Temperature**: CO conversion in the Applied Ceramics catalyst begins at a very low temperature. Usually, a normal start up to produce a coal bed will produce more than sufficient temperatures to begin catalytic combustion.
5. The catalyst is not consumed or “used up”. The nature of a catalytic reaction is defined as follows, by the American Heritage Dictionary, Second College Edition: catalyst “1. Chem. A substance, usually present in small amounts relative to reactants, that modifies and especially increases rate of a chemical reaction without being consumed in process.” This means your catalyst is always there. This also means that gases that would normally go out flue system and pollute the environment are being burned to create more heat from less wood.
6. Why does a catalyst stop working? Most catalyst that are returned are either destroyed by flame impingement, broken due to accidents or mishandling or have nothing wrong with them but fly ash build-up. A catalyst can be “saturated” with by-products of wood burning such as potassium. This is chemical saturation. The prohibitive chemical will fill in the chemical “holes” that gases normally use for reaction. This process of saturation can be slowed by regular maintenance of catalyst. Saturation can take several years since there are units in use for over five years. Burning garbage, painted woods or large amounts of colored paper can poison your unit. Poisoning, however, is very difficult to do. Burning colored paper causes more of a fly ash problem than a risk of poisoning. **NEVER BURN RUBBER OR PLASTIC.**
7. Burn only dried natural seasoned hard wood. Wood should be dried for at least 12 months prior to burning. The wood should be FREE of any moisture such as RAIN or SNOW. Wet wood creates water vapor which can drop the temperature of catalyst. The results can be plugging, clogging and thermal shock to catalyst. When a catalyst has ceased to be effective, you will notice increased fuel usage and your chimney sweep will notice increased creosote in your system. Before you replace unit, review this section. If you find that your catalyst should be replaced, follow instructions for warranty replacement that were provided when your unit was purchased.
8. Cleaning catalyst with plain water can reduce build-up of catalyst-retarding chemicals. Nothing but a soft brush, low pressure air or plain water should be used to clean a catalyst. The ceramic unit is fragile in comparison to rest of the stove, so it should be handled with care. A soak in warm or hot (not boiling) water for 20 minutes is ideal. Then, allow unit to cool at room temperature and rinse under medium pressure under a faucet. Allow unit to thoroughly dry before reinstalling it or you will damage it. Finally, reinstall unit. A cleaning once every year is sufficient for most users. Clean it when you have your flue system cleaned.

MAINTENANCE

CATALYST REPLACEMENT (Off-Season Replacement Recommended)

1. Spread a drop cloth in front of stove.
2. Open door and clean out any ash.
3. You will have to remove lower stainless steel heat shield. Remove the four cotter pins holding shield in place. Lay shield aside.
4. Using penetrating oil, generously lubricate four (4) bolt threads holding catalyst housing in place. Allow oil to penetrate.
5. **(A).** Using a 9/16" wrench or 9/16" socket, loosen four (4) nuts and remove catalyst housing (drop down) and place in a suitable work area. **(B).** Nuts holding catalyst are brass. If they strip you will have to order them from dealer. NOTE: DO NOT REPLACE WITH METAL NUTS.
6. Using needle nose pliers, grasp front edge of stainless steel "can" which houses catalytic element and pull upward. Reposition pliers to another position and pull upward. Repeat procedure until catalyst can be removed from housing.
7. Using a small putty knife or scraper, remove any gasket that may have adhered to catalyst housing.
8. Now, obtain new catalysts #PO800115C and wrap stainless steel "can" with interam gasket and tape ends together using scotch tape or masking tape. **IMPORTANT: BEFORE STARTING TO REPLACE CATALYST,** contact your dealer and order **INTERAM gasket** and **CATALYST HOUSING Gasket**. Gaskets not covered under warranty. It may take your dealer several days to receive the gaskets.
9. Insert new catalysts into catalytic housing and push down until they are seated on the top of stainless steel wire mesh supports.
10. Reinstall catalyst housing into stove and secure in place with brass nuts.
11. Reinstall lower heat shield with cotter pins.
12. The stove is now ready for use.

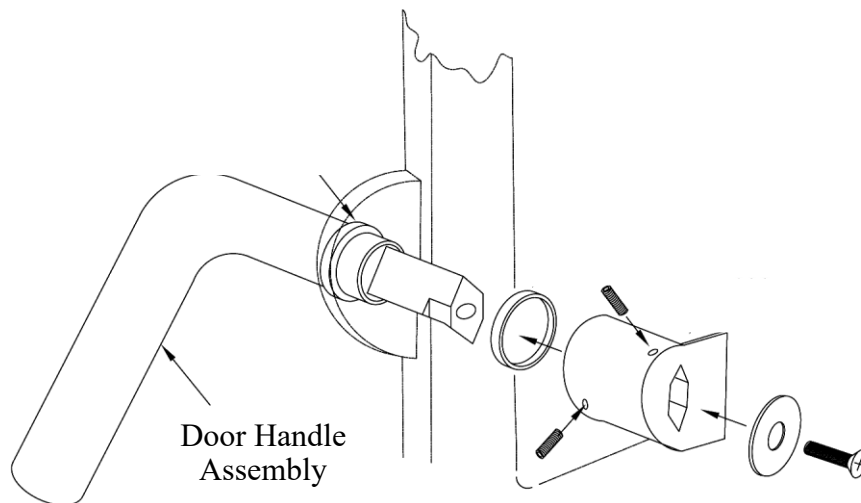
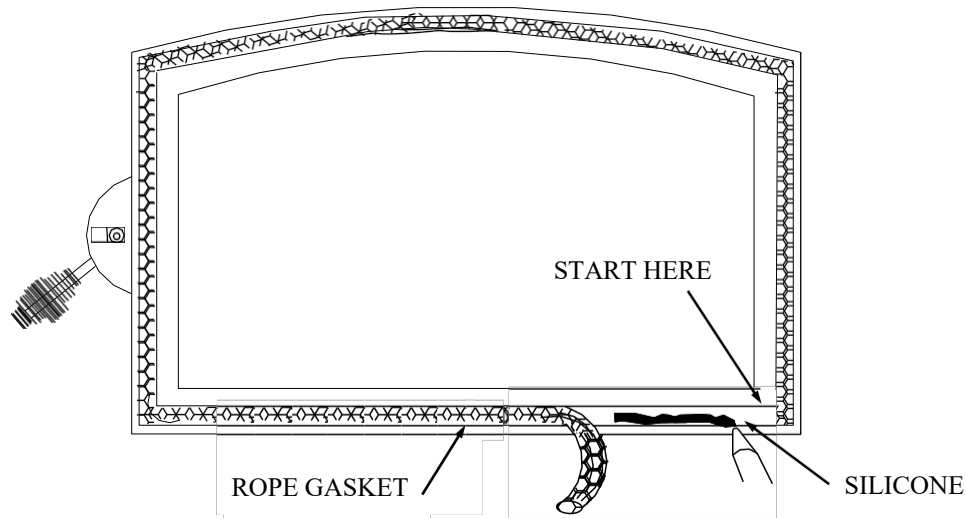


MAINTENANCE

DOOR GASKET REPLACEMENT (COLD HEATER)

To replace deteriorated gaskets, follow these steps to ensure proper installation of gaskets.

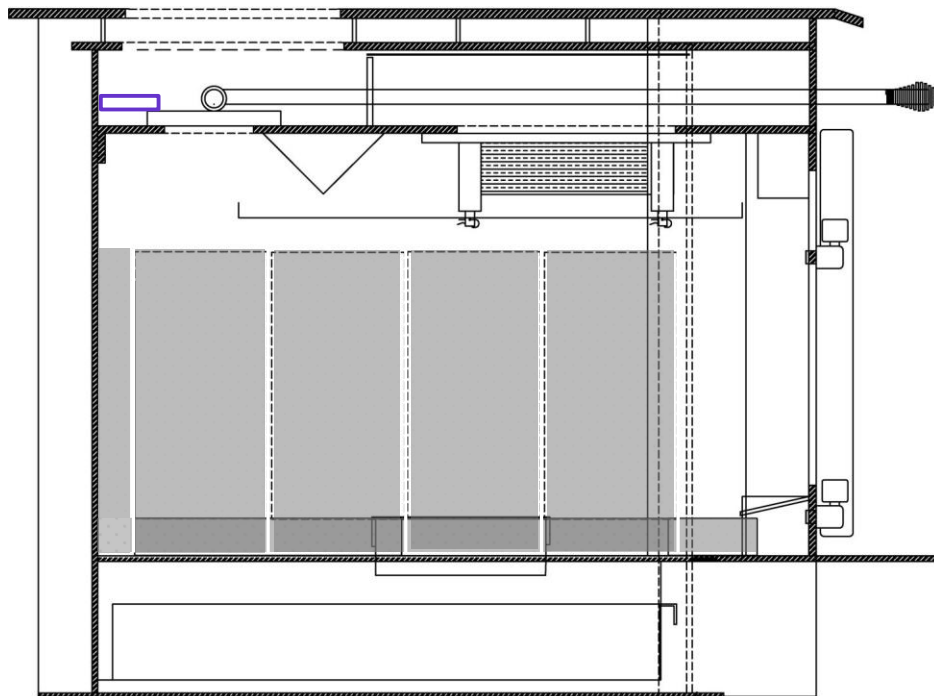
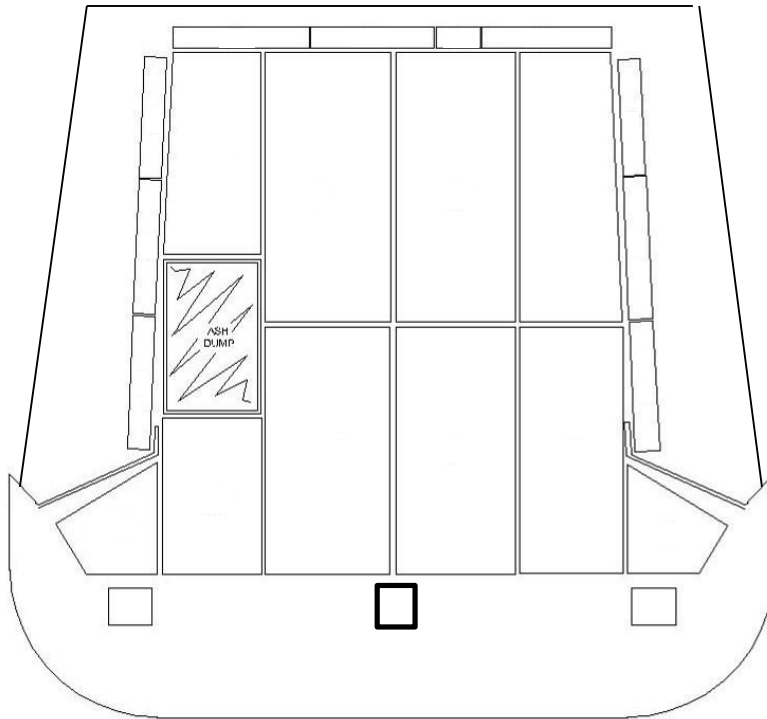
1. Obtain proper gaskets and silicone glue from your local dealer.
2. Using pliers, remove any worn and deteriorated gaskets.
3. Using a scraper, wire brush and sandpaper or steel wool, clean glue and gasket residue from door frame.
4. Measure and cut gaskets to length. Care should be taken not to stretch gaskets. What you want is a full and loose gasket weave after attachment to framing.
5. Obtain silicone glue and run a 3/16" bead inside door frame.
6. Obtain gasket and place in gasket channel areas starting at lower right corner, see below. Use a technique which assures that gasket is applied in a loose like manner. **DO NOT STRETCH GASKETS.**
7. After gasket is applied to glue, use your finger and go over all gasket gently pressing gasket to the channel. Use same pressure against gasket so that final result is an evenly applied gasket.
8. Leave door open and allow at least two (2) hours for glue to dry.
9. Once gaskets are checked, heater is ready for use.
10. This should be done annually. Allowing gaskets to deteriorate can cause over firing and shorten burn time.



PA 910096

MAINTENANCE BRICK LAYOUT

TOP VIEW



MAINTENANCE ELECTRICAL REPLACEMENT

MOTOR, THERMOSTAT, RHEOSTAT

1. **TO REPLACE MOTOR:**Unplug heater from 115V AC outlet.
 2. Remove bottom cover door removing (2) screws holding it in place. See Figure 33.
 3. To the right of ash pan you will find a wire cover screen protecting you from electrical components of this unit. See Figure 34. There are (3) screws holding wire cover screen. Remove (2) screws on left side of screen inward holding wire screen. Remove (1) right bottom screw holding right side of wire screen set aside. See Figure 34.
 4. Mark and unhook wire servicing motor. NOTE: You may remove thermostat to make it easier to work in area. Unscrew motor bracket with motor from unit. See Figures 34, 35. Gently slide motor bracket and motor out and while pulling it out move the back of the motor facing you from right to left in a clockwise motion.
 5. Place new motor over old motor and locate motor bracket in the same location as was on the old motor and mark holes on new motor. Remove motor bracket from old motor, line up with marks on new motor and secure bracket to new motor with screws form original motor assembly.
 6. To replace motor, turn motor so that 4"x4" air discharge opening is pointing toward back of stove. The flat part of motor housing turned up. With the air discharge opening pointing in the 2 o'clock position, start in toward unit. Rotating the back of motor counterclockwise. The air discharge opening of motor housing fits in a cavity in back of unit, that will direct air flow to proper location. Make sure air discharge opening is located firmly in opening. Reinstall motor bracket screws. If thermostat was removed, replace thermostat in bracket.
 7. Hook up wiring to all components, if you have replaced or unhooked them to rewire motor, rheostat or switch. If you need to see wiring diagram, See Page 42, Figure 36. If rheostat was removed, replace rheostat with the nut and replace control knob, reconnect wires to switch.
 8. Replace wire cage. Replace bottom cover door. Plug heater back into a 115V AC outlet.
1. **TO RPLACE THERMOSTAT:**Unplug heater from 115V AC outlet. Follow steps 2 through 3.
 2. Mark and unhook wires. Gently push thermostat up and out of thermostat bracket and replace with new thermostat. Reinstall wiring and cover screen. See Figure 35. If you need to see wiring diagram, See Page 37, Figure 36. Plug heater back into a 115V AC outlet.
1. **TO REPLACE RHEOSTAT:**Unplug heater from 115V AC outlet. Follow steps 2 through 3.
 2. Mark and unhook wires. Bottom under hearth is rheostat. Remove control knob and nut and replace with new rheostat installing with nut, then control knob. Reinstall wiring and cover screen. See Figure 35. If you need to see wiring diagram, See Page 37, Figure 36. Plug heater back into a 115V AC outlet.

Figure 33

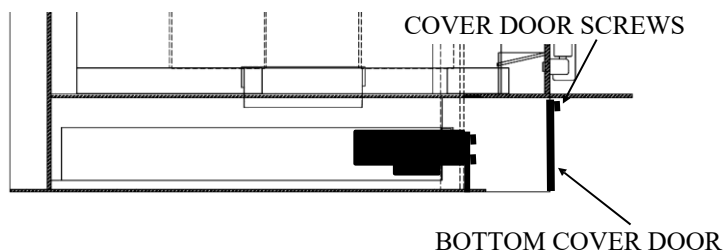


Figure 35

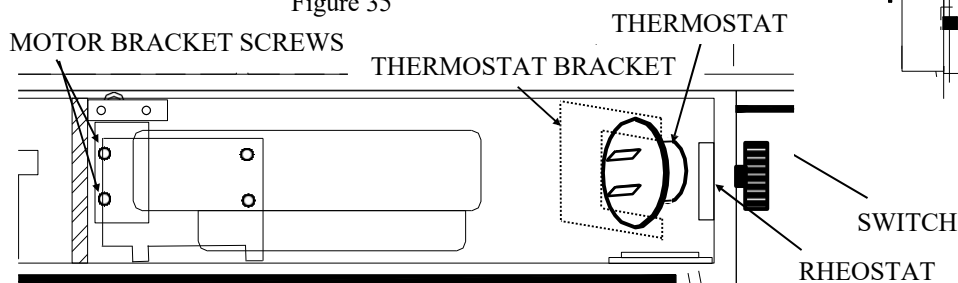
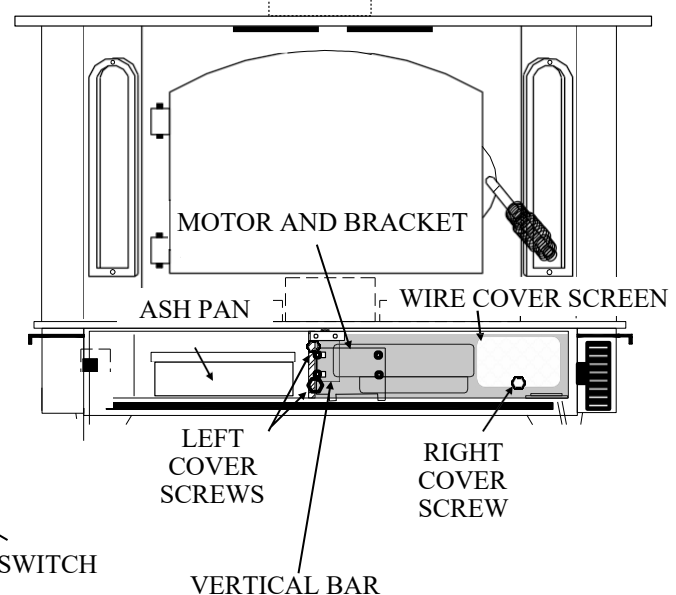


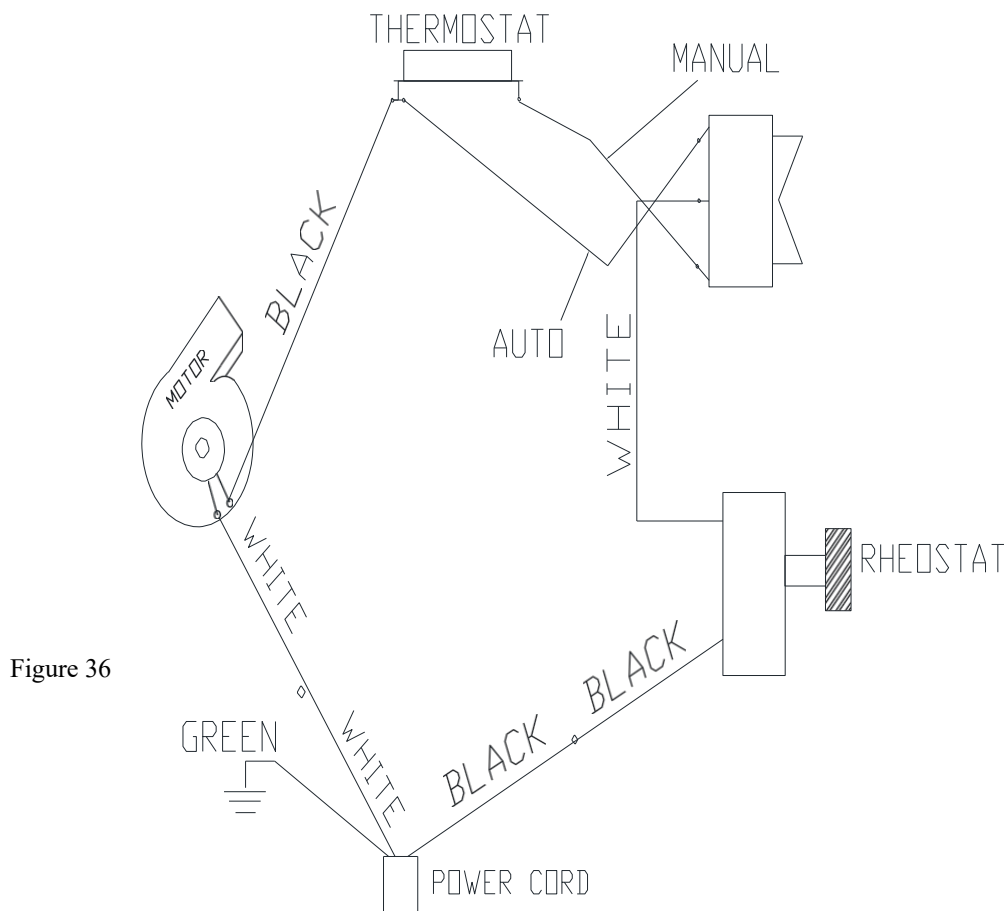
Figure 34



ROOM AIR BLOWER OPERATION

Your heater is equipped with a room air blower. For operation and wiring see figure below.

For your convenience, your heater is equipped with a rheostat with which you are able to select the air flow. The auto and manual switch will allow you to select the position at which thermostat will function.



Auto-position: After heater has warmed up and Auto-Manual switch is placed in “Auto” position and rheostat is in desired position, fan will automatically come on. When stove cools off, fan will automatically shut-off.

Manual position: You must turn room air blower on and off.

NOTE: Plug power cord into a 115V AC outlet. Set switch to “Manual” and rheostat to “High” position to ensure motor operates properly. Route cord to prevent damage to cord insulation from heat and sharp objects. Keep cord out of way of traffic to prevent damage caused by tripping, etc.

NOTE: When refueling or removing ashes turn “OFF” room air blower. Be sure to turn room air blower back on when finished.

MAINTENANCE

CHECK CHIMNEY

- A. Chimney should be inspected once a year.
- B. The chimney should be cleaned as necessary to remove creosote, soot, leaves, birds' nests, etc.

NOTE: A chimney cap may be installed to prevent moisture from entering chimney, to prevent sparks and burning materials from escaping chimney and to keep birds and foreign materials from entering.

NOTE: Some areas may require an approved spark arrestor.

CLEANING THE HEATER

- A. The heater should not be cleaned with any type of detergent as most all detergents have an oil base and cannot be painted over.
- B. The heater should be lightly sanded with fine sandpaper or steel wool, then repainted or touched up with high temperature paint.
- C. If the heater is located in a moist or damp location, check thoroughly for signs of condensation during times when heater is not in use.
- D. When heating season is over, heater should be cleaned out completely with a wire brush or cloth to help eliminate ash and burned wood smell.

CARE OF GLASS DOOR

The glass door on your heater permits you to enjoy the beauty of the fire while retaining efficiency of your heater. Although the type of glass used in the stove door has well established and recognized heat resistant and strength characteristics, it can be broken through improper care. To achieve maximum utility and safety of your glass door, we advise that you observe following use and safety tips:

1. Inspect glass regularly for cracks or breaks. If you detect a crack or break extinguish fire immediately and return door to your dealer for glass replacement before further use.
2. Do not slam heater door or otherwise impact glass. When closing door, make sure that no logs or other objects protrude to impact against glass.
3. Do not clean glass with materials which may scratch it (such as steel wool) or otherwise damage glass. Scratches on the glass can develop into cracks or breaks.

The glass can be cleaned with a commercial oven cleaner, providing it does not contain abrasives. A build-up on glass that has been there for a considerable length of time can be burned off with a propane torch or straight razor blade. Use protective gloves when using razor.

SECTION VIII

TROUBLESHOOTING

Operation of any wood heater can create problems. While use of a catalytic-combustor equipped stove will substantially lessen some of these problems— such as creosote formation— other traditional wood heater problems may remain.

The following guidelines apply to operation of all wood heaters, with problems related to catalytic heater addressed where appropriate.

HEATER RELATED PROBLEMS

Problem	Possible Cause	Solution
1. Sluggish Heater Performance	1. Obstruction in flue liner 2. Closing catalyst bypass too soon 3. Poor Flue Draft 4. Combustor is plugged 5. Wet or unseasoned wood being burned	1. Check cap and chimney and remove obstruction. 2. Follow New Buck instructions for proper firing procedures 3. Flue may need extension 4. See section in “Combustor Related Problems” 5. Burn dry, natural seasoned hard wood
2. High Fuel Consumption	1. Inexperience in catalytic operation 2. Improper regulation of draft or inlet air 3. Air leaking around door frame and/or glass 4. Bypass damper open	1. Operate stove with desired heat output in mind. Do not be overly concerned with maintaining light-off temperatures 2. Close inlet air control as much as possible to maintain desired heat output. Check gaskets, reinstall fiberglass gasketing around doors and glass as necessary 3. Check door gasket. Check adjustment of door latch. 4. Close bypass damper

3. Backpuffing	1. Gusts of wind / windy day 2. Hot combustor. (Above 1400° F)	1. If flue cap not on chimney, install one. 2. Increase the amount of combustion air slowly
4. Smoke Rollout when Heater Door is Opened	1. Bypass damper is closed 2. Opened door too soon after opening bypass damper 3. Wind gusts blowing	1. Open bypass damper 2. Open bypass damper– wait 15 -30 seconds before slowly opening door 3. Install flue cap
5. Low Catalytic Temperature	1. Bypass is open 2. Light-off not obtained 3. Fuel charge is spent 4. Combustor coated with fly ash or soot 5. Heater damper down too much	1. Once light-off temperatures have been reached and unit is stabilized, close bypass 2. Follow manufacturer's operating instructions 3. Refuel as necessary for combustor operation 4. See Section VII "Preventive Maintenance" 5. Ensure that proper air mixture and draft are available for wood to burn proper
COMBUSTOR-RELATED PROBLEMS		
1. Plugging	1. Burning materials that produce a lot of char and fly ash 2. Burning wet, pitchy wood or burning large loads of small-diameter wood with the combustor in the operating position without light-off taking place	1. Do not burn materials such as garbage, gift wrap or cardboard 2. Burn dry, natural seasoned hard wood. Don't place the combustor in the operating position until high temperatures are high enough to initiate light-off
2. Catalyst Peeling	1. Extreme temperatures at combustor surface can cause the catalyst to peel. Over-firing and flame impingement are primary causes	1. If severe, remove and replace catalysts. See "Catalyst Replacement" Section VI. Avoid extreme temperatures
3. Catalyst Masking	1. Not maintaining light-off temperatures	1. See Section VI and review operating instruction.
COLORED-GLASS PROBLEMS		
1. Glass Darkens	1. Buildup Creosote on Glass	1. Cleaning Glass. The glass inside will become colored during use from creosote buildup. The best way to clean glass, COLD STOVE, is to let creosote buildup harden. Then use razor blade to scarp of buildup of creosote. Wash glass using soapy water or glass cleaner.

REPLACEMENT PARTS FOR THE MODEL 81C

1. Air Control Bar (Right Side)	MF 810084
2. Air Control Bar (Left Side)	MF 910088
3. Door Handle Assembly	PA 910096
4. Door Gold	PC 212400G
5. Door Black	PC 212400
6. Door Pewter	PC 212400P
7. Small Bottom Glass Clip	PO210767B
8. Small Side Glass Clip	PO21076S
9. Small Top Glass Clip	PO21076T
10. Off/Auto/Man Fan Switch	PE RC211RB
11. Thermostat 110 disc	PE 400132
12. Power Cord	PE 400240
13. Strain Relief	PE 400320
14. Motor	PE 910714
15. Motor Pad	PO188PAD
16. Rheostat	PE BC204
17. Rheostat knob	PE BC204A
18. Glass	PG 2124GL
19. Glass, Bay side	PG 810100
20. Spring Handle	PO 100150
21. Small Spring Handle For Damper	PO BC290B
22. Catalyst Damper Rod	PO 910012
23. Catalyst	PO 800115C
24. Catalyst Intergram Gasket	PO 910500
25. Cast Catalyst Housing	PC H8080
26. Catalyst Housing Gasket	PO 800500
27. Catalyst Mixing Wire	PO 800015
28. Bay Window Overlay	PO 810105
29. Primary Air Block x 2	MF 810081
30. Shotgun Air Block	MF81C105
31. 1" x 1" x 1/8" thick magnet	PO DM841
32. Firebrick	PR 900050
33. Cover Door Assembly	MA 81COVDOOR

NEW BUCK CORPORATION (NBC)
"LIMITED WARRANTY" FOR THE BUCK STOVE
PLEASE READ THIS WARRANTY CAREFULLY

PRODUCTS COVERED

This warranty covers the new Buck Stove heating unit, so long as it is owned by the original purchaser, including optional and standard accessories purchased at the same time, subject to terms, limitations, and conditions herein set out.

PRODUCTS NOT COVERED

This warranty does not cover the following:
Glass, Refractory Material, Firebrick or Gaskets.

This Warranty will not cover any damage and/or failure caused by abuse or improper installation of the products covered.

WARRANTY TIME PERIODS

(A) Period I

For one year from the date of purchase, NBC will replace or repair, at its option, any part defective in materials or workmanship. The costs of parts only are included. The customer pays any labor or transportation charges required.

Thereafter,

(B) Period II

For the period after the first year from the date of purchase and extending for five years as long as the Buck Stove is owned by the original purchaser, NBC will repair or replace, at its option, any part defective in materials or workmanship, with the exception of, electrical motors, wiring, switches, components, optional and standard accessories, and all parts not permanently attached to the heating unit. Parts not permanently attached to the heating unit are defined as those items designed to be removed from the stove, including those removable with common hand tools. The costs of parts only are included. The customer pays any labor or transportation charges required.

PROCEDURE

Should you feel that your BUCK STOVE is defective, you should contact any Buck Stove dealer for the name of your nearest authorized Buck Stove service representative, who will instruct you on the proper procedure, depending on which Warranty Time Period (Period I or Period II) applies.

If for any reason you are dissatisfied with the suggested procedures, you may contact us in writing at:

New Buck Corporation
Customer Service Department
P. O. Box 69
Spruce Pine, NC 28777
Email: info@buckstove.com

CONDITIONS AND EXCLUSIONS

- (A) Replacement of parts may be in the form of new or fully reconditioned parts, at NBC's option.
- (B) There is no other express warranty. All implied warranties of merchantability and fitness for use are limited to the duration of the Express Warranty.
- (C) New Buck Corporation is not liable for indirect, incidental, or consequential damages in connection with the use of the product including any cost or expense of providing substitute equipment or service during periods of malfunction or non-use.
Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.
- (D) All warranty repairs under this warranty must be performed by an authorized Buck Stove service representative. Repairs or attempted repairs by anyone other than an authorized service representative are not covered under this warranty. In addition, these unauthorized repairs may result in additional malfunctions, the correction of which is not covered by warranty.

OTHER RIGHTS

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

OWNER REGISTRATION CARD

The attached Owner Registration Card must be completed in its entirety and mailed within 30 days from the date of purchase or from the date of installation, if installed by a factory certified installer, to New Buck Corporation in order for warranty coverage to begin.

PLEASE NOTE: The Owner Registration Card must contain the Authorized Buck Stove Dealer Code Number and the Certified Installer's number (if applicable) for warranty coverage to begin.

To be completed by selling distributor/ dealer/ customer:

Name _____
(Last) (First)

Address _____

City _____ State _____ Zip _____

CUSTOMER EMAIL: _____

MODEL 81C - Serial Number _____

Date of Installation: Day _____ Month _____ Year _____

Installer's Name _____

Installer's Certification Number _____

Dealer's Name _____

City _____ State _____ Zip _____