

Owner's Manual  
**PEDESTAL PLATE HEATER**  
MODEL: 2016E (B)



**U. S. ENVIRONMENTAL PROTECTION AGENCY**

Certified to comply with 2015 particulate emission standards for single burn rate heaters. Not approved for sale after May 15, 2020. This single burn rate wood heater is not approved for use with a flue damper.

TESTED TO UL 1482-11 (R2015), ULC-S627-00, and ASTM 2780/Method 28R

**CAUTION!**

Read All Instructions Carefully Before Starting The Installation or Operating This Heater.  
Improper Installation Could Void Your Warranty!

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.

**SAFETY NOTICE:**

If this heater is not properly installed, a house fire may result. For your safety, follow the installation instructions. Contract local building or fire officials about obtaining permits, restrictions and installation requirements in your area.

Do not use this heater in a Mobile home or trailer!

**SAVE THESE INSTRUCTIONS**

THIS MANUAL WILL HELP YOU TO OBTAIN EFFICIENT, DEPENDABLE SERVICE FROM THE HEATER, AND ENABLE YOU TO ORDER REPAIR PARTS CORRECTLY. KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.

French version is available for download from the US Stove website: <http://www.usstove.com>

La version française est disponible pour téléchargement à partir du site US Stove: <http://www.usstove.com>

Tested &  
Listed By



Portland  
Oregon USA

OMNI-Test Laboratories, Inc.

Report # 0215WS045E  
0215WS045S

UNITED STATES STOVE COMPANY  
227 Industrial Park Road  
South Pittsburg, TN 37380

852531-0602F

# CONGRATULATIONS!

You've purchased a heater from North America's oldest manufacturer of wood burning products.

By heating with wood you're helping to CONSERVE ENERGY!

Wood is our only Renewable Energy Resource. Please do your part to preserve our wood supply. Plant at least one tree each year. Future generations will thank you.

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This manual describes the installation and operation of the United States Stove Company Model 2016EB woodheater. This heater meets the 2015 U.S. Environmental Protection Agency's crib wood emission limits for woodheaters sold after May 15, 2015. Under specific EPA test conditions burning Douglas Fir dimensional lumber this heater has been shown to deliver heat at a rate of 35,750 Btu/hr. This heater achieved a particulate emissions rate of 3.7 g/hr when tested to method ASTM E2780-10 single Burn Rate Appendix (\*and an efficiency of 66.6%.)

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.

The operation of this wood heater in a manner inconsistent with the owner's manual will void you warranty and is also against federal regulations.

This heater is designed to burn natural wood only. Higher efficiencies and lower emissions generally result when burning air dried seasoned hardwoods, as compared to softwoods or to green or freshly cut hardwoods. Burning the following materials may result in release of toxic fumes or render the heater ineffective and cause smoke.

This wood heater needs periodic inspection and repair for proper operation. It is against federal regulations to operate this wood heater in a manner inconsistent with operating instructions in this manual.

**DO NOT BURN:**

- Residential or commercial garbage;
- Lawn clippings or yard waste;
- Materials containing rubber, including tires;
- Materials containing plastic;
- Waste petroleum products, paints or paint thinners, or asphalt products;
- Materials containing asbestos;
- Construction or demolition debris;
- Paper products, cardboard, plywood, or particleboard. The prohibition against burning these materials does not prohibit the use of fire starters made from paper, cardboard, saw dust,

wax and similar substances for the purpose of starting a fire in unaffected wood heater.

- Railroad ties or pressure-treated wood;
- Manure or animal remains;
- Salt water driftwood or other previously salt water saturated materials;
- Unseasoned wood;
- Any materials that are not included in the warranty and owner's manual for the subject wood heater; or
- Any materials that were not included in the certification tests for the subject wood heater.

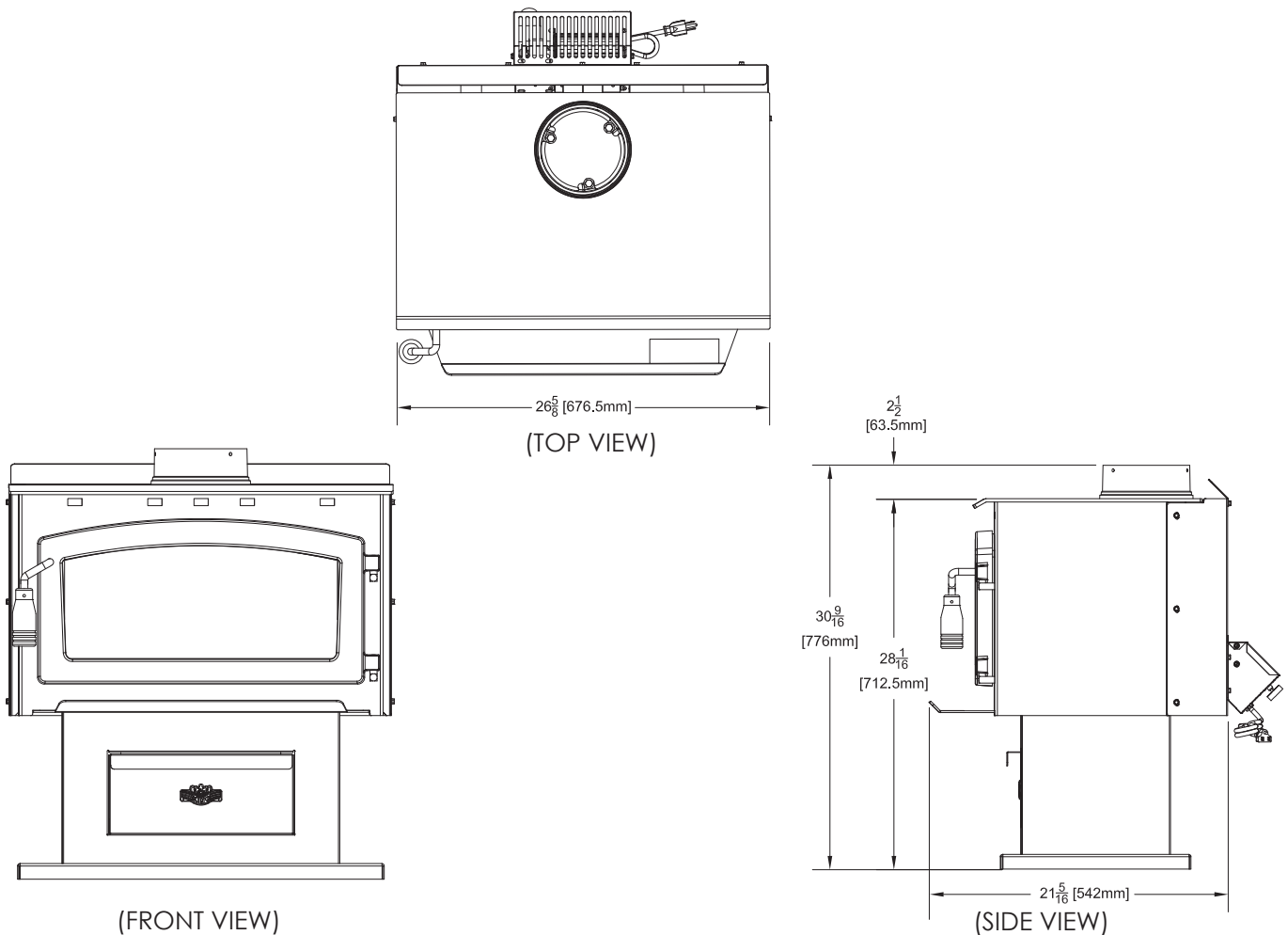
## Tools and Materials Needed

### TOOLS

- Pencil
- 6 Foot Folding Rule or Tape Measure
- Drill, Hand or Electric
- Drill Bit 1/8" Dia. (For Sheet Metal Screws)
- 5/16" Nut Driver or 5/16" Socket w/Ratchet
- Screw Driver (Blade-Type)
- Gloves
- Safety Glasses

### MATERIALS

- 6" Pipe, 6" Elbow, Collar and Thimble; As Required (24 gauge min.)
- 1/2" Sheet Metal Screws (No. 10A x 1/2")
- 6" Inside Diameter Underwriters Laboratories (UL) Listed Residential Solid Fuel Factory-Built Triple wall Chimney or Exiting Masonry Chimney.
- Floor Protector Material As Specified in this manual.
- Furnace Cement (Manufacturer Recommends: Rutland Black Code 78 or Equivalent)



# Safety Rules

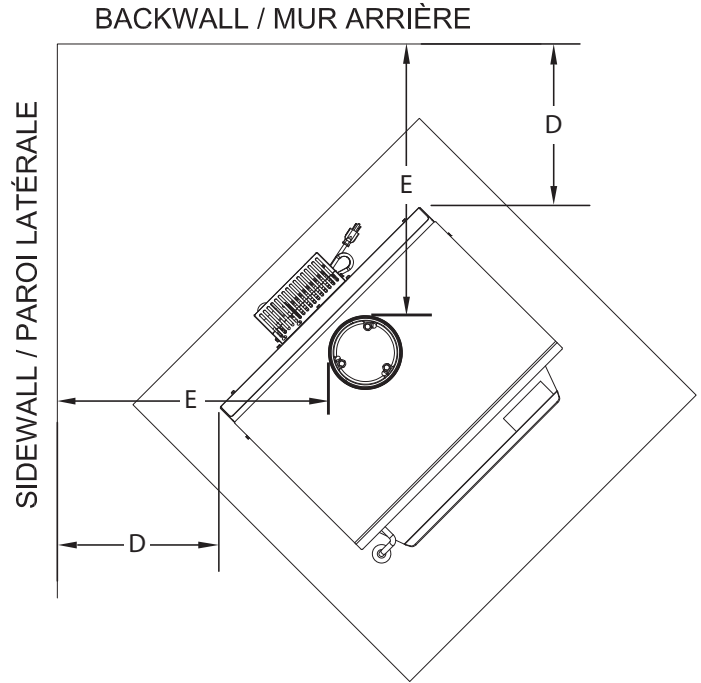
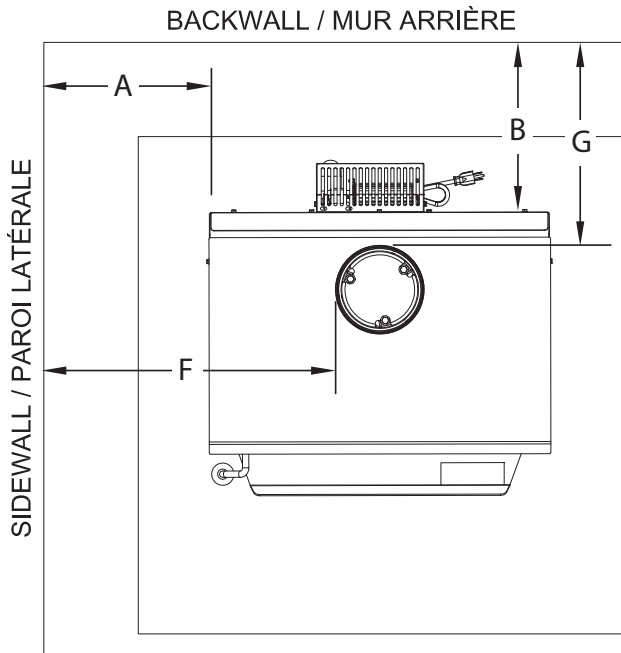
**SAFETY NOTICE:** If this heater is not properly installed a house fire may result. Do not use make-shift compromises during installation. Clean your stove frequently to reduce soot, creosote and ash accumulation. For your safety, follow the installation directions. Contact local building or fire officials about restrictions, permits and installation inspection requirements in your area. The room heater must be connected to a chimney complying with the requirements for Type HT chimneys in the Standard for Chimneys, Factory-Built, Residential Type and Building Heating Appliance, UL 103, or a code approved masonry chimney with a flue liner. 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.

## Read these rules and the instructions carefully

1. Check with local codes. The installation comply with their rulings. Observe closely the clearances to combustibles specified in this manual.
2. Do not install this heater in a mobile home or trailer.
3. DO NOT connect a wood burning heater to an aluminum Type B gas vent. This is not safe and is prohibited by the National Fire Protection Association Code.
4. Always connect this heater to a chimney and vent to the outside. Never vent to another room or inside a building.
5. The freestanding room heater requires a masonry or a UL Listed Residential Type and Building Heating Appliance Chimney.
6. Be sure that your chimney is safely constructed and in good repair. Have the chimney inspected by the Fire Department or a qualified inspector. Your insurance company may be able to recommend a qualified inspector.
7. Make sure the chimney is high enough to give a good draft.
8. Inspect chimney connector and chimney twice monthly during the heating season for any deposit of creosote or soot which must be removed (see Chimney Maintenance).
9. DO NOT BE ALARMED IF HEATER SMOKES UPON INITIAL FIRING. The special paint used on this heater must be cured during initial firing. This smoking will occur only on initial firing.
10. CAST IRON PARTS MUST BE "SEASONED" TO AVOID CRACKING. BUILD ONLY SMALL FIRES DURING THE FIRST FEW DAYS OF USE.
11. To prevent injury, do not allow anyone to use this heater who is unfamiliar with the correct operation of the heater.
12. For additional information on using your Room Heater safely, obtain a copy of the National Fire Protection Association (NFPA) publication "Chimneys, Fireplaces, and Solid Fuel Burning Appliances" NFPA No. 211(USA).
13. Disposal of Ashes- Place ashes in a metal container with a tight fitting lid. Keep the closed container on a non-combustible floor or on the ground, well away from all combustible materials. Keep the ashes in the closed container until all cinders have thoroughly cooled. The ashes may be buried in the ground or picked up by a refuse collector. Never use the ash container to dispose of other waste.
14. Keep the firebox section free of excess ashes.
15. Observe clearances to combustible materials specified in this manual to avoid a fire hazard.
16. CARING FOR PAINTED PARTS- This heater has a painted jacket, which is durable but it will not stand rough handling or abuse. When installing your heater, use care in handling. Clean with soap and warm water when heater is not hot. DO NOT use any acids or scouring soap, as these wear and dull the finish. PAINT DISCOLORATION WILL OCCUR IF THE HEATER IS OVERFIRED. FOLLOW OPERATING INSTRUCTIONS CAREFULLY.
17. The firebox walls in this heater may become slightly distorted over a period of use. The slight distortion does not affect the operation of the unit.
18. CAUTION: HOT WHILE IN OPERATION. KEEP CHILDREN, CLOTHING, AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS.
19. DO NOT USE CHEMICALS OR FLUIDS TO START THE FIRE.
20. DO NOT BURN GARBAGE OR FLAMMABLE FLUIDS SUCH AS GASOLINE, NAPHTHA OR ENGINE OIL.
21. CAUTION: DO NOT CONNECT TO OR USE IN CONJUNCTION WITH ANY AIR DISTRIBUTION DUCTWORK UNLESS Specifically APPROVED FOR SUCH INSTALLATIONS.
22. CAUTION: STORE SOLID WOOD FUEL A SAFE DISTANCE AWAY. DO NOT STORE SOLID WOOD FUEL WITHIN HEATER INSTALLATION CLEARANCES OR WITHIN THE SPACE REQUIRED FOR ASH REMOVAL.
23. DO NOT USE A GRATE OR ELEVATE THE FIRE - BUILD FIRE DIRECTLY ON HEARTH.
24. WE RECOMMEND THAT SMOKE DETECTORS BE INSTALLED IN YOUR HOME. Smoke from this appliance may activate the smoke detector if door is open.
25. An adequate supply of combustion air must be provided into the room where the unit is installed.
26. Do Not Overfire - if heater or chimney glows, you are overfiring

**CAUTION:** Do not touch the metal or glass surfaces of the heater until it has thoroughly cooled.

# Minimum Clearance To Combustible Walls

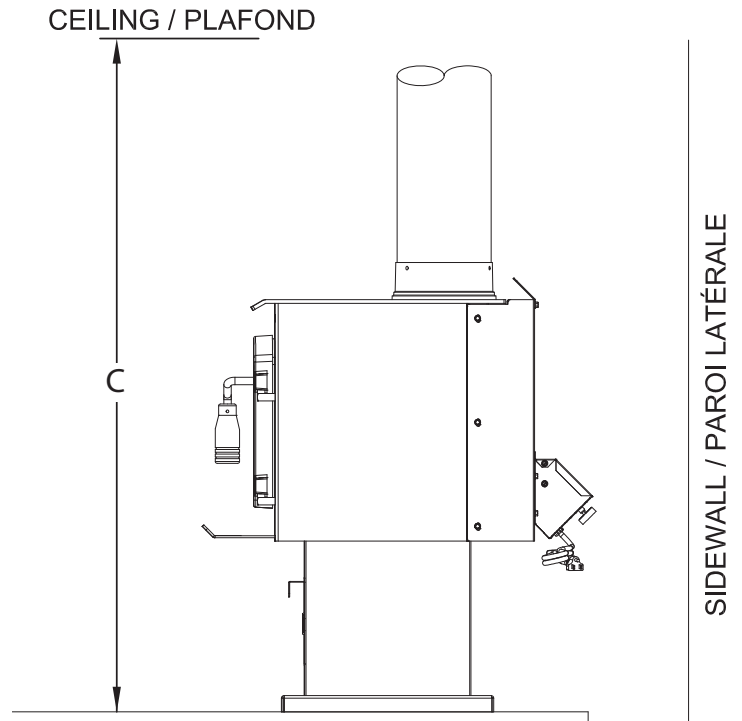


Stove Clearances		
A	Side Wall	18" (457mm)
B	Back Wall	12" (305mm)
C	Ceiling Height	84" (2134mm)
D	Closest Wall to Corner	12" (305mm)
E	Wall to Chimney Connector (Alcove)	21" (533.4mm)
F	Side Wall to Chimney Connector	22.25" (565mm)
G	Back Wall to Chimney Connector	15" (381mm)

Minimum clearances for corner installation is 12 inches (305mm) from the corners of the heater to the nearest wall.

**CAUTION:** Keep furnishings and other combustible materials away from the heater.

The provision that clearances may only be reduced by means approved by regulatory authority



SIDEWALL / PAROI LATÉRALE

# Locating The Room Heater

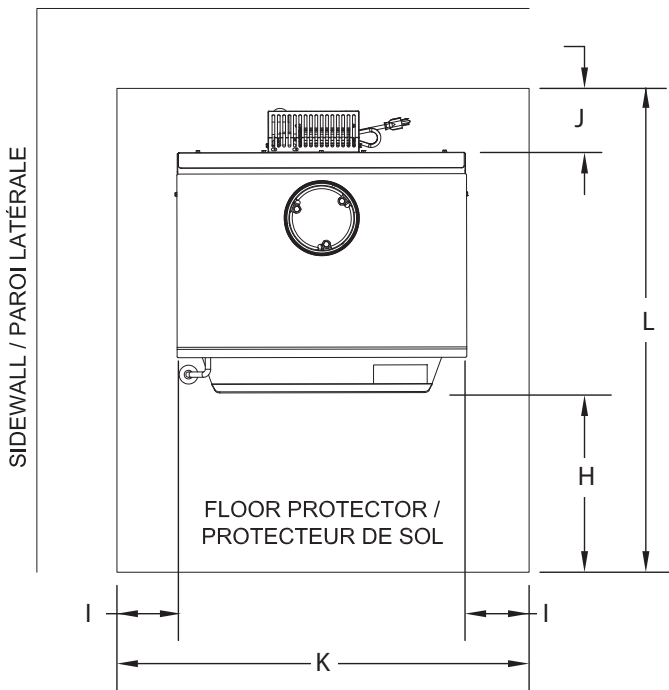
As A Location Is Selected, Keep The Following In Mind

Keep the chimney connection as short as possible. The heater must have its own chimney flue. Do not connect any other appliance to the same flue. If there is no chimney where you wish to place the heater, you can use a UL Listed Type 103 HT, Solid Fuel, Factory Built Chimney.

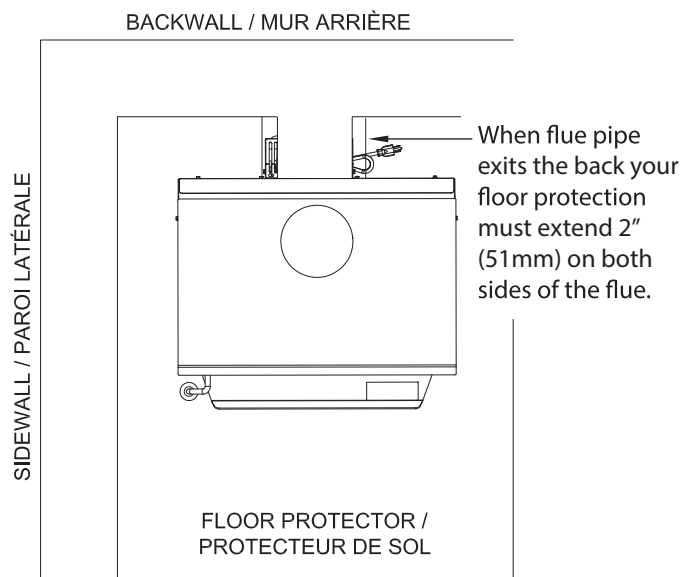
Place the heater on a manufactured floor protector that conforms to UL 1618, that provides at minimum type 1 ember protection. The floor protector should be under the stove, 16" beyond the front and 8" beyond each side of the fuel loading and ash removal opening. Have the floor protector with the specified dimensions.

Check Figures 2, 3, & 4. You should have at least the clearances shown from the heater and the connector pipe to combustible surfaces. If you have a solid brick or stone wall behind your heater, you can place the heater as close as you wish to the wall. If the wall is only faced with brick or stone, treat it as a combustible wall. You may consult your local regulatory authority before reducing clearances specified in these instructions.

The floor protector must extend under the product and two (2) inches on either side of the chimney connector.



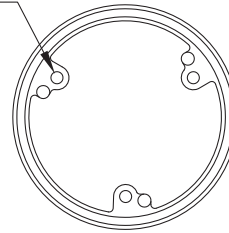
Floor Protector Clearances		
H	Front	US 16" (406mm)/ CAN 18" (457mm)
I	Side	8" (203mm)
J	Rear	CAN 8" (203mm)
K	Overall width	38-5/8" (981mm)
L	Overall Depth	45-5/16" (1.15m)



# Mounting Cast-Iron Flue Collar

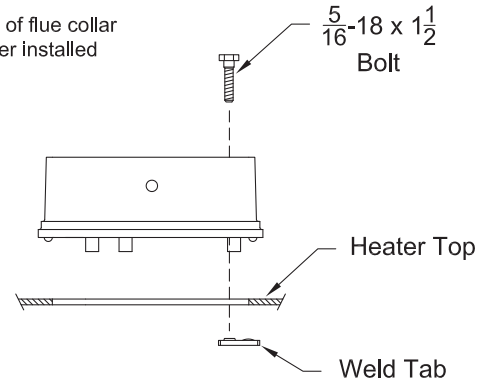
This heater comes equipped with a cast-iron flue collar.  
 Flue Collar - 40292  
 5/16-18 x 1-1/2" Bolts (3 req.)  
 Weld Tab (3 req.)  
 Gasket

Holes in Flue Collar for mounting to the Heater Top.



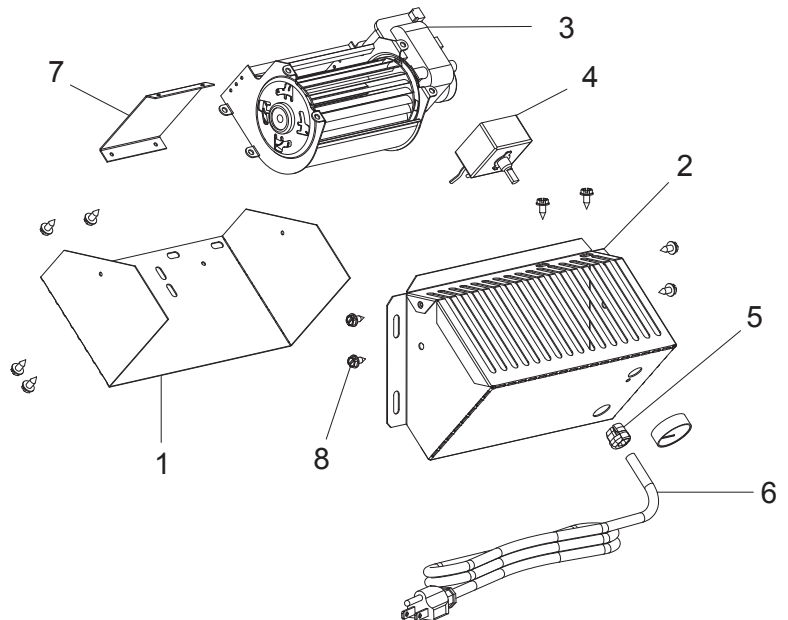
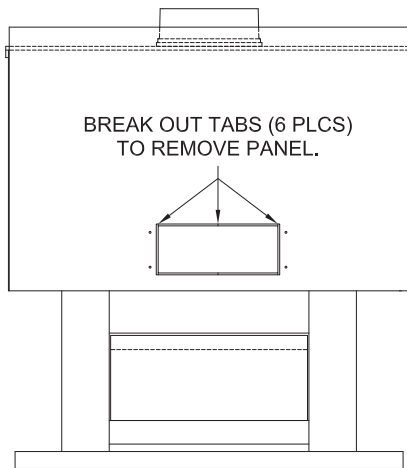
Bottom view of flue collar with damper installed

Peel off tape from the back of the gasket and attach the gasket to the rope groove in the flue collar. Mount flue collar to the top of the heater using the (3) 5/16-18 x 1-1/2" Bolts and the (3) Weld tabs provided in the parts bag.



Side view of flue collar mounting to top of heater

# Blower Assembly



## ASSEMBLY INSTRUCTIONS

**Step 1:** THE BLOWER ASSEMBLY MUST BE DISCONNECTED FROM THE SOURCE OF ELECTRICAL SUPPLY BEFORE ATTEMPTING THE INSTALLATION.

With pliers, cut the 6 micro-joints and remove panel. Note: Discard the panel.

**Step 2:** Fix the assembly to the back of the stove with the four screws provided.

THE BLOWER ASSEMBLY IS INTENDED FOR USE ONLY WITH A STOVE THAT IS MARKED TO INDICATE SUCH USE.

DO NOT ROUTE THE SUPPLY CORD NEAR OR ACROSS HOT SURFACES!

KEY	DESCRIPTION	PART NO.	QTY.
1	Blower Housing Back	25089B	1
2	Blower Housing Front	25090B	1
3	Blower Motor	80442	1
4	Rheostat w/Nut and Knob	80090	1
5	Strain Relief Bushing	80109	1
6	Power Supply Cord	80232	1
7	Heat Shield	891861	1
8	10AB x 3/8 Hex Screw	83172	12
N/S	#12 x 3/4 Teks Screw	C23799	4



## CHIMNEY CONNECTION

Take into account the chimney's location to insure it is not too close to neighbours or in a valley which may cause unhealthy or nuisance conditions. Your chimney connector and chimney must have the same diameter as the stove outlet (6"). If this is not the case, we recommend you contact your dealer in order to insure there will be no problem with the draft.

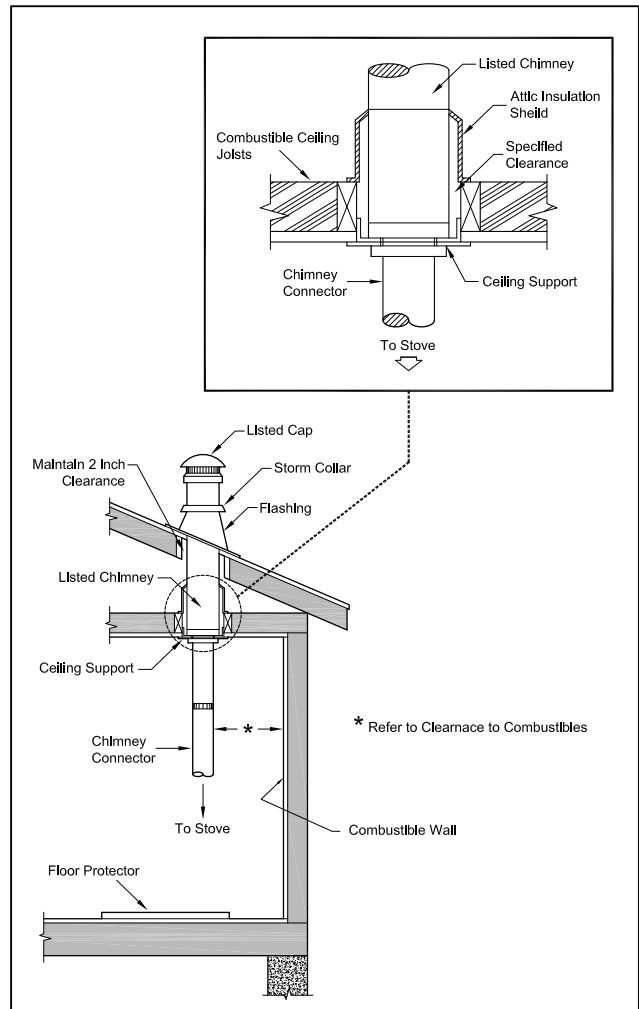
The stove pipe must be made of aluminized or cold roll steel with a minimum thickness of 0.021" or 0.53mm. It is strictly forbidden to use galvanized steel.

Two basic types of chimneys are approved for use with solid fuel. Factory-built and masonry. Factory-built chimney must comply with UL standard in the US and ULC standards for Canada.

Do not expect your stove or furnace to create draft. Draft is not a function of the appliance. Draft is purely a function of the chimney. Modern stoves and furnaces are much more air-tight and efficient than those of the past, and, therefore, require greater draft. A minimum of .05" measured in water column (gauges to measure chimney draft are readily available at stove shops and are economical to purchase or rent) is required for proper drafting to prevent back-puffing, smoke spillage, and to maximize performance.

Chimneys perform two functions - one of which is apparent: The chimney provides a means for exhausting smoke and flue gases resulting from combustion of the fuel. Secondly, though, the chimney provides "Draft" which allows oxygen to be continuously introduced into the appliance, so that proper combustion is possible. As of April 1, 1987, all wood heaters and furnaces manufactured by 6"(152mm) chimney that meets the "Type HT" requirement and complies with UL 103(2100°F, 1149°C) or ULC S629(650°C) (when a factory built chimney is used).

A chimney connector shall not pass through an attic, roof space, closet, floor, ceiling, or similar concealed space. Where passage through a wall or partition of combustible construction is desired, the installation must conform with NFPA 211.



## IMPORTANCE OF PROPER DRAFT

Draft is the force which 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 cause excessive temperatures in the appliance and may damage. Inadequate draft may cause backpuffing into the room and 'plugging' of the chimney. Inadequate draft will cause the appliance to leak smoke into the room through appliance and chimney connector joints. An uncontrollable burn or excessive temperature indicates excessive draft.

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



# Venting Into A Fireplace

Many people may wish to convert an existing fireplace to heater use. Usually, safe connection of stovepipe to a masonry chimney requires more effort than connection to a prefabricated chimney. Always remember to inspect the masonry chimney and fireplace. If necessary, clean the flue and smoke shelf before beginning your installation. Install the heater into the fireplace so that the system can be dismantled for cleaning and inspection.

Before deciding to convert your fireplace, keep in mind that some fireplaces and existing chimneys are unsafe. They must be structurally sound, and the flue liner must be in good condition. Do not use a chimney if it is unlined (should have a fire clay tile liner to protect brickwork). Have it relined professionally. Clearances to combustibles are explained in the previous section on masonry chimneys. If you have any questions regarding the condition of the chimney, consult a qualified engineer, competent mason, or knowledgeable inspector.

Many prefabricated fireplaces fall into the "zero-clearance fireplace" category. This is a factory-built metal fireplace with multi-layered construction. It is designed to provide enough insulation and/or air

cooling so that the base, back and sides can be safely placed in direct contact with combustible floors and walls. Although many prefabricated fireplaces have been tested by nationally recognized organizations for use as fireplaces, they have not been tested to accept heaters. In fact, their use as such may void the manufacturer's warranty.

Steel-lined fireplaces, on the other hand, can be used with heaters. These units use a 1/4-inch firebox liner and an air chamber in connection with 8 inches of masonry to meet code. They contain all the essential parts of a fireplace, firebox, throat, smoke shelf, and smoke chamber. Many of them look exactly like a masonry fireplace and must be checked closely for above requirements before installing a wood heater into them.

Another method frequently used by some people is to vent the heater directly into the fireplace. This does not meet code since the heater is being vented into another appliance - the fireplace. This method should not be attempted because combustion products will deposit and build up in the firebox or fireplace. Be certain not to install a hazard in your house. You will void your warranty with this installation.

**CAUTION:** Not all fireplaces are suitable for installation of a wood heater.

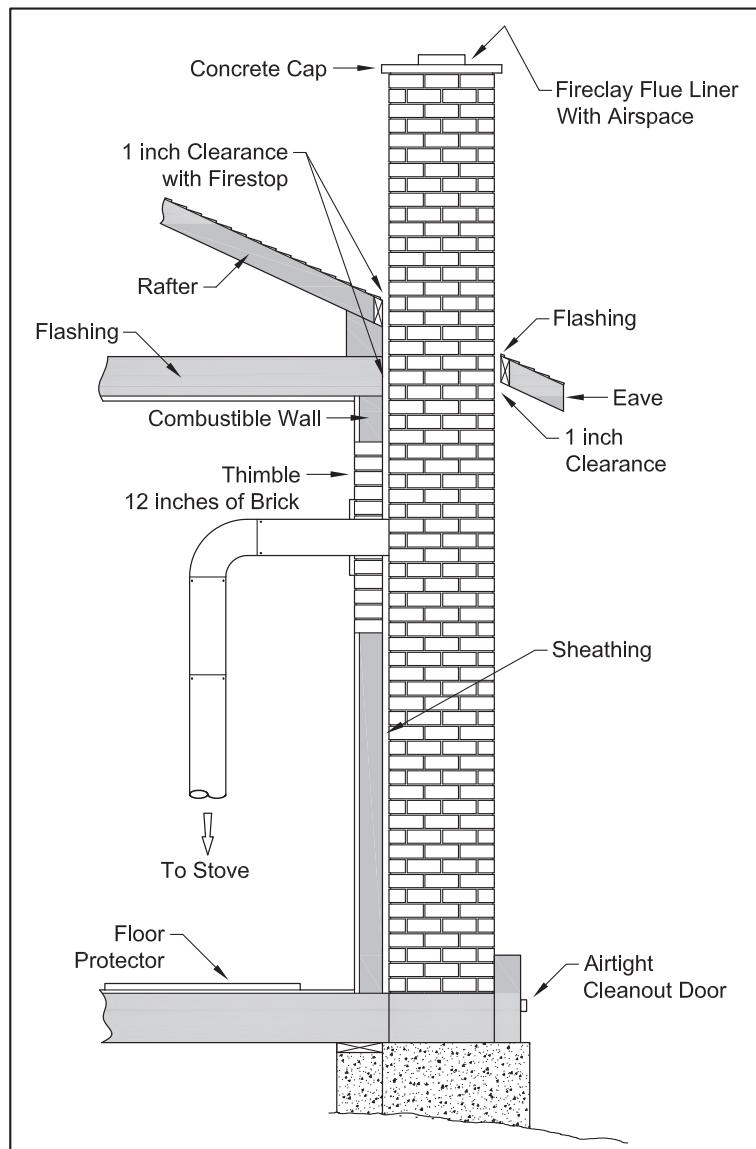
# Venting Into A Masonry Chimney

When considering a masonry chimney, round tiles are preferable to square or rectangular, as round tiles have much better airflow characteristics and are far easier to clean. Unfortunately, most North American chimneys use square or rectangular tile liners that are really designed for open fireplaces, not stoves or furnaces. Of most importance, second only to overall chimney height, is the diameter of the flue liner itself. In most instances, it should be sized to the appliance; i.e., 6" [152mm] flue outlet on the appliance requires a 6" [152mm] chimney. The inner diameter should never be less than the flue-outlet diameter and should never be greater than 50% larger than the appliance flue outlet. For example, do not expect a wood or coal burning stove or furnace to function properly if installed into a chimney with a flue greater than 50% more than the appliance outlet - - such as a 6" [152mm] flue outlet requires a 6" [152mm] diameter for optimum drafting, but can function well with an 8" [203mm], but becomes borderline beyond an 8" [203mm] diameter.

Masonry chimneys built of concrete blocks with or without flue liners do not meet modern building codes. A solid fuel appliance must not be joined to a chimney flue which is connected to another appliance burning other fuels.

If your chimney has a typically oversized flue liner of, say 8 x 12 (203mm x 305mm) inches, or greater, or if it is unlined, it will be necessary for you to reline the chimney, using any of the modern approved and economical methods such as stainless steel, castable refractory, or properly sized fireclay linings.

If you have any questions regarding venting your appliance, feel free to contact the factory at the address and phone number on this Owner's Manual. You may also contact NFPA (National Fire Protection Association) and request NFPA Standard 211 (1984 Edition-US). Another helpful publication is NFPA Standard 908(US). Specify 1984 Edition of either of the above US publications.



# "Fireplace" Installation

## FIREPLACE INSTALLATION

Connection of the stovepipe directly into the existing masonry chimney over the fireplace opening is a more desirable method. This installation performs better, yielding more heat and better draft; it is also easy to clean and inspect for creosote. Before beginning this type of installation plan carefully; a high degree of skill is required to insure safety.

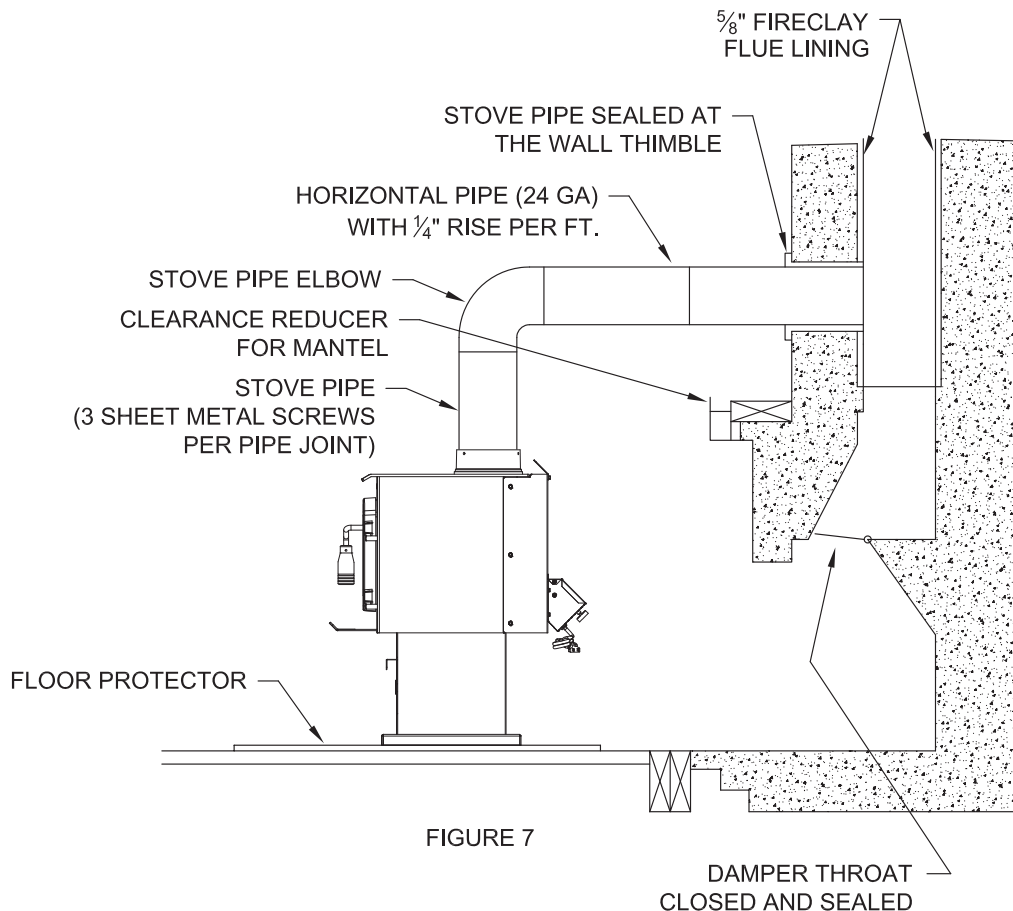
An entry port for the stovepipe must be cut through the chimney with minimum damage to the fireclay liner. Some involved measurements may be required to locate the flue liner exactly. Before cutting, take time to mark the size and position of the entry port. Position the entry port so that at least 8 inches of the flue liner remains below the port.

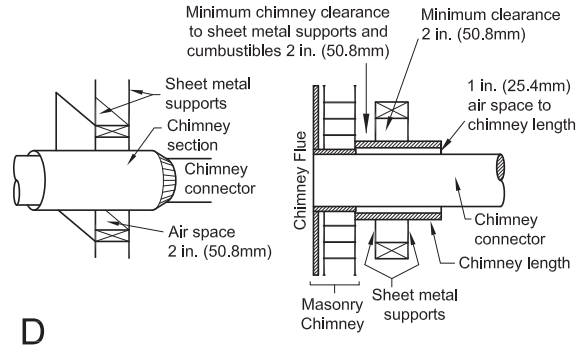
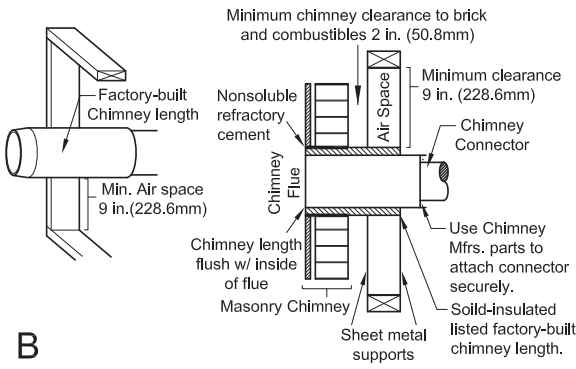
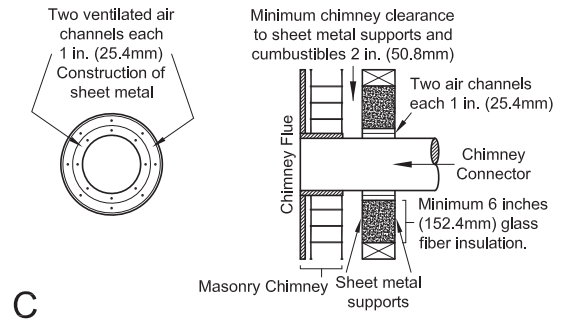
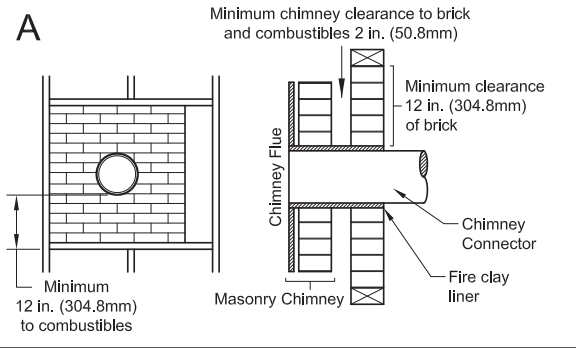
Keep in mind that wood mantels and combustible trim around the fireplace must have adequate clearances from the heater and stovepipe or must be protected in an approved manner. Also, be sure to leave at least an 18 inch clearance between the top of the stovepipe and the combustible ceiling or other combustibles. Placing the center of the entry port 2 feet below the ceiling will insure proper clearance for 6-inch, 8-inch, and 10-inch stovepipes. Next, install a fireclay (at least 5/8 inch thick) or metal thimble, being sure that the thimble is flush with the inner flue lining, secure the thimble in place with refractory mortar. The thimble should be surrounded on all sides

with 8 inches of brickwork (solid masonry units) or 24 inches of stone.

Install the stovepipe as far as possible into the thimble, but not past the inside of the flue lining. There should be a small airspace (approximately 1/2 inch) between the stovepipe and thimble, allowing for expansion of the stovepipe. Seal this airspace with high-temperature caulking or ceramic wool. Do not use the Type B installation (not illustrated in this manual), that is, venting up through the fireplace opening, regardless of whether the fireplace opening is closed.

Masonry chimneys have several positive attributes: If properly built, they are quite durable, and most homeowners consider them more attractive perhaps than an unenclosed factory built chimney. And, if the chimney is located within the confines of the house (that is, not attached to an exterior wall), its mass alone will store heat longer and continue to release the heat long after the fire has died. Masonry chimneys have many disadvantages though. Masonry chimneys constructed on an exterior wall are exposed to cold outdoor temperatures, promoting greater heat loss, higher accumulations of creosote, and reduced draft which leads to poorer heater or furnace performance.





**COMBUSTIBLE WALL CHIMNEY CONNECTOR PASS-THROUGHS**

Method A. 12" (304.8 mm) Clearance to Combustible Wall Member: Using a minimum thickness 3.5" (89 mm) brick and a 5/8" (15.9 mm) minimum wall thickness clay liner, construct a wall pass-through. The clay liner must conform to ASTM C315 (Standard Specification for Clay Fire Linings) or its equivalent. Keep a minimum of 12" (304.8 mm) of brick masonry between the clay liner and wall combustibles. The clay liner shall run from the brick masonry outer surface to the inner surface of the chimney flue liner but not past the inner surface. Firmly grout or cement the clay liner in place to the chimney flue liner.

Method B. 9" (228.6 mm) Clearance to Combustible Wall Member: Using a 6" (152.4 mm) inside diameter, listed, factory-built Solid-Pak chimney section with insulation of 1" (25.4 mm) or more, build a wall pass-through with a minimum 9" (228.6 mm) air space between the outer wall of the chimney length and wall combustibles. Use sheet metal supports fastened securely to wall surfaces on all sides, to maintain the 9" (228.6 mm) air space. When fastening supports to chimney length, do not penetrate the chimney liner (the inside wall of the Solid-Pak chimney). The inner end of the Solid-Pak chimney section shall be flush with the inside of the masonry chimney flue, and sealed with a non-water soluble refractory cement. Use this cement to also seal to the brick masonry penetration.

Method C. 6" (152.4 mm) Clearance to Combustible Wall Member: Starting with a minimum 24 gage (.024" [.61 mm]) 6" (152.4 mm) metal chimney connector, and a minimum 24 gage ventilated wall thimble which has two air channels of 1" (25.4 mm) each, construct a wall pass-through. There shall be a minimum 6" (152.4 mm) separation area containing

fiberglass insulation, from the outer surface of the wall thimble to wall combustibles. Support the wall thimble, and cover its opening with a 24-gage minimum sheet metal support. Maintain the 6" (152.4 mm) space. There should also be a support sized to fit and hold the metal chimney connector. See that the supports are fastened securely to wall surfaces on all sides. Make sure fasteners used to secure the metal chimney connector do not penetrate chimney flue liner.

Method D. 2" (50.8 mm) Clearance to Combustible Wall Member: Start with a solid-pak listed factory built chimney section at least 12" (304 mm) long, with insulation of 1" (25.4 mm) or more, and an inside diameter of 8" (2 inches [51 mm] larger than the 6" [152.4 mm] chimney connector). Use this as a pass-through for a minimum 24-gauge single wall steel chimney connector. Keep solid-pak section concentric with and spaced 1" (25.4 mm) off the chimney connector by way of sheet metal support plates at both ends of chimney section. Cover opening with and support chimney section on both sides with 24 gage minimum sheet metal supports. See that the supports are fastened securely to wall surfaces on all sides. Make sure fasteners used to secure chimney flue line.

**NOTES:**

Connectors to a masonry chimney, excepting method B, shall extend in one continuous section through the wall pass-through system and the chimney wall, to but not past the inner flue liner face.

A chimney connector shall not pass through an attic or roof space, closet or similar concealed space, or a floor, or ceiling.

# Rules For Connector Pipe Installation

1. Crimped end of the pipe must be installed toward the heater. The pipe should slide inside the flue collar. The pipe should be firmly attached to the flue collar with 3 screws and sealed with furnace cement.
2. Slope any horizontal pipe upward toward the chimney at least 1/4 " inch for each foot of horizontal run.
3. You must have at least 18" inches clearance between any horizontal piping and the ceiling.
4. The pipe cannot extend into the chimney flue. (Fig. 8)
5. Seal each connector pipe joint with furnace cement. Also seal the pipe at the chimney.
6. Use 3 sheet metal screws at each joint to make the piping rigid.
7. It is recommended that no more than two (2) 90 degree bends be used in the stove pipe installation as more than two (2) may decrease the amount of draw and possibly cause smoke spillage.
8. The chimney connector must not pass through an attic or roof space, closet, or any concealed space, or floor, ceiling, wall or combustible construction.

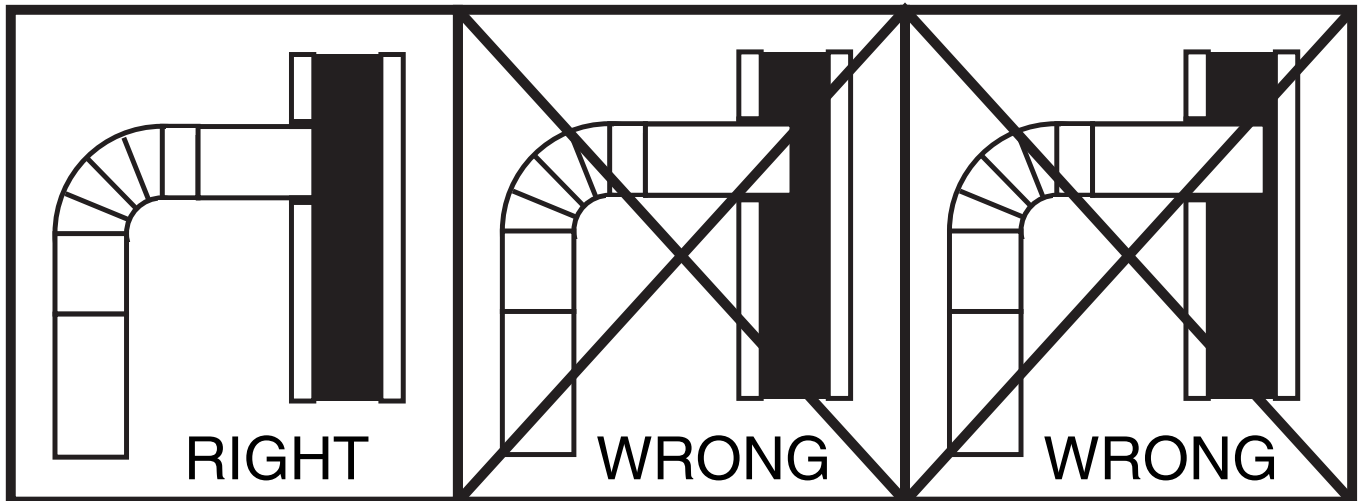


FIGURE 8

## **WOODSTOVE UTILIZATION**

Your heating unit was designed to burn wood only; no other materials should be burned. Waste and other flammable materials should not be burned in your stove. Any type of wood may be used in your stove, but specific varieties have better energy yields than others. Please consult the following table in order to make the best possible choice.

TYPE	WEIGHT (LBS. CU. FT., DRY)	PER CORD	EFFICIENCY RANKING	SPLITS	MILLIONS BTU's/CORD
Hickory	63	4500	1.0	Well	31.5
White Oak	48	4100	.9	Fair	28.6
Red Oak	46	3900	.8	Fair	27.4
Beech	45	3800	.7	Hard	26.8
Sugar Maple	44	3700	.6	Fair	26.2
Black Oak	43	3700	.6	Fair	25.6
Ash	42	3600	.5	Well	25.0
Yellow Birch	40	3400	.4	Hard	23.8
Red Maple	38	3200	.3	Fair	22.6
Paper Birch	37	3100	.3	Easy	22.1
Elm/Sycamore	34	2900	.2	Very Difficult	20.1
Red Spruce	29	1800	.1	Easy	16.1

It is EXTREMELY IMPORTANT that you use DRY WOOD only in your wood stove. The wood should have dried for 9 to 15 months, such that the humidity content (in weight) is reduced below 20% of the weight of the log. It is very important to keep in mind that even if the wood has been cut for one, two or even more years, it is not necessarily dry, if it has been stored in poor conditions. Under extreme conditions it may rot instead of drying. This point cannot be overstressed; the vast majority of the problems related to the operation of a wood stove is caused by the fact that the wood used was too damp or had dried in poor conditions. These problems can be:

- ignition problems
- creosote build-up causing chimney fires
- low energy yield
- blackened windows
- incomplete log combustion

Smaller pieces of wood will dry faster. All logs exceeding 6" in diameter should be split. The wood should not be stored directly on the ground. Air should circulate through the cord. A 24" to 48" air space should be left between each row of logs, which should be placed in the sunniest location possible. The upper layer of wood should be protected from the element but not the sides.

## **VISIBLE SMOKE**

The amount of visible smoke being produced can be an effective method of determining how efficiently the combustion process is taking place at the given settings. Visible smoke consist of unburned fuel and

moisture leaving your stove. Learn to adjust the air settings of your specific unit to produce the smallest amount of visible smoke. Wood that has not been seasoned properly and has a high wood moisture content will produce excess visible smoke and burn poorly.

## **EFFICIENCY**

Efficiencies can be based on either the lower heating value (LHV) or the higher heating value (HHV) of the fuel. The lower heating value is when water leaves the combustion process as a vapor, in the case of wood stoves the moisture in the wood being burned leaves the stove as a vapor. The higher heating value is when water leaves the combustion process completely condensed. In the case of wood stoves this would assume the exhaust gases are room temperature when leaving the system, and therefore calculations using this heating value consider the heat going up the chimney as lost energy. Therefore, efficiency calculated using the lower heating value of wood will be higher than efficiency calculated using the higher heating value. In the United States all wood stove efficiencies should be calculated using the higher heating value.

The best way to achieve optimum efficiencies is to learn the burn characteristic of your appliance and burn well-seasoned wood. Higher burn rates are not always the best heating burn rates; after a good fire is established a lower burn rate may be a better option for efficient heating. A lower burn rate slows the flow of usable heat out of the home through the chimney, and it also consumes less wood.

## **TESTING YOUR WOOD**

When the stove is thoroughly warmed, place one piece of split wood (about five inches in diameter) parallel to the door on the bed of red embers.

Close the door. If ignition of the piece is accomplished within 90 seconds from the time it was placed in the stove, your wood is correctly dried. If ignition takes longer, your wood is damp.

If your wood hisses and water or vapor escapes at the ends of the piece, your wood is soaked or freshly cut. Do not use this wood in your stove. Large amounts of creosote could be deposited in your chimney, creating potential conditions for a chimney fire.

## **TAMPER 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.



# Operating Instructions

## **OPERATIONAL TIPS FOR GOOD, EFFICIENT, AND CLEAN COMBUSTION**

- Get the appliance hot and establish a good coal bed before adjusting to a low burn rate (this may take 30 minutes or more depending on your wood)
- Use smaller pieces of wood during start-up and a high burn rate to increase the stove temperature
- Be considerate of the environment and only burn dry wood
- Burn small, intense fires instead of large, slow burning fires when possible
- Learn your appliance's operating characteristics to obtain optimum performance
- Burning unseasoned wet wood only hurts your stoves efficiency and leads to accelerated creosote buildup in your chimney

## **BUILDING A FIRE**

The top down method of fire building is recommended for this appliance. After making sure that the stove air intake controls are fully open (completely pull-out towards you), Place the largest pieces of wood on the bottom, laid in parallel and close together. Smaller pieces are placed in a second layer, crossways to the first. A third layer of still smaller pieces is laid crossways to the second, this time with some spaces between. Then a fourth layer of loose, small kindling and twisted newspaper sheets tops off the pile.

## **WOOD FUEL**

Use Hardwood that has been split and air-dried to obtain maximum burning efficiency.

Lighting Instructions

1. Open door and place paper and kindling in the firebox.
2. Light the fire and close the doors until the kindling is burning.
3. Open the doors and add fuel as desired.

## **EXTENDED OPERATION**

Fuel should be added in small amounts to give more complete combustion and uniform room temperature. Do not load fuel above the top of the firebrick.

Empty the ashes regularly. Do not allow ashes to build up. Dispose of hot ashes properly in a metal container with a lid.

## **SERVICE HINTS**

Do not expect a heater to draw. It is the chimney

that creates the draft. Smoke spillage into the house or excessive buildup of water or creosote in the chimney are warnings that the chimney is not functioning properly. Correct problem before using heater. Possible causes are:

1. The connector pipe may push into the chimney too far, stopping the draft.
2. Do not connect two heaters into the same chimney flue.
3. The chimney used for a heater must not be used to ventilate the cellar or basement. If there is a cleanout opening at the base of the chimney, it must be closed tightly.
4. If the chimney is operating too cool, water will condense in the chimney and run back into the stove. Creosote formation will be rapid and may block the chimney. Operate the heater at a high enough fire to keep the chimney warm preventing this condensation.
5. If the fire burns well but sometimes smokes or burns slowly, it may be caused by the chimney top being lower than another part of the house or a nearby tree. The wind blowing over a house or tree, falls on top of the chimney like water over a dam, beating down the smoke. The top of the chimney should be at least 3 feet above the roof and be at least 2 feet higher than any point of the roof within 10 feet.

**WARNING:** Never store flammable liquids, especially gasoline. In the vicinity of the heater.

**CAUTION:** Overfiring the appliance may cause a house fire. If a unit or chimney connector glows, you are overfiring. Attempts to achieve heat output rates that exceed heater design specifications can result in permanent damage to the heater and to the catalytic combustor if so equipped.

**CAUTION:** Never use gasoline, gasoline-type lantern fuel, kerosene, charcoal lighter fluid, or flammable liquids to start or "freshen up" a fire in the heater. Keep all such liquids well away from the heater while it is in use.

**WARNING:** Operate only with the feed and ash doors fully closed. Keep seals in good condition.



# Operating Instructions

## **CHIMNEY MAINTENANCE**

- Failure to clean and maintain this unit as indicated can result in poor performance and safety hazards.
- Never perform any inspections, cleaning, or maintenance on a hot heater.
- Do not operate heater with broken glass, leakage of flue gas may result.
- Keep the Chimney and Chimney Connector clean and in good condition.

## **FLUE GAS SYSTEM**

Creosote Formation and Need for Removal When wood is burned slowly, it produces tar and other organic vapors, which combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited this creosote makes an extremely hot fire. The chimney connector and chimney should be inspected at least once every two months 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.

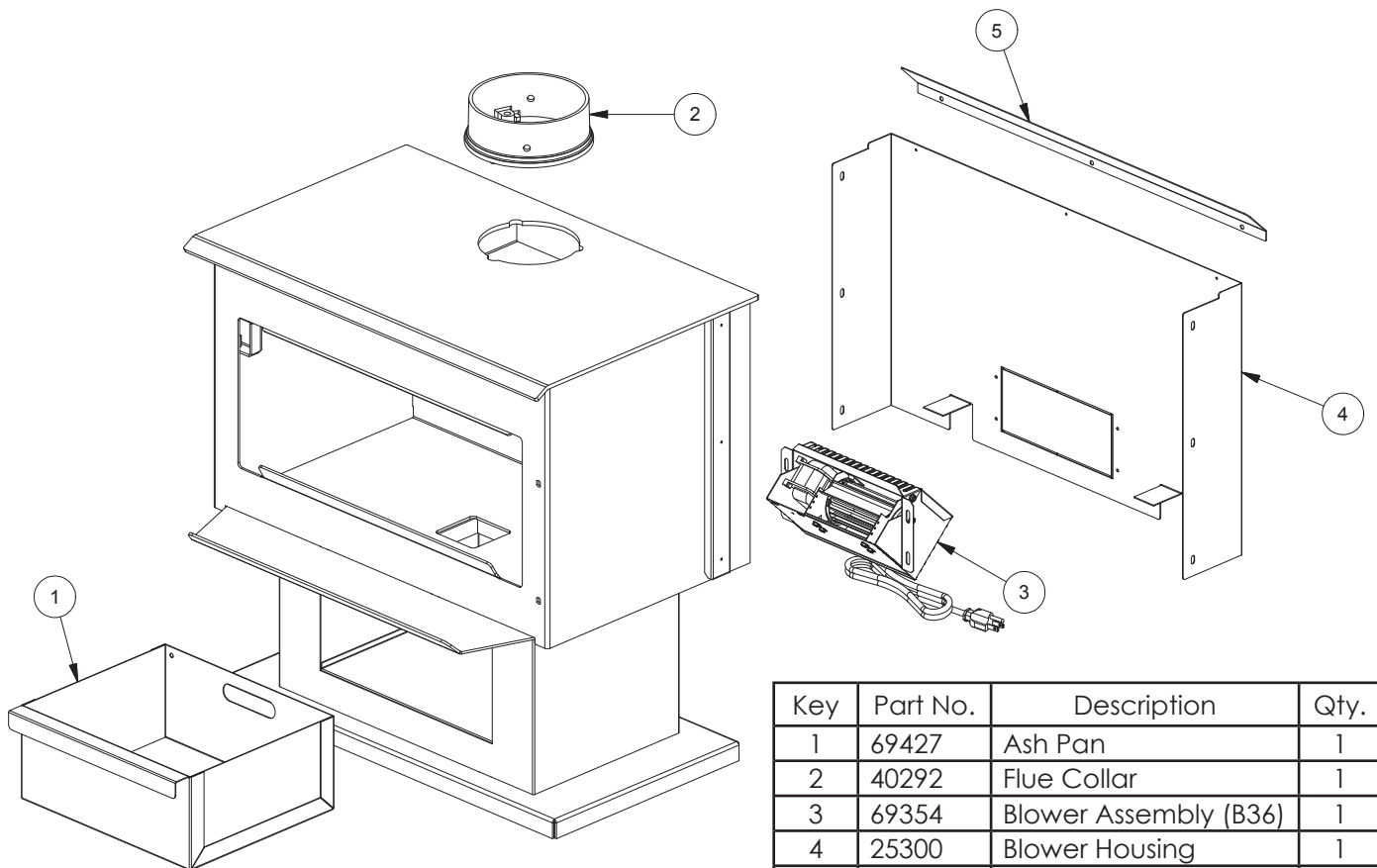
Inspection and Removal – The chimney connector and chimney should be inspected at least twice monthly during the heating season to determine if a creosote buildup has occurred. If creosote has accumulated, it should be removed to reduce the risk of a chimney fire. Inspect the system at the heater connection and at the chimney top. Cooler surfaces tend to build creosote deposits quicker, so it is important to check the chimney from the top as well as from the bottom. The creosote should be removed with a brush specifically designed for the type of chimney in use. A qualified chimney sweep can perform this service. It is also recommended that before each heating season the entire system be professionally inspected, cleaned and, if necessary, repaired. To clean the chimney, disconnect the vent from the heater.

Chimney fires burn very hot. If the chimney connector should glow red, immediately call the fire department, then reduce the fire by pouring a large quantity of coarse salt, baking soda or cool ashes on top of the fire in the firebox.

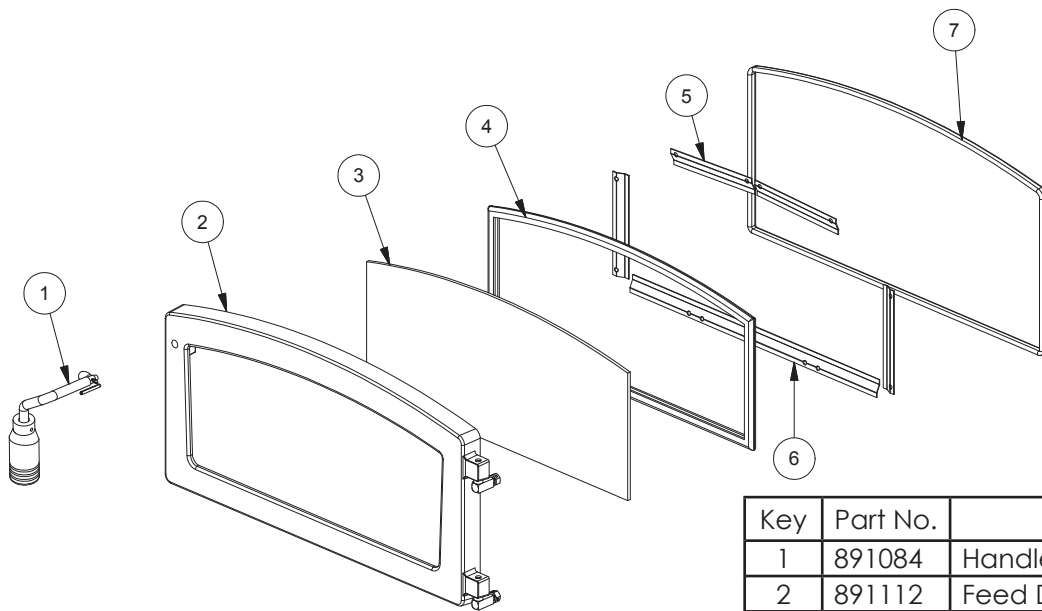
**CAUTION:** A chimney fire may cause ignition of wall studs or rafters which you thought were a safe distance from the chimney. If you have a chimney fire, have your chimney inspected by a qualified person before using again

**CAUTION:** Do not burn your stove with the firing door open, this could cause an over firing situation.

# Repair Parts



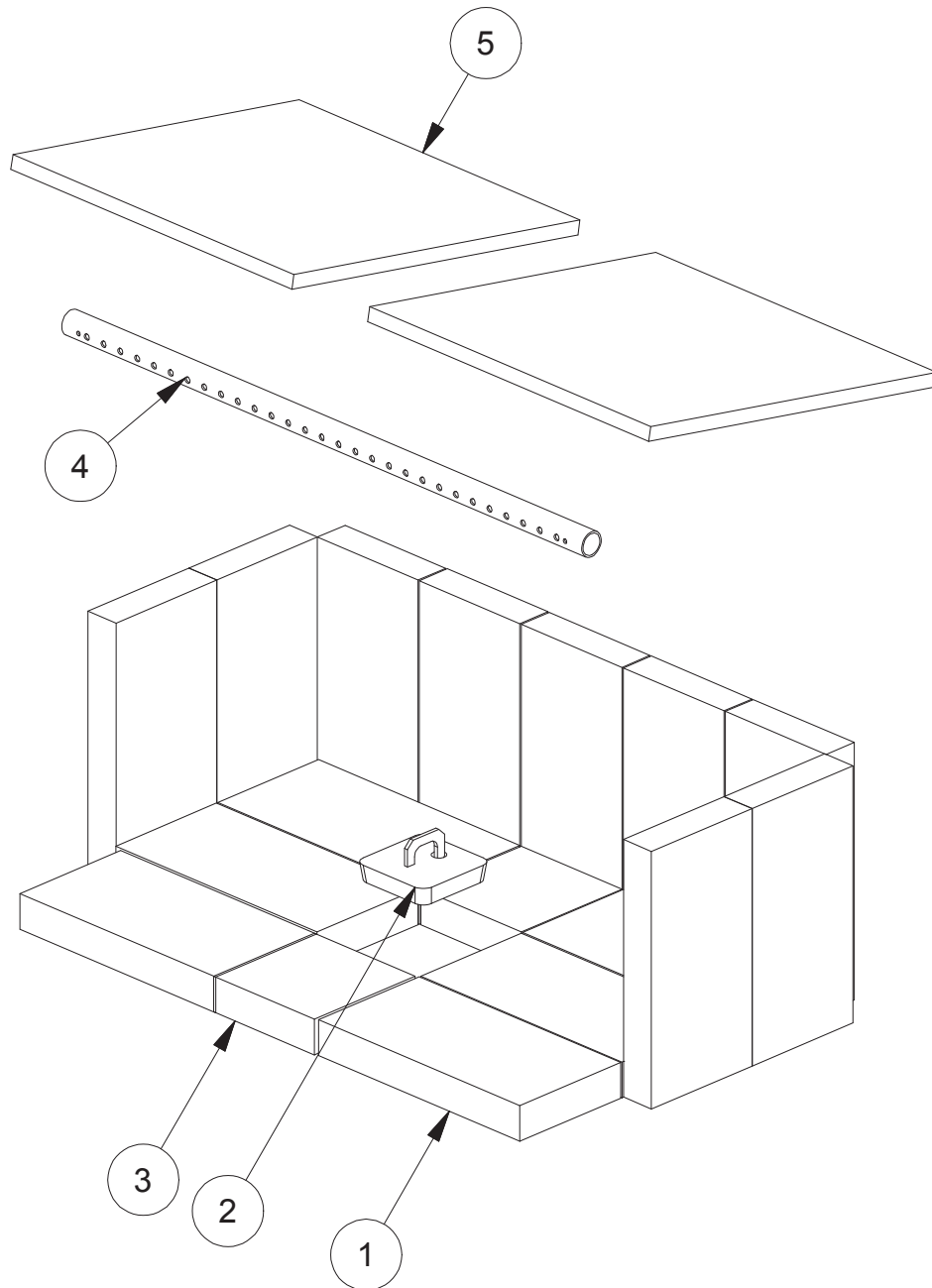
Key	Part No.	Description	Qty.
1	69427	Ash Pan	1
2	40292	Flue Collar	1
3	69354	Blower Assembly (B36)	1
4	25300	Blower Housing	1
5	25305	Deflector, Air	1



Key	Part No.	Description	Qty.
1	891084	Handle Rod	1
2	891112	Feed Door	1
3	891108	Glass w/King Logo	1
4	88087	Door Glass Gasket	1
5	891114	Top/Side Window Bracket	4
6	891115	Bottom Window Bracket	1
7	891113	Feed Door Gasket	1

In order to maintain warranty, components must be replaced using original manufacturers parts purchased through your dealer or directly from the appliance manufacturer. Use of third party components will void the warranty.

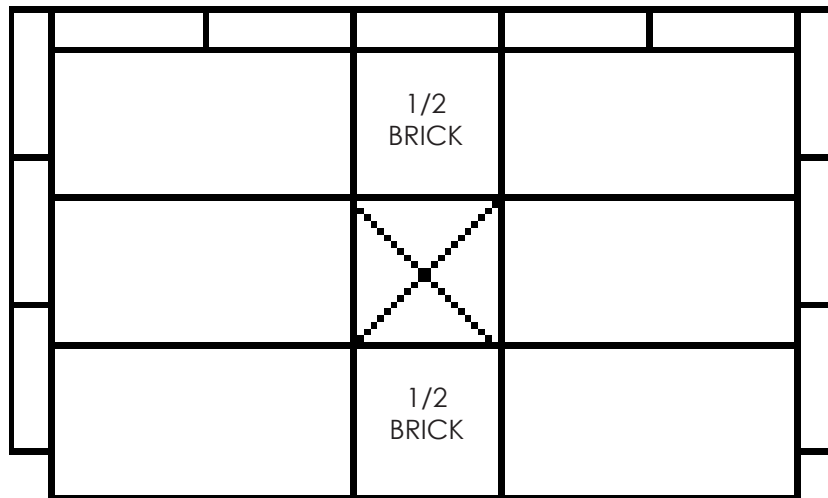
# Repair Parts



Key	Part No.	Description	Qty.
1	89066	Firebrick (4-1/2 X 9)	15
2	40487	Plug, Ash	1
3	24103	Firebrick, Half (4-1/2 X 4-1/2)	2
4	86645	Tube (Ø7/32), Secondary Air	1
5	88250	Board, Ceramic Fiber	2

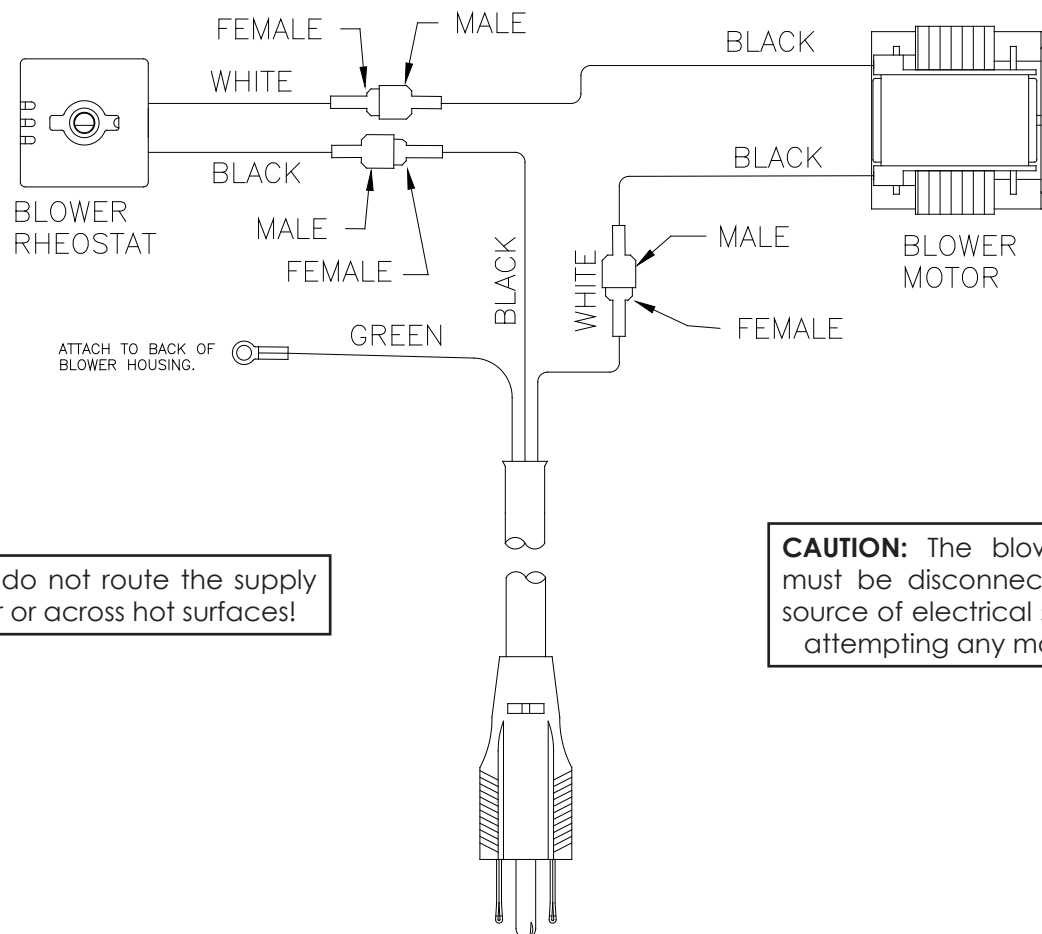
In order to maintain warranty, components must be replaced using original manufacturers parts purchased through your dealer or directly from the appliance manufacturer. Use of third party components will void the warranty.

# Brick Placement - (Top Inside View Of Firebox)



1. Insert right & left side firebrick as shown.
2. Insert rear firebrick as shown.
3. Insert bottom 1/2 firebrick and ash dump cover as shown.

## Wiring Diagram



**WARNING:** do not route the supply cord near or across hot surfaces!

**CAUTION:** The blower assembly must be disconnected from the source of electrical supply before attempting any maintenance.

SUPPLY CORD

# Ashes - Removal And Disposal

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

## 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 material, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.

Other waste shall not be placed in the same container as the ashes.

Ashes should never be placed in a wooden, cardboard, or plastic container, nor in a paper or

plastic bag, no matter how long the fire has been out. Coals have been known to stay hot for several days when embedded in ashes.

**NEVER OPERATE THIS HEATER WITH THE BRICK CRADLE OR THE ASH PAN REMOVED OR DAMAGED.**

## SMOKE AND CO MONITORS

Burning wood naturally produces smoke and carbon monoxide (CO) emissions. CO is a poisonous gas when exposed to elevated concentrations for extended periods of time. While the modern combustion systems in heaters drastically reduce the amount of CO emitted out the chimney, exposure to the gases in closed or confined areas can be dangerous. Make sure your stove gaskets and chimney joints are in good working order and sealing properly to ensure unintended exposure. It is recommended that you use both smoke and CO monitors in areas having the potential to generate CO.

# Glass Replacement Instructions

This unit's door uses a 1/4 X 1/2 diameter rope gasket.

1. Be sure heater has cooled before beginning.
2. Remove 12, 8-32 x 1/4 screws and glass retainers with screw driver.
3. Remove damaged glass (2).
4. To reinstall glass, follow steps 1-2 in reverse order. Be sure to replace the gasket on the glass.
5. Caution: Do not operate with broken glass.
6. When removing broken glass, wear thick gloves, and safety glasses. Keep children away. Discard broken glass.
7. Use part no. 891108 only, to replace broken glass. Glass dimensions (8 7/8 x 20 1/4 x 5mm) high temp resistant ceramic glass.
8. Warning: Do not slam door or strike glass. Slamming door or striking glass may cause glass to break.
9. Caution: Do not build fire directly on glass.

**CAUTION:** Do not build the fire too close to the glass, unless the appliance is specifically designed to operate in this manner.

10. Warning: Do not use substitute materials.
11. Warning: Do not use abrasive cleaners. Abrasive cleaners may damage the glass.

12. Allow the stove to cool before cleaning the glass. DO NOT clean the glass when it is HOT!

13. When cool, clean the glass with a specialized glass cleaner available at your dealer. Keeping the glass clean will result in maximum flame visualization.

## AIR TUBES

The air tubes assembled in this unit are designed to provide an accurate mix of secondary air to insure the highest efficiency. Any damage or deterioration of these tubes may reduce the efficiency of combustion. The air tubes are held in position by either screws or snap pins. Locate these to either side of the tube and remove to allow the tube to be removed and replaced.

# Limited Warranty

The operation of this wood heater in a manner inconsistent with the owner's manual will void your warranty and is also against federal regulations.

United States Stove Company warrants to the original purchaser its products against premature failure of any component due to workmanship, quality, or materials as follows:

### TIME PERIOD:

Firebox .....	Three Year
Heat Exchanger .....	Three Year
Door .....	Three Year
Cabinets and Trim .....	One Year
Gaskets .....	One Year
All Electrical Components (Blower, Auger / Agitator Motor, PC Board, Switches).....	One Year
Ceramic Glass .....	One Year

### CLAIM PROCEDURE

Any defects should be reported to United States Stove Company or its dealer and/or distributor giving descriptions and pertinent data, including proof of purchase which will be returned upon request.

Providing the heater has been installed and used in accordance with the Owners Manual supplied with the heater, United States Stove Company will either:

- 1) Replace the defective part free of charge
- 2) Replace the heater free of charge
- 3) Where the defect is of a cosmetic (non-functional) nature, United States Stove Company will bear reasonable expense to refurbish the heater, including such items as welding, painting, and incidental labor. A "Reasonable" is defined by terms of this warranty as \$30.00/hour with full refund for any purchase of parts from U.S. Stove Company.

### NOT COVERED

Specifically not covered under terms of this limited warranty or any other warranty are problems relating to smoking or creosote. Smoking is attributable to inadequate draft due to the design or installation of the flue system or installation of the heater itself. Creosote formation is largely attributable to improper operation of the unit and/or draft as mentioned above. Also, not covered are:

- 1) Removal and re-installation cost.
- 2) Service calls to diagnose trouble (unless authorized in writing by the manufacturer, distributor, or dealer).
- 3) Painted or plated surfaces.
- 4) Damage or defect caused by improper installation, accidents, misuse, abuse (including overfiring) or alteration.
- 5) Transportation or shipping costs.

### LIMITATIONS AND EXCLUSIONS

- 1) United States Stove Company shall not be liable for incidental, consequential, special, or contingent damages anyone might suffer as a result of their breach of this written warranty or any implied warranty.
- 2) Should the heater be replaced by United States Stove Company "free of charge", all further warranty obligations are thereby met.
- 3) Parts and/or service replacements made under the terms of this warranty are warranted only for the remaining period of the original heater warranty.
- 4) Without specific written exclusionary waivers, no one has authority to add to or vary this limited warranty, or to create for United States Stove Company any further obligation of liability in connection with this heater or any other applicable accessory. Any further warranty implication applicable to this heater or any applicable accessory is limited in duration to the same time period as the original statement in the above schedule.

### YOUR DUTIES

- 1) This heater, including all applicable accessories, must be installed and operated in accordance with local authorities having jurisdiction and the instructions furnished with the Owners Manual.
- 2) You should keep as permanent record your proof of purchase (or canceled check or invoice).

### PROBLEM/RESOLUTION

- 1) As purchaser, you must first contact the dealer and/or distributor from whom you purchased your heater.
- 2) If within a reasonable period of time you do not receive satisfactory service from the distributor and/or dealer, write or call United States Stove Company, Customer Service Department, including complete details of the problem and/or problems you are experiencing, details of your installation, your proof of purchase, and the heater serial number or test agency code number.

### WARRANTOR

The warrantor of record is United States Stove Company, PO Box 151, 227 Industrial Park Road, South Pittsburg, Tennessee 37380.

Phone number: (800)-750-2723 • Website: [www.usstove.com](http://www.usstove.com)

### NOTE

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

### IMPORTANT

**Keep this warranty card for future reference.**

# How to order repair parts

This manual will help you obtain efficient, dependable service from your heater, and enable you to order repair parts correctly.

Keep this manual in a safe place for future reference.

When writing, always give the full model number which is on the nameplate attached to the heater.

When ordering repair parts, always give the following information as shown in this list:

1. The part number \_\_\_\_\_
2. The part description \_\_\_\_\_
3. The model number \_\_\_\_\_
4. The serial number \_\_\_\_\_

United States Stove Company  
227 Industrial Park Road  
South Pittsburg, TN 37380  
(800) 750-2723  
WWW.USSTOVE.COM



# WARRANTY INFORMATION CARD

Name \_\_\_\_\_ Telephone #: (\_\_\_\_) \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Email Address \_\_\_\_\_

Model # of Unit \_\_\_\_\_ Serial # \_\_\_\_\_

Fuel Type:  Wood  Coal  Pellet  Gas  Other \_\_\_\_\_

Place of Purchase (Retailer) \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

If internet purchase, please list website address \_\_\_\_\_

Date of Purchase \_\_\_\_\_

Reason for Purchase:  Alternative Heat  Main Heat Source

Decoration  Cost  Other \_\_\_\_\_

What was the determining factor for purchasing your new appliance? \_\_\_\_\_

I have read the owner's manual that accompanies this unit and fully understand the:

Installation  Operation  and Maintenance  of my new appliance.

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

Please attach a copy of your purchase receipt.

Warranty not valid without a Proof of Purchase.

Warranty information must be received within 30 days of original purchase.

Detach this page from this manual, fold in half with this page to the inside and tape together. Apply a stamp and mail to the address provided. You may use an envelope if you choose.

You may register online by going to [www.usstove.com](http://www.usstove.com)

All information submitted will be kept strictly confidential. Information provided will not be sold for advertising purposes.  
Contact information will be used solely for the purpose of product notifications.

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United States Stove Company  
P.O. Box 151  
South Pittsburg, TN 37380

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