

# Owner's Instruction and Operation Manual



## BRECKWELL

Model Number:

**SW2.0**



Report Number: F20-603

Tested Per EPA Methods ALT-125, ASTM E2515, ASTM E3053 and CSA B415

Certified to UL 1482-2011 (R2015) and ULC-S627-00-REV1

Approved for mobile home installation in the USA Only



\* All Pictures In This Manual Are For Illustrative Purposes Only. Actual Product May Vary.

853760D-1805K

Save These Instructions In A Safe Place For Future Reference.



**SAFETY NOTICE:** If this heater is not properly installed, a house fire may result. For your safety, follow the installation instructions. Never use make-shift compromises during the installation of this heater. Contact local building or fire officials about permits, restrictions and installation requirements in your area. **NEVER OPERATE THIS PRODUCT WHILE UNATTENDED.**



**CAUTION!** Please read this entire manual before you install or use your new room heater. Failure to follow instructions may result in property damage, bodily injury, or even death. Improper Installation Will Void Your Warranty!

### U.S. Environmental Protection Agency

Certified to comply with 2020 particulate emissions standards.



### CALIFORNIA PROPOSITION 65 WARNING:

This product can expose you to chemicals including carbon monoxide, which is known to the State of California to cause cancer, birth defects, and/or other reproductive harm. For more information, go to [www.P65warnings.ca.gov](http://www.P65warnings.ca.gov)

THIS MANUAL IS SUBJECT TO CHANGE WITHOUT NOTICE.

This manual describes the installation and operation of the Breckwell SW2.0 wood heater. This heater meets the 2020 U.S. Environmental Protection Agency’s cordwood emission limits for wood heaters sold after May 15, 2020. Under specific test conditions this heater has been shown to deliver heat at rates ranging from 15,261 to 63,196 Btu/hr with 1 g/hr and 70% efficiency. Note: The BTU ratings mentioned above are based on the EPA test protocol under specific test conditions. Our advertised BTU’s are based on the first hour of operation at high burn rate burning dry cordwood.

Combustible:	Wood
Colors:	Black
Flue Pipe Diameter:	6" (153 mm)
Flue Pipe Type: (Standard Single Wall or Double Wall):	Black or Blued Steel 2100°F (650°C)
Minimum Chimney Height:	12' (3.7 m)
Maximum Log Length:	21" (534 mm)
Electrical:	120VAC, 60Hz, 0.4Amps, 31W
Dimensions	
Overall: Depth x Width x Height:	25-5/8" x 27-1/2" x 37-11/16" (650 mm x 699 mm x 958 mm)
Combustion Chamber: Width x Depth:	22-3/4" x 11-13/16" (578 mm x 300 mm)
Firebox Volume: Cubic Feet:	1.6 cf <sup>3</sup>
Door Opening: Width x Height:	18" x 10" (458 mm X 254 mm)
Pyroceramic Glass Door: (Viewing) Width x Height:	16" x 9" (407 mm X 229 mm)

**CAUTIONS:**

- **HOT WHILE IN OPERATION. KEEP CHILDREN, CLOTHING AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS.**
- **DO NOT USE CHEMICALS OR FLUIDS TO IGNITE THE FIRE.**
- **DO NOT LEAVE THE STOVE UNATTENDED WHEN THE DOOR IS SLIGHTLY OPENED.**
- **DO NOT BURN GARBAGE, FLAMMABLE FLUID SUCH AS GASOLINE, NAPHTHA OR MOTOR OIL.**
- **DO NOT CONNECT TO ANY AIR DISTRIBUTION DUCT OR SYSTEM.**
- **ALWAYS CLOSE THE DOOR AFTER THE IGNITION.**

**WARNING:**

**IT IS AGAINST FEDERAL REGULATIONS TO OPERATE THIS WOOD HEATER IN A MANNER INCONSISTENT WITH THE OPERATING INSTRUCTIONS IN THE OWNER’S MANUAL.**

**RETAIN YOUR ORIGINAL RECEIPT FOR ANY WARRANTY CLAIMS. CONTACT YOUR DEALER OR INSTALLER IF YOU NEED TO FILE A CLAIM.**

# INSTALLATION CHECKLIST



Your wood stove should be installed by a qualified installer only. An NFI qualified Installer can be found at [www.nficertified.org/public/find-an-nfi-pro/](http://www.nficertified.org/public/find-an-nfi-pro/)

For customer service, please contact your Breckwell dealer.

## COMMISSIONING CHECKLIST

This checklist is to be completed in full by the qualified person who installs this unit. Keep this page for future reference. Failure to install and commission according to the manufacturer's instructions and complete this checklist will invalidate the warranty.

Please Print

Customer Name:										Telephone Number:									
Address:																			
Model:																			
Serial Number:																			
Installation Company Name:										Phone Number:									
Installation Technician's Name:										License Number:									

## DESCRIPTION OF WORK

Location of installed appliance: \_\_\_\_\_

Chimney System: New Chimney System  Yes  No If yes, Brand \_\_\_\_\_

If no, Date of inspection of the existing chimney system: \_\_\_\_\_

## COMMISSIONING

- Confirm Hearth Pad Installation as per Installation Instructions .....
- Confirm proper placement of internal parts .....
- Check soundness of door gasket and door seals .....
- Confirm clearances to combustibles as per installation instructions in this manual .....
- Check the operations of the air controls .....
- Confirm all flue pipe and chimney system are secure and sealed .....
- Confirm the stove properly drafts when fired.....
- Check to ensure a CO alarm is installed as per local building codes and is functional.....
- Explain the safe operation, proper fuel usage, cleaning and routine maintenance requirements .....

Declaration of Completion: As the qualified person responsible for the work described above, I confirm that the appliance as associated work has been installed as per manufacturer's instructions and following any applicable building and installation codes.

Signed: \_\_\_\_\_ Print Name: \_\_\_\_\_ Date: \_\_\_\_\_

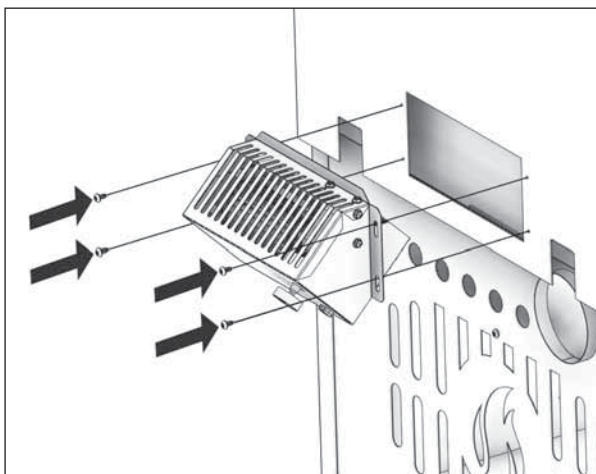
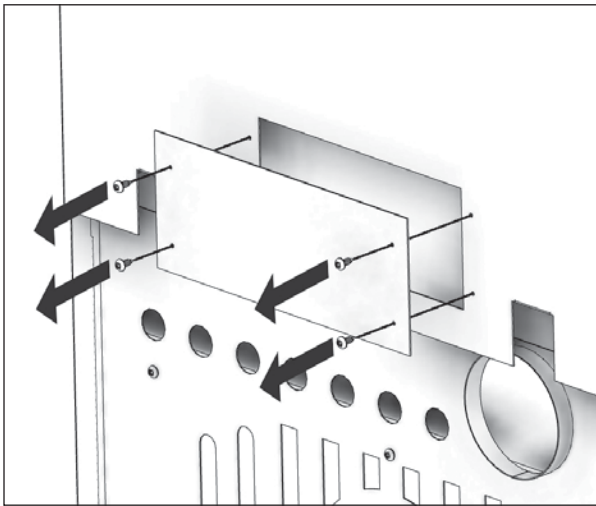
**Home Owner: RETAIN THIS INFORMATION FOR FUTURE REFERENCE**

## UNPACK AND INSPECT

Remove the packing from the appliance and inspect for any damage. Ensure that the bricks are positioned correctly and not broken (see illustration for proper brick arrangement). Make sure that the baffle board, above the air tubes, is in place and undamaged.

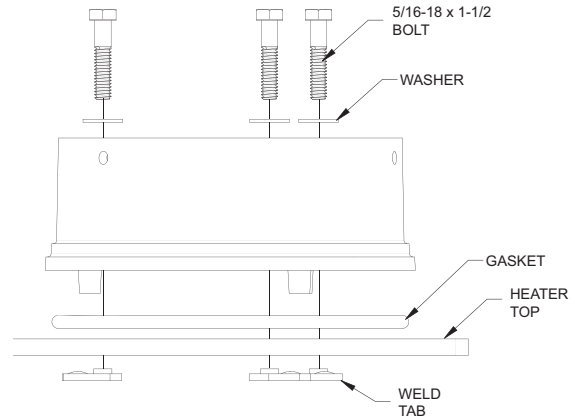
## OPTIONAL BLOWER ASSEMBLY

The blower assembly must be disconnected from the source of electrical supply before attempting the installation. 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! Remove the cover plate. Attach the assembly to the back of the stove with the four screws provided.



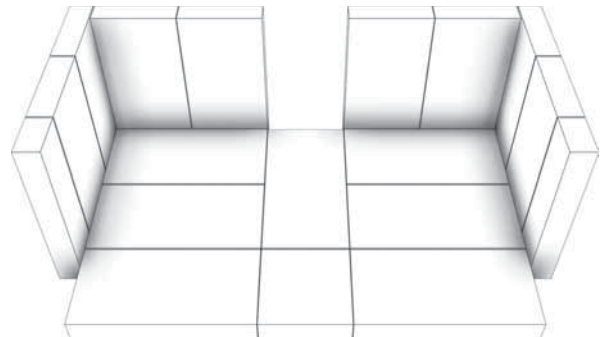
## FLUE COLLAR ASSEMBLY

Mount the flue collar to the top of the unit as shown using the (3) 5/16-18 x 1-1/2 bolts, (3) washers, and (3) weld tabs provided in the parts box.



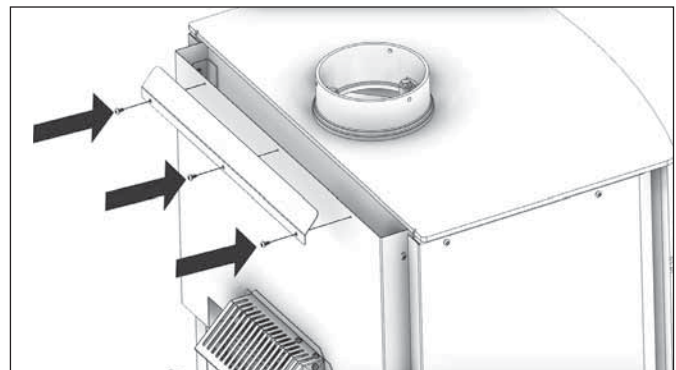
## FIREBRICK CONFIGURATION

Replace the firebrick as shown in the illustration.



## AIR DEFLECTOR ASSEMBLY

Use the provided screws to attach the air deflector to the rear of the unit.



## SAFETY NOTICE

- IF THIS STOVE IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT. TO REDUCE THE RISK OF FIRE, FOLLOW THE INSTALLATION INSTRUCTIONS.
- CONSULT YOUR MUNICIPAL BUILDING DEPARTMENT OR FIRE OFFICIALS ABOUT PERMITS, RESTRICTIONS AND INSTALLATIONS REQUIREMENTS IN YOUR AREA.
- USE SMOKE DETECTORS IN THE ROOM WHERE YOUR STOVE IS INSTALLED.
- KEEP FURNITURE AND DRAPES WELL AWAY FROM THE STOVE.
- NEVER USE GASOLINE, GASOLINE-TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID, OR SIMILAR LIQUIDS TO START OR "FRESHEN UP" A FIRE IN THIS HEATER. KEEP ALL SUCH LIQUIDS WELL AWAY FROM THE HEATER WHILE IT IS IN USE.
- IN THE EVENT OF A CHIMNEY FIRE, PUSH THE AIR CONTROL FULL CLOSED TO DEPRIVE THE FIRE OF OXYGEN. CALL THE FIRE DEPARTMENT.
- DO NOT CONNECT TO ANY AIR DISTRIBUTION DUCT OR SYSTEM.
- A SOURCE OF FRESH AIR INTO THE ROOM OR SPACE HEATED SHALL BE PROVIDED WHEN REQUIRED.



**NATIONAL FIREPLACE INSTITUTE**  
We recommend that our woodburning hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Woodburning Specialists or who are certified in Canada by Wood Energy Technical Training (WETT).



**CERTIFIED**  
www.nficertified.org

US Stove highly recommends your stove be installed by a qualified NFI (US) or WETT (Canada) technician. To find the nearest qualified installer, go to:

<https://nficertified.org>,

<https://www.wettinc.ca/>

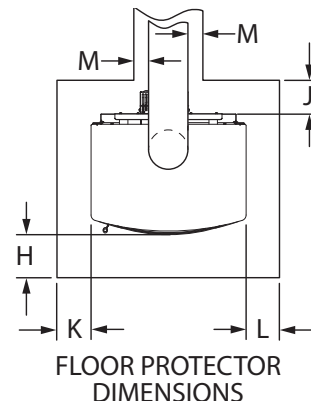
## POSITIONING THE STOVE

It is very important to position the wood stove as close as possible to the chimney, and in an area that will favor the most efficient heat distribution possible throughout the house. The stove must therefore be installed in the room where the most time is spent, and in the most spacious room possible. Recall that wood stoves produce radiating heat, the heat we feel when we are close to a wood stove. A wood stove also functions by convection, that is through the displacement

of hot air accelerated upwards and its replacement with cooler air. If necessary, the hot air distribution from the stove may be facilitated by the installation of a blower. The wood stove must not be hooked up to a hot air distribution system since an excessive accumulation of heat may occur. A wood stove must never be installed in a hallway or near a staircase, since it may block the way in case of fire or fail to respect required clearances.

## FLOOR PROTECTOR

This heater must have a non-combustible floor protector (ember protection) installed beneath it if the floor is of combustible material. If a floor pad is used, it should be UL listed or equal. The floor pad or non-combustible surface should be large enough to extend under the stove and beyond each side as indicated. If there is a horizontal run of flue pipe, there needs to be floor protection under it that extends two inches beyond either side of the pipe.



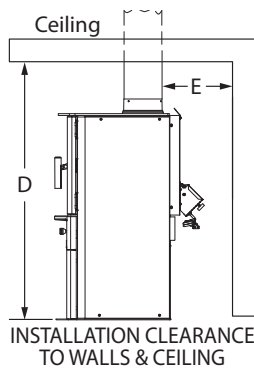
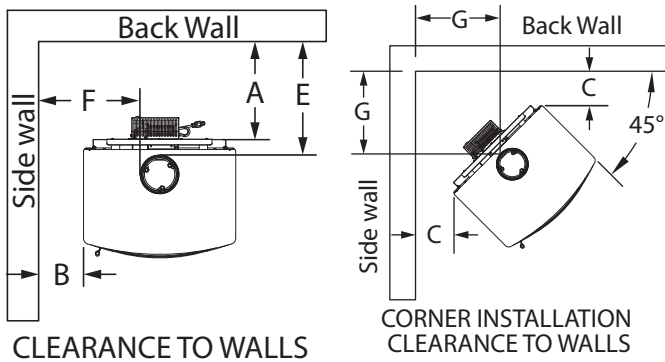
*H	Front	16"	407 mm
J	Back	2"	51 mm
K	Left	8"	204 mm
L	Right	8"	204 mm
M	Flue Pipe Sides	2"	51 mm
* Canadian installations require 18" (457 mm)			

## CLEARANCES TO COMBUSTIBLES

It is of utmost importance that the clearances to combustible materials be strictly adhered to during installation of the stove. Refer to the provided tables.

- Do not place any combustible material within 4' (1.2m) of the front of the unit.
- The clearance between the flue pipe and a wall are valid only for vertical walls and for vertical flue pipe.
- The chimney connector must not pass through an attic or roof space, closet or similar concealed space, a floor, or a ceiling.

- For Canadian installations, where passage through a wall, or partition of combustible construction is desired, the installation must conform to CAN/CSA-B365.
- A flue pipe crossing a combustible wall must have a minimum clearance of 18" (458 mm).
- To reduce flue clearances from combustible materials, contact your local safety department.



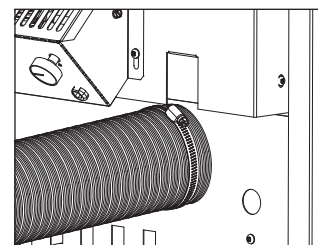
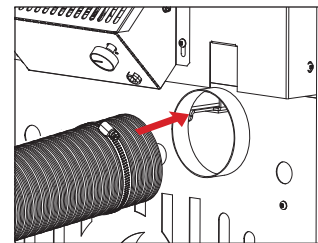
Single Wall (Double Wall)		in	mm
A	Back Wall to Stove	13 (12)	331 (305)
B	Sidewall to Stove	16 (15)	407 (381)
C	Wall to corner (Angled Installation)	12 (12)	305 (305)
D	Ceiling Height	84	2134
E	Back Wall to Flue	17 (15-3/4)	432 (400)
F	Sidewall to Flue	26-1/2 (25-1/4)	674 (642)
G	Wall to Flue (Angled Installation)	22 (21-3/4)	559 (553)

## OUTSIDE COMBUSTION AIR

Your wood stove is approved to be installed with an outside air intake (4FAK) which is necessary for a mobile home. This type of installation is also required in air tight houses and houses with negative pressure problems. You can purchase this option through your heater dealer. Make

sure to specify the part number mentioned in this booklet. Installation instructions are supplied with the air intake kit. Outside combustion air may be required if

1. Your stove does not draw steadily, smoke roll-out occurs, wood burns poorly, or back-drafts occur whether or not there is combustion present.
2. Existing fuel-fired equipment in the house, such as fireplaces or other heating appliances, smell, do not operate properly, suffer smoke roll-out when opened, or back-drafts occur whether or not there is combustion present.
3. Opening a window slightly on a calm (windless) day alleviates any of the above symptoms.
4. The house is equipped with a well-sealed vapor barrier and tight fitting windows and/or has any powered devices that exhaust house air.
5. There is excessive condensation on windows in the winter.
6. A ventilation system is installed in the house



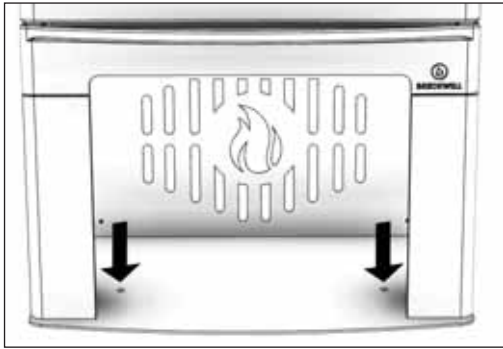
Slide the hose clamp over the aluminium flex pipe. Then slide the flex pipe over the air intake tube of the stove. Next tighten the hose clamp over the end of the aluminium flex hose.

FOR USE IN MOBILE HOMES (U.S. ONLY)
<ul style="list-style-type: none"> <li>• <b>WARNING! DO NOT INSTALL IN SLEEPING ROOM.</b></li> <li>• <b>CAUTION! THE STRUCTURAL INTEGRITY OF THE MOBILE HOME FLOOR, WALL, AND CEILING/ROOF MUST BE MAINTAINED.</b></li> <li>• <b>THE STOVE MUST BE ATTACHED TO THE STRUCTURE OF THE MOBILE HOME.</b></li> </ul>



## SECURE APPLIANCE TO THE FLOOR

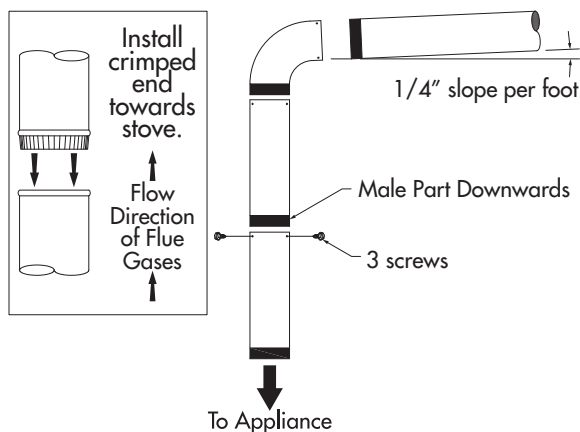
Use the designated holes to secure the unit to the floor.



In addition to the previously detailed installation requirements, mobile home installations must meet the following requirements:

- The heater must be permanently attached to the floor. There are two holes in the base, use 3/8" bolts through the floor.
- The heater must be electrically grounded to the steel chassis of the mobile home with 8 GA copper wire using a serrated or star washer to penetrate paint or protective coating to ensure grounding.
- When moving your mobile home, all exterior venting must be removed while the mobile home is being relocated. After relocation, all venting must be reinstalled and securely fastened.
- Outside Air is mandatory for mobile home installation. See your dealer for purchasing.
- Check with your local building officials as other codes may apply.
- Only use the specified components listed in this manual for this unit. The use of components that are not meant for this unit can cause unsafe conditions.

## CHIMNEY CONNECTOR (STOVEPIPE)



The 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 to ensure there will be no problem with the draft. The stovepipe must be made of aluminized or cold roll steel and have a minimum thickness of 0.021" or 0.53 mm. It is strictly forbidden to use galvanized steel. The smoke pipe should be assembled to promote the male section (crimped end) of the pipe to be faced down. Attach each section to another with three equidistant metal screws. The pipe must be short and straight. All sections installed horizontally must slope at least 1/4 inch per foot, with the upper end of the section toward the chimney. Any installation with a horizontal run of chimney pipe must conform to NFPA 211. Contact NFPA (National Fire Protection Association) and request the latest edition of the NFPA Standard 211. To ensure a good draft, the total length of the coupling pipe should never exceed 8' to 10' (2.4m to 3.04m). Except for cases of vertical installation, in a cathedral-roof style where the smoke exhaust system can be much longer and connected without problem to the chimney at the ceiling of the room. There should never be more than two 90 degree elbows in the smoke exhaust system. The installation of a "barometric draft stabilizer" (fireplace register) on a smoke exhaust system is prohibited. Furthermore, the installation of a draft damper is not recommended. With a controlled combustion wood stove, the draft is regulated upon intake of the combustion air in the stove and not at the exhaust.

## IMPORTANCE OF PROPER DRAFT

Draft is a force that moves air from the appliance up through the chimney. The amount of draft in your chimney depends on the length of the chimney, local geography, nearby obstructions and other factors. Too much draft may cause excessive temperatures in the appliance. An inadequate draft may cause back-puffing into the room and "plugging" of the chimney. An 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 an excessive draft.

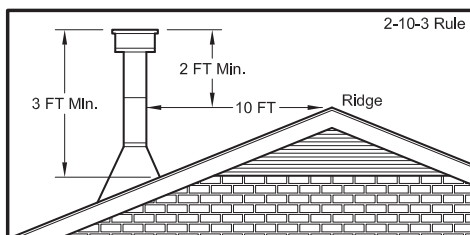
## CHIMNEY

Your wood stove may be hooked up with a 6" factory-built or masonry chimney. If you are using a factory-built chimney, it must comply with UL 103 or CSA-B365 standard; therefore it must be a Type HT (2100°F). It must be installed according to the manufacturer's specifications. Take into account the chimney's location to ensure it is not too close to neighbors or in a valley which may cause unhealthy or nuisance conditions. If you are using a masonry chimney, it must be built in compliance with the specifications of the National Building Code. It must be lined with fire clay bricks, metal

or clay tiles sealed together with fire cement. Round flues are the most efficient. The interior diameter of the chimney flue must be identical to the stove smoke exhaust. A flue which is too small may cause draft problems, while a large flue favors rapid cooling of the gas, and hence the build-up of creosote and the risk of chimney fires. Note that it is the chimney and not the stove which creates the draft effect; your stove's performance is directly dependent on an adequate draft from your chimney. **DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.**

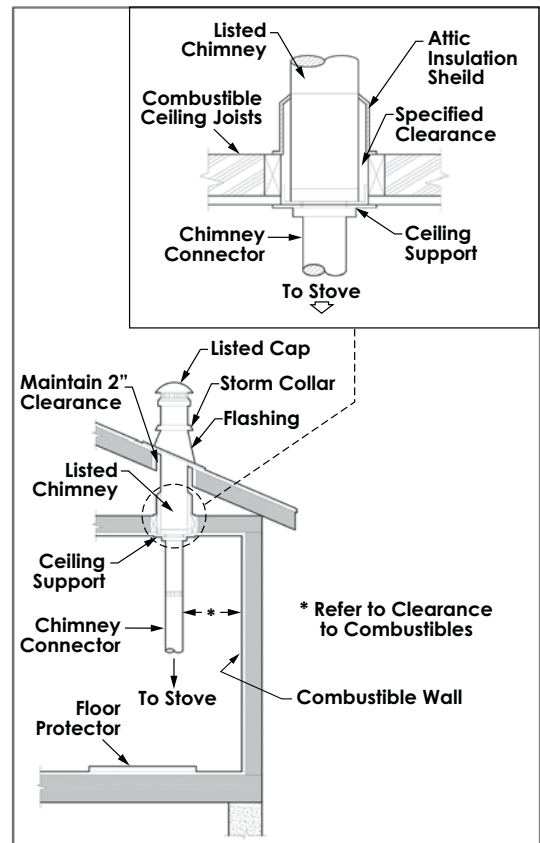
The following recommendations may be useful for the installation of your chimney:

1. It must rise above the roof at least 3' (0.9m) from the uppermost point of contact.
2. The chimney must exceed any part of the building or other obstruction within a 10' (3.04m) distance by a height of 2' (0.6m).
3. The installation of an interior chimney is always preferable to an exterior chimney. Indeed, the interior chimney will, by definition, be hotter than an exterior chimney, being heated up by the ambient air in the house. Therefore the gas which circulates will cool more slowly, thus reducing the build-up of creosote and the risk of chimney fires.
4. The draft caused by the tendency for hot air to rise will be increased with an interior chimney.
5. Using a fire screen at the extremity of the chimney requires regular inspection to ensure that it is not obstructed thus blocking the draft, and it should be cleaned when used regularly.

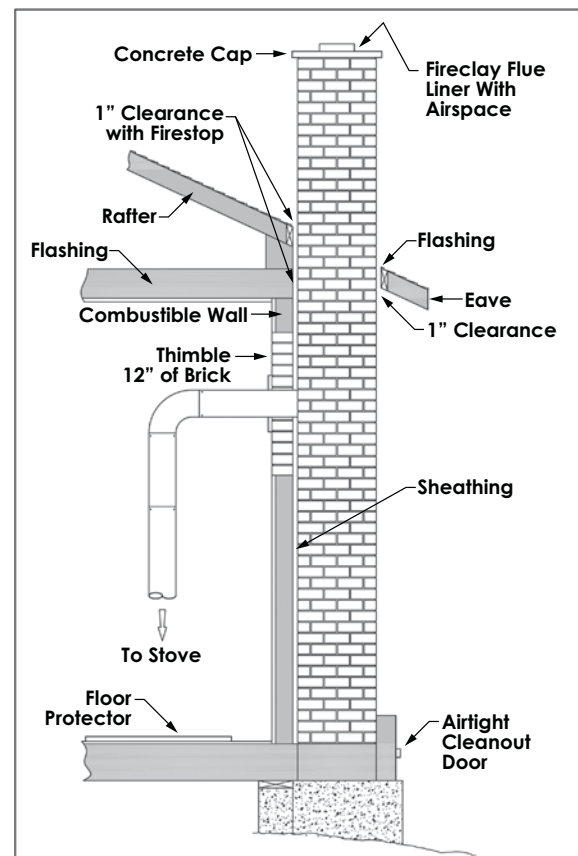


## FACTORY BUILT CHIMNEY

When a metal prefabricated chimney is used, the manufacturer's installation instructions must be followed. You must also purchase (from the same manufacturer) and install the ceiling support package or wall pass-through and "T" section package, firestops (where needed), insulation shield, roof flashing, chimney cap, etc. Maintain proper clearance to the structure as recommended by the manufacturer. The chimney must be the required height above the roof or other obstructions for safety and proper draft operation.



## MASONRY CHIMNEY

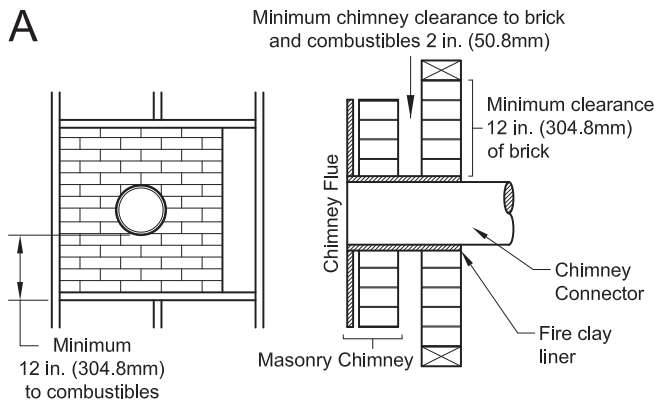




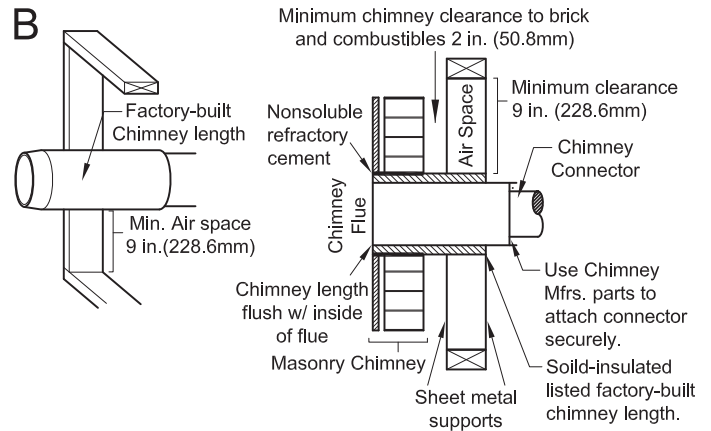
Ensure that a masonry chimney meets the minimum standards of the National Fire Protection Association (NFPA) by having it inspected by a professional. Make sure there are no cracks, loose mortar or other signs of deterioration and blockage. Be sure to the chimney cleaned before the stove is installed and operated. When connecting the stove through a combustible wall to a masonry chimney, special methods are needed.

## COMBUSTIBLE WALL CHIMNEY CONNECTOR PASS-THROUGHS

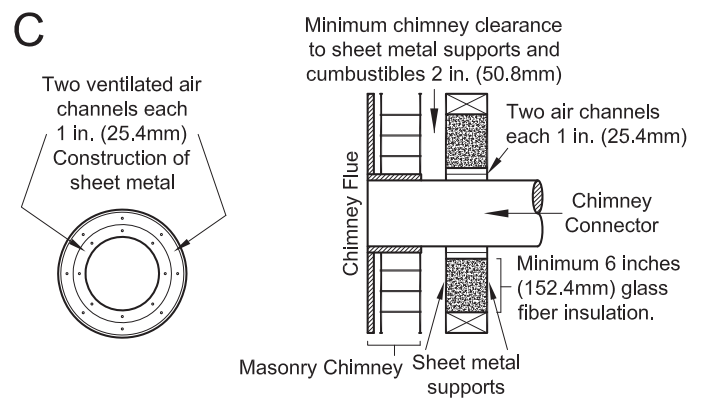
**METHOD A - 12" (305 mm) Clearance to Combustible Wall Member:** Using a minimum thickness 3.5" (89 mm) brick and a 5/8" (16 mm) minimum wall thickness clay liner, construct a wall pass-through. The clay liner must conform to ASTM C315 (Standard Specification for Clay Fire Linings) or its equivalent. Keep a minimum of 12" (305 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" (229 mm) Clearance to Combustible Wall Member:** Using a 6" (153 mm) inside diameter, listed, factory-built Solid-Pak chimney section with insulation of 1" (26 mm) or more, build a wall pass-through with a minimum 9" (229 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" (229 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.

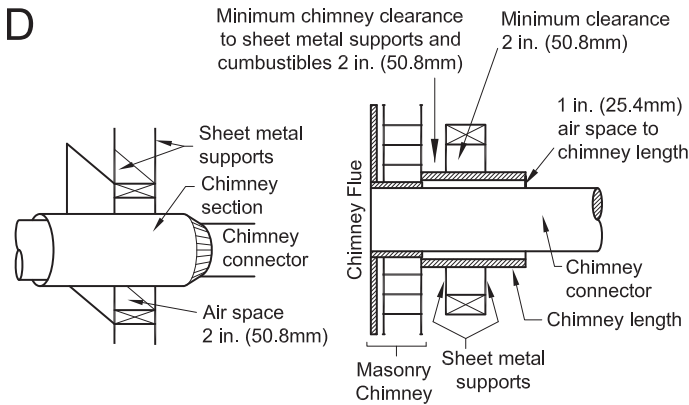


**METHOD C - 6" (153 mm) Clearance to Combustible Wall Member:** Starting with a minimum 24 gage (.024" [.61 mm]) 6" (153 mm) metal chimney connector, and a minimum 24 gage ventilated wall thimble which has two air channels of 1" (26 mm) each, construct a wall pass-through. There shall be a minimum 6" (153 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" (153 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" (51 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" [153 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" (26 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 do not penetrate the inner liner.



## 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.

## OPERATION

### NEVER OPERATE THIS PRODUCT WHILE UNATTENDED

#### OPERATING SAFETY PRECAUTIONS

- **NEVER OVERFIRE THIS APPLIANCE BY BUILDING EXCESSIVELY HOT FIRES AS A HOUSE/BUILDING FIRE MAY RESULT. YOU ARE OVERFIRING THE APPLIANCE IF IT BEGINS TO GLOW OR TURN RED.**
- **NEVER BUILD EXCESSIVELY LARGE FIRES IN THIS TYPE OF APPLIANCE AS DAMAGE TO THE FIREBOX OR SMOKE LEAKAGE MAY RESULT.**
- **DO NOT BUILD FIRE TOO CLOSE TO THE GLASS.**
- **HOT WHILE IN OPERATION. KEEP CHILDREN, CLOTHING, AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS. DO NOT TOUCH THE APPLIANCE UNTIL IT HAS COOLED.**
- **PROVIDE ADEQUATE AIR FOR COMBUSTION TO THE ROOM WHERE THE APPLIANCE IS INSTALLED.**
- **INSPECT CHIMNEY LINER EVERY 60 DAYS. REPLACE LINER IMMEDIATELY IF IT IS RUSTING OR LEAKING SMOKE INTO THE ROOM.**
- **ATTEMPTS TO ACHIEVE HEAT OUTPUT RATES THAT EXCEED HEATER DESIGN SPECIFICATIONS CAN RESULT IN PERMANENT DAMAGE TO THE HEATER.**

#### WARNING: EXPLOSION HAZARD

- **NEVER USE CHEMICALS, GASOLINE, GASOLINE-TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID, OR SIMILAR FLAMMABLE LIQUIDS TO START OR "FRESHEN UP" A FIRE IN THE APPLIANCE.**
- **KEEP ALL FLAMMABLE LIQUIDS, ESPECIALLY GASOLINE, OUT OF THE VICINITY OF THE APPLIANCE - WHETHER IN USE OR IN STORAGE.**

#### CAUTIONS: HOUSE FIRE HAZARDS

- **DO NOT STORE WOOD ON FLOOR PROTECTOR, UNDERNEATH STOVEPIPE(S) OR ANYWHERE WITHIN CLEARANCES TO COMBUSTIBLE SURFACES SPECIFIED FOR THIS APPLIANCE.**
- **NEVER OPERATE WITH SECONDARY TUBES, FIBERBOARD, OR INSULATION REMOVED.**

#### WOOD STOVE UTILIZATION

Your heating appliance was designed to burn well seasoned natural wood only; no other materials should be burned. Any type of well seasoned natural wood may be used in your stove, but specific varieties have better energy yields than others. Higher efficiencies and lower emissions generally result when burning air dried seasoned

hardwoods, as compared to softwoods or too green or freshly cut hardwoods. The following resources can assist in learning the burn characteristics of various species of wood: <http://firewoodresource.com/firewood-btu-ratings/>; or <https://forestry.usu.edu/forest-products/wood-heating> 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. Waste and other flammable materials should not be burned in your stove. **DO NOT BURN:**

1. Garbage;
2. Lawn clippings or yard waste;
3. Materials containing rubber, including tires;
4. Materials containing plastic;
5. Waste petroleum products, paints or paint thinners, or asphalt products;
6. Materials containing asbestos;
7. Construction or demolition debris;
8. Railroad ties or pressure-treated wood;
9. Manure or animal remains;
10. Saltwater driftwood or other previously salt water-saturated materials;
11. Unseasoned wood; or
12. Paper products, cardboard, plywood, or particleboard. The prohibition against burning these materials does not prohibit the use of fire starters made from paper, cardboard, sawdust, wax, and similar substances to start a fire in an affected wood heater.

Burning these materials may result in the release of toxic fumes or render the heater ineffective and cause smoke. Deadwood lying on the forest floor should be considered wet and requires full seasoning time. Standing deadwood can usually be considered to be about 2/3 seasoned. 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 logs. 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. A good indicator of if the wood is ready to burn is to check the piece ends. If cracks are radiating in all directions from the center then the wood should be dry enough to burn. If your wood sizzles in the fire, even though the surface is dry, it may not be fully cured and should be seasoned longer. 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

**Do not burn manufactured logs made of wax impregnated sawdust or logs with any chemical additives.**



Manufactured logs made of 100% compressed sawdust can be burned, but be careful burning too much of these logs at the same time. Start with one manufactured log and see how the stove reacts. You can increase the number of logs burned at a time but make sure the temperature never rises higher than 475 °F (246 °C) on a magnetic thermometer for installation on single wall stove pipes or 900 °F (482 °C) on a probe thermometer for installation on double wall stove pipe. The thermometer should be placed about 18" (457 mm) above the stove. Higher temperatures can lead to overheat and damage your stove.

## 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.
- Keep the air control fully open and close the door. If the wood ignites 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 (green). 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.

## EFFICIENCIES

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 woodstoves 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 woodstoves 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. 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.

## NOTICE INITIAL BURNS TO CURE PAINT

BECAUSE OF HIGH OPERATING TEMPERATURES, THIS APPLIANCE IS COATED WITH A SPECIAL HIGH TEMP PAINT WHICH REQUIRES A SERIES OF LOW TO MEDIUM BURNS TO FULLY CURE FOR DURABILITY AND A LIFETIME OF SERVICE.

Proper curing of the high-temp paint requires a series of three initial burns. The appliance should be allowed to cool off between each burn. The first two burns should be small fires and low temperatures (250°F) for a duration of 20 minutes each. The third fire should be at a temperature of approximately 500°F for 20 minutes. Provide adequate cross ventilation to clear any smoke or odor caused by initial firings.

**Notice: Use solid wood fuel only! Do not burn garbage, or flammable fluids. Do not use coal. This appliance is not designed to accommodate the air flow (draft) required to properly burn coal or coal products. Do not elevate the fire using grates or irons. Build the fire directly on the firebrick.**

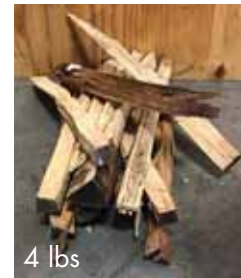
## FUELING INSTRUCTIONS

This wood stove has been certified by the US EPA to meet strict 2020 guidelines. To ensure this unit produces the optimal minimum emissions it is critical that only well-seasoned cordwood is burned (see the "Fuel Recommendations" section of this manual). Burning unseasoned wet wood only hurts your stove's efficiency and leads to accelerated creosote buildup in your chimney. Be considerate of the environment and only burn dry wood.

### CAUTION:

**DO NOT LEAVE APPLIANCE UNATTENDED THE WITH DOOR OPEN.**

For a cold start-up, place 3 to 4 pieces of newspaper into the firebox. On top of the newspaper, lay 3 lbs of kindling in random placement to ensure airflow through the kindling. On top of the kindling, place approximately 4 lbs of small pieces of cordwood. NOTE: Use smaller pieces of wood during start-up and a high burn rate to increase the stove temperature.



Pull the air control out fully. Light the newspaper and leave the door slightly open for 2 minutes. Close the door and allow the kindling to ignite. Once the kindling has burned down to a starter coal bed, load the unit with approximately 17 lbs of fuel for the first high burn load.



After the first high burn load and the stove is well warmed up, adjust the unit as needed for a medium or low burn setting.



For a medium burn, once the high burn fuel load is burned down to an established coal bed, load the unit with 18 lbs of cordwood and keep the door slightly open for 3 minutes. Leave the air control fully open (in the "HI" position) for 13 minutes. After 15 minutes push in the air control to the medium position (midway between the "Low" and "Hi" position).

For a low burn setting once the high burn (or medium) fuel load is burned down to an established coal bed, load the unit with 19 lbs of cordwood and close the door immediately. Leave the air control fully open (in the "HI" position) for 13 minutes. After 15 minutes begin to push the air control in to the "Low" position (air control fully pushed in). NOTE: Do not close the air too quickly. Closing the air too quickly will cause the unit to smoke.



## WARNINGS:

- NEVER OVERFIRE YOUR STOVE. IF ANY PART OF THE STOVE STARTS TO GLOW RED, OVER FIRING IS HAPPENING. READJUST THE AIR INTAKE CONTROL AT A LOWER SETTING.
- THE INSTALLATION OF A LOG CRADLE OR GRATES IS NOT RECOMMENDED IN YOUR WOOD STOVE. BUILD FIRE DIRECTLY ON FIREBRICK.
- NEVER PUT WOOD ABOVE THE FIREBRICK LINING OF THE FIREBOX.
- ATTEMPTS TO ACHIEVE HEAT OUTPUT RATES THAT EXCEED HEATER DESIGN SPECIFICATIONS CAN RESULT IN PERMANENT DAMAGE TO THE HEATER.

## VISIBLE SMOKE

The amount of visible smoke being produced can be an effective method of determining how efficiently the combustion process is taking place in the given settings. Visible smoke consists 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.

## AIR TUBES

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

## (OPTIONAL) BLOWER OPERATION

The variable speed blower circulates air warmed by the firebox into the living area to distribute the heat more evenly. If the Rotary Switch is turned on, the blower will automatically come on and off based on stove temperature. The blower control knob is located on the side of the blower housing. Turn the knob clockwise to turn the blower on. The speed is controlled by turning the knob clockwise for slower speeds and counter-clockwise for faster speeds. To turn the blower off, turn the speed control knob fully counter-clockwise. It is recommended to turn the blower off when the unit is not in operation. The blower needs to be removed and air-blown clean. Make sure the blades do not have build up.

## NEVER OPERATE THIS PRODUCT WHILE UNATTENDED

**CAUTION:**

**DO NOT OVERFIRE APPLIANCE. YOU ARE OVERFIRING IF ANY PART OF THE APPLIANCE GLOWS RED. CLOSE THE DOOR AND SHUT DAMPER IMMEDIATELY TO REDUCE THE AIR SUPPLY AND SLOW DOWN THE FIRE.**

**CAUTION:**

**SLOW BURNING FIRES FOR EXTENDED USE OR BURNING GREEN WOOD MAY CAUSE EXCESSIVE CREOSOTE BUILD-UP. IGNITION OF CREOSOTE OR OVERFIRING COULD CAUSE A CHIMNEY FIRE. CHIMNEY FIRES BURN EXTREMELY HOT AND MAY IGNITE SURROUNDING COMBUSTIBLE MATERIALS. IN CASE OF A CHIMNEY FIRE, CALL THE FIRE DEPARTMENT IMMEDIATELY!**

cool, then inspect the chimney for damage. If no damage results, perform a chimney cleaning to ensure no more creosote deposits is remaining in the chimney.

**CAUTION:**

**A CHIMNEY FIRE MAY CAUSE IGNITION OF WALL STUDS OR RAFTERS WHICH WERE ASSUMED TO BE A SAFE DISTANCE AWAY FROM THE CHIMNEY. IF A CHIMNEY FIRE OCCURS, HAVE YOUR CHIMNEY INSPECTED BY A QUALIFIED EXPERT BEFORE USING AGAIN.**

### CREOSOTE FORMATION & 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 high temper fire. The chimney connector and chimney should be inspected at least once every two months during the heating season to determine if a creosote build-up has occurred. If creosote has accumulated (3 mm or more), it should be removed to reduce the risk of a chimney fire. We strongly recommend that you install a magnetic thermometer on your smoke exhaust pipe, approximately 18" above the stove. This thermometer will indicate the temperature of your gas exhaust fumes within the smoke exhaust system. The ideal temperature for these gases is somewhere between 275°F and 500°F. Below these temperatures, the build-up of creosote is promoted. Above 500°F, heat is wasted since a too large quantity is lost into the atmosphere.

### TO PREVENT CREOSOTE BUILD UP

- Always burn dry wood. This allows clean burns and higher chimney temperatures, therefore less creosote deposit.
- Leave the air control fully open for about 5 min. every time you reload the stove to bring it back to proper operating temperatures. The secondary combustion can only take place if the firebox is hot enough.
- Always check for creosote deposit once every two months and have your chimney cleaned at least once a year.
- If a chimney or creosote fire occurs, close all dampers immediately. Wait for the fire to go out and the heater to

### ASH REMOVAL & 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. 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 the ground, away from all combustible materials, pending final disposal. The ashes should be retained in the closed container until all cinders have thoroughly cooled.

**CAUTIONS:**

- **ASHES COULD CONTAIN HOT EMBERS EVEN AFTER TWO DAYS WITHOUT OPERATING THE STOVE.**
- **THE ASH PAN CAN BECOME VERY HOT. WEAR GLOVES TO PREVENT INJURY.**
- **NEVER BURN THE STOVE WITH THE ASH TRAP OPEN. THIS WOULD RESULT IN OVER FIRING THE STOVE. DAMAGE TO THE STOVE AND EVEN HOUSE FIRE MAY RESULT.**

### SMOKE & 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. 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 CARE

- Inspect and clean the glass regularly to detect any cracks. If you spot one, turn the stove off immediately. Do not



abuse the glass door by striking or slamming shut. Do not use the stove if the glass is broken.

- If the glass on your stove breaks, replace only with the glass supplied from your heater dealer. Never substitute other materials for the glass.
- To replace the glass, remove the screws retaining the glass moldings inside the door. Remove the moldings and replace the damaged piece with a new one. Perform the procedure backward after replacing it. When replacing the glass, you should change the glass gasket to make sure you keep it sealed.
- Never wash the glass with a product that may scratch. Use a specialized product, available in the stores where wood stoves are sold. The glass should be washed only when cold.

## GASKET CARE

**WARNING:**

**NEVER OPERATE THE STOVE WITHOUT A GASKET OR WITH A BROKEN ONE. DAMAGE TO THE STOVE OR EVEN HOUSE FIRE MAY RESULT.**

This unit's door uses a 1" diameter rope gasket. It is recommended that you change the door gasket (which makes your stove door air tight) once a year, in order to ensure good control over the combustion, maximum efficiency and security. To change the door gasket, simply remove the damaged one. Carefully clean the available gasket groove, apply a high temperature silicone sold for this purpose, and install the new gasket. You may light up your stove again approximately 24 hours after having completed this operation.

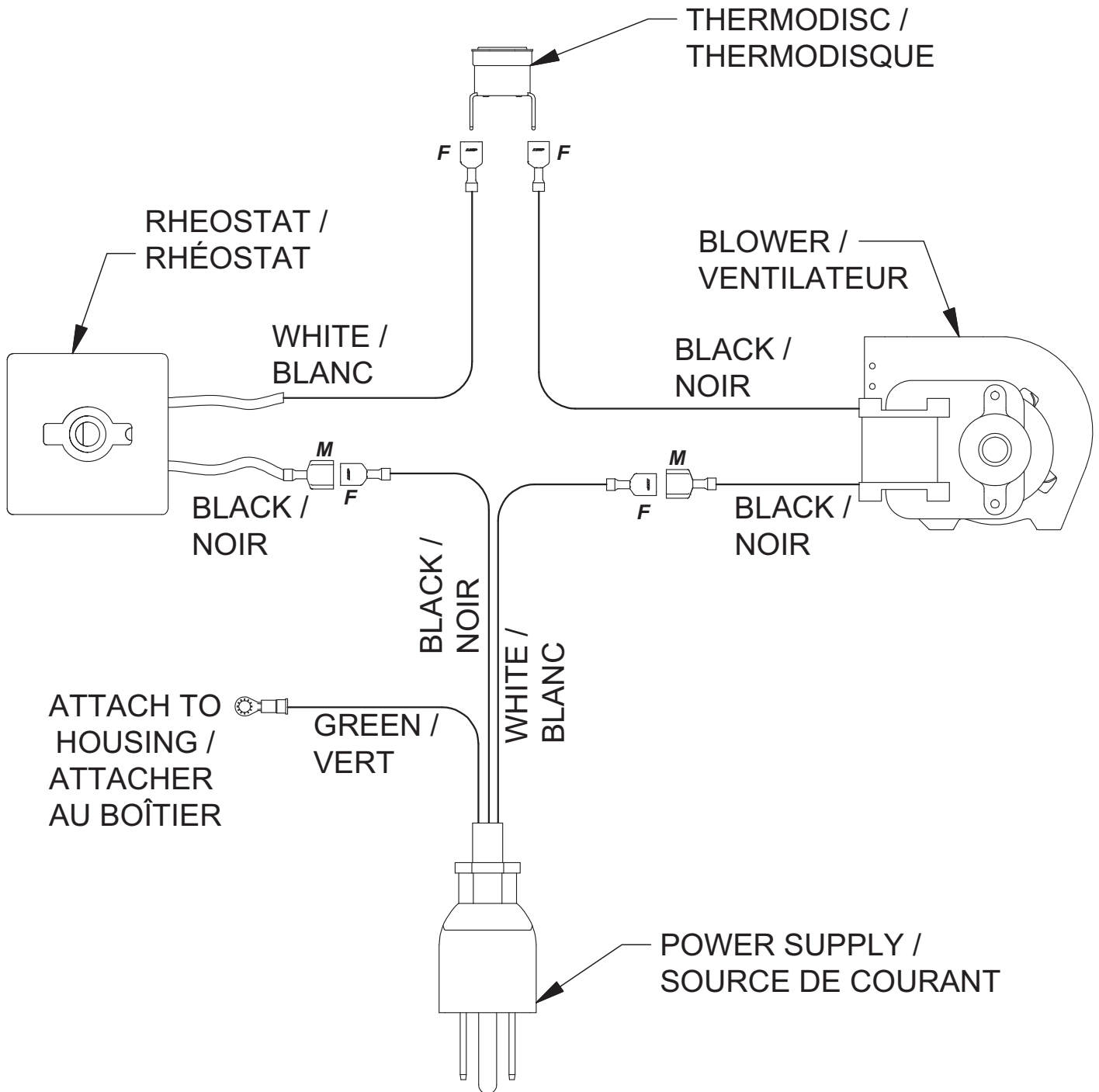
## HOW TO ORDER REPAIR PARTS

### CONTACT YOUR DEALER OR INSTALLER FOR PARTS AND SERVICE

The information in this owner's manual is specific to your unit. When ordering replacement parts the information in this manual will help to ensure the correct items are ordered. Before contacting customer service write down the model number and the serial number of this unit. That information can be found on the certification label attached to the back of the unit. Other information that may be needed would be the part number and part description of the item(s) in question. Part numbers and descriptions can be found in the "Repair Parts" section of this manual. Once this information has been gathered you can contact your Breckwell dealer or visit [www.Breckwell.com](http://www.Breckwell.com)

Model Information			
Model Number		Dealer's Name	
Serial Number		Dealer's Phone Number	

# WIRING DIAGRAM (OPTIONAL BLOWER SOLD SEPARATELY)



**CAUTION: MOVING PARTS CAN CAUSE INJURY. DO NOT OPERATE WITH COVER REMOVED.**

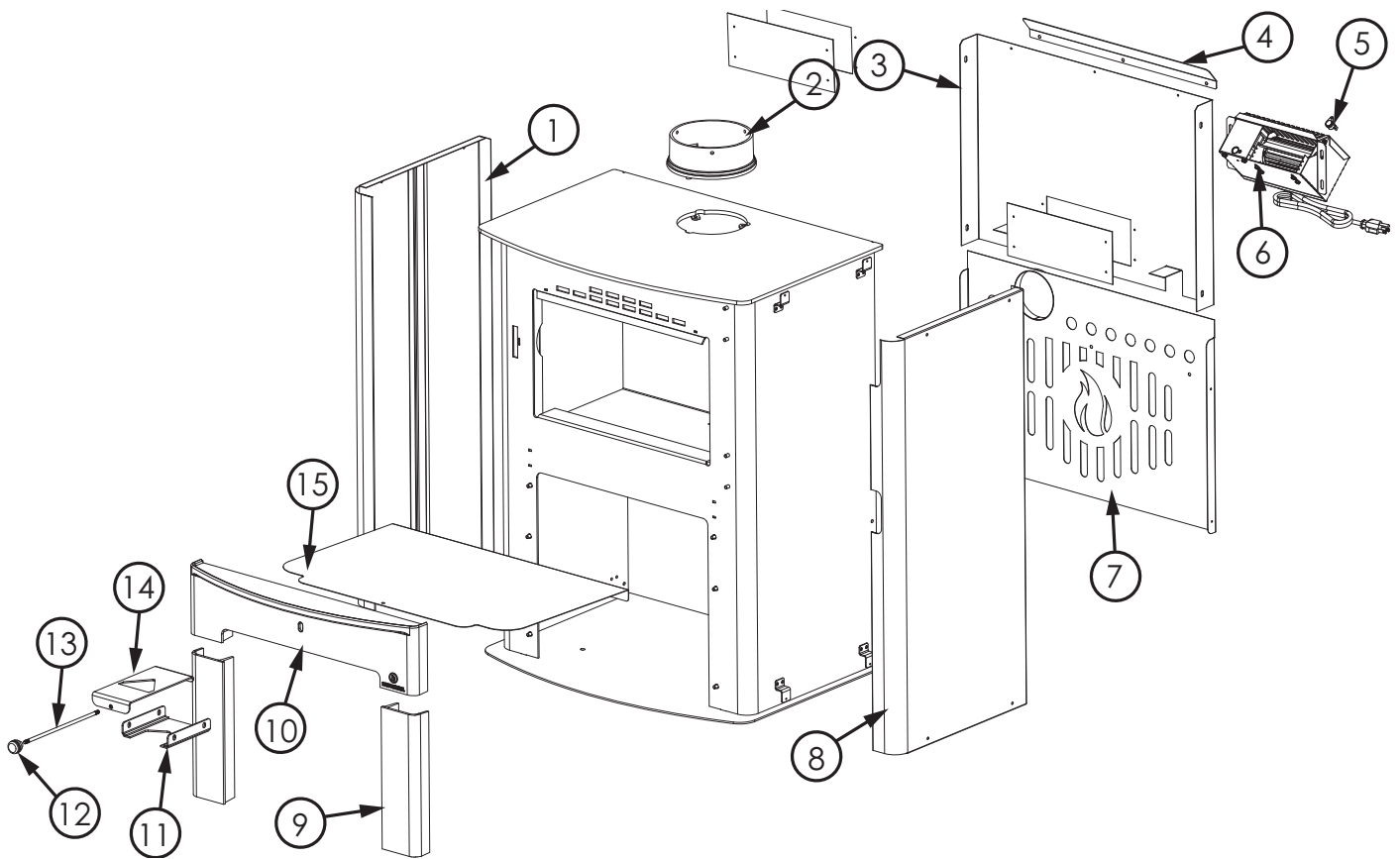
**NOTICE: ANY REPLACEMENT WIRING MUST HAVE EQUIVALENT INSULATION AND TEMPERATURE RATING (105° C).**

**DANGER: SHOCK HAZARD DISCONNECT POWER SOURCE BEFORE INSTALLATION AND WHENEVER SERVICING BLOWER ASSEMBLY.**

**NOTICE: DO NOT ALLOW THE POWER CORD TO TOUCH HOT SURFACES! KEEP THE POWER CORD AT LEAST 12"/30.5CM FROM THE STOVE OR PIPE SURFACES.**

# REPLACEMENT PARTS

Contact an Authorized Dealer to obtain any of these parts. Never use substitute materials. Use of non-approved parts can result in poor performance and safety.



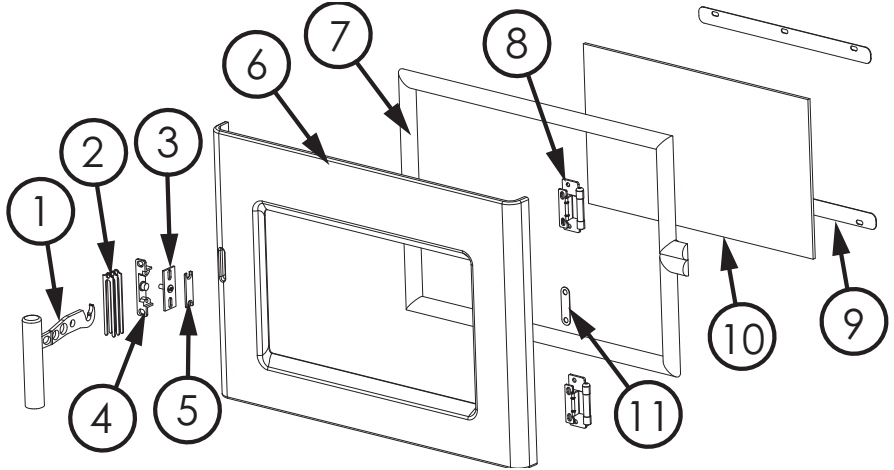
Key	Part #	Description	Qty
1	611006	Left Side	1
2	40292A	6" Flue Collar	1
3	29363	Blower Shroud	1
4	29411	Air Deflector	1
5	80859	Therm-O-Disc	1
6	B36T	Blower Assembly (B36T)	1
7	610952	Wood Store Weldment	1
8	611005	Right Side	1

Key	Part #	Description	Qty
9	40886	Cast Column	2
10	40889	Cast Filler/Hearth	1
11	27092	Slide Damper Plate	1
12	893162B	Wooden Knob	1
13	86965	Damper Rod	1
14	610927	Damper Slide	1
15	29360	Shield	1

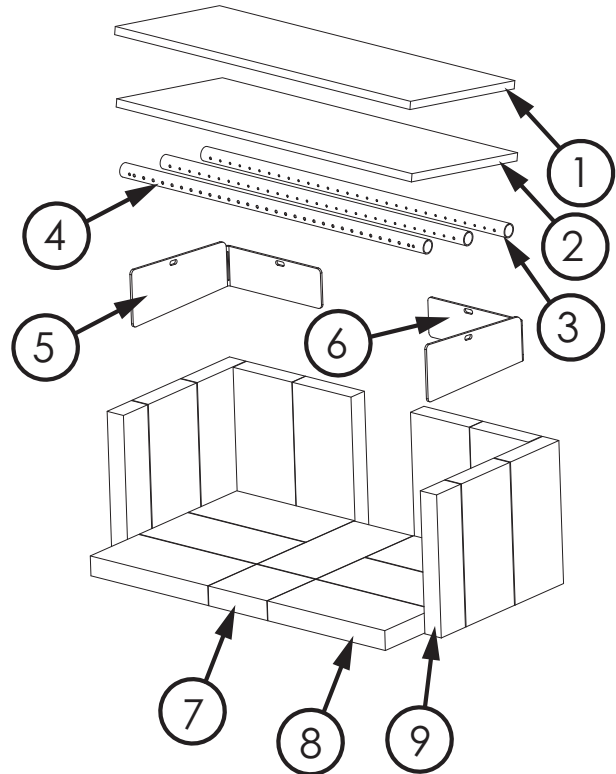
**IN ORDER TO MAINTAIN WARRANTY, COMPONENTS MUST BE REPLACED USING BRECKWELL PARTS PURCHASED THROUGH YOUR DEALER OR DIRECTLY FROM BRECKWELL. USE OF THIRD PARTY COMPONENTS WILL VOID THE WARRANTY.**

Contact an Authorized Dealer to obtain any of these parts. Never use substitute materials. Use of non-approved parts can result in poor performance and safety.

Key	Part #	Description	Qty
1	610951	Door Handle	1
2	29378	Shim	3
3	610953	Door Catch	1
4	893214	Door Latch Base	1
5	893215	Latch Cap	1
6	40884	Cast Door	1
7	88324	1" Rope Gasket	54"
8	893212	Door Hinge	2
9	29423	Glass Clamp	2
10	893145	Door Glass	1
11	29424	Rope Clamp	1



Key	Part #	Description	Qty
1	88316	Kao Wool Blanket	1
2	88146	Ceramic Fiber Board	1
3	86953	Secondary Air Tube (Ø1/8)	2
4	86952	Secondary Air Tube (Ø11/64)	1
5	29039	Brick Retainer	1
6	29040	Brick Retainer	1
7	24103A	Pumice Firebrick Half (4-1/2 X 4-1/2)	1
8	89066A	Pumice Firebrick (4-1/2 X 9)	15
9	891414A	Half Firebrick	2



**IN ORDER TO MAINTAIN WARRANTY, COMPONENTS MUST BE REPLACED USING BRECKWELL PARTS PURCHASED THROUGH YOUR DEALER OR DIRECTLY FROM BRECKWELL. USE OF THIRD PARTY COMPONENTS WILL VOID THE WARRANTY.**

# SERVICE RECORD

It is recommended that your heating system is serviced regularly and that the appropriate Service Interval Record is completed.

## SERVICE PROVIDER

Before completing the appropriate Service Record below, please ensure you have carried out the service as described in the manufacturer's instructions. Always use the manufacturer's specified spare part when replacement is necessary.

<b>Service 01</b>	Date: _____
Engineer Name: _____	
License No.: _____	
Company: _____	
Telephone No.: _____	
Stove Inspected: <input type="checkbox"/>	Chimney Swept: <input type="checkbox"/>
Items Replaced: _____	

<b>Service 02</b>	Date: _____
Engineer Name: _____	
License No.: _____	
Company: _____	
Telephone No.: _____	
Stove Inspected: <input type="checkbox"/>	Chimney Swept: <input type="checkbox"/>
Items Replaced: _____	

<b>Service 03</b>	Date: _____
Engineer Name: _____	
License No.: _____	
Company: _____	
Telephone No.: _____	
Stove Inspected: <input type="checkbox"/>	Chimney Swept: <input type="checkbox"/>
Items Replaced: _____	

<b>Service 04</b>	Date: _____
Engineer Name: _____	
License No.: _____	
Company: _____	
Telephone No.: _____	
Stove Inspected: <input type="checkbox"/>	Chimney Swept: <input type="checkbox"/>
Items Replaced: _____	

<b>Service 05</b>	Date: _____
Engineer Name: _____	
License No.: _____	
Company: _____	
Telephone No.: _____	
Stove Inspected: <input type="checkbox"/>	Chimney Swept: <input type="checkbox"/>
Items Replaced: _____	

<b>Service 06</b>	Date: _____
Engineer Name: _____	
License No.: _____	
Company: _____	
Telephone No.: _____	
Stove Inspected: <input type="checkbox"/>	Chimney Swept: <input type="checkbox"/>
Items Replaced: _____	

<b>Service 07</b>	Date: _____
Engineer Name: _____	
License No.: _____	
Company: _____	
Telephone No.: _____	
Stove Inspected: <input type="checkbox"/>	Chimney Swept: <input type="checkbox"/>
Items Replaced: _____	

<b>Service 08</b>	Date: _____
Engineer Name: _____	
License No.: _____	
Company: _____	
Telephone No.: _____	
Stove Inspected: <input type="checkbox"/>	Chimney Swept: <input type="checkbox"/>
Items Replaced: _____	





