Owner's Instruction and Operation Manual

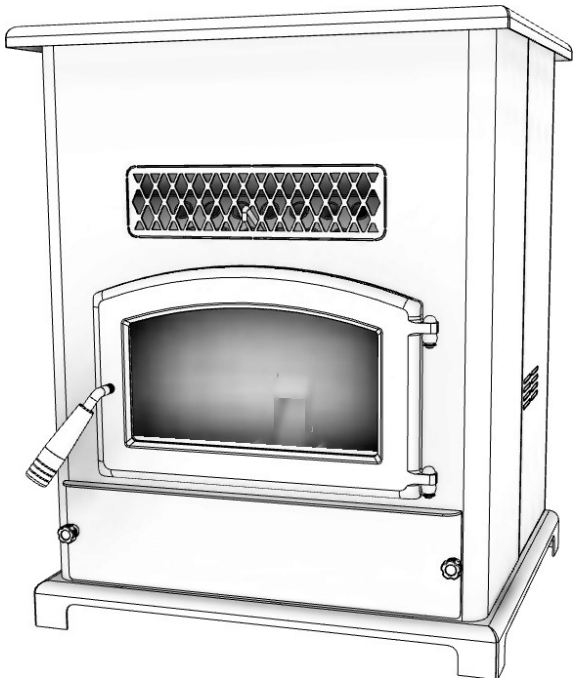
BRECKWELL

Model Number:

SP1000E

Report Number: F21-690

Certified to ASTM E1509-2022, and
CAN/ULC S627:2023
Mobile Home / Transportable
Building Approved



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

854042C-1004N

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 Could 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

THIS MANUAL IS SUBJECT TO CHANGE WITHOUT NOTICE.

INTRODUCTION

This manual describes the installation and operation of the Breckwell, SP1000E wood heater. This heater meets the 2020 U.S. Environmental Protection Agency's 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 6,580 to 39,121 Btu/hr, 1.0 g/hr, and 75% efficiency.

Heating Specifications		
Fuel Burn Rate	1 - 5.5 lbs (0.45 - 2.5 kh) per hr	* Pellet size may affect the actual rate of fuel feed, burn times, and hopper capacity. Fuel feed rates may vary by as much as 20%. Use PFI listed fuel for best results.
Hopper Capacity *	Up to 140lbs. (63.5 kg)	
Flue Size	3" or 4" (77 mm or 102 mm)	
Electrical Rating	115V 60Hz 3A	
Dimensions		
Overall: Height x Width x Depth	25-3/4" (655 mm) X 32-5/8" (829 mm) X 23-7/8" (607 mm)	
Floor To Exhaust Pipe Center	8.875" (226 mm)	
Floor To Fresh Air Intake Center	6.625" (169 mm)	

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.

Note: Register your product by using your smart phone with the QR code. Save your receipts with your records for any warranty claims.

You can also register your product online at www.breckwell.com/product-registration

INSTALLATION CHECKLIST

BRECKWELL

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/

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: _____

Venting System: New Venting System ☐ Yes ☐ No If yes, Brand _____

If no, Date of inspection of existing venting 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 the venting system is secure and sealed ..... ☐

Confirm the stove starts and operates properly..... ☐

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

SAFETY NOTICE

- IF THIS STOVE IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT. TO REDUCE THE RISK OF FIRE, FOLLOW THE INSTALLATION INSTRUCTIONS.
- CONTACT YOUR LOCAL BUILDING OFFICIALS TO OBTAIN A PERMIT AND INFORMATION ON ANY ADDITIONAL INSTALLATION RESTRICTIONS OR INSPECTION REQUIREMENTS IN YOUR AREA.
- DO NOT PLACE CLOTHING OR OTHER FLAMMABLE ITEMS ON OR NEAR THIS STOVE.
- NEVER USE GASOLINE, GASOLINE-TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID, OR SIMILAR LIQUIDS TO START OR 'FRESHEN UP' A FIRE IN THIS STOVE. KEEP ALL SUCH LIQUIDS WELL AWAY FROM THE STOVE WHILE IT IS IN USE.
- THIS APPLIANCE IS A FREESTANDING HEATER. IT IS NOT INTENDED TO BE ATTACHED TO ANY TYPE OF DUCTING. IT IS NOT A FURNACE. DO NOT CONNECT THIS UNIT TO ANY AIR DISTRIBUTION DUCT OR SYSTEM. THIS APPLIANCE IS NOT INTENDED FOR COMMERCIAL USE.
- INSTALL VENT AT CLEARANCES SPECIFIED BY THE VENT MANUFACTURER.
- DO NOT INSTALL A FLUE DAMPER IN THE EXHAUST VENTING SYSTEM OF THIS UNIT.
- YOUR STOVE REQUIRES PERIODIC MAINTENANCE AND CLEANING (SEE "MAINTENANCE"). FAILURE TO MAINTAIN YOUR STOVE MAY LEAD TO IMPROPER AND/OR UNSAFE OPERATION.
- A POWER SURGE PROTECTOR IS REQUIRED. THIS UNIT MUST BE PLUGGED INTO A 110 - 120V, 60 HZ GROUNDED ELECTRICAL OUTLET. DO NOT USE AN ADAPTER PLUG OR SEVER THE GROUNDING PLUG. DO NOT ROUTE THE ELECTRICAL CORD UNDERNEATH, IN FRONT OF, OR OVER THE HEATER. DO NOT ROUTE THE CORD IN FOOT TRAFFIC AREAS OR PINCH THE CORD UNDER FURNITURE.

ATTENTION:

- A WORKING SMOKE DETECTOR MUST BE INSTALLED IN THE SAME ROOM AS THIS PRODUCT.
- INSTALL A SMOKE DETECTOR ON EACH FLOOR OF YOUR HOME; INCASE OF ACCIDENTAL FIRE FROM ANY CAUSE IT CAN PROVIDE TIME FOR ESCAPE.
- THE SMOKE DETECTOR MUST BE INSTALLED AT LEAST 15 FEET (4,57 M) FROM THE APPLIANCE IN ORDER TO PREVENT UNDUE TRIGGERING OF THE DETECTOR WHEN RELOADING.

CAUTION:

- DO NOT UNPLUG THE STOVE IF YOU SUSPECT A MALFUNCTION. TURN THE ON/OFF SWITCH TO "OFF' AND CONTACT YOUR DEALER.
- THE HEATER WILL NOT OPERATE DURING A POWER OUTAGE. IF A POWER OUTAGE DOES OCCUR, CHECK THE HEATER FOR SMOKE SPILLAGE AND OPEN A WINDOW IF ANY SMOKE SPILLS INTO THE ROOM.
- NEVER BLOCK FREE AIRFLOW THROUGH THE OPEN VENTS OF THE UNIT.

CAUTION:

BURNING FUEL CREATES CARBON MONOXIDE AND CAN BE HAZARDOUS TO YOUR HEALTH IF NOT PROPERLY VENTED.

NATIONAL FIREPLACE INSTITUTE NFI CERTIFIED www.nficertified.org

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).

Wood Energy Technical Training www.wettinc.ca

Breckwell 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/

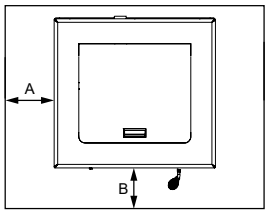
PREPARATION

Factory packaging must be removed, and some minor assembly work is required prior to installation. Access to the rear of the stove is necessary. NOTE: Normally, your dealer will perform these functions.

FLOOR PROTECTION

The stove must be placed on a continuous (grouted joints) non-combustible material such as ceramic tile, cement board, brick, 3/8" (10 mm) millboard or equivalent, or other approved or listed material suited for floor protection. THE MATERIAL(S) USED MUST HAVE, OR COMBINE TO HAVE, A MINIMUM INSULATIVE RATING OF 'R1.' NOTE: ceramic tile, or any tile, requires a continuous sheet beneath to prevent the possibility of embers falling through to the combustible if cracks or separation should occur in the finished surface, this would include floor protection for Built-in raised hearths. Check local codes for approved alternatives. Clearances are measured from the sides, back and face (door opening) or stove body. Clearances may only be reduced by means approved by the regulatory

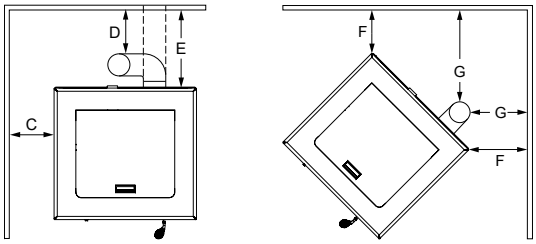
authority having jurisdiction. DO NOT USE MAKESHIFT MATERIALS OR COMPROMISES IN THE INSTALLATION OF THIS UNIT. INSTALL VENT AT CLEARANCES SPECIFIED BY THE VENT MANUFACTURER.

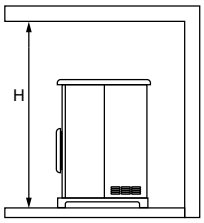


A	Side to Stove	6″	153 mm
B	Front to Stove	6″	153 mm

CLEARANCES

This unit has been tested and listed for installation in residential and mobile home/transportable buildings.





C	Side Wall to Stove	12″	305 mm
D	Back Wall to Vertical Exhaust	3″	77 mm
E	Back Wall to Horizontal Exhaust	1″	26 mm
F	Side Wall to Stove	1″	26 mm
G	Wall to Vent Pipe	3″	77 mm
H	Ceiling Height to Floor	60″	1524 mm

COMBUSTION AIR SUPPLY

For a mobile home/transportable building installation, the stove must be connected to an outside source of combustion air. A 2″ (51 mm) inside diameter metallic pipe, either flexible or rigid, may be attached to the inlet at the stove's rear. A rodent guard (minimum 1/4″ (7 mm) wire mesh) wind hood must be used at the terminus. All connections must be secured and airtight by either using the appropriately sized hose clamp and/or UL-181-AP foil tape. For mobile home/transportable building installations only: 2″ (51 mm) inside diameter pipe may be used for the first 5 feet of combustion air supply run. From 5 to 10 feet, use 2-3/4″ (70 mm) inside diameter pipe. No combustion air supply may exceed 10 feet.

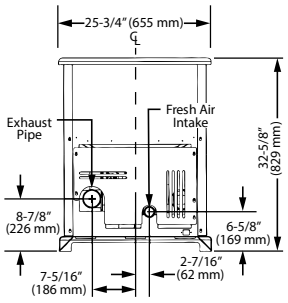
Sources of Outside Combustion Air

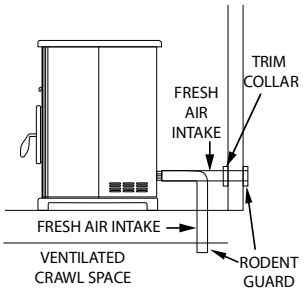
a. In fireplaces

- Chimney top.
- Ash clean out door.

b. For freestanding installations

- A hole in floor near stove rear terminating only a ventilated crawl space.
- A hole in the wall behind the stove.





ATTENTION:

DO NOT VENT UNDER ANY PORCH, DECK, AWNING, OR IN ANY SEMI ENCLOSED OR ROOFED AREA. DOING SO MAY RESULT IN UNPREDICTABLE AIRFLOW AT THE VENT CAP UNDER CERTAIN CONDITIONS AND CAN AFFECT THE PERFORMANCE OF YOUR STOVE, AS WELL AS, OTHER UNFORESEEABLE ISSUES.

WHEN OUTSIDE AIR IS NOT USED

If outside air is not used, it is important that combustion air is easily available to the air inlet. A closeable outside air register can be used in tightly insulated homes.

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. 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. Take into account the chimney's location to ensure it is not too close to neighbours or in a valley which may cause unhealthy or nuisance conditions.

VENTING REQUIREMENTS

A compatible appliance adapter is required for the proper venting installation of this unit. Purchase the appropriate appliance adapter from your preferred venting company prior to starting the ventilation process.

This unit is certified for use with listed TYPE PL-Vent, 3" or 4" (diameter in size. The stove was tested with Simpson Duravent brand. CLass "A" chimney is not required. Refer to the instructions provided by the vent manufacturer, especially when passing through a wall, ceiling or roof. This is a pressurized exhaust system. All vent connector joints must be sealed with 500°F (260°C) RTV silicone sealant to ensure consistent performance and avoid smoke spillage. All horizontal connector joints must be sealed with UL-181-AP foil tape. All vertical vent connector joints are required to be secured with a minimum of 3 screws. The chimney connector shall not pass through an attic or roof space, closet or similar concealed space, or a floor, or ceiling. Where passage though a wall, or partition of combustible construction is desired, the installation shall conform to CAN/CSA-B365, Installation Code for Solid-Fuel-Burning Appliances and Equipment.

WARNING:

- **INSTALL VENT AT CLEARANCES SPECIFIED BY THE VENT MANUFACTURER.**
- **DO NOT CONNECT THE PELLET VENT TO A VENT SERVING ANY OTHER APPLIANCE OR STOVE.**
- **DO NOT INSTALL A FLUE DAMPER IN THE EXHAUST VENTING SYSTEM OF THIS UNIT.**

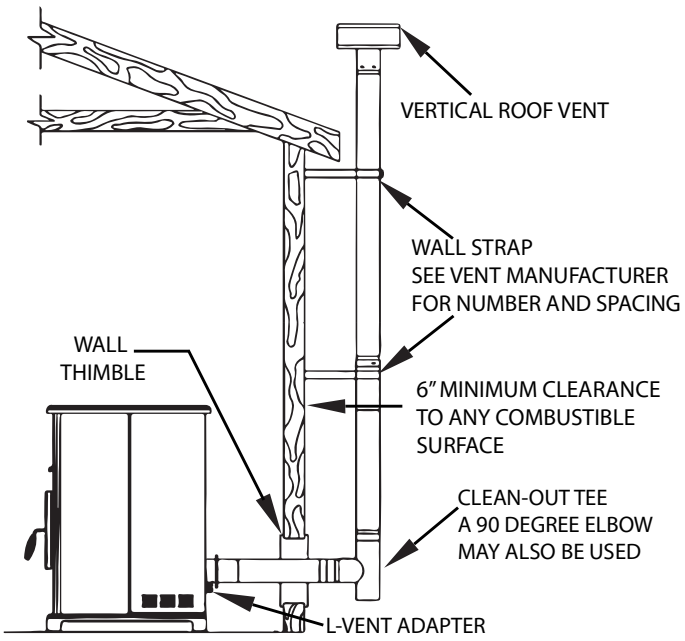
HORIZONTALLY THROUGH WALL

1. Positions stove, adhering to clearances shown.
2. Locate position of hole in wall; directly behind stove exhaust vent.
3. Always maintain 3" (77 mm) clearance from combustible materials.
4. Install PL-Vent wall thimble per PL-Vent manufacturer's instructions.
5. Attach enough piping to penetrate and extend at least 6" beyond exterior walls. An 8-foot vertical pipe run is suggested where possible to reduce the possibility of smoke spillage in the event of a loss of negative pressure.
6. Attach cap and seal outside wall thimbles with non-hardening waterproof mastic.
7. Terminations should not be located so that hot exhaust gases can ignite trees, shrubs, or grass or be a hazard to children. Exhaust gases can reach temperatures of 500°F and cause serious burns if touched.
8. Locate terminations:

a. Not less than 3 feet above any forced air inlet located within 10 feet;

b. Not less than 4 feet below or horizontally from, or 1 foot above any door, window or gravity air inlet into any building;

c. Not less than 2 feet from an adjacent building and not less than 7 feet above grade when located adjacent to a public walkway. Mobile home/transportable building installations must use a spark arrester.

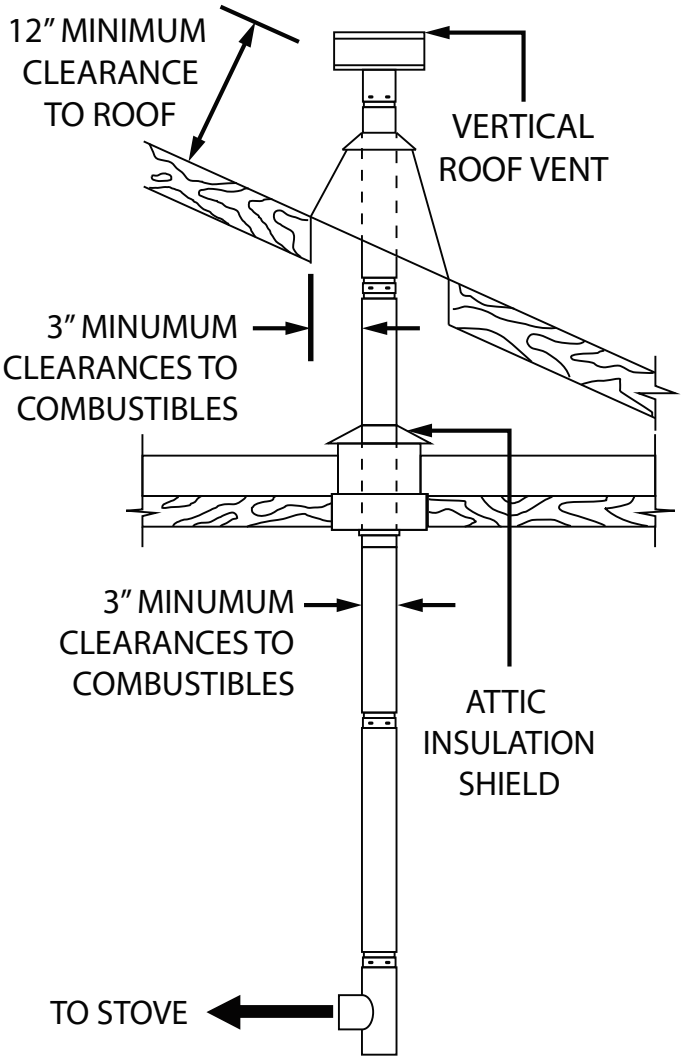


VERTICALLY WITH NEW CHIMNEY SYSTEM

OPTION: To achieve a center vertical installation, a 45° elbow and a clean-out tee can be used to offset the pipe from the exhaust outlet to the rear center of the stove.

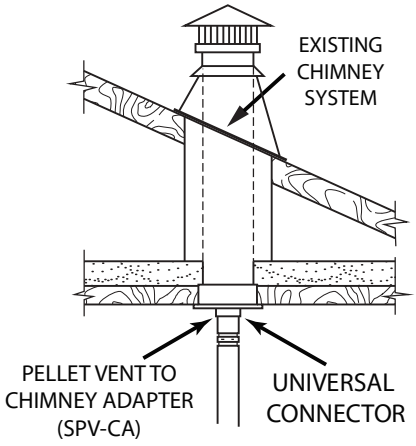
OPTION: Install PL-Vent elbow in place of clean-out tee. Locate stove. Drop plumb bob to center of tee outlet , mark point on ceiling. Install ceiling support and PL-Vent pipe per PL-Vent manufacturer's instructions.

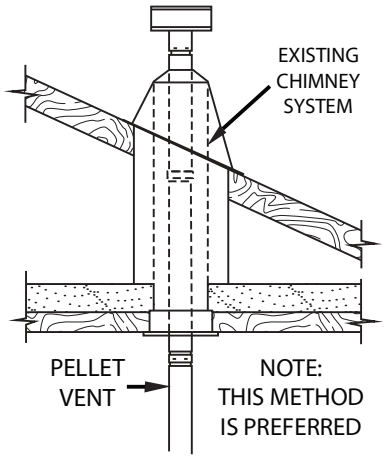
1. Always maintain 3" (77 mm) clearance from combustible materials. When passing through additional floors or ceilings, always install firestop spacer.
2. After lining up for hole in roof, cut either a round or square hole in roof, always 3" (77 mm) larger all the way around pipe. Install upper edge and sides of flashing under roofing materials, nail to the roof along upper edge. Do not nail lower edge. Seal nail heads with non-hardening waterproof mastic.
3. Apply non-hardening, waterproof mastic where the storm collar will meet the vent and flashing. Slide storm collar down until it sits on the flashing. Seal and install cap. Mobile home/transportable building installations must use a spark arrester.



VERTICALLY INTO EXISTING CHIMNEY SYSTEM

Adapters are available to adapt from 3" (77 mm) L-Vent to 6" (153 mm) or 8" (204 mm) Class-A chimney. As an alternative, 3" (77 mm) or 4" (102 mm) L-Vent can be run inside existing chimney to termination. This is the preferred method. Follow guidelines for equivalent vent length.

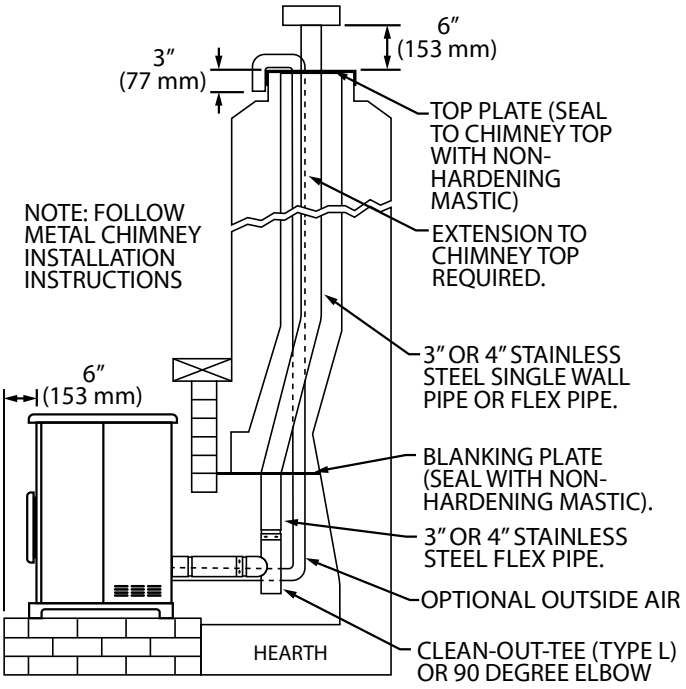




VERTICALLY INTO EXISTING MASONRY FIREPLACE

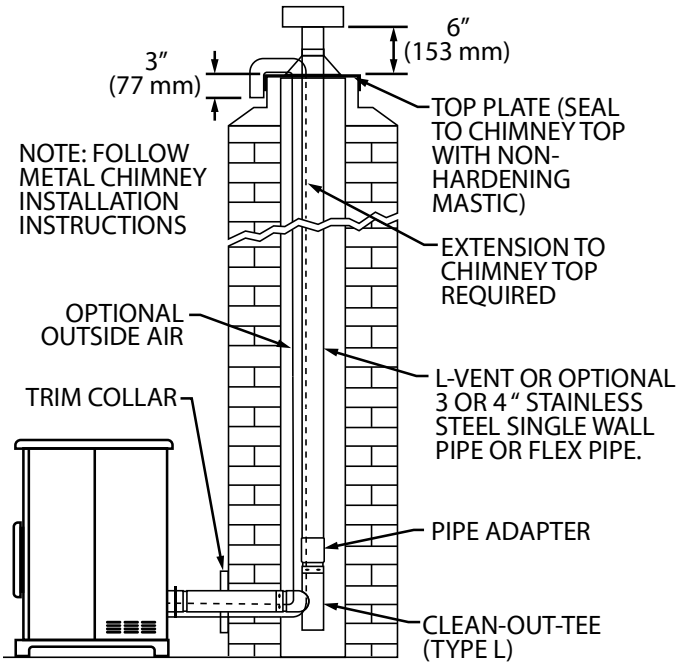
1. Have the masonry chimney inspected by a qualified chimney sweep or installer to determine its structural condition.
2. You will need a pipe length equal to the chimney height from the hearth. If outside combustion air is to be used, you will need a pipe length equal to the chimney height plus 18" (458 mm).
3. Install a blanking plate and the chimney pipe, and if used the outside air pipe, as shown.
4. Attach the L-Vent adapter, a section of pipe and clean-out tee, making sure the clean-out tee is centered in the chimney flue area. Use RTV, metallic tape, and a minimum of three self-taping screw at all joint connections to ensure a tight seal.

5. Position the stove, adhering to the clearances.
6. Measure and build chimney top plate. Cut out holes for chimney pipe, and if used the outside air pipe. Install and seal with non-hardening mastic to prevent water leakage. Install vent cap.



THROUGH SIDE OF MASONRY CHIMNEY

1. Position the stove, adhering to the clearances. Mark the center of the hole where the pipe is to pierce the masonry chimney.
2. It will be necessary to break out the masonry around the location of the pipe center mark. Use a 4" (102 mm) diameter hole for 3" (77 mm) pipe and 5" (127 mm) diameter hole for 4" (102 mm) pipe.
3. Measure and build chimney top plate. Cut out holes for chimney pipe, and if used, the outside air pipe.
4. Install the tee on the bottom of the vertical pipe system and lower it down the chimney until the center branch of the tee is level with the center of the hole in the masonry as shown.
5. Install and seal the top plate from step 3 with non-hardening mastic. Slip the storm collar over the pipe, and while holding the pipe at the proper elevation, affix the collar with a minimum of 3-1/4" (83 mm) stainless steel sheet metal screws. Seal all joints and seams around the collar.
6. Connect the horizontal pipe by pushing it through the hole in the masonry and lining it up with the branch in the tee. Push the pipe into the tee while twisting it to lock it into the tee.
7. If desired, once the horizontal pipe is in place, the space between the pipe and masonry may be filled with high-temperature grout.
8. Install the trim collar. An adjustable pipe length and adapter may be needed to finish the connection to the stove.



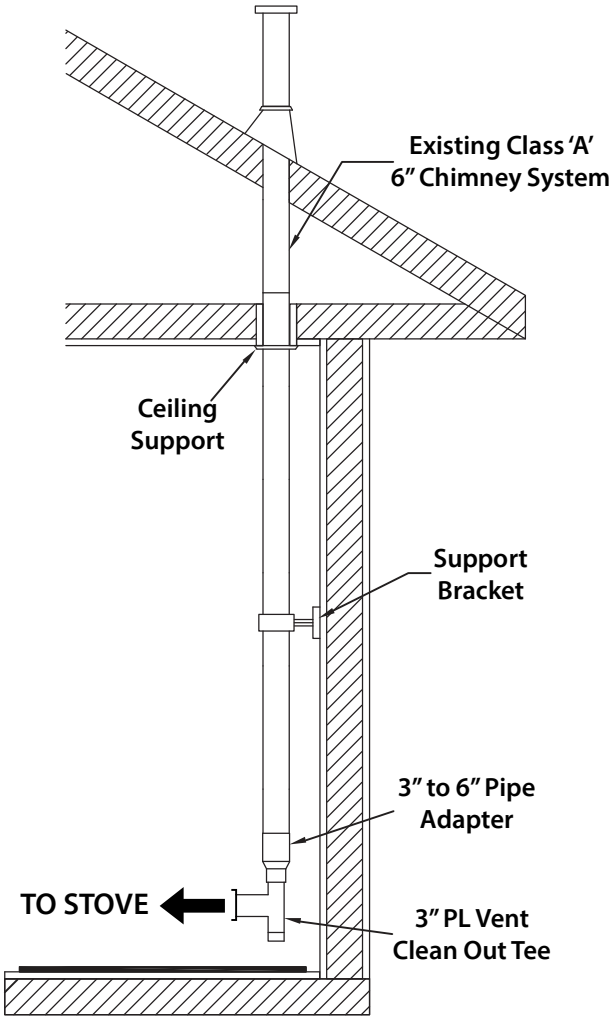
VENTING YOUR PELLET STOVE INTO AN EXISTING CLASS A 6" CHIMNEY SYSTEM

IMPORTANT:
IF YOU ARE INSTALLING YOUR PELLET STOVE AS A REPLACEMENT TO AN EXISTING WOOD STOVE, YOU CAN INSTALL YOUR PELLET STOVE USING THE EXISTING CLASS A 6" VENTING SYSTEM.

1. You must have the existing chimney system cleaned and/ or inspected by a qualified chimney sweep before proceeding with the installation of your pellet stove.
2. To the right is an example of an installation using part number 860001, 3-6" transition into 6" connector pipe. The illustration is only an example. Please conform to any local building codes or regulations having jurisdiction before you have a qualified installer proceed with this installation.

WARNING:
YOU MAY WANT TO LOCATE ANY UTILITIES OR OBSTACLES INSIDE THE WALL BEFORE ATTEMPTING THIS INSTALL. MAKE SURE TO KEEP IN MIND YOUR UNIT'S CLEARANCE REQUIREMENTS.

1. Mark the area and then cut the wall for vent installation if needed.
2. Install the wall thimble as specified by the manufacturer (wall thimble sold separately)
3. Install venting.



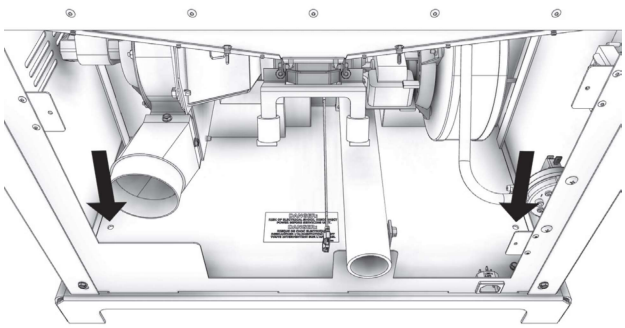
ELECTRICAL INSTALLATION

This stove is provided with a 6-foot grounded electrical cord extending from the rear of the stove. We recommend connecting to a good quality surge protector that is plugged into a standard three-prong, 120V, 60Hz electrical outlet. DO NOT connect the unit to a GFCI socket. Voltage variations can lead to serious performance problems. The Breckwell electrical system is designed for 120V AC with no more than 5% variation. Breckwell cannot accept responsibility for poor performance or damage due to inadequate voltage. If connected to an older, two-prong outlet, a separate ground wire should be run to a proper ground (refer this to a qualified technician). Always route the electrical cord so that it will not come in contact with any hot part of the stove.

SPECIAL MOBILE HOME/TRANSPORTABLE BUILDING REQUIREMENTS

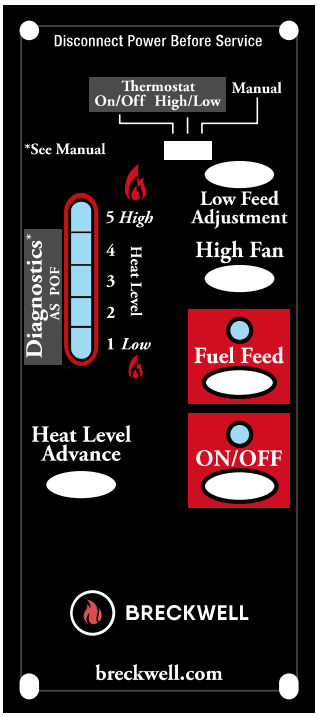
WARNING! DO NOT INSTALL IN SLEEPING ROOM.
CAUTION! THE STRUCTURAL INTEGRITY OF THE MOBILE HOME/TRANSPORTABLE BUILDING FLOOR, WALL, AND CEILING/ROOF MUST BE MAINTAINED.
WHEN INSTALLED IN A MOBILE HOME/TRANSPORTABLE BUILDING, THE STOVE MUST BE GROUNDED DIRECTLY TO THE STEEL CHASSIS AND BOLTED TO THE FLOOR.

For installation in a mobile home/transportable building, an outside source of combustion air must be used (see "Combustion Air Supply"). This unit must be grounded to the steel chassis with 8 ga. copper wire using a serrated or star washer to penetrate paint or protection coating to ensure grounding. This unit must be securely fastened to the floor of the mobile home/transportable building through the two holes in the rear of the stove using 2-1/4" (58 mm) lag bolts that are long enough to go through both a hearth pad, if used, and the floor of the home. Refer to "Venting" for proper exhaust configurations. When installing in a mobile home/transportable building ensure that the vapor barrier at the location where the chimney or other component penetrates to the exterior of the structure. Never operate with the firing doors open. A smoke detector should be installed in the room where the heater is installed. The smoke detector should be installed at least 10 feet away from the heater to prevent accidentally setting the detector off.



NEVER OPERATE THIS PRODUCT WHILE UNATTENDED

PANEL CONTROLS



The blowers and automatic fuel supply are controlled from a panel on the left-hand side of this unit. The control panel functions are a follows.

ON/OFF SWITCH

- When pushed, the stove will automatically ignite. No other firestarter is necessary. The igniter will stay on for at least 10 and up to 15 minutes, depending on when Proof of Fire is reached. The fire should start in about 5 minutes.
- The green light located above the ON/OFF button (in the ON/OFF box) will flash during the ignition start-up period.
- The Heat Level Advance is inoperable during the ignition start-up period. When the green light continuously stays on, the Heat Level Advance can be adjusted to achieve the desired heat output.

NOTE: If the stove has been shut off, and you want to re-start it while it is still warm, the "On/Off" button must be held down for 2 seconds.

FUEL FEED SWITCH

- When the "Fuel Feed" button is pushed and held down, the stove will feed pellets continuously into the burnpot.
- While the stove's auger system is feeding pellets, the green light (in the "Fuel Feed" box) will be on.

CAUTION:
DO NOT USE THIS CONTROL DURING NORMAL OPERATION BECAUSE IT COULD SMOTHER THE FIRE AND LEAD TO A DANGEROUS SITUATION.

HIGH FAN SWITCH

- The room air fan speed varies directly with the feed rate. The "High Fan" switch overrides this variable speed function. It will set the room air blower speed to high at any feed rate setting.
- When the "High Fan" button is pushed, the room air fan will switch to its highest setting.
- When this button is pushed again, the room air fan will return to its original setting based on the Heat Level Advance setting.

RESET TRIM

Different sizes and quality pellet fuel may require adjustment of the "1" feed setting on the Heat Level Advance bar graph. This is usually a one-time adjustment based on the fuel you are using. The "Reset Trim" button, when adjusted, will allow for 3 different feed rate settings for the #1 feed setting only. To adjust, simply push the "Reset Trim" button while the stove is operating at setting "1" and watch the bar graph.

- When the "1" & "3" light are illuminated on the bar graph, the low feed rate is at its "lowest" setting. (approx. 0.9 pounds per hour)
- When the "1" light is illuminated on the bar graph, the low feed rate is at its "normal" setting.
- When the "1" & "4" lights are illuminated on the bar graph, the low feed rate is at its "highest" setting.

NOTE: When the stove is set on "1" the "Reset Trim" values will be shown in the Heat Level Advance bar graph. For example: if the "Reset Trim" is set to its lowest setting every time the stove is set to low, the "1" and "3" lights will be illuminated on the bar graph.

HEAT LEVEL ADVANCE

- This button, when pushed, will set the pellet feed rate, hence the heat output of your stove. The levels of heat output will incrementally change on the bar graph starting from level "1" to "5."

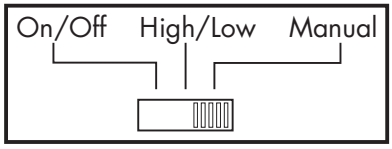
NOTE: When dropping 3 or more heat level settings (4 to 1, or 5 to 2 or 1), push the "High Fan" button and allow the room air fan to run at that setting for at least 5 minutes to

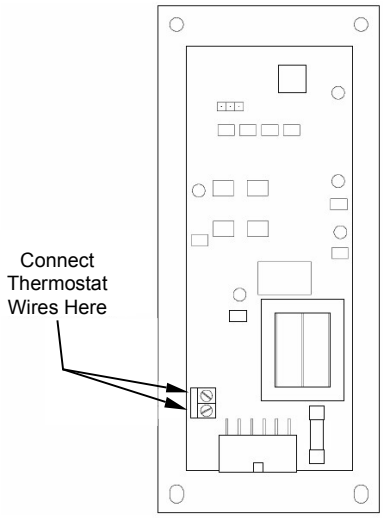
prevent the stove from tripping the high temp thermodisc. If the high temp thermodisc does trip, see "Safety Features."

CAUTION:
THE "5" SETTING IS DESIGNED FOR TEMPORARY USE ONLY. IF USED FOR EXTENDED PERIODS, IT CAN SHORTEN THE LIFE EXPECTANCY OF THE UNITS COMPONENTS. AVOID USE AT THIS SETTING FOR MORE THAN ONE OR TWO HOURS AT A TIME.

OPTIONAL THERMOSTAT

An optional thermostat may help you maintain a constant house temperature automatically. A millivolt thermostat is required. The control panel can be set up two ways to operate your stove in thermostat mode.





THERMOSTAT INSTALLATION

- A MILLIVOLT THERMOSTAT IS REQUIRED.
- Unplug stove from power outlet.
- Remove control board from stove.
- The two thermostat wires connect to the terminal block on the lower left side of the back of the control board.
- Insert wires in the terminal side and tighten the two screws.

MODES

TO SWITCH BETWEEN ANY OF THE THREE MODES, THE STOVE MUST BE SHUT OFF, THE NEW MODE SELECTED AND THE STOVE RESTARTED.

MANUAL MODE

- USE THIS MODE EXCLUSIVELY IF YOU DO NOT CONNECT AN OPTIONAL THERMOSTAT.
- In this mode, the stove will operate only from the control panel as detailed in the "Operation" section of this owner's manual.

HIGH/LOW THERMOSTAT MODE

- USE THIS MODE ONLY IF YOU CONNECT A THERMOSTAT.
- When engaged in this mode, the stove will automatically switch be- tween two settings. When warm enough, it will switch to the #1 or low setting. The room air blower will also slow to its lowest speed.
- The Heat Level Advance setting on the bar graph will stay where it was initially set. When the home cools below the thermostat setting, the stove will switch to the feed rate of the heat level advance setting.

ON/OFF THERMOSTAT MODE

- USE THIS MODE ONLY OF YOU CONNECT A THERMOSTAT
- In this mode, when the home is warm enough, the stove will shut off. The fans will continue to run until the stove cools.
- When the home cools below the thermostat setting, the stove will automatically restart and run at the last feed rate setting.

NOTE: When in "High/Low" or "On/Off" thermostat mode

- Do not operate the stove higher than the #3 setting.
- Set damper control rod approximately 1/4" (7 mm) to 1/2" (13 mm) out. This will vary depending on elevation and weather conditions. Observe stoves operation and adjust damper as necessary.

WARNING:
• **DO NOT USE CHEMICALS OR FLUIDS TO START THE FIRE - NEVER USE GASOLINE, GASOLINE-TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID, OR SIMILAR LIQUIDS TO START OR "FRESHEN UP" A FIRE IN THIS STOVE. KEEP ALL SUCH LIQUIDS WELL AWAY FROM THE STOVE WHILE IT IS IN USE.**
• **HOT WHILE IN OPERATION. KEEP CHILDREN, CLOTHING AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS.**

This heater is designed to burn only PFI Premium grade pellets. 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. Salt water 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, saw dust, wax and similar substances for the purpose of starting a fire in an affected wood heater.

Burning these materials may result in release of toxic fumes or render the heater ineffective and cause smoke.

PROPER FUEL

ATTENTION:
THIS APPLIANCE IS DESIGNED FOR THE USE OF PELLETIZED FUEL THAT MEET OR EXCEED THE STANDARD SET BY THE PELLET FUEL INSTITUTE (PFI).

Your pellet stove is designed to burn premium hardwood pellets that comply with the Pellet Fuels Institute (PFI) standard (minimum of 40 lbs density per cubic ft, 1/4" to 5/16" diameter, length no greater than 1.5", not less than 8,200 BTU/lb, moisture under 8% by weight, ash under 1% by weight, and salt under 300 parts per million). Pellets that are soft, contain excessive amounts of loose sawdust, have been, or are wet, will result in reduced performance. Store your pellets in a dry place. DO NOT store the fuel within the installation clearances of the unit or within the space required for refuelling and ash removal. Doing so could result in a house fire. Do not over fire or use volatile fuels or combustibles, doing so may cause a personal and property damage hazards.

THIS STOVE IS APPROVED FOR BURNING PELLETIZED WOOD FUEL ONLY ! Factory-approved pellets are those 1/4" or 5/16" in diameter and not over 1" long. Longer or thicker pellets sometimes bridge the auger flights, which prevents proper pellet feed. Burning wood in forms other than pellets is not permitted. It will violate the building codes for which the stove has been approved and will void all warranties. The design incorporates automatic feed of the pellet fuel into the fire at a carefully prescribed rate. Any additional fuel introduced by hand will not increase heat output but may seriously impair the stoves performance by generating considerable smoke. Do not burn wet pellets. The stove's performance depends heavily on the quality of your pellet fuel. Avoid pellet brands that display these characteristics:

- Excess Fines – "Fines" is a term describing crushed pellets or loose material that looks like sawdust or sand. Pellets can be screened before being placed in hopper to remove most fines.
- Binders – Some pellets are produced with materials to hold the together, or "bind" them.
- High ash content – Poor quality pellets will often create smoke and dirty glass. They will create a need for more frequent maintenance. You will have to empty the burn pot plus vacuum the entire system more often. Poor quality pellets could damage the auger. We cannot accept responsibility for damage due to poor quality pellet.

CAUTION:
• **KEEP FOREIGN OBJECTS OUT OF THE HOPPER.**
• **THE MOVING PARTS OF THIS STOVE ARE PROPELLED BY HIGH TORQUE ELECTRIC MOTORS. KEEP ALL BODY PARTS AWAY FROM THE AUGER WHILE THE STOVE IS PLUGGED INTO AN ELECTRICAL OUTLET. THESE MOVING PARTS MAY BEGIN TO MOVE AT ANY TIME WHILE THE STOVE IS PLUGGED IN.**

PRE-START-UP CHECK

Remove burn pot, making sure it is clean and none of the air holes are plugged. Clean the firebox, and then reinstall burn pot. Clean door glass if necessary (a dry cloth or paper towel is usually sufficient). Never use abrasive cleaners on the glass or door. Check fuel in the hopper, and refill if necessary.

BUILDING A FIRE

Never use a grate or other means of supporting the fuel. Use only the burn pot supplied with this heater. Hopper lid must be closed in order for the unit to feed pellets. During the start-up period:

- Make sure the burn pot is free of pellets.
- DO NOT open the viewing door.
- The damper may need to be closed during startup.
- DO NOT add pellets to the burn pot by hand.

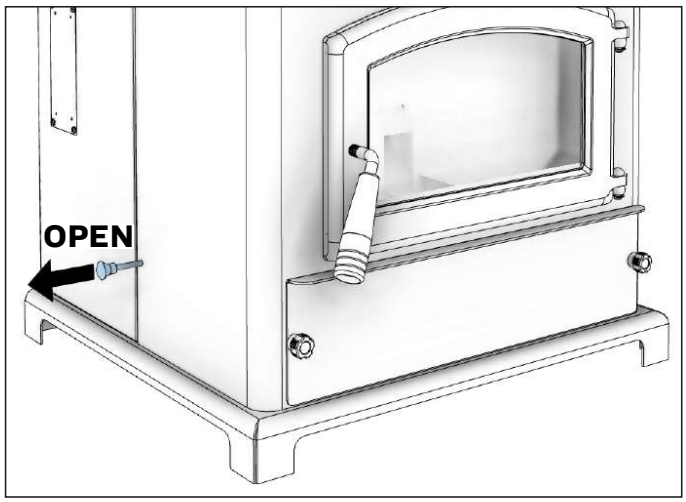
NOTE: During the first few fires, your stove will emit an odor as the high-temperature paint cures or becomes seasoned to the metal. Maintaining smaller fires will minimize this. Avoid placing items on the stovetop during this period because the paint could be affected. Attempts to achieve heat output rates that exceed heater design specifications can result in permanent damage to the heater.

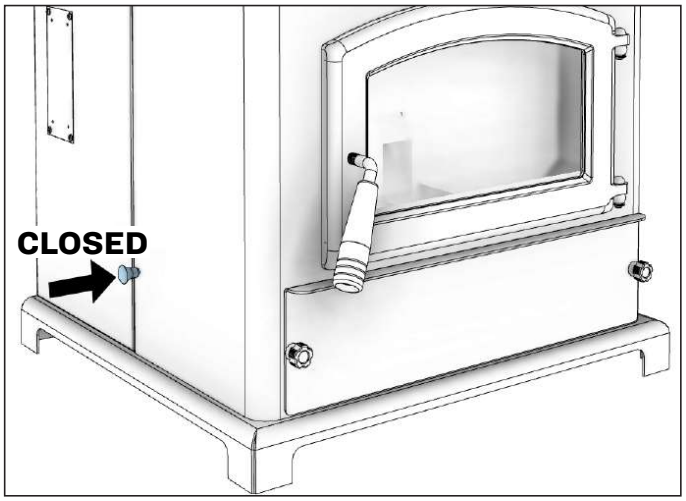
AUTOMATIC IGNITOR

1. Fill hopper and clean burn pot.
2. Press "On/Off" button. Make sure green light comes on.
3. The damper should be completely closed or open no more than 1/4 of the way during start-up. This will vary depending on your installation and elevation. Once fire is established adjust for desired flame increasing the amount the damper is open as the heat setting is increased (see "Damper Control").
4. Adjust feed rate to desired setting by pressing "Heat Level Advance" button.

OPTIMAL OPERATION

This pellet stove has been certified by the US EPA to meet strict 2020 guidelines. To ensure this unit produces the optimal minimal emissions, it is critical to follow the following guidelines. To achieve a "high burn", your stove should be set on setting 5 with the damper fully open. To achieve a "medium burn", your stove should be set on setting 2 with the damper closed. To achieve a "low burn", your stove should be set on setting 1 with the damper closed. Settings 3 and 4 will give you a higher heat output above the medium setting. If the door is opened while the stove is in operation, it must be closed within 30 seconds or the stove will shut down. If the stove shuts down, push the "On/Off" button to restart your stove. The stove will have to fully shut down and turn off before you will be able to restart the stove.





OPENING DOOR

If the door is opened while the stove is in operation it must be closed within 30 seconds or the stove will shut down. If the stove shuts down push the "On/Off" button to re-start your stove. The stove will have to fully shut down and turn off before you will be able to restart the stove.

CAUTION:
• **DO NOT OPERATE YOUR STOVE WITH THE VIEWING DOOR OPEN. THE AUGER WILL NOT FEED PELLETS UNDER THESE CIRCUMSTANCES AND A SAFETY CONCERN MAY ARISE FROM SPARKS OR FUMES ENTERING THE ROOM.**
• **THE FEED DOOR MUST BE CLOSED AND SEALED DURING OPERATION.**

ROOM AIR FAN

When starting your stove the Room Air Fan will not come on until the stove's heat exchanger warms up. This usually takes about 10 minutes from start-up.

IF STOVE RUNS OUT OF PELLETS

The fire goes out and the auger motor and blowers will run until the stove cools. This will take 30 to 45 minutes. After the stove components stop running, the "On/Off" and the Bar Graph lights stay on for 10 minutes. After the 10 minutes, the "3" light on the bar graph will flash and the "On/Off" light will go off. To re-start, refill hopper and press "Fuel Feed" button until pellets begin to fall into burnpot. Press "On/Off" button.

REFUELING

CAUTION:
• THE HOPPER AND STOVE TOP WILL BE HOT DURING OPERATION; THEREFORE, YOU SHOULD ALWAYS USE SOME TYPE OF HAND PROTECTION WHEN REFUELING YOUR STOVE. • DO NOT TOUCH THE HOT SURFACES OF THE STOVE. EDUCATE ALL CHILDREN ON THE DANGERS OF A HIGH-TEMPERATURE STOVE. YOUNG CHILDREN SHOULD BE SUPERVISED WHEN THEY ARE IN THE SAME ROOM AS THE STOVE. • NEVER PLACE YOUR HAND NEAR THE AUGER WHILE THE STOVE IS IN OPERATION. • WE RECOMMEND THAT YOU NOT LET THE HOPPER DROP BELOW 1/4 FULL.

WARNING:
• KEEP HOPPER LID CLOSED AT ALL TIMES EXCEPT WHEN REFILLING. • DO NOT OVERFILL HOPPER.

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.

SHUTDOWN PROCEDURE

WARNING:
NEVER SHUT DOWN THIS UNIT BY UNPLUGGING IT FROM THE POWER SOURCE.

Turning your stove off is a matter of pressing the "POWER" button on the display board. The green light will turn back to red when the "POWER" button is pushed. The auger motor will stop, and the blowers will continue to operate until the internal firebox temperatures have fallen to a preset level.

1. Your stove is equipped with a high temperature thermodisc. This unit has a manual reset thermodisc. This safety switch has two functions.

A. To recognize an overheat situation in the stove and shut down the fuel feed or auger system.

B. In case of a malfunctioning convection blower, the high-temperature thermodisc will automatically shut down the auger, preventing the stove from overheating.

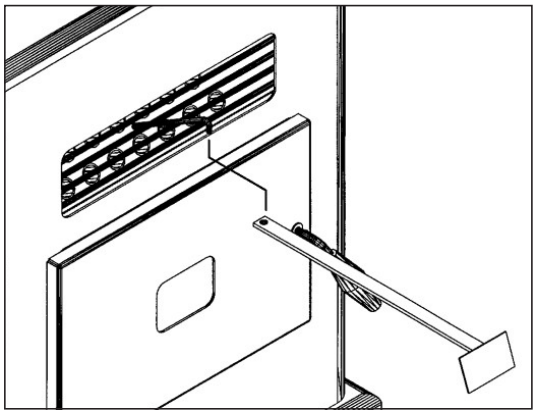
NOTE: On some units, once tripped, like a circuit breaker, the reset button will have to be pushed before restarting your stove. On other units the thermodisc has no reset button and will reset itself once the stove has cooled. The manufacturer recommends that you call your dealer if this occurs as this may indicate a more serious problem. A service call may be required.

2. If the combustion blower fails, an air pressure switch will automatically shut down the auger.

NOTE: Opening the stove door for more than 30 seconds during operation will cause enough pressure change to activate the air switch, shutting the fuel feed off. The stove will shut down and show "E2" on the two digit display. The stove has to fully shut down before restarting.

INTERIOR CHAMBERS

- **Burn Pot -** Periodically remove and clean the burn pot and the area inside the burn pot housing. In particular, it is advisable to clean out the holes in the burn pot to remove any build up that may prevent air from moving through the burn pot freely.
- **Heat Exchange Tubes -** This stove is designed with a built-in heat exchange tube cleaner. This should be used every two or three days to remove accumulated ash on the tubes, which reduces the efficiency of your unit. Insert the handle end (with hole) of the cleaning tool onto the cleaning rod. The cleaner rod is located in the grill above the stove door. Move the cleaner rod back and forth several times to clean the heat exchanger tubes. When finished, be sure to leave tube cleaner at the rear of the stove.



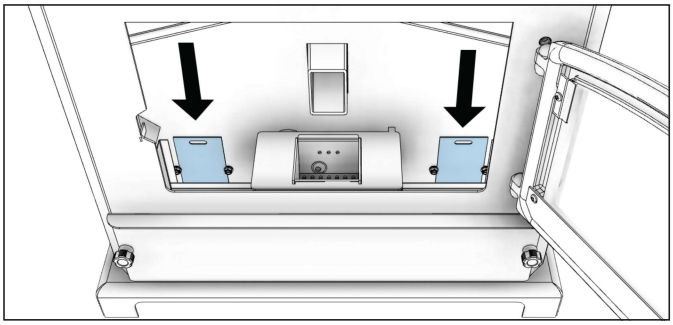
- **Heat Exchanger -** There is a clean out plate on both sides of the heat exchanger that need to be removed to clean fly ash out of the heat exchanger. The cleanouts are located inside the firebox as shown. The clean outs are secured to the firebox with (2) 5/16" screws. Remove the clean outs and vacuum out any accumulated ash. This should be done at least once per month or more frequently if large

amounts of ash are noticed while cleaning or if the stove does not seem to be burning properly.

If a vacuum is used to clean your stove, we suggest using the AV15E AshVac vacuum. The AV15E AshVac is designed for ash removal. Some regular vacuum cleaner (i.e. shop vacs) may leak ash into the room.

DO NOT VACUUM HOT ASH.

WARNING:
FAILURE TO PROPERLY MAINTENANCE THE CLEAN OUTS WILL RESULT IN POOR PERFORMANCE OF THIS STOVE.



CAUTION:
• DO NOT OPERATE YOUR STOVE IF YOU SMELL SMOKE COMING FROM IT. TURN IT OFF, MONITOR IT, AND CALL YOUR DEALER. • DO NOT OPERATE THE STOVE IF THE FLAME BECOMES DARK AND SOOTY OR IF THE BURNPOT OVERFILLS WITH PELLETS. TURN THE STOVE OFF, PERIODICALLY INSPECT IT, AND CALL YOUR DEALER

CAUTION:
IF THE STOVE IS INSTALLED IN A ROOM WITHOUT AIR CONDITIONING, OR IN AN AREA WHERE DIRECT SUNLIGHT CAN SHINE ON THE UNIT, IT IS POSSIBLE THIS CAN CAUSE THE TEMPERATURE OF THE STOVE TO RISE TO OPERATIONAL LEVELS; ONE OF THE SENSORS COULD THEN MAKE THE STOVE START ON ITS OWN. IT IS RECOMMENDED THAT THE STOVE BE UNPLUGGED WHEN NOT IN USE FOR EXTENDED AMOUNTS OF TIME (I.E. DURING THE SUMMER MONTHS).

MAINTENANCE

NEVER OPERATE THIS PRODUCT WHILE UNATTENDED

CAUTION:
• FAILURE TO CLEAN AND MAINTAIN THIS UNIT AS INDICATED CAN RESULT IN POOR PERFORMANCE, SAFETY HAZARDS, FIRE, AND EVEN DEATH. • NEVER PERFORM ANY INSPECTIONS, CLEANING, OR MAINTENANCE ON A HOT STOVE. • DISCONNECT THE POWER CORD BEFORE PERFORMING ANY MAINTENANCE! NOTE: TURNING THE ON/OFF SWITCH TO "OFF" DOES NOT DISCONNECT ALL POWER TO THE ELECTRICAL COMPONENTS OF THE STOVE. • DO NOT OPERATE STOVE WITH BROKEN GLASS, LEAKAGE OF FLUE GAS MAY RESULT.

CREOSOTE FORMATION, INSPECTION, & REMOVAL

CAUTION:
THE EXHAUST SYSTEM SHOULD BE CHECKED MONTHLY DURING THE BURNING SEASON FOR ANY BUILD-UP OF SOOT OR CREOSOTE.

When any 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 or a newly started fire or from a slow-burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote makes an extremely hot fire, which may damage the chimney or even destroy the house. Despite their high efficiency, pellet stoves can accumulate creosote under certain conditions. The chimney connector and chimney should be inspected by a qualified person annually or per ton of pellets to determine if a creosote or fly ash build-up has occurred. If creosote has accumulated, it should be removed to reduce the risk of a

chimney fire. Inspect the system at the stove 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 stove.

FLY ASH

This accumulates in the horizontal portion of an exhaust run. Though non-combustible, it may impede the normal exhaust flow. It should therefore be periodically removed.

ASH REMOVAL & DISPOSAL

CAUTION:
ALLOW THE STOVE TO COOL BEFORE PERFORMING ANY MAINTENANCE OR CLEANING. ASHES MUST BE DISPOSED IN A METAL CONTAINER WITH A TIGHT FITTING LID. THE CLOSED CONTAINER OF ASHES SHOULD BE PLACED ON A NON-COMBUSTIBLE SURFACE OR ON THE GROUND, WELL AWAY FROM ALL COMBUSTIBLE MATERIALS, PENDING FINAL DISPOSAL.

Remove the ashes periodically to avoid unnecessary ash build up. Remove ashes when unit has cooled. Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed on a noncombustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all embers have been thoroughly cooled. The container shall not be used for other trash or waste disposal. If combined with combustible substances, ashes and embers may ignite. Ash removal is as follows:

1. Let the fire burn out and allow the unit to cool to room temperature.
2. Make sure the pellet stove is at room temperature before touching. Clean the heat exchanger tubes.
3. Remove the burnpots inner section by grasping it and pulling straight up.
4. Empty ashes from the inner section and scrape with cleaning tool; make sure holes are not plugged.
5. Vacuum to remove ashes from the burn chamber interior and the burnpot shell. **WARNING: Make sure ashes are cool to the touch before using a vacuum (see "Vacuum Use").**
6. Dispose of ashes properly (see "Ash Removal").
7. Replace inner section into burnpot; make sure it is level and pushed all the way back down and that the igniter hole is to the rear when it is reinstalled.
8. Make sure the burnpot is level and pushed all the way in. If the collar on the burnpot, attached to the fresh air tube, is not pushed back to meet the firebox wall. The igniter will not work properly.

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 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 you 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.

CHECK & CLEAN THE HOPPER

Check the hopper periodically to determine if there is any sawdust (fines) that is building up in the feed system or pellets that are sticking to the hopper surface. Clean as needed.

DOOR & GLASS GASKETS

Inspect the main door and glass window gaskets periodically. The main door may need to be removed to have frayed, broken, or compacted gaskets replaced by your authorized dealer. This unit's door uses a 3/4" diameter rope gasket.

BLOWER MOTORS

Clean the air holes on the motors of both the exhaust and distribution blowers annually. Remove the exhaust blower from the exhaust duct and clean out the internal fan blades as part of your fall start-up. If you have indoor pets your power motors should be inspected monthly to make sure they are free of animal hair build up. Animal hair build up in blowers can result in poor performance or unforeseen safety hazards.

PAINTED SURFACES

Painted surfaces may be wiped down with a damp cloth. If scratches appear, or you wish to renew your paint, contact your authorized dealer to obtain a can of suitable high-temperature paint.

REMOVAL AND REPLACEMENT OF BROKEN DOOR GLASS

While wearing leather gloves (or any other gloves suitable for handling broken glass), carefully remove any loose pieces of glass from the door frame. Dispose of all broken glass properly. Return the damaged door to your dealer for repair or replacement. Neither the appliance owner nor any other unauthorized person(s) should replace the door glass. An authorized dealer must perform all repairs involving door glass.

FALL START UP

Prior to starting the first fire of the heating season, check the outside area around the exhaust and air intake systems for obstructions. Clean and remove any fly ash from the exhaust venting system. Clean any screens on the exhaust system and on the outside air intake pipe. Turn all of the controls on and make sure that they are working properly. This is also a good time to give the entire stove a good cleaning throughout.

SPRING SHUTDOWN

After the last burn in the spring, remove any remaining pellets from the hopper and the auger feed system. Scoop out the pellets and then run the auger until the hopper is empty and pellets stop flowing (this can be done by pressing the "ON" button with the viewing door open). Vacuum out the hopper. Thoroughly clean the burn pot, and firebox. It may be desirable to spray the inside of the cleaned hopper with an aerosol silicone spray if your stove is in a high humidity area. The exhaust system should be thoroughly cleaned.

MAINTENANCE SCHEDULE

CAUTION:
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.

Use the following as a guide under average use conditions. Gaskets around door and door glass should be inspected and repaired or replaced when necessary.

	Daily	Weekly	Monthly or as needed
Burn Pot	Stirred	Empty	
Combustion Chamber		Brushed	
Ashes		Check	Empty
Interior Chambers			Vacuumed
Combustion Blower Blades			Vacuumed / Brushed
Convection Blower Impeller			Vacuumed / Brushed
Vent System			Cleaned
Gaskets			Inspected
Glass	Wiped	Cleaned	
Hopper (end of season)			Empty & Vacuumed

INSTRUCTIONS SPECIFIC FOR CANADIAN INSTALLATIONS

Do not obstruct the space under the heater and do not obstruct the combustion air openings.

Refer to the chimney manufacturer's instructions for disassembling the chimney/venting for transportation of a transportable building.

The parts or materials to be employed for ember protectors and the minimum areas to be covered and their relation to the space heater, as well as the notice: "In Canada, to comply with CSA B365, Installation Code for Solid-Fuel-Burning Appliances and Equipment, any combustible covering beneath the appliance and/or within the area extending horizontally at least 450 mm (18 in) beyond the appliance on any side equipped with a door, and at least 200 mm (8 in) beyond the appliance on other sides, shall be protected by a continuous, durable, non-combustible pad that will provide ember protection. The 450 mm (18 in) ember protection required on any side with a door shall extend for the full width of the appliance plus the 200 mm (8 in) required on each side of the appliance without a door. Where an appliance is installed less than 200 mm (8 in) from a wall, the ember pad need only extend to the base of the wall. An ember pad shall not be placed on top of a carpet unless the pad is structurally supported to prevent displacement and distortion.

If this appliance is installed in a transportable building, removal of the chimney/venting is required for transportation of the building.

DO NOT INSTALL IN AN ALCOVE

DO NOT INSTALL IN ANY FIREPLACE

TROUBLESHOOTING GUIDE

When your stove acts out of ordinary, the first reaction is to call for help. This guide may save time and money by enabling you to solve simple problems yourself. Problems encountered are often the result of only five factors: 1) poor fuel; 2) poor operation or maintenance; 3) poor installation; 4) component failure; 5) factory defect. You can usually solve those problems related to 1 and 2. Your dealer can solve problems relating to 3, 4, and 5. Refer to diagrams on page 17 to help locate indicated parts.

For the sake of troubleshooting and using this guide to assist you should look at your heat level setting to see which light is flashing.

CAUTION - UNPLUG THE STOVE FROM ALL POWER PRIOR TO ATTEMPTING TO SERVICE THE UNIT!

STOVE SHUTS OFF AND THE #2 LIGHT FLASHES	
Possible Causes:	Possible Remedies:
Airflow switch hose or stove attachment pipes for hose are blocked.	Unhook air hose from the air switch and blow through it. If air flows freely, the hose and tubes are fine. If air will not flow through the hose, use a wire coat hanger to clear the blockage.
The air inlet, burnpot, interior combustion air chambers, combustion blower, or exhaust pipe are blocked with ash or foreign material.	Follow all clearing procedures in the maintenance section of the owner's manual.
The firebox is not properly sealed.	Make sure the door is closed and that the gasket is in good shape. If the ash door has a latch, make sure the ash door is properly latched and the gasket is sealing good. If the stove has just a small hole for the ashes to fall through under the burnpot, make sure the slider plate is in place to seal off the firebox floor.
Vent pipe is incorrectly installed.	Check to make sure vent pipe installation meets criteria in owner's manual.
The airflow switch wire connections are bad.	Check the connectors that attach the gray wires to the air switch.
The gray wires are pulled loose at the Molex connector on the wiring harness.	Check to see if the gray wires are loose at the Molex connector.
Combustion blower failure	With the stove on, check to see if the combustion blower is running. If it is not, you will need to check for power going to the combustion blower. It should be a full current. If there is power, the blower is bad. If there is not, see #8.
Control board not sending power to combustion blower.	If there is no current going to the combustion blower, check all wire connections. If all wires are properly connected, you have a bad control board.
Control board not sending power to air switch.	There should be a 5-volt current (approximately) going to the air switch after the stove has been on for 30 seconds.
Air switch has failed (very rare).	To test air switch, you will need to disconnect the air hose from the body of the stove. With the other end still attached to the air switch, very gently suck on the loose end of the hose (you may want to remove the hose entirely off the stove and the air switch first and make sure it is clear). If you hear a click, the air switch is working. BE CAREFUL! TOO MUCH VACUUM CAN DAMAGE THE AIR SWITCH.

SMOKE SMELL COMING BACK INTO THE HOME	
Possible Causes:	Possible Remedies:
There is a leak in the vent pipe system.	Inspect all vent pipe connections. Make sure they are sealed with RTV silicone that has a temperature rating of 500°F or higher. Also, seal joints with UL-181-AP foil tape. Also, make sure the square to round adapter piece on the combustion blower has been properly sealed with the same RTV.
The gasket on the combustion blower has gone bad.	Inspect both gaskets on the combustion blower to make sure they are in good shape.

STOVE SHUTS OFF AND THE #3 LIGHT FLASHES	
Possible Causes:	Possible Remedies: (Unplug stove first when possible)
The hopper is out of pellets.	Refill the hopper
The air damper is too far open for a low feed setting.	If burning on the low setting, you may need to close the damper all the way (push the knob in so it touches the side of the stove).
The burnpot is not pushed completely to the rear of the firebox.	Make sure that the air intake collar on the burnpot is touching the rear wall of the firebox.
The burnpot holes are blocked.	Remove the burnpot and thoroughly clean it.
The air inlet, the interior chambers, or exhaust system has a partial blockage.	Follow all cleaning procedures in the maintenance section of the owner's manual.
The hopper safety switch has failed or hopper is open.	When operating the unit, be sure the hopper lid is closed so that the hopper safety switch will activate. Check the wires leading from the hopper safety switch to the control panel and auger motor for secure connections. Use a continuity tester to test the hopper safety switch, replace if necessary.
The auger is jammed.	Start emptying the hopper. Then remove the auger motor by removing the auger pin. Remove the auger shaft. Gently lift the auger shaft straight up so that the end of the auger shaft comes up out of the bottom auger bushing. Next, remove the two nuts that hold the top auger biscuit in. Then rotate the bottom end of the auger shaft up towards you until you can lift the shaft out of the stove. After you have removed the shaft, inspect it for bent flights, burrs, or broken welds. Remove any foreign material that might have caused the jam. Also, check the auger tube for signs of damage such as burrs, rough spots, or grooves cut into the metal that could have caused a jam.
The auger motor has failed.	Remove the auger motor from the auger shaft and try to run the unit. If the motor will turn, the shaft is jammed on something. If the motor will not turn, the motor is bad.
The Proof of Fire (POF) thermodisc has malfunctioned.	Temporarily bypass the POF thermodisc by disconnecting the two brown wires and connecting them with a short piece of wire. Then plug the stove back in. If the stove comes on and works, you need to replace the POF thermodisc. This is for testing only. DO NOT LEAVE THE THERMODISC BYPASSED. Your blowers will never shut off and if the fire went out, the auger will continue to feed pellets until the hopper is empty if you leave the POF thermodisc bypassed.
The high limit thermodisc has tripped or is defective	Wait for the stove to cool for about 30-45 minutes. It should now function normally. If not, use the owner's manual to locate the high limit thermodisc. To test if the thermodisc is bad, you can bypass it as described previously for the POF thermodisc.
The fuse on the control board has blown.	Remove the control board. On the back, there is one fuse. If it appears to be bad, replace it with a 5 Amp 125 Volt fuse. Plug the stove back in and try to run the unit.

TROUBLESHOOTING GUIDE

STOVE SHUTS OFF AND THE #3 LIGHT FLASHES	
Possible Causes:	Possible Remedies: (Unplug stove first when possible)
The control board is not sending power to the POF thermodisc or other auger system components.	There should be a 5-volt (approximately) current going to the POF thermodisc after the stove has been on for 10 minutes.

CONVECTION BLOWER SHUTS OFF AND COMES BACK ON	
Possible Causes:	Possible Remedies:
The convection blower is overheating and tripping the internal temperature shutoff.	Clean any dust off the windings and fan blades. If clearing the blower does not help, the blower may be bad.
Circuit board malfunction.	Test the current going to the convection blower. If there is power being sent to the blower when it is shut off, the control board is fine. If there is NOT power being sent to the blower when it shuts off during operation, then you have a bad control board.

STOVE FEEDS PELLETS, BUT WILL NOT IGNITE	
Possible Causes:	Possible Remedies:
Air damper open too far for ignition.	Push the air damper in closer to the side of the stove for startup. In some situations, it may be necessary to have the damper completely closed for ignition to take place. After there is a flame, the damper can then be adjusted for the desired feed setting.
Blockage in igniter tube or inlet for igniter tube.	Find the igniter housing on the backside of the firewall. The air intake hole is a small hole located on the bottom side of the housing. Make sure it is clear. Also, look from the front of the stove to make sure there is not any debris around the igniter element inside of the igniter housing.
The burnpot is not pushed completely to the rear of the firebox.	Make sure that the air intake collar on the burnpot is touching the rear wall of the firebox.
Bad igniter element.	Put power directly to the igniter element. Watch the tip of the igniter from the front of the stove. After about 2 minutes, the tip should glow. If it does not, the element is bad.
The control board is not sending power to the igniter.	Check the voltage going to the igniter during startup. It should be a full current. If the voltage is lower than full current, check the wiring. If the wiring checks out good, the board is bad.

STOVE WILL NOT FEED PELLETS, BUT FUEL FEED LIGHT COMES ON AS DESIGNED	
Possible Causes:	Possible Remedies:
Fuse on control board blew.	Remove the control board. On the back, there is one fuse. If it appears to be bad, replace it with a 5 Amp 125 Volt fuse. Plug the stove back in and try to run the unit.
High limit switch has tripped or is defective.	Wait for the stove to cool for about 30-45 minutes. It should now function normally. If not, use the owner's manual to locate the high limit thermodisc. To test if the thermodisc is bad, you can bypass it as described previously for the POF thermodisc.
Bad auger motor.	Remove the auger motor from the auger shaft and try to run the unit. If the motor will turn, the shaft is jammed on something. If the motor will not turn, the motor is bad.

STOVE WILL NOT FEED PELLETS, BUT FUEL FEED LIGHT COMES ON AS DESIGNED	
Possible Causes:	Possible Remedies:
Auger jam	Start by emptying the hopper. Then remove the auger motor by removing the auger pin. Remove the auger shaft inspection plate in the hopper so that you see the auger shaft. Gently lift the auger shaft straight up so that the end of the auger shaft comes up out of the bottom auger bushing. Next, remove the two nuts that hold the top auger biscuit in. Then rotate the bottom end of the auger shaft up towards you until you can lift the shaft out of the stove. After you have removed the shaft, inspect it for bent flights, burrs, or broken welds. Remove any foreign material that might have caused the jam. Also, check the auger tube for signs of damage such as burrs, rough spots, or grooves cut into the metal that could have caused a jam.
Loose wire or connector	Check all wires and connectors that connect to the auger motor, high limit switch, and the Molex connector.
Bad control board	If the fuse is good, the wires and connectors check out good, and the high limit switch did not trip, test fir power going to the auger motor. If there is not a full current going to the auger motor when the fuel feed light is on, you have a bad control board.

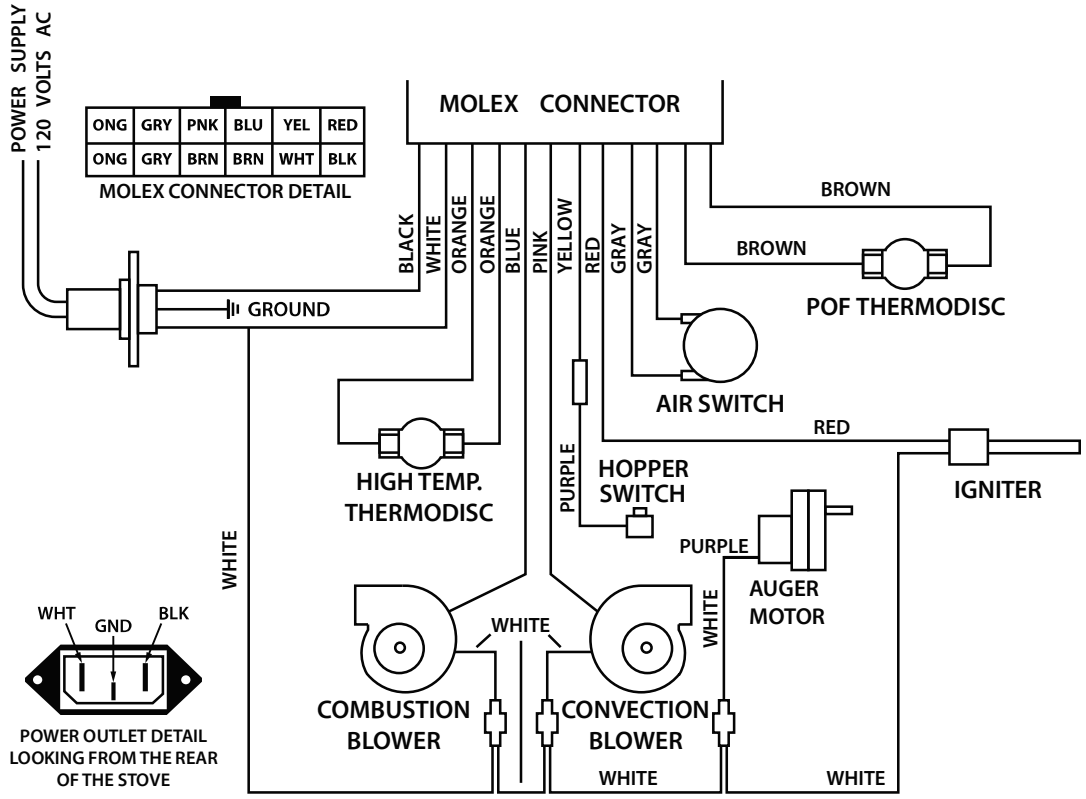
GLASS "SOOTS" UP AT A VERY FAST RATE FLAME IS LAZY, DARK AND HAS BLACK TIPS AFTER STOVE HAS BEEN ON FOR A WHILE, THE BURNPOT OVERFILLS	
Possible Cause:	Possible Remedies:
Stove or vent pipe is dirty, which restricts airflow through the burnpot.	Follow all cleaning procedure in the maintenance section of the owner's manual.
Vent pipe installed improperly.	Check to make sure the vent pipe has been installed according to the criteria in the owner's manual.
Air damper is set too far in (closed) for a higher setting.	Put the damper knob farther out away from the side of the stove and try not to burn the unit again.
Burnpot holes are blocked.	Remove the burnpot and thoroughly clean it.
Air damper is broken.	Visually inspect the damper assembly. Make sure the damper plate is attached to the damper rod. When the damper rod is moved, the plate should move with it.
Blockage in air intake pipe.	Visually inspect the air intake pipe that leads into the burnpot for foreign material.
Circuit board malfunction.	Time the fuel feed light at each setting (after the stove has completed the startup cycle). Make sure the times match the auger timing chart. If the auger motor runs constantly, the board is bad.
Combustion blower is not spinning fast enough.	Test the RPM on the blower after the blades have been cleaned. The RPM should be approximately 3000RPM.
Bad Pellets (Applies to "GLASS 'SOOTS' UP AT A VERY FAST RATE" only.	The brand of pellets or the batch of pellets that are being used may be of poor quality. If possible, try a different brand of pellets. You might also want to try a brand that is made from a different type of wood (softwood vs. hardwood). Different woods have different characteristics when being burned.
The trim setting on the low feed rate is too low. (Applies to "GLASS 'SOOTS' UP AT A VERY FAST RATE" only.	Use the "Reset Trim" button to increase the low feed rate setting. If the "1" & "3" lights are on, the stove is currently on the lowest setting. If only the "1" light is on, the stove is in the default (medium) setting. If the "1" & "4" lights are on, the stove is in the high trim setting for the low feed rate. If the stove is being burned on one of the two lower settings, advance to the next trim setting and try burning the stove.

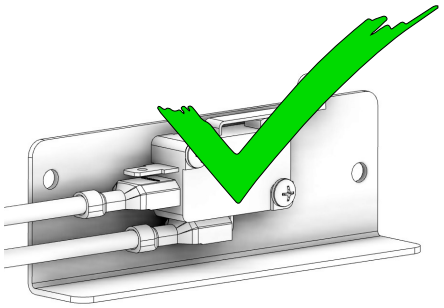
HIGH LIMIT SWITCH KEEPS TRIPPING	
Possible Causes:	Possible Remedies:
The convection blower is overheating and tripping the internal temperature shutoff.	Clean any dust off the windings and fan blades. If oiling the blower does not help, the blower may be bad
The stove is being left on the highest setting for extended periods of time.	The highest level setting is designated for use over short periods of time. Burning the stove on the highest setting for longer that 1-2 hours could lead to potential overheating situations.
Fuel other than wood pellets is being burned in the stove	This unit is designed and tested to use wood pellets. Check for signs of fuel other than wood pellets. No other type of fuel have been approved for this pellet stoves. If there are signs of other types of fuel being used, stop using them immediately.
Power surge or brown out situation.	A power surge, spike, or voltage drop could cause the high limit switch to trip. Check to see if a surge protector is being used on the stove. If not, recommend one to the consumer.
High limit switch is malfunctioning.	If the other items checked out okay, replace the high limit switch.

DIGITAL CIRCUIT BOARD TIMING RATES	
Heat Level Setting	
1 & 3	1.4 seconds
1	2 seconds
1 & 4	2.5 seconds
2	4 seconds
3	7 seconds
4	9 seconds
5	12 seconds
Total Cycle Time	14.5 seconds

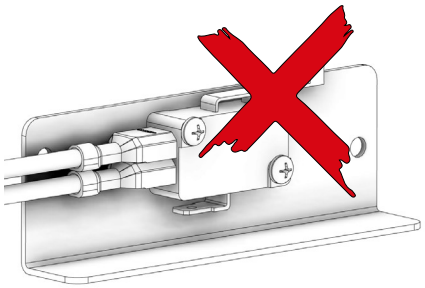
SMOKE SMELL OR SOOT BUILD-UP

Because it is a wood-burning device, your stove may emit a faint wood-burning odor. If this increases beyond normal or is you notice an unusual soot buildup on walls or furniture, check your exhaust system carefully for leaks. All joints should be properly sealed. Also, clean your stove following instructions in the “Maintenance” section of this manual. If problem persists, contact your dealer.





CORRECT



WRONG

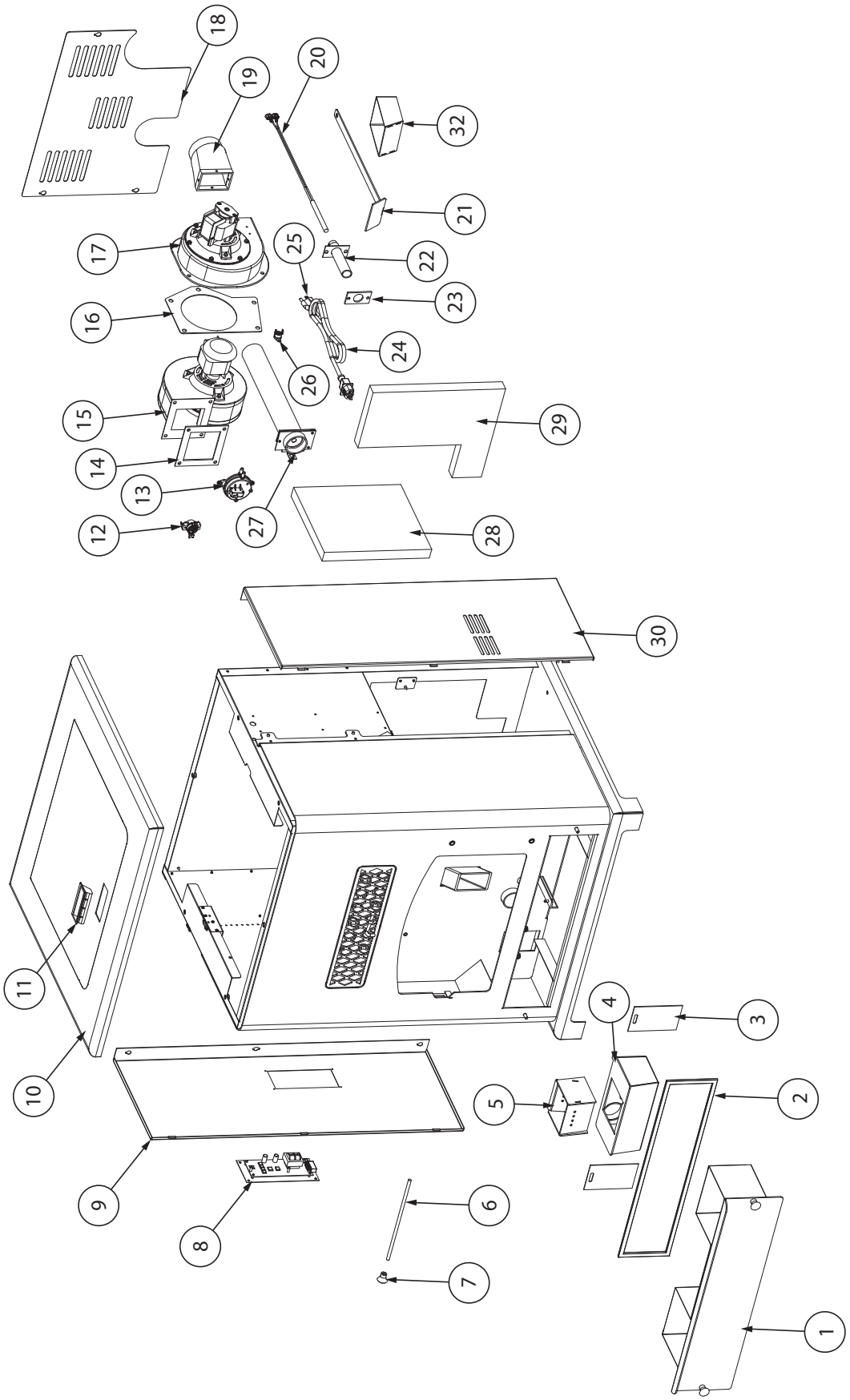
ENSURE THE WIRES ARE CONNECTED TO THE BOTTOM TWO PRONGS OF THE HOPPER SWITCH AS SHOWN.

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

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



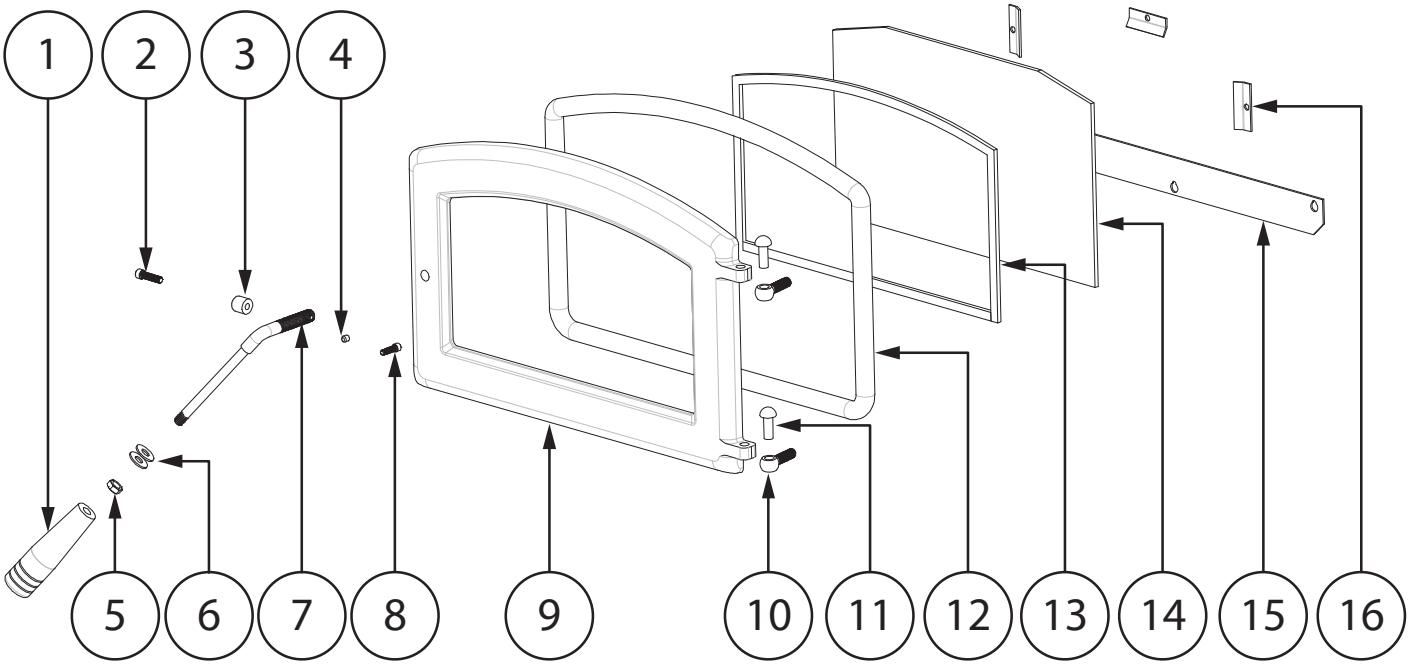
REPLACEMENT PARTS

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	69971	Ash Pan	1
2	88174	Gasket-Flat (3/16T X 3/8W)	1
3	26799	Ash Door	2
4	69964	Burnpot Housing Weldment	1
5	894097	Burnpot Weldment	1
6	86668	Damper Rod	1
7	891987	Plastic Knob	3
8	610326	Control Plate	1
9	26794	Left Side Cabinet	1
10	69703	Top Lid Weldment	1
11	891148	Plastic Handle	1
12	80683	300° Thermodisc	1
13	80621	Pressure Switch	1
14	88205	Gasket Convection Blower	1
15	80647	Distribution Blower	1
16	88100	Exhaust Blower Gasket	1

Key	Part #	Description	Qty
17	80641	Exhaust Blower	1
18	26793	Cabinet Back	1
19	40494	Transition Blower	1
20	80909	Ignitor Cartridge	1
21	25589	Burnpot Poker	1
22	86999	Ignitor Housing Assembly	1
23	88202	Ignitor Housing Gasket	1
24	80461	Power Supply Cord	1
25	80462	3 Prong Receptacle	1
26	80610	Low Limit POF Thermodisc	1
27	69966	Damper Assembly	1
28	88208	Blower Blanket	1
29	88207	Rear Blanket	1
30	26795	Right Side Cabinet	1
31	80642	Auger Motor	1
32	893551	(Optional) Burnpot Extender	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.



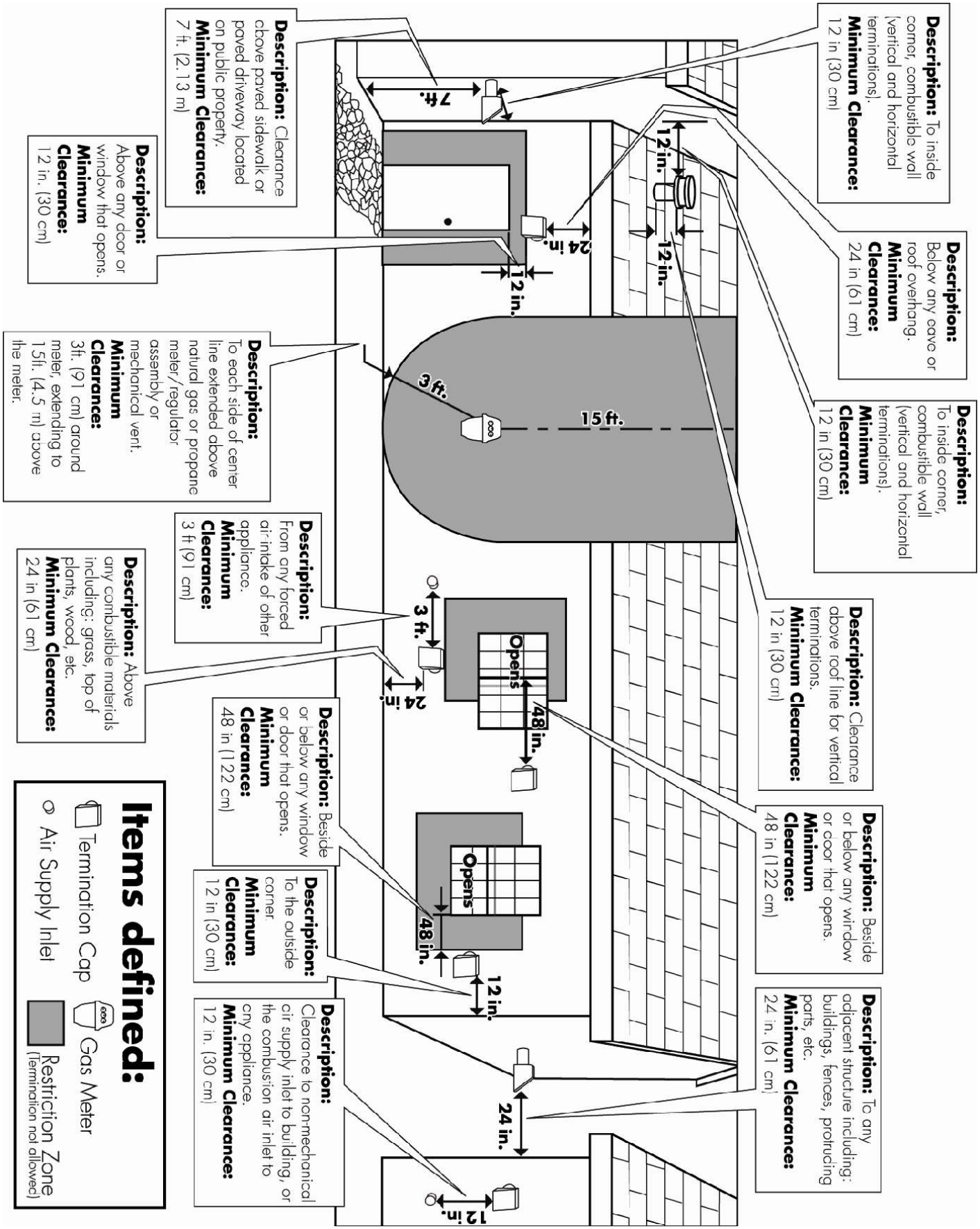
Contact an Authorized Dealer to obtain any of these parts. Never use substitute materials. Use of non-approved parts can result in poor performance and safety.

Key	Part #	Description	Qty
1	893919	Wood Handle	1
2	83788	Socket Head Screw	1
3	893062	Roller Sleeve	1
4	83242	1/4-20 X 1/4 Allen Set Screw	1
5	83178	3/8-16 Jamb Nut	1
6	83045A	Washer, 3/8"ID X 7/8" OD X 1/16 THK	2 per
7	893071	Door Handle	1
8	83633	#12 X .75 Socket HD Cap Screw	1

Key	Part #	Description	Qty
9	40915	Cast Door - 2023	1
10	83575	Hinge Pin (.370 Dia X 1.00)	2
11	40571	Hinge Block	2
12	88082	3/4 Round Rope Gasket-BLK	4.3 ft
13	88174	Glass Gasket	3.75 ft
14	893934	Door Glass	1
15	25905	Air Wash Plate	1
16	25904	Glass Clip	3

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.

ITEMS DEFINED



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.

Service 01 Date: _____
Engineer Name: _____
License No.: _____
Company: _____
Telephone No.: _____
Stove Inspected: ☐ Chimney Swept: ☐
Items Replaced: _____

Service 02 Date: _____
Engineer Name: _____
License No.: _____
Company: _____
Telephone No.: _____
Stove Inspected: ☐ Chimney Swept: ☐
Items Replaced: _____

Service 03 Date: _____
Engineer Name: _____
License No.: _____
Company: _____
Telephone No.: _____
Stove Inspected: ☐ Chimney Swept: ☐
Items Replaced: _____

Service 04 Date: _____
Engineer Name: _____
License No.: _____
Company: _____
Telephone No.: _____
Stove Inspected: ☐ Chimney Swept: ☐
Items Replaced: _____

Service 05 Date: _____
Engineer Name: _____
License No.: _____
Company: _____
Telephone No.: _____
Stove Inspected: ☐ Chimney Swept: ☐
Items Replaced: _____

Service 06 Date: _____
Engineer Name: _____
License No.: _____
Company: _____
Telephone No.: _____
Stove Inspected: ☐ Chimney Swept: ☐
Items Replaced: _____

Service 07 Date: _____
Engineer Name: _____
License No.: _____
Company: _____
Telephone No.: _____
Stove Inspected: ☐ Chimney Swept: ☐
Items Replaced: _____

Service 08 Date: _____
Engineer Name: _____
License No.: _____
Company: _____
Telephone No.: _____
Stove Inspected: ☐ Chimney Swept: ☐
Items Replaced: _____