

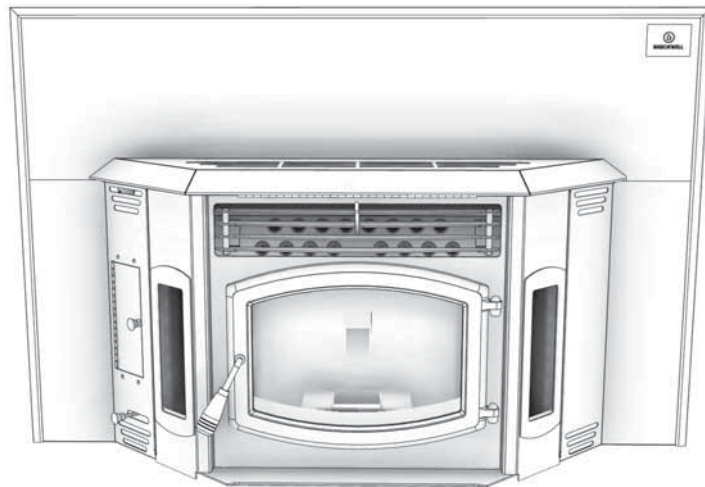
Owner's Instruction and Operation Manual



BRECKWELL

Model Number:

SP24i



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

852188J-4404J

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

THIS MANUAL IS SUBJECT TO CHANGE WITHOUT NOTICE.



This manual describes the installation and operation of the Breckwell, SP24(i) wood heater. This heater meets the 2020 U.S. Environmental Protection Agency’s crib wood 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 4,814 to 32,788 Btu/hr, 0.49 g/hr, and 63% efficiency.

This stove has been independently tested to ASTM E1509-12 (2017) Standard Specification for Room Heaters, Pellet Fuel Burning Type 1, ULC-S627 Standard for Solid Fuel Room Heaters, and Oregon Administrative Rules for Mobile Homes (814-23-900 through 814-23-909) and Installation as a Stove Heater.

Heating Specifications			
Fuel Burn Rate	1-5 lbs /hr. (0.45-2.27 kg/hr)	* Pellet size may effect the actual rate of fuel feed and burn times. Fuel feed rates may vary by as much as 20%. Use PFI listed fuel for best results.	
Hopper Capacity	70 lbs (31.75 kg)		
Flue Size	3" or 4" (77 mm or 102 mm)		
Electrical Specifications			
Electrical Rating	115 Volts AC, 60 HZ, 3.0 Amps		
Dimensions			
Overall: Height x Width X Depth	Free Standing (excluding ash lip)	33-1/4" (845 mm) x 26" (661 mm) x 30-7/8"(785 mm)	
	Insert	21" (534 mm) (in fireplace) x 22" (559 mm) (at fireplace rear) 29-1/2" (750 mm)(at fireplace opening) x 23-1/2" (597 mm) (total) 16-3/8" (416 mm)(in fireplace)	
	Flashing	Medium	28" (712 mm) x 44-1/2" (1131 mm) x N/A
		Large	32" (813 mm) x 48-1/2" (1232 mm) x N/A
Weight	Free Standing	325 lbs (147.4 kg)	
	Insert	250 lbs (113.4 kg)	
	Flashing	13 lbs (9 kg)	

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 @ WWW.BRECKWELL.COM

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/

For customer service, please contact your Breckwell dealer or visit www.Breckwell.com

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

FOR CUSTOMER ASSISTANCE CALL YOUR BRECKWELL DEALER OR EMAIL: WWW.BRECKWELL.COM

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.
- 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.

CAUTION:

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

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; IN CASE 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. TURNING THE STOVE "OFF" DOES NOT DISCONNECT ALL POWER FROM THE STOVE.
- 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.
- DO NOT OPERATE YOUR STOVE IF YOU SMELL SMOKE COMING FROM IT. TURN IT OFF, MONITOR IT, AND CALL YOUR DEALER.
- NEVER BLOCK FREE AIRFLOW THROUGH THE OPEN VENTS OF THE UNIT.

WARNING:

- 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).
- THE EXHAUST SYSTEM MUST BE COMPLETELY AIRTIGHT AND PROPERLY INSTALLED. THE PELLET VENT JOINTS MUST BE SEALED WITH RTV 500°F (260°C) SILICONE SEALANT, AND WITH UL-181-AP FOIL TAPE.



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).

Breckwell Hearth 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

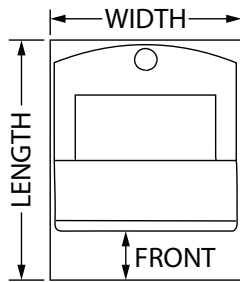
the rear of the stove is necessary. The circuit board/control panel must be unpacked and installed in the side flashing on the insert. (See installation instructions provided with the circuit board) NOTE: Normally, your dealer will perform these functions.

IMPROPER INSTALLATION

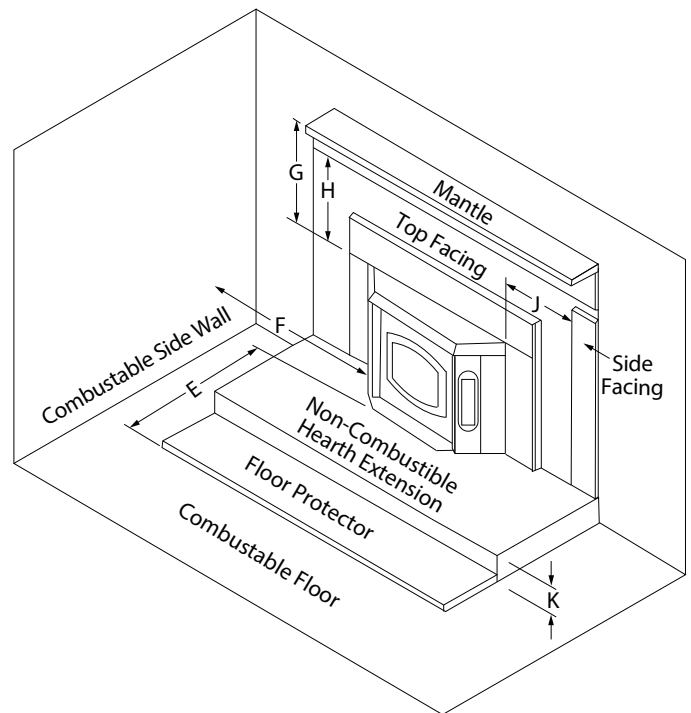
The use of other components other than stated herein could cause bodily harm, heater damage, and void your warranty. The manufacturer will not be held responsible for damage caused by the malfunction of a stove due to improper venting or installation.

FLOOR PROTECTION

This heater must have a non-combustible floor protector with an insulated rating of 'R1' installed beneath it if the floor is of combustible material.



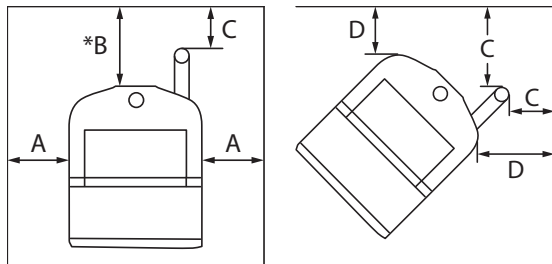
Front	6" (153 mm)
Length	35" (889 mm)
Width	25" (635 mm)



E	6"	153 mm
F	5"	127 mm
G	14"	356 mm
H	10"	254 mm
J	3"	77 mm
K	0"	0 mm

CLEARANCES

This pellet stove has been tested and listed for installation in residential, mobile home in accordance with the clearances given below. This insert is approved for installation into code complying masonry fireplaces. This insert is also approved for use in listed factory built fireplaces (UL 127) and standard residential built-ins, including mobile home built-in installations.



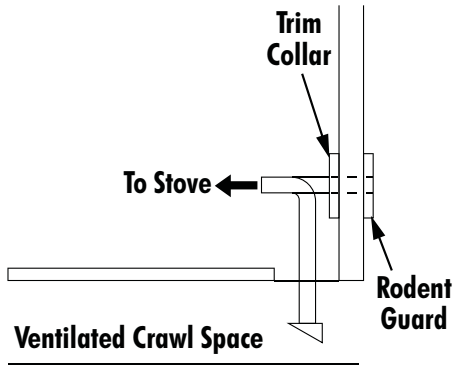
A	Side Wall to Stove	3"	77 mm
B	Back Wall to Stove	*2"	51 mm
C	Wall to Vent Pipe	3"	77 mm
D	Stove Corner To Wall	3"	77 mm
* With Horizontal Exhaust			

OUTSIDE AIR SUPPLY (OPTIONAL, UNLESS INSTALLING IN A MOBILE HOME)

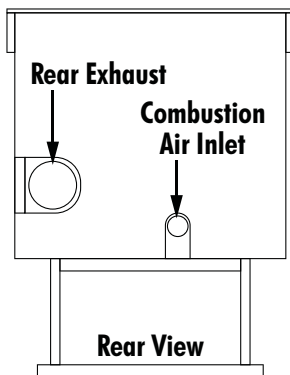
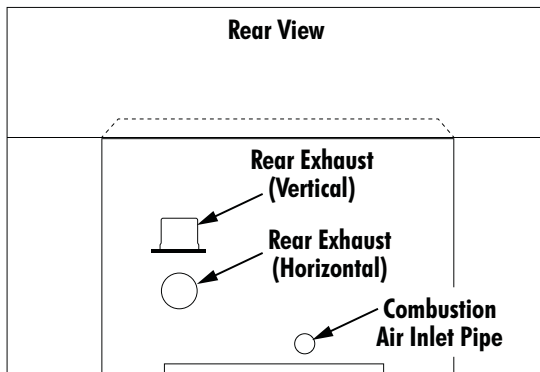
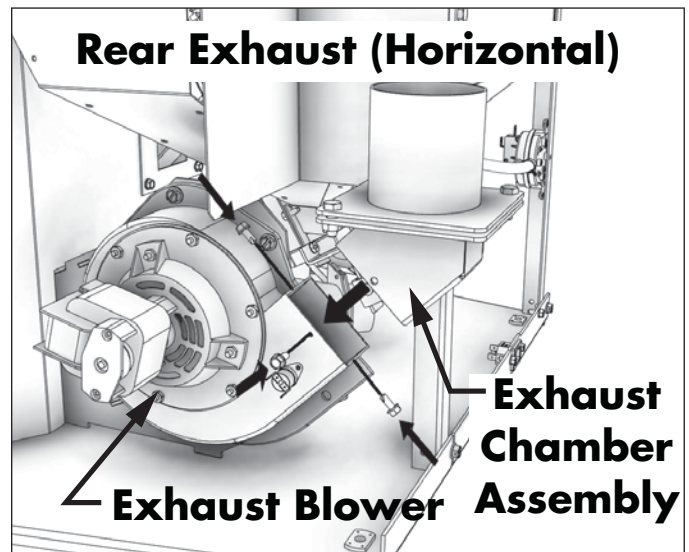
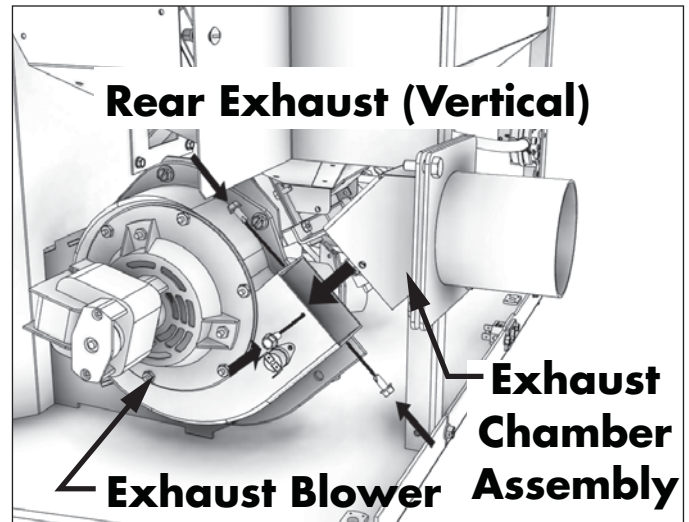
ATTENTION:

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.

Depending on your location and home construction, outside air may be necessary for optimal performance. A 2" ID metallic pipe (either flexible or rigid) may be attached to the inlet at the stove's rear. A rodent guard (minimum 1/4" 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 installations only: 2" 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" inside diameter pipe. No combustion air supply may exceed 10 feet.



To convert from horizontal rear exhaust to vertical rear exhaust or vice versa follow these steps:

1. Remove the four screws that are securing the exhaust chamber assembly to the exhaust blower.
2. Completely remove all silicone.
3. Apply new silicone.
4. Rotate exhaust assembly and reinstall. Reuse the four screws to secure the exhaust chamber to the exhaust blower.

SOURCES OF OUTSIDE COMBUSTION AIR:

In Fireplaces - chimney top or ash clean out door.

In freestanding installations - a hole in floor near stove rear terminating only in a ventilated crawl space or a hole in the wall behind the stove.

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. In insert installations, flashing vents should not be restricted. The flashing should not necessarily seal the fireplace face.

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 neighbors or in a valley which may cause unhealthy or nuisance conditions.

SECURING APPLIANCE TO THE FLOOR

WARNING! DO NOT INSTALL IN SLEEPING ROOM.

CAUTION! THE STRUCTURAL INTEGRITY OF THE MOBILE HOME FLOOR, WALL, AND CEILING/ROOF MUST BE MAINTAINED.

WHEN INSTALLED IN A MOBILE HOME, THE STOVE MUST BE GROUNDED DIRECTLY TO THE STEEL CHASSIS AND BOLTED TO THE FLOOR.

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

- This stove must be securely fastened to the floor of the mobile home using two 1/4" lag bolts that are long enough to go through both a hearth pad, if used, and the floor of the home.
- 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 the "Outside Air Supply" section and your dealer for purchasing.
- Check with your local building officials as other codes may apply.

VENTING

This unit is certified for use with listed type L-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. We recommend that all vertical vent connector joints be secured with a minimum of 3 screws. It is strongly recommended that you have a minimum of 6' of vertical pipe in your exhaust system. For best performance of the stove limit the number of elbows and horizontal pipe as much as possible.

WARNING:

- **INSTALL VENT AT CLEARANCES SPECIFIED BY THE VENT MANUFACTURER.**
- **DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.**
- **DO NOT INSTALL A FLUE DAMPER IN THE EXHAUST VENTING SYSTEM OF THIS UNIT. INSTALL VENT AT CLEARANCES SPECIFIED BY THE VENT MANUFACTURER.**

EQUIVALENT VENT LENGTH (EVL)

The longer the run of pipe in your installation (both with insert and freestanding), the more restriction there is in the system. Therefore, larger diameter pipe should be used.

- Use 4" pipe if you have more than 15 feet of equivalent vent length.
- Horizontal runs shall not exceed 10 feet of EVL.
- Recommended vertical runs to be minimum of 8 feet.
- To calculate EVL, use the following conversions:
90° elbow or "T" = 5 equivalent feet
45° elbow = 3 equivalent feet
Horizontal Pipe Run = 1 equivalent foot per actual foot
Vertical Pipe Run = 0.5 equivalent foot per actual foot

NOTE: At altitudes above 3,000 feet, we suggest the use of 4" diameter vent at an EVL of 7 feet or more.

FREESTANDING INSTALLATION

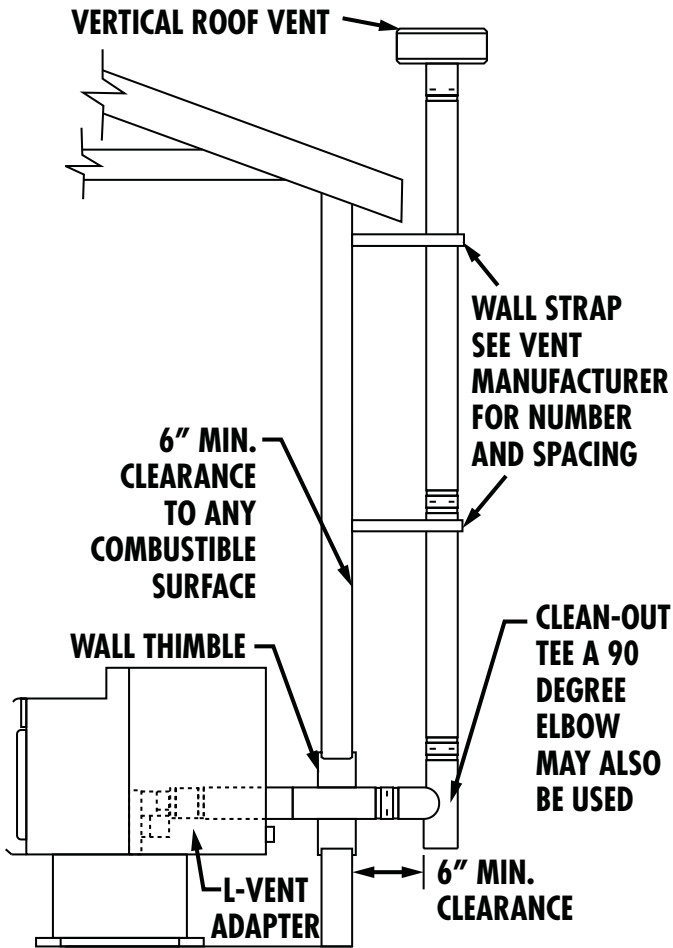
A. HORIZONTALLY THROUGH WALL

NOTE: Follow L-Vent chimney manufacturer's instructions.

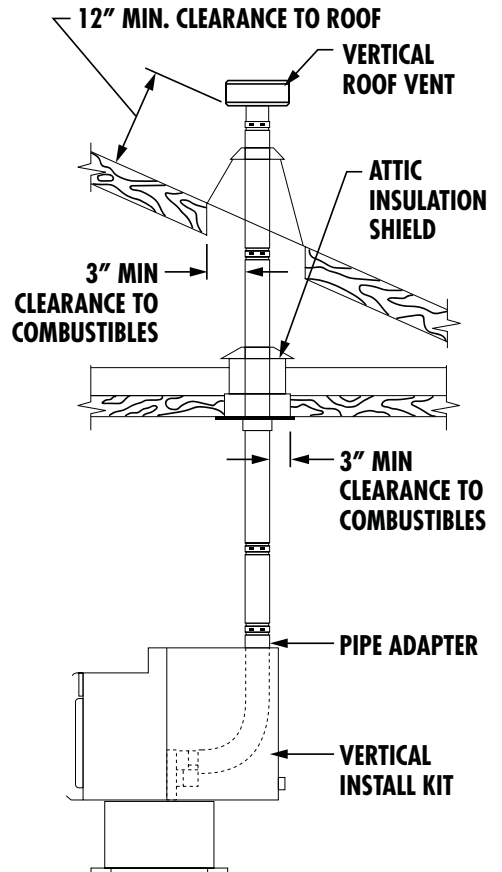
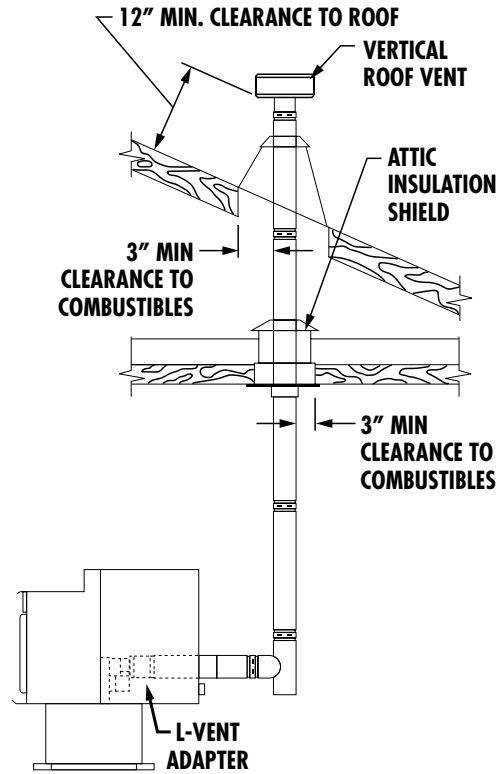
1. Position stove, adhering to clearances provided in this manual.
2. Locate position of hole in wall; directly behind stove exhaust vent.
3. Always maintain 3" clearance from combustible materials.
4. Install L-Vent wall thimble per L-Vent manufacturer's instructions.

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. Termination should not be located so that hot exhaust gases can ignite trees, shrubs, or grasses or be a hazard to children. Exhaust gases can reach temperatures of 500°F and cause serious burns if touched.

B. VERTICALLY WITH NEW CHIMNEY SYSTEM)



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 one foot above, any door, window or gravity air inlet into any building; c) not less than two feet from an adjacent building and not less than 7 feet above grade when located adjacent to a public walkway. Mobile home installations must use a spark arrester.



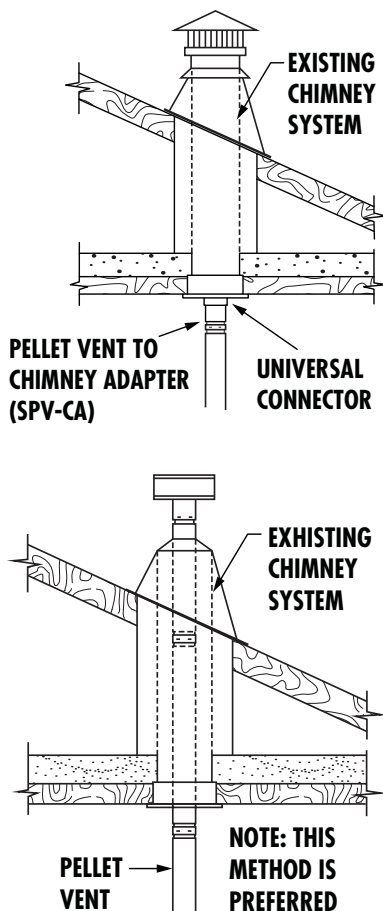
NOTE: Follow L-Vent chimney manufacturer's instructions.

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 L-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 L-Vent pipe per L-Vent manufacturer's instructions.

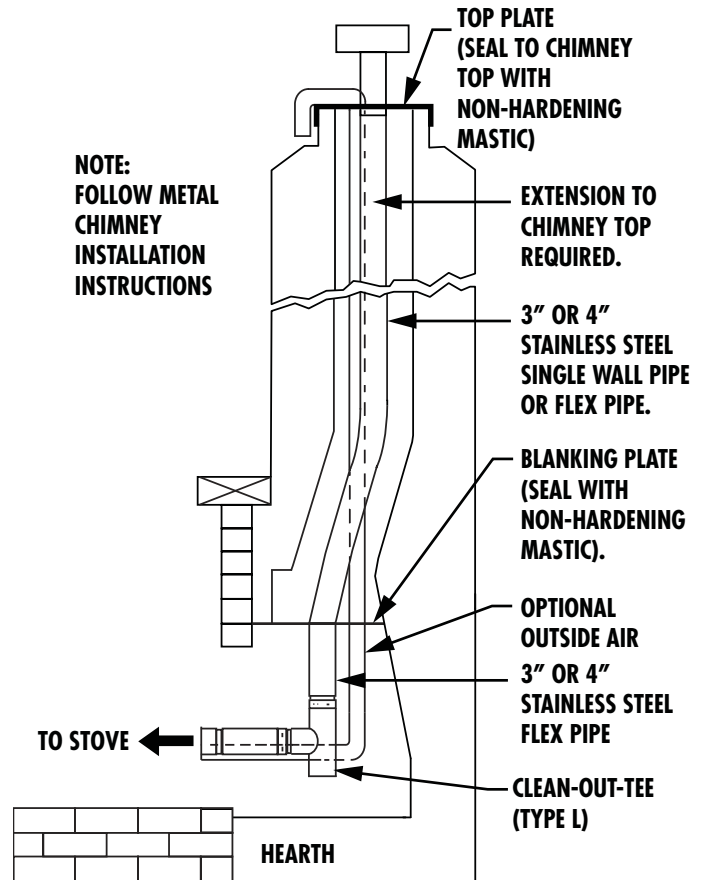
1. Always maintain 3" clearance from combustible materials. When passing through additional floors or ceilings, always install a firestop spacer.
2. After lining up for the hole in the roof, cut either around or square hole in the roof, always 3" larger all the way around the pipe. Install the upper edge and sides of flashing under roofing materials, nail to the roof along the upper edge. Do not nail the 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 the storm collar down until it sits on the flashing. Seal and install cap. Mobile home installations must use a spark arrester.

C. VERTICALLY INTO EXISTING CHIMNEY SYSTEM



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

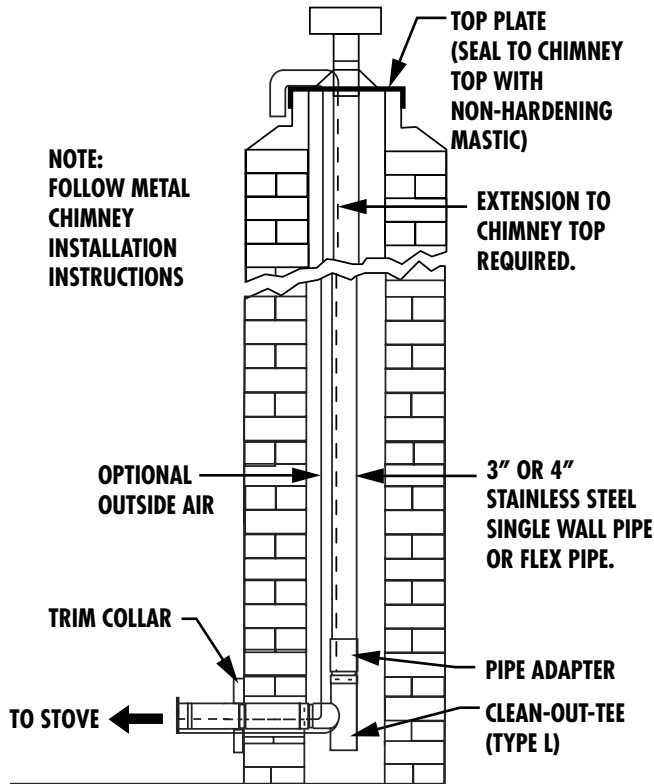
D. VERTICALLY INTO EXISTING MASONRY FIREPLACE



NOTE: Follow L-Vent chimney manufacturer's instructions.

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 inches.
3. Install a blanking plate and the chimney pipe, and if used the outside air pipe.
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 screws at all joint connections to ensure a tight seal.
5. Position the stove, adhering to the clearances provided in this manual.

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.
- E. INSTALLATION THROUGH SIDE OF MASONRY CHIMNEY



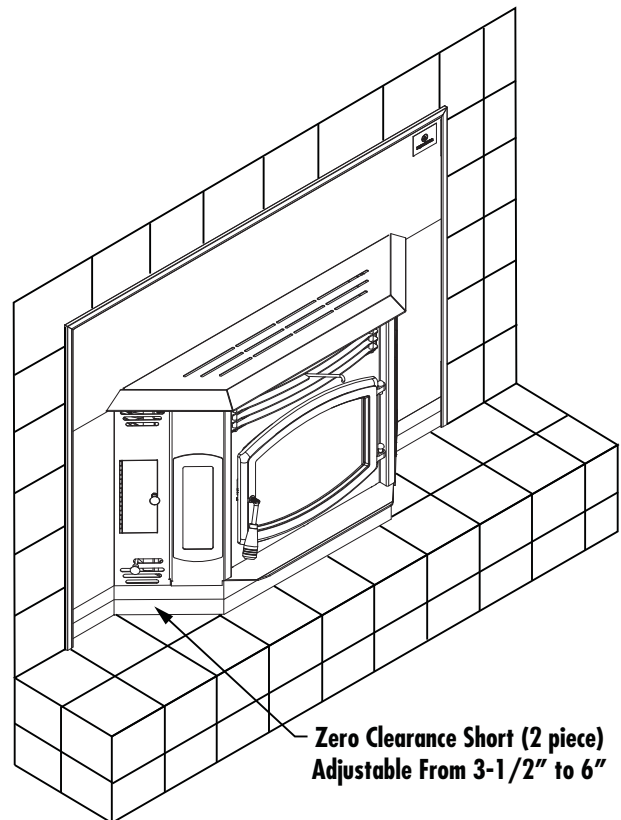
NOTE: Follow L-Vent chimney manufacturer's instructions.

1. Position the stove, adhering to the clearances provided in this manual. 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-inch diameter hole for 3-inch pipe and 5-inch diameter hole for 4-inch 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.
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 three 1/4" 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.

INSERT INSTALLATIONS

Insert installations must be vented with 3" or 4" pipe. Pipe may be single wall stainless steel flexible pipe. Vent may terminate within chimney beyond a blanking plate or extend to the chimney top. See "COMBUSTION AIR SUPPLY" for outside air access information. The fireplace and chimney should be cleaned thoroughly before starting the installation. We suggest painting the interior of particularly old and dirty fireplaces to seal any odors.



A. ASSEMBLING THE FLASHING SET

Follow the instructions packaged with the flashing set.

B. WHEN VENT PIPE EXTENDS TO CHIMNEY TOP

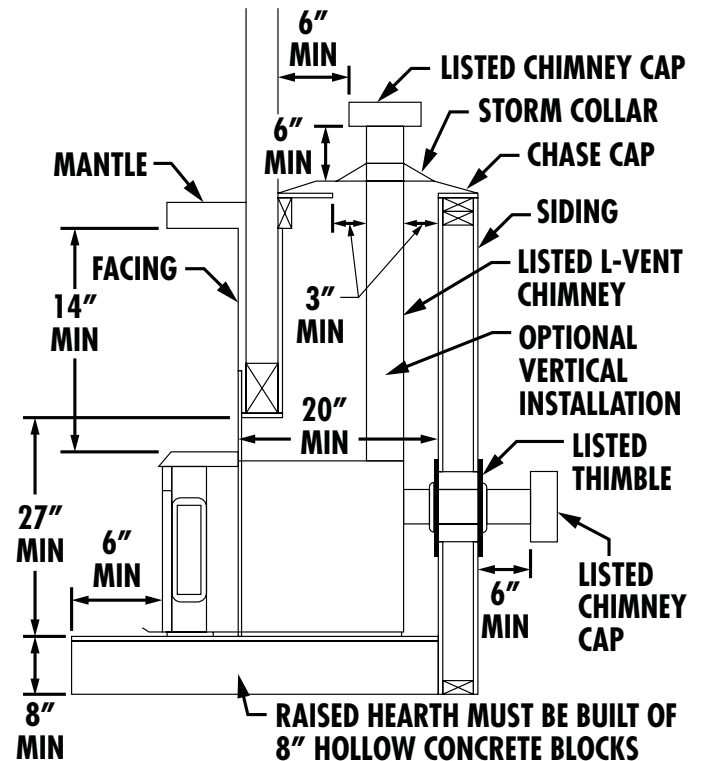
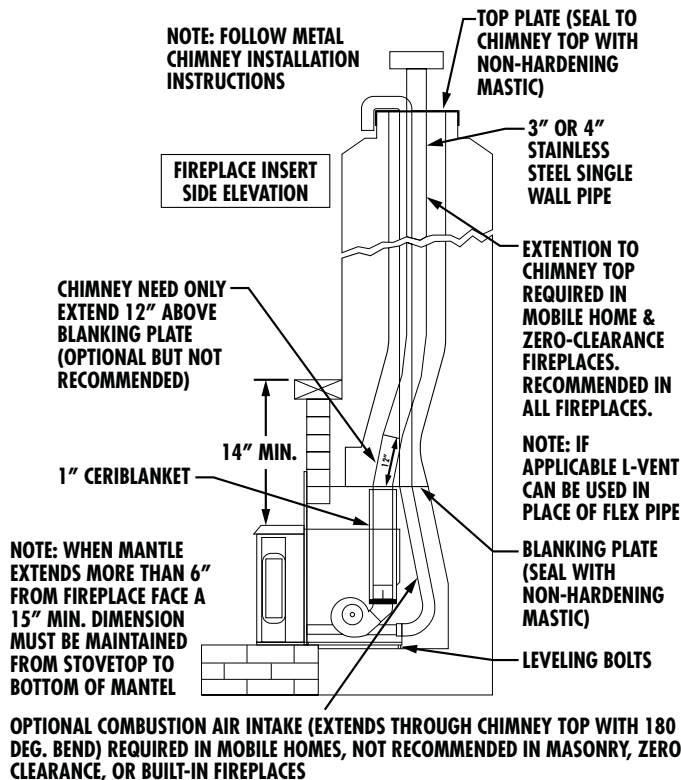
1. You will need a pipe length equal to the chimney height (from hearth) plus 6 inches. If outside combustion

air is to be used, you will need a pipe length (see "COMBUSTION AIR SUPPLY") equal to the chimney height plus 12 inches.

2. Attach cerablanket wrap to the end of vent pipe that will connect to the stove. Use 12-inch lengths of light gauge metal wire (not included) or metallic tape (not included). This is to protect interior components from excess heat.
3. Set the insert on the hearth and slide it in far enough to attach the vent pipe (and combustion pipe if used).
4. Attach flashing, route power cord out the side nearest a 120V receptacle. Slide in insert.
5. Measure and build chimney top. Cut out hole for vent pipe (and combustion air intake pipe, if used). Install and seal with a non-hardening mastic to prevent water leakage. Install the vent cap.

3. Measure and build blanking plate. Cut out hole for vent pipe (and combustion air intake pipe, if used). Install and carefully seal blanking plate with non-hardening mastic. Failure to properly seal may result in smoke spillage.
4. Slide vent pipe (and intake pipe if used) up through the blanking plate hole, leaving enough to pull back down.
5. Set the insert on the hearth, adjust the leveling bolts on the rear sides, and slide it in far enough to attach the vent pipe (and combustion air pipe if used). Be sure to seal where the pipe passes through the blanking plate.
6. Attach flashing, route power cord out the side nearest a 120V receptacle. Slide in insert.

D. AS A BUILT-IN FIREPLACE



C. WHEN VENT PIPE EXTENDS THROUGH CHIMNEY BLANKING PLATE (Masonry Fireplaces Only)

1. You will need a pipe length that extends 12" above the blanking plate. NOTE: This installation is optional but not recommended. Outside combustion air cannot be drawn from the chimney cavity in this installation.
2. Attach cerablanket wrap to that end of vent pipe that will connect to the stove. Use 12-inch lengths of light gauge metal wire (not included) or metallic tape. This is to protect interior components from excess heat.

The figure describe the installation vented into either a special chase built outside an outer wall or a false inside wall. This is especially suited for new construction or remodeling. The equipment compartment (sides and rear of the stove in fireplace) must be enclosed per the applicable electrical standards. NOTE: Floor protection for Built-in raised hearths requires a continuous sheet beneath to prevent the possibility of embers falling through to the combustible floor if cracks or separation should occur in the finished surface. The chase dimensions shown are minimums and must be maintained.

E. INSTALLATION IN TO A FACTORY BUILT (METAL) FIREPLACE

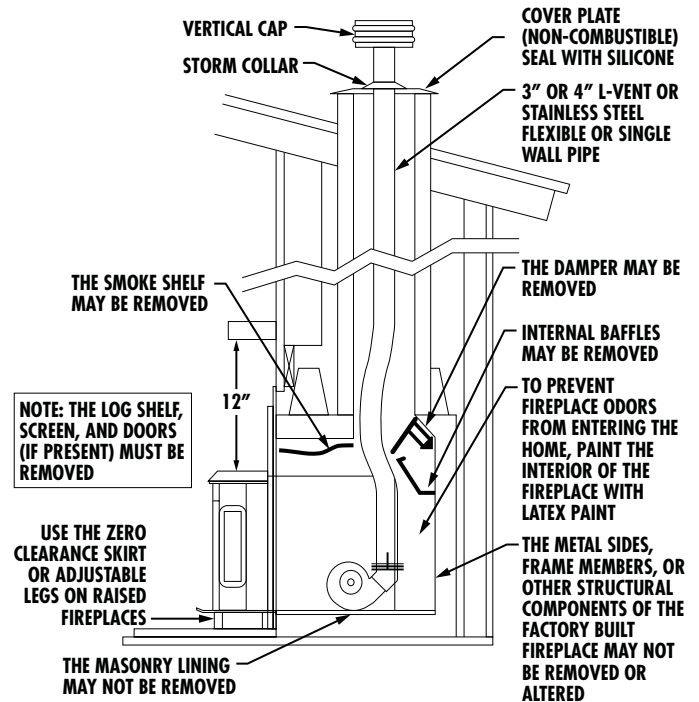
When installing into a factory built fireplace, the firebox must accept the insert without modification other than removing bolted or screwed together pieces such as smoke shelf/deflectors, ash lips, screen or door tracks and damper assemblies. These items must be reinstalled to restore the fireplace to its original operating condition if the insert is removed and not replaced. The removal of any part must not alter the integrity of the listed fireplace in any way. The factory built fireplace must be listed per UL 127. Installation must include a full height listed chimney liner meeting type HT requirements (2100° F) per 1777 (U.S.). The liner must be securely attached to the insert flue collar and the chimney top. The damper area must be sealed to prevent room air passage to chimney cavity. Alteration of the fireplace in any manner is not permitted except with the following exceptions:

- External trim pieces, which do not affect the operation of the fireplace, may be removed providing they can be stored on or within, the fireplace for re-assembly if the insert is removed.
- The fireplace damper may be removed to install the chimney liner.

Circulating air chambers, louvers or cooling air inlet or outlet ports (i.e. in a steel fireplace liner or metal heat circulator) shall not be blocked. Means must be provided for removal of the insert to clean the chimney flue. A permanent metal warning label must be attached to the back wall of the fireplace opening stating the following:

- This fireplace has been altered to accommodate a fireplace insert and should be inspected by a qualified person prior to re-use as a conventional fireplace.
- This label is available upon request.

Final approval is contingent on the authority having jurisdiction.



WARNING:

- **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.**
- **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).**

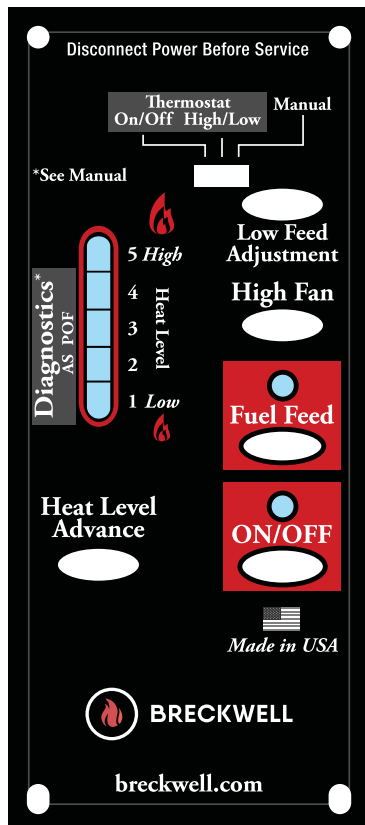
- The green light located above the On/Off button (in the On/Off box) will flash during the ignition start-up period.
- The Heat Level Advance is inoperable during the ignition start period. When the green light continuously stays on the Heat Level Advance can be adjusted to achieve the desired heat output.

NOTE: When not connected to a thermostat 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.

b. 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 illuminated.

PANEL CONTROLS



CAUTION:

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

c. 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.

d. RESET TRIM

Different size and quality pellet fuel, and installation altitude, 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" lights 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. (Approx. 1.1 to 1.2 pounds per hour)

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

a. 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 to 7 minutes.

NOTE: When the stove is set on "1" the "reset trim" values will be shown on 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 "4" lights will be illuminated on the bar graph.

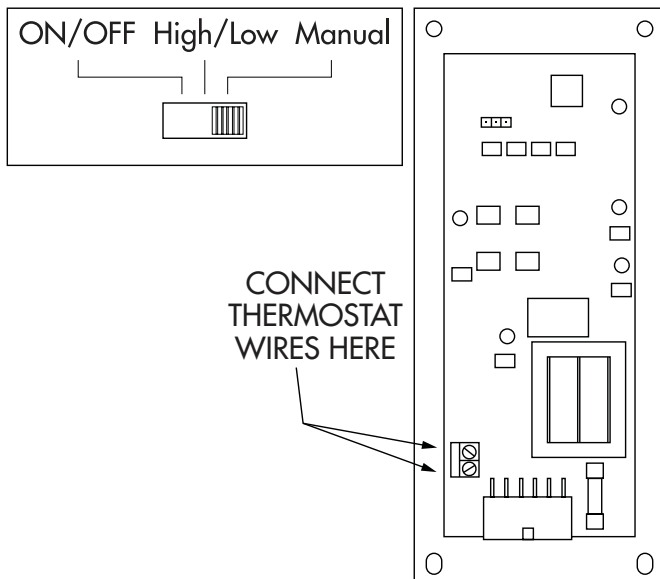
e. HEAT LEVEL ADVANCE

- 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 thermoswitch. If the high temp thermoswitch does trip see "SAFETY FEATURES" section of this manual.

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

OPTIONAL THERMOSTAT



A 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 the 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 between 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 house 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 if 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" to 1/2" 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 approved burnpot.

During the start up period:

- DO NOT open the viewing door.
- DO NOT open the damper more than 1/4".
- DO NOT add pellets to the burnpot by hand.
- DO NOT use the Fuel Feed button (unless you are priming the auger after running out of pellets).

A dangerous condition could result. 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 stove top during this period because paint could be affected.

AUTOMATIC IGNITOR

Fill hopper and clean burn pot.

1. Press "On/Off" button. Make sure green light comes on.
2. 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")
3. Adjust feed rate to desired setting by pressing "Heat Level Advance" button.

If fire doesn't start in 12 minutes, press "On/Off", wait a few minutes, clear the burn pot, and start procedure again.

DAMPER CONTROL

The damper control rod on the stove adjusts the combustion air. This control is necessary due to the varied burn characteristics of individual installations, different pellet brands and pellet feed rates. It allows you to improve the efficiency of your stove. Providing correct combustion air will reduce the frequency of cleaning your glass door and prevent the rapid buildup of creosote inside your stove and

chimney. You should adjust the damper based on the fire's appearance. A low, reddish, dirty fire can be improved by pulling the damper out slightly. A "blow torch" fire can be improved by pushing the damper in a bit. As a general rule, on lower feed rate settings, the damper should be in farther. On higher feed rates, the damper should be more open. Through trial and error, you will find the best setting. Consult your dealer if you need help. NOTE: On "1", damper should be either completely closed or out approximately 1/8" to 1/4". If damper is out too far, it can cause the fire to go out.

OPENING DOOR

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.**

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 continue the operation of your stove.

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.

RE-STARTING A WARM STOVE

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.

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 minutes or longer depending on the heat remaining in the appliance. After the stove components stop running all lights on the display will go out and the two digit display will begin flashing "E3"

REFUELLING

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 thermdisc. This unit has a manual reset thermdisc. 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 thermdisc 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 thermdisc 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.

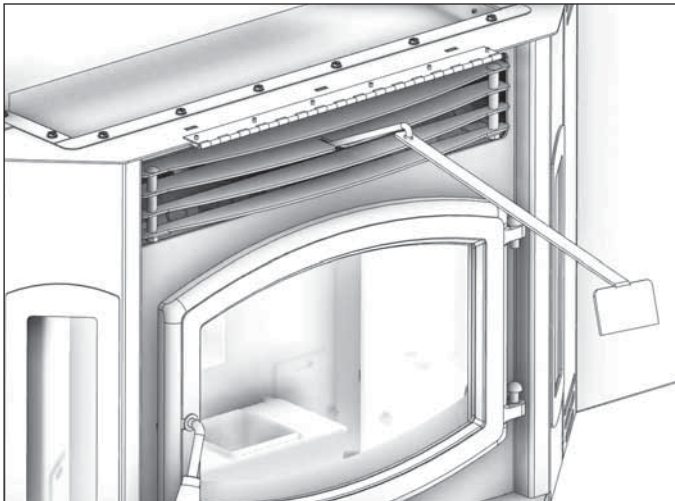
MAINTENANCE TOOL

A tool has been provided to help with the following functions:

- Stirring pellets in hopper – unlike liquids in a tank, pellets do not drain evenly into the auger. Bridging across the opening can occur. Pellets can hang up on the sides of the hopper. Occasionally "stirring" the hopper can help. NOTE: To help prevent bridging of pellets, common wax paper can be rubbed on the side walls and bottom of the hopper.
- Cleaning heat exchanger tubes.
- Scrape ashes from burnpot.

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** – Your 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 heat transfer on this 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. Be sure to leave tube cleaner at the rear of the stove.



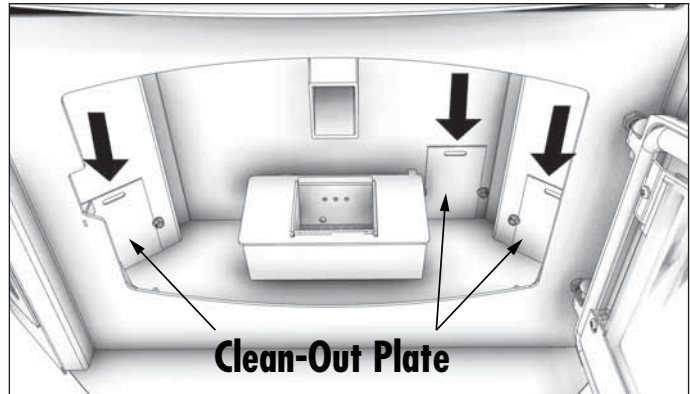
Heat Exchanger - There are four clean-out plates in the firebox in the free-standing, three in the insert that needs to be removed to clean fly ash out of the heat exchanger. These clean-out plates allow access to the chamber surrounding the firebox. The cleanouts are secured to the firebox with (2) 5/16" screws. Remove the cleanouts 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. In some cases, you will need to remove creosote, which can accumulate rapidly under certain conditions. A small wire brush can be used. It is important to remove this creosote because it is highly combustible. INSPECT BEHIND THESE CLEANING PLATES AT LEAST ONCE PER TON OF PELLETS BURNED UNTIL YOU ARE FAMILIAR WITH HOW ASHES AND CREOSOTE ACCUMULATE WITH YOUR OPERATING PRACTICES. Use the small wire brush to also clean the inside of the chamber walls, above the access doors.

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.



WARNING:

IF YOU NOTICE A SMOLDERING FIRE (BURNPOT FULL BUT NO VISIBLE FLAME) AND A HEAVY SMOKE BUILDUP IN FIREBOX, IMMEDIATELY TURN OFF THE STOVE, BUT DO NOT UNPLUG IT. DO NOT OPEN THE DOOR, CHANGE THE DAMPER SETTING OR TAMPER WITH ANY CONTROLS ON THE STOVE. WAIT UNTIL FIREBOX CLEARS, AND BLOWERS SHUT DOWN, DO AS INSTRUCTED IN "PRE-START-UP CHECK" AND "BUILDING A FIRE", THEN ATTEMPT TO RESTART THE FIRE. IF THE PROBLEM PERSISTS CONTACT YOUR DEALER.

WARNING:

NEVER TRY TO REPAIR OR REPLACE ANY PART OF THE STOVE UNLESS INSTRUCTIONS ARE GIVEN IN THIS MANUAL. ALL OTHER WORK SHOULD BE DONE BY A TRAINED TECHNICIAN.

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

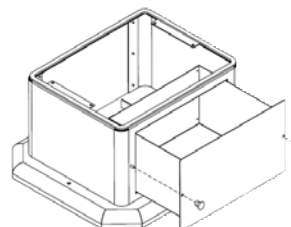
CAUTION:

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:

Freestanding Models

1. Let the fire burn out and allow the unit to cool to room temperature.
2. With the door closed clean heat exchanger tubes.
3. Make sure the pellet stove is at room temperature before touching. Open the door, remove the burn pot and empty it into a metal container.
4. Empty ashes from the inner section into the pedestal ash bin through the opening at the bottom of the firebox. Scrape the inner section with the cleaning tool. Make sure holes are not plugged.
5. Scrape ash in the firebox into the pedestal ash bin through the opening at the bottom of the firebox or vacuum to remove ashes.



6. Periodically remove and empty the ash bin by unscrewing the two knobs on the front of the pedestal below the ash lip. Dispose of ashes properly.
7. Replace the ash bin, making sure to tighten the knobs and maintaining a good seal.
8. Replace the inner section into the 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.
9. Make sure the burnpot is level and pushed all the way back in when it is reinstalled. If the collar on the burnpot attached to the fresh air tube is not pushed back to meet the firebox wall, the automatic ignitor will not work properly.

Insert

1. Let the fire burn out and allow the unit to cool to room temperature.
2. With the door closed clean heat exchanger tubes
3. Make sure the pellet stove is at room temperature before touching. Open the door, remove the burn pot and empty it into a metal container.
4. Empty ashes from burn pot. Scrape burn pot with the cleaning tool. Make sure the burnpot holes are not plugged.
5. Vacuum ashes from the firebox. **BE SURE THAT ASHES ARE COOL TO THE TOUCH BEFORE VACUUMING.** Some vacuum cleaners may leak ash into the room. Your vacuum cleaner should have a special filter or bag to eliminate leakage.
6. Reinstall the burn pot. Make sure it is level and pushed all the way back on. If not reinstalled properly, the Hot Rod 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

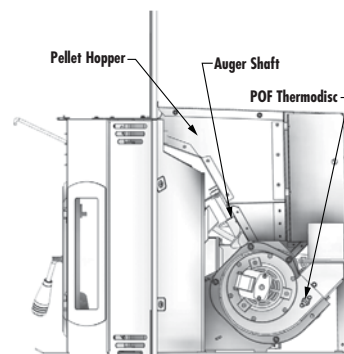
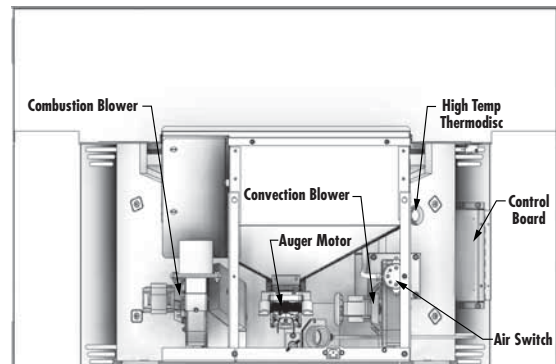
pellets that are sticking to the hopper surface. Clean as needed.

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 5/8" 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. **NOTE:** When cleaning, be careful not to dislodge the balancing clip on the convection blower or to bend fan blades. Some stove owners lightly spray an anti-creosote chemical on the fire to help reduce creosote formation within the stove.



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.

GLASS

We recommend using a high-quality glass cleaner. Should a buildup of creosote or carbon accumulate, you may wish to use 000 steel wool and water to clean the glass. **DO NOT** use abrasive cleaners. **DO NOT** perform the cleaning while the glass is **HOT**. Do not attempt to operate the unit with broken glass. If the glass is broken, follow these removal procedures:

1. While wearing leather gloves (or any other gloves suitable for handling broken glass), carefully remove any loose pieces of glass from the door frame.
2. Dispose of all broken glass properly. Return the damaged door to your authorized dealer for repair or replacement.
3. 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.

DO NOT abuse the door glass by striking, slamming, or similar trauma. Do not operate the stove with the glass removed, cracked, or broken.

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

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	Annually or per Ton
Burn Pot	Stirred	Emptied	
Glass	Wiped	Cleaned	
Combustion Chamber		Brushed	
Ashes			Emptied
Interior Chambers			Vacuumed
Heat Exchange Tubes		2 passes	
Combustion Blower Blades			Vacuumed / Brushed
Convection Blower Impeller			Vacuumed / Brushed
Vent System			Cleaned
Gaskets			Inspected
Hopper (end of season)			Emptied and vacuumed

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	

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 shaft is jammed.	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 can 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.
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 250 Volt fuse. Plug the stove back in and try to run the unit.
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.

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 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.

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 on 500 degree 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.

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 of the windings and fan blades. If cleaning the blower does not help, it 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, then 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.

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 of the windings and fan blades. If cleaning the blower does not help, it 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, then 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 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.
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 can 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 connector 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 for 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 "SOOT'S" 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 Causes:	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.	Pull the damper knob farther out away from the side of the stove and try 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 3000 RPM.
Bad Pellets (Applies to GLASS "SOOT'S" 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 "SOOT'S" UP AT A VERY FAST RATE Only)	Use the "Reset Trim" button to increase the low feed rate setting. If the 1 & 4 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 & 5 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.

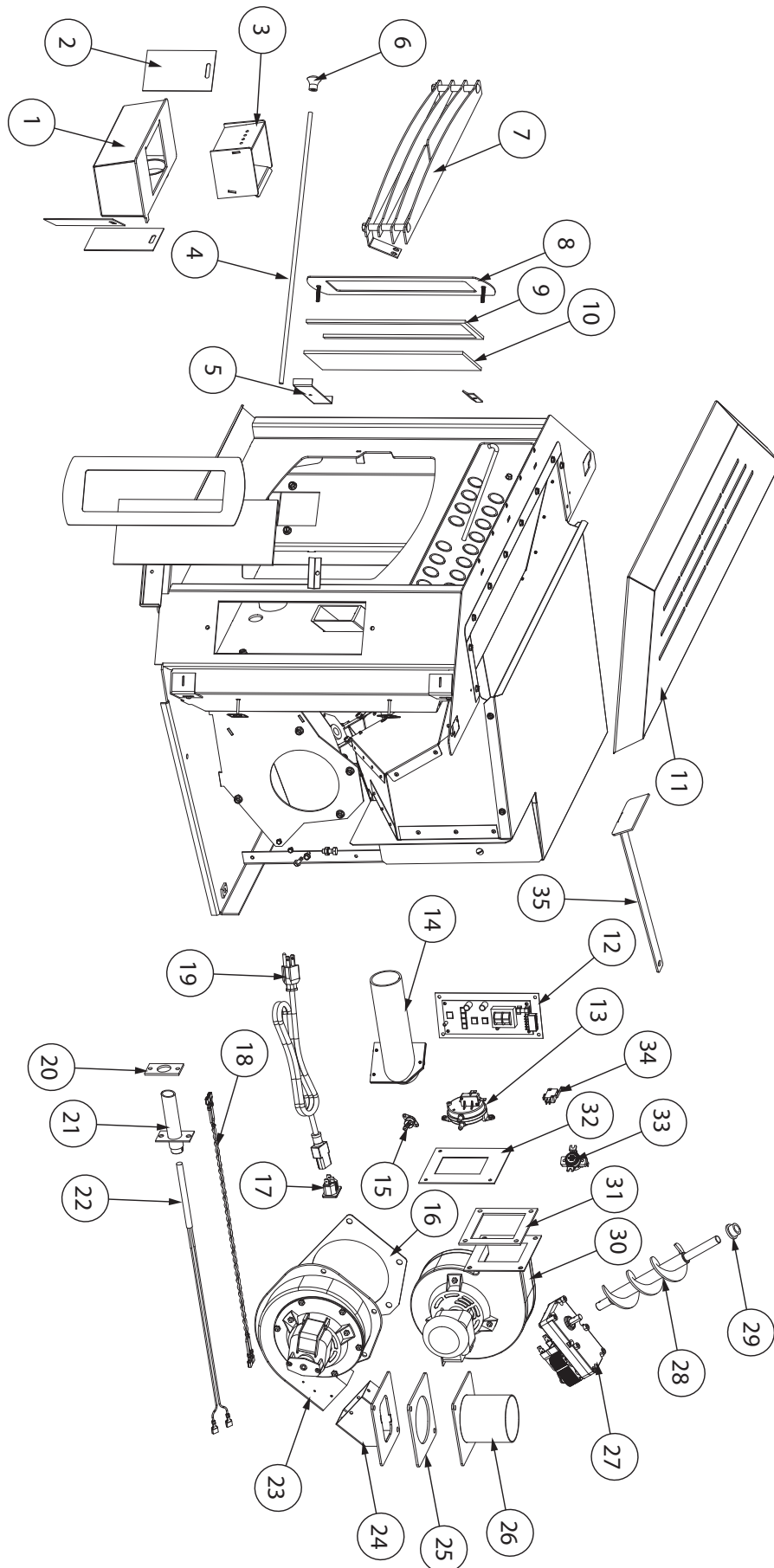
HIGH LIMIT SWITCH KEEPS TRIPPING	
Possible Causes:	Possible Remedies:
The convection blower is overheating and tripping the internal temperature shutoff.	Clean any dust off of the windings and fan blades. If cleaning the blower does not help, it may be bad.
The stove is being left on the highest setting for extended periods of time.	The highest heat level setting is designed for use over short periods of time. Burning the stove on the highest setting for longer than 1 – 2 hours could lead to potential overheating situations.
Fuel other than wood pellets is being burned in the stove.	This pellet stove is designed and tested to use wood pellets. Check for signs of fuel other than wood pellets. No other types of fuel have been approved for this pellet stove. 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 check out ok, 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 if you notice an unusual soot build-up on walls or furniture, check your exhaust system carefully for leaks. All joints should be properly sealed. Also clean your stove, following instructions in "MAINTENANCE". If problem persists, contact your dealer.

ATTENTION: 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.

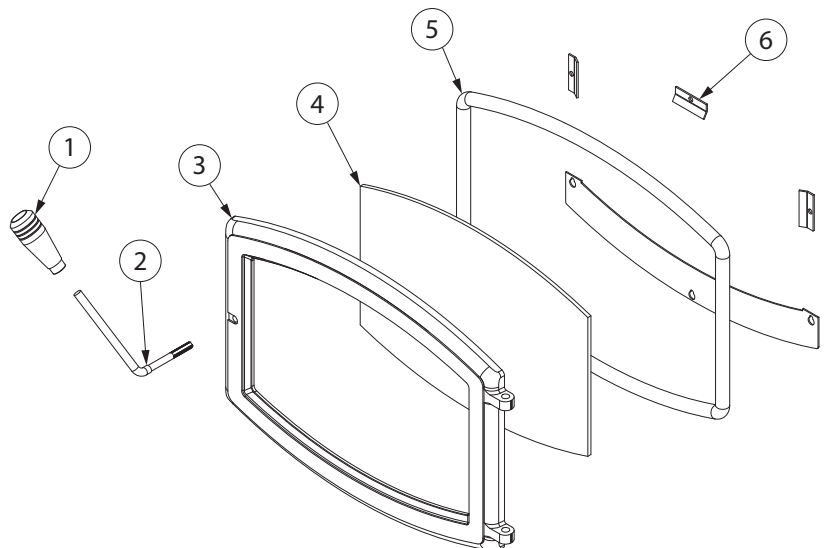


Key	Part #	Description	Qty
1	69964	Weldment, Burnpot Housing	1
2	26799	Ash Door	3
3	69965	Weldment, Burnpot	1
4	86841	Damper Rod Straight	1
5	27650	Side Window Air Wash	2
6	891987	Plastic Knob	1
7	610341	Louver Assembly	1
8	27649	Bay Window Trim Piece	2
9	88174	Side Gasket	2
10	892614	Side Glass SP24I	2
11	610339	SP24I Lid Assy	1
12	80684	Control Plate	1
13	80621	Air Switch	1
14	610346	Damper Assy For Straight Rod	1
15	80610	Thermodisc, Low Limit POF	1
16	88100	Gasket, Exhaust Blower	1
17	80462	Receptacle, 3 Prong	1
18	80685	Harness Extension, Purple	1
19	80461	Power Supply Cord	1

20	88202	Igniter Housing Gasket	1
21	69969	Igniter Housing Assembly	1
22	80619	Ignitor Cartridge	1
23	80641	Blower, Exhaust	1
24	610343	Exhaust Bottom Weldment	1
25	88252	Flue Gasket	1
26	610342	Exhaust Top Weldment	1
27	80642	Drive Motor (1 RPM CCW)	1
28	892231	Auger Flight	1
29	891132	Agitator Bushing	1
30	80647	Blower, Distribution	1
31	88252	Flue Gasket	1
32	27986	Feed Tube Shroud	1
33	80683	Thermodisc, Surface Mount, 300°	1
34	80491	Microswitch	1
35	25589	Maintenance Tool	1
		28448	Flashing L LRG Door
		SA24IBK	Brick Panel Set – Insert – Optional

Contact your dealer or installer for parts and service.

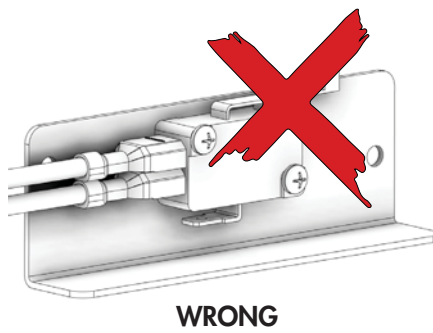
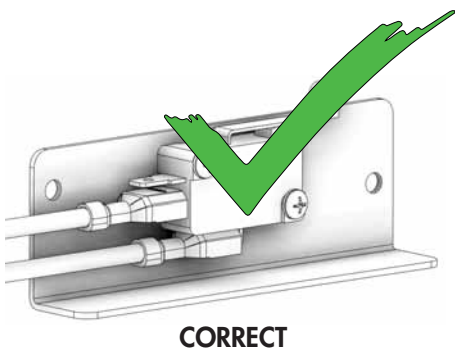
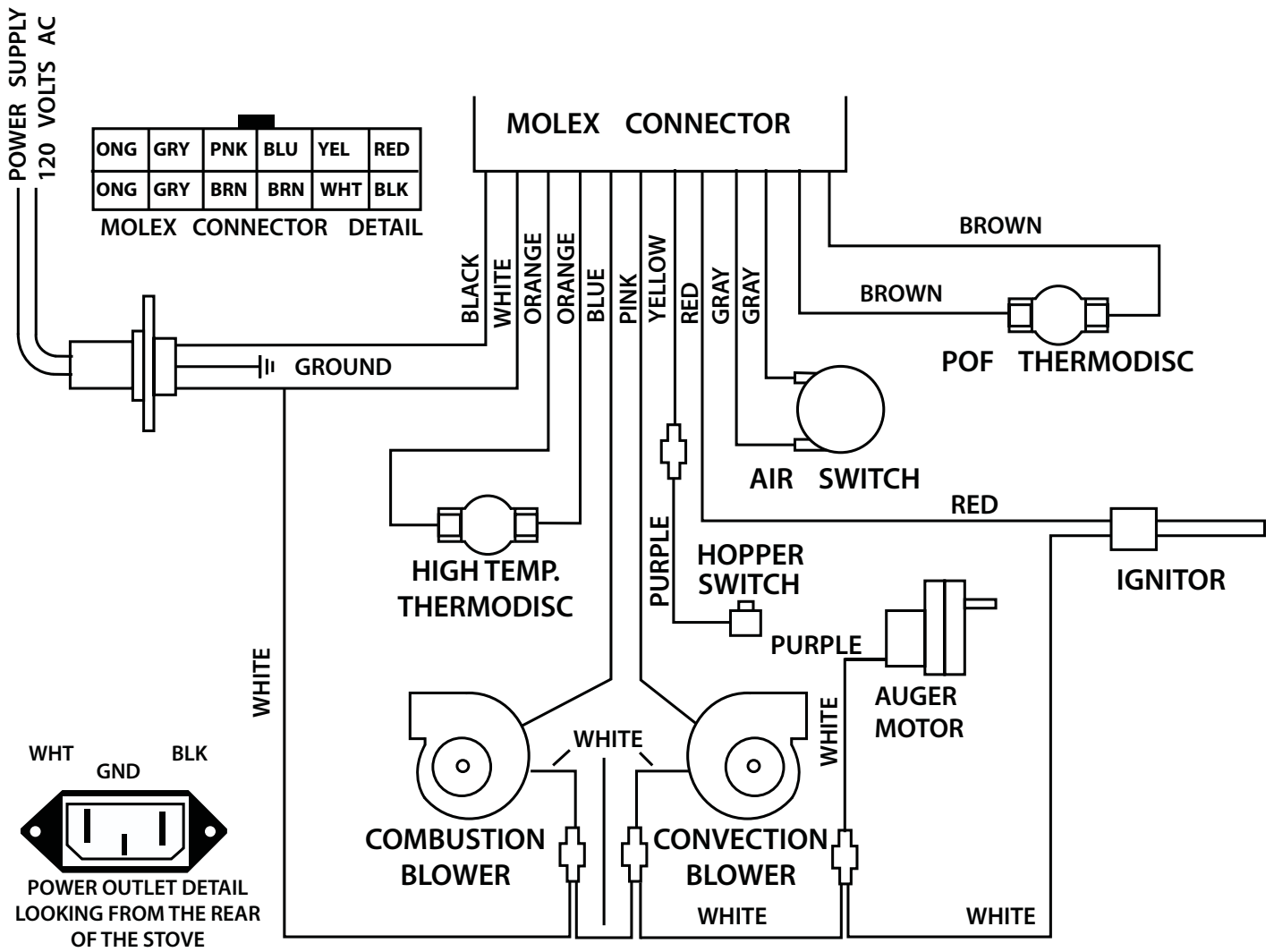
Key	Part #	Description	Qty
1	892696	Wood Door Handle	1
2	86755	Handle Assembly	1
3	69688	Oval Door W/Blk Trim	1
4	892613	Oval Glass	1
5	88082	Rope Gasket	3.5 ft
6	25904	Clip, Glass	5
7	27648	Door Air Wash	1
*8	40571	Hinge Block	2
*9	83575	Hinge Pin (0.370 Dia X 1.00)	2
* Item Not Shown			



Contact your dealer or installer for parts and service.

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

WIRING DIAGRAM



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

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: <input type="checkbox"/>	Chimney Swept: <input type="checkbox"/>
Items Replaced: _____	

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

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

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

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

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

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

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

