

IMPORTANT:
THESE INSTRUCTIONS ARE TO
REMAIN WITH THE HOMEOWNER
SAVE THESE INSTRUCTIONS



SERIAL #

SAFETY NOTICE

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

INSTALLATION AND OPERATING INSTRUCTIONS

Meets the U.S. Environmental Protection Agency's May 2020 Particulate Emission Standards.



MODELS:
ALDERLEA T5 LE INSERT



Visit www.pacificenergy.net for the most recent version of this manual

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PLEASE SAVE THESE INSTRUCTIONS

This manual describes the installation and operation of the Pacific Energy, ALDERLEA T5 INSERT LE; Fireplace Insert wood heater. Please read this entire manual before you install and use your new room heater. Failure to follow instructions may result in property damage, bodily injury, or even death.

NOTE: WE STRONGLY RECOMMEND THAT SMOKE AND CARBON MONOXIDE DETECTORS BE INSTALLED IN THE AREA WHERE THE HEATER IS TO BE INSTALLED.

If smoke detectors have been previously installed, you may notice that they are operating more frequently. This may be due to curing of stove paint or fumes caused by accidentally leaving the fire door open. Do not disconnect the detectors.

SAFETY NOTICE: If this stove is not properly installed, a house fire may result. For your safety, follow the installation instructions. Contact local building or fire officials about restrictions and installation inspection requirements in you area.

Attention Residents of California:



WARNING: this product can expose you to chemicals including ceramic fibers, which are known to the state of California to cause cancer, and to carbon monoxide, which is known to the state of California to cause birth defects or other reproductive harm.

For more information go to www.p65warnings.ca.gov.

**This warning is applicable to all
PACIFIC ENERGY FIREPLACE PRODUCTS**

Rating Label

This heater meets the 2020 U.S. Environmental Protection Agency's crib wood emission limits for wood heaters sold after May 15, 2015. Under specific test conditions this heater has been shown to deliver heat at rates ranging from 16,102 to 41,275 Btu/hr.

The rating label is located on the bottom, back corner of the side casing on the door catch side. The label is affixed using a permanent self-adhesive.

MODEL / MODELE: SUPER INSERT LE ALDERLEAT5 INSERT LE
LISTED SOLID WOOD FUEL FIREPLACE INSERT / APPAREIL DU TYPE INSERTION DE COMBUSTIBLE SOLIDE DE CHEMINÉE
CERTIFIED FOR USE IN CANADA AND U.S.A.
CERTIFIÉ POUR L'ULCS628 / UL1482

Refer to Intertek's Directory of Building Products for detailed information.

MINIMUM CLEARANCE TO COMBUSTIBLES (MEASURED FROM FAN COVERS)
 DÉGAGEMENT MINIMUM AUX COMBUSTIBLES (MESURE À PARTIR DE COUVERTURES DE VENTILATEUR)

A) ADJACENT SIDEWALL / PAROI LATÉRALE ADJACENTE	285 MM / 10 IN
B) MANTEL / MANTEAU	305 MM / 12 IN
C) TOP FACING / REVÊTEMENT SUPÉRIEUR	155 MM / 6 IN
D) SIDE FACING / REVÊTEMENT LATÉRAL	457 MM / 18 IN
E) FIRING SIDE / ÉPREUVE DU FEU, CANADA	406 MM / 16 IN
F) OTHER SIDES / AUTRES CÔTÉS	200 MM / 8 IN

INSTALL ONLY ON A NON-COMBUSTIBLE HEARTH UNDER THE UNIT, EXTENDING A DISTANCE OF 161mm / 6.3 INCHES FROM THE FRONT OF THE UNIT. DO NOT INSTALL ON A COMBUSTIBLE SURFACE. L'APPAREIL, S'ÉTENDANT À UNE DISTANCE DE 161mm / 408mm DEVANT LE FACE D'OUVERTURE DU FOYER.

ADJACENT SIDE WALL

CLEARANCE TO COMBUSTIBLES

INSTALLER ET UTILISER SELON LES INSTRUCTIONS D'INSTALLATION ET D'UTILISATION DE PACIFIC ENERGY.

CONTACTEZ LES AGENTS LOCAUX DU CODE DU BÂTIMENT OU DU SERVICE-INCENDIE, POUR OBTENIR LES CODES, RESTRICTIONS ET ENGAGES D'INSPECTION D'INSTALLATION DE VOTRE RÉGION.

INSTALLER ET UTILISER UNIQUEMENT DANS UN FOYER EN MAÇONNERIE. NE PAS ÊTRE INSTALLÉ DANS UN FOYER CONSTRUIT EN USINE.

NE PAS DÉMONTÉR NI RÉPARER CET APPAREIL. À UN CONDUIT DE CHEMINÉE DESERVANT UN AUTRE APPAREIL.

COMPOSANTS REQUIS POUR L'INSTALLATION: GÂME DE CHEMINÉE COMPLÈTE CONFORME À CANULC-5835 OU CANULC-5640.

NE PAS DÉMONTÉR NI RÉPARER CET APPAREIL. À UN CONDUIT DE CHEMINÉE DESERVANT UN AUTRE APPAREIL. DANGER: RISQUE D'ÉLECTROCUTION.

POUR L'UTILISATION AVEC BOIS SOLIDE SELLEMENT AUCUN PORTE-BÛCHES NI FEU SURELEVÉ - MONTÉZ LES BÛCHES DE BOIS DIRECTEMENT SUR L'ÂTRE. REMPLACEZ LA CHEMINÉE EN S'ASSURANT QU'ELLE EST EN BON ETAT.

INSPECTEZ ET NETTOYEZ LA CHEMINÉE RÉGULIÈREMENT - EN CERTAINES CONDITIONS, DES DÉPÔTS DE CRÉOSÔTE PEUVENT SE FORMER RAPIDEMENT.

UTILISEZ CET APPAREIL SEULEMENT AVEC LA PORTE DE CHARGEMENT FERMÉE.

NE PAS DÉMONTÉR NI RÉPARER CET APPAREIL. À UN CONDUIT DE CHEMINÉE DESERVANT UN AUTRE APPAREIL. DANGER: RISQUE D'ÉLECTROCUTION.

POUR BRÛLER DU BOIS DE CORDE, BRÛLER D'AUTRES MATÉRIAUX PEUT ENDOMMAGER LE POÈLE OU LE BÂTIMENT.

COUPEZ L'ALIMENTATION ÉLECTRIQUE AVANT TOUT TRAVAIL D'ENTRÉE SUR L'APPAREIL.

MADE IN CANADA
 MANUFACTURED BY:
 PACIFIC ENERGY PRODUCTS LTD.
 230 MILLIKEN FUEL DRAGON, L.S. FULCRUM

1.8 g/hr

U.S. ENVIRONMENTAL PROTECTION AGENCY.
 Certified to comply with 2020 crib wood particulate emission standards, using test Method 28R.

050423

100002100

Efficiency and BTU Output

EPA Certified Emissions	1.8 grams per hour
LHV Tested Efficiency 1	77%
HHV Tested Efficiency 2	71%
EPA BTU Output 3	12,518 to 38,177 btu/hr
Maximum Wood Length	18 inches
Ideal Wood Length	16 inches
Fuel	Seasoned Cord wood

- 1 Weighted Average Lower Heating Value (LHV) efficiency as tested using CSA B415 Performance testing of solid-fuel-burning heating appliances. LHV assumes the moisture is already in a vapour state so there is no loss of energy
- 2 Weighted Average Higher Heating Value (HHV) efficiency as tested using CSA B415 Performance testing of solid-fuel-burning heating appliances. HHV includes the energy required to vaporize the water in the fuel
- 3 The range of BTU outputs is based on efficiency using CSA B415 Performance testing of solid-fuel-burning heating appliances and burn rates from the low and high EPA tests using Douglas Fir dimensional lumber.

Figure 1: 100002100 - SUPER _ ALT5 Insert LE rating Label

Experience will give you the right settings for proper combustion and efficient burning. Remember the correct air inlet setting is affected by variables such as type of wood, outside temperature, chimney size and weather conditions. With practice, you will become proficient in operating your heater and will obtain the performance for which it was designed.

NATIONAL FIREPLACE INSTITUTE

CERTIFIED

www.nficertified.org

We recommend that our products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute (NFI) or in Canada by Wood Energy Technical Training (WETT)

Wood Energy Technical Training
www.wettinc.ca

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

Instruct all members of your family on the safe operation of the heater. Ensure they have enough knowledge of the entire system if they are expected to operate it. Stress the section on chimney fires and the importance of following the steps outlined "In Case of Chimney Fire".

Chimney Smoke and Creosote Formation

When wood is burned slowly, it produces tar and other organic vapours, which combine with expelled moisture to form creosote. The creosote vapours condense in the relatively cool chimney flue of a slow burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote makes an extremely hot fire. The chimney connector and chimney should be inspected periodically (at least once every two months) during the heating season to determine if a creosote buildup has occurred. If creosote has accumulated (3 mm. or more), it should be removed to reduce the risk of a chimney fire.

1. Highest smoke densities and emissions occur when a large amount of wood is added to a bed of hot coals and the air inlet is closed. The heated wood generates smoke, but without ample air, the smoke cannot burn. Smoke-free, clean burning requires small fuel loads, two or three logs at a time or 1/4 to 1/2 of fuel load and leaving the air inlet relatively wide open, especially during the first 10 to 30 minutes after each loading, when most of the smoke generating reactions are occurring. After 30 minutes or so, the air inlet can be turned down substantially without excessive smoke generation. Wood coals create very little creosote-producing smoke.
2. The cooler the surface over which the wood smoke is passing, the more creosote will be condensed. Wet or green wood contributes significantly to creosote formation as the excess moisture that is boiled off cools the fire, making it difficult for the tars and gases to ignite, thus creating dense smoke and poor combustion. This moisture-laden smoke cools the chimney, compounding the problem by offering the smoke the ideal place to condense.

In summary, a certain amount of creosote is inevitable. Regular inspection and cleaning is the solution. The use of dry, seasoned wood and ample combustion air will help to minimize annoying smoke emissions and creosote buildup.

Chimney Fires

The dangerous side effect of excessive creosote buildup is a chimney fire. This causes much higher than normal temperatures in the chimney and on its exterior surfaces. Temperatures inside the chimney can exceed 2000°F (1100°C). Ignition of nearby or touching combustible material is more likely during a chimney fire. Proper clearances are critical to prevent damage during such a fire.

Chimney fires are easy to detect; they usually involve one or more of the following:

- Flames and sparks shooting out of the top of the chimney
- A roaring sound
- Vibration of the chimney

To Avoid a Chimney Fire

1. Burn wood cleanly. Do not burn wet wood or turn down the unit too quickly after loading.
2. Do not let creosote build up to a point where a chimney fire is possible.
3. Do not have fires in the heater that may ignite chimney fires. These are excessively hot fires, such as when burning household trash, cardboard, Christmas tree limbs, or even ordinary fuel wood; (eg. with a full load on a hot bed of coals and with the air inlet wide open for more time than is needed to completely char a fresh fuel load.)
4. The Chimney and connector pipe should be inspected /cleaned periodically.

In Case of a Chimney Fire

1. Prepare to evacuate to ensure everyone's safety. Have a well understood plan of action for evacuation. Have a place outside where everyone is to meet.
 2. Close air inlet on stove.
 3. Call local fire department. Have a fire extinguisher handy. Contact your local municipal or provincial fire authority for further information on how to handle a chimney fire. It is most important that you have a clearly understood plan on how to handle a chimney fire.
 4. After the chimney fire is out, the chimney must be cleaned and checked for stress and cracks before starting another fire. Also check combustibles around the chimney and the roof.
- We recommend the services of professionals who are certified by a “Qualified agency”; such as

**NFI (National Fireplace Institute®) in the United States,
CSIA (Chimney Safety Institute of America) in the United States and Canada,
WETT (Wood Energy Technology Transfer) in Canada or
APC (Association des Professionnels du Chauffage) in Quebec**

Curing of the Paint Finish

To achieve the best finish, the paint on your stove must be baked on. When burning your stove for the first 2-3 times it is very important that the room be well ventilated. Open all windows and doors. Smoke and fumes caused by the curing process may cause discomfort to some individuals.

Disposal of Ashes

Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be placed on a non-combustible 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 closed container until all cinders have thoroughly cooled. Other waste should not be placed in this container.

Operation

CAUTION: Hot while in operation. Keep children, clothing and furniture away. Contact may cause skin burns.

WARNING: Always keep loading door closed when burning. This heater is not designed for open door burning. Risk of sparks, embers and/or smoke coming from the unit.

WARNING: No alteration or modification of the combustion air control assembly is permitted. Any tampering will void warranty and could be very hazardous.

WARNING: Do not use grates or andirons to elevate the fuel. Burn directly on the fire bricks. Replace broken or missing bricks. Failure to do so may create a hazardous condition.

Wood Selection

This heater is designed to burn natural wood only. Higher efficiency and lower emissions generally result when burning air-dried seasoned hardwoods, as compared to softwoods or to green or freshly cut hardwoods.

Wood should be properly air dried (seasoned) for six months or more. Wet or undried wood will cause the fire to smoulder and produce large amounts of smoke and creosote. Wet wood also produces very little heat and tends to go out often. Wood should be stored under cover away from open flame or heat sources.

DO NOT BURN :

• Salt water wood *	• Treated wood
• Wet or green wood	• Coal/charcoal
• Garbage *	• Solvents
• Lawn clippings/yard waste	• Unseasoned wood
• Railroad ties	• Manure or animal remains
• Materials containing rubber, including tires	• Materials containing plastic
• Construction or demolition debris	• Materials containing asbestos
• Waste petroleum products, paints, paint thinners, or asphalt products	• Paper products, cardboard, plywood, or particleboard.

* These materials contain chlorides which will rapidly destroy metal surfaces and void warranty.

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

Do not burn anything but wood. Other fuels, eg. charcoal, can produce large amounts of carbon monoxide, a tasteless, odourless gas that can kill. Under no circumstances should you attempt to barbecue in this heater.

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.

How to Test Your Wood

Add a large piece of wood to the stove when it has a good large bed of coals. It is dry if it is burning on more than one side within one minute. It is damp if it turns black and lights within three minutes. If it sizzles, hisses and blackens without igniting in five minutes it is soaked and should not be burnt.

Lighting a fire

WARNING: Never use chemicals or any other volatile liquid to start a fire. Do not burn garbage, or flammable fluids such as gasoline, naphtha, or engine oil.

1. Adjust air control to "High" position(all the way to the left) and open door.
2. Place crumpled newspaper in the centre of the heater and crisscross with several pieces of dry kindling. Add a few small pieces of dry wood on top.
3. Ignite the paper and leave the door ajar approximately 1/2"(13mm) - 1"(25mm) until the wood kindling is fully engulfed in flame.
4. After the kindling is fully engulfed add a few small logs. Close door.
5. Begin normal operation after a good coal base exists and wood has charred.

Normal Operation

WARNING: This Insert 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 the operating instructions in this manual.

1. Set air control to a desired setting. If smoke pours down across the glass (waterfall effect) this indicates you have shut the control down too soon or you are using too low a setting. The wide range control panel makes finding the desired setting for your application easy. As every home's heating needs vary (ie. insulation, windows, climate, etc.) the proper setting can only be found by trial and error and should be noted for future burns.
 2. To refuel, adjust air control to high, and give the fire time to brighten. Open the door slowly, this will prevent back puffing.
 3. Use wood of different shape, diameter and length (up to 18"(457mm)). Load your wood endwise and try to place the logs so that the air can flow between them. Always use dry wood.
 4. Do not load fuel to a height or in such a manner that would be hazardous when opening the door.
 5. For extended or overnight burns, unsplit logs are preferred. Remember to char the wood completely on maximum setting before adjusting air control for overnight burn.
- Burn wood only, dry and well seasoned. The denser or heavier the wood when dry, the greater its heat value. This is why hardwoods are generally preferred. Green or wet wood will cause a rapid buildup of creosote. If you feel it is necessary to burn wet or unseasoned wood, do so only with the air inlet set open enough to maintain a good strong fire and fairly high chimney temperatures. Do not attempt to burn overnight using green wood or wet wood. Wet wood can cause up to 25% drop in heater output, as well as contributing significantly to creosote buildup.

DO NOT OVERFIRE THIS HEATER:

Attempts to achieve heat output rates that exceed heater design specifications can result in permanent damage to the heater and chimney. A glowing red, top or vent pipe are indications of overfiring. Failure to rectify an over firing condition can be hazardous and may void the manufacturer's warranty.

Convection Blower Operation

The Insert comes equipped with twin variable speed circulating air blowers. The blower system is thermostatically controlled for automatic operation, as well as manually with a convenient bypass switch. Automatic Blower Operation: Allows the blowers to turn on automatically once the Insert has come up to operating temperature. It will also shut the blowers off after the fire has gone out and the appliance has cooled to below a useful heat output range. Push the rocker switch to the "OFF" position and set the fan speed control to a desired setting.

Manual Blower Operation: Push the rocker switch to the "ON" position and set the fan speed control to a desired setting. This will bypass the temperature switch and allow full control of the blowers.

Suggested settings:

- Combustion air control setting of "L" (low) position (pushed to the far right), operate blower speed control on "Low".
- Combustion air control set at anything above "L" (low), operate blower speed control at desired setting.

Restarting After Extended or Overnight Burns

1. Open door and rake hot embers towards the front of the heater. Add a couple of dry, split logs on top of embers, close door.
2. Adjust air control to high and in just a few minutes, logs should begin burning.
3. After wood has charred, reset air control to desired setting.
4. To achieve maximum firing rate, set control to high "H". Do not use this setting other than for starting or preheating fresh fuel loads.

Proper Draft

1. 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.
2. Too much draft may cause excessive temperatures in the appliance. An uncontrollable burn or a glowing red stove part or chimney indicates excessive draft.
3. Inadequate draft may cause back puffing into the room and plugging of the chimney. Smoke leaking into the room through appliance and chimney connector joints indicates inadequate draft.

Remember the correct air inlet setting is affected by variables such as type of wood, outside temperature, chimney size and weather conditions.

Ash Removal

Caution: Ashes are to be removed only when the heater is cold. Whenever ashes get 3"(76mm) to 4"(102mm) deep in your firebox, and when fire has burned down and cooled, remove excess ashes. Leave an ash bed approximately 1" (25 mm) deep on the firebox bottom to help maintain a hot charcoal bed.

See section "Disposal of Ashes" on page 5.

Maintenance

WARNING: ONLY USE MATERIALS SUPPLIED BY MANUFACTURER WHEN DOING MAINTENANCE OR REPLACEMENTS.

1. If glass becomes darkened through slow burning or poor wood, it can readily be cleaned with fireplace glass cleaner when stove is cold. Never scrape with an object that might scratch the glass. The type and amount of deposit on the glass is a good indication of the flue pipe and chimney buildup. A light brown dusty deposit that is easily wiped off usually indicates good combustion and dry, well-seasoned wood and therefore relatively clean pipes and chimney. On the other hand, a black greasy deposit that is difficult to remove is a result of wet and green wood and too slow a burning rate. This heavy deposit is building up at least as quickly in the chimney.

DOOR GASKETS -

The gasket used by Pacific Energy (5/16" medium density fiberglass rope) requires only light pressure to seal. This will prolong seal life. It is important that the door seal be maintained in good condition. Periodically inspect seals and replace if necessary. Follow the instructions included in the kit, available from your nearest Pacific Energy dealer.

DOOR GLASS -

Do not slam loading door or otherwise impact glass. When closing door, make sure that no logs protrude to impact the glass. If the glass gets cracked or broken, it must be replaced before using the stove. Replacement glass can be obtained from your dealer. Use 17-1/4"(438mm) x 11-3/8"(289mm) x 5 mm. Ceramic glass only. Do not substitute with any other type.

To remove broken glass, undo the four retaining screws and remove clamps and frame, noting position for re-assembly. Remove all particles of glass. Be careful as they are very sharp. Install new glass complete with gasket. Replace frame, clamps and screws.

CAUTION:

- do not overtighten, tighten screws very carefully
 - do not clean glass when hot
 - do not use abrasive cleaners on glass
2. The area where boost combustion air enters the firebox must be kept clear of excessive ash buildup which will block air flow. This area is at the front of the firebox.
 3. Do not store wood within heater installation clearances, or within the space required for fuel loading and ash removal. Keep the area around the heater clean and free of loose combustibles, furniture, newspapers, etc.
 4. If the plated door requires cleaning, use mild soap and water only. Use of abrasive cleaners will void warranty.
 5. Establish a routine for the fuel, wood burning and firing technique. Check daily for creosote buildup until experience shows how often you need to clean to be safe.
 6. Be aware that the hotter the fire, the less creosote is deposited. Weekly cleaning may be necessary in mild weather, even though monthly cleaning is usually enough in the coldest months when burning rates are higher. When wood is burned slowly, it produces tar and other organic vapours, which combine with expelled moisture to form creosote.

Maintenance Checks

Check the following parts for damage such as cracks, excessive corrosion, burned out sections and excessive warping: (See website for descriptions and more detail)

Weekly:

- Firebrick - Visual, for cracking.
- Door Gasket - sagging, placement, damage.

Monthly

- Baffle.
- Brick rail tabs and brick rails.
- Air riser tube in the back of the firebox.
- Back side of airwash chamber.
- Baffle locking pin.
- Boost tube cover.
- **It is recommended to inspect the liner and connector monthly and to have the liner cleaned annually or more frequently if required.**

When Cleaning the Chimney System:

- Top baffle board/blanket.
- Top heat shield and mounting bolt.
- Baffle Gasket.
- Brick Rails.
- Manifold.

Blower:

- The blowers should be cleaned out a minimum every six months by using a vacuum on the blower intakes to remove any dust and debris. See “Fan Speed Controller Relocation” section on page 12, steps 1 & 2, for how to remove the panels and access the blowers.

Baffle:

- Some warping of the baffle is normal (up to 1/4” or 6.5mm). Replace if the baffle has permanent warping greater than this or has cracking or breakage.
- Please contact your Dealer if you experience any of the damage listed above. Continuing to operate your stove with broken parts may accelerate damage to other parts and may void your warranty.

Baffle Removal

DO NOT OPERATE WITH BAFFLE ASSEMBLY OR INSULATION REMOVED.

Removal

Remove retaining pin at the back top of the firebox, just under the baffle. Lift baffle up and pull forward to disconnect from the supply tube. Tilt baffle sideways to drop down and remove from firebox. Inspect gasket between baffle and supply tube. If necessary, replace with gasket part number 80000365, available from your Pacific Energy dealer. Re-install baffle assembly in reverse order. The two side pieces of insulation must be tight against the side rails.

Dimensions

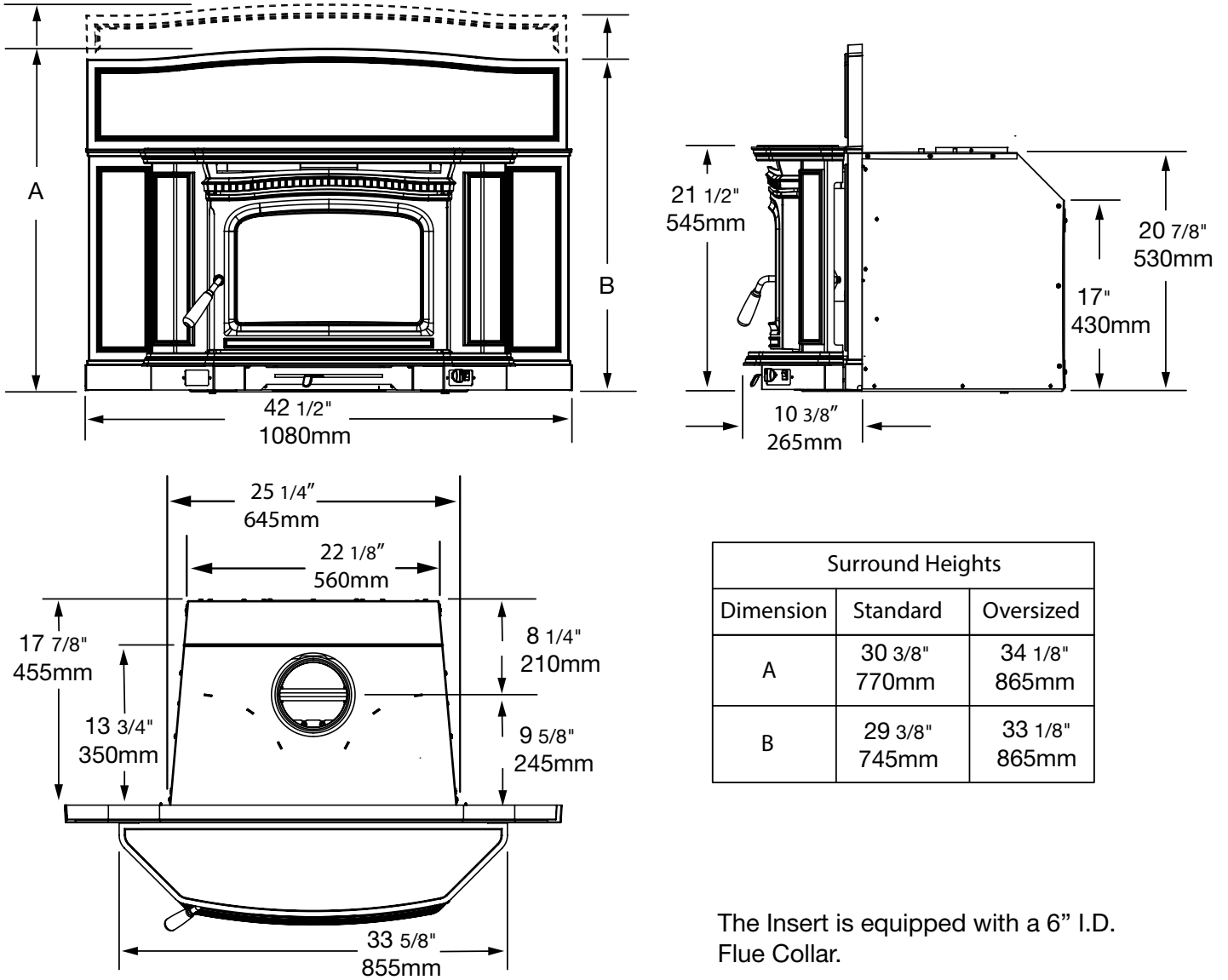


Figure 2: ALT 5 Insert LE Dimensions.

Minimum Fireplace and Hearth Dimensions

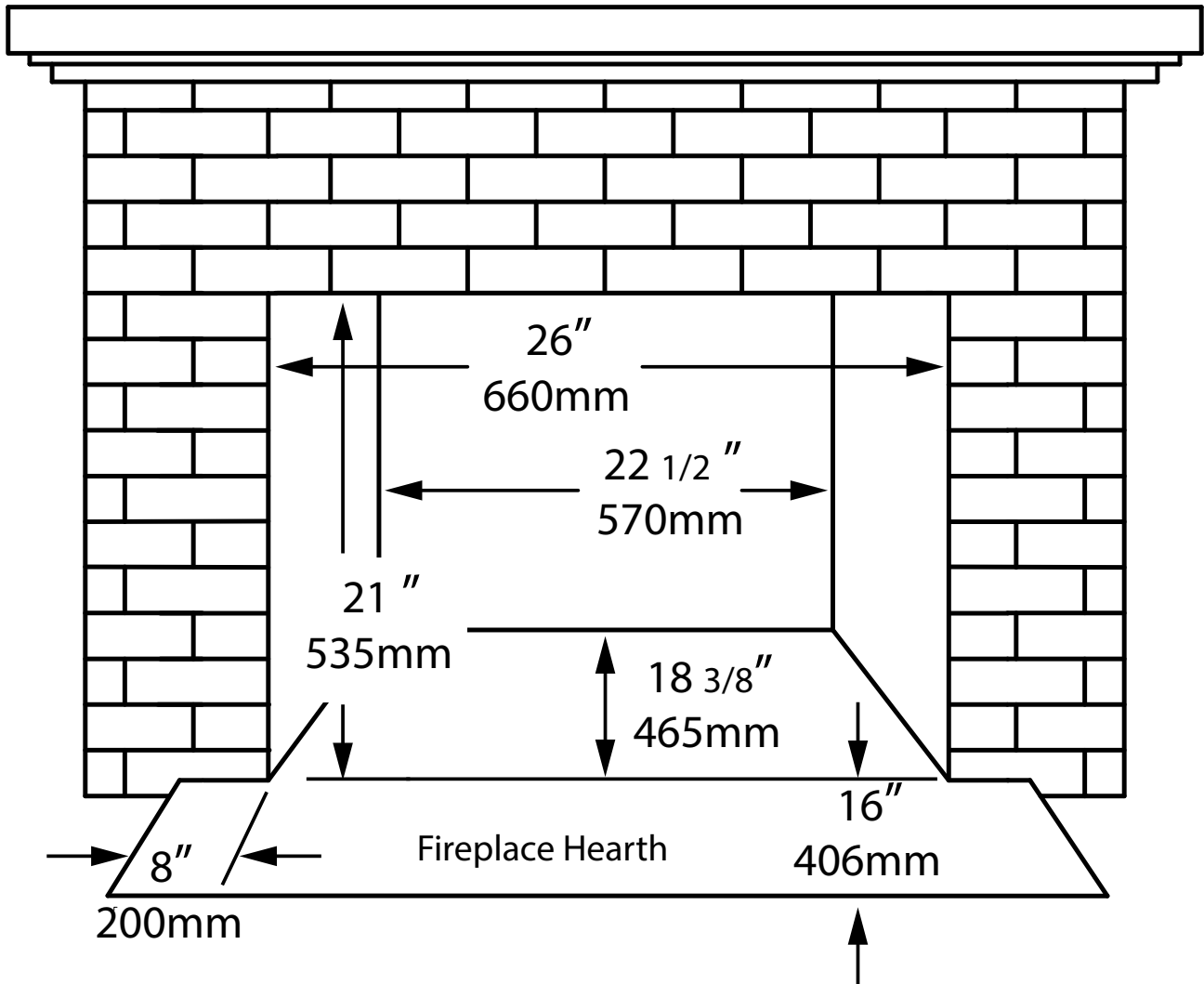


Figure 3: Fireplace opening dim. - ALT5 Insert LE.

Hearth Requirements:

The fireplace's non-combustible masonry hearth must extend 16" in front and 8" beyond each side of the existing fireplace opening. See Figure 3.

Ember Protection:

Combustible flooring in front of the fireplace insert must be protected from hot embers by non-combustible material extending;

- Canada - 18" to the firing side (From the Glass) and 8" to each side of the unit.
- U.S.A. - 16" to the firing side (From the Glass) and 8" to each side of the door opening.

Consult CAN/CSA-B365 Installation Code for Solid-Fuel-Burning appliances and equipment in Canada, and N.F.P.A. 211 Standard for chimneys, fireplaces, vents and Solid-Fuel-Burning appliances in USA.

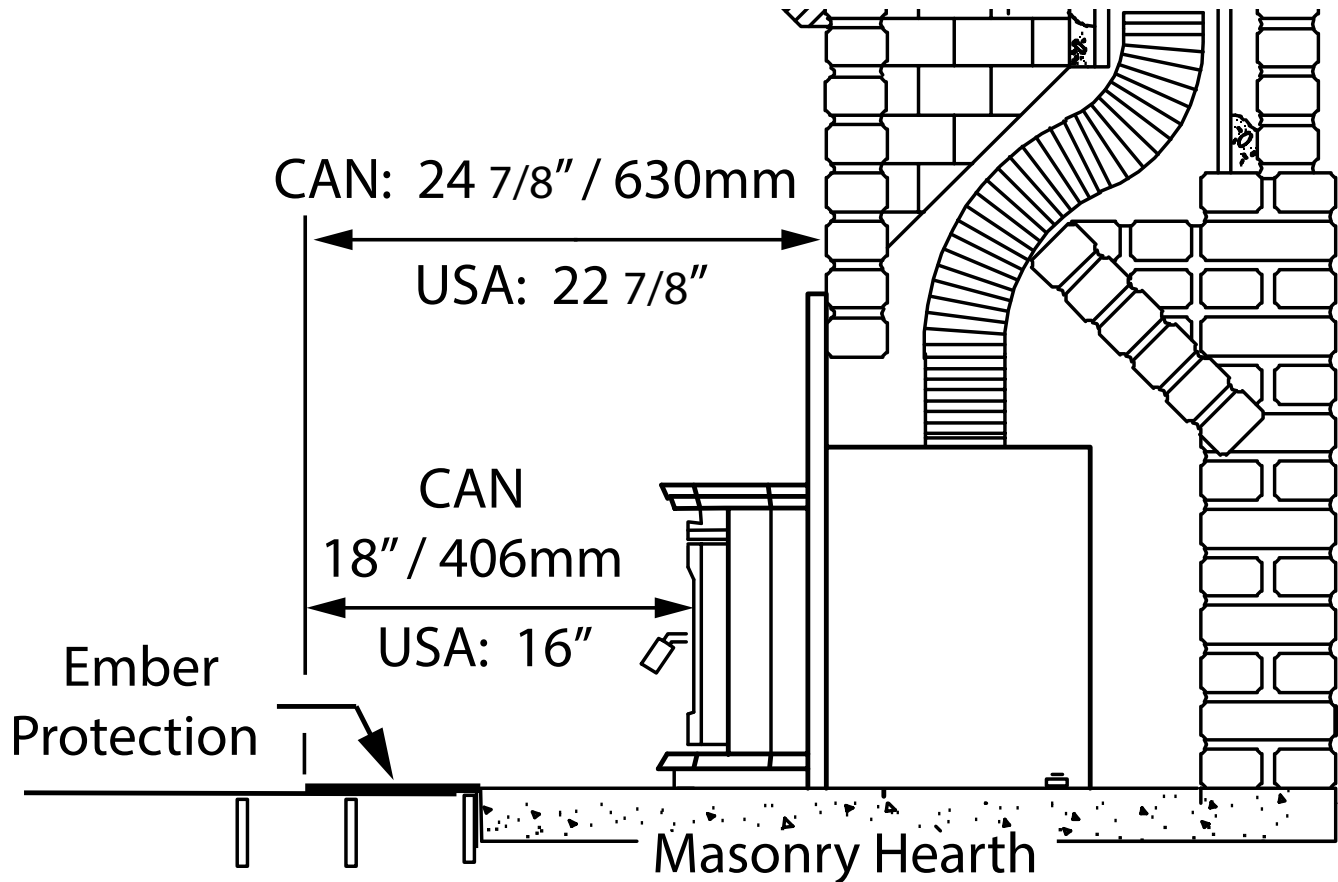


Figure 4: ALT5 Insert LE - Ember protection.

Optional Leveling Legs

Leveling legs(bolts) are provided if you need them to level or steady the insert on an uneven hearth.

- If your fireplace is lower than the hearth mount the rear leveling leg bolts. Prop the unit up to access threaded inserts under the sides towards the rear of the unit. Thread supplied bolts into inserts, set depth to correspond to depth of fireplace drop.
- If your hearth is lower than the fireplace floor install the front leveling bolts. Prop the unit up to access the threaded inserts under the front, towards the sides of the unit. Thread the supplied bolts into inserts.
-

Push the Insert into position in the fireplace and adjust the leveling bolts as needed to level the Insert.

Clearances

The minimum required clearances to surrounding combustible materials when installed into a masonry or factory built fireplace are listed below and in Figure 5.

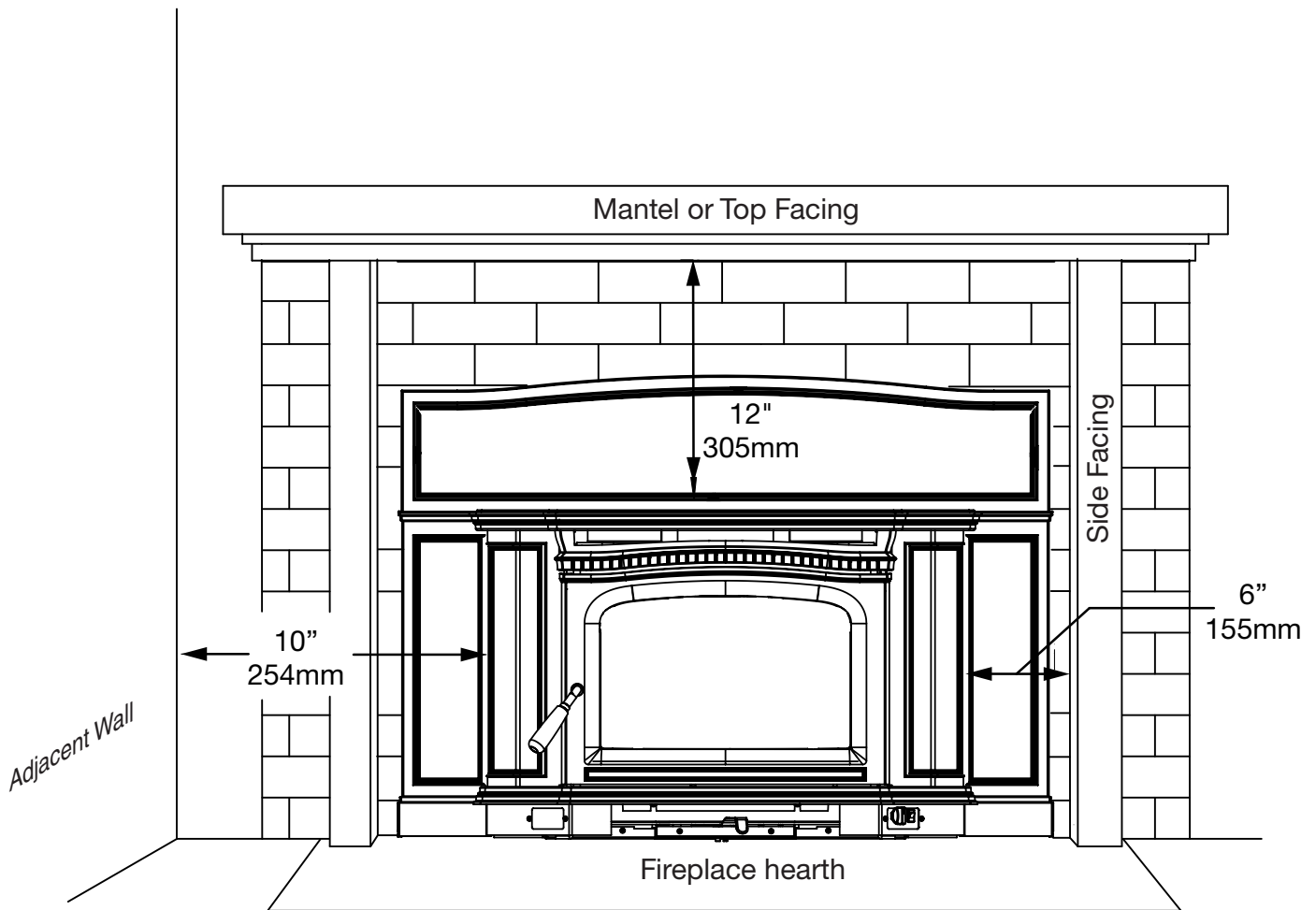


Figure 5: Clearances - ALT 5 Insert LE.

Minimum Clearances to Combustibles:

Side of Blower Cover to Adjacent Sidewall	10 in. (245 mm.)
Side of Blower Cover to Side Facing (max 3-1/2 in. deep).....	6 in. (155 mm.)
Top of Cast top to Mantel Facing.....	12 in. (305 mm.)
Top of Cast Top to Mantel (max 12in. deep).....	12 in.(305 mm.)

CAUTION: Unit hot while in operation. Parts of the appliance, especially the external surfaces, will be hot to touch when in operation. Keep children, clothing and furniture away. Contact may cause skin burns.

Installation

Your Insert is designed to be installed into a masonry wood burning fireplace. The masonry fireplace must be built according to the requirements of the Standard of Chimneys, Fireplaces, Vents and Solid Fuel Burning appliances, N.F.P.A. 211 (Latest Edition) or applicable National, Provincial, State or local codes. The installation shall conform to CAN/CSA-B365, Installation Code for Solid-Fuel-Burning Appliances and Equipment.

This Insert shall not be installed in a factory-built fireplace.

Warning: Under no circumstances is this heater to be installed in a makeshift or “temporary” manner.

DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVICING ANOTHER APPLIANCE.

Fireplace Specifications

See page 12 for the fireplace minimum sizes:

Chimney height (from hearth) 15' (minimum).

- The Fireplace and Chimney system must be suitable for wood burning use. Check for creosote build up or other obstructions. **Have the chimney swept and inspected.** Inspect your fireplace for cracks, loose mortar or other physical defects. If repairs are required, they should be completed before installing your insert.

The Insert must be installed in accordance with Local and or National Building Codes.

We recommend that our products be installed and/or serviced by professionals who are certified by a “Qualified agency”;

**NFI (National Fireplace Institute®) in the United States,
CSIA (Chimney Safety Institute of America) in the United States and Canada,
WETT (Wood Energy Technology Transfer) in Canada or
APC (Association des Professionnels du Chauffage) in Quebec**

Caution:

- The fireplace insert is heavy and should be installed by two people.
- Place cardboard or heavy blanket on the hearth to prevent damage while installing.

Into a Masonry Fireplace

The existing fireplace damper is to be locked open or removed completely.

WARNING: Do not remove bricks or mortar from your existing fireplace.

- **Exception:** Masonry or steel, including the damper plate, may be removed from the smoke shelf and adjacent damper frame if necessary to accommodate a chimney liner, provided that their removal will not weaken the structure of the fireplace and chimney, and will not reduce protection for combustible materials to less than that required by the National Building Code.

A metal tag is provided and is to be fastened to the back wall of the fireplace, if the fireplace has been modified to accommodate the insert.

Full Flue Liner - (Required in Canada)

In Canada, this Fireplace Insert must be installed with a continuous chimney liner extending from the Fireplace Insert's Flue Collar to the top of the chimney. The chimney liner must conform to the class 3 requirements of CAN/ULC-B365, Standard for Lining Systems for Existing Masonry or Factory-Built Chimneys and Vents, or CAN/ULC-S640, Standard for Lining Systems for New Masonry Chimneys.

1. Measure the chimney height from the top of the existing Chimney flue to the floor of the hearth. This will allow extra length of liner for flashing and rain cap.
2. Feed the stainless steel liner from top of the chimney, through the damper area and into the fireplace cavity. Attach a "stove to liner" adapter to the bottom of the liner as per the liner manufacturer's instructions.
3. The Flue Collar is packaged in the stove. Attach the Flue Collar to the liner adapter and secure with three Stainless screws. Caulk around connections with high temp stove cement. Ensure the gasket is in good working shape.
4. Remove the Cast Top by lifting up on the front and pulling toward you. Remove both the right & left Blower Covers; Lift up and pull the covers towards you to release the tabs.
5. Remove the Baffle.
6. Push unit into the fireplace. Use the front or rear adjustment legs, level the insert depending on your hearth configuration. (NOTE: Adjustment legs are located in the bottom, front and rear of the insert).
7. Reach through the flue opening and pull down on the Flue Collar with the tool provided until the bolts pass through the mounting holes in the flue opening. Install the clamps and nuts. center the collar on the opening and tighten the nuts.
8. Measure, trim and shape a Chimney top flashing to fit the existing chimney flue. Plan for a 1" to 1-1/2" overlap on each side. Place flashing over top of the liner and seat firmly against the flue tile.
9. Attach a rain cap to the end of the liner. A storm collar may be used if desired.
10. Install the surround See "Surround Assembly and Installation" on page 19, Re-Install the top and Blower covers in the reverse order they were removed.

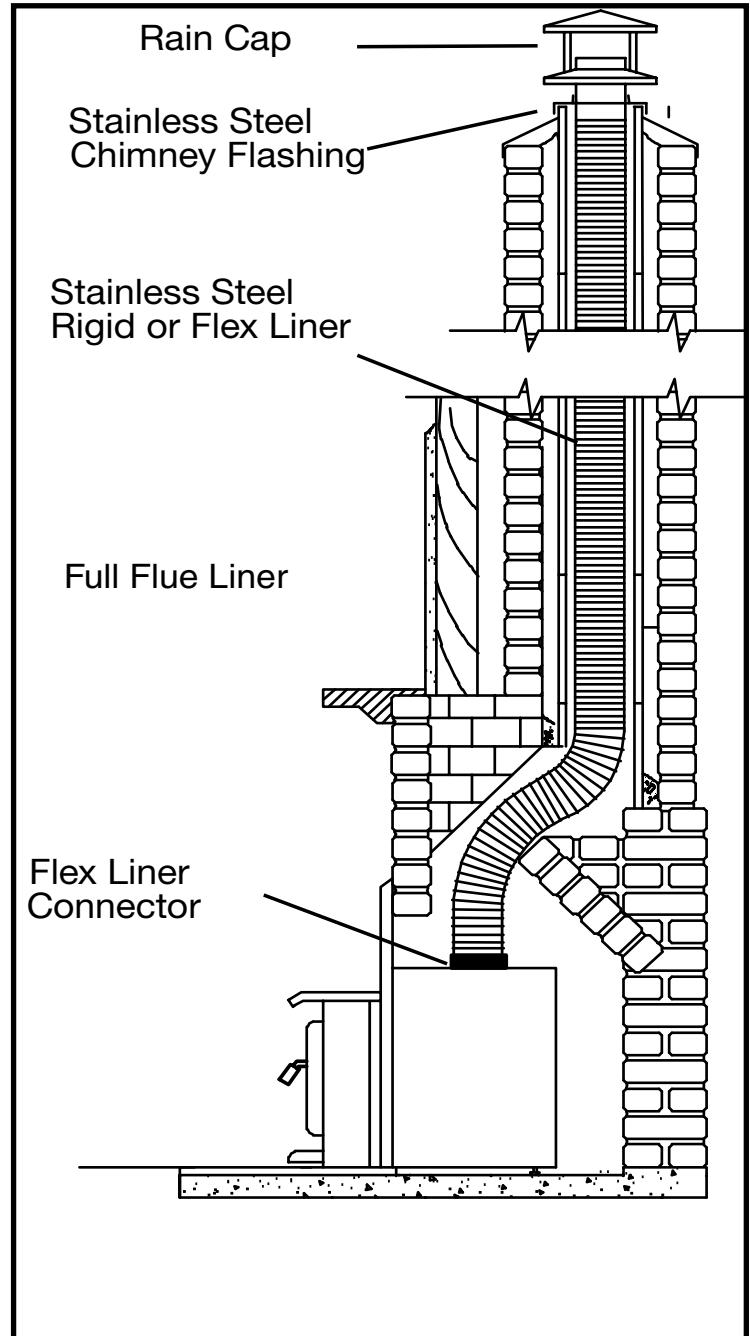


Figure 6: Insert LE full flue liner.

Direct Flue Connection (permitted only in the USA)

Pacific Energy highly recommends the use of a full liner as the safest installation and providing optimum performance. When connected to a full liner, the Insert is able to draft correctly and will prevent problems such as difficult start-ups and smoking out the door.

Note: A clean-out door may be required under local codes, when a direct flue connection is used. Consult local codes. A seal must be provided in the chimney throat

1. Measure from the first chimney flue liner tile to the top of the Insert. Allow extra length of liner to insert into flue tile.
2. Feed the stainless steel liner through the damper area and into the first chimney flue tile. Attach a “stove to liner” adapter to the bottom of the liner as per the liner manufacturer’s instructions. Seal around where the liner passes thru in the Chimney Throat.
3. Follow steps 3-9 on the previous page.

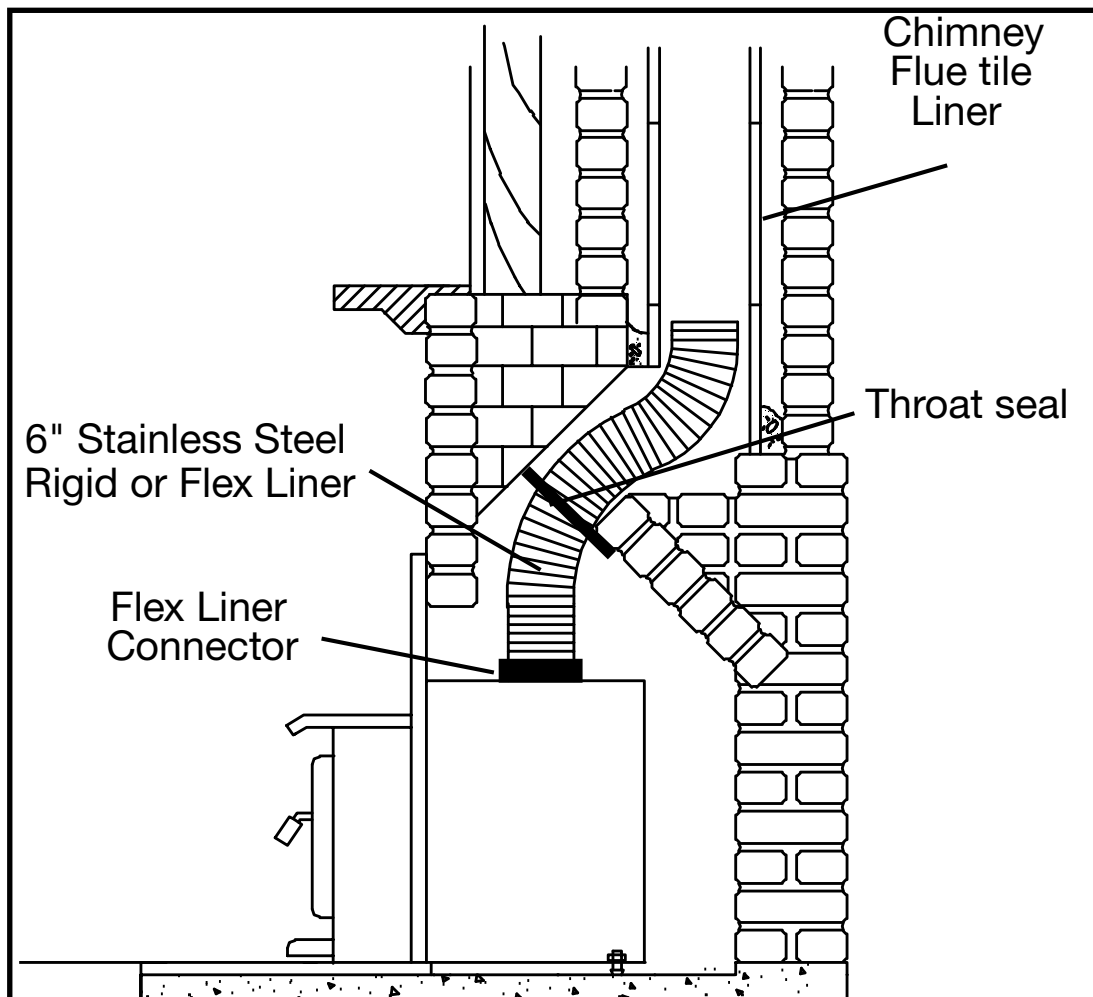


Figure 8: Insert LE direct flue connection.

Figure 7: Direct flue connection.

Combustion Air

Consult local building codes regarding combustion air supply. Intake or combustion air can be supplied to the Insert in one of two ways:

1. Outside air (O/A) supply: Remove cover from ash clean out in existing fireplace. Place a rodent screen in place of the cover. Install the Insert as described in the installation section, making sure not to cover the opening of the air inlet. When installation is complete, seal surround to fireplace and anywhere else air may enter. This will ensure combustion air is drawn from outside the house and into the intake on the bottom of the appliance.
2. Room air supply: Remove the two screws securing the Decorative Cover under the ashlip. Remove the screws holding the Room Air Cover to the Base bottom and discard the this cover. Re-install the Decorative Cover and tighten screws (Figure 9). Combustion Air will be drawn from the room through the front of the unit.

This unit is not designed to be operated with the firing door open. In addition to the obvious hazard of sparks landing on combustibles, an open fire door will cause the heater to draw air from the living space and possibly cause suffocation.

The living space around the heater must be well ventilated with good air circulation. Anything that may cause a negative pressure can cause gases or fumes to be pulled into the living area.

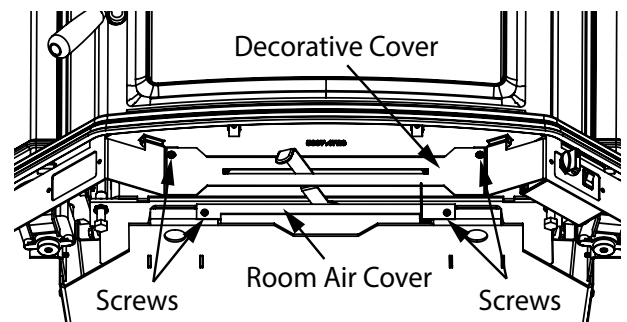


Figure 9: ALT 5 Ins LE - Room air Cover.

Electrical Supply

Circulating air blower electrical rating; 115V, 60 Hz, 1.2 A. For your protection against shock hazard, use only a properly grounded outlet that will accept a three-pronged plug. Do not cut or remove the grounding prong. Do not route power cord under unit. Power cord must be routed to avoid contact with any hot or sharp surfaces.

Consult local codes or, in the absence of local codes, with the current CSA C22.2 Canadian Electrical Code and in the USA with the National Electrical Code, ANSI/NFPA 70 (latest edition).

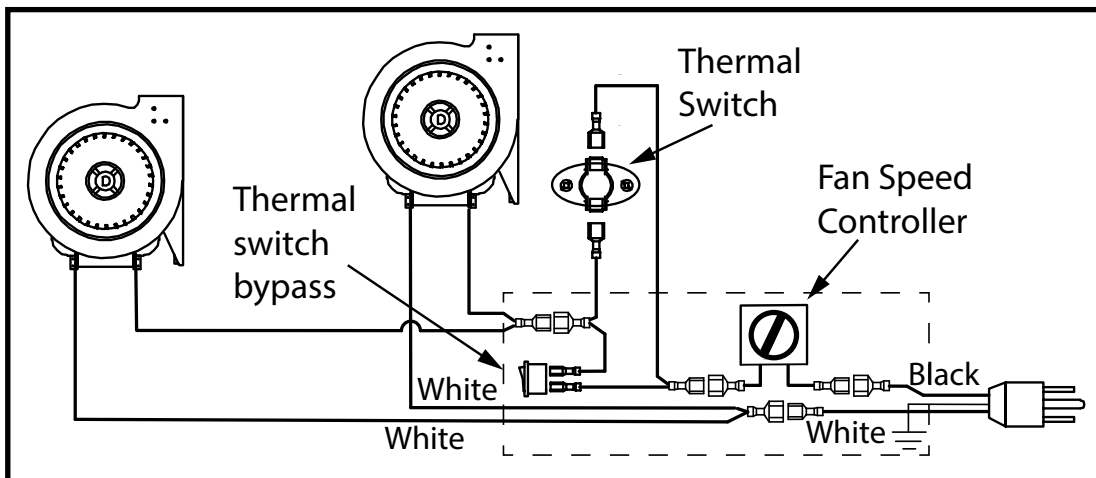


Figure 10: Wiring Diagram - Insert LE.

Surround Assembly and Installation

1. Remove crate and plastic covering from the unit. Place the insert in a location that you can access the back of it to adjust the panels.
2. Remove the Top (A) by lifting up. **Caution:** Support the Fan Shields (B) (Figure 11), they may fall. Remove Shields by lifting up and to the sides. Remove all packaging material from the Top and Fan Shields.
3. Remove the Surround Top and Sides (porcelain enamel only)- from Packaging.
4. Remove the surround brackets from the stove (Figure 12). Use the bolts and washers in the mounting hardware kit, found with the Surround Top to attach the brackets to the Surround sides as shown in Figure 13.

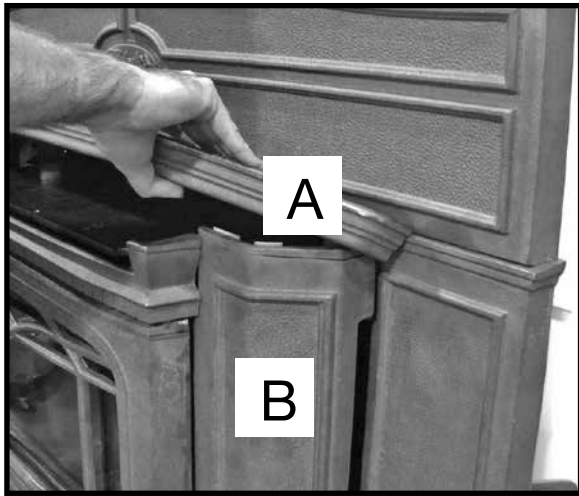


Figure 11: Removing top and fan shields.

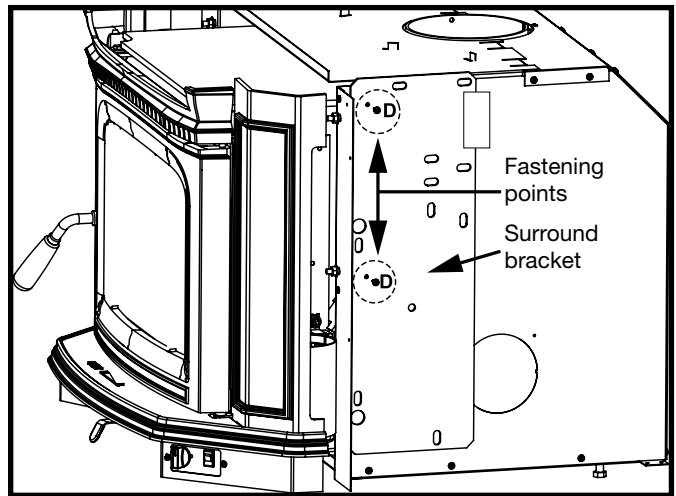


Figure 12: Removing the surround bracket.

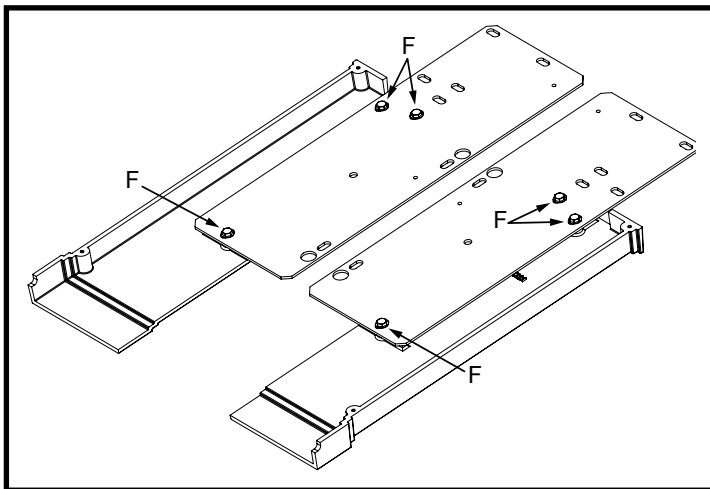


Figure 13: Installing brackets on Surround Sides.

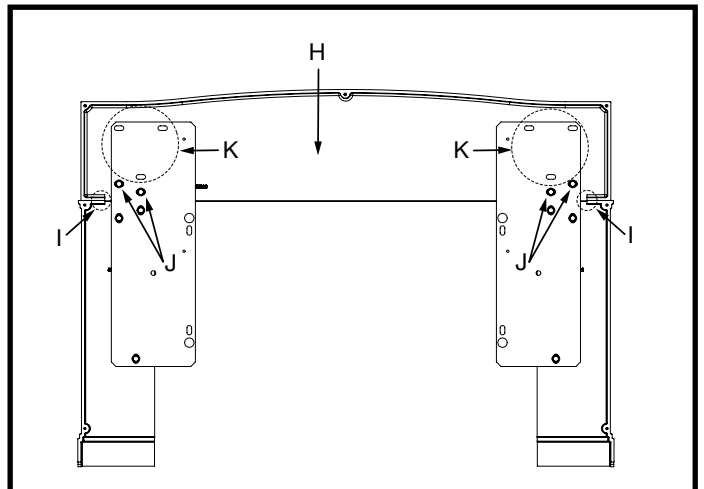


Figure 14: Securing brackets to surrounds.

5. Using a blanket or cardboard to protect the parts, lay the Surround sides flat on floor and align with Surround Top(H). Square the surround by aligning edges(I) on each side. Fasten bolts in location (J) to attach bracket to the Top Surround (Figure 14).

NOTE: If mounting an Oversized Surround (not shown), use mounting holes (K) to attach (Figure 14).

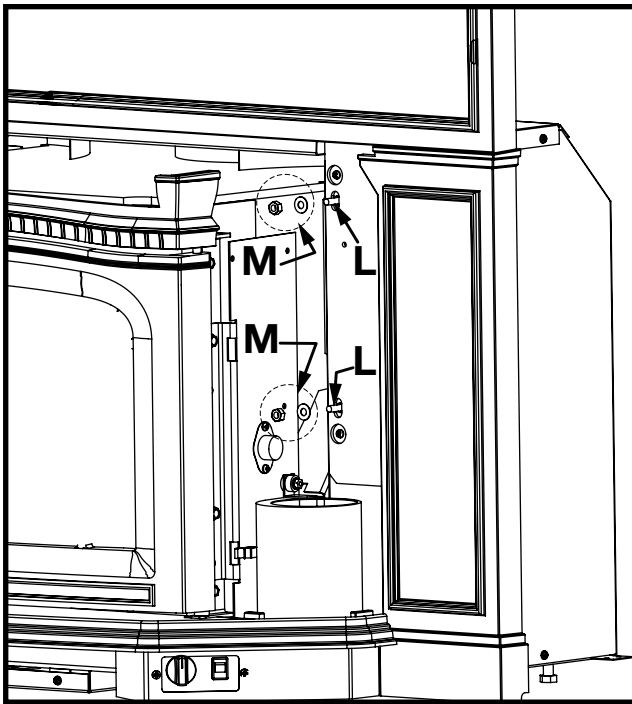


Figure 15: Install surround to firebox.

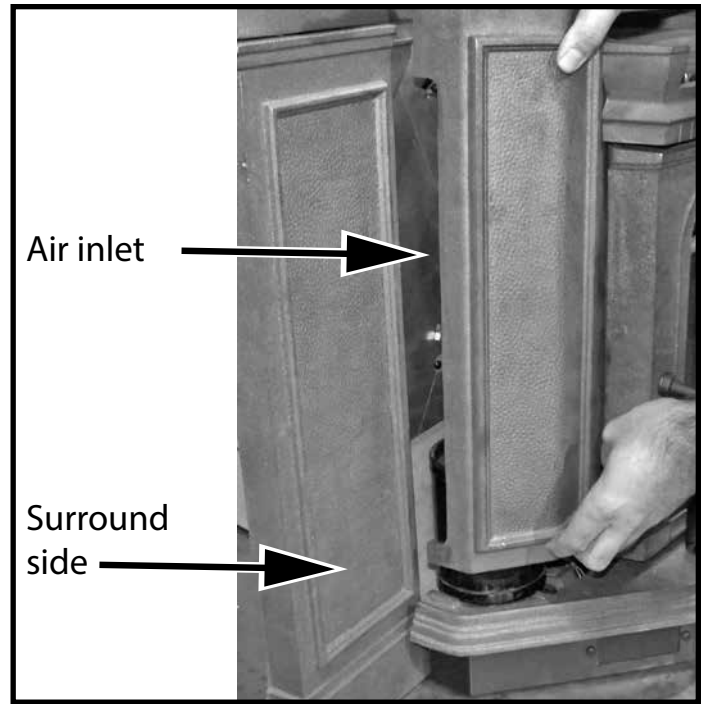


Figure 16: Installing fan shield.

6. Attach surround to firebox by angling the surround sides behind the ash shelf and in front of the mounting stud brackets. align the slots in the surround brackets with studs (L) then fasten with washers and nuts (M) on each side (Figure 15).
7. Install fan shield as shown in Figure 16. Be sure to place the air inlet opening to the back against the surround side.

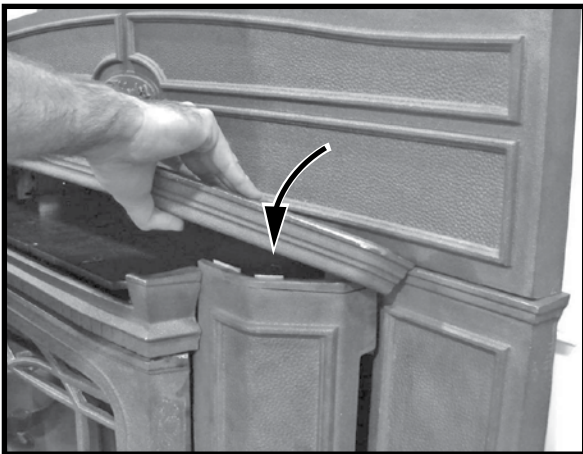


Figure 17: Decorative cover installation.

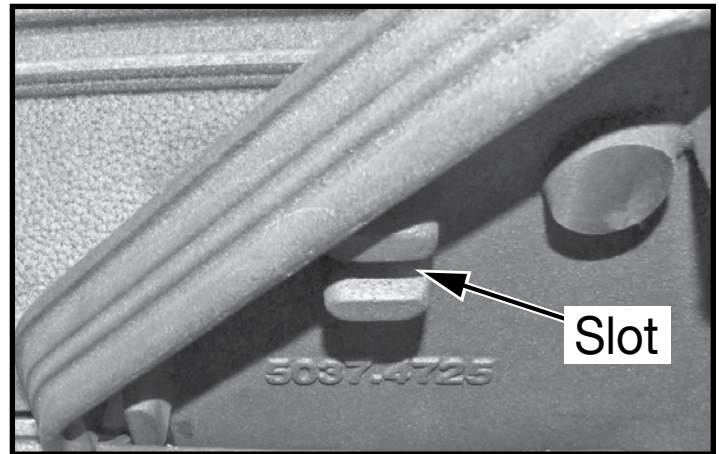


Figure 18: Positioning slots on underside of Top

8. Install the cast decorative top by tilting it at a slight angle, sliding it under the surround top and over the casing top, if it doesn't fit loosen the bolts on the back of the surround sides, then retry. set it over the fan shields (Figure 17). Be sure to engage the top of the fan shield into the slots on the underside of the cast decorative top (Figure 18). This may require moving the fan shields around slightly to get the parts aligned.
- 9.
10. Check the fitment of all the panel and for clearance when the door opens. Due to the tolerances in the casting and Porcelain process additional adjustments may be needed. Ensure all the bolts between the panels are tight then remove the Panel set. Lift the insert into the fireplace, close to the final location and reinstall the surround. Tighten the bolts holding the surround to the mounting studs. Place the unit against the fireplace.

Fan Speed Controller Relocation

The fan speed controller is factory installed under the ash lip on the right hand side. If required, it can be relocated to the left side by following the instructions below. To make this as easy as possible, it is suggested that this be done prior to fitting the surround and installation into the fireplace:

1. Remove the decorative top by tilting up slightly and lifting away from the unit (Figure 19).
2. Lift up on each fan shield and remove. Set aside to prevent damage (Figure 20).



Figure 19: Decorative cover removal.

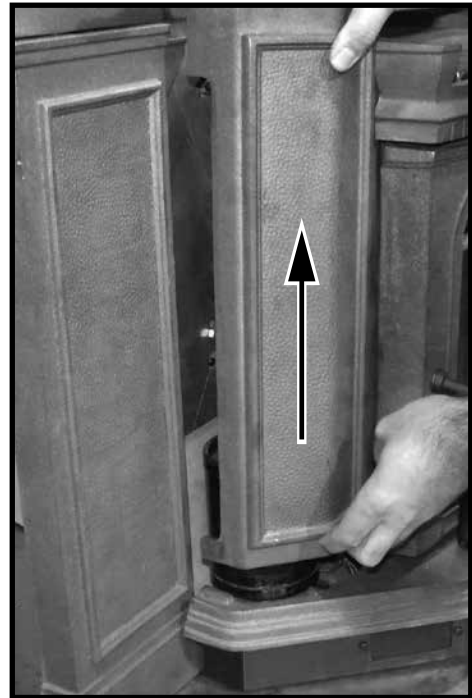


Figure 20: Fan shield removal.

3. Disconnect the wires from the fans, Left & Right Side (Figure 21). Unscrew thermal snap switch leaving the wires connected (Figure 22). Take note of where the wires are routed and secured. They must be positioned correctly to avoid damage.



Figure 21: Disconnecting fan wires.



Figure 22: Unscrew thermal snap switch.

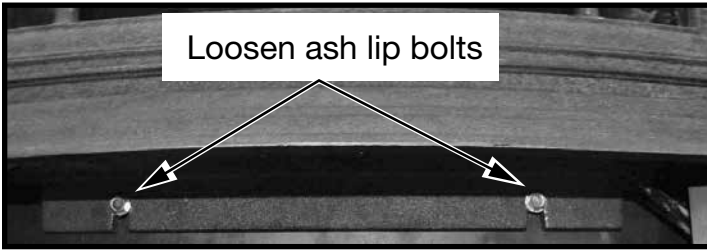


Figure 23: Ash lip bolts.

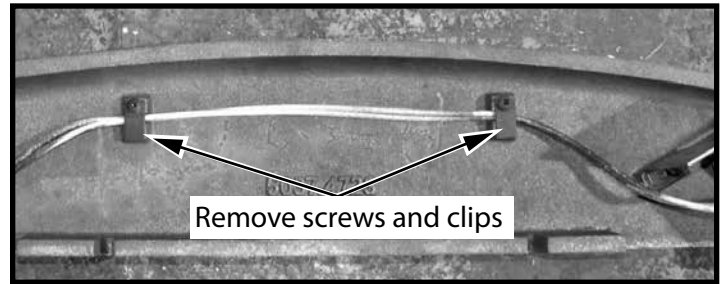


Figure 24: Remove speed control screws and clips.

4. Loosen the two bolts that secure the ash lip to the firebox (Figure 23), carefully lift up the ash lip and remove from the firebox.
5. Loosen the screws on the wire support tabs and turn to remove the wires (Figure 24).

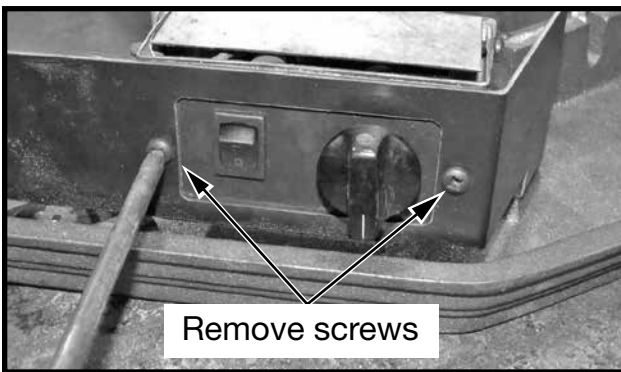


Figure 25: Speed control assy removal.

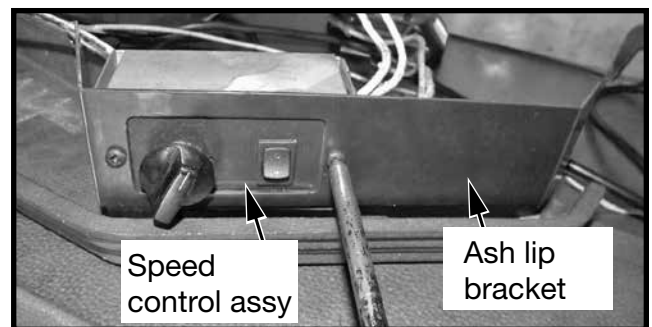


Figure 26: Relocating speed control assy and bracket.

6. Remove the two screws securing the speed controls assembly to the ash lip (Figure 25). Remove cover plate on opposite side.
7. Remove the control assembly from the ashlip bracket on the right hand side. Flip it over and reattach on the left hand side of the ashlip (Figure 26). Use the upper screw holes for best alignment.
8. Route cable from speed control to fan and reattach wire support tabs on the underside of the ash lip. Note wire positions (Figure 27 and Figure 28).

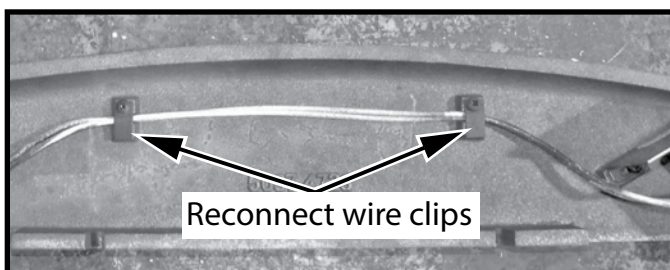


Figure 27: Reconnect wire support clips.



Figure 28: Note wire position.

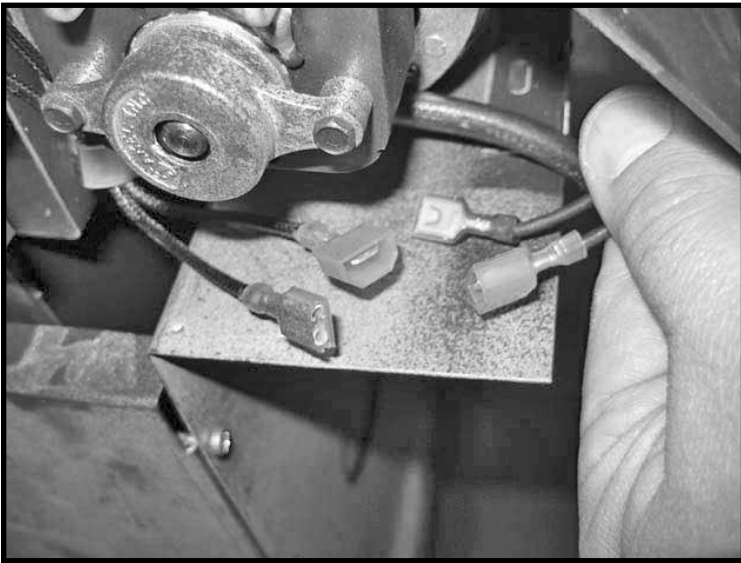


Figure 29: Reconnecting fan wires.

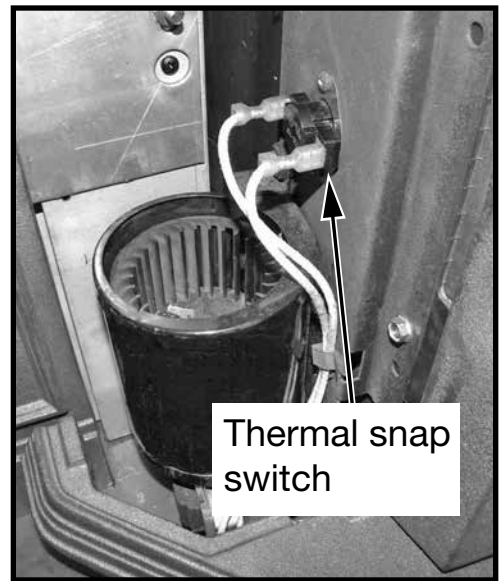


Figure 30: Re-attaching thermal snap switch.

9. Reconnect the wires to the fans (Figure 29) and re-attach thermal snap switch (Figure 30). Refit ash lip, sides and top. Ensure that the power cable is correctly routed through the surround and it is not touching the firebox side (Figure 31). Wire placement is important to prevent damage to wires.

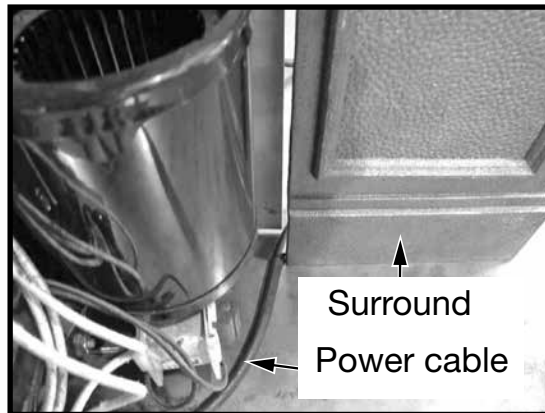


Figure 31: Routing power cable through the surround.

Fan Removal/Installation

1. Remove Decorative Top and both Fan shields as specified in "Fan Speed Controller Relocation" on page 21
2. Disconnect fan wires as shown in Figure 32 from appropriate fan that is being replaced. Remove Thermal switch if needed (Figure 33).
3. Remove the two screws securing the fan bracket to the stove using a 7/16" socket or wrench. Reverse steps 1&2 to install new fan (Figure 33).

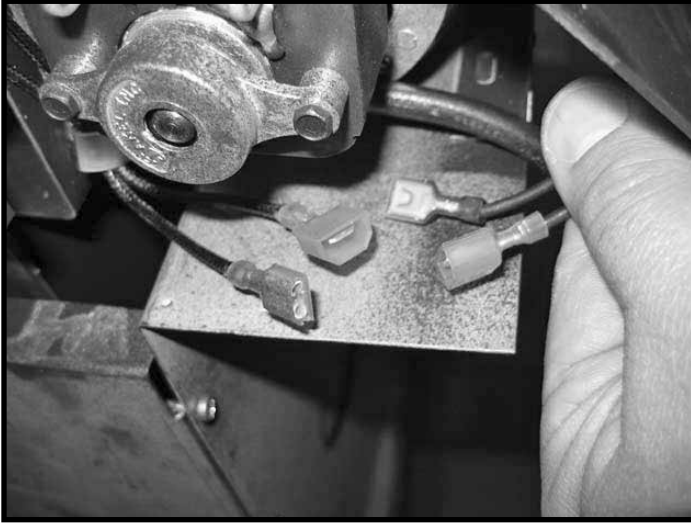


Figure 32: Disconnect the fan wires.

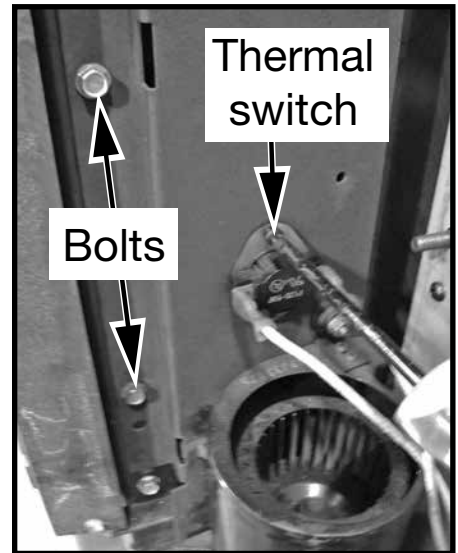
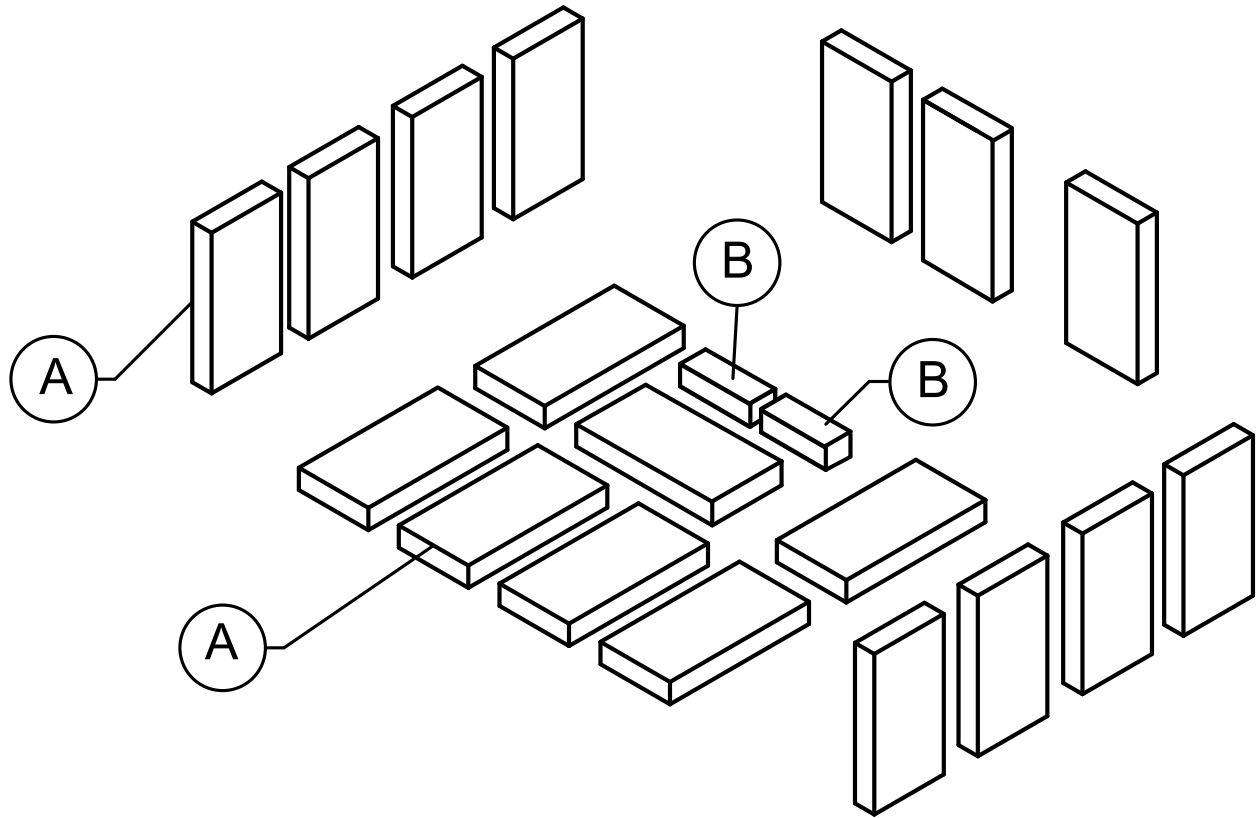


Figure 33: Remove thermal switch.

Troubleshooting

Problem	Cause	Cure
Excessive Creosote Buildup	1) Wood is too wet	- Use dry wood
	2) Turning down air control too soon	- Do not turn down until: a) there is a good bed of coals b) the wood is charred
	3) Draft too low	- Improper chimney height and/or diameter - Chimney plugged or restricted, check flue - Provide outside air for combustion
Glass is Dirty	1) See 1, 2, and 3 above	
	2) Door Gasket leakage	- Replace gasket - Check latch
Low Heat Output	1) Wood is wet	- Use dry wood
	2) Fire too small	- Build a larger fire
	3) Area too large	
	4) Poor insulation or open concrete	
Won't Burn Overnight	1) Air control set too high	- Set control lower
	2) Not enough wood	- Un-split wood is preferred for overnight burns
	3) Possible air leak	- Door gasket needs changing
Stove Won't Burn	1) Combustion air supply is blocked	- Check outside air supply for obstructions (see Combustion Air section)
	2) Draft too low	- Chimney plugged or restricted Inspect and clean - Chimney oversized or otherwise unsuitable Consult Dealer

Firebrick Installation



ITEM

SIZE

A	18pcs.	9" x 4 1/2" x 1 1/4" (230 mm x 115 mm x 32 mm)
B	2pcs.	4 1/2" x 1 1/2" x 1 1/4" (115 mm x 38 mm x 32 mm)

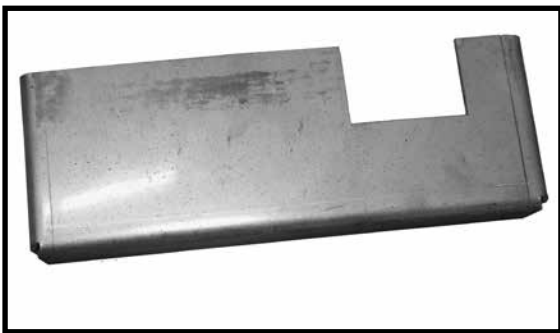


Figure 34: Bottom shield.(Part #80002585)

1. Install the Bottom shield (Figure 34) first over the metal protrusion as shown in Figure 36.
2. The floor firebricks are next. Place the "B" brick on the floor in front of the Bottom shield and the rest of the floor bricks as shown in Figure 37. Move the bricks in towards the center of the floor to eliminate any gaps that may appear between the floor bricks.

3. Place four bricks along the left hand wall. Insert the bricks and slide them forward, so that they are kept in place behind the rail tabs (Figure 38).



Figure 35: Empty firebox.



Figure 36: Cover in place.

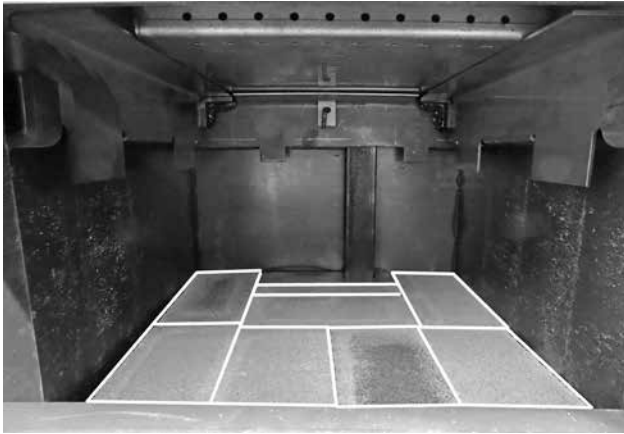


Figure 37: Floor bricks in place.

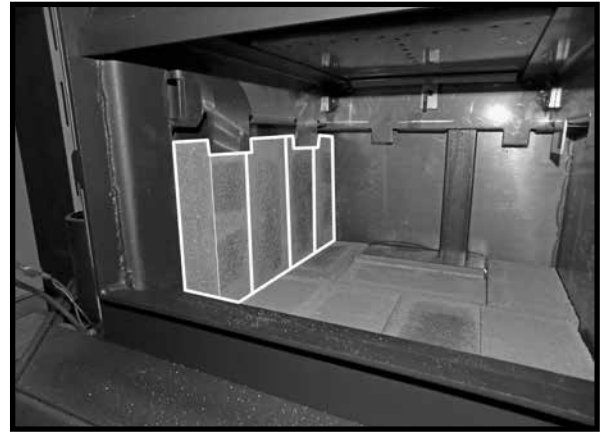


Figure 38: Left wall bricks in place.

4. Place three bricks against the rear wall. Position the bricks behind the tabs and slide them in towards the center of the stove to eliminate any gaps that may appear.
5. Place four bricks in behind the right side wall tabs (Figure 40). Again, move the bricks toward the front. Note: Even though the far bricks on both side walls will fit completely behind the rear wall end bricks, do not do this as the resulting gaps in the side wall bricks at the front will be too large.

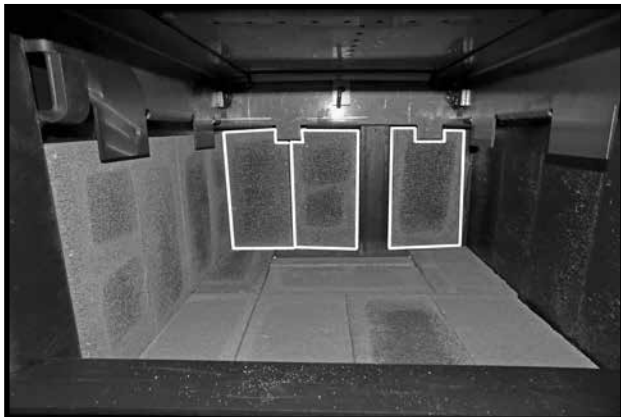


Figure 39: Rear wall bricks in place.

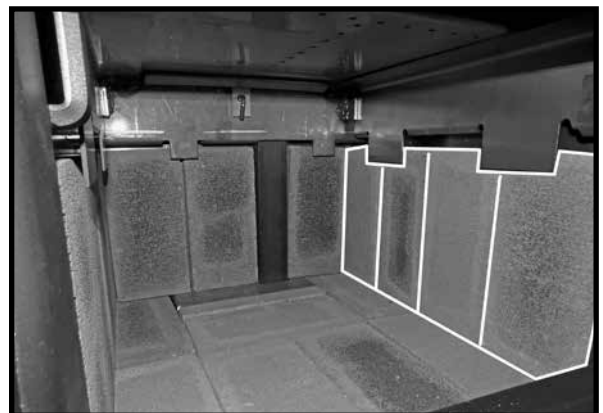
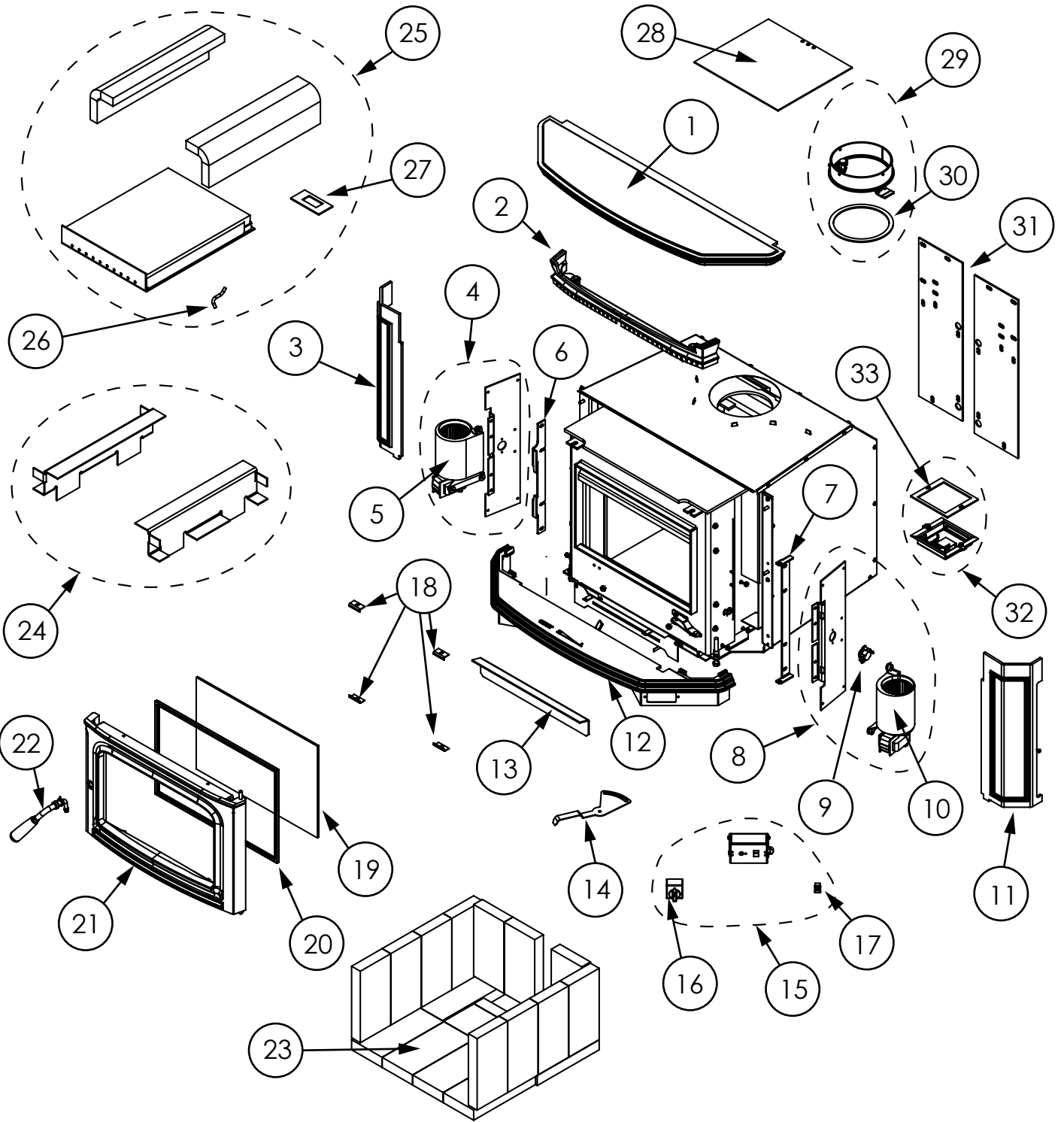


Figure 40: Right wall bricks in place.

Parts Diagram

(WHEN ORDERING, INCLUDE PART NUMBER WITH DESCRIPTION)

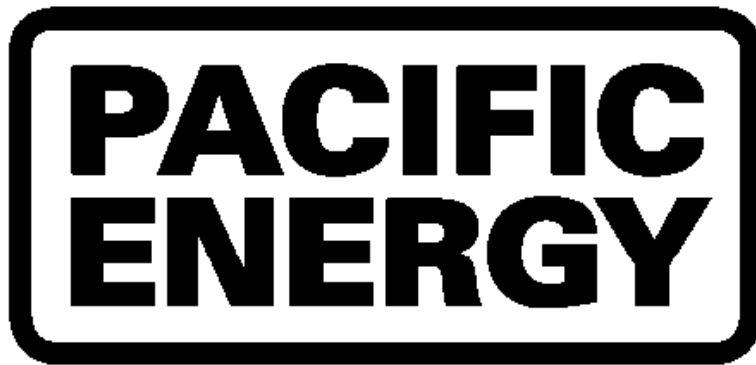
ITEM	DESCRIPTION	PART NO.
1.....	Casting, ALT 5 Insert, Top, Painted	80000713
.....	Casting, ALT 5 Insert, Top, Majolica Brown Enamel	80000060
.....	Casting, ALT 5 Insert, Top, Antique White Enamel	80000058
2.....	Casting, ALT 5 Insert, Crown, Met Black	80000045
.....	Casting, ALT 5 Insert, Crown, Majolica Brown Enamel	80000071
.....	Casting, ALT 5 Insert, Crown, Antique White Enamel.....	80000069
3.....	Casting, ALT 5 Insert, Fan Shield, Latch Side, Painted	80000714
.....	Casting, ALT 5 Insert, Fan Shield, Latch Side, Majolica Brown Enamel.....	80000063
.....	Casting, ALT 5 Insert, Fan Shield, Latch Side, Antique White Enamel	80000061
4.....	Blower Assy, c/w Brackets, Latch Side	80000716
5.....	Blower Only, Latch Side	80000904
6.....	Door Latch Bracket, ALT 5 Insert.....	80000887
7.....	Door Hinge Bracket, ALT 5 Insert	80000888
8.....	Blower Assy, c/w Brackets, Hinge Side	80000717
9.....	Switch, Fan, 120-10, Air Mount.....	80001814
10....	Blower Only, Hinge Side	80000905
11....	Casting, ALT 5 Insert, Fan Shield, Hinge Side, Painted.....	80000039
.....	Casting, ALT 5 Insert, Fan Shield, Hinge Side, Majolica Brown Enamel	80000066
.....	Casting, ALT 5 Insert, Fan Shield, Hinge Side, Antique White Enamel	80000067
12...	Ashlip Assy, Painted	80001458
.....	Ashlip Assy, Majolica Brown Enamel.....	80000068
.....	Ashlip Assy, Antique White Enamel	80000732
13....	Manifold, Boost, Super LE.....	80002207
14....	Air Control, Primary (c/w Spring, Washer and Cap)	80002215
15....	Blower, Control Box.....	80000355
16....	Switch, Rheostat	80000908
17....	Switch, Rocker, SPST On/Off.....	80001513
18....	Clamps, Glass, Set (4 pc.).....	80001555
19...	Glass, ALT5.....	80001523
20...	Gasket, Door, 5/16" Rope.....	80001503
21...	Casting, ALT 5 Insert, Door, Met Black.....	80000043
.....	Casting, ALT 5 Insert, Door, Majolica Brown, Enamel	80000057
.....	Casting, ALT 5 Insert, Door, Antique White, Enamel.....	80000055
22...	Door Handle, Alderlea, LHS.....	80000013
23....	Firebrick Set, Super / Super LE	80000088
24....	Brick Rails, Super LE, (2pc).....	80002169
25....	Baffle Kit, Super LE	80000376
26....	Baffle, Pins, 10 pack.....	80000364
27....	Gasket, 2" Baffle Tube, 10 pack.....	80000365
28....	Flame Shield, Super Insert	80000653
29....	Collar, Removable, c/w Hardware	80000665
30....	Gasket, Removable Collar	80001983
31....	Surround, Mounting Brackets, ALT 5 Insert LE (2pcs).....	80002329
32...	Air Control, Secondary, (c/w Gasket)	80000841
33....	Gasket, Air Control, Secondary	80002222



Parts may be ordered from your nearest Pacific Energy dealer. Contact Pacific Energy for the location of the dealer nearest you.

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For technical support, please contact your retailer

**Web site: www.pacificenergy.net
2975 Allenby Rd., Duncan, BC V9L 6V8**