# 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 US Environmental Protection Agency's 2020 Particulate Emission Standards.





MODEL: NEO 1.6 INSERT LE

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

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#### STATE 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

#### PLEASE SAVE THESE INSTRUCTIONS

This manual describes the installation and operation of the Pacific Energy, VISTA 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.

# Rating Label

This heater meets the 2020 U.S. Environmental Protection Agency's crib wood emission limits for wood heaters sold after May 15, 2020 using Method 28R. Under specific test conditions this heater has been shown to deliver heat at rates ranging from 13,500 to 23,200 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.

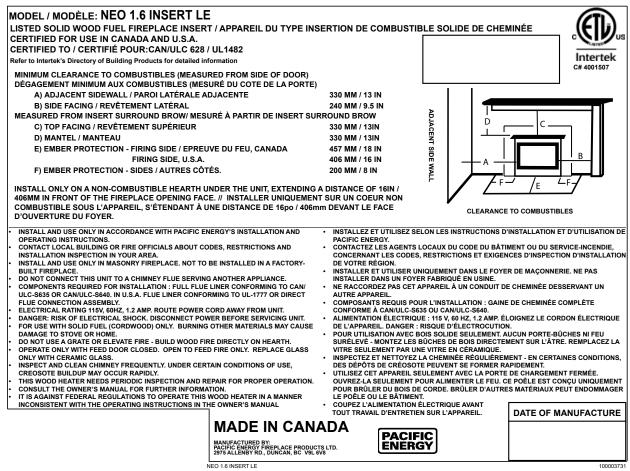


Figure 1: 100003731 Label, Rating, NEO 1.6 Insert LE.

#### **Efficiency and BTU Output**

EPA Certified Emissions	1.9 grams per hour
LHV Tested Efficiency 1	78%
HHV Tested Efficiency 2	72%
EPA BTU Output 3	13,494 to 23,186 btu/hr.
Maximum Wood Length	18 inches
Ideal Wood Length	16-17 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.

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.

# **Safety**

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 few 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. See Hang Tag from Forrest Paint.

#### 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:

20 110 1 20 1111 1	
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 thin- ners, or asphalt products	Paper products, cardboard, plywood, or particleboard.

<sup>\*</sup> 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, naptha, 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. CAUTION: Do NOT leave the stove unattended while door is open.
- 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 east/west 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.
- 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.

  Recommended draft is between .06"w.c. .09" w.c. when hot, on high
- 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.

#### **Door Gaskets -**

The gasket used by Pacific Energy (7/8"(22mm) 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 (prt# 80000156). The kit can be obtained 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 10-1/2"(267mm) x 16-1/2"(419mm) x 5 mm. Ceramic glass only. Do not substitute with any other type.

To remove broken glass, undo the four retaining screws and remove the 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
- 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.
- 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

- Brick Rail Tabs and Brick Rails.
- Air Riser Tube in the back of the firebox.
- Back side of Airwash Chamber.
- Baffle Locking Pin.
- Baffle Tubes

#### When Cleaning the Chimney System:

- Top Baffle Board / Blanket.
- Baffle.
- Top Heat Shield and mounting bolts.
- Baffle Gasket.
- Brick Rails.
- Manifold.

#### **Blower:**

• The blower should be cleaned out a minimum every six months by using a vacuum on the grill openings in the back and bottom of the blower casing to remove any dust and debris.

#### Baffle:

- Some warping of the baffle is normal(up to 1/4" or .65cm). Replace if the baffle has <u>permanent</u> 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 can accelerate damage to other parts and may void your warranty

## **Baffle Removal**

Chimney connector pipe should be disconnected from stove to clean and inspect. Only if this is not possible should you remove baffle assembly.

#### DO NOT OPERATE WITH BAFFLE ASSEMBLY, TUBES OR INSULATION REMOVED.

#### **Baffle Removal**

- 1. Slide the Ceramic Board located above the tubes towards the front of the stove. Remove retaining pin at the back of the firebox, just under the baffle.
- 2. Lift the Baffle up to disconnect from the Baffle supply tube.
- 3. Move the Baffle to one side then tilt it sideways to drop down and remove from firebox. You may need to remove the opposite side brick rail to allow the Baffle to drop down. To remove the Brick Rail, remove the brick directly under it then lift the rail up and inward to clear the locating pins
- 4. Inspect the gasket between baffle and supply tube. If necessary, replace with gasket (prt#80000365) available from your Pacific Energy dealer.
- 5. Re-install baffle assembly in reverse order. The two side pieces of blanket insulation must be tight against the side rails. The Ceramic Board on top of the tubes must be pushed back tight against the Baffle.

#### **Tube / Baffle Board Removal**

- 1. With a set of vise-grips, grasp the front baffle tube on the right, slightly away from the baffle air assembly. While squeezing tightly, use a hammer to hit the pliers and pull the tube to the right to disengage the tube from the hole on the left. Allow the tube to hang freely from the hole on the right.
- 2. Repeat step #1 for rear baffle tube.
- 3. Grasp the front edge of the baffle board and pull forward. Guide the board down and through the door opening. Caution Baffle Board material is very fragile.

#### Installation

- With the holes facing down/forward and the notch to the left side, insert a baffle tube into the hole in the baffle air channel on the right at an angle and then raise and insert into the opposite hole on the left side baffle air assembly.
- 2. With a set of vise-grips, grasp the baffle tube on the left, slightly away from the baffle air assembly. While squeezing tightly, use a hammer to hit the pliers and push the tube to the left to engage the tube in the hole on the left.
- 3. With the rear tube installed, Insert the baffle board above the tube, between the tube and the side hold down tabs.
- 4. Repeat steps #1 & #2 with the remaining baffle tube, being careful not to damage the board.
- 5. Slide the baffle board back until the lower edge is tight against the baffle.



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# **Dimensions**

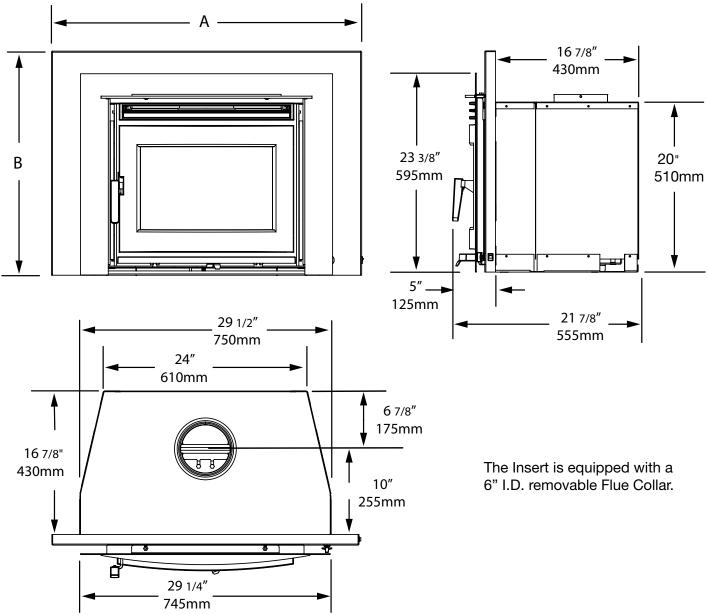


Figure 2: NEO 1.6 Insert LE - dimensions.

Surround Dimensions		
	REGULAR SURROUND	OVERSIZED SURROUND
	JUNNOUND	JUNDUND
A	36"	46"
В	26"	30"

# **Minimum Fireplace Dimensions**

#### **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 2.

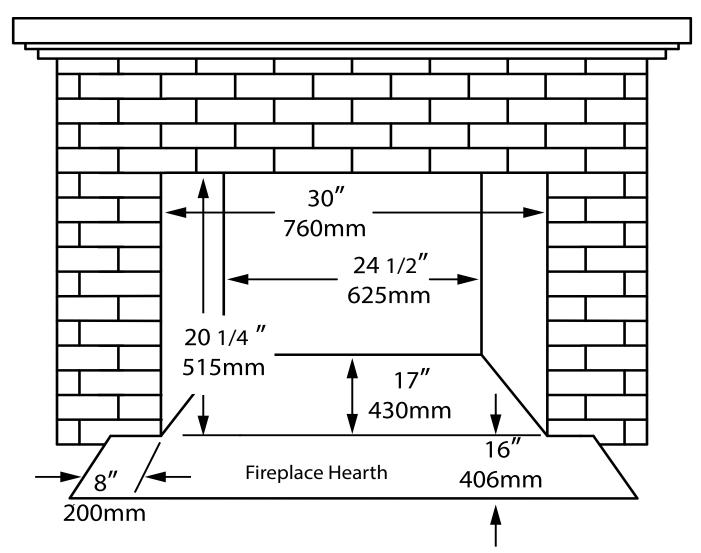


Figure 3: Fireplace opening dim. - NEO 1.6 Insert LE.

#### **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.

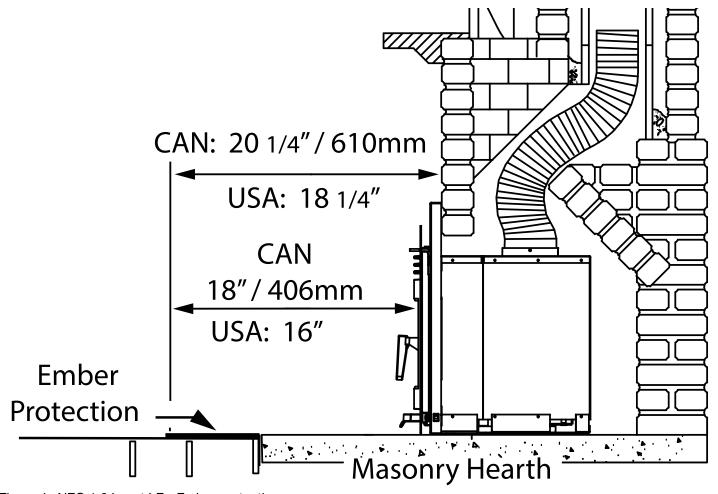


Figure 4: NEO 1.6 Insert LE - Ember protection.

#### **Optional Leveling Legs**

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

- If you 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.
- 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 4.

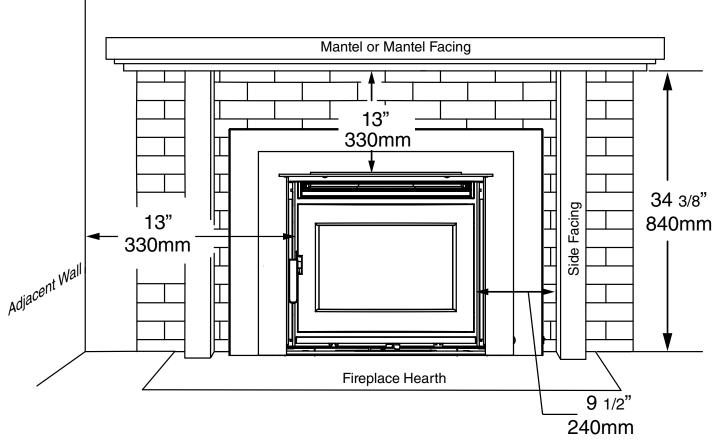


Figure 5: NEO 1.6 Insert LE Clearances.

#### **Minimum Clearances to Combustibles**

Side of Door to Adjacent Sidewall	13 in.(255 mm.)
Side of Door to Side Facing (max 3-1/2 in. deep)	9.5 in.(155 mm.)
Top of Front Brow to Mantel Facing	13 in.(305 mm.)
Top of Front Brow to Mantel (max 12in. deep)	13 in.(305 mm.)
In front of Insert	48 in. (1.22m)

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.

PACIFIC ENERGY

## 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 size.

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-S635, 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. The Insert is equipped with a 6" I.D. Flue Collar.

- 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 Front Trim by lifting up on each side, then pull it towards you to release the tabs.
- 5. Remove the Backing Plate by removing the two screws (T20 Torx) on each side, pull towards you, and lift up to remove.
- 6. Remove the Baffle, following the instructions. See "Baffle Removal" on page 11
- 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, sides, front and rear of the insert).
- 8. 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.
- 9. 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.

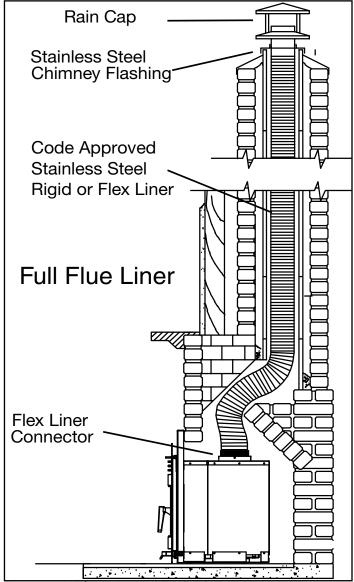


Figure 6: NEO 1.6 Insert LE - full flue liner.

- 10. Attach a rain cap to the end of the liner. A storm collar may be used if desired.
- 11. Re-Install the Backing Plate and then the Front Trim Make sure the Front trim itabs are fully engaged.

#### **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 top of 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.

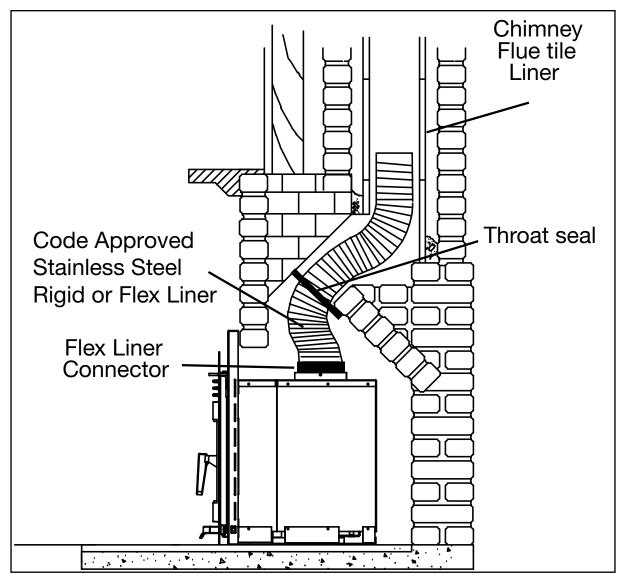


Figure 7: NEO 1.6 Insert LE - direct flue connection - USA.ai



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#### **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 supply: Remove the cover from ash clean out in your 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: Combustion Air will be drawn from the room through the front of the unit.

#### **Electrical Supply**

Circulating air blowers electrical rating; 120V, 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).

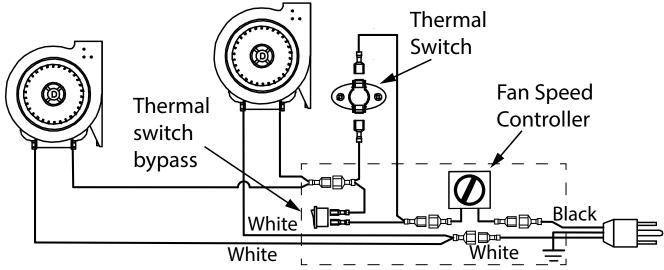


Figure 8: Wiring Diagram - Insert LE.

# **Fan Service**

#### Cleaning

To access the Blowers remove the Decorative surround as per the instructions. Carefully vacuum the blades with an upholstery attachment.

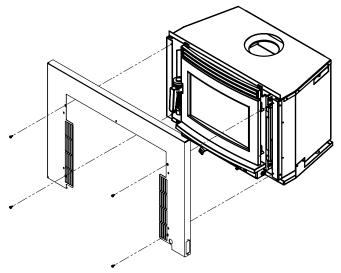
#### To Remove the Blowers

- 1. Unplug the unit from its outlet.
- 2. Remove the Front Trim and Backing Plate per the instructions.
- 3. Disconnect the wires.
- 4. Loosen the two bolts holding the Blower Bracket in place. Pull the top of the bracket towards the front, to dis-engage it. Then lift up and out to dis-engage the bottom slot.
- 5. Installation is the reverse.

# **Backing Plate and Front Trim Installation**

Remove the Knob from the Blower Speed Control with the supplied Allen key. Attach the Backing Plate to the mounting brackets located on the Casing Sides with the four screws provided. Fig. #9. Re install the blower Speed Control Knob.

Attach the Front Trim by lining up the hooks on the back of the Front Trim into the locking slots in the Front Trim mounting brackets. The Brackets are located on either side of the firebox, between the Blower Bracket and the Door, Push the Front Trim into and then slide it down to engage the hooks onto the brackets. Fig. #10



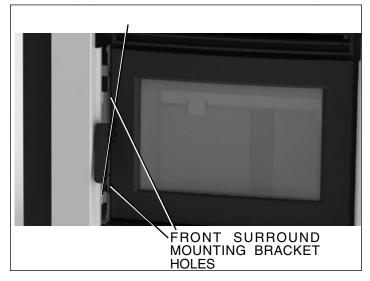


Figure 9: NEO Insert 1.6 LE Backing Plate.

Figure 10: front surround install.JPG

### Power Cord Relocation

The Power Cord can be moved from exiting on the right to exiting on the left side of the unit.

- 1. Lift up and pull to remove the Front Trim. Remove the Blower Speed Control Knob with the supplied Allen key. Then remove backing plate and disconnect the leads to rocker switch
- 2. Remove the two screws (Torx T20) holding the electrical box and the Wiring Cover under the Ash Shelf in place
- 3. Remove the strain relief from the right side of the Wiring Cover. Re-route the power cord to use the left-side hole in the cover. Re-install the strain relief on power cord power cord using pliers.
- 4. Remount Wire Cover and Electrical Box to the unit. Re-install the backing plate making sure to re-connect the leads to the rocker switch. Re-install the Blower Speed Control Knob control knob and the Front Trim.

# - Troubleshooting ————

noubleaning		
Problem	Cause	Cure
Glass is Dirty	1. Wood is wet	- Use dry wood
	Turning down air control or damper too soon	<ul><li>Do not turn down until</li><li>a) there is a good bed of coals</li><li>b) the wood is charred</li></ul>
	<ul><li>3. Draft too low</li><li>- Chimney plugged or restricted.</li></ul>	<ul><li>Improper chimney height and / or diameter</li><li>Inspect and clean</li><li>Provide outside air for combustion</li></ul>
	4. Door gasket leakage	- Replace gasket - Check latch
Excessive Creosote Buildup - See 1,2,3, above.		
Low Heat Output	<ol> <li>Wood is wet</li> <li>Fire too small</li> <li>Draft too low</li> </ol>	<ul><li>Use dry wood</li><li>Build a larger fire</li><li>Chimney plugged or restricted, inspect and clean</li></ul>
Won't Burn Overnight	<ol> <li>Air control is set too high</li> <li>Not enough wood</li> <li>Draft too high</li> <li>Door gasket leaking</li> </ol>	<ul> <li>Set control lower</li> <li>Unsplit wood is preferred for overnight burns</li> <li>Excessive chimney height and/ or diameter</li> <li>Replace door gasket.</li> </ul>
Stove Won't Burn	1.Combustion air supply blocked	<ul><li>Check outside air supply for obstruction</li><li>Check that room air cover is removed</li></ul>
	2. Draft too low	<ul> <li>Chimney plugged or restricted, inspect and clean</li> <li>Chimney oversized or otherwise unsuitable,</li> <li>Consult Dealer</li> </ul>



# Firebrick Installation -

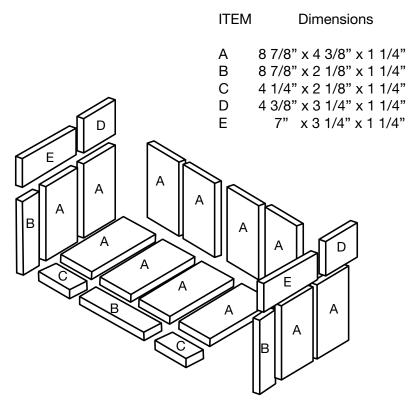


Figure 11: Vista Insert LE - Firebrick layout.

#### **Firebrick Installation**

- 1. Beginning at the rear wall, stand one "A" firebrick vertically behind the tab located on the brick rail. Slide the firebrick toward the center of the rear wall.
- 2. Slide a 2nd "A" firebrick underneath the tab on the brick rail (Figure 12). Repeat steps 1 & 2 for the other side (Figure 13).

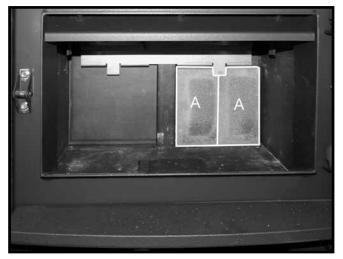


Figure 12: Installing the two rear wall firebricks.

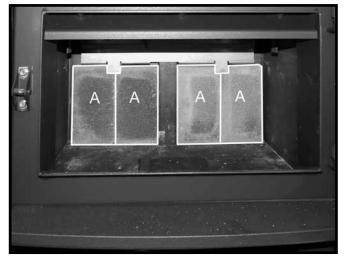


Figure 13: Remaining rear wall firebricks in place.

3. For the side walls: Stand an "A" firebrick against the side wall and up against the rear wall firebrick (Figure 14). Stand another "A" brick beside the first, one followed by a narrow "B" firebrick (Figure 14).

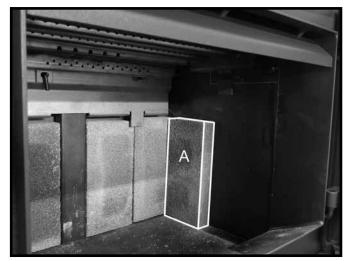


Figure 14: 1st side wall brick in place.

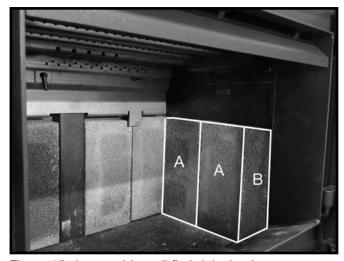


Figure 15: Lower side wall firebricks in place.

- 1. Place a "D" firebrick on top of the previously placed "A" firebricks and slide this firebrick back toward the rear wall making sure that this firebrick tucks in behind the brick rail (Figure 16).
- 2. Slide an "E" firebrick under the side wall brick rail tab and rest on top of the three previously placed side wall firebricks (Figure 17). Repeat steps 4-7 on the other side.

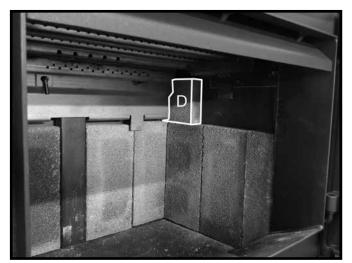


Figure 16: Small side wall firebrick in position.

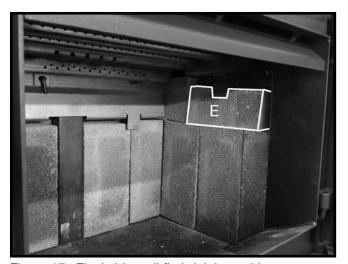


Figure 17: Final side wall firebrick in position.

- 3. Place four "A" firebricks on the firebox floor as shown in Figure 18.
- 4. Place the remaining "B" firebrick so that it sits in front and at the center, add a "C" brick on each side. (Figure 19).

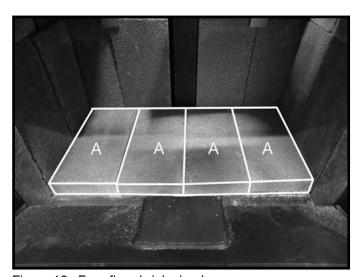


Figure 18: Four floor bricks in place.

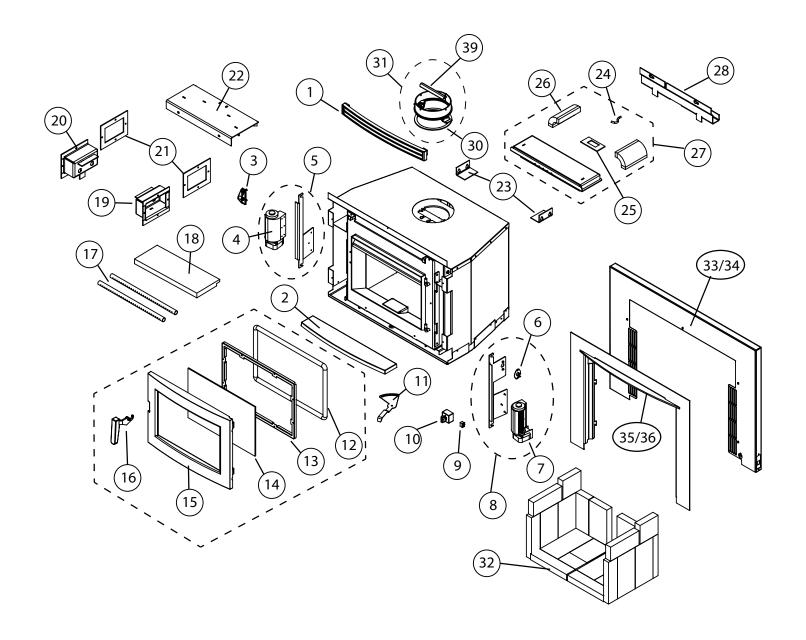


Figure 19: Narrow front bricks in place.

# Parts Diagram

#### (WHEN ORDERING, INCLUDE PART NUMBER WITH DESCRIPTION) 7...... Blower, 45mm x 120mm Wheel, RHS .......80002450 10..... Switch, Rheostat .......80000908 11.... Air Control, Primary .......80002438 14.... Glass(c/w Tape), NEO 1.6......80000220 15.... Casting, Door, NEO 1.6 ......80000252 16..... Handle, Door, (Knob only - 80000223) .......80000854 17..... Tubes, NEO 1.6 LE /Vista LE (set of 2) .......80002364 18..... Baffle Board, NEO 1.6LE / Vista LE.......80002357 19..... Tube Air Box (RHS), NEO 1.6 LE / Vista LE ......80002365 20..... Tube Air Box (LHS), NEO 1.6 LE / Vista LE.......80002358 21..... Tube Air Box Gasket, NEO 1.6 LE / Vista LE......80002359 24.... Baffle, Pin, (10pc)......80000364 26..... Baffle Blanket (set), NEO 1.6 LE / Vista LE.......80002362 27..... Baffle, NEO 1.6 LE / Vista LE.......80002361 28..... Rear Brick Rail. NEO 1.6.......80001723 29..... Handle, Removable Collar......80000254 31..... Flue Collar, Removable, (c/w Hardware).......80000665 **Options**

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





# **Wood Products Warranty**

Pacific Energy extends the following warranty coverage to the original registered purchaser of the product:



#### LTD Lifetime Coverage (10 years)

Limited lifetime coverage is extended to the following components (parts only) porcelain finish, glass (glass for thermal breakage only, not impact), plating, firebox and baffle.

#### **3 Year Comprehensive**

Pacific Energy will replace or repair any part found to be defective (parts and labor) for three years from the date of purchase.

This coverage includes electrical components (blowers, speed controls and thermal switches).

#### Pacific Energy recommends using a certified installer.

#### Conditions

Your stove has been designed to perform in the harshest climates in North America. You can be confident that under normal use your stove will be trouble free for many years. If your stove is prematurely deteriorating this is a significant indicator of improper usage, for example; excessive draft, heating to large an area, contaminated fuel - such as high sodium content or plastics and chemicals. Please be aware, these conditions may be reasons to void your warranty.

- For wood products All installations must be installed according to all applicable local and national codes. It is the responsibility of the installer to ensure the unit is operating correctly at installation.
- Any part that shows in our judgment evidence of defect shall be repaired, replaced or refunded at Pacific Energy's option. The defective part may be required to be returned to Pacific Energy or an accredited agent, transportation prepaid.
- Porcelain is warranted for gloss retention. Certain colors may darken when heated and return to the original shade when cool. As a man-made finish it is subject to minor imperfections.
- Glass is warranted against thermal breakage.
- Plating is warranted against tarnishing. Gold plating may attain a deeper color with use.

#### **Exclusions**

- Limited Lifetime coverage Lifetime coverage is limited to the repair, replacement or refund of the indicated parts only. Labor charges are not covered under the lifetime warranty.
- The following items are not included in the Lifetime Warranty: firebox rails and heat shields.
- The following parts are not warranted: firebrick, gaskets and ceramic fiber blankets.
- This warranty does not apply to any part that shows evidence of misuse, abuse, improper installation, accident, lack of maintenance, or modification.
- Pacific Energy shall in no event be liable for any special, indirect or consequential damages of any nature whatsoever which are in excess of the original purchase price of the product.
- Pacific Energy is not responsible for installation, operational or environmental conditions beyond our control.
- (The company may, at its discretion, discharge all obligations by refunding the wholesale price of the defective part.)

IF WARRANTY SERVICE IS NEEDED: 1. If you discover a problem that you believe is covered by this warranty, report it to your Pacific Energy Fireplace Products dealer, giving them proof of purchase, the purchase date, and the model name and serial number. 2. Pacific Energy Fireplace Products Ltd. has the option of either repairing or replacing the defective component. 3. If your dealer is unable to repair your appliance's defect, he may process a warranty claim through Pacific Energy Fireplace Products Ltd., including the name of the dealership where you purchased the appliance, a copy of your receipt showing the date of the appliance's purchase, and the serial number on your appliance.

**REGISTER YOUR PRODUCT ONLINE** 

HAVE YOUR SERIAL NUMBER\* AVAILABLE AND VISIT

pacificenergy.net/register

\*Your serial number can be found on the product certification label or on the cover of your installation manual.







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For Technical Support please contact your dealer

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