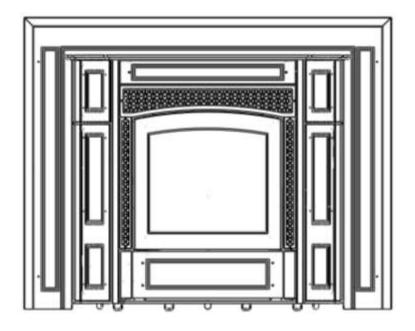
PROVIDENCE INSERT

Pellet Stove Owner's Manual Installation and Operating Instructions



Made in the USA by:





SAFETY NOTICE

- STOVE MUST BE PROPERLY INSTALLED AND MAINTAINED OR A HOUSE FIRE MAY RESULT.
- FOR YOUR SAFETY, FOLLOW THE INSTALLATION INSTRUCTIONS.
- CONTACT LOCAL BUILDING OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION AND PERMIT.
- FAILURE TO COMPLY WITH OWNER'S MANUAL INSTRUCTIONS AND INSTALLATION GUIDELINES WILL VOID WARRANTY. SAVE THESE INSTRUCTIONS.

PLEASE LEAVE THIS MANUAL WITH THE OWNER!!

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SAFETY INFORMATION

Fire Risk

Do not operate appliance before reading and understanding operating instructions.

Failure to operate appliance properly may result in a house fire.

Inspect appliance and components for damage. Damaged parts may impair safe operation.

DO NOT install damaged components.

DO NOT install incomplete components.

DO NOT install substitute components.

Report damaged parts to dealer.

DO NOT connect this unit into a chimney flue servicing another appliance.

DO NOT connect to any air distribution or duct system.

WARNING

THELIN HEARTH PRODUCTS DISCLAIMES ANY RESPONSIBILITY FOR, AND THE WARRANTY WILL BE VOIDED BY THE FOLLOWING ACTIONS:

- MODIFICATION OF APPLIANCE
- INSTALLATION OTHER THAN AS INSTRUCTED IN THIS MANUAL BY THELIN HEARTH PRODUCTS.
- INSTALLATION AND/OR USE OF ANY COMPONENT PART NOT APPROVED BY THELIN HEARTH PRODUCTS.
- OPERATING APPLIANCE WITHOUT FULLY ASSEMBLING ALL COMPONENTS CORRECTLY.

DO NOT over fire. If any external part starts to glow, you are over firing. Reduce feed rate.

Over firing or any such action that may cause a fire hazard including failure to perform regular maintenance as outlined in these instructions will void warranty.

DO NOT store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

CAUTION

TESTED AND APPROVED FOR PREMIUM WOOD PELLETS OF HIGHEST BTU OUTPUT AND LOWEST % OF ASH CONTENT ONLY. BURNING ANY OTHER TYPE OF FUEL WILL VOID YOUR WARRANTY.

Fire Safety

Maintain the designated clearances to combustibles as diagramed in this manual. Insulation must not touch the chimney or venting system. You must maintain the designated airspace clearance around the chimney. This space around the chimney is necessary to allow heat to flow away from the chimney area. Insulation in this area will cause heat buildup, which could ignite wood framing.

The following should be considered when installing any solid fuel appliance:

- 1. Install at least one smoke detector on each floor of your home to ensure safety. They should be located away from the heating appliance and near the sleeping area.
- 2. Conveniently locate a Class A fire extinguisher near the appliance.
- 3. Write down and practice an evacuation plan with two escape routes. Check with your local

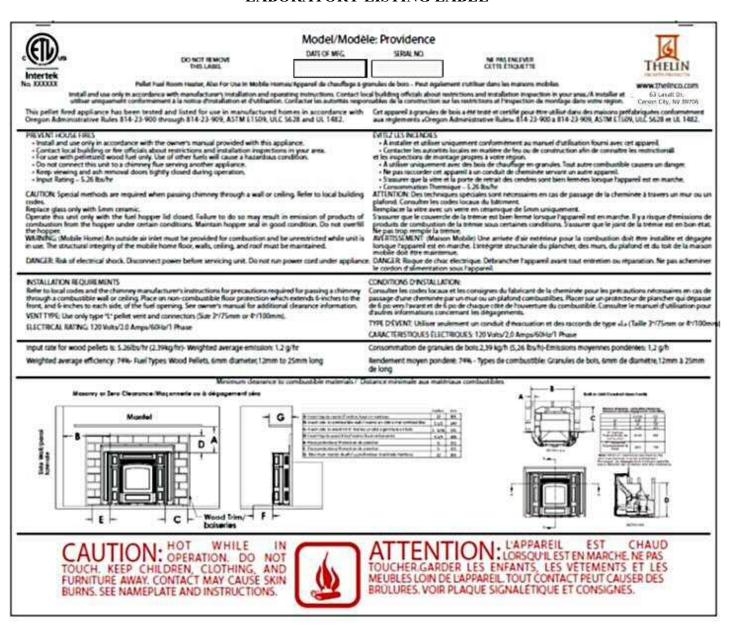
building code department before you begin your installation. Obtain a building permit in order to meet local building code requirements.

Contact your local dealer if assistance is required before, during and after installation.

Before Start-Up Check List

- 1. All Safety Warnings have been read and followed.
- 2. The Owner's Manual has been read.
- 3. Floor protection requirements have been adhered to.
- 4. All venting has been properly installed.
- 5. The proper clearances from the stove and chimney to combustible materials have been followed.
- 6. The masonry chimney has been inspected by a professional and is clean, or the factory built zero clearance fireplace is installed according to the manufacturer's instructions.
- 7. A grounded power outlet with a surge protector is available nearby without having to use an extension cord.

LABORATORY LISTING LABEL



U.S. ENVIRONMENTAL PROTECTION AGENCY Certified to comply with EPA NSPS 2020 emission standards.

SERIAL NO. ___ DATE OF MANUFACTURE_

FOR USE WITH PELLETIZED WOOD FUEL ONLY

MODEL: PROVIDENCE INSERT/FIREPLACE

EMISSION RATE (G/hR) 1.08 EFFICIENCY (CSA B415.1) 64%

This appliance needs periodic inspection and repair for proper operation. Consult owner's manual for further information. It is against federal regulations to operate this appliance in a manner inconsistent with operating instructions in the owner's manual. P/N: 00:0075.0208

WARNINGS

HOT SURFACES! HOT GLASS WILL CAUSE BURNS. SURFACES AND GLASS ARE HOT DURING OPERATION AND DURING COOLDOWN PERIOD.

DO NOT TOUCH GLASS UNTIL IT IS COOLED.

NEVER ALLOW CHILDREN TO TOUCH GLASS. ALERT CHILDREN TO HAZARDS OF HIGH TEMPERATURES.

HIGH TEMPERATURES MAY IGNITE CLOTHING OR OTHER FLAMMABLE MATERIALS. KEEP CLOTHING, FURNITURE, DRAPERIES AND OTHER FLAMMABLE MATERIALS AWAY FROM HEATER.

FOR USE WITH PELLETIZED WOOD FUEL ONLY

THIS APPLIANCE NEEDS PERIODIC INSPECTION AND REPAIR FOR PROPER OPERATION. CONSULT OWNER'S MANUAL FOR FURTHER INFORMATION. IT IS AGAINST FEDERAL REGULATIONS TO OPERATE THIS APPLIANCE IN A MANNER INCONSISTENT WITH OPERATING INSTRUCTIONS IN THE OWNER'S MANUAL

GENERAL INFORMATION

Installation and repair should be done by a qualified service professional. The stove should be inspected before use and at least annually by a service professional. More frequent cleaning may be required due to fuel quality, excessive lint from carpeting, bedding material, etc. It is imperative that control compartments, burn pot and pot holder, and circulating air passageways of the stove be kept clean and free of ash buildup, lint, and dust.

The Providence Insert has been designed and approved for burning PREMIUM WOOD

PELLETS OF HIGHEST BTU OUTPUT AND LOWEST % OF ASH CONTENT ONLY.

Burning bio mass fuels in other forms or poor quality pellet fuel is not permitted and will void your warranty and/or could cause a burn back or house fire. FOR BEST RESULTS THE WOOD PELLET FUEL SHOULD BE ¼" DIAMETER AND APPROXIMATELY 1" LONG.

Store fuel in a covered, dry area. Pellet bags can absorb moisture and must be kept dry. Never place bags of fuel next to the heater. Keep fuel away from combustible materials and moisture. **NEVER** use gasoline, gasoline type lantern fuels, kerosene, charcoal lighter fluid, or similar liquids to start or "freshen up" a fire. Keep all such liquids well away from the stove while it is in use.

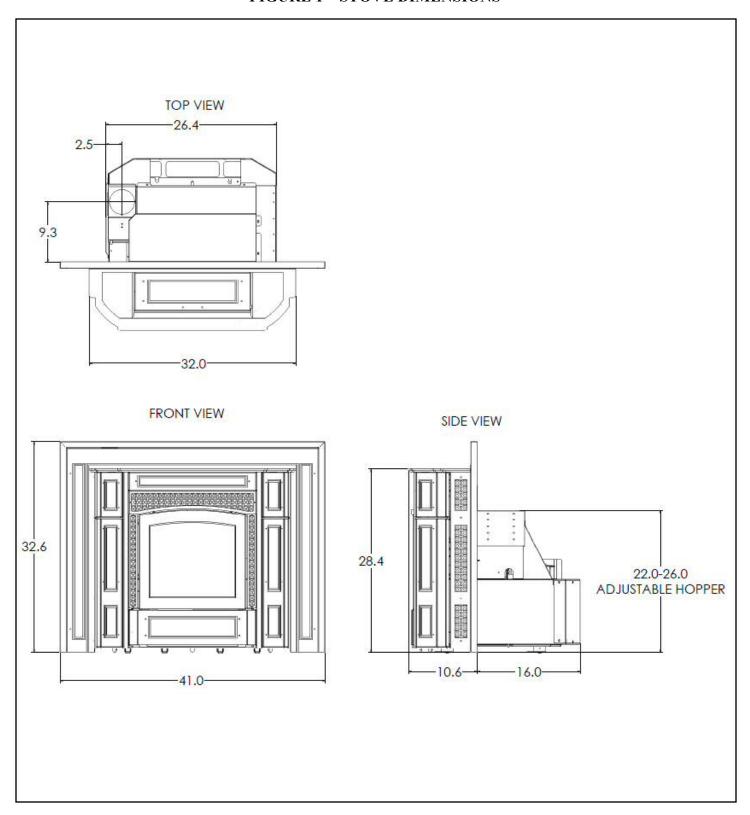
Pellet ashes should be placed in a metal container with a tight-fitting lid. The closed container of ashes should be placed on a non-combustible floor or the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally disbursed, they should be retained in the closed container until all cinders have been thoroughly extinguished.

NOTE: During the first few burns (up to 2-4 hours) the high-temperature paint and sealant used in the manufacture will emit some odor and smoke. Open doors and windows to the outside for proper ventilation during the first burn cycle and the curing of the paint. **SEE INITIAL FIRING PROCESS on page**

This stove must be electrically grounded according to local codes or, in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70-2013.

Provide adequate clearances around air openings into the combustion chamber and provide adequate accessibility clearance for servicing and proper operation. Never obstruct the front opening of the heater.

FIGURE 1 – STOVE DIMENSIONS



VENT INFORMATION

Install vent at clearances specified by vent manufacturer.

Secure 4" pipe or flex to flue flange with 500 degree HIGH-TEMP RTV silicone and using at least three sheet metal screws. Subsequent sections must be attached with three screws also. Each pipe section should be sealed with hi-temp silicone and/or follow vent manufacturer's instructions (see figure 7). Use only Type L 4" venting systems!

DO NOT INSTALL A FLUE DAMPER IN THE EXHAUST VENTING SYSTEM OF THIS UNIT.

Termination

DO NOT terminate vent in any enclosed or semienclosed area such as carport, garage, attic, crawl space, under a sun deck or porch, narrow walkway or closely fenced area or any location where fumes can build up and concentrate such as stairwell, covered breezeway, etc.

Distance to openings

- 3 feet minimum above any forced air inlet located within 10 feet.
- 4 ft. minimum below, or 4 ft. horizontally from, or 1 foot minimum above any door, window, or gravity air inlet into any building.
- Permanently closed windows not less than 1 foot below, horizontally from or above the permanently closed window.
- 2 feet minimum to an adjacent building and 7 feet minimum above grade when located adjacent to public walkways
- Distance to bottom of termination cap and grade should be 12".

- Grade surface must be non-combustible material such as rock, dirt, gravel. Beware of plants, lawn, bushes, and shrubs, which are considered combustible material.
- Consult local building, fire or other official codes. Local codes may be different and require other clearances than described here.

MOBILE HOME INSTALLATION

Mobile home installation should be in accordance with the manufactured home and safety standard (HUD), CFR 3280, PART 24.

The following criteria are mandatory for mobile home installs:

- A. Outside combustion air is mandatory on all mobile home installs. We recommend the Dura Vent wall thimble with outside air hookup built into the thimble. The air inlet must remain unrestricted while unit is in use. See figure 14 for location of outside air hook-up to the left side of the stove. Metal flex hose must be used for outside air hook-up.
- B. Stove must be secured to the floor (use lag bolts) in stove feet
- C. The stove must be grounded with #8 solid copper grounding wire or equivalent, terminated at each end with an NEC-approved grounding device.
- D. A grounded power outlet with a surge protector is recommended.
- E. Clearance to combustibles and floor protection is exactly the same for mobile homes as residential installs.

WARNING:

THE STRUCTURAL INTEGRITY OF THE MOBILE HOME FLOORS, WALL, CEILING, AND ROOF MUST BE MAINTAINED. DO NOT INSTALL IN SLEEPING ROOM.

INSTALLATION

The Providence Insert may be installed into a Factory Built (Metal) fireplace, Masonry chimney, or as a Built-in fireplace during new construction. Each installation has its own clearance and installation criteria as outlined in this manual.

Follow directions carefully as each of the three installations vary and can be done in several ways. .

Factory Built (Metal) Fireplace Installation

- A. Prior to planning placement of the Providence Insert, the chimney MUST be swept of creosote and soot. It should be inspected by a qualified service professional.
- B. Mantle clearance to top of insert 12" (see Figure 2).
- C. Make sure the Providence Insert will fit into your existing fireplace by measuring dimension according to Figures 1 & 2. See Figure 8 for adjustable Hopper Assembly.
- D. Exhaust vent pipe and outside combustion air intake (if used) can be configured as shown in figures 3A-3D. The Providence Insert uses 4" type L pipe with a maximum height of 25'.
- E. Pellet vent connections must be sealed with a liberal amount of 500 degree HIGH-TEMP RTV silicone and screwed together with at least 3 sheet metal screws.
- F. Pellet vent (exhaust vent) termination must be sealed on top of chimney to prevent water from entering fireplace cavity.
- G. It is recommended that a metal plate be installed to seal the damper area with clearance hole to allow exhaust vent pipe to pass through. Use non-flammable insulation to seal edges and to prevent heat loss.
- H. Aluminum flex pipe can be used to bring outside air into the stove. Use a stainless hose

- clamp to crimp flex to stove air intake flange. Outside Air – Aluminum Flex – Must use 3" if over 10' vertical.
- I. When hooking up the outside air you must be sure that a rodent guard is used on through wall installs. Many pellet pipe manufacturers make wall thimbles with the rodent guard built into the thimble.
 - 1. The firebrick (refractory), glass doors, screen rails, screen mesh, and log grates can be removed from a factory built firebox in order to gain minimum fireplace insert opening requirements.
 - 2. Smoke shelves, shields and baffles may be removed from a factory-built fireplace if attached with mechanical fasteners.
 - 3. Items can only be removed if they are mechanically fastened to the Factory Built (Metal) fireplace. No cutting or other permanent removal of components is allowed. All removed components must be saved so that the Factory Built (Metal) fireplace can be returned to a burnable state.
 - 4. Floor Protection: Hearth extension from door opening required is 6". Floor protection to the side of the door opening is also 6".
 - 5. The enclosed label stating "THIS FIREPLACE HAS BEEN ALTERED TO ACCOMMODATE A FIREPLACE INSERT AND SHOULD BE INSPECTED BY A QUALIFIED PERSON PRIOR TO REUSE AS A CONVENTIONAL FIREPLACE. " must be attached to the fireplace with screws or nails.

THIS FIREPLACE HAS BEEN ALTERED TO
ACCOMMODATE A FIREPLACE INSERT

AND SHOULD BE INSPECTED BY A
QUALIFIED PERSON PRIOR TO REUSE
AS A CONVENTIONAL FIREPLACE

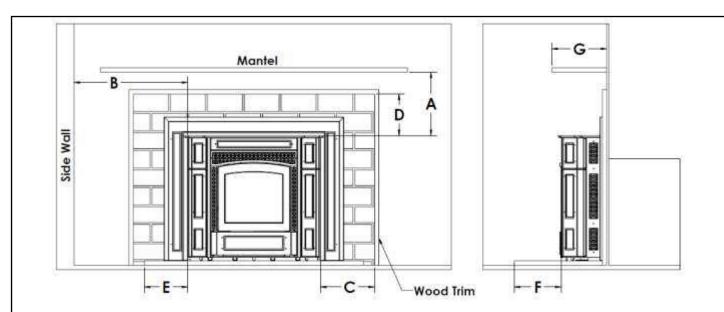
Masonry Fireplace Installation

- A. Prior to planning placement of the Providence Insert, the chimney MUST be swept of creosote and soot. It should be inspected by a qualified service professional.
- B. Mantle clearance to top of insert 12" (see Figure 2).
- C. Masonry chimney must be checked for cracks and cleanliness. A re-line is recommended and required in Canada. Venting must run as per Figures 3A-3D.
- D. Make sure the Providence Insert will fit into your existing fireplace by measuring dimension according to Figures 1 & 2. See Figure 8 for adjustable Hopper Assembly.
- E. Exhaust vent pipe and outside combustion air intake (if used) can be configured as shown in figures 3A-3D. The Providence Insert uses 4" type L chimney liner with a maximum height of 25'.
- F. Pellet vent connections must be sealed with a liberal amount of 500 degree HIGH-TEMP RTV silicone and screwed together with at least 3 sheet metal screws.
- G. Pellet vent (exhaust vent) termination must be sealed on top of chimney to prevent water from entering fireplace cavity.
- H. It is recommended that a metal plate be installed to seal the damper area with clearance hole to allow exhaust vent pipe to pass through. Use non-flammable insulation to seal edges and to prevent heat loss.

- I. Aluminum flex pipe can be used to bring outside air into the stove. Use a stainless hose clamp to crimp flex to stove air intake flange. Outside Air Aluminum Flex Must use 3" if over 10' vertical.
- J. When hooking up the outside air you must be sure that a rodent guard is used on through wall installs. Many pellet pipe manufacturers make wall thimbles with the rodent guard built into the thimble.
- K. Outside air can be picked up from rear if ash clean out is present (see Figures 3A-3D).

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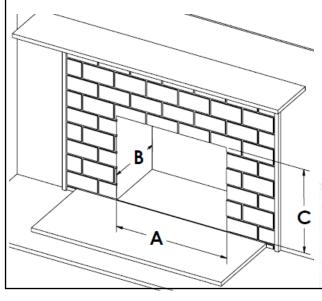
FIGURE 2 – CLEARANCES



Factory Built (Metal) and Masonry Fireplaces

d.	Inches	Millimeters
A- Insert top to mantel	12	305
B- Insert side to combustible wall	5 1/2	140
C- Insert side to wood trim	5 5/16	135
D- Insert top to wood trim	4 1/4	108
E- Floor protection	6	152
F- Floor protection	6	152
G- Maximum mantel depth	12	305

Minimum opening for Factory Built (Metal) and Masonry Fireplaces

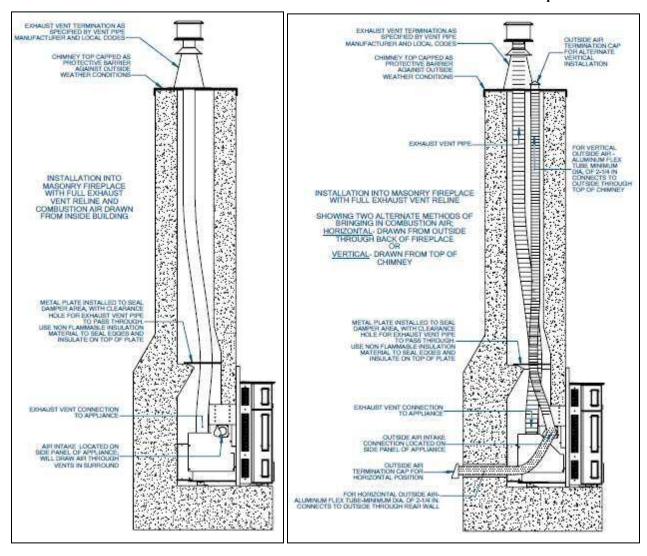


	Inches	Millimeters
A- Width	26,5	673
B- Depth	16.25	413
C- Height- Vertical Flue Venting	22.25-	Ċ
(adjustable hopper)	26.25	565-667
C- Height- Horizontal Flue Venting	27	686

FIGURES 3A-D - FACTORY BUILT (METAL) OR MASONRY FIREPLACE VENTING

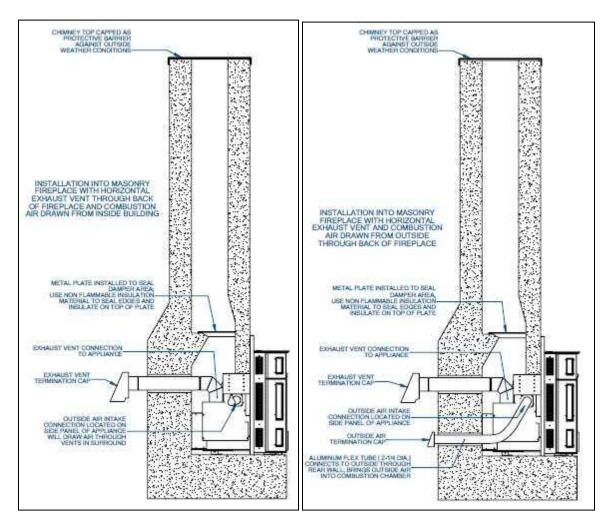
3A- Vertical vent without outside air

3B- Vertical vent with outside air options



3C- Horizontal vent without outside air

3D- Horizontal vent with outside air



Note: Above installation examples are for reference. All installation must follow local codes and requirements.

Additional Venting

Your Thelin PROVIDENCE Insert is equipped with a blocked flue/high temp safety sensor that will shut the stove off if there is a down draft, blocked flue, or high temperature condition.

If you install the stove on the side of the house that is hit by prevailing winds (usually 30 to 40 mph or greater) there is a chance that the sensor will be activated and the stove will shut off. The solution to this problem is to run the pipe up vertically through the eave and use a high wind cap on the vertical termination.

Outside Air Hook-Up

Make sure a rodent guard is used after penetrating the outside wall. Source a wall thimble with a built-in outside air hook-up and rodent guard screen.

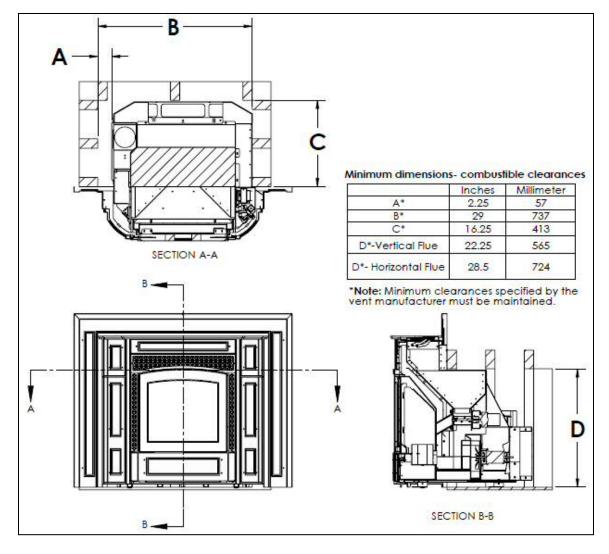


FIGURE 4 - BUILT-IN FIREPLACE CLEARANCES

Illustrations reflect typical installations and are for design purposes and clearances. Actual installation may vary due to individual design preferences.

Installed as Built-In (Wood or Metal Framing)

- A. Maintain clearance to combustibles on sides, back, and top of built-in as per Figure 4.
- B. <u>Horizontal Installation:</u> A minimum 2 ft. Type L 4" pipe vertical rise is required with a 2 ft. maximum horizontal run to the outside.
 - <u>Vertical Installation:</u> A maximum vertical rise of 25ft. using Type L 4" pipe is required. A maximum of two 90 degree elbows. or two 45 degrees elbows (two 45 degree elbows equate to one 90 degree). The maximum horizontal run between two elbows is 1 ft.
- C. Pellet vent connections must be sealed with a liberal amount of 500 degree HIGH-TEMP RTV silicone and screwed together with at least 3 sheet metal screws.

- D. Steps for complete built-in installation are as follows:
 - 1. Build hearth base with non-combustible hearth pad and secure to subfloor. Base should extent 6" in front and 6" to the sides of stove.
 - 2. Allow for the finished front material (i.e., tile, stone, slate) so that when the Providence is inserted into cavity, the front of the stove is flush with the finished material.
 - 3. Install wall thimble with outside air hook-up into wall or chase if applicable (see Figures 5 & 6). Outside air is only required on mobile home installations.
 - 4. Attach outside air flex pipe to left side of insert and exhaust vent pipe to pipe adaptor (see Figures 5 & 6). Outside Air Aluminum Flex Must use 3" if over 10' vertical.
 - 5. Slide Providence engine into the cavity until the engine front is flush with hearth face.
 - 6. Install screws into front feet of stove engine to secure it to the floor.

Ensure clearance to combustibles is maintained per vent manufactures instructions.

Wall thimble. All venting should be installed per local building codes.

Optional outside air kit. Ensure rodent screen is used. Use 3" on runs over 10'.

FIGURE 5 – VERTICAL BUILT-IN VENTING

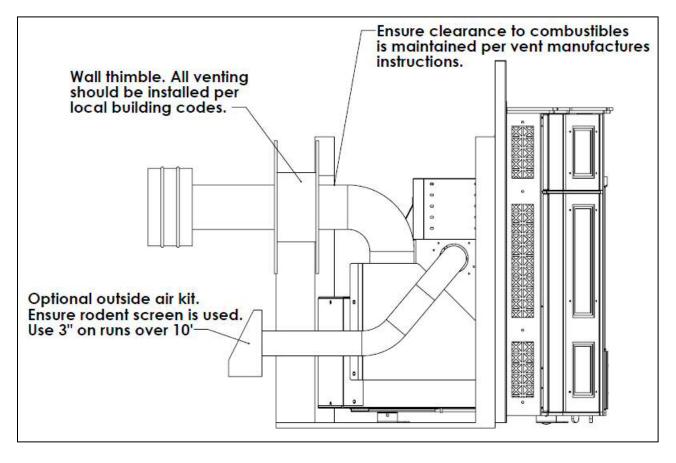


FIGURE 6 – HORIZONTAL BUILT-IN VENTING

Note: Above installation examples are for reference. All installation must follow local codes and requirements.

Additional Venting

Your Thelin PROVIDENCE Fireplace Insert is equipped with a blocked flue/high temp safety sensor that will shut the stove off if there is a down draft, blocked flue, or high temperature condition.

If you install the stove on the side of the house that is hit by prevailing winds (usually 30 to 40 mph or greater) there is a chance that the sensor will be activated and the stove will shut off. The solution to this problem is to run the pipe up vertically through the eave and use a high wind cap on the vertical termination.

Outside Air Hook-Up

Make sure a rodent guard is used after penetrating the outside wall. Source a wall thimble with a built-in outside air hook-up and rodent guard screen.

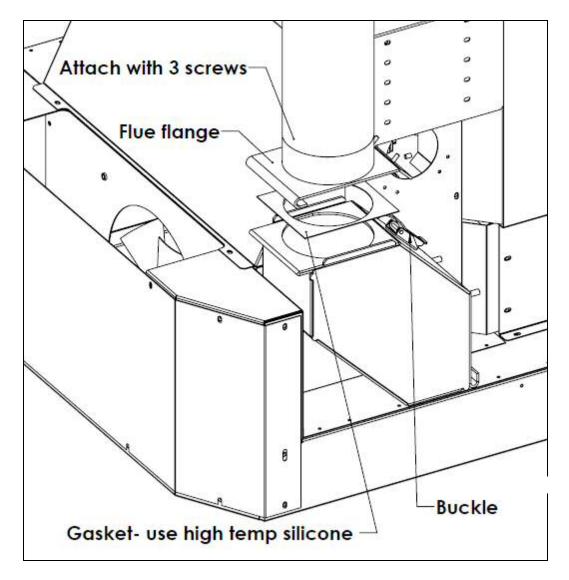


FIGURE 7 – PIPE ADAPTOR & HOOK-UP

- 1. Silicone the top of flue flange with 500 degree HIGH-TEMP RTV silicone and insert flex liner or 4" pipe. Fasten pipe or flex liner with at least 3 sheet metal screws.
- 2. Silicone the flue gasket to fireplace engine with 500 degree HIGH-TEMP RTV silicone.

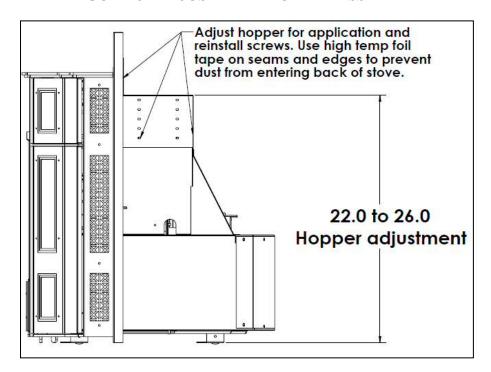


FIGURE 8- ADJUSTABLE HOPPER ASSEMBLY

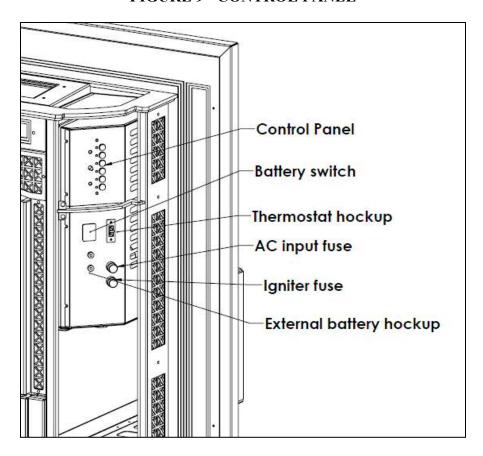


FIGURE 9 - CONTROL PANEL

COMBUSTION AIR ADJUSTMENT

Combustion air can be adjusted by rotating the air shutter to close / open the air duct. Air adjustment is critical for proper combustion and stove efficiency.

Adjust the shutter so the flame is bright yellow in appearance and is actively moving (not lazy). Dark flames, smoke or black tips on the flame is an indication of too little air.

If the flue configuration is tall, over 15 feet, the shutter should be closed more than a shorter vent since the higher flue will naturally draft the stove and increase the intake air velocity and volume. This can cause the pellets to be blown out of the firepot and the efficiency of the stove will decrease due to the heat going up the flue instead of through the heat exchanger.

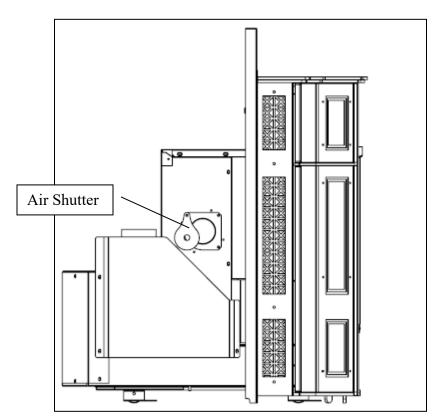


FIGURE 10 - AIR SHUTTER ADJUSTMENT

SURROUND INSTALLATION

1. To install the surround onto the stove engine, first make sure hopper flange assembly located on top of engine can move freely by loosening the four flange stud locknuts. Two in the front and two in the back. Also loosen lower supplied L mount brackets.

- 2. Carefully position the surround assembly around the stove engine and center the assembly so that there are even gaps around the firebox by lining up the bottom previously loosened L mount brackets with the surround's predrilled holes.
- 3. Then move hopper flange previously loosened and mate to the underside of top inside of the surround allowing the gasket to meet up with the surround. Tighten the 4 previously loosened locknuts. Tighten the lower L mount brackets with the 2 supplied 10-32 x 3/8" slotted hex-head screws.
- 4. Install the hopper door assembly by loosening the 4 supplied flange lock nuts (2 on the left, 2 on the right) onto the hopper flange assembly.
- 5. Once the door is seated on the flange studs, tighten the 4 previously loosened flange lock nuts.

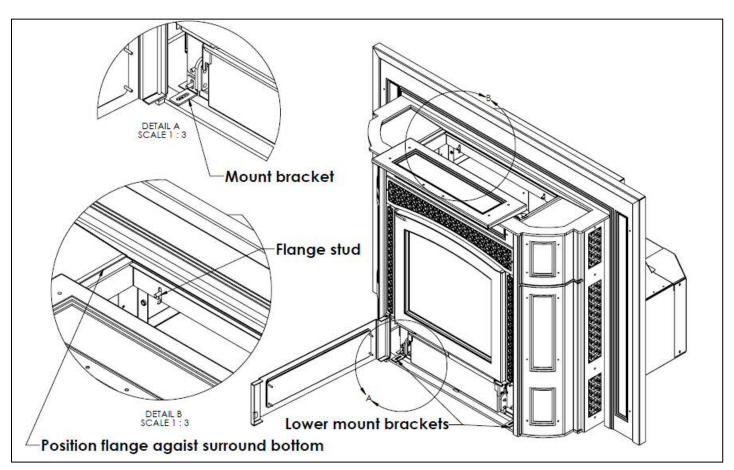


FIGURE 11 – SURROUND INSTALLATION

VENT INFORMATION

Install vent at clearances specified by vent manufacturer.

Secure first section of pipe to adaptor using three sheet metal screws. Subsequent sections must be attached with three screws also. Each section joint should be sealed with hi-temp silicone and/or follow vent manufacturer's instructions (see Figure 7). Use only type L 3" or 4" venting systems.

DO NOT INSTALL A FLUE DAMPER IN THE EXHAUST VENTING SYSTEM OF THIS UNIT.

Termination

DO NOT terminate vent in any enclosed or semienclosed area such as carport, garage, attic, crawl space, under a sun deck or porch, narrow walkway or closely fenced area or any location where fumes can build up and concentrate such as stairwell, covered breezeway, etc.

Distance to Openings

- 3 feet minimum above any forced air inlet located within 10 feet
- 4 feet minimum below and horizontally from or 1 foot minimum above any door, window, or gravity air inlet into any building. 12" above, below or to side is allowable with outside air.
- Permanently closed windows not less than 1 foot below, horizontally from or above the permanently closed window. 6" is allowable with outside air.
- 2 feet minimum to an adjacent building and 7 feet minimum above grade when located adjacent to public walkways
- Distance to bottom of termination cap and grade should be 12"
- Grade surface must be non-combustible material such as rock, dirt, gravel, etc. Beware of plants, lawn, bushes, and shrubs, which are considered combustible material.

• Consult local building, fire or other official codes. Local codes may be different and require other clearances than shown here.

MOBILE HOME INSTALLATION

Mobile home installation should be in accordance with the Manufactured Home and Safety Standard (HUD), CFR 3280, Part 24.

The following criteria are mandatory for mobile home installs:

- A. Outside combustion air is mandatory on all mobile home installs. We recommend the Dura Vent Wall Thimble with outside air hookup built into the thimble. The air inlet must remain unrestricted while unit is in use. See Figure 6 for location of outside air hook-up on rear of stove. Metal flex hose must be used for outside air hook-up.
- B. Stove must be secured to the floor (use lag bolts) in stove feet
- C. The stove must be grounded with #8 solid copper grounding wire or equivalent, terminated at each end with an NEC-approved grounding device.
- D. Clearance to combustibles and floor protection is exactly the same for mobile homes as residential installs.

WARNING:

THE STRUCTURAL INTEGRITY OF THE MOBILE HOME FLOORS, WALL, CEILING, AND ROOF MUST BE MAINTAINED. DO NOT INSTALL IN SLEEPING ROOM.

WALL THERMOSTAT HOOK-UP AND INSTALLATION

A wall thermostat or remote thermostat can be used to automatically control the Providence Insert. You will have the option of utilizing the thermostat to turn the stove on and off from Hi or Medium to Low. This can be done by changing the TYPE setting jumper located on the circuit board (see Figure 17). Type 1 will shut the stove on and off. Type 2 will move the stove from Hi or Medium to Low based on the temperature setting.

Here is the step-by-step procedure for hooking up the thermostat option:

- A. Unplug heater from power supply (both AC and DC).
- B. Locate thermostat terminal. Behind right door (see Figure 9).
- C. Remove metal shunt between terminals and hook up thermostat wires to the two terminals. For remote thermostat, hook up the two receiver wires to the terminals.
- D. Locate thermostat approximately 10 to 12 feet from heater or in the area that you want to remain a steady temperature. This may take some trial and error, especially if the remote thermostat is used.
- E. Make sure all the wiring is complete and batteries are installed into remote receiver and hand-held control before plugging the heater back into the wall outlet.

Important

Any electrical work performed on the Providence Fireplace Insert should be done by qualified personnel. Always plug AC cord in before DC battery.

START-UP AND OPERATION

Open hopper lid and make sure all manuals and materials shipped with stove have been removed. Make sure power cord is connected both into stove (connector under control box on right side) and into wall outlet.

Fill hopper with pellets. Capacity of hopper can be adjusted depending upon fireplace opening dimensions (see Figure 8).

<u>Pellet quality</u> is crucial for proper burn, efficiency, and overall performance. Good pellets will give you a bright yellow, vibrant flame with little or no soot and ash build up over 24 hours. Poor quality pellets will burn rich (orange flame) and dirty, black soot and ash will accumulate quickly. Experiment with different brands until you find one that gives you a clean, efficient burn.

Lighting Instructions

The Providence Fireplace Insert is equipped with automatic ignition. Once pellets have been poured into the hopper and the stove is plugged into the wall and venting is in place, you simply push the Low, Medium, or High button and the stove will light. Following is the start-up sequence, which will enable you to check all functions:

When the button is pushed the fan and feed will start in Low mode and the light next to the button will start blinking. The igniter comes on within 30 seconds and you should have ignition and a flame in four to six minutes. After 10 minutes, the light next to the High, Med or Low button will be solid and the stove will be in run mode. At this time you will have three distinct fan and feed speeds: Low, Medium, and High. You can adjust the heat output accordingly by pushing one of the buttons. If the stove does not get hot enough to kick into the run mode it will shut off and you will have to repeat the process. Failure to ignite on the first try usually means the stove firepot is clogged up with ash or the pellet you are using is of poor quality.

Note: Pellets do not feed in the "fan" position. The Fan mode is used for starting the stove if you have to do it manually during power failure when you would use the battery back-up option.

IF YOU ARE USING THE THERMOSTAT OPTION (WALL OR REMOTE) FOLLOW THE THERMOSTAT MANUFACTURER'S INSTRUCTIONS CAREFULLY AND MAKE SURE YOU USE THE BUILT-IN THERMOSTAT TERMINAL LOCATED BEHIND THE RIGHT SIDE DOOR (SEE

A. In the LOW position, the PROVIDENCE will feed approximately 2 pounds of pellets per hour. Feed rate will depend upon size and quality of pellets and the feed trim setting.

FIGURE 12 - CONTROL FUNCTIONS



- B. In the MED position, the PROVIDENCE will feed approximately 3.5 pounds of pellets per hour. Feed rate will depend upon size and quality of pellets and the feed trim setting.
- C. In the HIGH position, the PROVIDENCE will feed approximately 5 pounds of pellets per hour. In each setting the fan speed will increase along with the feed rate. Feed rate will depend upon size and quality of pellets and the feed trim setting
- D. The CLEAN position is to be used only when the heater is not burning and has cooled down for maintenance and cleaning. See "Clean Out" section under maintenance for explanation of this function.
- E. The FAN position is used for manual start during power outage and also can be used to burn up a pile of pellets if the firepot begins

Figure 9).

We recommend that you run the stove on Medium for about 30 minutes to get the heat exchanger hot before turning it to low. You will have to burn the Providence for a few hours in order to determine the best setting for your particular needs.

CONTROL FUNCTIONS

The push-button control settings on the Providence are as follows: OFF, FAN, LOW, MED, HIGH, and CLEAN (see Figure 12).

to overfill. This usually means a good cleaning is necessary and, once done, the start-up procedure will have to be repeated.

F. When you wish to turn off your PROVIDENCE, simply push the OFF button and the feed will immediately cease. The fan will continue to run until the stove cools down and then it will shut off automatically. Sometimes this might take 25 to 30 minutes depending upon ambient temperature.

Remember

Each feed position will fluctuate because the microprocessor automatically adjusts the feed and fan speed based on temperature. This means the pellet feed rate and flame height will change accordingly based on quality of pellet and the amount of heat loss in the dwelling.

HIGH TEMP/FLUE, TRIM, AND BATTERY INDICATORS

High Temp/Flue Indicator

There is a small window (circle) to the left of the fan button. This indicator light will blink red if the following conditions persist:

- A. If the flue pipe or termination cap becomes clogged with ash or soot.
- B. If there is a high wind condition creating flue blockage and hence, a back draft.

The indicator light will come on steady red if there is a Hi-Temp condition such as lint and dust build-up on the plastic fan guard, thus preventing air flow through the stove.

If any of these conditions exist, the stove will shut down and the red light will remain on until the OFF button is pushed. Maintenance and cleaning should be performed before the stove is used again.

Trim Adjustment

To the left of the Medium button there is a small control knob that will allow you to adjust the feed rate on all three settings. If you turn the knob clockwise you will increase the feed rate. If you turn the knob counter-clockwise, you will decrease the feed rate. This button is designed to allow the user to adjust the feed to a particular brand of pellet and it is, necessarily a trial-and-error endeavor. Find the best feed rate for your heating needs and leave the button in that position.

Battery Light

If you utilize the Thelin Hearth Products battery backup option, and the battery is plugged into the stove, the Battery Light will blink until the battery is fully charged. Read "Battery Backup Operation" for battery hook-up and operation.

Fine Tuning

Because of the variability of pellet quality (length, thickness, density, etc.) you might, from time to time, have to fine-tune your heater to compensate for pellet quality and/or venting configurations. There are two mechanisms available for fine-tuning your PROVIDENCE.

- A. The <u>trim button</u> located on the control panel (see 12 and prior "Trim Button" paragraph).
- B. The Fan Trim Pot Adjustments located on the circuit board (see Figure 17) will allow you to speed up or slow down the fan speed. By using a small slot screwdriver you can adjust fan speed to compensate for poor quality pellets or static pressure created by venting problems. By turning the trim pot clockwise you can increase fan speed on both the HIGH and LOW settings. You will have to experiment with the settings to determine the proper adjustment. Look for a good, brisk flame that is bright yellow, not orange and lazy. This generally indicates a good burn.

BATTERY BACKUP OPERATION

The PROVIDENCE Fireplace Insert is equipped with battery backup technology. To utilize this feature you will have to purchase the optional 12V battery cable and a sealed 12V battery. Your dealer should have these items in stock and if not, please call the factory. To hook up the battery and engage the 12V backup system, do the following:

- A. Place sealed 12V battery at least one foot from stove but not more than four feet from stove (length of cable).
- B. Connect the red battery cable (+) to the positive terminal on the battery.
- C. Connect the black battery cable (-) to the negative side of the battery.

AFTER PLUGGING IN THE AC LINE CORD, THEN PLUG THE TWO BANANA PLUGS (RED AND BLACK) INTO THE RECEPTACLES ON THE STOVE (SEE

WARNING

Make sure the red cable goes to the red terminal and the black cable goes to the black terminal. If you hook these up correctly the BATT light will glow green. If you hook them up backward the BATT light will glow red and the backup will not work. DO NOT let the battery terminals touch stove. Failure to install correctly could cause physical harm and short out circuit board and will void the warranty on the heater.

When the battery is properly connected the following will happen automatically:

- A. If the heater is running and there is a power failure, it will automatically switch to battery power. (It happens instantaneously and you will not even notice it.)
- B. When power is restored, the stove will switch back to AC power automatically AND trickle-charge the battery. As long as the stove is plugged into the wall outlet it will keep the battery charged. If you unplug the stove during the summer and leave the battery attached, it will run down the battery and shorten its life.
- C. Run time on the battery will depend upon the amperage of the battery. See your local battery store outlet for details.
- D. If you wish to place the battery eight, ten, or twelve feet from the stove you will need to increase the wire size of the cable. Check with your local electrical professional to make sure you have used the proper gauge wire/cable.
- E. The automatic ignition feature will not work on the battery mode. If the stove is off and the power fails, you will have to light the stove manually with an approved fire starter.

WARNING

D. Figure 9).

Risk of electrical shock. Disconnect power cord before servicing. Do not operate with covers removed. Always turn your heater off and let it cool before cleaning.

MAINTENANCE

The PROVIDENCE requires routine maintenance for maximum performance and prolonged life of parts and components, and it is mandatory for warranty to remain in effect.

Soot and Fly Ash – Formation and Need for Removal: The products of combustion will contain small particles of fly ash. The fly ash will collect in the exhaust venting system and restrict the flow of flue gasses. Incomplete combustion—such as that which occurs during start-up, shut down or incorrect operation of the room heater—will lead to some soot formation which will collect in the exhaust venting system. The exhaust venting system should be inspected at least once every year.

The following procedures should be performed regularly and may require more frequent attention if a low-quality pellet is used.

Daily Maintenance

- 1. Firepot
 - a. scrape firepot every 1-2 days depending on usage and type of pellet
 - b. Ash and clinker build up in the firepot will affect the quality of burn and can cause ignition issues. More frequent cleaning may be necessary with poor quality or high ash fuel.

Weekly Maintenance

1. Ash removal from firebox- approximately every week

- a. Clean and vacuum ash build up weekly or as needed. See Figures 13 & 14.
- b. With door open, push clean button and allow fan to run 30-45 seconds to blow excess ash out flue.
- 2. Glass cleaning- approximately every 1-2 weeks
 - a. Clean glass with stove glass cleaner as needed when fire view is obstructed.
- 3. Heat exchanger- approximately every 2 weeks
 - a. Remove 2 side baffle plates for access to internal heat exchanger fins. Use brush to remove ash build up. Vacuum heat exchanger and below exhaust channels. See Figure 13.
 - b. With door open, push clean button and allow fan to run 30-45 seconds to blow excess ash out flue.
- 4. Empty ash pan- approximately every 2-4 weeks
 - Empty build up ash build up in pan as needed. This is necessary every 2-4 weeks but can be more based on the type of pellet used. See Figure 14.
 - b. Cooled ash must be dumped into an airtight metal container. Dispose of ash properly to avoid a fire.
- 5. Air wash system- approximately every 2-4 weeks
 - a. Remove air wash and clean any ash build up.

b. Be extremely careful not to damage mica plates since they are very fragile.

Monthly Maintenance

- 1. Exhaust channels- Approximately every month
 - a. Unplug stove from power outlet.
 - b. Remove ash pan. See Figure 14.
 - c. Loosen retaining nuts that hold exhaust port covers in position. See Figure 14.
 - d. Use ash or shop vacuum on one side of U shaped exhaust channel while inserting brush into the other side of the channel. Brush approximately half of the channel around 4-5 times to loosen ash and allow the vacuum to remove the ash from the channel. See Figure 14.
 - e. Repeat process by switching the ports for the vacuum and brush.
 - f. Reinstall items removed in reverse order
 - g. With door open, push clean button and allow fan to run 30-45 seconds to blow excess ash out flue.

2. Hopper

- a. Vacuum hopper to remove excess sawdust. Excessive sawdust can cause feeding issues.
- 3. Scrape pellet feed chute with putty knife if soot build-up is present. Build-up on the feed chute will prevent pellets from falling freely into the firepot.

4. Remove clean-out cover on bottom of the tee (outside, if applicable) and dump excess ash from tee. This should be checked every four to six weeks.

Yearly/ end of burn season

Note: The following should only be performed by a qualified individual. If you are unsure how to perform any maintenance tasks, please consult a professional service technician.

- 1. All of preceding maintenance
- 2. Combustion blower fan
 - a. Unplug stove from power outlet.
 - b. Remove stove surround and engine as needed to gain access to back of stove. See Figure 10.
 - c. Remove rear access panel. See Figure 15.
 - d. Unplug fan motor electrical connections.
 - e. Loosen 3 retaining nuts on fan flange.
 - f. Loosen 4 screws on fan shroud.
 - g. The fan motor is installed with high temperature silicone sealant and will need to be gently worked loose from fan housing.
 - h. Vacuum fan housing and use a soft vacuum brush attachment to remove ash buildup from exhaust fan blade. Ensure all ash is removed evenly from blade since uneven removal can cause a blade balancing issue and possible noise.

- i. Clean post exhaust fan duct with brush. Vacuum loosened ash. Duct can be cleaned by access through flue cleanout cover. See Figure 15.
- j. Reinstall fan motor assembly and apply high temperature silicone sealant around flange. Flange must be fully sealed with silicone having a temperature rating of at least 500 degrees F.
- k. Vacuum stove cabinet and ducts to remove any accumulated dust, fuzz or pet hair.

3. Venting system

- a. Clean flue venting system as per vent manufactures recommendations.
- b. Vacuum flue cleanout box to remove ash and buildup.
- c. Reinstall all components removed.
- d. Reinstall stove surround and engine.
- e. With door open, push clean button and allow fan to run 30-45 seconds to blow ash out flue.



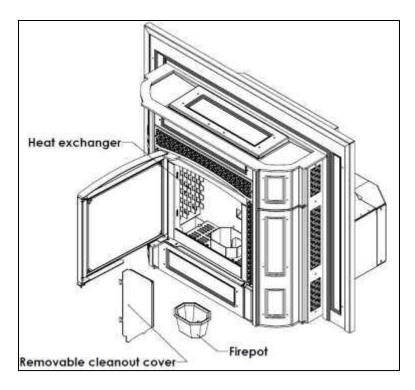
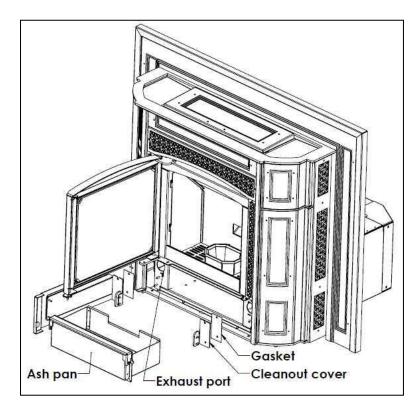
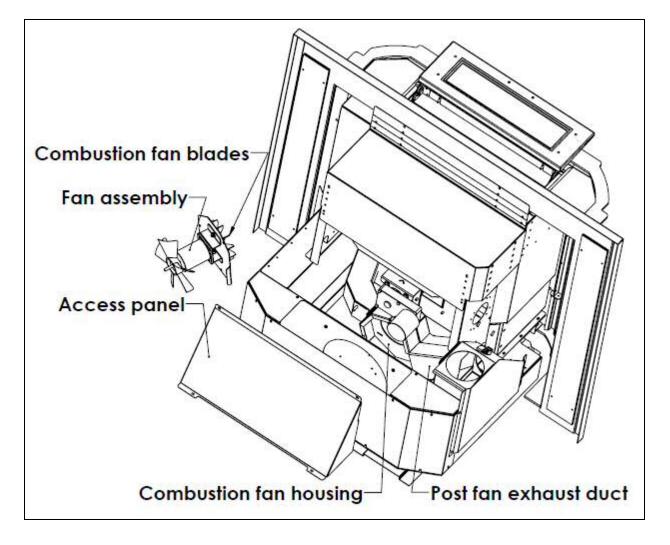


FIGURE 14 – CLEAN-OUT VENT PORT



31

FIGURE 15 - COMBUSTION FAN



TROUBLESHOOTING

The following scenarios are provided in order to help you locate a potential problem in the event the PROVIDENCE is not performing normally or as expected:

1. **Problem**: I loaded the heater with pellets, pushed the LO, MED, or HIGH button, but the pellets did not light.

SOLUTION: CHECK THE POWER CORD TO MAKE SURE IT IS PLUGGED INTO THE WALL AND THE STOVE. (MAKE SURE IT IS PUSHED INTO THE RECEPTACLE ALL THE WAY.) IS THE LED LIGHT BLINKING NEXT TO THE BUTTON YOU PUSHED? IF NOT, CHECK THE IGNITER FUSE BEHIND THE CONTROL TOWER (SEE

Figure 9). The igniter fuse is located in the red fuse holder. If you are running the stove on the thermostat, make sure the thermostat is calling for heat. Remember, the timer, on start-up, runs for ten minutes and if the pellets have not lit, then you may have to repeat the startup

sequence. Also, on startup the stove only runs on one speed until it gets hot. Temperature activates the T-2 sensor, which tells the stove to kick into the run mode. This usually takes 10 minutes and, if the run temperature is not reached, then the stove shuts off. If this occurs, simply relight the stove in order for the run temperature to be reached.

2. **Problem**: The heater was lit and burning properly, then suddenly it stopped feeding pellets.

Solution: Check pellet supply in hopper and fill if empty. Occasionally, a foreign object, debris, excessive sawdust, or even a child's toy can enter the feed mechanism and jam the auger. To check for this you must empty the hopper of all pellets and inspect the feed system. Remove any foreign object and make sure integrity of the auger system has not been compromised, i.e., auger is not bent or come out of bushing at tip of auger. CAUTION: Keep fingers and hands clear of the feed mechanism when heater is running.

3. **Problem**: The fire was burning well and then it seemed to begin overfeeding and started filling the firepot and backing up the feed chute, smothering the fire.

Solution: When the pellets are overfeeding it usually means the firepot needs a good cleaning as the holes are blocked with soot and ash and the fire cannot get enough oxygen to sustain a good burn. Poor quality pellets can also create this problem as they will make an incredible amount of ash in a very short time.

4. **Problem**: I pushed the OFF button and the stove kept running.

Solution: This is normal. The fan will keep running until the stove cools down and then it will automatically turn off. This can sometimes take 25 or 30 minutes. If it runs for hours in the off position, then the T-2 sensor may need to be replaced. Call your dealer or factory for help.

5. **Problem**: Fan motor speed varies on its own. Sometimes it surges on its own. It will run on HI or CLEAN but not on LOW.

Solution: Fan motor brushes are wearing out and need to be replaced. Contact your dealer or call factory for replacement brushes. If the motor is also screeching or whining then the bearing might be bad and it is time for a new fan motor.

6. **Problem**: Stove shuts off by itself when running on low.

Solution: Feed trim button is too low for the pellets you are using. Adjust trim button (turn clockwise) until feed rate can maintain fire.

7. **Problem**: I see a flashing green light behind the electrical cover. What does this mean?

Solution: The flashing green light behind the tower means the circuit board is energized. This is okay. "Green means go." All systems are ready and operational.

FIGURE 16 - REPLACEMENT PARTS LIST

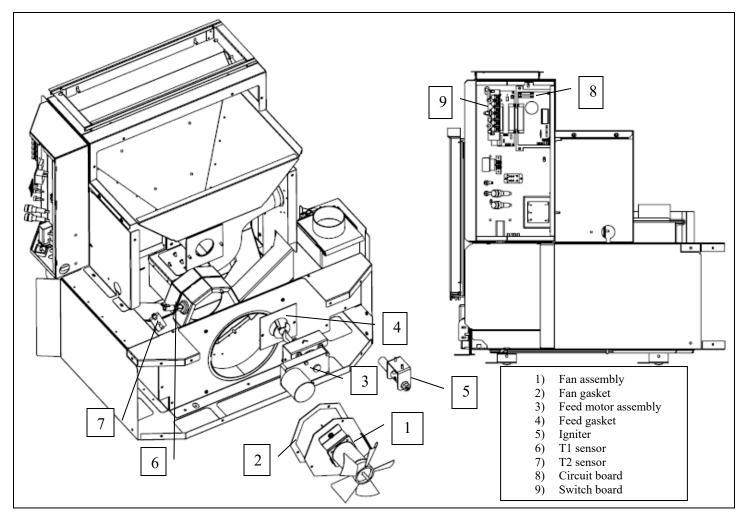
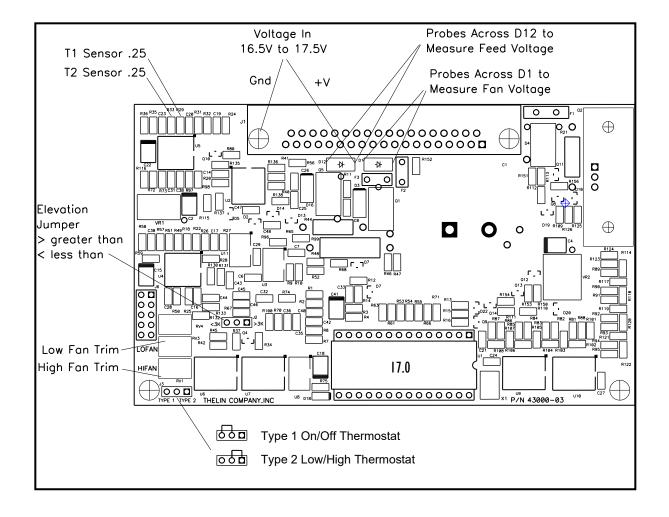
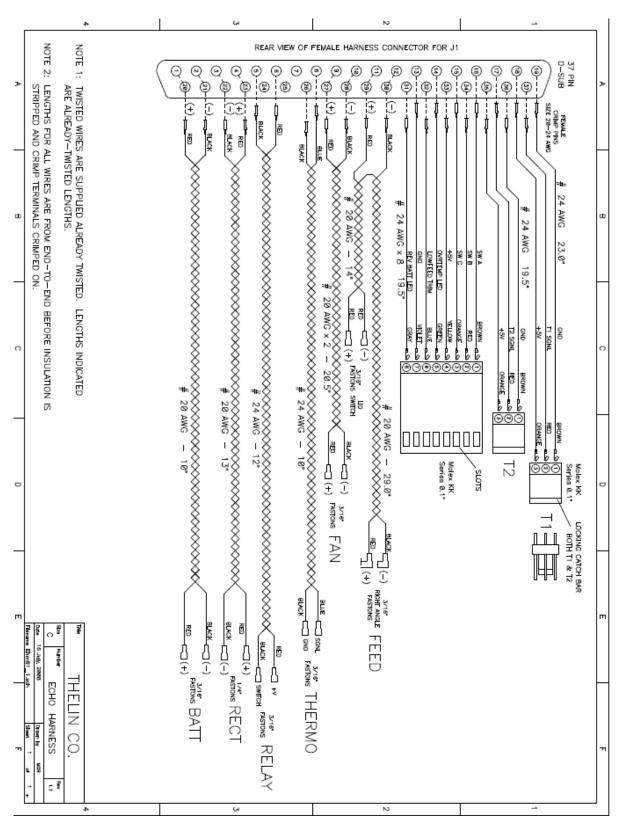


FIGURE 17 - CIRCUIT BOARD DIAGRAM







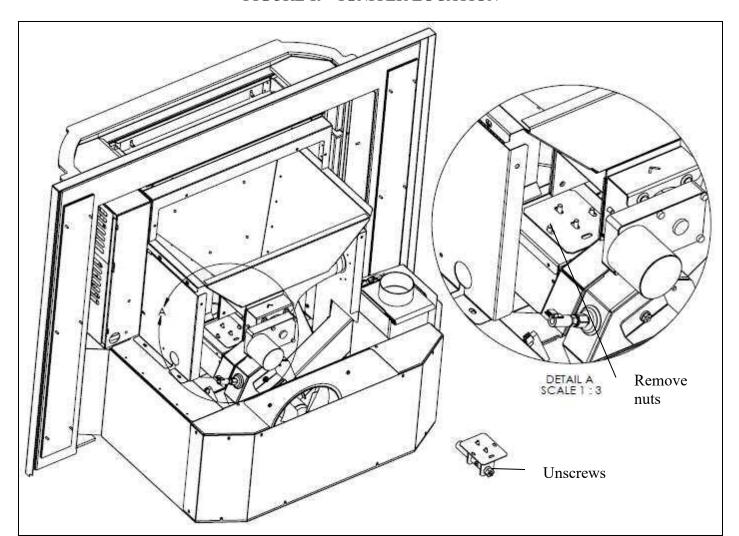


FIGURE 19 - IGNITER LOCATION

- 1. The bracket holding the igniter is attached to the lid with two 10-32 nuts. The lid attaches to the air chamber with two 10-32 nuts. Also, a gasket (not shown), is installed between the lid and the air chamber.
- 2. Unscrew the igniter element from tube to replace.

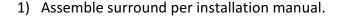


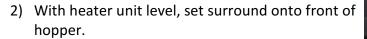
THELIN PROVIDENCE SURROUND ATTACHMENT KIT - 2018 & LATER

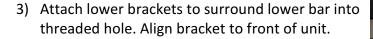
P/N: PPS-INSTRUCTION FOR SURROUND ATTACHMENT:

MATERIALS:

- (2) T-Style Angle Brackets, 13GA W/Slots (Upper).
- (2) Angle Brackets, 13GA W/Slots (Lower).
- (2) #10 ½" Type F self taping screws.
- (6) #10-32 x 1/2" Philips Screws
- (8) #10-32 Lock style nuts.







- 4) Attach upper brackets to threaded holes on upper surround frame using the #8 screws. Align bracket to side of upper hopper.
- 5) Confirm surround is level and square to unit.
 Attach upper mounting using #10-32 x ½" Phillips screws and locking nuts.
- 6) Attach lower brackets with (2) #8 hex screws.



Figure 4

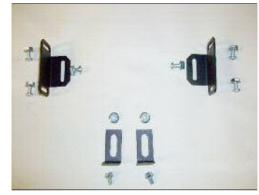


Figure 1



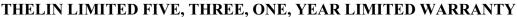
Figure 2



Figure 3

P/N THP Providence Surr Att Kit 18_08_20





Thelin Hearth Products (THP), warrants to the original consumer this stove will be free of defective materials and workmanship for the following periods: <u>Five Years-Outer structure excluding gold or nickel plating</u>, <u>Three Years-Interior metal construction</u>, <u>One Year- Electrical</u>, <u>gold or nickel plated rings & items</u>, from the date of purchase. This warranty does not extend to any parts worn or damaged through normal ware, abuse, accident, or neglect or warpage due to over-firing; nor does it apply if the stove has been repaired or modified unless by THP written authorization. If the stove proves to be defective in material or workmanship within the warranty period, THP will, at no charge, repair or replace (at its option) any defective parts, if the purchaser ships the parts or the stove, freight prepaid, to THP Factory Center. THP may require the consumer to supply reasonable proof of the stoves purchase date.

This warranty is in lieu of any other express warranty. Any implied warranties, including but not limited to any implied warranty of merchantability or fitness for a particular purpose shall not extend beyond one year from the date of purchase.

The purchaser's sale and exclusive remedy shall be for the repair or replacement of defective parts, as provided for in this warranty. No other remedy (including but not limited to incidental or consequential damages for lost profits, lost sales, injury to person or property, or other incidental or consequential loss) shall be available to the purchaser.

Some states do not allow limitations on how long an implied warranty lasts and some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

THP's warranty obligation and the purchaser's rights under it can be altered only by a subsequent written agreement between THP and the purchaser.

The remedies provided in this warranty are void unless the attached warranty registration card is received by THP within 30 days from the date of purchase.

If you have a warranty claim or questions about the performance of your stove, you are requested to contact your dealer. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Please fill out and return the bottom half of the page to:
THELIN HEARTH PRODUCTS
63 Laxalt Ave.
Carson City NV 89706

Fill out & return within 30 days.



Thelin Hearth Warranty Card Date Purchased/	THELIN HEAKTH PRODUCTS	Model #
Name	Dealer Name	
Address	City/State	Zip
City/StateZip	_ Mail form to:	Thelin Hearth Products
I have read and understand the above warranty agreement.		63 Laxalt Ave. Carson City, NV 89706 Attn: Customer Service
Owner's Signature		



Thelin Hearth Products 63 Laxalt Dr. Carson City, NV 89706