

**MODEL: GW1949**



- Please read this entire manual before installation and use of this pellet fuel-burning room heater. Failure to follow these instructions could result in property damage, bodily injury, or even death.
- Contact your local building or fire officials about restrictions and installation inspection requirements in your area.
- Save these instructions.
- This manual will help you to obtain efficient, dependable service from the heater, and enable you to order repair parts correctly. Keep in a safe place for future reference.

**SAFETY AND EPA COMPLIANCE**

Your pellet stove has been approved for installation in the USA and Canada. It may also be installed in a manufactured or mobile home (for USA only) . Your stove conforms to UL1482, 2010, and Certified to ULC S627-00, and(UM) 84-HUD

French version is available for download from the U. S. Stove website: <http://www.usstove.com>

La version française est disponible pour téléchargement à partir du site U. S. Stove website: <http://www.usstove.com>

This unit is not intended to be used as a primary source of heat.

**U.S. Environmental Protection Agency**

Certified to comply with 2015 particulate emissions standards.

**United States Stove Company**  
227 Industrial Park Rd. P.O. Box 151  
South Pittsburg, TN 37380  
Phone (800) 750-2723 [www.usstove.com](http://www.usstove.com)

Tested &  
Listed By



Report #: 504-S-01-2

Portland  
Oregon USA

852489-4202E

## SPECIFICATIONS

# CONGRATULATIONS!

You've purchased a heater from North America's oldest manufacturer of wood burning products. By heating with wood you're helping to CONSERVE ENERGY!

Wood is our only Renewable Energy Resource. Please do your part to preserve our wood supply. Plant at least one tree each year. Future generations will thank you.

This manual describes the installation and operation of the Brand Name, GW1949 wood heater. This heater meets the 2015 U.S. Environmental Protection Agency's crib wood emission limits for wood heaters sold after May 15, 2015. Under specific test conditions this heater has been shown to deliver heat at rates ranging from 7481 to 19475 Btu/hr and 1.9g/hr.

HEATING SPECIFICATIONS	
Estimated Fuel Burn Rate* (lowest setting)	2 Lb/Hr
Estimated Burn Time (lowest setting)	31 Hrs
Hopper Capacity	60 lbs. ( 27kg)
* Pellet size may effect the actual rate of fuel feed and burn times. Fuel feed rates may vary by as much as 20%. Use PFI listed fuel for best results.	

DIMENSIONS	
Height	50"
Width	24"
Depth	15"
Weight	131"

It is highly recommended that the initial burn of your new stove be done outdoors. The paint used to coat your stove a high temperature paint that is dry upon arrival but has a final cure that happens during the initial burn. This cure will last 20-30 minutes and will produce fumes and some smoke.

### OUR COMMITMENT TO SAFETY

These stoves are constructed with utmost care and precision. Designs comply with national safety standards. However, personal safety begins with good fire management.

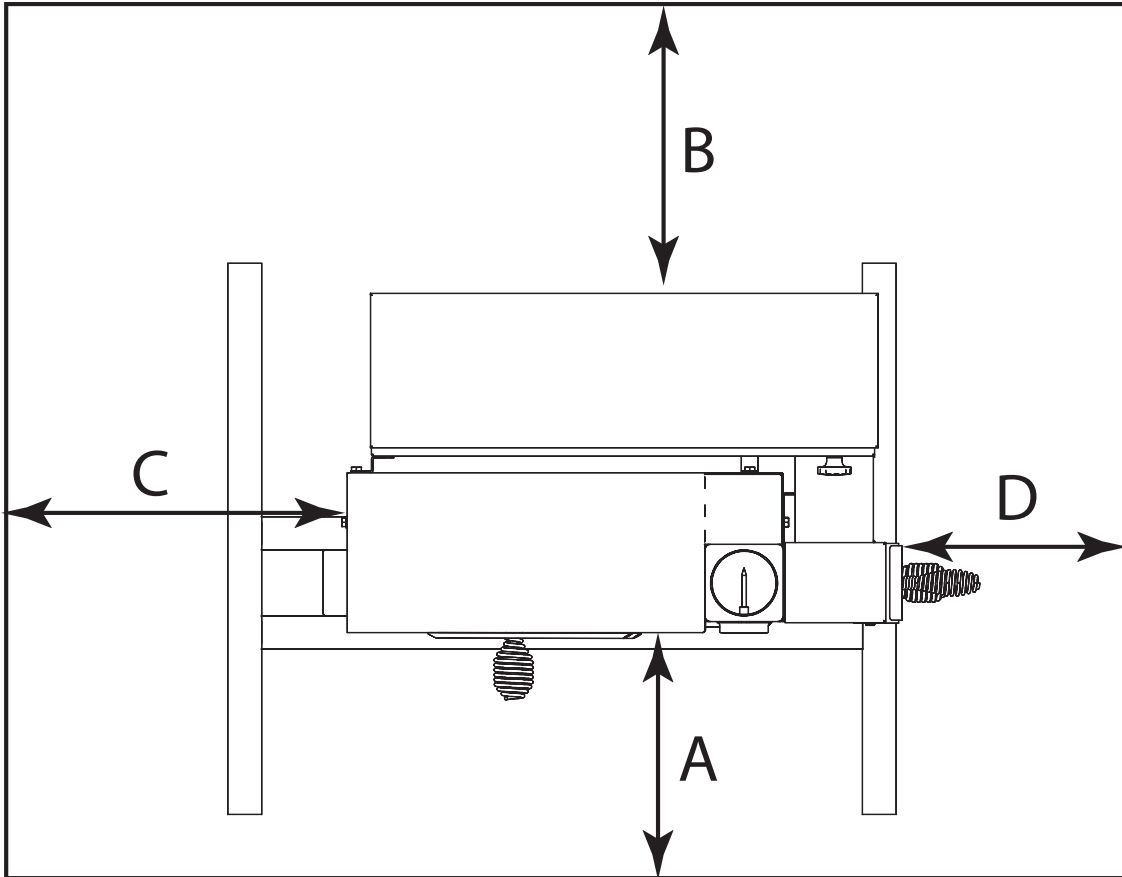
The temperatures of surfaces on your stove extremely hot during operation. It is essential to monitor foot traffic around the stove to prevent burns and protect the overall safety of your home and loved ones.

- Always read and follow the instructions for safe use and maintenance of your stove.
- Surfaces of the stove get EXTREMELY HOT!
- Be aware that surfaces may still be hot for an extended period of time after the stove has been shut down.
- Never leave young children or pets around any heating source.
- Educate your family before beginning operation of your new stove.
- Never block free airflow through the open vents of the stove.
- Do not place flammable items on or near any stove.
- Never place foreign objects in the hopper.
- This stove was designed and approved for pelletized wood fuel only. Any other type of fuel burned in this stove is prohibited.
- This is a wood stove that burns pellet fuel. It must be treated as a wood stove. As with any wood stove periodic cleaning and maintenance is required. Failure to clean and maintain your stove and chimney may result in poor performance.
- Always allow the stove to cool completely before performing any maintenance.

**Never use gasoline, gasoline type lantern fuel, kerosene, charcoal lighter fluid, or similar liquids to start up or freshen up a fire in this stove. Keep all such liquids well away from the stove while in use.**

## FLOOR PROTECTION REQUIREMENTS

REQUIREMENTS OF 3/8" NON COMBUSTIBLE MATERIAL	
Minimum hearth requirements	USA – 25"D X 44" W
Minimum hearth requirements	Canada – 635MM D X 1168.4mm L
<b>A NON FLAMMABLE PAD MUST BE INSTALLED THAT MEETS UL 1618</b>	



Dimension		Inch	mm
A	Front	2	51
B	Rear	8	230
C	Left	16	457
D	Right	3	76

Install vent at clearances specified by the vent manufacturer.

The chimney connector shall not pass through an attic or roof space, closet or similar concealed space, or floor, or ceiling. Where passage through a wall or partition of combustible construction is desired, the installation shall conform to CAN/CSA-B365-US UL 103 HT, installation code for solid –fuel –burning appliances and equipment.

**WARNING:** Do not compromise instructions for installation or make changes to manufacturers specifications during the installation of this product.

Attachment and securement of the exhaust venting system to the product and to each adjoining section. All joints for connector pipe shall be required to be fastened with at least three screws. The area where the vent pipe penetrates to the exterior of the home must be sealed with silicone or other means to maintain the vapor barrier between the exterior and the interior of the home.

Vent surfaces can get hot enough to cause burns if touched. Noncombustible shielding or guards may be required.

## STOVE PIPE INSTALL/ HELPFUL HINTS

This stove has no need for electricity, it operates with a natural draft, the strength of the draft is determined by the height of its chimney, and that's why the chimney installation is the determining factor on how well this stove will perform. This stove will operate best with a straight chimney either 3" diameter or 4" diameter with 8 ft to 12 ft overall height, although it will operate with many variance's of chimney height and configurations, they will all bring varied results in burn time and fuel usage. A straight chimney is always the best configuration for this pellet stove.

When 8 ft to 12 ft length of chimney is used 3" diameter chimney will do, when having to use more than 15ft of chimney, then 4" diameter vent is best. Taller or longer chimney system's may need a barometric damper installed immediately off the top of the stove to be able to control the stove down in the 400 degree heat range as you can experience excessive draft and the stove will want to run hotter. You can also adjust the bars closer together on the burn basket to lower temp if it starts running to hot.

A 4" diameter pipe is recommended if you decide to go through the wall, and you need to terminate above the roof at least 24" using pellet vent. When going into a existing chimney then you must run 4" vent all the way through any existing chimney.

Use minimum 24 gauge single wall pipe in 4, 5 or 6 inch diameter when connecting to listed factory built chimney. Use a 3-4, 3-5 or 3-6 inch increaser directly off the stove then connect to the required length of pipe to reach the factory built chimney, a slip joint can be used to allow connection to the factory built chimney or a plug can be inserted at the entry point of the factory built chimney. The connector pipe shall pass through the plug a minimum of 4 inches or can pass through the entire length of the chimney. When using this method install another properly sized plug at the top of the chimney and continue connector pipe out and above the plug at least 2 inches. Install proper sized cap or in the event factory built cap is already in place with spark arrester, the connector pipe can be terminated under the existing factory built cap.

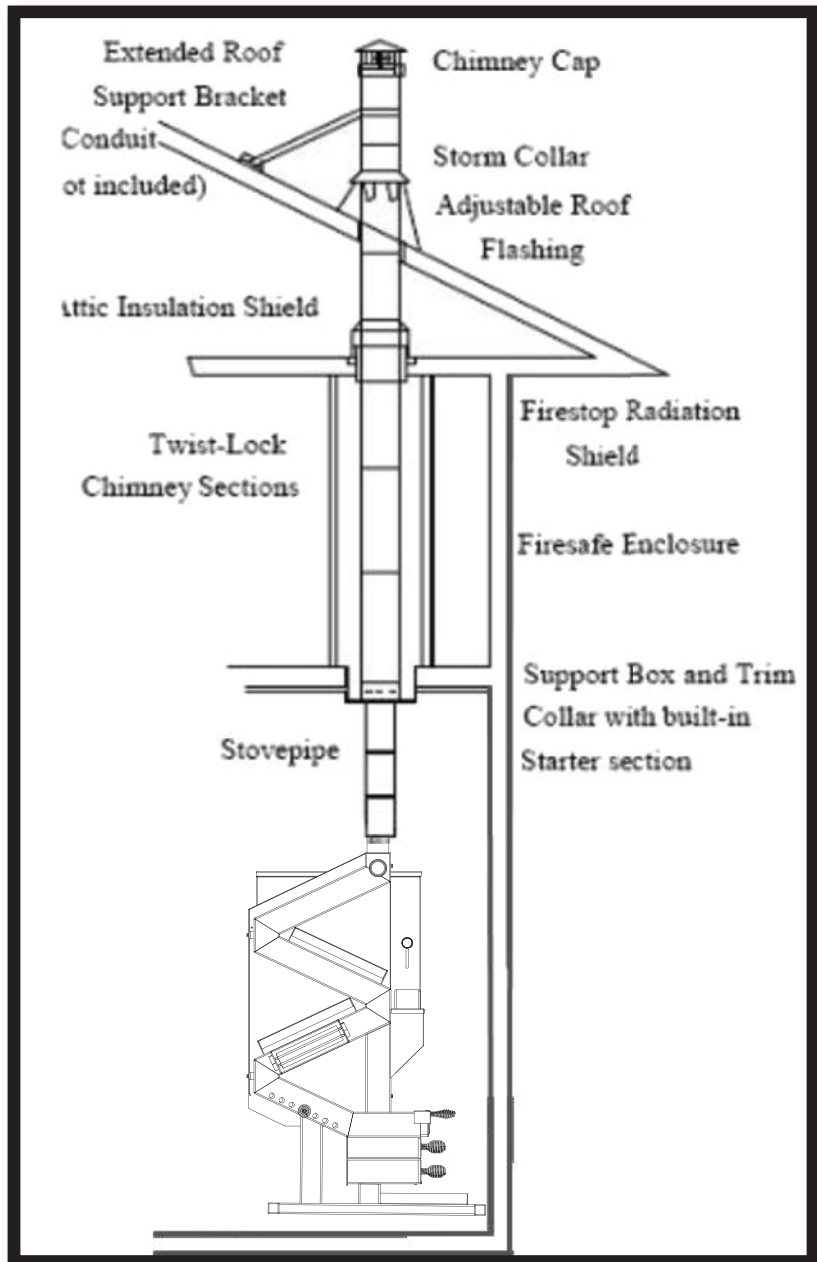
When installing your stove, an all vertical stove pipe, straight up and through the roof is best. This will insure a good upward draft that all stoves need to operate. The more twists and turns you have in stove piping the more it will restrict the draft, this is true for all stoves.

**IMPORTANT:** It is important for the stove pipe to extend to at least

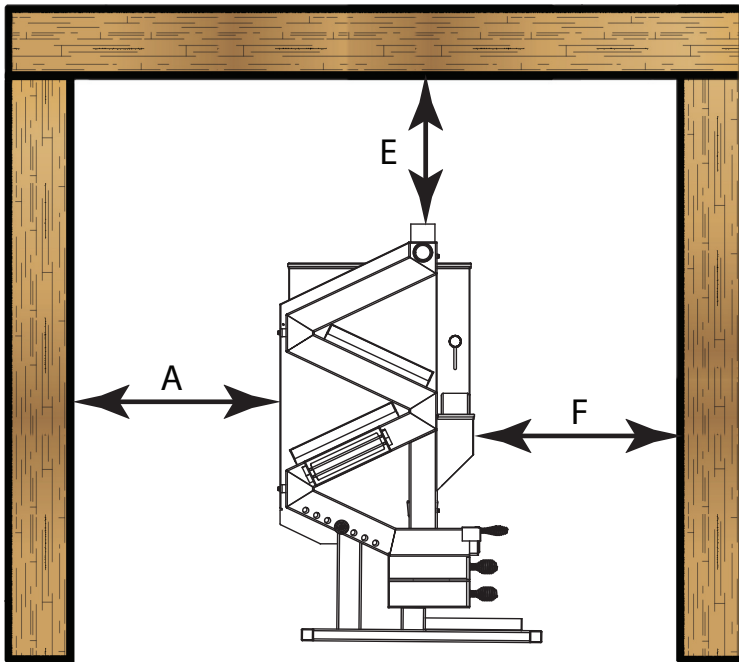
as high as the highest point of your roof.

Any reduction in clearance to combustibles may

only be done by means approved by a regulatory authority. Install vent at clearances specified by the vent manufacturer.



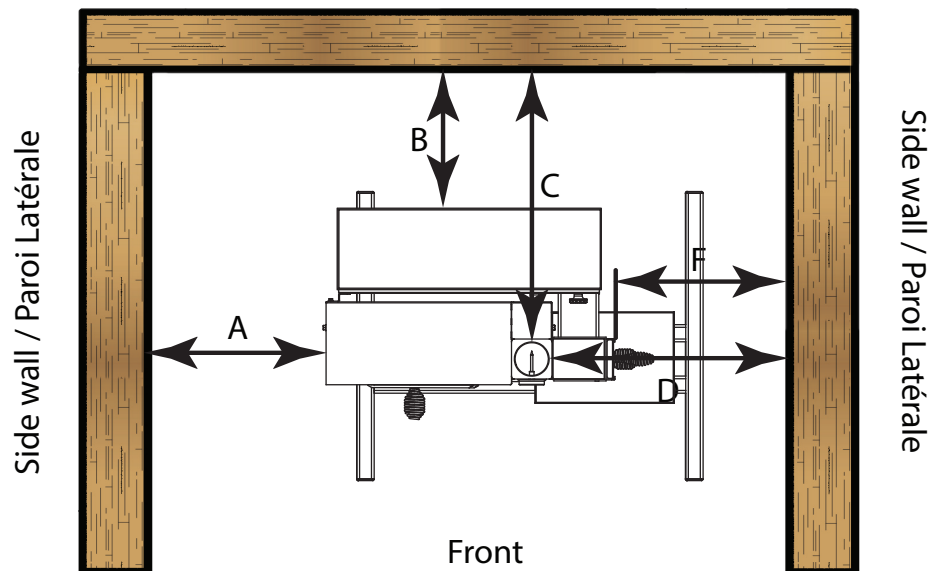
## STOVE PIPE INSTALL/ HELPFUL HINTS



Front

Clearance to Combustibles			
Dimension		Inch	mm
A	Left Sidewall to Stove	3	76
B	Backwall to Stove	2	51
C	Backwall to Flue*	13.5	343
D	Sidewall to Flue*	14.6	369
E	Ceiling Height	18	457
F	Right Sidewall to Stove	16	457

Back wall / Arrière Mur



Front

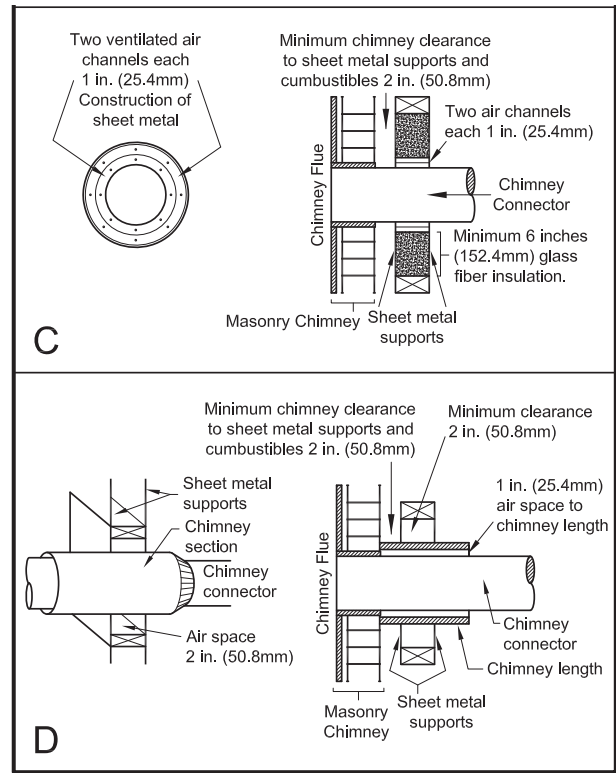
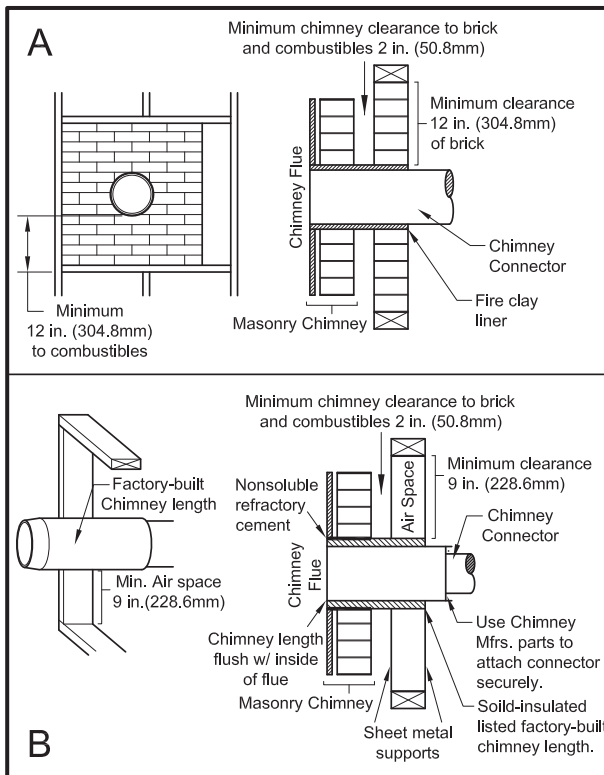


Residential standard construction requires fresh air source within 24" of the stove. Follow all state and local codes for outside air with a solid fuel appliance.

Mobile homes require outside air, use a vent with a rigid or flex pipe connected to the stove, and an outside screen vent cap, the stove must be secured to the floor, and grounded with a number 10 gauge wire.



## COMBUSTIBLE WALL CHIMNEY CONNECTOR PASS-THROUGHS



**Method A.** 12" (304.8 mm) Clearance to Combustible Wall Member: Using a minimum thickness 3.5" (89 mm) brick and a 5/8" (15.9 mm) minimum wall thickness clay liner, construct a wall pass-through. The clay liner must conform to ASTM C315 (Standard Specification for Clay Fire Linings) or its equivalent. Keep a minimum of 12" (304.8 mm) of brick masonry between the clay liner and wall combustibles. The clay liner shall run from the brick masonry outer surface to the inner surface of the chimney flue liner but not past the inner surface. Firmly grout or cement the clay liner in place to the chimney flue liner.

**Method B.** 9" (228.6 mm) Clearance to Combustible Wall Member: Using a 6" (152.4 mm) inside diameter, listed, factory-built Solid-Pak chimney section with insulation of 1" (25.4 mm) or more, build a wall pass-through with a minimum 9" (228.6 mm) air space between the outer wall of the chimney length and wall combustibles. Use sheet metal supports fastened securely to wall surfaces on all sides, to maintain the 9" (228.6 mm) air space. When fastening supports to chimney length, do not penetrate the chimney liner (the inside wall of the Solid-Pak chimney). The inner end of the Solid-Pak chimney section shall be flush with the inside of the masonry chimney flue, and sealed with a non-water soluble refractory cement. Use this cement to also seal to the brick masonry penetration.

**Method C.** 6" (152.4 mm) Clearance to Combustible Wall Member: Starting with a minimum 24 gauge (.024" [.61 mm]) 6" (152.4 mm) metal chimney connector, and a minimum 24 gauge ventilated wall thimble which has two air channels of 1" (25.4 mm) each, construct a wall pass-through. There shall be a minimum

6" (152.4 mm) separation area containing fiberglass insulation, from the outer surface of the wall thimble to wall combustibles. Support the wall thimble, and cover its opening with a 24-gauge minimum sheet metal support. Maintain the 6" (152.4 mm) space. There should also be a support sized to fit and hold the metal chimney connector. See that the supports are fastened securely to wall surfaces on all sides. Make sure fasteners used to secure the metal chimney connector do not penetrate chimney flue liner.

**Method D.** 2" (50.8 mm) Clearance to Combustible Wall Member: Start with a solid-pak listed factory built chimney section at least 12" (304 mm) long, with insulation of 1" (25.4 mm) or more, and an inside diameter of 8" (2 inches [51 mm] larger than the 6" [152.4 mm] chimney connector). Use this as a pass-through for a minimum 24-gauge single wall steel chimney connector. Keep solid-pak section concentric with and spaced 1" (25.4 mm) off the chimney connector by way of sheet metal support plates at both ends of chimney section. Cover opening with and support chimney section on both sides with 24 gauge minimum sheet metal supports. See that the supports are fastened securely to wall surfaces on all sides. Make sure fasteners used to secure chimney flue do not penetrate flue liner.

NOTES: Connectors to a masonry chimney, excepting method B, shall extend in one continuous section through the wall pass-through system and the chimney wall, to but not past the inner flue liner face. A chimney connector shall not pass through an attic or roof space, closet or similar concealed space, or a floor, or ceiling.

## STOVE PIPE INSTALL/ HELPFUL HINTS

- Have your stove and chimney system installed by a certified stove installer or licensed contractor.
- All installations must meet local codes.
- Use 4, 5 or 6 inch standard class A 103 HT exhaust chimney system.
- Use a minimum of 24 gauge, 4 inch or larger connector pipe.
- This is a wood stove that burns wood pellet fuel, this means natural draft is running the stove, it must be treated as a wood stove with the pipe installation being as vertical as possible to obtain maximum upward draft.
- Horizontal runs and elbows are discouraged.
- Do not install a flue damper in the exhaust vent.

### **DO NOT CONNECT THIS UNIT TO CHIMNEY FLU SERVING ANOTHER APPLIANCE.**

Chimney connector must be in good condition and kept clean. Exhaust venting system termination requirements, including location restrictions: relationships to air inlets, distance from windows, doors, air inlets, and distance to combustible materials **MUST BE MAINTAINED AT ALL TIMES.**

For residential use Install only with a chimney complying with the requirements for class A 103 HT chimneys in the standard for chimneys, Factory built, residential type and building heating appliance.

Stove is also Mobile home approved in the U.S. but not in Canada. Mobile home installation also requires that a direct outside air kit be installed and the stove be bolted or fastened to the floor and a #10 copper wire be attached to the stove and then attached to the frame of the manufactured home to ground the stove. Only approved pellet vent can be used. No single wall connector pipe is allowed in a Mobile Home. For mobile home use (US ONLY) Install with class A 103 HT chimney using 4, 5 or 6 inch diameter with ceiling trim plate, attic insulation shield, flashing, storm collar and cap. 4, 5 or 6 inch dual wall connector pipe can be used to chimney.

### **WARNING: DO NOT INSTALL IN A SLEEPING ROOM! CAUTIONS: STRUCTURAL INTEGRITY OF THE MOBILE HOME FLOOR, WALL, AND CEILING/ROOF MUST BE MAINTAINED.**

When this room heater is not properly installed, a house fire may result. To reduce the risk of fire, follow the installation instructions. Contact local building or fire officials about restrictions and installation inspection requirements in your area.

For basement use, Install only with a chimney complying with the requirements for class A 103 HT chimneys in the standard for chimneys, Factory built, residential type and building heating appliance, outside air source must be supplied.

### **DO NOT CONNECT TO OR USE IN CONJUNCTION WITH ANY AIR DISTRIBUTION DUCT WORK UNLESS SPECIFICALLY APPROVED FOR SUCH INSTALLATION.**

Taller or longer chimney system's may need a barometric damper installed immediately off the top of the stove to be able to control the stove down in the 400° range as you can experience excessive draft and the stove will want to run hotter.

## MAIN BODY ASSEMBLY

**Caution! The appliance is very heavy. The assistance from a second person is strongly suggested. Please use proper lifting technique when positioning the appliance for assembly and installation.**

### ITEMS NEEDED

1. One 1/2" opened ended wrench
2. One 7/16" open ended wrench
3. One 3/4" socket and ratchet wrench
4. Screw gun (cordless is recommended)
5. One 5/16" nut driver (extension is recommended)
6. One torpedo level

### STEP 1

Prepare a solid flat work surface. Lay the main stove body on the work surface. Position the stove so that the legs hanging off of the surface approximately six inches.

### STEP 2

Install the base as shown with the two (2) 7/16" hex bolts, two (2) flat washer, and two (2) lock washer provided with your stove. **Note:** There is a long end and a short end to the base. To ensure stability of the stove, the long end must face the front of the stove.

### STEP 3

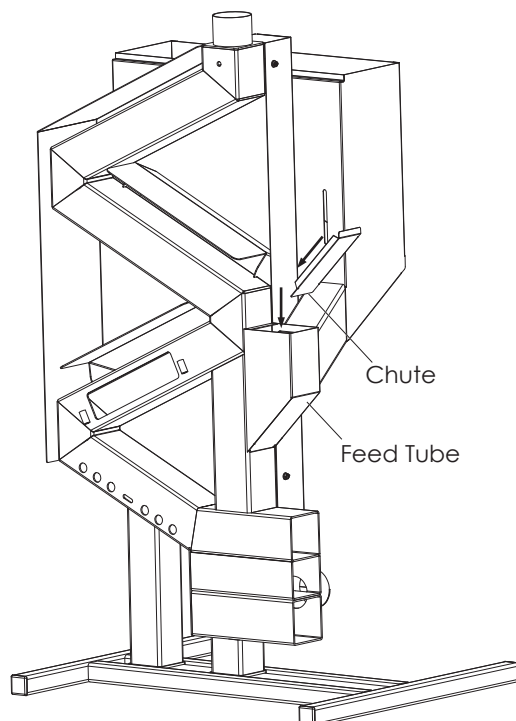
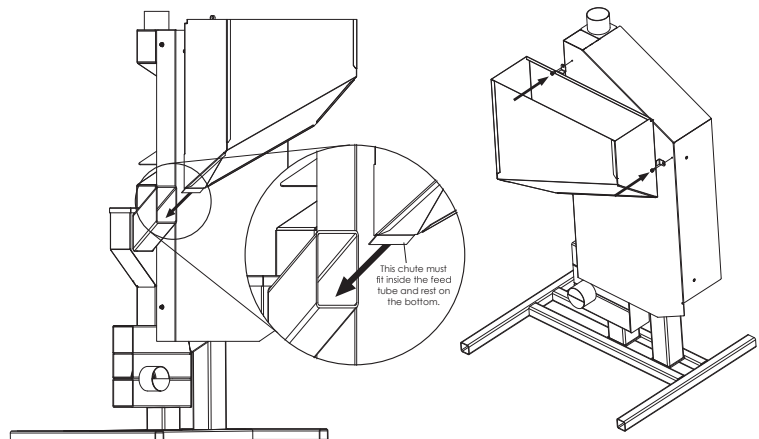
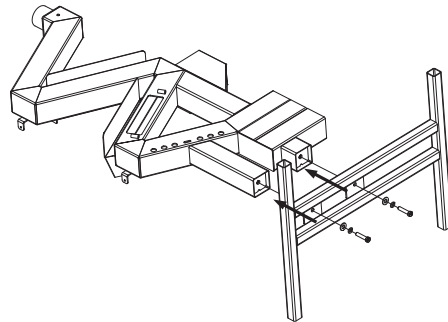
To install the hopper, place the stove upright on the floor. Insert the hopper chute into the feed tube as shown. Place torpedo level on the top lip of the hopper. It will be sandwiched in between the main heat shield and the hopper. Next make sure the hopper is level with the stove and use two (2) self-drilling screws to fasten the hopper to the stove as shown.

**CAUTION: Do Not over tighten the screws as this could cause stripping of the screw threads.**

**Note:** Make sure you are working on a level work surface. Hopper must be level with the stove; a second set of eyes looking at the front of the stove is a good idea.

### STEP 4

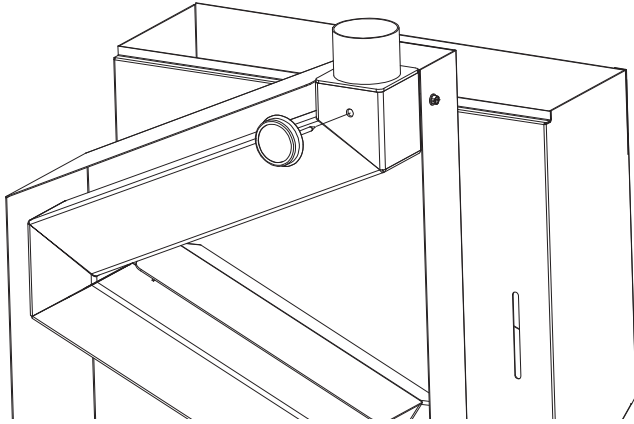
Install the pellet slide as shown. The chute (flat end) will go in first. The pellet slide will slide in and seat at the bottom of the feed tube.



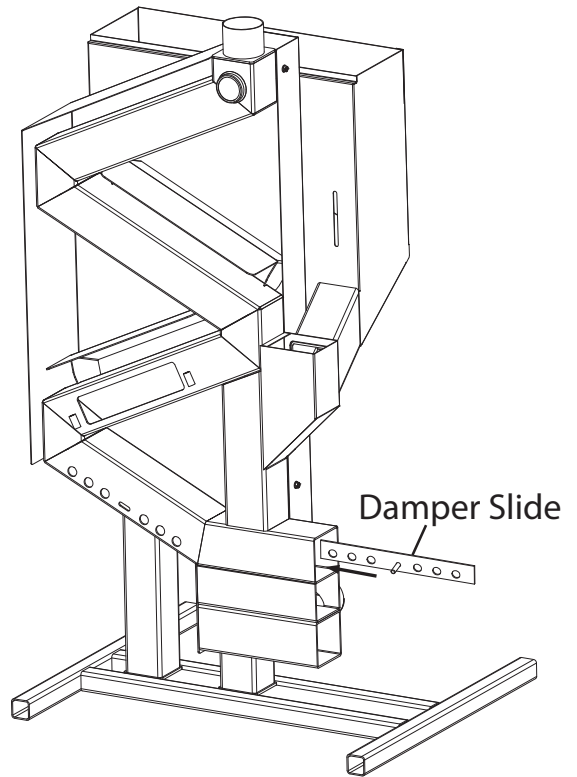


## ASSEMBLY

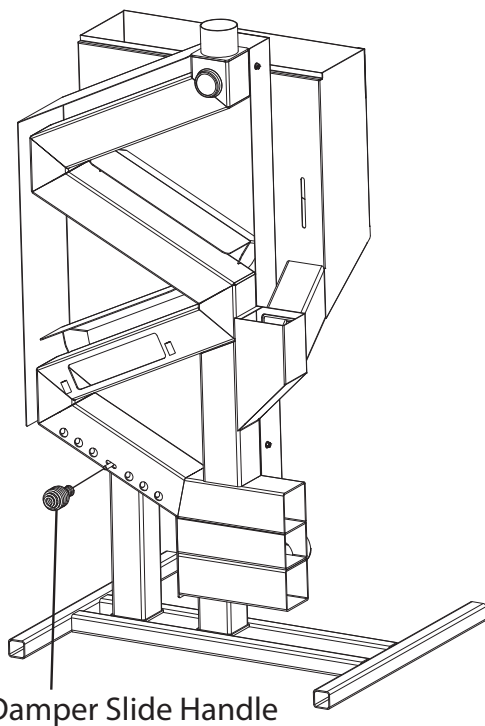
Use a pair of needle nose pliers to install the temperature gauge.



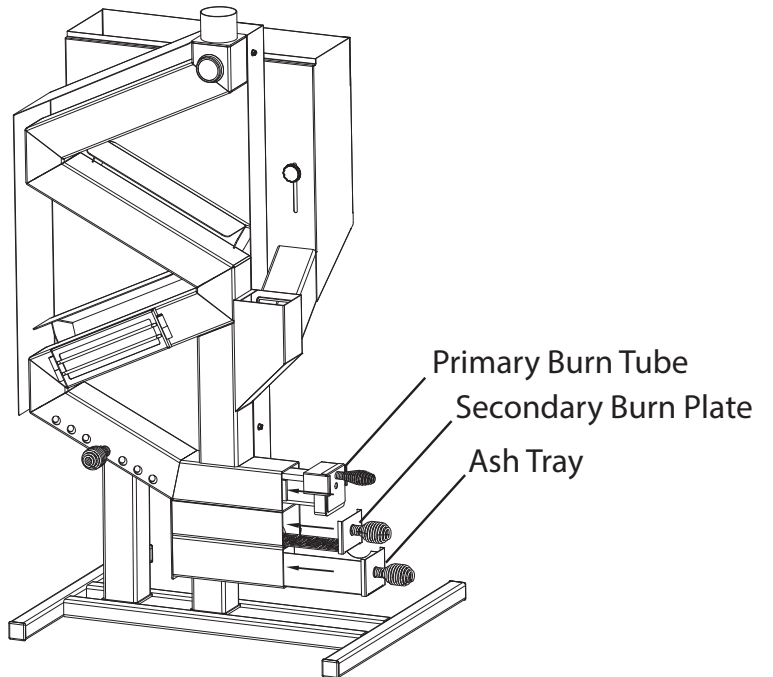
Insert the damper slide into place; it will only fit one way.



Screw on damper slide handle by turning clockwise.



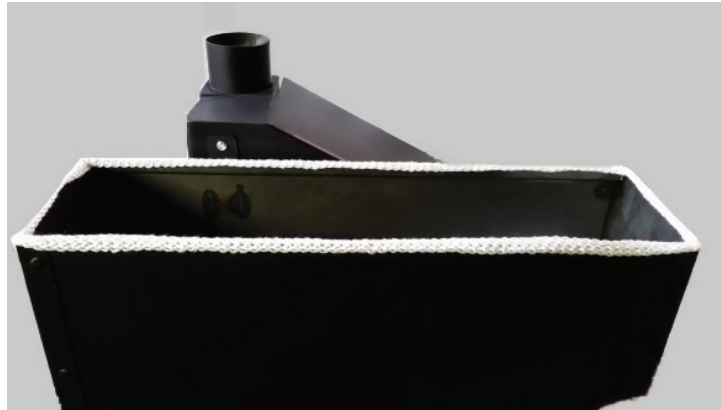
Install primary burn tube, secondary burn plate, and ash tray.



## SEAL INSTRUCTIONS

### HOPPER OPENING

Apply adhesive side of insulation rope to the top edge of the hopper opening, and then fold the rope over the hopper opening edges.



### FEED TUBE AND TUBE LID

Apply adhesive side of insulation rope to the top edge of the feed tube opening, and then fold the rope over the feed tube opening edges. Apply adhesive side of insulation rope to open side of feed tube lid. Overlap the rope on the open edge of the lid 1/8", and leave a 1/4" of space on each end of the rope.



### FRONT AND BACK SIDE OF HOPPER FEED TUBE



Apply silicone around all four edges



Fill the entire void

## USING THE CORRECT FUEL

ALL PELLET FUELS ARE NOT CREATED EQUAL!

It is recommend to not buy pellet fuel in bulk until experience has revealed the best pellet fuel available in your area.

- The stove was developed to burn pelletized wood fuel only! Pellets ¼" (6.35mm) diameter and approximately 1" (25.4) long should be used.
- Burning fuels other than wood pelletized fuel is not permitted.
- This stove feeds pellets at a preset rate. Adding fuel by hand or burning fuel other than pellets will not increase the heat output and could impair the stove performance.
- DO NOT block the fresh air intake ports – this will seriously affect the performance of the stove.
- DO NOT try to burn wet pellets or pellets that were previously opened and have been stored in the elements. Pellets that are stored in the elements are prone to absorbing moisture resulting in poor performance from the stove. Storing opened pellets indoors or in an air tight container is recommended.
- Stove performance not only depends on the quality of the pipe installation but also on the quality of the pellet fuel introduced to the stove. Avoid the use of pellets with excess fines, binders or high ash content. ONLY USE PREMIUM GRADE PELLETS WITH AN ASH CONTENT OF .5% OR LESS.
- DO NOT BURN GARBAGE OR FLAMMABLE FLUIDS SUCH AS GASOLINE, NAPHTHA, ENGINE OIL OR ANY OTHER SUBSTITUTE MATERIALS.
- HOT WHILE IN OPERATION KEEP CHILDREN, CLOTHING AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS.
- Store pellet fuel in a dry area.



### **DO NOT STORE PELLET FUEL WITHIN SPACE HEATER INSTALLATION CLEARANCES OR WITHIN THE SPACE REQUIRED FOR CHARGING AND ASH REMOVAL.**

This appliance should only burn pellets graded as standard through an EPA-authorized graded fuel program such as the PFI (Pellet Fuels Institute) Standards Program after May 16, 2015.

DO NOT BURN:

- (1) Garbage;
- (2) Lawn clippings or yard waste;
- (3) Materials containing rubber, including tires;
- (4) Materials containing plastic;
- (5) Waste petroleum products, paints or paint thinners, or asphalt products;
- (6) Materials containing asbestos;
- (7) Construction or demolition debris;
- (8) Railroad ties or pressure-treated wood;
- (9) Manure or animal remains;
- (10) Salt water driftwood or other previously salt water saturated materials;
- (11) Unseasoned wood; or
- (12) Paper products, cardboard, plywood, or particleboard. The prohibition against burning these materials does not prohibit the use of fire starters made from paper, cardboard, saw dust, wax and similar substances for the purpose of starting a fire in an affected wood heater.

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

## HELPFUL HINTS

### INSTALLATION

- Have your stove installed by a certified chimney installer or licensed contractor (see page 10 of the Installation and Operating Manual). Do not make changes to the draft recommendations during the installation of the chimney or stove. This is a stove that burns pellet fuel, if adequate draft is not accomplished this stove will not operate properly and can potentially cause smoke to come from the stove. If draft is compromised, it can drastically impede the performance of the stove, especially when using hardwood pellet fuel.
- Long horizontal chimney runs will impede draft and cause poor performance of this stove.
- Basement installations and air tight houses will require an outside air source.

### PERFORMANCE

- Use premium pellets that contain .5% or less ash content. Pellet quality and performance will vary from brand to brand. Experiment with different brand pellets (See page 15 of the Installation and Operating Manual).
- Learn your stove! This stove has no moving parts and requires no electricity; it does however require your attention much like a wood stove, especially when burning a hardwood pellet. **CLEARING YOUR SECONDARY BURN PLATE IS A MUST WHILE BURNING HARDWOOD PELLETS.** This is simple. NOTE: surfaces will be hot.
- First, remove the ashtray and dispose of any ashes (see page 21 of the Installation and Instruction Manual for proper ash disposal), and reinstall ashtray.
- Second, remove secondary burn plate. This will allow any built up ashes and hot coals to fall into the ashtray. Inspect the secondary burn plate, any layers of ash should be removed and discarded. Lightly tap the secondary burn plate on the edge of your disposal container to clear any clogged hole(s) in the burn plate. This will resume proper air flow through the burn plate; reinstall the secondary burn plate.
- Considering the numerous different fuels and installations, there is no one formula for how often this needs to be performed. Letting the secondary burn plate build up with ashes can choke the stove causing a decrease in temperature and increase the possibility of smoldering fuel and smoke.
- Until experience has helped you establish a regular routine it is not recommended to leave the stove unattended for long periods of time. **ALWAYS EMPTY THE ASHTRAY AND CLEAR THE SECONDARY BURN PLATE PRIOR TO LEAVING THE STOVE UNATTENDED!**

### QUESTIONS

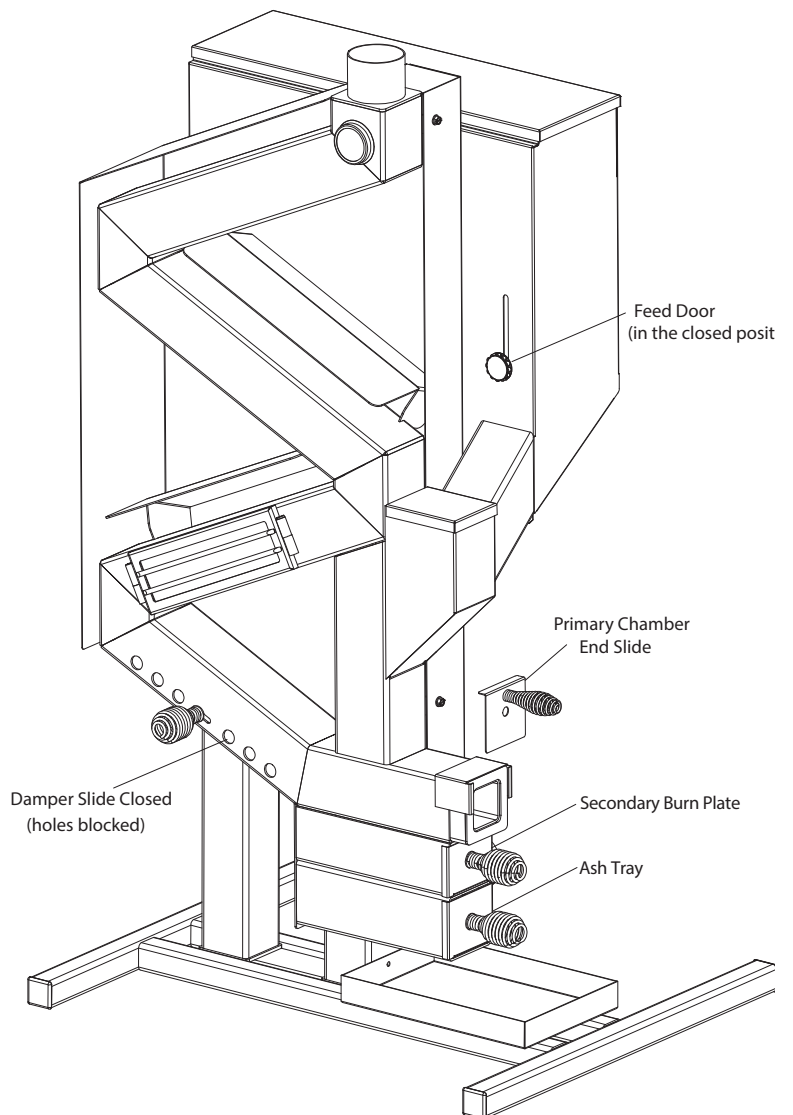
If you have **questions, additional needs, or encounter problems, please contact the Dealer where you made your purchase. This is the quickest remedy to whatever challenges you might encounter. If your Dealer cannot help you, they will contact their Distributor.**

## LIGHTING WITH A HANDHELD PROPANE TORCH

You will need a handheld propane torch to ignite your stove. We recommend a high quality torch with a squeeze trigger ignition system. **DO NOT USE CHEMICALS OR FLUIDS TO START THE FIRE.**

1. Make sure the pellet feed door is in the closed position, this is the external knob located on the front of the hopper. All the way down indicates closed.
2. Remove hopper lid and add desired amount of pellets.
3. Make sure front damper slide is in the closed position, holes should be blocked.
4. Inspect primary burn chamber, secondary burn plate and ashtray for soot build up and cleanliness. Perform any maintenance required.
5. Reinstall primary burn chamber, secondary burn plate and ashtray.
6. Remove the primary chamber end slide (the top handle).
7. Light the torch and insert into primary burn chamber. Let the torch run for approximately one minute. This will start the necessary draft and speed the ignition process.
8. Slide the feed to the all the way open position (the knob should now be at the top of the slot)
9. Let the torch run till the stove reaches 200 degrees (this should only take approximately 5 minutes depending on the type of fuel).
10. Remove, turn off and store your torch.
11. Keep the primary slide cover off until the stove reaches approximately 400 degrees.

**WARNING: After starting the stove the primary end slide must be on to insure proper air flow through the secondary burn chamber and proper use of outside air.**





## LIGHTING WITH A HEAT GUN

You will need a 120 volt industrial heat gun available at most hardware stores.

### DO NOT USE CHEMICALS OR FLUIDS TO START THE FIRE.

1. Follow steps 1-6 of the lighting with a handheld propane torch instruction.
2. Plug in and turn on heat gun to the high setting then insert heat gun.
3. Let heat gun run for 30 seconds.
4. Open the pellet feed door.
5. Ignition of the pellets will take approximately one minute. You will hear a "whoosh" when the pellets ignite.
6. Turn heat gun down to the low setting and continue to run until the stove reaches 400 degrees, this will happen rapidly after ignition of the pellets.
7. Remove, turn off and store your heat gun.
8. Reinstall the primary chamber end slide.



## CONTROLLING THE TEMPERATURE

### CONTROLLING THE TEMPERATURE

Because the damper slide is located behind the combustion chamber, adjusting the temperature is the opposite of a traditional wood stove.

To adjust the damper slide: turn handle counter clockwise one half turn then slide to the desired position and retighten.

The open position will reduce the draft and slow the stove down much like a crack in a drinking straw.

Closing the damper will increase higher temperatures and heat output.

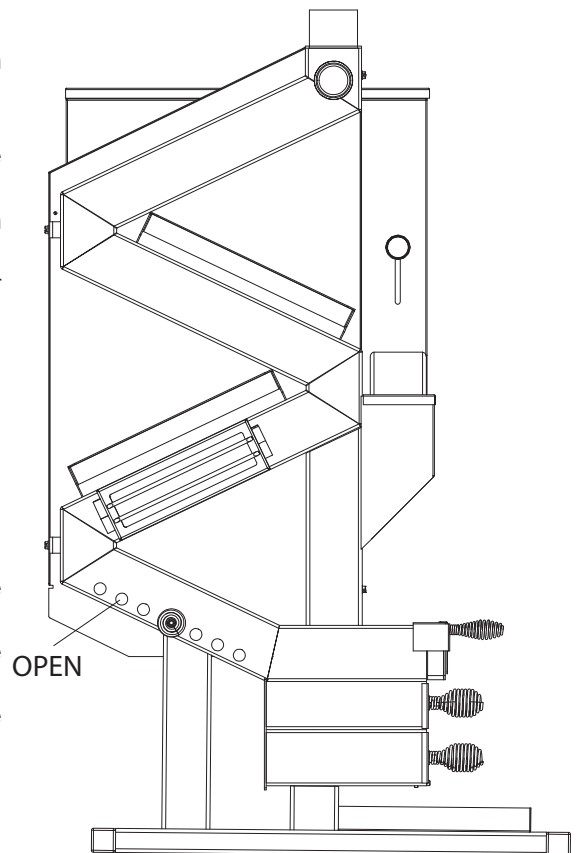
**CAUTION: DO NOT OVER LOOSEN THE DAMPER SLIDE HANDLE! THIS MAY CAUSE THE HANDLE TO SEPARATE FROM THE DAMPER PLATE.**

### SHUTTING DOWN THE STOVE

When you are ready to shut your stove down simply close the pellet feed door (move to the down position).

After you have closed the pellet feed door the stove will continue to run for approximately 45 minutes.

When shutting down the stove make sure to close the draft slide (holes blocked).



## TUNING YOUR STOVE

After your stove is installed and ready for use there will be a period of time where some adjustments may be necessary to fit your specific needs from the stove. We like to refer to this as "getting to know your stove". Each stove demonstrates its own unique personality based upon; type of pellet fuel, elevation, square footage you are heating, barometric pressures, common wind currents, natural drafts within your home to name a few.

Specifically this means learning how often you will need to dump ashes, clear the secondary burn plate, experiment with different brand pellets and determining what position the damper slide needs to be in to get your specific desired results. After you have become familiar with the stove it is possible that you may need to adjust the primary burn cage.

The primary burn basket that comes with every stove is sent out at a preset measurement. This measurement fits most applications but sometimes a user will need to make an adjustment. This is simple to perform; we find the best tools for widening the basket is two chisels. For narrowing the spacing use a pair of pliers.



The three black arrows indicate the three spaces where pellets drop through the basket and on to the secondary burn plate. The minimum spacing should not be adjusted to less than .290 or on a tape measure the closest mark would be just under the 19/64" mark. The maximum adjustment should not exceed .320 or just over the 5/16" mark on a tape measure. Only make small adjustments at a time as you will discover a small adjustment can result in a drastic temperature change. Narrowing will slow the pellet feed rate resulting in lower running temperature. Widening will result in an increased pellet feed rate resulting in a higher running temperature.

## CLEANING AND MAINTENANCE

**WARNING: DO NOT ATTEMPT TO CLEAN THE STOVE WHILE RUNNING OR HOT!**

Establish a routine for the fuel, burner and firing technique. Check daily for creosote build-up until experience shows how often you need to clean to be safe. Be aware that the hotter the fire the less creosote is deposited, and weekly cleaning may be necessary in mild weather even though monthly cleaning may be enough in the coldest months. Contact your local municipal or provincial fire authority for information on how to handle a chimney fire. Have a clear understood plan to handle a chimney fire.

### CREOSOTE-FORMATION AND NEED FOR REMOVAL

When solid fuel is burned slowly, it produces tar and other organic vapors and these combine with expelled moisture to form creosote. The creosote vapors condense in the relatively cool chimney flue associated with a slow burning fire. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote can result in an extremely hot fire; the chimney should be inspected periodically during the heating season to determine if a creosote build-up has occurred. If a significant layer of creosote has accumulated (3mm or more) it should be removed to reduce the risk of a chimney fire.

### DISPOSAL OF ASHES

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

### 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 the flue gases. Incomplete combustion, such as occurs during startup, shutdown, 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 to determine if cleaning is necessary.

### IMPORTANCE OF PROPER DRAFT

Draft is the force which moves air from the appliance up through the chimney. The amount of draft in your chimney depends on the length of the chimney, local geography, nearby obstructions and other factors. Too much draft may cause excessive temperatures in the appliance and may damage the catalytic combustor. Inadequate draft may cause back puffing into the room and 'plugging' of the chimney. Inadequate draft will cause the appliance to leak smoke into the room through appliance and chimney connector joints. An uncontrollable burn or excessive temperature indicates excessive draft. Take into account the chimney's location to insure it is not too close to neighbors or in a valley which may cause unhealthy or nuisance conditions.

### TAMPER WARNING

This wood heater has a manufacturer-set minimum burn rate that must not be altered. It is against federal regulations to alter this setting or otherwise operate this wood heater in a manner inconsistent with operating instructions in this manual.

### VISIBLE SMOKE

The amount of visible smoke being produced can be an effective method of determining how efficiently the combustion process is taking place at the given settings. Visible smoke consist of unburned fuel and moisture leaving your stove. Learn to adjust the air settings of your specific unit to produce the smallest amount of visible smoke. Wood that has not been seasoned properly and has a high wood moisture content will produce excess visible smoke and burn poorly.

### OVER FIRING

Attempts to achieve heat output rates that exceed heater design specifications can result in permanent damage to the heater.

## CLEANING AND MAINTENANCE

### SMOKE AND CO MONITORS

Burning wood naturally produces smoke and carbon monoxide(CO) emissions. CO is a poisonous gas when exposed to elevated concentrations for extended periods of time. While the modern combustion systems in heaters drastically reduce the amount of CO emitted out the chimney, exposure to the gases in closed or confined areas can be dangerous. Make sure you stove gaskets and chimney joints are in good working order and sealing properly to ensure unintended exposure. It is recommended that you use both smoke and CO monitors in areas having the potential to generate CO.

### DOOR AND GLASS GASKETS

Inspect the door and glass window gaskets periodically. The door may need to be removed to have frayed, broken, or compacted gaskets replaced by your authorized dealer. This unit's door uses a .125 x 1 flat gasket.

Inspect and clean the secondary burn plate, primary burn basket, primary burn tube and ashtray prior to igniting the stove.

### GET TO KNOW YOUR STOVE

Experience will determine how often you need to clear the secondary burn plate and ashtray while the stove is in operation. Experience will determine how often the heat exchanger needs to be cleared of ash build up (DO NOT ATTEMPT WHILE THE STOVE IS IN OPERATION). HINT –You will be able to see any ash build up in the heat exchanger by moving the draft slide to the all the way open position. A shop vacuum works well for heat exchanger ash removal.

**NOTE: Failure to keep a clean burn chamber or secondary burn plate can result in poor stove performance.**

**NOTE: Letting ash build up into the primary burn basket can cause choking of the stove and increase the risk of smoldering fuel and or smoke spillage.**

**WARNING : DROPPING OR STRIKING THE GLASS WITH A HARD OBJECT CAN RESULT IN BRAKING THE GLASS, CARE SHOULD BE TAKING WHEN REMOVING, REPLACING OR CLEANING GLASS. NEVER OPERATE WITH BROKEN OR CRACKED GLASS.**

**WARNING : ABRASIVE CLEANERS CAN CAUSE DAMAGE TO GLASS.**

**WARNING : DO NOT ATTEMPT TO CLEAN SURFACES WHILE HOT OR IN OPERATION.**

Cleaning the window is simple; simply remove the hinge pin located on the right side of the window frame by pushing the pin up and out. The window frame will now swing open. Use caution as glass will now be loose. Perform necessary cleaning and reinstall.

NOTE: There are cleaning products available at your local stove dealer specifically for cleaning stove glass.

**DO NOT USE SUBSTITUTE MATERIALS WHEN REPLACING GLASS.**

NOTE: It may be necessary to replace the gasket rope wrapped around the glass. When damaged or worn, a poor seal around the glass will result in lower performance or temperatures.

Gasket material specification: ¾" x 1/8" flat gasket.

Replacement glass specifications: 3"W x 10"L x ¼" Thickness –Neoceram.

Adequate hand protection should be worn.

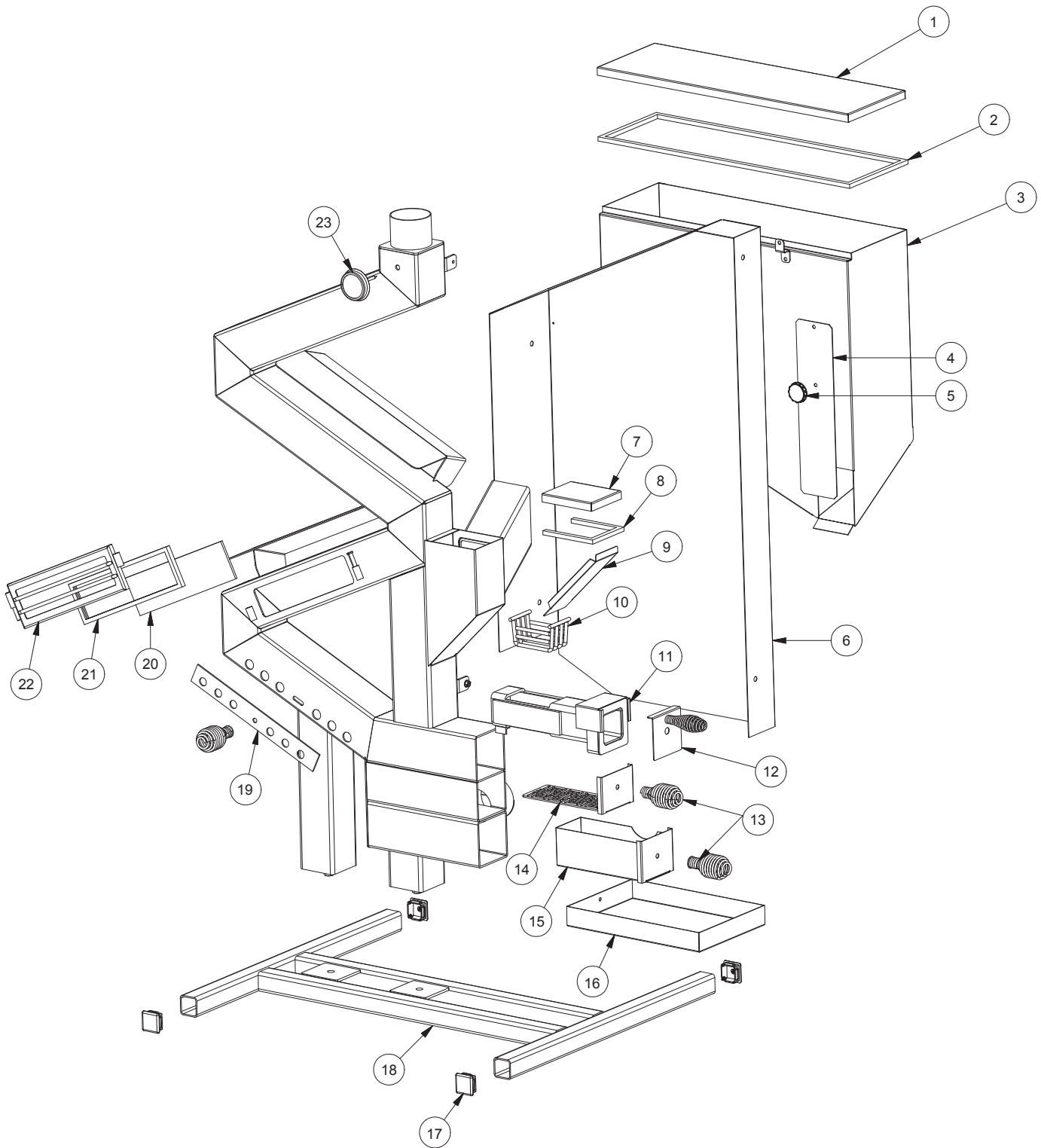
## HELPFUL HINTS FOR RUNNING YOUR STOVE

- When the stove is not in use take the opportunity to inspect and perform any cleaning or maintenance of the primary burn tube, secondary burn plate and ashtray.
- Keep foreign debris out of the hopper.
- Starting the draft by letting the hand held torch run for one minute before introducing pellets is highly recommended. When the stove is cold and it is colder outside than it is inside, there is a downward draft in the chimney. Running the torch for one minute first will overcome this downward draft that is present.
- This stove was developed using Douglas Fir pellet fuel. If Douglas Fir pellet fuel is available in your area they are highly recommended.
- If smoke becomes present during ignition, reposition the torch head so the flame is burning across the bottom of the burn basket not directly on it.
- Installing the stove pipe straight up is highly recommended. This will ensure a good upward draft that all wood stoves need to operate. Elbows and horizontal runs restrict draft.
- The secondary burn plate can be slid out up to one inch to provide maximum air flow during operation.
- While operating the stove on low (damper holes open) the temperature gauge should never fall below 300 degrees. Two things happen when the stove falls below 300 degrees. 1) The draft will slow down enough to impede the performance of the stove. 2) Creosote will build up causing poor performance and increase the risk of a flu fire.
- **WHEN INSTALLING IN A BASEMENT FRESH AIR MUST BE PRESENT!** There are negative pressures present in most basements that can disrupt draft.
- Operating the stove in a basement with the basement door open is discouraged. When an appliance with any sort of fan is used or a window opens or a door opens upstairs it causes a sudden rush of air to escape from the basement having a negative affect on the stove.
- If it was necessary to adjust the primary burn basket wider, it may be necessary to clear the secondary burn plate more often during operation.
- Adequate ventilation has to be considered when running the stove.
- Barometric damper will help solve problems when stove is experiencing constant high heat output. Barometric gives the user the ability to regulate draft through the chimney until desired temperatures are established on the appliance it has been installed on.
- A VacuStack chimney cap are recommended when experiencing draft issues or fluctuating temperatures or low heat output. VacuStack caps are designed to increase draft on any chimney by causing a vacuum effect through the flue below when the air moves past the cap.
- **CAUTION:** In high wind areas, excessive draft can be experienced resulting in extended high temperature output on the stove. We recommend a barometric damper be installed when this occurs which gives you the ability to control the excessive draft created by the vacustack and persistent wind currents above.
- Remedies for those that experience a temperature drop after several hours of operation: First, dump the ashtray and properly dispose of ashes as described in this manual. Second, clear the secondary burn plate as described in this manual. If this does not bring the temperature back up then close the pellet stop plate for approximately 35 minutes running the stove on high (damper in the all the way closed position). Reopen the pellet stop plate. This clears the vertical feed tube of any pre heated pellets and reintroduces fresh pellet fuel.



## NOTES

# REPAIR PARTS



## PARTS LIST

Key	Part No.	Description	Qty.
1	27426	HOPPER LID	1
2	88087	GASKET, WINDOW .125 x 1" w/PSA	
3	610201	HOPPER	1
4	610202	PELLET STOP	1
5	83936	1/4-20 PLASTIC KNOB	1
6	610209	HEAT SHIELD	
7	27427	FEED LID	1
8	88087	GASKET, WINDOW .125 x 1" w/PSA	3.5 ft
9	27428	PELLET SLIDE	1
10	610192	BURN CHAMBER	1
11	610200	FIREBOX	1
12	610208	WELDMENT, AIR COVER	1
13	610189	HANDLE WELDMENT	3
14	610211	BURN PLATE ASSEMBLY	1
15	610188	ASSEMBLY, ASH PAN	1
16	27452	ASH RETAINER	1
17	83935	TUBE PLUG, SQUARE	4
18	610206	BASE STAND WELDMENT	1
19	610204	DRAFT SLIDE	1
20	892553	GW1949 GLASS	1
21	88087	GASKET, WINDOW .125 x 1" w/PSA	
22	610205	WINDOW FRAME	1
23	80653	THERMOMETER, 100-900° STOVE	1

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

## HOW TO ORDER REPAIR PARTS

This manual will help you obtain efficient, dependable service from your PELLET STOVE, and enable you to order repair parts correctly.

Keep this manual in a safe place for future reference.

When writing, always give the full model number which is on the nameplate attached to the heater.

When ordering repair parts, always give the following information as shown in this list:

1. The part number \_\_\_\_\_
2. The part description \_\_\_\_\_
3. The model number: \_\_\_\_\_
4. The serial number: \_\_\_\_\_

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# WARRANTY INFORMATION CARD

Name \_\_\_\_\_ Telephone #: (\_\_\_\_) \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Email Address \_\_\_\_\_

Model # of Unit \_\_\_\_\_ Serial # \_\_\_\_\_

Fuel Type:  Wood  Coal  Pellet  Gas  Other \_\_\_\_\_

Place of Purchase (Retailer) \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

If internet purchase, please list website address \_\_\_\_\_

Date of Purchase \_\_\_\_\_

Reason for Purchase:  Alternative Heat  Main Heat Source  
 Decoration  Cost  Other \_\_\_\_\_

What was the determining factor for purchasing your new appliance? \_\_\_\_\_  
\_\_\_\_\_

I have read the owner's manual that accompanies this unit and fully understand the:

Installation  Operation  and Maintenance  of my new appliance.

\_\_\_\_\_  
Print Name Signature Date

Please attach a copy of your purchase receipt.

Warranty not valid without a Proof of Purchase.

Warranty information must be received within 30 days of original purchase.

Detach this page from this manual, fold in half with this page to the inside and tape together. Apply a stamp and mail to the address provided. You may use an envelope if you choose.

You may register online by going to [www.usstove.com](http://www.usstove.com)

All information submitted will be kept strictly confidential. Information provided will not be sold for advertising purposes.  
Contact information will be used solely for the purpose of product notifications.

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