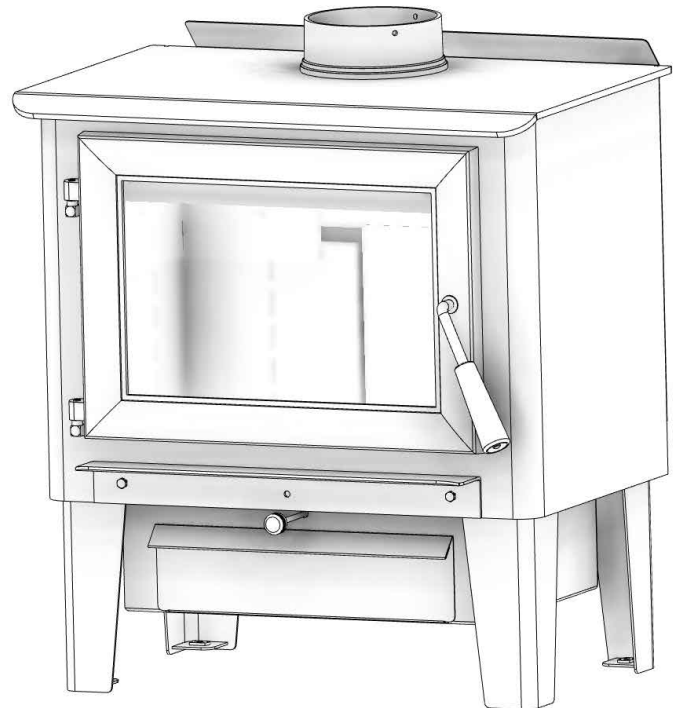
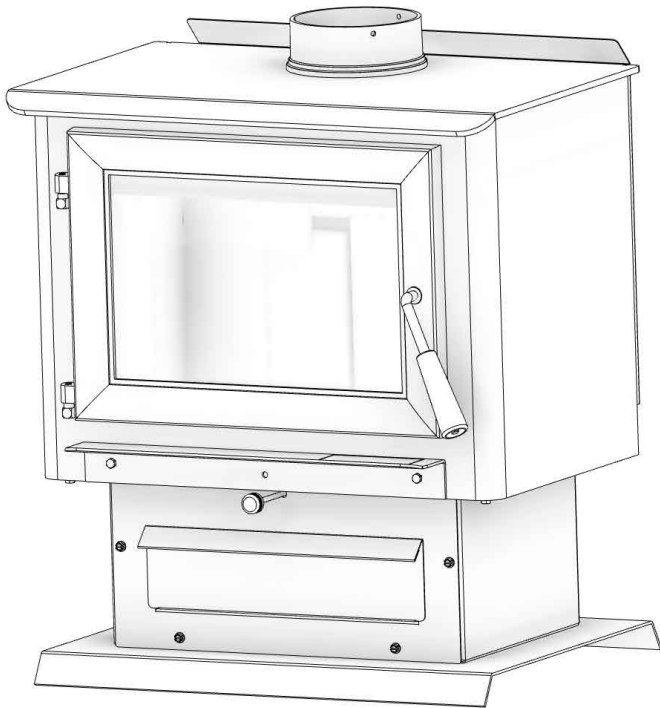


VOGELZANG

Affordable Heating Since 1974

MODEL: VG2020



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 NOTICE:

If this heater is not properly installed, a house fire may result. For your safety, follow the installation instructions. Never use make-shift compromises during the installation of this heater. Contact local building or fire officials about permits, restrictions and installation requirements in your area.

CAUTION!

Please read this entire manual before you install or use your new room heater. Failure to follow instructions may result in property damage, bodily injury, or even death. Improper Installation Could Void Your Warranty!

**UNITED STATES
STOVE CO.**
EST[®] 1869

United States Stove Company
PO Box 151, 227 Industrial Park Rd.,
South Pittsburg, TN 37380
PH: (800) 750-2723
www.usstove.com



Report Number: F19-476

Certified to: UL 1482-2011 (R2015) and
ULC-S627-00 (R2016)

Mobile home approved (U.S. ONLY)

U.S. Environmental Protection Agency

Certified to comply with 2020
particulate emissions standards.

CALIFORNIA PROPOSITION 65 WARNING:

This product can expose you to chemicals including carbon monoxide, which is known to the State of California to cause cancer, birth defects and/or other reproductive harm. For more information, go to www.P65warnings.ca.gov

853527B-4203i

The instructions pertaining to the installation of your wood stove comply with UL-1482 (R2015) and ULC-S627 standards. This manual describes the installation and operation of the Vogelzang, VG2020 wood heater. This heater meets the 2020 U.S. Environmental Protection Agency's cordwood emission limits for wood heaters sold after May 15, 2020. Under specific test conditions this heater has been shown to deliver heat at rates ranging from 15,261 to 63,196 Btu/hr with 1 g/hr and 70% efficiency. Note: The BTU ratings mentioned above are based on the EPA test protocol under specific test conditions. Our advertised BTU's are based on the first hour of operation at high burn rate burning cordwood.

Combustible:	Wood	
Colors:	Metallic Black	
Flue Pipe Diameter:	6" (152.5 mm)	
Flue Pipe Type: (Standard Single Wall or Double Wall):	Black or Blued Steel 2100°F (650°C)	
Minimum Chimney Height:	12' (3.7 m)	
Maximum Log Length:	21" (533.5 mm)	
Dimensions		
Overall: Depth x Width x Height:	VG2020-BL	20.46" X 27 X 30.78 (520 mm X 686 mm X 782 mm)
	VG2020-BP	20.97" X 27 X 31.25 (533 mm X 686 mm X 794 mm)
Combustion Chamber: Width x Depth:	22-3/4" X 11.78" (578 mm X 300 mm)	
Volume: Cubic Feet:	1.6 cubic feet	
Door Opening: Width x Height:	18" X 9.75" (458 mm X 248 mm)	
Pyroceramic Glass Door: (Viewing) Width x Height:	16" X 10.26" (407 mm X 261 mm)	

Optional Accessories	
Outside Air Intake Kit	4FAK

CAUTIONS:

- HOT WHILE IN OPERATION. KEEP CHILDREN, CLOTHING AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS.
- DO NOT USE CHEMICALS OR FLUIDS TO IGNITE THE FIRE.
- DO NOT LEAVE THE STOVE UNATTENDED WHEN THE DOOR IS SLIGHTLY OPENED.
- DO NOT BURN GARBAGE, FLAMMABLE FLUID SUCH AS GASOLINE, NAPHTHA OR MOTOR OIL.
- DO NOT CONNECT TO ANY AIR DISTRIBUTION DUCT OR SYSTEM.
- ALWAYS CLOSE THE DOOR AFTER THE IGNITION.

Note: Register your product on line at www.usstove.com. Save your receipt with your records for any claims.

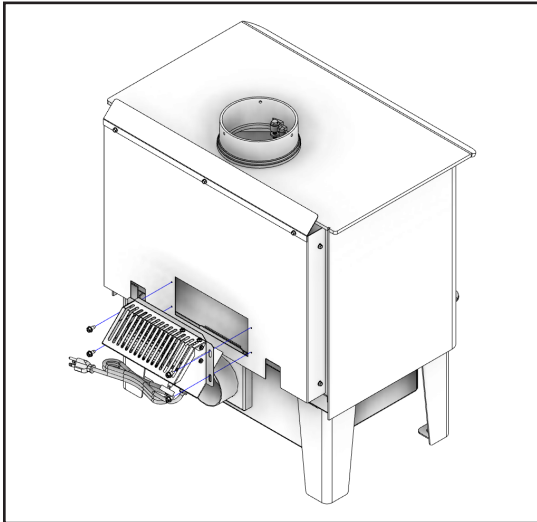
Assembly Instructions

TOOLS AND MATERIALS NEEDED FOR INSTALLATION

You will need a drill with a 1/8" bit to install sheet metal screws into connector pipe. A 5/16" socket/wrench or screw driver to install the room air deflector, and blower assembly described in this manual. A 1/2" socket/wrench to install the flue collar. A non-combustible floor protector as specified in this manual. All chimney and chimney connector components required for your particular chimney installation.

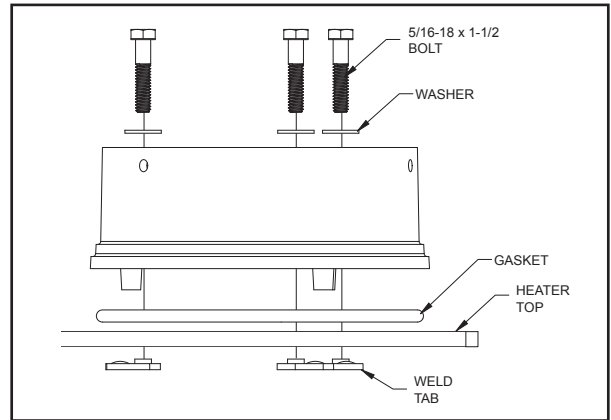
BLOWER ASSEMBLY

The blower assembly must be disconnected from the source of electrical supply before attempting the installation. The blower assembly is intended for use only with a stove that is marked to indicate such use. Do not route the supply cord near or across hot surfaces! Fix the assembly to the back of the stove with the four screws provided.



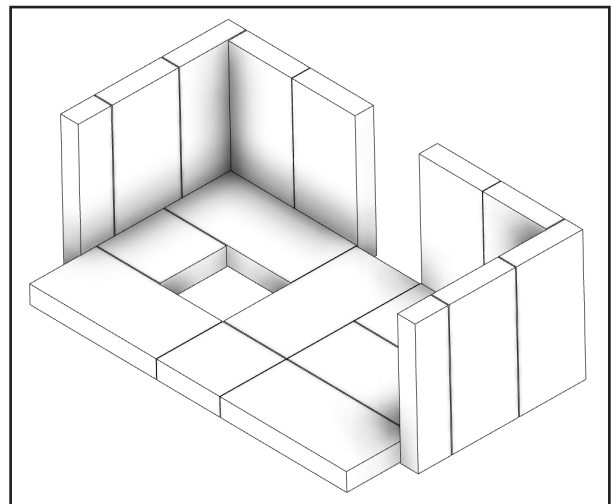
FLUE COLLAR ASSEMBLY

Mount the flue collar to the top of the unit as shown using the (3) 5/16-18 x 1-1/2 bolts, (3) washers, and (3) weld tabs provided in the parts box.



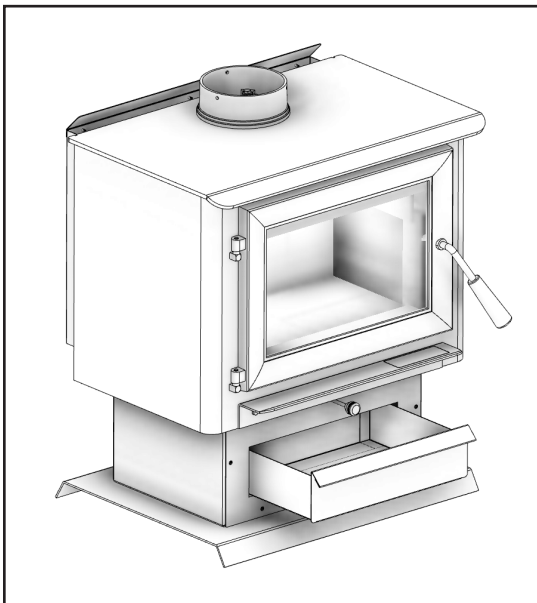
FIREBRICK CONFIGURATION

Replace the Firebrick as shown in the illustration.



ASH PAN ASSEMBLY

Remove ash pan from firebox. Under the firebox, there are two brackets; Slide the ash pan into these brackets.



Installation

SAFETY NOTICE

- IF THIS STOVE IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT. TO REDUCE THE RISK OF FIRE, FOLLOW THE INSTALLATION INSTRUCTIONS.
- CONSULT YOUR MUNICIPAL BUILDING DEPARTMENT OR FIRE OFFICIALS ABOUT PERMITS, RESTRICTIONS AND INSTALLATIONS REQUIREMENTS IN YOUR AREA.
- USE SMOKE DETECTORS IN THE ROOM WHERE YOUR STOVE IS INSTALLED.
- KEEP FURNITURE AND DRAPES WELL AWAY FROM THE STOVE.
- NEVER USE GASOLINE, GASOLINE-TYPE LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID, OR SIMILAR LIQUIDS TO START OR "FRESHEN UP" A FIRE IN THIS HEATER. KEEP ALL SUCH LIQUIDS WELL AWAY FROM THE HEATER WHILE IT IS IN USE.
- IN THE EVENT OF A CHIMNEY FIRE, PUSH THE AIR CONTROL FULL CLOSED TO DEPRIVE THE FIRE OF OXYGEN. CALL THE FIRE DEPARTMENT.
- DO NOT CONNECT TO ANY AIR DISTRIBUTION DUCT OR SYSTEM.
- A SOURCE OF FRESH AIR INTO THE ROOM OR SPACE HEATED SHALL BE PROVIDED WHEN REQUIRED.

POSITIONING THE STOVE

It is very important to position the wood stove as close as possible to the chimney, and in an area that will favor the most efficient heat distribution possible throughout the house. The stove must therefore be installed in the room where the most time is spent, and in the most spacious room possible. Recall that wood stoves produce radiating heat, the heat we feel when we are close to a wood stove. A wood stove also functions by convection, that is through the displacement of hot air accelerated upwards and its replacement with cooler air. If necessary, the hot air distribution from the stove may be facilitated by the installation of a blower. The wood stove must not be hooked up to a hot air distribution system since an excessive accumulation of heat may occur. A wood stove must never be installed in a hallway or near a staircase, since it may block the way in case of fire or fail to respect required clearances.

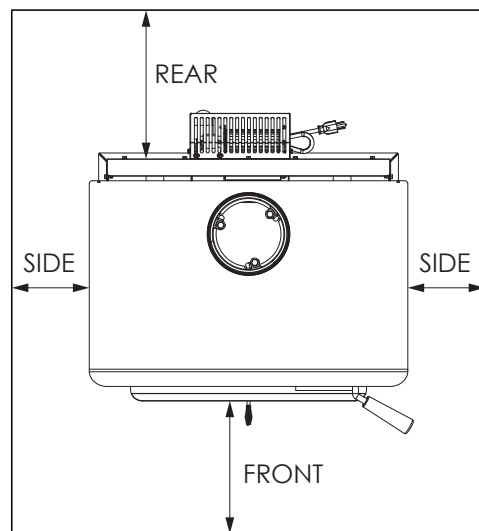
FLOOR PROTECTOR

This heater must have a non-combustible floor protector with an R-Value of at least 1.4 installed beneath it if the floor is constructed of combustible material. If a floor pad is used, it should be UL listed or equal. The floor protector should be large enough to extend under the stove and beyond each side as indicated. If there is a horizontal run of flue pipe, there needs to be floor protection under it that extends two inches beyond either side of the pipe.

The floor protector should exceed the stove as follows:

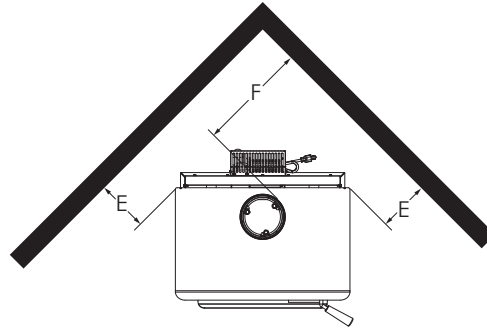
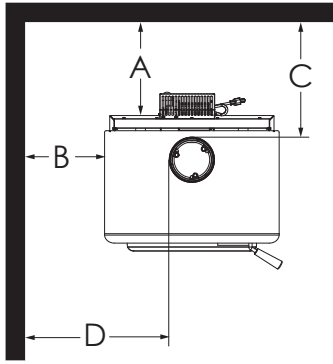
Front	Sides	Rear
22" (559 mm)	8" (204 mm)	☆2" (51 mm)

☆ - Canadian Installations require 8"
(204 mm) to the rear.



CLEARANCES TO COMBUSTIBLES

It is of utmost importance that the clearances to combustible materials be strictly adhered to during installation of the stove. Refer to the tables below.



Single Wall Pipe (Double Wall Pipe)		
Key	in	mm
A	15 (12)	381 (305)
B	18 (18)	458 (458)
C	19 (16)	483 (407)
D	29 (29)	737 (737)
E	12 (12)	305 (305)
F	22 (22)	559 (559)

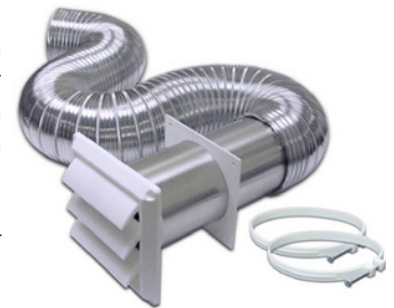
- If there is a Horizontal run of flue pipe there must be at least 18" of clearance between the pipe and the ceiling. There also has to be floor protection under the horizontal run that extends 2" beyond each side of the flue pipe.
- Floor to ceiling height must be at least 7' (2.13 m) in all cases.
- Do not place any combustible material within 4' (1.2 m) of the front of the unit.
- The clearance between the flue pipe and a wall are valid only for vertical walls and for vertical flue pipe.
- The chimney connector must not pass through an attic or roof space, closet or similar concealed space, a floor, or a ceiling.
- For Canadian installations, where passage through a wall, or partition of combustible construction is desired, the installation must conform to CAN/CSA-B365.
- A flue pipe crossing a combustible wall must have a minimum clearance of 18" (457.2 mm).
- To reduce flue clearances from combustible materials, contact your local safety department.

OUTSIDE COMBUSTION AIR

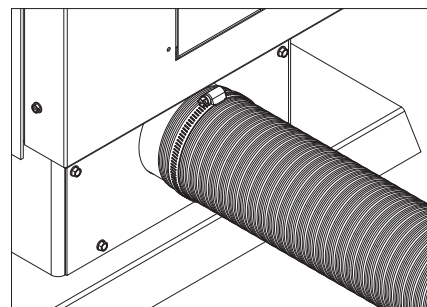
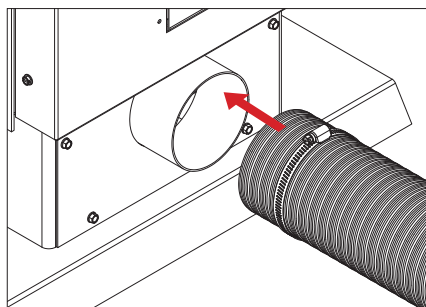
Your wood stove is approved to be installed with an outside air intake (4FAK) which is necessary for a mobile home. This type of installation is also required in air tight houses and houses with negative pressure problems. You can purchase this option through your heater dealer. Make sure to specify the part number mentioned in this booklet. Installation instructions are supplied with the air intake kit.

Outside combustion air may be required if:

1. Your stove does not draw steadily, smoke roll-out occurs, wood burns poorly, or back-drafts occur whether or not there is combustion present.
2. Existing fuel-fired equipment in the house, such as fireplaces or other heating appliances, smell, do not operate properly, suffer smoke roll-out when opened, or back-drafts occur whether or not there is combustion present.
3. Opening a window slightly on a calm (windless) day alleviates any of the above symptoms.
4. The house is equipped with a well-sealed vapor barrier and tight fitting windows and/or has any powered devices that exhaust house air.
5. There is excessive condensation on windows in the winter.
6. A ventilation system is installed in the house.



"Dryer Venting Kit"



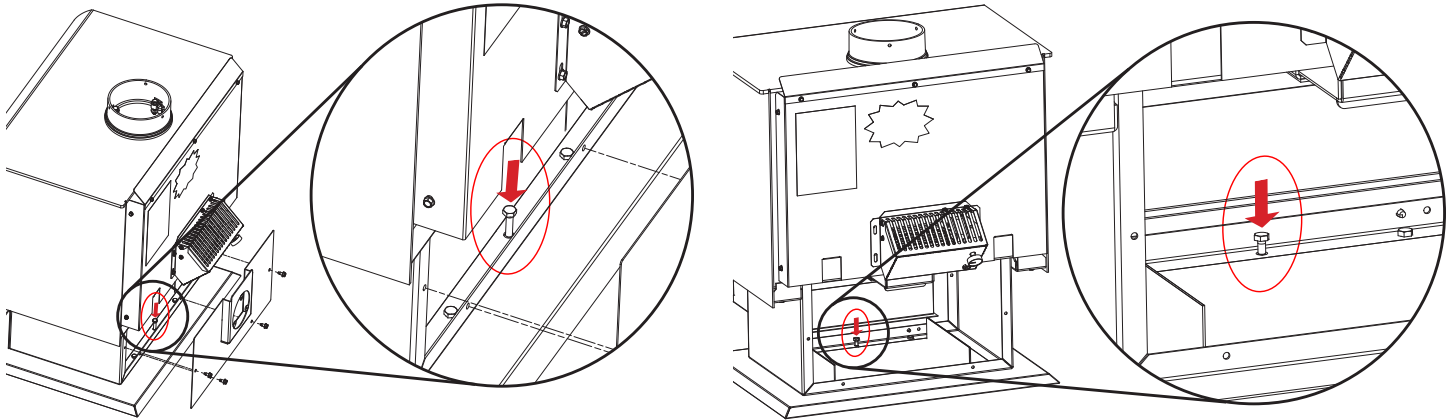
Slide the hose clamp over the aluminium flex pipe. Then slide the flex pipe over the air intake tube of the stove. Next tighten the hose clamp over the end of the aluminium flex hose.

For use in MOBILE HOMES (U.S. installations ONLY):

- WARNING! DO NOT INSTALL IN SLEEPING ROOM.
- CAUTION! THE STRUCTURAL INTEGRITY OF THE MOBILE HOME FLOOR, WALL, AND CEILING/ROOF MUST BE MAINTAINED.
- INSTALL IN ACCORDANCE WITH 24 CFR, PART 3280 (HUD).
- USE A FACTORY BUILT CHIMNEY THAT COMPLIES WITH UL 103 STANDARDS; THEREFORE IT MUST BE A TYPE HT (2100°F).
- USE A SPARK ARRESTER.
- THE STOVE MUST BE ATTACHED TO THE STRUCTURE OF THE MOBILE HOME.

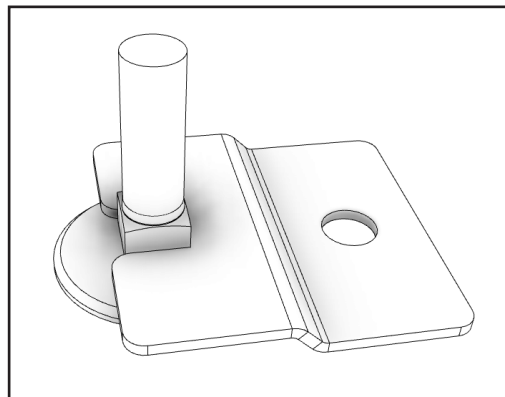
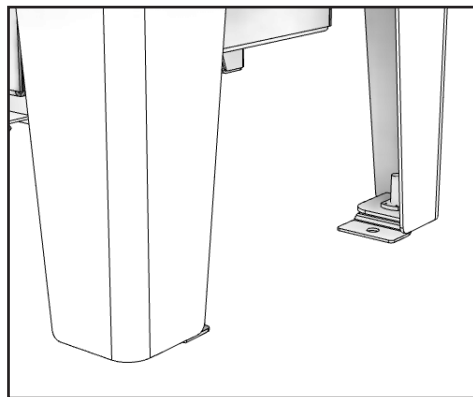
SECURING APPLIANCE'S ON A PEDESTAL TO THE FLOOR

Use the designated holes to secure the unit to the floor.



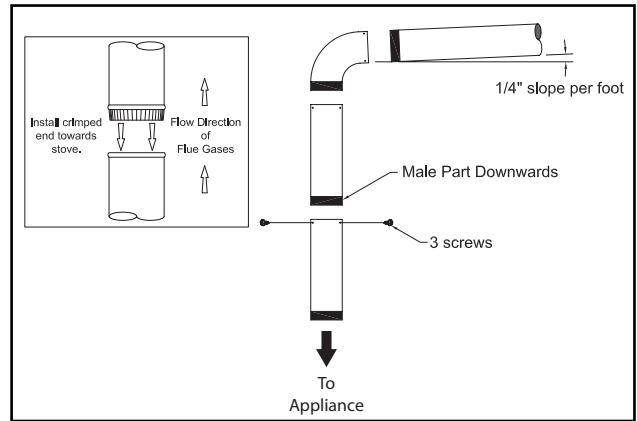
SECURING APPLIANCE'S WITH LEGS TO THE FLOOR

1. The bracket engages around the square extrusion of the leveling bolt inserted into the leg.
2. Once appliance is leveled, position the bracket and attach to the floor using the appropriate hardware needed for your specific flooring.
3. Install one bracket per leg or consult your local authority having jurisdiction to determine how many points of attachment are required.



CHIMNEY CONNECTOR (STOVE PIPE)

The chimney connector and chimney must have the same diameter as the stove outlet (6"). If this is not the case, we recommend you contact your dealer to ensure there will be no problem with the draft. The stovepipe must be made of aluminized or cold roll steel and have a minimum thickness of 0.021" or 0.53mm. It is strictly forbidden to use galvanized steel. The smoke pipe should be assembled to promote the male section (crimped end) of the pipe to be faced down. Attach each section to another with three equidistant metal screws. The pipe must be short and straight. All sections installed horizontally must slope at least 1/4 inch per foot, with the upper end of the section toward the chimney. Any installation with a horizontal run of chimney pipe must conform to NFPA 211.



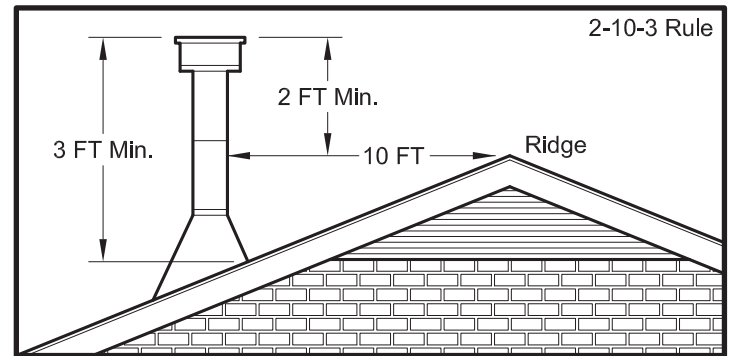
Contact NFPA (National Fire Protection Association) and request the latest edition of the NFPA Standard 211. To ensure a good draft, the total length of the coupling pipe should never exceed 8' to 10' (2.4m to 3.04m). Except for cases of vertical installation, in a cathedral-roof style where the smoke exhaust system can be much longer and connected without problem to the chimney at the ceiling of the room. There should never be more than two 90 degrees elbows in the smoke exhaust system. The installation of a "barometric draft stabilizer" (fireplace register) on a smoke exhaust system is prohibited. Furthermore, the installation of a draft damper is not recommended. With a controlled combustion wood stove, the draft is regulated upon intake of the combustion air in the stove and not at the exhaust.

IMPORTANCE OF PROPER DRAFT

Draft is a force that 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. An inadequate draft may cause back-puffing into the room and 'plugging' of the chimney. An 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 an excessive draft.

CHIMNEY

Your wood stove may be hooked up with a 6" factory-built or masonry chimney. If you are using a factory-built chimney, it must comply with UL 103 or CSA-B365 standard; therefore it must be a Type HT (2100°F). It must be installed according to the manufacturer's specifications. Take into account the chimney's location to ensure it is not too close to neighbors or in a valley which may cause unhealthy or nuisance conditions. If you are using a masonry chimney, it must be built in compliance with the specifications of the National Building Code. It must be lined with fire clay bricks, metal or clay tiles sealed together with fire cement. Round flues are the most efficient. The interior diameter of the chimney flue must be identical to the stove smoke exhaust. A flue which is too small may cause draft problems, while a large flue favors rapid cooling of the gas, and hence the build-up of creosote and the risk of chimney fires. Note that it is the chimney and not the stove which creates the draft effect; your stove's performance is directly dependent on an adequate draft from your chimney. **Do not connect this unit to a chimney flue serving another appliance.**

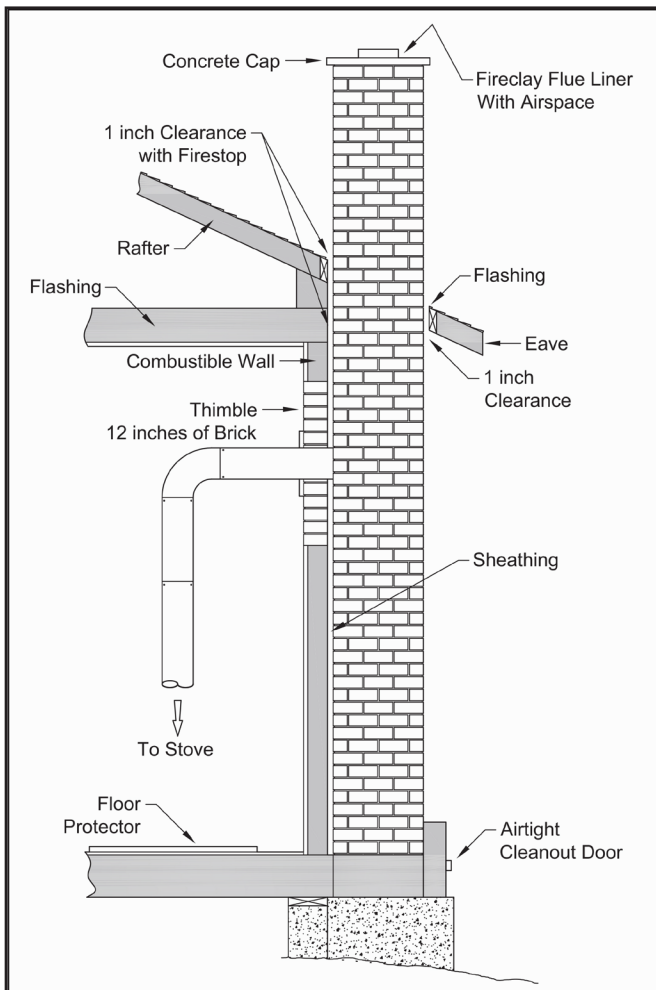
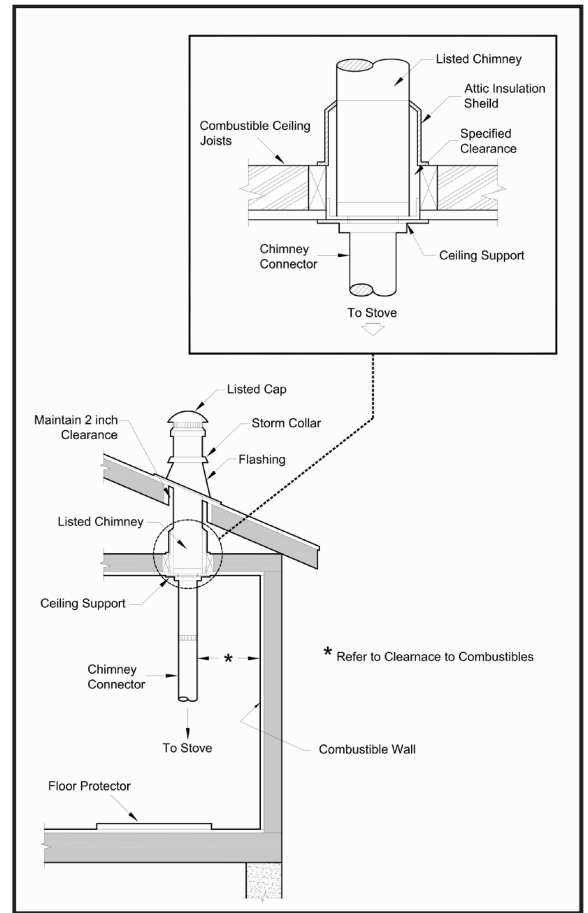


The following recommendations may be useful for the installation of your chimney:

1. It must rise above the roof at least 3' (0.9m) from the uppermost point of contact.
2. The chimney must exceed any part of the building or other obstruction within a 10' (3.04m) distance by a height of 2' (0.6m).
3. The installation of an interior chimney is always preferable to an exterior chimney. Indeed, the interior chimney will, by definition, be hotter than an exterior chimney, being heated up by the ambient air in the house. Therefore the gas which circulates will cool more slowly, thus reducing the build-up of creosote and the risk of chimney fires.
4. The draft caused by the tendency for hot air to rise will be increased with an interior chimney.
5. Using a fire screen at the extremity of the chimney requires regular inspection to ensure that it is not obstructed thus blocking the draft, and it should be cleaned when used regularly.

FACTORY BUILT CHIMNEY

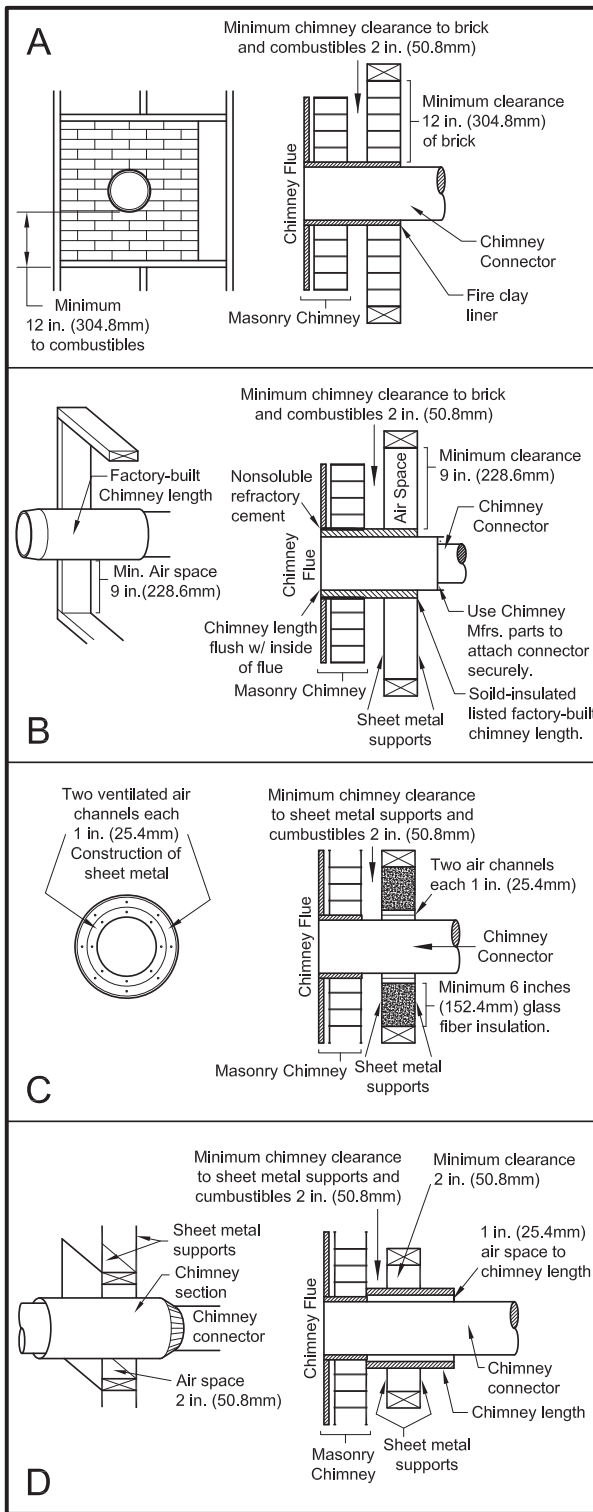
When a metal prefabricated chimney is used, the manufacturer's installation instructions must be followed. You must also purchase (from the same manufacturer) and install the ceiling support package or wall pass-through and "T" section package, firestops (where needed), insulation shield, roof flashing, chimney cap, etc. Maintain proper clearance to the structure as recommended by the manufacturer. The chimney must be the required height above the roof or other obstructions for safety and proper draft operation.



MASONRY CHIMNEY

Ensure that a masonry chimney meets the minimum standards of the National Fire Protection Association (NFPA) by having it inspected by a professional. Make sure there are no cracks, loose mortar or other signs of deterioration and blockage. Be sure to the chimney cleaned before the stove is installed and operated. When connecting the stove through a combustible wall to a masonry chimney, special methods are needed.

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 gage (.024" [.61 mm]) 6" (152.4 mm) metal chimney connector, and a minimum 24 gage 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-gage 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 gage 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 line do not penetrate the inner liner.

NOTES:

1. 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.
2. A chimney connector shall not pass through an attic or roof space, closet or similar concealed space, or a floor, or ceiling.

Operation

WOOD STOVE UTILIZATION

The operation of this wood heater in a manner inconsistent with the owner's manual will void your warranty and is also against federal regulations. This heater is designed to burn natural wood only. Higher efficiencies and lower emissions generally result when burning air dried seasoned hardwoods, as compared to softwoods or too green or freshly cut hardwoods.

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. Saltwater 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, sawdust, wax, and similar substances to start a fire in an affected wood heater.

Burning these materials may result in the release of toxic fumes or render the heater ineffective and cause smoke. Deadwood lying on the forest floor should be considered wet and requires full seasoning time. Standing deadwood can usually be considered to be about 2/3 seasoned. Splitting and stacking wood before it is stored accelerates the drying time. Storing wood on an elevated surface from the ground and under a cover or covered area from rain or snow also accelerates the drying time. A good indicator of if the wood is ready to burn is to check the piece ends. If cracks are radiating in all directions from the center then the wood should be dry enough to burn. If your wood sizzles in the fire, even though the surface is dry, it may not be fully cured and should be seasoned longer.

Do not burn manufactured logs made of wax impregnated sawdust or logs with any chemical additives. Manufactured logs made of 100% compressed sawdust can be burned, but be careful burning too much of these logs at the same time. Start with one manufactured log and see how the stove reacts. You can increase the number of logs burned at a time but make sure the temperature never rises higher than 475 °F (246 °C) on a magnetic thermometer for installation on single wall stove pipes or 900 °F (482 °C) on a probe thermometer for installation on double wall stove pipe. The thermometer should be placed about 18" (457 mm) above the stove. Higher temperatures can lead to overheat and damage your stove.



Waste and other flammable materials should not be burned in your stove. Any type of wood may be used in your stove, but specific varieties have better energy yields than others. Please consult the following table to make the best possible choice.

TYPE	WEIGHT (LBS. CU. FT., DRY)	PER CORD	EFFICIENCY RANKING	SPLITS	MILLIONS BTU's/CORD
Hickory	63	4500	1.0	Well	31.5
White Oak	48	4100	.9	Fair	28.6
Red Oak	46	3900	.8	Fair	27.4
Beech	45	3800	.7	Hard	26.8
Sugar Maple	44	3700	.6	Fair	26.2
Black Oak	43	3700	.6	Fair	25.6
Ash	42	3600	.5	Well	25.0
Yellow Birch	40	3400	.4	Hard	23.8
Red Maple	38	3200	.3	Fair	22.6
Paper Birch	37	3100	.3	Easy	22.1
Elm/ Sycamore	34	2900	.2	Very Difficult	20.1
Red Spruce	29	1800	.1	Easy	16.1

It is EXTREMELY IMPORTANT to use DRY WOOD only in your wood stove. The wood should have dried for 9 to 15 months, such that the humidity content (in weight) is reduced below 20% of the weight of the log. It is very important to keep in mind that even if the wood has been cut for one, two or even more years, it is not necessarily dry, if it has been stored in poor conditions. Under extreme conditions, it may rot instead of drying. This point cannot be overstressed; the vast majority of the problems related to the operation of a wood stove is caused by the fact that the wood used was too damp or had dried in poor conditions. These problems can be:

- ignition problems
- creosote build-up causing chimney fires
- low energy yield
- blackened windows
- incomplete log combustion

Smaller pieces of wood will dry faster. All logs exceeding 6" in diameter should be split. The wood should not be stored directly on the ground. Air should circulate through the cord. A 24" to 48" air space should be left between each row of logs, which should be placed in the sunniest location possible. The upper layer of wood should be protected from the elements but not the sides.

OPERATIONAL TIPS

- Get the appliance hot and establish a good coal bed before adjusting to a low burn rate (this may take 30 minutes or more depending on your wood)
 - Use smaller pieces of wood during start-up and a high burn rate to increase the stove temperature
 - Be considerate of the environment and only burn dry wood
 - Burn small, intense fires instead of large, slow-burning fires when possible
 - Learn your appliance's operating characteristics to obtain optimum performance
- Burning unseasoned wet wood only hurts the stove's efficiency and leads to accelerated creosote buildup in your chimney

TESTING YOUR WOOD

- When the stove is thoroughly warmed, place one piece of split wood (about five inches in diameter) parallel to the door on the bed of red embers.
- Keep the air control fully open by pulling on it and close the door. If the piece ignites within 90 seconds from the time it was placed into the stove, your wood is correctly dried. If ignition takes longer, your wood is damp.
- If your wood hisses and water or vapor escapes at the ends of the piece, your wood is soaked or freshly cut. Do not use this wood in your stove. Large amounts of creosote could be deposited in your chimney, creating potential conditions for a chimney fire.

TAMPER WARNINGS

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

CAUTION: Never alter the damper slide or the adjustment range to increase firing for any reason. Doing so could result in heater damage and will void your warranty.
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THE FIRST FIRES

The fresh paint on your stove needs to be cured to preserve its quality. Once the fuel charge is properly ignited, only burn small fires in your stove for the first four hours of operation. Never open the air control more than necessary to achieve a medium burn rate. Make sure that there's enough air circulation while curing the stove. The odors could be smelled during the 3 or 4 first fires. Never start your stove outside. You will not be able to see if you are overheating.

IGNITION

After making sure that the stove air intake controls are fully open (completely pull-out towards you), The top-down method of fire building is recommended for this appliance. After making sure that the stove air intake controls are fully open (completely pull-out towards you), Place the largest pieces of wood on the bottom, laid in parallel and close together. Smaller pieces are placed in a second layer, crossways to the first. The third layer of still smaller pieces are laid crossways to the second, this time with some spaces between. Then the fourth layer of loose, small kindling and twisted newspaper sheets tops off the pile. Before igniting the paper and kindling wood, it is recommended that you warm up the chimney. This is done to avoid backdraft problems often due to

negative pressure in the house. If such is the case, open a window slightly near the stove and twist together a few sheets of newspaper into a torch. Light up this paper torch and hold it as close as possible to the mouth of the pipe inside the combustion chamber to warm up the chimney. Once the updraft movement is initiated, you are ready to ignite the stove by lighting the paper and kindling wood inside the combustion chamber.

Primary Air Settings (Slide Damper is located in center of stove under hearth plate) (Damper Adjustment: Pulling out on damper increases air)		Electric Blower Speed Setting (Variable) (Blower is on High when turned "ON", Rotate clockwise until stop for "LOW".)	
Burn Rate	Adjust Damper from fully closed	Burn Time	Blower Speed
Low	closed	@ 30 minutes	Low
Medium - Low	approx. 1" (26 mm)	@ 30 minutes	Low
Medium - High	approx. 1.75" (45 mm)	@ 30 minutes	Low
High	approx. 2.3" (59 mm)	Always On	High

HEATING

Controlled combustion is the most efficient technique for wood heating because it enables you to select the type of combustion you want for each given situation. The wood will burn slowly if the woodstove air intake control is adjusted to reduce the oxygen supply in the combustion chamber to a minimum. On the other hand, wood will burn quickly if the air control is adjusted to admit a larger quantity of oxygen in the combustion chamber. The air intake control on your stove is very simple. If you pull on it out completely towards you, it is fully open. If you push on it until it stops the combustion air is reduced to a minimum. Real operating conditions may give very different results than those obtained during testing according to the species of wood used, its moisture content, the size and density of the pieces, the length of the chimney, altitude and outside temperature.

EFFICIENCY

Efficiencies can be based on either the lower heating value (LHV) or the higher heating value (HHV) of the fuel. The lower heating value is when the water leaves the combustion process as a vapor, in the case of woodstoves the moisture in the wood being burned leaves the stove as a vapor. The higher heating value is when the water leaves the combustion process completely condensed. In the case of woodstoves, this would assume the exhaust gases are room temperature when leaving the system, and therefore calculations using this heating value consider the heat going up the chimney as lost energy. Therefore, efficiency calculated using the lower heating value of wood will be higher than the efficiency calculated using the higher heating value. In the United States, all woodstove efficiencies should be calculated using the higher heating value.

The best way to achieve optimum efficiencies is to learn the burning characteristic of this appliance and burn well-seasoned wood. Higher burn rates are not always the best heating burn rates; after a good fire is established a lower burn rate may be a better option for efficient heating. A lower burn rate slows the flow of usable heat out of the home through the chimney, and it also consumes less wood.

VISIBLE SMOKE

The amount of visible smoke being produced can be an effective method of determining how efficiently the combustion process is taking place in the given settings. Visible smoke consists 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.

WARNINGS:

- NEVER OVERFIRE YOUR STOVE. IF ANY PART OF THE STOVE STARTS TO GLOW RED, OVER FIRING IS HAPPENING. READJUST THE AIR INTAKE CONTROL AT A LOWER SETTING.
- THE INSTALLATION OF A LOG CRADLE OR GRATES IS NOT RECOMMENDED IN YOUR WOOD STOVE. BUILD FIRE DIRECTLY ON FIREBRICK.
- NEVER PUT WOOD ABOVE THE FIREBRICK LINING OF THE FIREBOX.
- ATTEMPTS TO ACHIEVE HEAT OUTPUT RATES THAT EXCEED HEATER DESIGN SPECIFICATIONS CAN RESULT IN PERMANENT DAMAGE TO THE HEATER.

RELOADING

Once you have obtained a good bed of embers, you should reload the unit. To do so, open the air controls to maximum a few seconds before opening the stove's door. Then proceed by opening the door very slowly; open it one or two inches for 5 to 10 seconds, before opening it completely to increase the draft and thus eliminate the smoke which is stagnant in a state of slow combustion in the stove. Then bring the red embers to the front of the stove and reload the unit. For optimal operation of your wood stove, we recommend you to operate it with a wood load approximately equivalent to the height of fire bricks. It is important to note that wood combustion consumes ambient oxygen in the room. In the case of negative pressure, it is a good idea to allow fresh air in the room, either by opening a window slightly or by installing a fresh air intake system on an outside wall.

CREOSOTE FORMATION AND NEED FOR REMOVAL

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

We strongly recommend that you install a magnetic thermometer on your smoke exhaust pipe, approximately 18" above the stove. This thermometer will indicate the temperature of your gas exhaust fumes within the smoke exhaust system. The ideal temperature for these gases is somewhere between 275°F and 500°F. Below these temperatures, the build-up of creosote is promoted. Above 500°F, heat is wasted since a too large quantity is lost into the atmosphere.

TO PREVENT CREOSOTE BUILD UP

- Always burn dry wood. This allows clean burns and higher chimney temperatures, therefore less creosote deposit.
- Leave the air control fully open for about 5 min. every time you reload the stove to bring it back to proper operating temperatures. The secondary combustion can only take place if the firebox is hot enough.
- Always check for creosote deposit once every two months and have your chimney cleaned at least once a year.

If a chimney or creosote fire occurs, close all dampers immediately. Wait for the fire to go out and the heater to cool, then inspect the chimney for damage. If no damage results, perform a chimney cleaning to ensure no more creosote deposits is remaining in the chimney.

ASH DISPOSAL

Whenever ashes get 3 to 4 inches deep in your firebox or ash pan, and when the fire has burned down and cooled, remove excess ashes. Leave an ash bed approximately 1 inch deep on the firebox bottom to help maintain a hot charcoal bed. 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, away from all combustible materials, pending final disposal. The ashes should be retained in the closed container until all cinders have thoroughly cooled.

CAUTIONS:

- ASHES COULD CONTAIN HOT EMBERS EVEN AFTER TWO DAYS WITHOUT OPERATING THE STOVE.
- THE ASH PAN CAN BECOME VERY HOT. WEAR GLOVES TO PREVENT INJURY.
- NEVER BURN THE STOVE WITH THE ASH TRAP OPEN. THIS WOULD RESULT IN OVER FIRING THE STOVE. DAMAGE TO THE STOVE AND EVEN HOUSE FIRE MAY RESULT.

ATTENTION:

This wood heater needs periodic inspection and repair for proper operation. It is against federal regulations to operate this wood heater in a manner inconsistent with operating instructions in this manual.

Maintenance

Your wood stove is a high-efficiency stove and therefore requires little maintenance. It is important to perform a visual inspection of the stove every time it is emptied, to ensure that no parts have been damaged, in which case repairs must be performed immediately. Inspect and clean the chimney and connector pipe periodically for creosote build-up or obstructions.

AIR TUBES

The air tubes assembled in this unit are designed to provide an accurate mix of secondary air to ensure the highest efficiency. Any damage or deterioration of these tubes may reduce the efficiency of combustion. The air tubes are held in position by screws or snap pins. Locate these to either side of the tube and remove it to allow the tube to be removed and replaced.

SECONDARY AIR TUBES

The secondary air tubes must be cleaned with a wire brush. If debris remains in holes lightly tap with a wooden stick to remove.

GLASS

- Inspect and clean the glass regularly to detect any cracks. If you spot one, turn the stove off immediately. Do not abuse the glass door by striking or slamming shut. Do not use the stove if the glass is broken.
- If the glass on your stove breaks, replace only with the glass supplied from your heater dealer. Never substitute other materials for the glass.
- To replace the glass, remove the screws retaining the glass moldings inside the door. Remove the moldings and replace the damaged piece with a new one. Perform the procedure backward after replacing it. When replacing the glass, you should change the glass gasket to make sure you keep it sealed.
- Never wash the glass with a product that may scratch. Use a specialized product, available in the stores where wood stoves are sold. The glass should be washed only when cold.

PAINT

Only clean your stove with a dry soft cloth that will not harm the paint finish. If the paint becomes scratched or damaged, it is possible to give your wood stove a brand new look, by repainting it with a 1200° F heat resistant paint. For this purpose, simply scrub the surface to be repainted with fine sandpaper, clean it properly, and apply thin coats (2) of paint successively.

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. 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 your 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.

BLOWER (IF EQUIPPED)

The blower needs to be removed and air-blown clean. Make sure the blades do not have build up.

FIREBRICK (IF EQUIPPED)

The firebrick should be cleaned and inspected as necessary. Replace any damaged or broken brick.

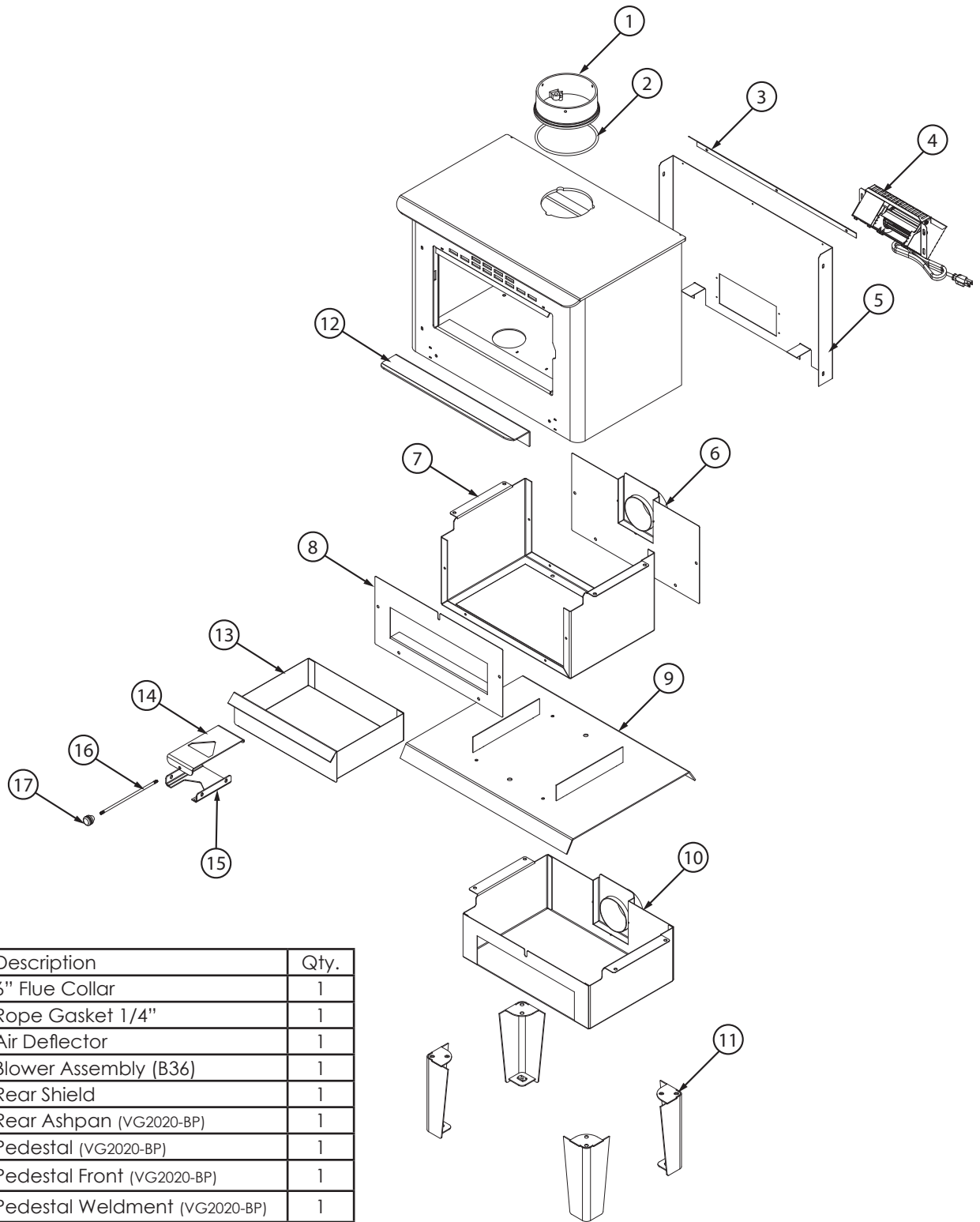
GASKETING

This unit's door uses a 5/8" diameter rope gasket. It is recommended that you change the door gasket (which makes your stove door air tight) once a year, in order to ensure good control over the combustion, maximum efficiency and security. To change the door gasket, simply remove the damaged one. Carefully clean the available gasket groove, apply a high temperature silicone sold for this purpose, and install the new gasket. You may light up your stove again approximately 24 hours after having completed this operation.

WARNING:

NEVER OPERATE THE STOVE WITHOUT A GASKET OR WITH A BROKEN ONE. DAMAGE TO THE STOVE OR EVEN HOUSE FIRE MAY RESULT.

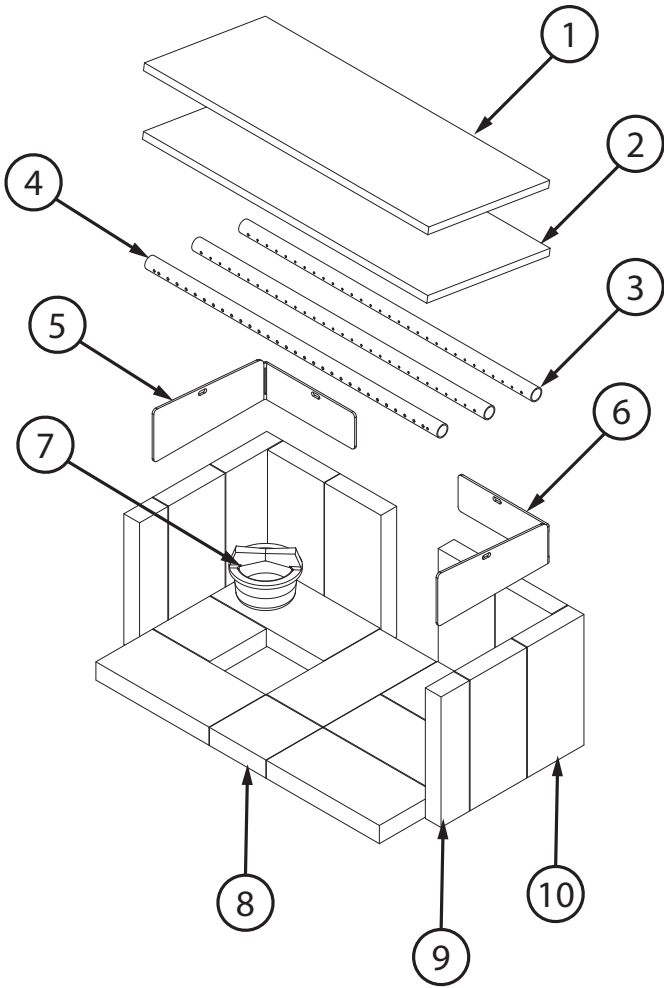
Repair Parts



Key	Part No.	Description	Qty.
1	40292A	6" Flue Collar	1
2	88042	Rope Gasket 1/4"	1
3	25845	Air Deflector	1
4	891492	Blower Assembly (B36)	1
5	26060	Rear Shield	1
6	610926	Rear Ashpan (VG2020-BP)	1
7	29068	Pedestal (VG2020-BP)	1
8	29065	Pedestal Front (VG2020-BP)	1
9	610960	Pedestal Weldment (VG2020-BP)	1
10	610925	Ashpan Housing (VG2020-BL)	1
11	610883	Leg Weldment (VG2020-BL)	4
12	25826	Hearth Plate	1
13	29216	Ash Pan	1
14	610927	Damper Slide Weld	1
15	610066	Slide Retainer Weld	1
16	86954	Damper Rod	1
17	893162	Wooden Knob	1

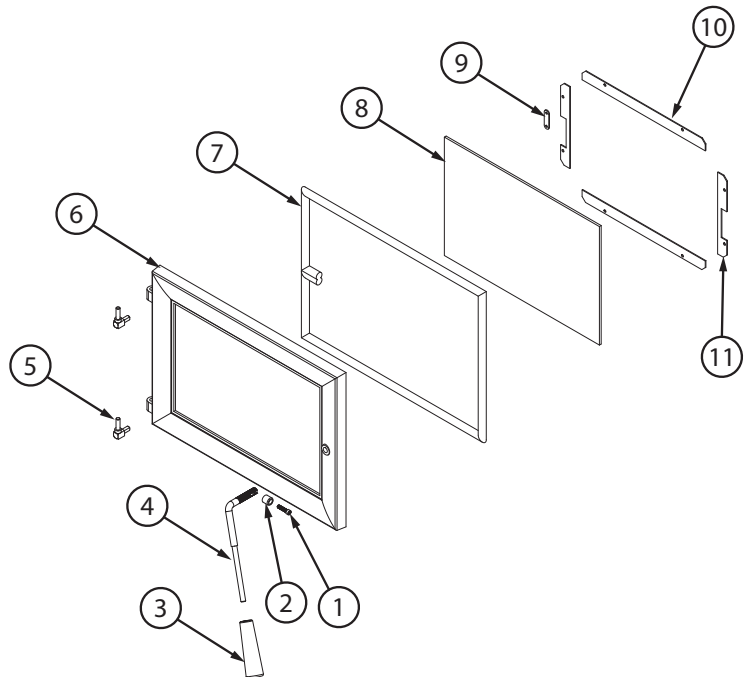
In order to maintain warranty, components must be replaced using original manufacturers parts purchased through your dealer or directly from the appliance manufacturer. Use of third party components will void the warranty.

Repair Parts



Key	Part No.	Description	Qty.
1	88316	Kao Wool Blanket	1
2	88146	Ceramic Fiber Board	1
3	86953	Secondary Air Tube (Ø1/8)	2
4	86952	Secondary Air Tube (Ø11/64)	1
5	29039	Brick Retainer (left)	1
6	29040	Brick Retainer (right)	1
7	40561	Ash Plug	1
8	24103A	Half Pumice Firebrick (4-1/2 X 4-1/2)	2
9	891414A	Half Firebrick	2
10	89066A	Pumice Firebrick (4-1/2 X 9)	14

Key	Part No.	Description	Qty.
1	83788	Socket Head Screw	1
2	893062	Roller Sleeve	1
3	893156	Wooden Thru Handle	1
4	893164	Door Handle	1
5	891373	Door Hinge Pad (Threaded)	2
6	40880	Lg Square Cast Door	1
7	88066	Rope Gasket 5/8"	1
8	893155	Glass	1
9	26314	Gasket Clamp	1
10	29212	Bottom Glass Clamp	2
11	29213	Sides Glass Clamp	2



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.

Notes

Notes

Service Record

It is recommended that your heating system is serviced regularly and that the appropriate Service Interval Record is completed.

SERVICE PROVIDER

Before completing the appropriate Service Record below, please ensure you have carried out the service as described in the manufacturer's instructions. Always use the manufacturer's specified spare part when replacement is necessary.

Service 01	Date: _____
Engineer Name: _____	
License No.: _____	
Company: _____	
Telephone No.: _____	
Stove Inspected: <input type="checkbox"/>	Chimney Swept: <input type="checkbox"/>
Items Replaced: _____	

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

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

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

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

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

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

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