

#### Warmth from the heart of J.A.ROBY INC.

# OWNER'S MANUAL GRIZZLY FURNACE





Intertek Certified and tested according to CAN/CSA B415.1 norms CAN/CSA B366.1 norms

October 17, 2014 Reviewed

# WOOD FURNACE

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CAREFULLY READ THIS MANUAL AND KEEP IT FOR FURTHER REFERENCES

INSTALLATION OF THIS APPLIANCE MUST BE DONE BY A QUALIFY CERTIFIED TECHNICIAN AND IN CONFORMITY WITH THE OWNER'S MANUAL GUIDE GIVEN WITH THIS APPLIANCE. THE INSTALLATION MUST BE IN AGREEMENT WITH LOCAL AND NATIONAL REGULATIONS APPLICABLE FOR SOLID FUEL BURNING APPLIANCES AND CONNEX EQUIPMENT (CAN/CSA-B365, NFPA211(USA) AND THE APPLICABLE BUILDING CODE.

# WARNING ! NEVER MODIFY THIS APPLIANCE!

# **SPECIFICATIONS**

Wood			
1500 to 3700 ft <sup>2</sup> (139 à 325m <sup>2</sup> )			
155 000 BTU/H			
6 inches (15,24 cm)			
12 ft (3,66m)			
131/2 in X 131/2 in (34,3 X 34,3cm)			
Dimensions			
46 in (116.8cm) without plenum 52 ¾ in (133cm) with plenum			
29 <sup>1/8</sup> in (74 cm) without electrical box 33 <sup>5/8</sup> in (85,7cm) with electrical box			
39 <sup>1/8</sup> in (99.4cm) without fan box 48 <sup>7/8</sup> in (124.14cm) with fan box			
15¾ in X 9½ in (40 X 24.1cm)			
15 in (38.1cm)			
20½ in (52cm)			
25½ in (64.7cm)			
25 in (63.5cm)			
6 to 22 hours			
550 lbs (250 kg)			
Clearances			
1 in (2.54cm)			
6 in (15.2cm)			
84 in (2,14m)			

#### WARNING

Before installing, please take a few minutes to read this handbook. Keep it in a sure place and easily reachable for future references. Not following these instructions could be a cause of property damages, injuries or death. If this appliance is not properly installed, it could cause fire damages to the property, injuries and death. To reduce fire hazards, follow instructions contained in this handbook.

Contact an official inspector (ex: a fireman) or your insurance company for installation permit. Always respect the provincial and municipal building codes of your region.

Do not connect this appliance to a chimney that already serves for another wood appliance.

#### Do not install the appliance in a mobile home.

The existing chimney should be well inspected before any installation. In doubt, consult a specialist.

The room where the appliance must be installed must measure a minimum of  $64 \text{ ft}^2$  and must be very well ventilated.

Minimum clearances found in this manual must be observed.

Never use a non-isolated exterior conduct or a single wall flue pipe as an exterior exit.

Put in place the firebricks before lighting the appliance (if they are not in place yet).

#### WARNING : Very hot while in function

Keep children far away from the appliance.
Never let the appliance without supervision when the door is open.
Always close the doors after the lighting period.
Do not use chemical products or other liquid to light the fire.
Do not burn waste or inflammable fluids like gas, naphtha or motor oil.
Always keep combustible material (clothes, furniture, wood, matches, plastics, etc...)
at a minimal distance of 91,5 cm (3 feet) from the appliance.

#### This appliance is certified to burn wood. Do not use any other combustible.

Wood should not be stocked within the recommended minimums clearances or in the necessary space for the loading and the ashes evacuation.

Always use dried wood. Do not burn green or wet wood. Do not use construction debris such as pieces of 2x4, plywood...

If the appliance starts to blush, it's because it is too charged. Do not add fuel. Immediately close the doors and the wall thermostat so all the air intakes of the appliance are closed until everything becomes normal again.

#### Do not load the appliance beyond the firebricks height.

Ashes must be evacuated frequently, put in a steel container provided with a tight lid and be placed outside at once. You must never place other waste in this container.

Considering the need of air for the combustion, a window or a door must be half opened sometimes (fresh air drainage) to balance the pressure in the house, especially if:

A fan already evacuates air towards outside (kitchen, bathroom.)

You want to avoid a repression of smoke when lighting the appliance and when reloading the wood.

It is recommended to have a smoke detector near the appliance.

#### You should contact your municipal or provincial fire department to have knowledge of the procedure to be followed in case of a chimney fire. Think of an emergency plan.

In case of a chimney fire:

Hermetically close the doors and the air intakes. Water the combustible material adjacent to the chimney. Ring the alarm, evacuate the house if necessary and call the firemen. Never touch the pipes until the fire is not completely extinct. Do not use the chimney until it has been inspected or repaired.

Keep all the doors closed while the appliance is in function. Frequently verify the ceramics cords; they must always be in good condition.

The chimney pipe should not pass close to water, gas or oil pipes, not close to electric wire or other types of ducts, of combustible materials in the roofs, the attics, the walls or the floors. If you have to make it pass through a wall or a part of combustible construction, do not forget that the installation must be in accordance with the CAN/CSA-B365. Use at least 12 feet of a 6 inches diameter vertical chimney.

#### NOTE:

# FOLLOW THESE INSTRUCTIONS IN ORDER TO AVOID FIRE HAZARDS, WOUNDS AND PROPERTY DAMAGES.

### NOTICE

The *GRIZZLY Furnace* was conceived to safely function the doors closed and only when burning firewood. Any change, modification or unauthorized installation will automatically cancel the certification of the appliance, its guarantee, its homologation and the appliance might become dangerous.

During the first hours of operation, you must heat it gradually. In order to allow an appropriate cooking of the paint and in order to facilitate its adhesion with metal, do not heat the appliance with a strong fire. It will also avoid thermal shock which could lift up the paint or make it whiten.

Make sure that the room is ventilated enough in order to eliminate the odours and the smoke coming from the paint during the first hours of utilization. It is normal that a light smoke is released from the paint during the first hours of use.

Even if this nuisance is temporary, open the windows and the doors in order to ensure good ventilation. This special paint is conceived to tolerate temperatures until  $1200^{\circ}$ F (650°C).

#### CREOSOTE

The wood burning slowly produces tar and other organic steams, which forms a whole called "creosote". The steam condenses in the cool chimney when the wood is burning slowly. In this way, creosote residues are formed on the walls. Creosote can take several forms: tarry liquid, soot dust or deposits in crystal form. When in fire, the creosote releases a very strong heat and can be the cause of a chimney fire.

- Do not knock on the glasses or violently close the doors.

- Do not use the appliance when a glass is broken or damaged.

- Do not build the fire too close of the glasses.

- Keep the doors closed when using the appliance.

#### **CHIMNEY**

Only use approved chimneys of the same dimensions as the appliance exit. Therefore, you should use 6 inches diameter chimneys for your *GRIZZLY Furnace*. Chimneys must be tested upon the ULC S629 CSA, UL103 norms. The *GRIZZLY Furnace* wood appliance can be installed onto a masonry chimney following the ULC S635, ULC S640 and the UL 1777 norms. Do not forget to plan a place for the sweeping of the chimney.

When possible, it is preferable to avoid an outside chimney or built on an exterior wall, and this is even more important for colder areas. Outside chimneys generally have a less efficient draught. They can even have an inverse draught because it is hard to heat them enough so that they can reach their operating temperature. A greater accumulation of creosote, a less efficient draught and a lesser performance are some characteristics of cold chimneys. Draught is proportional to the total chimney height as well as its temperature. It is therefore possible to get a better draught by increasing the chimney's height and by reducing the heat loss with an insulated lining. The chimney has to be installed with a stainless steel lining. Make sure that all smoke pipe joints are really airtight. A leak reduces the efficiency of the appliance and could even make its utilization dangerous.

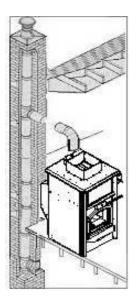
### **INSTALLATION**

A good installation is extremely important for a safe and efficient use of your J.A. Roby Inc. appliance. If you doubt on the way to install the appliance correctly, seek for professional installation service. We suggest you to call masters fitters.

- Withdraw firebricks placed inside the appliance in order to reduce the weight and to facilitate the installation.
- You must install a fireproof plate under the appliance, which must exceed of 18 inches(46 cm) at the front and of 8 inches(20 cm) at each side.
- The free space shall not be reduced except under the approval of the authorities responsible for the application of the building code.
- Install the chimney and an insulated wall firebreak for an installation passing through a wall according to the instructions from the chimney manufacturer.
- Install the firebricks in accordance with the recommended instructions for your model.
- The appliance should not be connected to an hot air conduct.

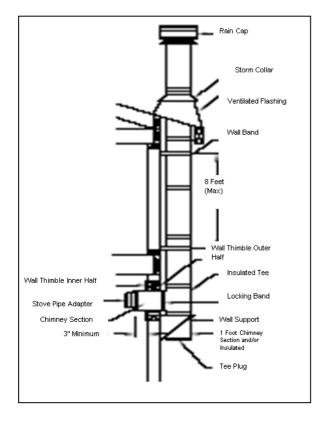


#### Vertical installation inside a masonry chimney

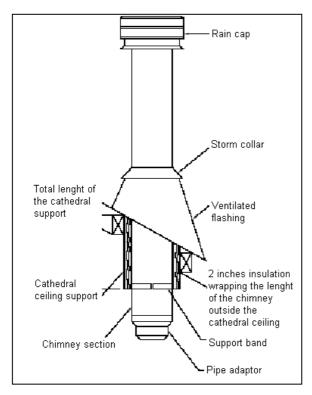


The *GRIZZLY Furnace* wood appliance must be installed in accordance with the applicable local laws or the CAN/CSA-B365, ULC S635, ULC S640, UL 1777 norms. Install the chimney following the manufacturer's instructions.

#### Exterior vertical installation



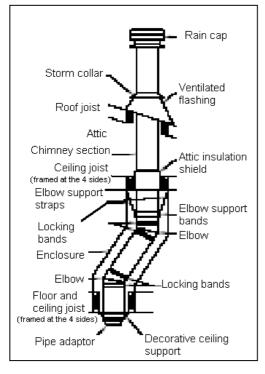
The *GRIZZLY Furnace* wood appliance must be installed in accordance with the applicable local laws or the CAN/CSA-B365 norm. Install the chimney following the manufacturer's instructions.



#### Vertical installation on a cathedral roof

The *GRIZZLY Furnace* wood appliance must be installed in accordance with the applicable local laws or the CAN/CSA-B365 norm. Install the chimney following the manufacturer's instructions.

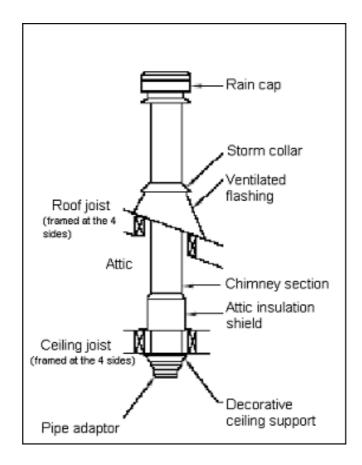
Cross style installation



The *GRIZZLY Furnace* wood appliance must be installed in accordance with the applicable local laws or the CAN/CSA-B365 norm. Install the chimney following the manufacturer's instructions.

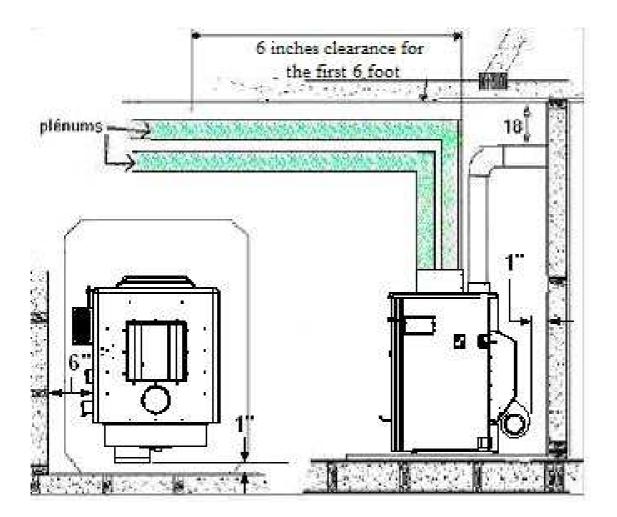
#### Vertical installation

The *GRIZZLY Furnace* wood appliance must be installed in accordance with the applicable local laws or the CAN/CSA-B365 norm. Install the chimney following the manufacturer's instructions.

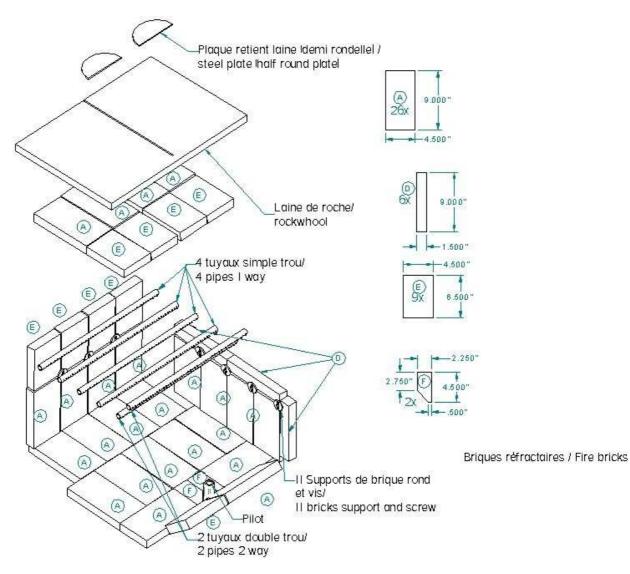


## **CLEARANCES**

Due to its reduced clearances, this appliance occupies a minimum of space in the room where it is installed. No matter where you install it, this appliance will perfectly complete your decoration by its originality and its heat. This appliance only needs a 1 inch clearance at its back, 6 inches from the lateral walls. For the plenums and heat exchanger, the clearances must be of 6 inches for the 6 first feet and of 1 inch (2.54cm) thereafter.



# **INSTALLATION OF THE FIREBRICKS**



Installation of the firebricks:

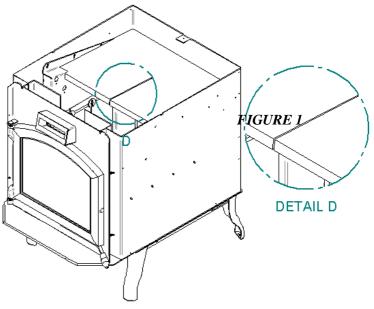
Bricks A 8x, Bricks D 6x

Use the round bricks support and the hex head screw to secure the bricks on the interior wall of the furnace.

1- Install the bricks in the bottom of the stove (horizontal) Bricks A 12x, Bricks F 2x, Bricks E 1x

2- Install the bricks against both lateral walls.

3- Install the Bricks against the rear wall (vertical) Bricks A 4x, Bricks E 4x



4- Install the 3 pipes in the rear of the stove and install the first row of bricks on the pipes. Bricks A 4x

5- Split the wool in the shortest length direction about 12 inches long if it is not already done. Insert the wool above the pipes and the bricks so that the slot is oriented to the front of the stove. (See figure 1 above)

6- Fix the pipes support in the stove using the hex head screw provided. (See figure 2)

7- Insert the 2 other pipes in the stove passing them trough the hook of the pipes.

8- Insert the steel plate over the wool and the 4

bricks on the pipes. Bricks E 4x. \*\*\*IMPORTANT\*\*\* Check that the wool don't obstruct the remaining space between the deflector and the wool. (See figure 3)

9- Install the last pipes (It is the one just a little higher than the other)

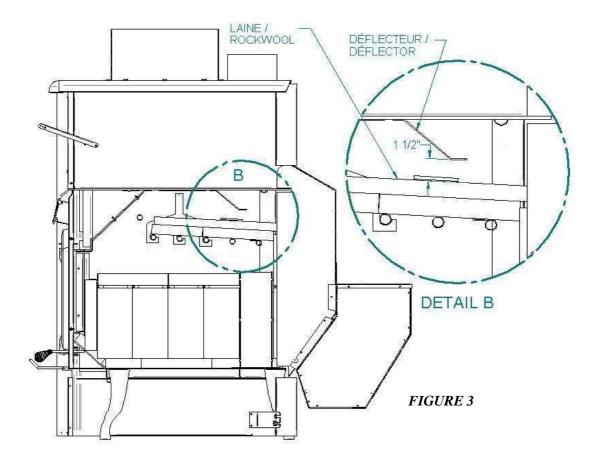
SUPPORT DE TUYAU/

FIGURE 2

PIPES SUPPORT

TUYAUX/

PIPES



Make sure that the rockwhool is properly installed. In the bottom of the furnace and without prejuidice with the deflector.

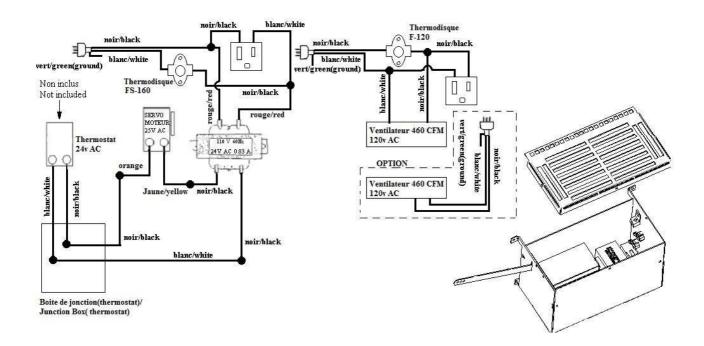
## FANS AND THERMODISC

The 115 volts fans must be screwed under the ventilation conduct at the planned place in the appliance rear. The F120 thermodisc must be installed beside the junction box, provided for this purpose.

When the appliance is in function, the heat reaching a temperature of  $120^{\circ}$  F activates the F120 thermodisc. At this moment, the fan is activated for a better distribution of heat in your home.

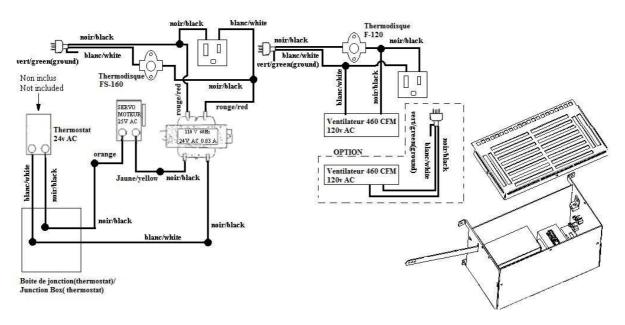
When the appliance is in function, and that conduct reaches a temperature of  $160^{0}$ F, the FS160 thermodisc will close the air entry without stopping the fan in order to slow down the combustion and will continue the distribution of the heat in the ventilation conduct of your home to prevent overheating in the conducts. When the heat goes under  $160^{0}$ F, the FS160 thermodisc will automatically allow the air entry reopening.

# <u>The electrical cord of the furnace must never touch the appliance surfaces in order</u> to avoid electrical shock or fire.



#### ELECTRICAL PLAN

# HOW TO PLUG THE THERMOSTAT DIRECTLY INTO THE TERMINAL BOARD

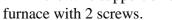


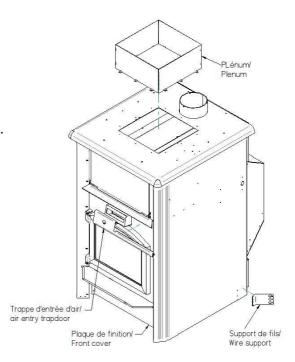
-To plug the thermostat, unscrew the junction box on the side of the furnace. Join the black wire of the thermostat with the black wire in the junction box, and then protect them with a wire nut. Join the white wire of the junction box and the white wire of the thermostat, and then protect them with a wire nut. Reinstall the junction box on the furnace.

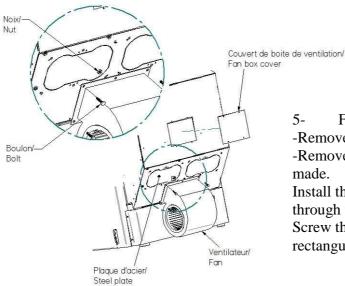
## **INSTALLATION OF THE APPLIANCE**

1- Fix the plenum to the appliance with 12 screws.

2- Fix the trapdoor in front of the furnace, on the rectangular box with 2 screws.
3- Fix the front cover in front of the furnace with 4 screws.
4- Fix the wire support on the side of the





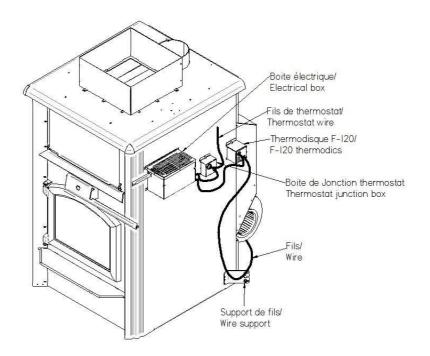


#### 5- Fan installation

-Remove the fan box cover (4 screws). -Remove the steel plate if it's not already made.

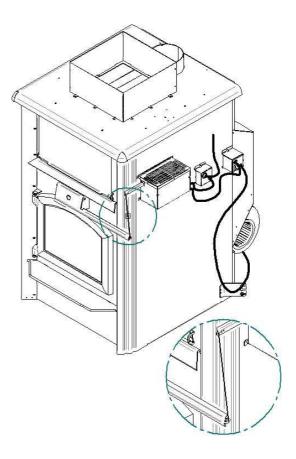
Install the bolt and the nuts (4). Insert the bolt through the hole of the fan and the fan box. Screw the nuts with bolt (Pass arm in rectangular hole) 6- Fix the electrical box, the thermostat junction box, the F120 thermodisc with the 1/2 inch long screws.

Verify that no electrical wire can touch to the hot side of the furnace.



7- Install the chain linking to the electrical box with the air intake damper. Just hook the chain of the damper to the hole of the electrical box rod.

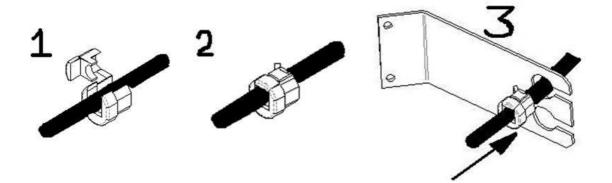
WARNING: You must be sure that the air intake damper is completely closed when you installed the chain.



8- Install the protection plate for electrical wire. Screw the plate with the screws (2).

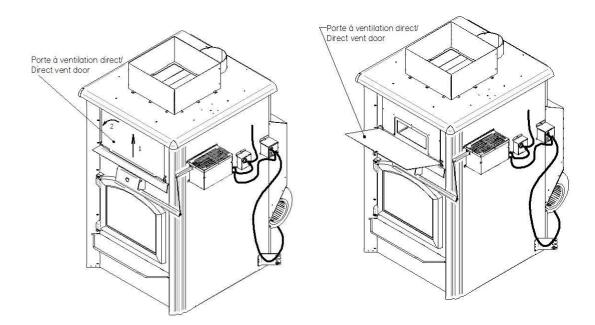
After fix the electrical wire with the nylon bushings. Follow the next step: 1-Insert the wire in the nylon bushing 2-Close the bushing 3-Insert the bushing in the hole of the protection plate

WARNING: Be sure that the electrical wire do not touch to the side of the appliance

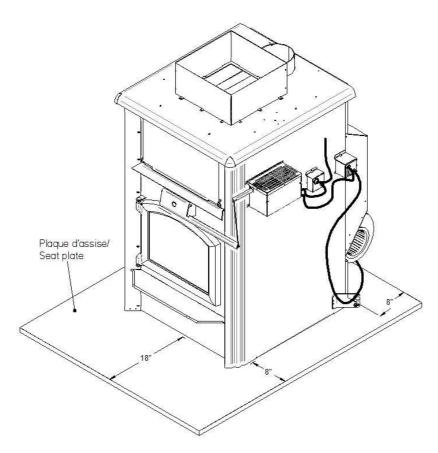


# **DIRECT VENT DOOR**

The appliance is equipped with a direct vent door and give access to the heat exchanger. When the door is open the heat goes in the room of the furnace. If there is a power outage the furnace gives heating in the room. To open the door, follow the step below.



## SEATING



You must install a fireproof plate under the appliance, which must exceed it of 18 inches to the front, of 8 inches to the sides and of 8 inches at the back.

\*\*\*\* Use only noncombustible materials such as ceramics, marble or granite.

### LIGHTING

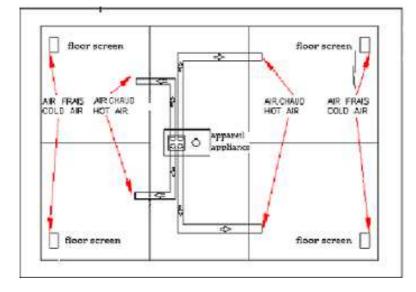
Now that you have completed the installation of the appliance according to the recommendations, you are ready for the lighting!

- 1. Place papers and small wood in the appliance.
- 2. Before lighting, be sure that the chimney is warm enough.
- 3. When the fire is well lit, gradually add bigger wood logs until an ember bed is formed.

#### Do not charge the appliance beyond the bricks.

#### **AIR CIRCULATION OF THE HEATING SYSTEM**

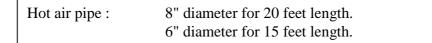
Always refer to the applicable building code before installing the hot air conduct.



For the installation of hot air conduct, always refer to the building national code.

It is recommended to install a floor screen in order to balance the air pressure between the floor where the appliance is installed and the superior floor.

It is also recommended to install those floor screen to each home extremity.



An air supply must be installed if :

The appliance seems to have an irregular draft control, a smoke return, a bad combustion and a counter-blow even though you have combustion or not.

Your other appliances, such as hearths or other heating appliances, release odors, heat badly, provoke smoke return or a counterblow, even though there is combustion or not.

An opened window, even slightly, by a calm temperature (without wind) stops the situation above.

Your home was built with isolated dandruffs and with well adjusted windows, and/or was built with a mechanism to evacuate the interior air.

If, with these indications, there is not enough air infiltration, you must ensure an air supply.

In doubt, it is recommended to ensure an air supply.

# IN CASE OF EXTENDED ELECTRIC FAILURE

In case of extended electric failure, unscrew the 2 screw of the air intake damper. It is important to remove the ventilation plate in front of the appliance so that the hot air goes in the house and not in the ducts. The appliance will become hotter then in normal time so don't heat it to much because when there is no electricity, there is no control for the temperature in the ducts. When the failure will end, just reinstall all the part that has been removed from the appliance.

# **AIR SUPPLY**

A new air supply can be done by the following ways:

**Indirect method :** In the case of an appliance not certified for a direct connection with a source of new air supply, the new air is brought in a conduit at a maximum of 300mm (12 in) of the appliance, in order to not compromise its operation.

<u>Mechanic ventilation system</u>: If the home is built with a ventilation system (air exchange or heat recovery)

The ventilation system might be able to supply an efficient air quantity to a solid combustible appliance, and

The owner should be informed that the ventilation system can have to be rebalanced by a technician specialised in ventilation after the installation of the solid combustible appliance..

# PREVENTIVE MEASURES AND MAINTENANCE

- 1. We recommend to open the air intakes completely and to maintain an intense fire from 10 to 20 minutes per day.
- 2. Verify the accumulation of creosote every week that you use the appliance until you know at which frequency it must be cleaned (minimum once per year).
- 3. Remove every creosote deposit in order to prevent chimney fires.
- 4. Do not alter or modify the air intakes of the appliance in order to get a stronger fire.
- 5. To clean the glasses, J.A. Roby Inc. recommends to use products sold for this purpose or an oven cleaner. Avoid cleaning with abrasives or when the glass is hot.
- 6. Before lighting the first fire, clean the gold plated surfaces using a very soft rag moistened with water. Do not use a paper towel to clean gildings. If they are not erased before the first fire, fingerprints and other marks could stain these surfaces permanently.
- 7. The Atmosphere is provided with an ashtray under the door. To empty the appliance, you just have to remove the cap made of steel (in the centre of the appliance) and to glide the ashes into the ashtray. Do not forget to replace the cap.

#### In case of a glass replacement:

Remove the screws that retain the glasses and then, the fragments of glasses. Check if the seal cords are damaged.

If so, replace them by a  $\frac{1}{2}$  inch ceramics cord and replace the broken glasses by VITROCERAMICS glasses of 5mm.

Cut the glass edge 3mm smaller on each side, so that the fiberglass cord can be slipped on the edge of the glass at the time of its installation. Fix the glass by screwing it.

Contact your retailer to obtain any information you might need for the replacement of the glasses.

#### DO NOT USE SUBSTITUTES.

# **INTERCHANGEABLE PARTS LIST**

BRICK INTERIOR PIPE GLASS BRICK' S SUPPORT DOOR HANDLE APPLIANCE' S DOOR FANS SEALANT CORDS FAN CONTROL MODULE DAMPER MOTOR TRANSFORMATOR THERMOSTAT BUTTERFLY VALVE AIR ENTRY STALK

\* TO ORDER PARTS, PLEASE CONTACT YOUR AUTHORIZED RETAILER.





# WARRANTY

#### J. A. ROBY LIMITED LIFE WARRANTY - WOOD BURNING STOVES & FIREPLACES

J. A. ROBY's warranty only applies to original buyer and is non-transferable. This warranty covers brand new products only, which have not been altered, modified nor repaired since shipment from factory. The products covered by this warranty must be manufactured after review date indicated at the bottom of page. Proof of purchase (dated bill of sale), model name and serial number must be supplied when making any warranty claim to your J. A. ROBY dealer. Registered your warranty is not required.

The appliance must be installed by an authorized service technician or contractor. Installation must be done in accordance with the installation instructions included with the product and all local and national building and fire codes. Any service call related to an improper installation is not covered by this warranty. This warranty applies to normal residential use only. This limited warranty does not cover damages caused by misuse, improper installation, lack of maintenance, accident during transportation, alterations, power failure, venting problems, downdrafts, abuse, over firing or neglect. Operating the appliance on high for extended periods of time is neglect. Any defect or damage caused by the use of unauthorized parts or others than original parts void this warranty.

This limited warranty does not cover any scratch, corrosion, warping or discoloration. The manufacturer may require that defective products be returned and/or that digital pictures be provided to support the claim. Returned products are to be shipped prepaid to the manufacturer for investigation. If a product is found to be defective, the manufacturer will repair or replace such defect. The transportation fees to ship back the product to the purchaser will be paid by the manufacturer<sup>2</sup>. The external labour fees related to warranty repair are not covered. The manufacturer may at its discretion, decide to repair or replace any part or unit after inspection and investigation of the defect. The manufacturer may at its discretion, fully discharge all obligations with respect to this warranty by refunding to the original warranted purchaser the wholesale price of any warranted but defective part (s). The manufacturer shall not in no event be liable for any special, indirect or consequential damages of any nature whatsoever which exceeds the original purchase price of the product. All parts replaced under this limited life warranty are subject to a single claim.

Any damage to the appliance, combustion chamber, heat exchanger, enameled cast iron cooking plate or other components due to water, weather damage, long periods of dampness, condensation, damaging chemical or cleaner will not be the responsibility of J. A. ROBY. Failure of any components which is attributed to poor maintenance, is not warrantable and will not be covered by this policy. J.A. ROBY neither assumes, nor authorizes any third party to assume, on its behalf, any other liabilities with respect to the sale of this product.

WARRANTY DESCRIPTION	100%	50% current retail price
Ashtray, handles, doors and cast iron legs	Life	
Combustion chamber	5 years	From 5 years to life
Secondary air tubes	5 years	
Heat exchanger	2 years	From 2 years to life
Switches, thermodisc, wiring and electrical components, standard blowers and rheostat	2 years	
Tempered glass, optional blower and gasketing	1 year	
Ceramic glass (thermal breakage only <sup>1</sup> )	1 year	
Replacement parts (with proof of purchase)	90 days	

The manufacture of your new appliance and the following materials are warranted against defects as mentioned below:

Due to on-doing product improvements, all specifications and design are subject to change without prior notice.

Before shipping your unit or defective component to our plant, you must obtain from J. A. ROBY dealer an authorization number. Any merchandise shipped to our plant without authorization will be refused automatically and returned to sender.

1= Digital pictures required 2= Shipping cost are not covered outside CANADA

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