



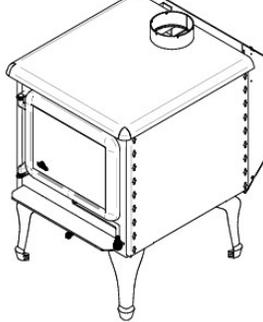
Warmth from the heart of J.A.ROBY INC.

PLEASE READ CAREFULLY AND KEEP THIS MANUAL FOR FUTURE REFERENCE

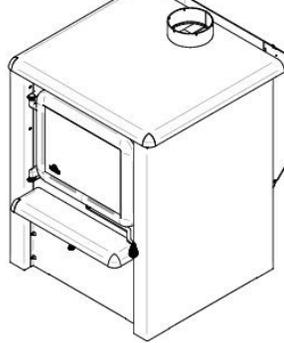
# Instruction Manual

## MESSENGER-MAGELLAN-HUBBLE(R) APOLLO(R)-GEMINI(R)-SPIRIT(R)-KEPLER(R)

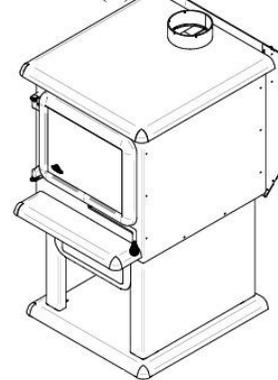
MESSENGER



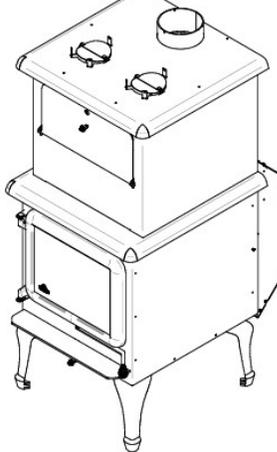
MAGELLAN



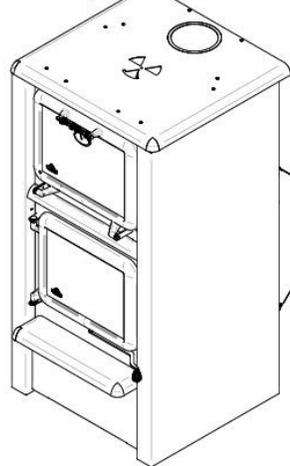
HUBBLE(R)



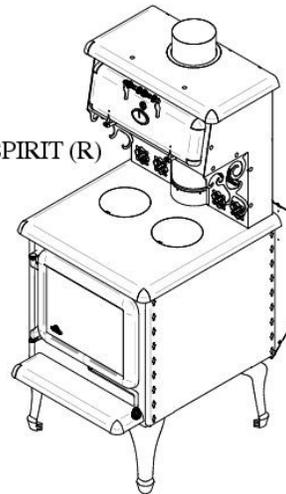
APOLLO (R)



GEMINI(R)



SPIRIT (R)



KEPLER(R)



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**NATIONAL FIREPLACE INSTITUTE**  
  
**CERTIFIED**  
[www.nficertified.org](http://www.nficertified.org)

We recommend that our woodburning hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Woodburning Specialists or who are certified in Canada by Wood Energy Technical Training (WETT).

 **Wood Energy Technical Training**  
[www.wettinc.ca](http://www.wettinc.ca)



Intertek

Certified to:  
ULC S627--UL 1482  
ASTM E3053--ASTM 2515  
CSA B415.1  
2020 U.S. Environmental Protection Agency's cord wood emission standard

490, rue de l'Argon  
Quebec (Quebec) CANADA G2N 2C9  
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# INTRODUCTION

**Save these instructions.** This manual describes the operation and installation of J.A. Roby woodstove model: Messenger, Magellan, Hubble(R), Apollo(R), Gemini(R), Spirit(R) and Kepler(R). This appliance responds to 2020 US Environment Protection with sized controlled cord wood. The capacity of this appliance is from 18 372 BTU/h to 55 107 BTU/h.

Read all instructions carefully before installing your new J.A. Roby stove. A good installation is very important for a safe and effective use of this appliance. If you have doubts about the instruction to install your appliance correctly, we suggest to call a professional installer. A wrong installation may result in a fire, burns and possible death.

Keep these instructions for future reference.

This appliance must be connected to:

- A HT type factory-built chimney approved UL103 or ULC 629 with 6 inches diameter (15.24 cm);
- A code-approved masonry chimney with a flue liner with a 6 inches diameter (15.24cm).

# LISTING AND CODE APPROVALS

## Appliance certification

The Messenger, Magellan, Hubble(R), Apollo(R), Gemini(R), Spirit(R) and Kepler(R) wood stove meets the 2020 U.S. Environmental Protection Agency's cord wood emission standard.

This appliance also meets:

- UL 1482 Standard for Solid-Fuel Type Room Heaters;
- ULC S627 Standard for Space Heaters for Use with Solid Fuels;
- (UM) 84-HUD, Mobile Home approved.

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.

This wood heater needs regular inspection and repair for proper operation. It is against federal regulations to operate this stove in a manner inconsistent with the instruction in this manual.

## Transportable building approved

This appliance is approved for transportable building installations. The structural integrity of the mobile home floor, ceiling, and walls must be maintained. The appliance must be properly grounded to the frame of the mobile home and used only a listed double-wall connector pipe.

The appliance must be fixed on the floor.

Do not install in a sleeping room.

Exterior air inlet is mandatory for mobile home use.

All Roof-chimney terminations shall be able to be readily removed at or below an elevation of 13-1/2 feet (4.1m) above the ground level and reinstalled without the use of special tools or instruction. The chimney assembly shall be provided with a mechanical securement means to secure the chimney to the ceiling support box.

# BTU & Efficiency Specifications

- LHV efficiency : 77.75%
- HHV efficiency : 72.26
- Particle emission 1.56g/h
- Particle emission : 0.50g/MJ
- Minimum Burn rate 1.27 Kg/hr
- Minimum Heat Output\* 18 372 BTU/hr
- Maximum Heat Output\* : 55 107 BTU/hr
- Vent size 6"
- Firebox size 3.01 cubic feet
- Recommended wood length: 16 inches
- Fuel Orientation: front to rear.
- Fuel: Seasoned cord wood.

\* A range of BTU outputs based on Environment Protection Agency Default Efficiency and the burn rates from the low and high Environment Protection Agency emission tests, using cord wood.

## Efficiency

The average of the efficiency of the stove is 72%. When the seasoned wood have lower moisture the efficiency will be better. When the outside temperature is really cold, it is important to create a good draft in chimney. When the appliance is in the basement, the chimney is higher than if the appliance would be in the main living area. The draft will be better because we have more length of chimney.

# WARNING

**If this appliance is in an area where children may be near, it is recommended that you place a decorative barrier in front of the appliance.**

**HOT WHILE IN OPERATION. KEEP CHILDREN, CLOTHINGS AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURN.**

**N.B: BE WARNED THAT THE LOCAL CODES AND RULES CAN HAVE MORE SPECIFIC REQUIREMENT THAN THIS MANUAL. YOU CAN CONSULT A PROFESSIONAL INSTALLER OR ASK FIRE OFFICIALS OR LOCAL AUTHORITY ABOUT RESTRICTION AND INSTALLATION INSPECTION IN YOUR AREA.**

**YOU MIGHT NEED TO OBTAIN A PERMIT FOR INSTALLING CHIMNEY AND STOVE.**

**DO NOT CONNECT THIS APPLIANCE TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.**

**DO NOT CONNECT TO OR USE IN CONJUNCTION WITH ANY AIR DISTRIBUTION DUCTWORK UNLESS SPECIFICALLY APPROVED FOR SUCH INSTALLATIONS.**

**THIS APPLIANCE IS BUILT FOR BURNING SEASONED CORDWOOD ONLY. USE OF ANY OTHER TYPE OF FUEL LIKE COAL/ CONSTRUCTION WOOD/ TREATED WOOD/ FLAMABLE LIQUID/ TRASH/ OR ANY FLAMABLE THING CAN OVERFIRE AND DAMAGE THE STOVE.**

# RATING PLATE

DATE / DATE DE FABRICATION  
2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT DEC



FABRIQUÉ AU CANADA  
PAR:  
MADE IN CANADA BY:

Au cœur de la chaleur  
Warmth from the heart of J.A. Roby Inc.  
490 rue de l'Argon, Québec, Canada,  
G2N 2C9

NE PAS ENLEVER CETTE ÉTIQUETTE / DO NOT REMOVE THIS LABEL

MODÈLES / MODELS:  
 ■ Messenger ■ Magellan ■ Hubble(R) ■ Apollo(R)  
 ■ Gemini(R) ■ Spirit(R) ■ Kepler(R)

POÊLE À COMBUSTIBLES SOLIDES HOMOLOGUÉE  
CONÇU ÉGALEMENT POUR LES MAISONS MOBILES  
LISTED SOLID FUEL BURNING SPACE HEATER  
ALSO SUITABLE FOR MOBILE HOME

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) CERTIFIED TO COMPLY WITH 2020 PARTICULATE  
EMISSION STANDARDS USING CORE WOOD CERTIFIED IN BOTH UNITED STATES AND CANADA  
AGENCE DE PROTECTION DE L'ENVIRONNEMENT AMÉRICAINE (EPA), CERTIFIÉE CONFORMÉ AUX NORMES  
2020 D'ÉMISSION DE PARTICULES EN UTILISANT DU BOIS DE CORDON, CERTIFIÉ POUR LE CANADA ET LES ÉTATS-UNIS

EMISSION RATE - g/hr [g/MJ] - TAUX D'ÉMISSION : 1.56 g/hr [0.50g/MJ]  
 HHV Efficiency : 72.26% LHV Efficiency : 77.75% VOLUME : 3.01 cubic feet/pieds cube  
 MINIMUM HEAT OUTPUT : 18 372 BTU/h ; PUISSANCE DE CHAUFFAGE MINIMUM  
 MAXIMUM HEAT OUTPUT : 55 107 BTU/h ; PUISSANCE DE CHAUFFAGE MAXIMUM

W/H-

	480 cm largeur ventilateur 480 cm				
	inches (cm)	A1 Can	C1 Can	A1 USA (36.2)	C1 USA (33)
Single wall connector Tuyau à paroi simple	18 (45.7)	16 3/4 (42.5)	14 1/4 (36.2)	13 (33)	
Double wall connector Tuyau à paroi double	14 1/4 (36.2)	13 (33)	14 1/4 (36.2)	13 (33)	

Without or 75 cm fins Avec ou sans ventilateur 75 cm			
A2 Can	C2 Can	A2 USA (36.2)	C2 USA (33)
18 (45.7)	16 3/4 (42.5)	14 3/4 (37.5)	13 (33)
12 (30.5)	11 1/4 (28.6)	12 (30.5)	11 1/4 (28.6)

With side or side/Avant côté de poêle Modèle Modèle Messenger-Magellan Gemini(S)-Spirit(S)-Kepler(S)					
BB	DD	GG Can	HH Can	GG USA (22.4)	HH USA (22.4)
24 3/4 (62.9)	16 (40.6)	9 3/4 (24.7)	18 (45.7)	8 3/4 (22.4)	17 (43.2)
24 3/4 (62.9)	16 (40.6)	8 3/4 (22.4)	17 (43.2)	8 3/4 (22.4)	17 (43.2)

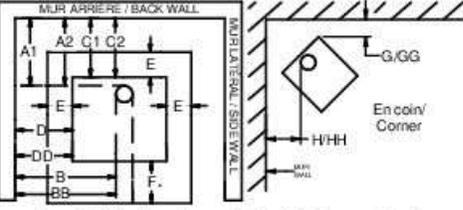
  

Without side or side/ Sans côté de poêle Modèle Modèle Hubble(S)-Apollo(S)			
B	D	G	H
31 3/4 (80.6)	23 (58.4)	15 3/4 (40)	24 (61)
31 3/4 (80.6)	23 (58.4)	15 3/4 (40)	24 (61)

Floor protection Protection de plancher		
E	F Can	F Usa
8 (20.3)	18 (45.7)	16 (40.6)
8 (20.3)	18 (45.7)	16 (40.6)



- Ce poêle à bois nécessite une entretien périodique pour fonctionner adéquatement. Consultez le manuel du propriétaire pour plus d'informations. Il est contre les règlements fédéraux des États-Unis de faire fonctionner ce poêle à bois d'une manière incompatible avec les instructions de fonctionnement dans le manuel du propriétaire.
- Installer et utiliser seulement conformément aux instructions du manuel d'installation et d'utilisation du fabricant. Renseignez-vous auprès des responsables locaux de la construction et de la prévention des incendies au sujet des restrictions et inspections des installations dans votre région.
- Cet appareil doit être installé sur les pattes incluses selon les directives du manuel d'installation.
- Cet unité doit être installé sur un protégé plancher incombustible de 10mm (3/8") dimensionné selon le dessin ci-haut. VOIR LES LETTRES E et F
- Toujours s'assurer que l'admission d'air n'est pas obstruée et est ouvert.
- Ne pas surchauffer, si le poêle ou le collet de la cheminée deviennent rouge le poêle surchauffe.
- Ne pas brancher cet appareil sur une cheminée servant à un autre appareil. Au Canada utiliser la norme CAN/CSA B365 pour savoir comment faire.
- Inspecter et nettoyer la cheminée fréquemment. Sous certaines conditions d'opération le créosote peut s'accumuler rapidement.
- Ne pas utiliser de chenets ou de grilles pour élever le feu.
- Préparer le feu directement sur l'âtre.
- Remplacer la vitre par un verre de céramique de 4mm d'épaisseur.
- Pour une utilisation avec du bois de chauffage seulement - NE PAS BRÛLER AUCUN AUTRE COMBUSTIBLE.
- Brûler avec la porte fermée.
- Ouvrir l'admission d'air avant d'ouvrir la porte
- Ne pas obstruer l'espace sous le poêle
- Pour passer la cheminée au travers un mur ou un plafond combustible lire le manuel d'installation et le code du bâtiment local.
- Se référer au répertoire des produits homologués (<https://bpdirectory.intertek.com>) pour plus d'information.

**MIS À L'ÉPREUVE SELON: / CONFORMS TO:**

**SECURITÉ / SAFETY:** ULC-9627-21, UL 1482-2011

**EMISSION / EMISSION:** EP / METH / D ALT-125, ASHRAE 2515-11, CAN B365-12

- Utiliser seulement un cheminée homologuée HT d'un diamètre intérieur de 6 pouces (152.4 mm) ou une cheminée de maçonnerie avec un revêtement intérieur homologuée de 6 pouces. ATTENTION: Les tuyaux de raccordement à paroi simple doivent avoir une épaisseur d'une épaisseur minimale de 29 pouces (0.0135 inch/0.33 mm) fixé sur le tuyau à une distance de 1 pouce (25.4 mm) du tuyau de raccordement en direction des murs.
- Use Only 6 inches (152.4 mm) certified HT chimney or a code approved masonry chimney with a 6 inches flue liner. Warning: Only use certified chimney connector must have a fixed heat shield with minimal thickness of 29 gauges (0.0135 inch/0.33 mm) at 1 inches(25.4mm) offset of the chimney connector facing the wall.
- This wood heater needs periodic inspection and repair for proper operation. Consult the owner's manual for further information. It is against federal regulations to operate this wood heater in a manner inconsistent with the operating instructions in the owner's manual.
- Install and use only in accordance with manufacturer's Installation and Operating Instructions. Contact local building or fire officials about restrictions and installation inspection in your area.
- This appliance must be installed with the legs provided, attached as shown in the installation manual.
- This Appliance Must Be Placed on a 10 mm (3/8") noncombustible floor protection like schematic dimension above. SEE LETTER E and F
- Always be sure that the external air inlet are not obstructed and open.
- Do Not Overfire - If heater or chimney connector glows, you are overfiring.
- Do Not Connect This Unit to a Chimney Serving Another Appliance. In Canada USE CAN/CSA B365 to know how to do.
- Inspect And Clean Chimney Frequently - Under Certain Conditions Of Use, Creosote Buildup May Occur Rapidly.
- Do Not Use Grate Or Elevate Firebuild Wood.
- Fire Directly On Hearth.
- Replace Glass Only With Ceramic Glass 4mm Thick.
- For Use With Solid Wood Fuel Only - DO NOT BURN ANY OTHER FUEL
- Burn With The Door Closed.
- Open damper before opening the door.
- Do not obstructing space under heater
- To pass chimney or chimney connector thought combustible wall or ceiling, see owner manual and local building code.
- Refer to intertek's directory of building products (<https://bpdirectory.intertek.com>) for detailed information.



**CAUTION!**  
HOT WHILE IN OPERATION.  
DO NOT TOUCH. KEEP  
CHILDREN, CLOTHING AND FURNITURE AWAY. CONTACT MAY  
CAUSE SKIN BURNS. SEE NAME-PLATE AND INSTRUCTION.

**ATTENTION!** CHAUD LORSQU'EN FONCTION, NE PAS TOUCHER,  
GARDER LOIN DES ENFANTS, DES TISSUS ET DES MEUBLES. LE CONTACT  
PEUT CAUSER DES BRÛLURES À LA PEAU. VOIR LA PLAQUE SIGNALÉTIQUE  
ET LES INSTRUCTIONS.

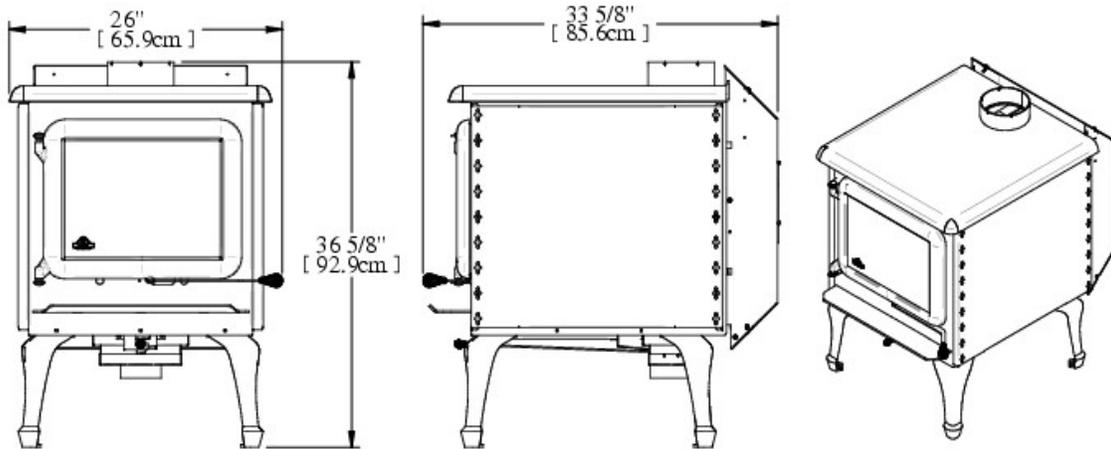
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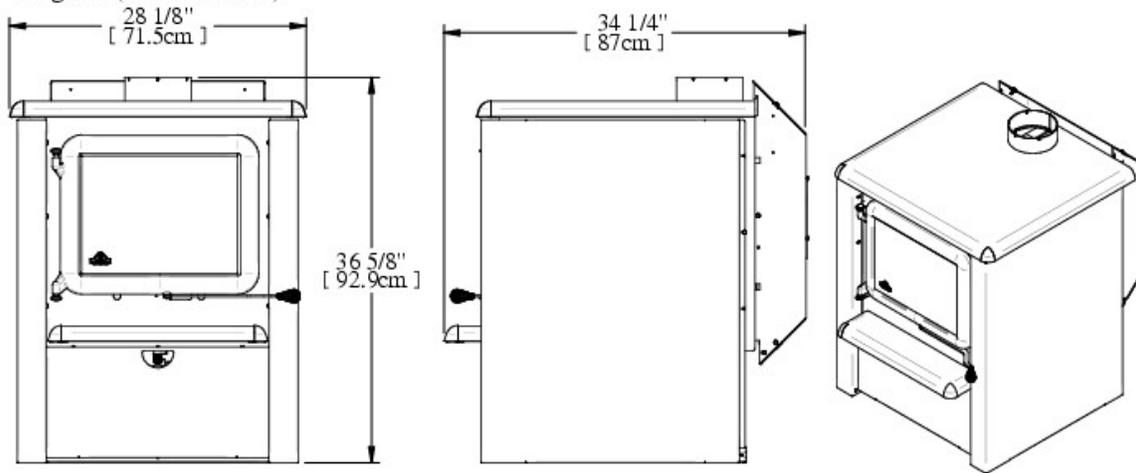
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# APPLIANCE DIMENSION

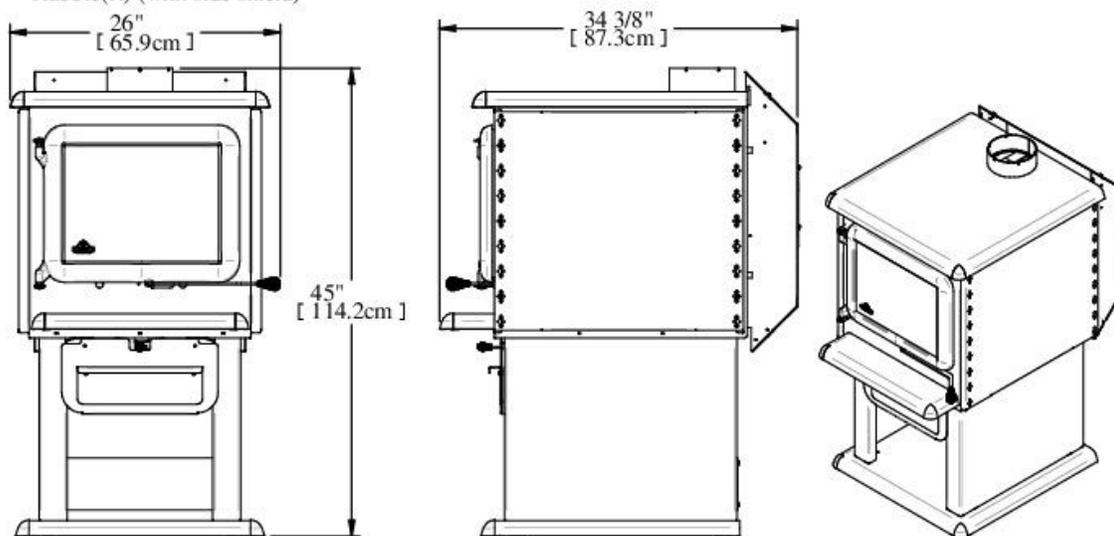
Messenger (with side shield)



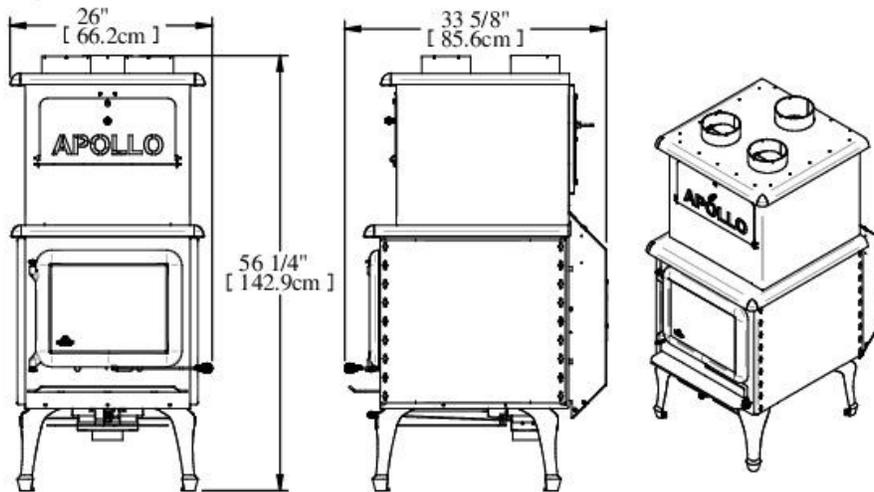
Magellan (with side shield)



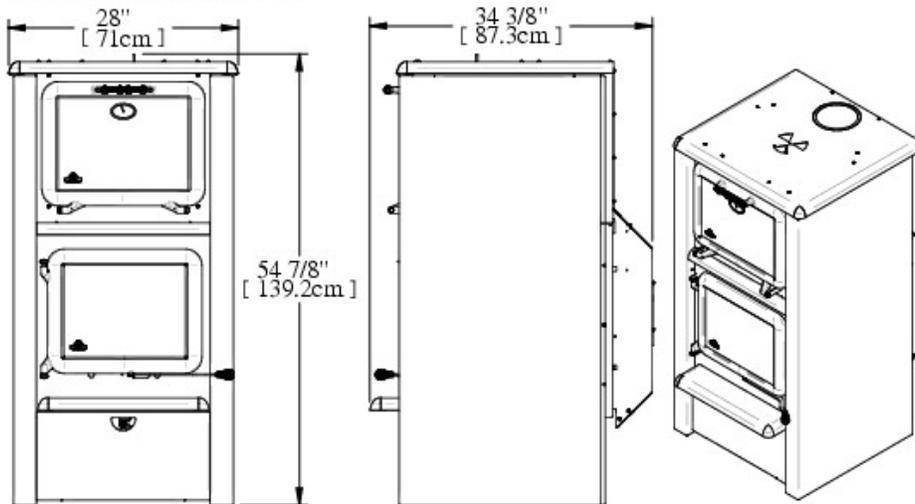
Hubble(R) (with side shield)



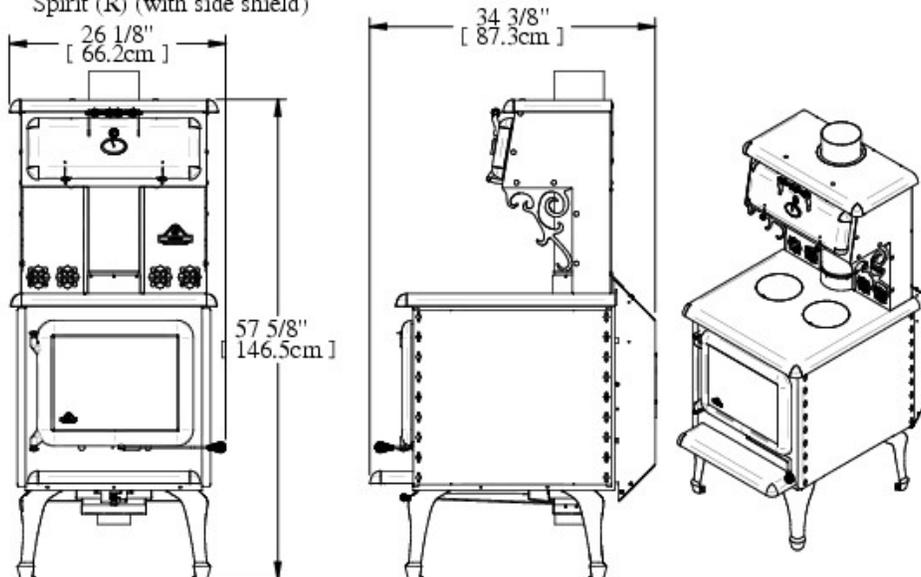
Apollo(R) (with side shield)

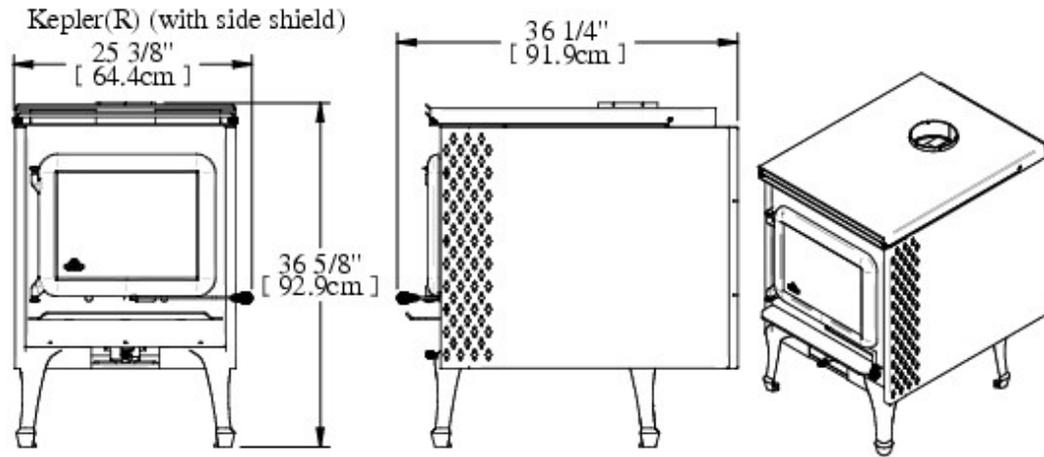


Gemini(R) (with side shield)



Spirit (R) (with side shield)





## SPECIFICATIONS

Option	Messenger	Magellan	Hubble(R)
Combustible	Wood	Wood	Wood
Recommended surface area	1000 > 3000 ft <sup>2</sup>	1000 > 3000 ft <sup>2</sup>	1000 > 3000 ft <sup>2</sup>
Cooking lids/Cast iron corners	No	No	No
Capacity	55 107 BTU/h	55 107 BTU/h	55 107 BTU/h
Flue pipe diameter	6 in (15.4 cm)	6 in (15.4 cm)	6 in (15.4 cm)
Minimal chimney height	12 ft (366 cm)	12 ft (366 cm)	12 ft (366 cm)
Exterior Height	36 5/8 in (92.9 cm)	36 5/8 in (92.9 cm)	45 in (114.2 cm)
Exterior Width	26 in (65.9 cm)	28 1/8 in (71.5 cm)	26 in (65.9 cm)
Exterior Depth	33 5/8 in (85.6 cm)	34 1/4 in (87.3 cm)	34 3/8 in (87.3 cm)
Door Opening	15 1/8 in x 9 1/4 in 38.4 cm x 23.5 cm	15 1/8 in x 9 1/4 in 38.4 cm x 23.5 cm	15 1/8 in x 9 1/4 in 38.4 cm x 23.5 cm
Interior Height	15 1/8 in (38.4 cm)	15 1/8 in (38.4 cm)	15 1/8 in (38.4 cm)
Interior Width	18 in (47.5 cm)	18 in (47.5 cm)	18 in (47.5 cm)
Interior Depth	22 1/2 in (57.1 cm)	22 1/2 in (57.1 cm)	22 1/2 in (57.1 cm)
Recommended log length	16 in (40.6 cm)	16 in (40.6 cm)	16 in (40.6 cm)
Maximum log length	22 in (55.9 cm)	22 in (55.9 cm)	22 in (55.9 cm)
Average combustion time	4 to 14 hours	4 to 14 hours	4 to 14 hours
Weight	360 lbs (163.3 kg)	370 lbs (167.8 kg)	420 lbs (190.5 kg)

Option	Apollo(R)	Gemini(R)	Spirit(R)	Kepler(R)
Combustible	Wood	Wood	Wood	Wood
Recommended surface area	1000 > 3000 ft <sup>2</sup>			
Cooking lids/Cast iron corners	No	No	Yes	No
Capacity	55 107 BTU/h	55 107 BTU/h	55 107 BTU/h	55 107 BTU/h
Flue pipe diameter	6 in (15.4 cm)			
Minimal chimney height	12 ft (366 cm)			
Exterior Height	56 1/4 in (142.9 cm)	54 7/8 in (139.2 cm)	57 5/8 in (146.5 cm)	36 5/8 in (92.9 cm)
Exterior Width	26 in (66.2 cm)	28 in (71 cm)	26 1/8 in (66.2 cm)	25 3/8 in (64.4 cm)
Exterior Depth	33 5/8 in (85.6 cm)	34 3/8 in (87.3 cm)	34 3/8 in (87.3 cm)	36 1/4 in (91.9 cm)
Door Opening	15 1/8 in x 9 1/4 in 38.4 cm x 23.5 cm	15 1/8 in x 9 1/4 in 38.4 cm x 23.5 cm	15 1/8 in x 9 1/4 in 38.4 cm x 23.5 cm	15 1/8 in x 9 1/4 in 38.4 cm x 23.5 cm
Interior Height	15 1/8 in (38.4 cm)			
Interior Width	18 in (47.5 cm)			
Interior Depth	22.5 in (57.1 cm)			
Recommended log length	16 in (40.6 cm)			
Maximum log length	22 in (55.9 cm)			
Average combustion time	4 to 14 hours			
Weight	460 lbs (208.6 kg)	500 lbs (226.8 kg)	405 lbs (183.7 kg)	360lbs (163.3 kg)

# CLEARANCES TO COMBUSTIBLE MATERIAL

		With side shield MODEL		
		Messenger- Magellan- Hubble(R)- Appolo(R)- Gemini(R)- Spirit(R) Kepler(R)		
Type of smoke pipe		Single wall		Double wall
Back (from top of stove)		<b>CAN</b> <b>16 inches</b> <b>(42.5cm)</b>	<b>USA</b> <b>13 inches</b> <b>(33 cm)</b>	<b>11 1/4 inches</b> <b>(28.6 cm)</b>
Side (with side shield)		16 inches (40.6 cm)		16 inches (40.6 cm)
Front		48 inches (121.9 cm)		48 inches (121.9 cm)
Minimum Ceiling height		84 inches (213.4 cm)		84 inches (213.4 cm)
Back of flue collar		<b>CAN</b> <b>18 inches</b> <b>(45.7cm)</b>	<b>USA</b> <b>14 1/4 inches</b> <b>(36.2 cm)</b>	<b>12 inches</b> <b>(30.5 cm)</b>
Side of flue collar		24 3/4 inches (62.8 cm)		24 3/4 inches (62.8 cm)
Corner installation (from appliance)		<b>CAN</b> <b>9 3/4 inches</b> <b>(24.7cm)</b>	<b>USA</b> <b>8 3/4 inches</b> <b>(22.2 cm)</b>	8 3/4 inches (22.2 cm)
Corner installation (from smoke pipe)		<b>CAN</b> <b>18 inches</b> <b>(45.7cm)</b>	<b>USA</b> <b>17 inches</b> <b>(43.2 cm)</b>	17 inches (43.2 cm)

# INSTALLATION

If 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.

**WARNING ALWAYS USE J.A. ROBY PARTS** on your appliance. Using other differences parts can damage the appliance and cause injury.

## Use of smoke detectors and carbon monoxide monitors

To provide reasonable fire prevention, the following should be given serious consideration:

1. At least one smoke detector on each floor of your home should be installed to ensure your safety. They should be located away from the heating appliance and close to the sleeping areas. Follow the smoke detector manufacturer's placement and installation instructions, and be sure to maintain regularly.
2. A conveniently located Class A fire extinguisher to contend with small fires resulting from burning embers.
3. A CO detector should be installed in the room with the appliance.
4. A practiced evacuation plan, consisting of at least two escape routes.
5. A plan to deal with a chimney fire as follows:
  - a. In the event of a chimney fire:
  - b. Evacuate the house immediately
  - c. Notify fire department.

The average of the CO emission (carbon monoxide) is 100.4 (CO) g/hr. To maintain this rate, it's recommended to operate the appliance in low or medium burn rate.

The hazards with some fuels (e.g., charcoal) and the possibilities of generating carbon monoxide and the hazards from carbon monoxides.

**When the smoke detector is activated is mean that the smoke spill out of the appliance. Verify the door is close and the draft in chimney is good.**

## Floor protection

Your stove must be installed on a non-combustible material plate to protect the floor and avoid fire caused by:

- Projections of sparks when opening door or loading logs;
- The heat radiation from stove runaway which might cause an auto-ignition to the floor and the coating;
- Flow of creosote when there is a fire chimney.

The coating used for the protection must be non-combustible and approved according to standard UL1618 for USA or approved to the locals codes (Example: cement, brick, ceramic tiles, etc.)

## Minimums clearances to combustible material

**HORIZONTAL VENTING MANDATORY** Non-combustible floor protections must extend beneath the flue pipe when installed with horizontal venting and it should extend 2 inches (51 mm) beyond each side of the pipe.

You can extend the protection plate while respecting the clearances of each side of stove.

### Floor protection plate minimum dimensions

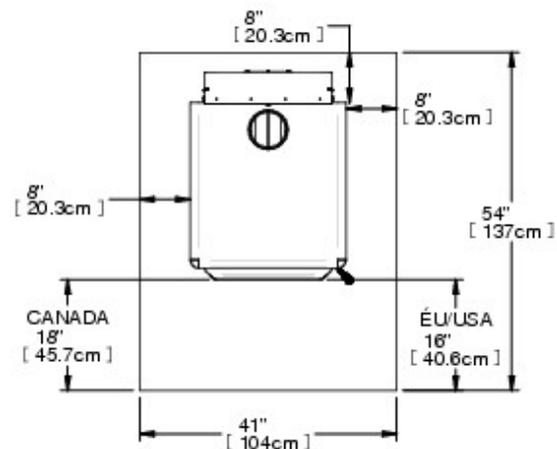
The following dimensions are the minimums values and it can be higher.

Canada:

- 41 inches (104 cm)
- 54 inches (137 cm)
- 3/8 inch thick (1 cm)

United States:

- 41 inches (104 cm)
- 52 inches (132.1 cm)
- 3/8 inch thick (1 cm)



### Clearances of the stove until the floor plate protection

The following dimensions are the minimums values and it can be higher.

Canada:

- 8 in (20.3 cm) behind
- 8 in (20.3 cm) beside
- 18 in (45.7 cm) in front of the door opening.

United States:

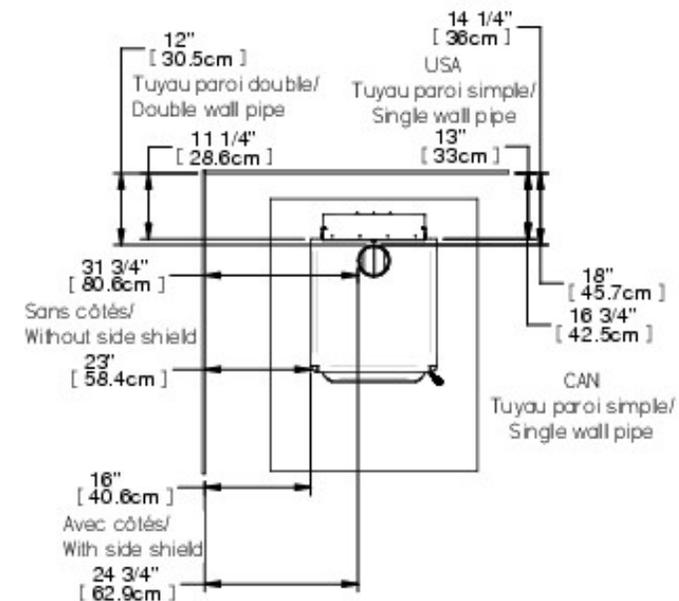
- 8 in (20.3 cm) behind
- 8 in (20.3 cm) beside
- 16 in (40.64 cm) in front of the door opening.

With these reduced clearances, this appliance takes a minimum space to be installed. Whether in the living room or the dining room, this appliance will complete your decor by his originality and heating. It requires a minimum clearance of 16 3/4 inches (42.5 cm) to the back of the top of the stove. **For a single wall in Canada, the minimum clearance between smoke pipe and wall must be 18 inches (45.7cm).**

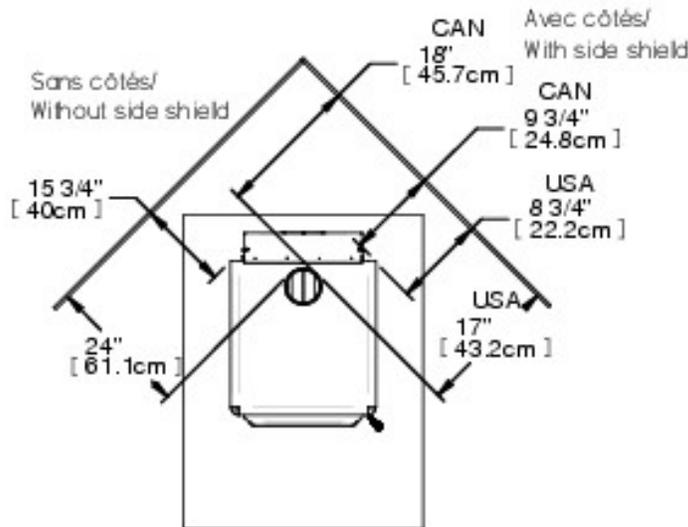
For a **single wall pipe in the USA**, the clearance to the wall until the back of stove is **13 inches (33cm)**.

For a double wall pipe, the back clearance is 11 1/4 inches (28.6 cm).

The **MINIMUM** side clearance for a stove **with side shield** is 16 inches (40.6cm) and for a stove **without side shield** the clearance is 23 inches (58.4 cm).



- For a 45° corner or other corner installation, the minimum clearance between the stove (**with side shield**) and combustible material must be 8 3/4 inches (22.2 cm) and from the pipe is 17 inches (43.2 cm) for the USA
- For CANADA, the clearance **with shield** must be **9 3/4 inches (24.8cm) from the combustible material and 18 inches (45.7cm) from the pipe.**
- . For a 45° corner or other corner installation, the minimum clearance between the stove (**without side shield**) and combustible material must be 15 3/4 inches (40 cm) and from the pipe is 24 inches (61.1cm)



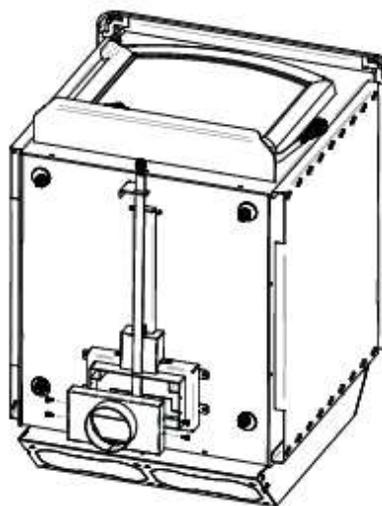
To know how to reduce that dimension, you have to contact your local authority for installing heat shield on a wall. The installation with reduced clearances must comply with standard NFPA211 or CAN/CSA-B365.

## Assembly before installation

Depending on the option you chose, the stove legs and air entry box (4 inches/10.1cm) might not have been assembled in the shop in order to save space for storage and shipping. You must therefore assemble them before installing the stove.

### Air entry box installation

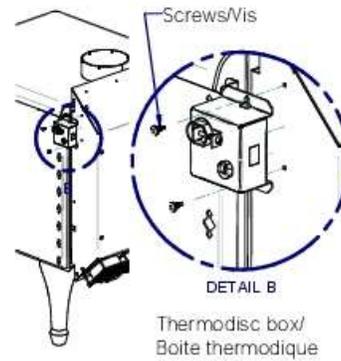
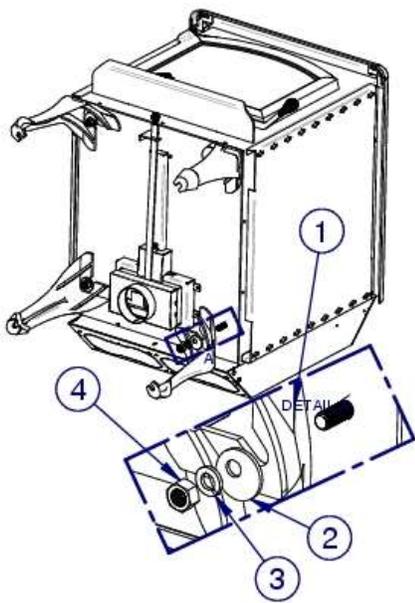
- 1) Remove legs air entry box and bricks from combustion room.
- 2) Unscrew the stove from the skids.
- 3) Put the stove on the back and be careful to protect the paint.
- 4) Insert the air entry box and tighten 4 screws to fix the box.



### Legs installation

- 1) Unscrew the nut (#4) at the corners with removing completely.

- 2) Install the legs (#1) as illustrated and secure it with nut, lock washer and washer (#2, #3, #4) (Attention: Be sure the legs are in place, correctly positioned and in contact with the bottom of the stove.)

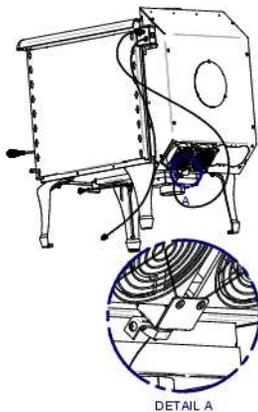


- 3) To install a **460 CFM fan**, put the snap disc box as the same as the installation above.
- 4) Remove the access panel (1) rear of the fan box (3 screws) to insert 4 lock washers and 4 nuts.
- 5) Put the fan in position and pass the bolt through the fan and box and tight with the lock washer and nut. Put the access panel at the good place.

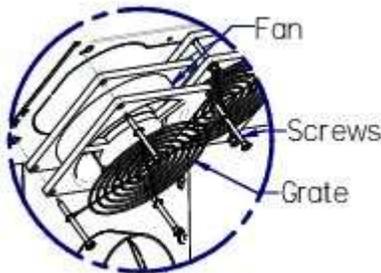
DO NOT CONNECT TO OR USE IN CONJUNCTION WITH ANY AIR DISTRIBUTION DUCTWORK UNLESS SPECIFICALLY APPROVED FOR SUCH INSTALLATIONS

### Fan and Snap disc box installation

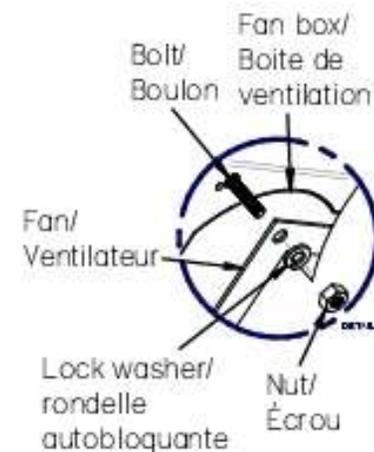
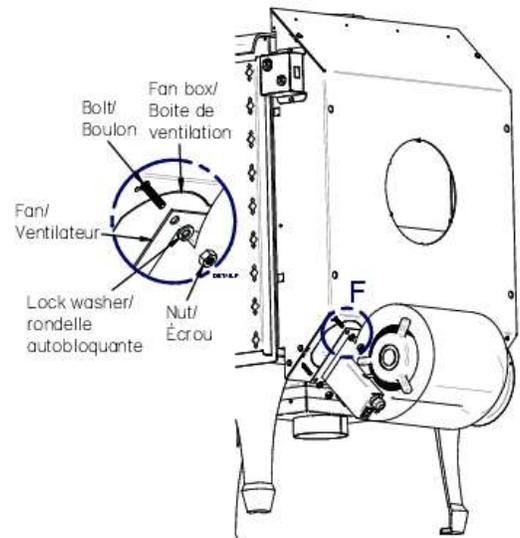
The efficiency of the appliance can be lower than the specification when the blower is not in function or is not installed.



- 1) Screw the fans on the **75 CFM fan** box as illustrated. Make sure to place the cables as shown.

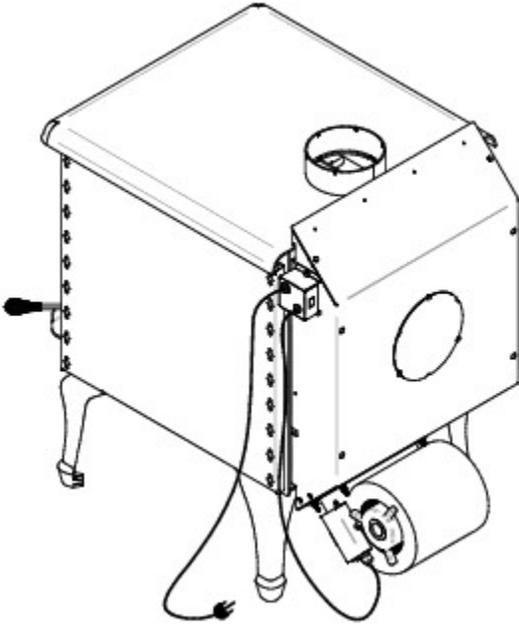


- 2) Screw the heating box and snap disc box into the holes made for that at the back side near the vent box.



**WARNING: NEVER ROUTE POWER CORD UNDER OR IN FRONT OF THE APPLIANCE.**

When it's ON, the snap disc will start at the moment when the temperature of ventilation box gets 120 Fahrenheit (49 ° Celsius).  
In OFF Position, the fan is turned off and it doesn't start.

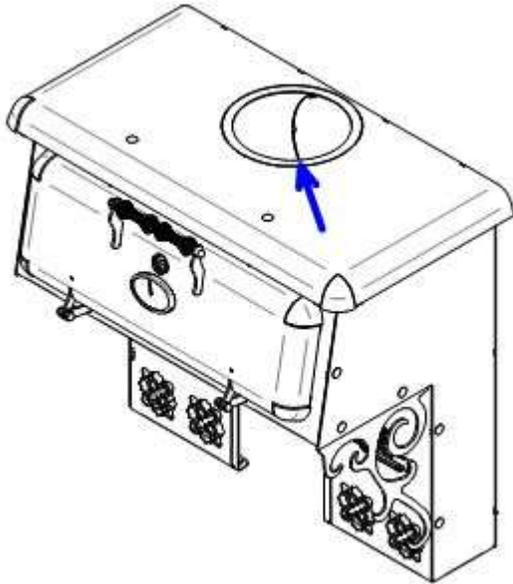


## Warmer stove Assembly (Spirit(R))

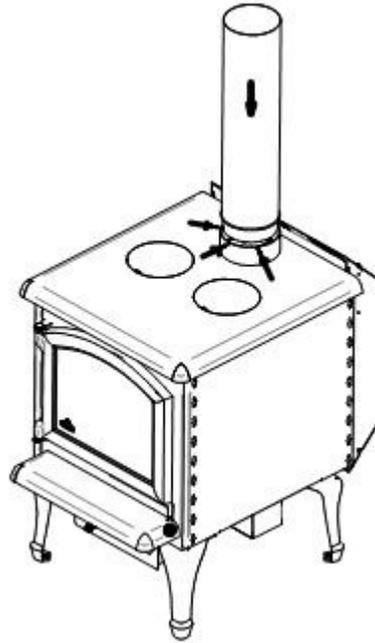
Now, you need to know which type of smoke pipe: smoke simple pipe or smoke double pipe.

For the smoke simple pipe, it's not necessary to remove the pre-cut metal part.

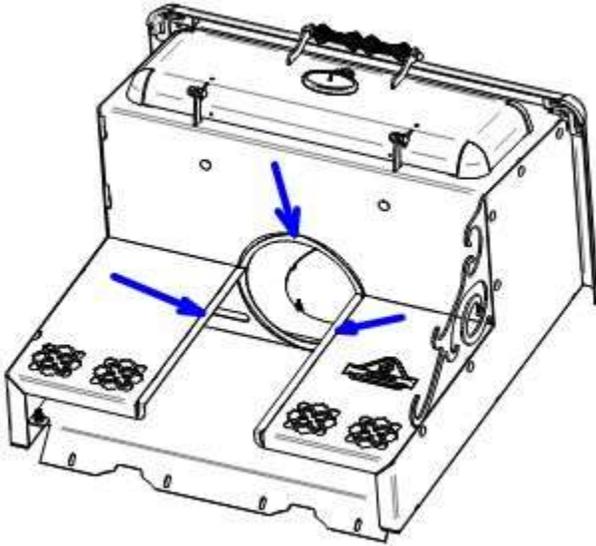
For the double smoke pipe, you need to remove the pre-cut metal part. (See blue arrow below)



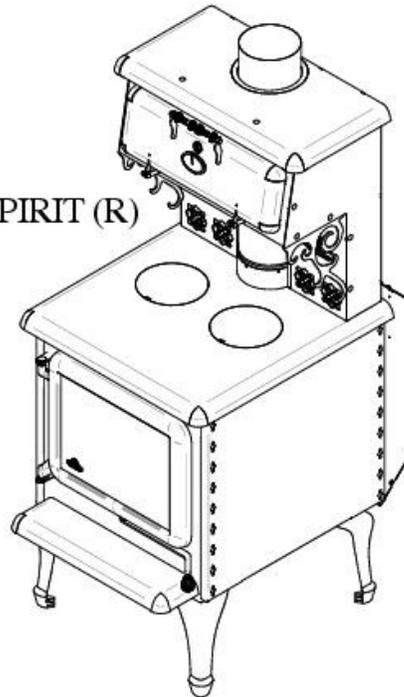
Put the smoke pipe on the exit of the stove and fix-it with 3 screws.



Insert the warmer on the smoke pipe and fix with 4 screws on the fan box.



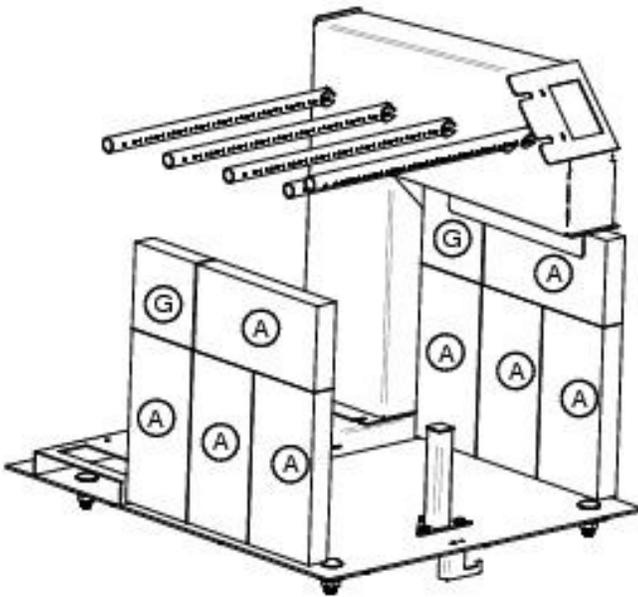
SPiRiT (R)



## Firebricks installation

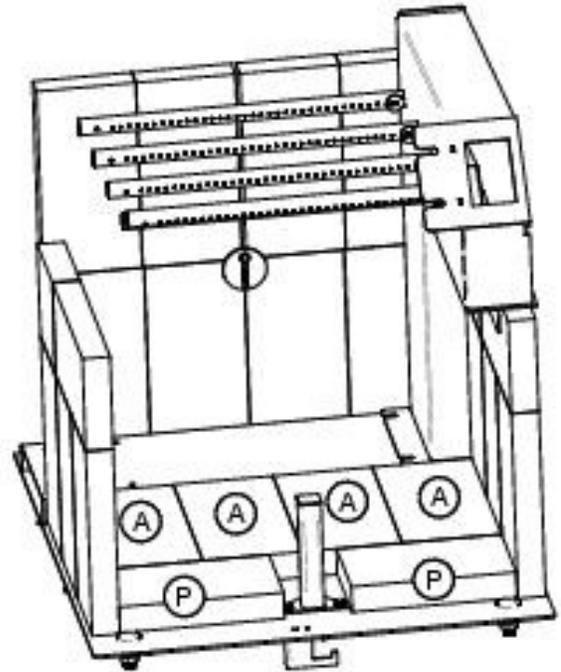
### Side firebrick installation

Put 4 bricks «A» and 1 brick «G» as shown.



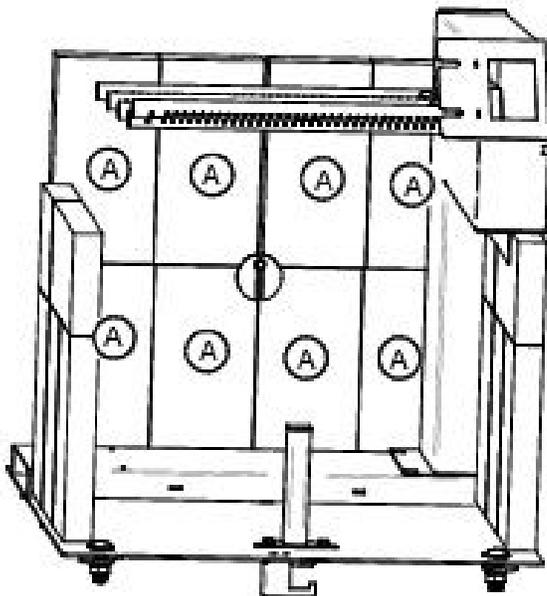
### Floor firebricks installation

Put 4 Bricks «A» near to the back wall and 2 bricks «P» in front of bricks «A».



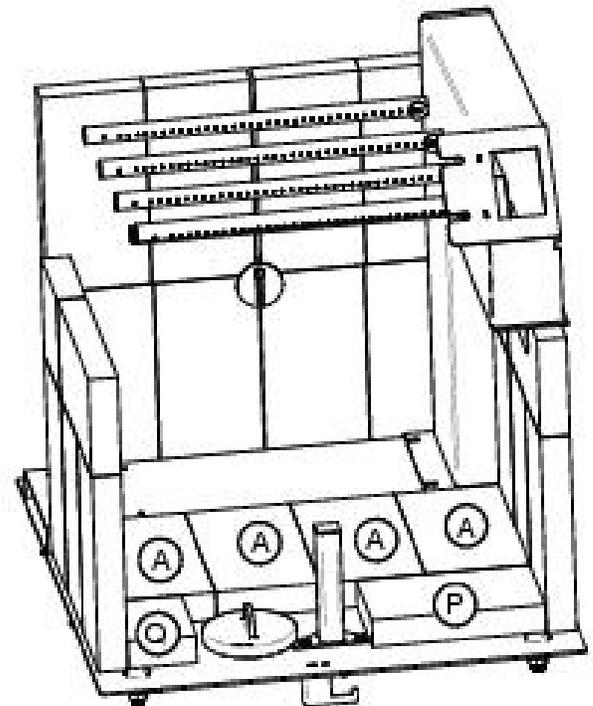
### Back firebrick installation

Put 8 bricks «A» on the back wall and fix with a screw and brick support.



### Floor firebricks installation (With ash plug)

Put 4 Bricks «A» near to the back wall and 1 brick «P and Q» in front of bricks «A».



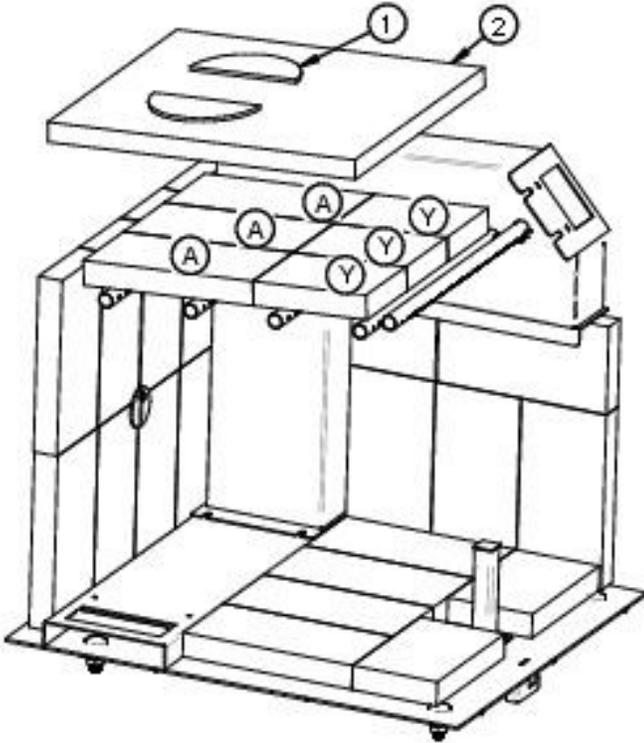
## Firebrick installation on the pipes

The firebricks must be installed on the pipes starting from the rear of the combustion chamber. Bricks keep the maximum heat inside the combustion chamber and help the air from the tube burn most of the gas from wood which wouldn't be burnt in any other manner.

The rockwool above the brick prevents leakage between the bricks and keep a maximum heat inside combustion chamber. It must cover up all the bricks and the air corridors of both sides.

**IMPORTANT:** *The rockwool must not obstruct the smoke exit way. Check from the hole in the flue collar and make sure that is in the good position. Place two half-round steel parts on the rockwool as illustrated.*

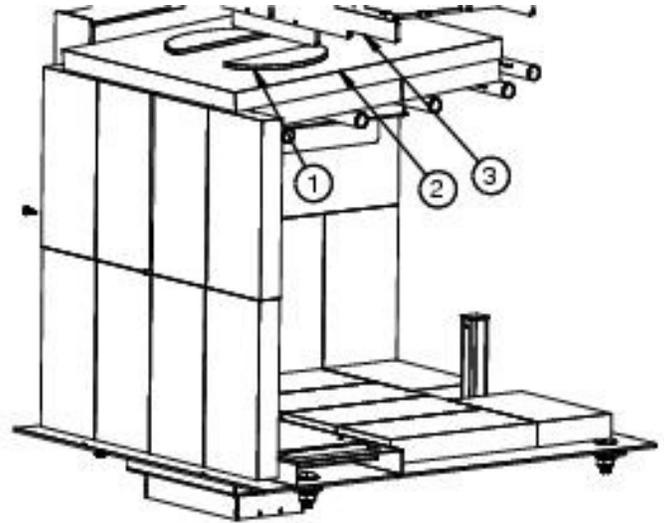
- 1) Put 3 « **A** » bricks over the two top pipes and push them against the back bricks. Be sure to eliminate any space between the back bricks and the bricks you install as shown.



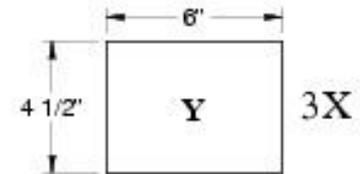
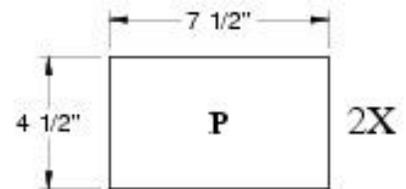
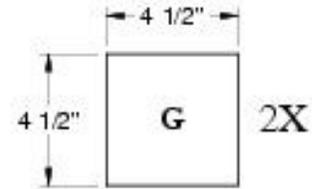
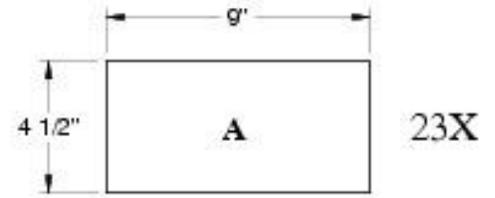
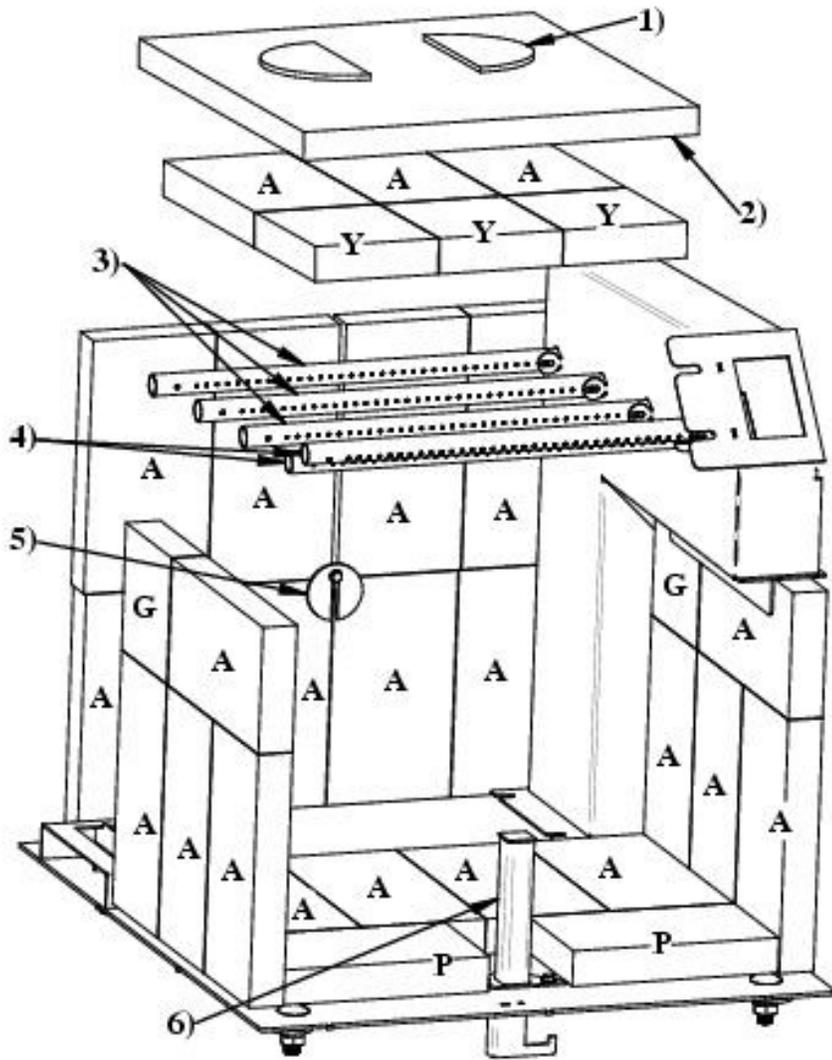
- 2) Slide the rockwool between pipes and put it over the bricks and check from the hole in the flue collar that the passage of smoke is not obstructed.

- 3) Insert the 3 bricks "Y" between the pipes and the rockwool (2)
- 4) Put two half-round steel disks over the rockwool near the rear deflector (3) already in place. Be sure to put it under the rear deflector to maximise the clearance between rockwool and the rear deflector. Make sure the rockwool is not obstructing the space by looking from the hole in the flue collar.

**WARNING:** *Obstructing smoke exit way under deflector can force fume to exit by the door when open it and the stove must not work properly.*

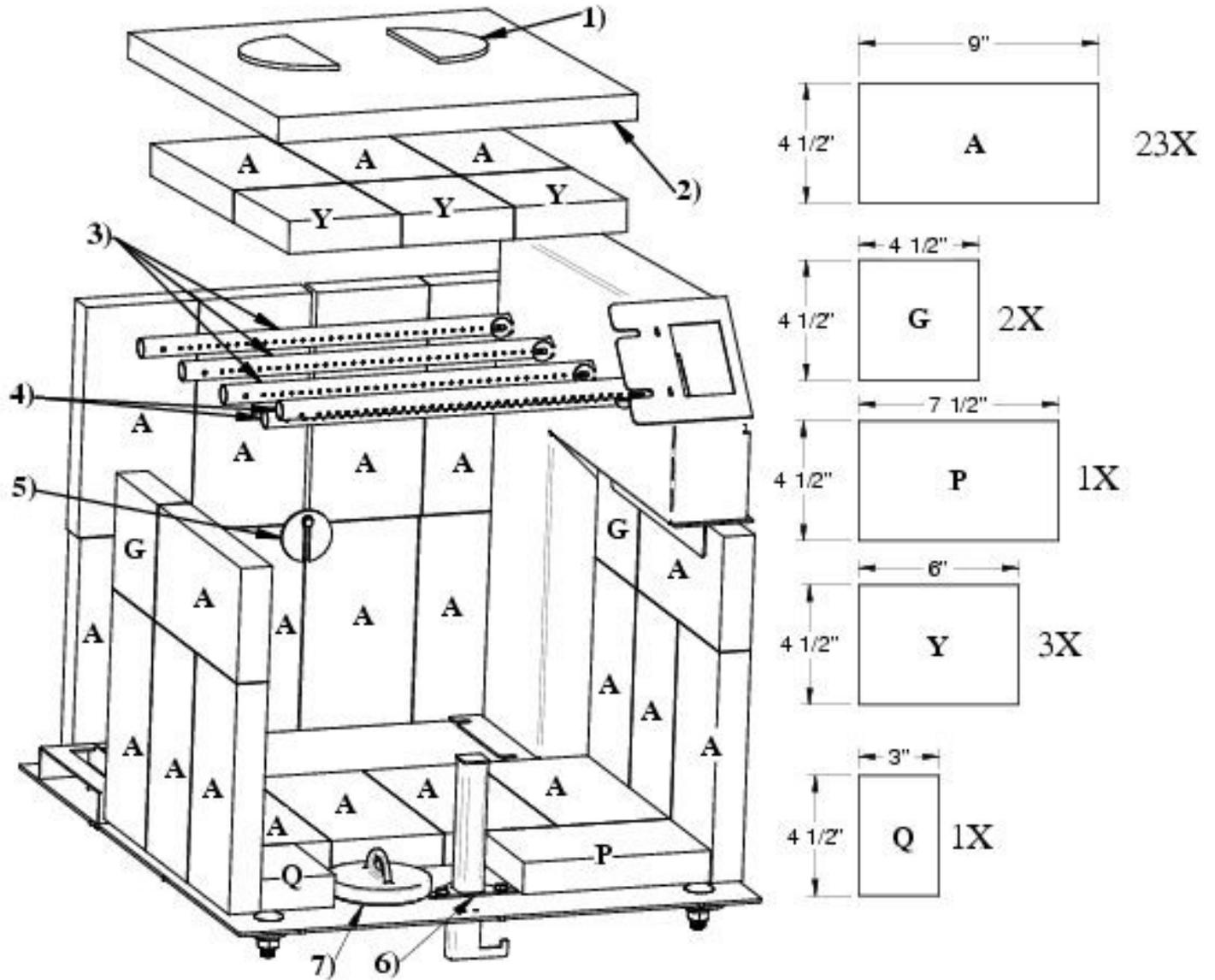


Firebox configuration and parts (without ash plug)



- 1) 2 half-disk metal steel plates
- 2) 1 rock wool insulating blanket
- 3) 3 Ø 3/4 "x 15 " pipes with holes on a single side
- 4) 2 Ø 3/4 " x 15 " pipes with bigger holes on both side
- 5) 1 Screw and bricks support
- 6) 1 air pilot

*Firebox configuration and list of parts (with ash plug)*



- 1) 2 half-disk metal steel plates
- 2) 1 rock wool insulating blanket
- 3) 3  $\varnothing$  3/4 "x 15 " pipes with holes on a single side
- 4) 2  $\varnothing$  3/4 " x 15 " pipes with bigger holes on both side
- 5) 1 screw and bricks support
- 6) 1 air pilot
- 7) 1 ash plug

# GENERAL STOVE INSTALLATION STEPS

## Location considerations

We recommend installation of this appliance by a certified installer.

Consideration must be given to:

- Safety
- Traffic flow
- Convenience
- Chimney and chimney connector required
- Draft.

Drawing your installation plan on paper is a good way to avoid mistake.

## THESE STOVE MODELS ARE NOT APPROVED TO INSTALL IN AN ALCOVE

Write on the plan:

- Exact dimensions for clearances to combustible material
- Exact dimensions of the floor protection
- Measurements of the chimney location. (If it not already installed. Be sure to have all clearances recommended by the factory-built chimney manufacturer to pass through the ceiling and roof).

We recommend that a qualified building inspector and your insurance company representative review your plan before and after installation.

## General steps of installation

- 1) Read the entire installation manual before installing and using your stove.
- 2) Choose a spot where to install your stove. Read section about floor protection dimension, localisation of stove over the floor protection plate and combustible material clearance. Once you have decided where to install the stove, mark the roof at the center of chimney.
  - To be sure that the vertical center of the chimney, use a plumb line and mark the center on the floor.
- 3) Check if it possible to pass chimney without damaging the structural integrity of your house. If so, you have to move the location of the stove while keeping the minimum clearance or more to be sure. If you can't move the stove and have to cut through a beam, make sure to keep the structural integrity of your house by following state of the art and National building code.
  - We recommend installation of this appliance by a certified installer.

**Note:** This appliance have to be connected to 6 inches (15.24 cm) factory build chimney HT UL 103 or CAN/ULC S629 compliant or a 6 inches (15.24 cm) masonry chimney with a homologated sleeve inside. Do not install the chimney directly at the outlet of the appliance. A chimney connector (flue pipe) is required unless the appliance is specifically approved for that type of installation.

- 4) Install the chimney following the manufacturer instruction.
- 5) Put the stove directly on the floor aligned vertically with the center of chimney and trace the side of the stove on the floor and remove it.
- 6) Trace the dimension of protection plate on the floor. There must be 8 inches (20.3 cm) clearance from the side and the back of the stove. From the front of the door opening, there must be a clearance of 16 inches (40.6 cm) in US and 18 inches (45 cm) in Canada. If the space heater meeting the requirement of CAN/ULC-S627 are suitable for installation on a combustible floor and do not require radiant floor protection.
- 7) Install the floor protection plate inside the mark (It must be non-combustible).
- 8) Put the stove on the protection floor plate and respect the offset clearance set at step 6. Be sure to center the stove under the chimney. We recommend to fix the stove to the floor with bolt in the slot made for this purpose in the legs. In a mobile home, it is obliged to fix the stove.
- 9) If you have an outside air inlet, you must use 4 inches (10.16 cm) flexible aluminum pipe. The pipe must be sealed with thermal resistant sealant and it has an air intake with grate approved for this purpose.
- 10) Install the chimney connector on the stove. The pipe must be fixed with at least 3 screws on the stove collar, each chimney connector and the chimney collar.

**Note:** The single wall chimney connector must be 6 inches diameter and have a minimum thickness of 24 gauge (0.025 inches 0.64 mm). Do not use galvanised steel chimney connector.

## Chimney connector installation

The chimney connector is a set of single wall flue pipes and elbow installed between the stove collar and the chimney collar. The single wall chimney connector is sold into any hardware store and are not approved nor certified. Some rules must be followed to install it and can be found in the installation codes for wood heater.

The stove was designed and tested with a **single wall chimney connector with heat shield**.

### 1. Single wall chimney connector

For the single wall chimney connector, it must be 6 inches diameter and minimum thickness of 22 gauge 0.029 inches (0.85 mm). **Install a metal heat shield, 1 inch (25.4 mm) offset for the single wall section and elbow.**

#### ATTENTION:

- If heat shield is not present, you must move away the stove to keep 18 inches (45.7 cm) clearance between combustibles materials and the chimney connector.
- Any horizontal section must have a 1/4 inches (6.35 mm) by feet (30 cm) slope toward the chimney collar.
- Clearance between roof and horizontal single wall chimney connector must be 18 inch (45.7 cm) or more.
- manufacturer indication.

**ALL SECTION AND ELBOW MUST BE CLEAN AND IN GOOD CONDITION AND MUST BE APPROVED FOR A CORDWOOD FUEL.**

### Chimney connector assembly installation

1. Make a summary installation of all sections and elbows (if necessary) to ensure that you meet the clearances and inclinations of the horizontal sections and verify if you have all the necessary parts for the final installation.

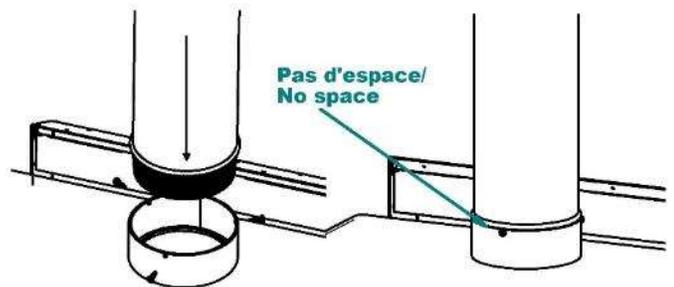
- For direct vertical installation, you will need:
  - 1 vertical section of 24 inches or more;
  - 1 adequate length of telescopic chimney connector section allowing you to connect the last chimney connector to the chimney collar.

**Note:** Additional section can be used for higher roof.

- For horizontal run installation you will need:
  - 1 adequate length of vertical section
  - 1 x 90° elbow or 2 x 45° elbow.
  - 1 x adequate length of telescopic chimney connector section.

**Note:** For better draft performance, two 45 degrees elbow are preferable, with or without straight section in between.

2. Disassemble the whole thing and restart screwing the pieces from the stove to the roof chimney collar
3. Insert entirely the rolled end into the stove collar and screwing it with a minimum of 3 screws.



4. Install all the next section up to the roof chimney support and screw every chimney connector parts with 3 screws

**WARNING:** It is mandatory to screw the pipe to the stove collar and also at each joint with a minimum of 3 screws.

5. Install all the next section and screw it to the chimney collar.

**DO NOT CONNECT CONECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.**

**CONNECTOR PIPES SHOULD NEVER PASS THROUGH THE CEILING, THROUGH A WALL, IN A CLOSET, IN AN ATTIC OR OTHER ENCLOSED AREA THAT COULD CAUSE HEAT BUILDUP. IF YOU NEED TO PASS THROUGH COMBUSTIBLE MATERIAL, MAKE SURE THAT YOUR INSTALLATION COMPLIES WITH CAN/CSA-B365.**

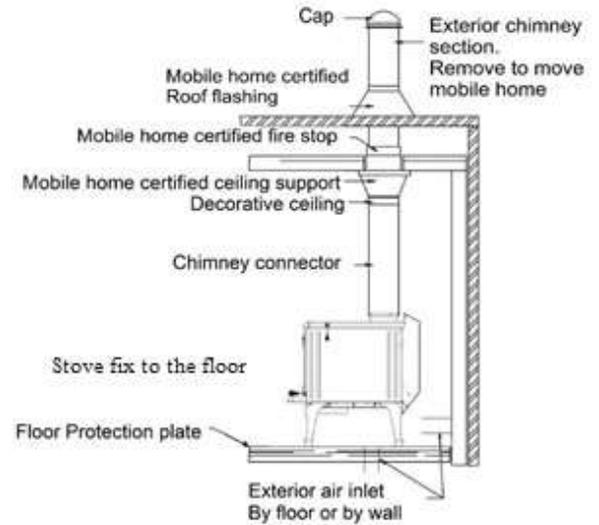
## Transportable building installation

**DANGER:** DO NOT INSTALL IN BEDROOM.

**WARNING:** THE STRUCTURAL INTEGRITY OF THE TRANSPORTABLE BUILDING FLOOR, WALL, AND CEILING/ROOF MUST BE MAINTAINED.

VAPOR BARRIER EFFICACY MUST BE KEPT IN GOOD CONDITION.

- 1) Do the General stove installation from steps 1 to 11.
- 2) The following requirements are MANDATORY for installation in a transportable building.
  - a. The stove must be fixed on the floor of mobile home with screws and washers.
  - b. The exterior air intake must be installed.
  - c. The stove must be electrically-grounded to chassis of the mobile home. In USA, electrical grounding to the certified terminals with 8 gauges wire and using star washer are mandatory.
  - d. All of the following equipment must be certified and approved for mobile home installation.
    - The chimney system
    - The roof flashing
    - The Storm collar
    - Cap with spark arrester
    - Firewall
    - Chimney ceiling support
    - Decorative collar
  - e. If the chimney is exposed outside from a wall and placed lower than 7 feet (213 cm) above the ground level where the mobile home is situated, a shield must be installed around the chimney from the bottom to 7 feet (213 cm) high. If openings are made into the shield, they must be less than 3/4 inch (2 cm) wide and keep the distance of 4 inches (10,2 cm) or more in order to avoid contact with chimney.
  - f. The chimney must exceed at least 3 feet (91,4 cm) from the highest point of opening made in the roof and exceed also 2 feet from the highest point of the roof which is 10 feet away from the chimney.
  - g. Be sure to seal correctly the flashing of the roof, the firewall and the exterior air inlet with sealant. You should also pay attention to the efficacy of vapor barrier.
- 3) Always keep the door closed. Open it only when add wood or start fire.
- 4) To close the exterior air inlet when the stove is not in use, a damper must be installed in the air intake pipe.
- 5) Don't forget to open the damper when operate your stove so that the smoke will not enter the house.
- 6) Always use certified parts for mobile home. Never use a substitute.



The chimney shall be provided with a spark arrester secured to the chimney. The net free area of the arrester above the chimney outlet shall be not less than four times the net area of the chimney outlet, and the vertical height of the arrester above the chimney outlet shall be not less than one-half the diameter of the chimney flue. Opening shall not permit the passage of a sphere having a diameter larger than 1/2 inch (12.7mm) and shall permit the passage of a sphere having a diameter of 3/8 inch (9.6mm)

When the space heater is installed in a transportable building, you need to remove the chimney for transportation.

Exterior Kit number: ECPAE

## Chimney installation, General steps

Use only approved chimneys, the same size as the output collar, 6 inches in this case. The chimneys used must be tested according to CAN/ULC S629 M87 in Canada and to UL 103 (type HT) in USA. The stove can be installed with a masonry chimney according to ULC S635, ULC S640 and UL 1777. The masonry chimney must be equipped with a stainless steel sleeve and meet the standards for the masonry chimney with inner sleeve.

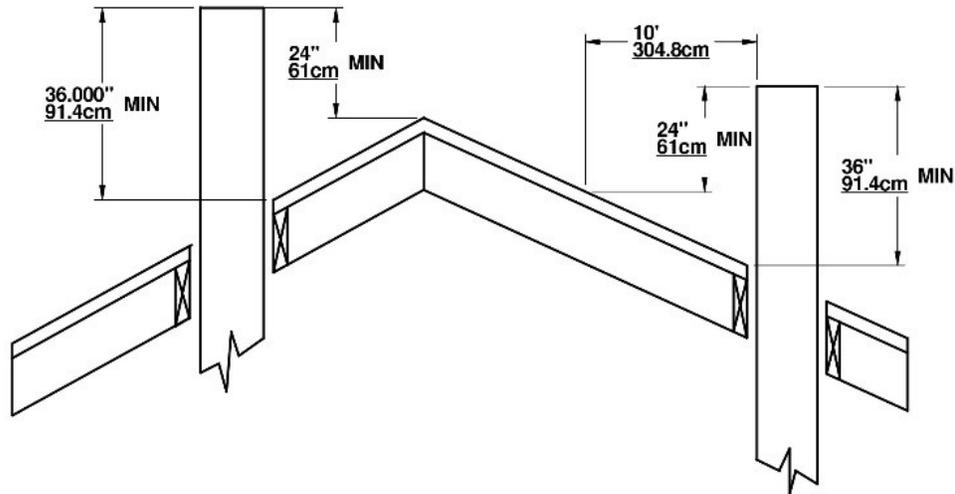
Provide a place to sweeping.

It is preferable, if possible, 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. Using a high temperature silicon or cement to ensure that the smoke pipe joint are airtight. If the chimney pass through the exterior wall or insulated roof be sure the hole after installation needs to be airtightness. Use sealant to make the building airtight.

**Note:** *This is a general chimneys installation method. Always refer to the manufacturer's manual of the chimney for a more detailed method for your chimney.*

- 1) Determine the total length needed for your chimney.
- 2) Cut the holes into all floor and roof
- 3) If you need to cut a joist, be sure to strengthen the adjacent joists and frame hole respecting the minimum dimensions to be maintained between combustible materials and the firewall. Follow the manufacturer's instructions in the manual supplied with the firestop.  
**Never cut a structural beam.**
- 4) Frame the holes in each level and attic respecting the minimum distance recommended by the manufacturer's manual of your chimney. **Install firestop in each level.**

- 5) Frame the hole into the roof.
- 6) Install the chimney support at the ceiling where stove



is installed.

- 7) Stack and lock the factory built chimney section on the support and above the roof.
  - The chimney must be over 36 inches (91.4 cm) over the higher point into the roof opening.
  - The chimney must also be 24 inches over the highest point on the roof inside 10 ft (304.8 cm) radius around chimney.
  - The minimum length of chimney is 12 feet (365.8 cm).

**ATTENTION:** Be sure the chimney section are locked together and locked onto the chimney support.

**NOTE:** *More lengthen chimney than the minimum can add more draft and help to the good working operation of the stove. Try the minimum length first then add section if you need more draft.*

- 8) Put the roof flashing over the chimney and seal it with roof caulking.
- 9) Nail roof flashing, and reinstall roof covering.
- 10) Slide the storm collar over the chimney and seal it with high temperature caulking.
- 11) Lock the chimney cap and install the spark arrestor if necessary

Note:

- Chimney performance may vary.
- Buildings, trees, roof line and wind conditions affect performance, and can make backflow into the chimney.
- Chimney height may need adjustment if smoking or overdraft occurs.

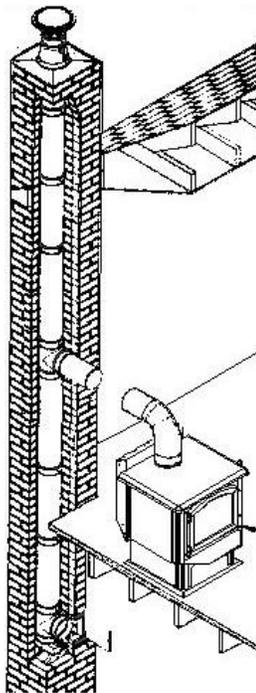
## Inside Masonry Chimney, Vertical Installation

The wood appliance must be installed in accordance with the applicable local laws or the CAN/CSA-B365, NFPA211 (USA) norms. Follow the chimney manufacturer's instructions to install the chimney.

The chimney masonry must have inside a certified metallic sleeve cover up all the chimney height. The sleeve must be at the same diameter of the flue collar; 6 inches (15.2 cm). The junction between sleeve and the chimney connector must be tight and sealed to avoid fume to go indoor.

To pass into a combustible wall between stove and the masonry chimney. The installation method has to be safe to prevent fire. Find the lasts information to your local authority to be sure of the manner you have to.

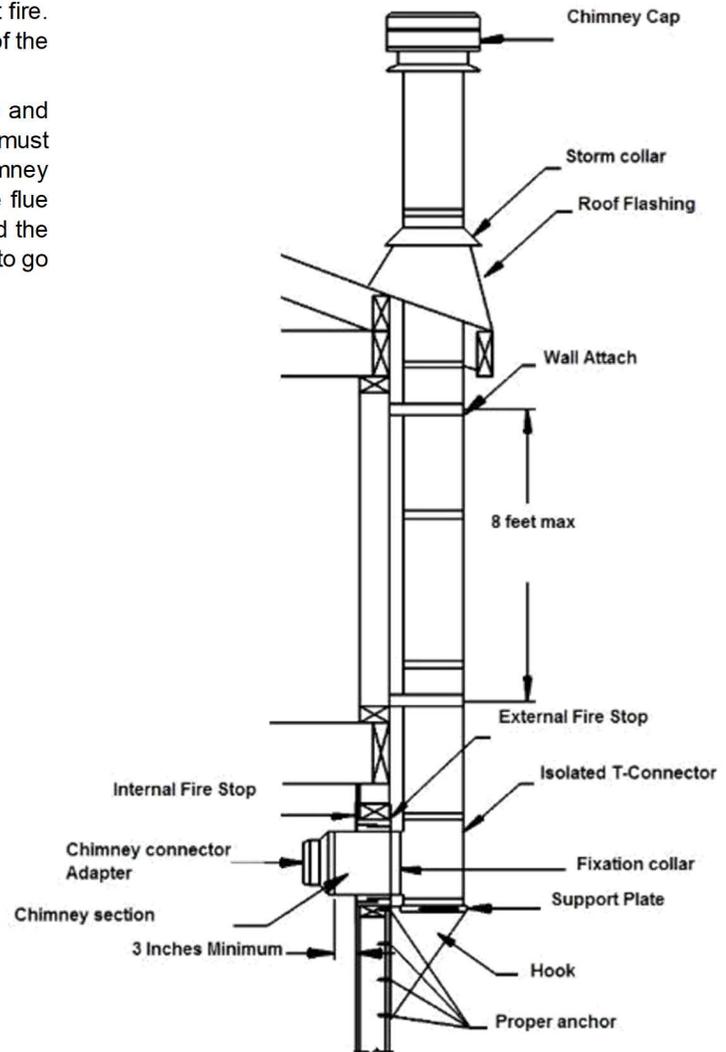
To install the stove onto an abandoned masonry fireplace and use the good condition masonry chimney the chimney must have inside a certified metallic sleeve cover up all the chimney height. The sleeve must be at the same diameter than the flue collar 6 inches (15.2 cm). The junction between sleeve and the chimney connector must be tight and sealed to avoid fume to go indoor. Don't forget to add a sweep opening.



## Outside Vertical Installation

The wood appliance must be installed in accordance with the applicable local laws or the CAN/CSA-B365, NFPA211 (USA) norms. Follow the chimney manufacturer's instructions to install the chimney.

To pass into a combustible wall between stove and the chimney. The installation method has to be safe to prevent fire. Find the lasts information to your local authority to be sure of the manner you have to. An internal fire stop and an external fire stop must be used.



## Cathedral Vertical Installation

The wood appliance must be installed in accordance with the applicable local laws or the CAN/CSA-B365, NFPA211 (USA) norms. Follow the chimney manufacturer's instructions to install the chimney.

Always pass chimney between joists. If a joist needs to be cut, referring to the National Building code to know how to do it safely to avoid structural integrity fail. Call a carpenter or a certified Installer.

Always frame around chimney. Keep minimal clearances written into your chimney manual.

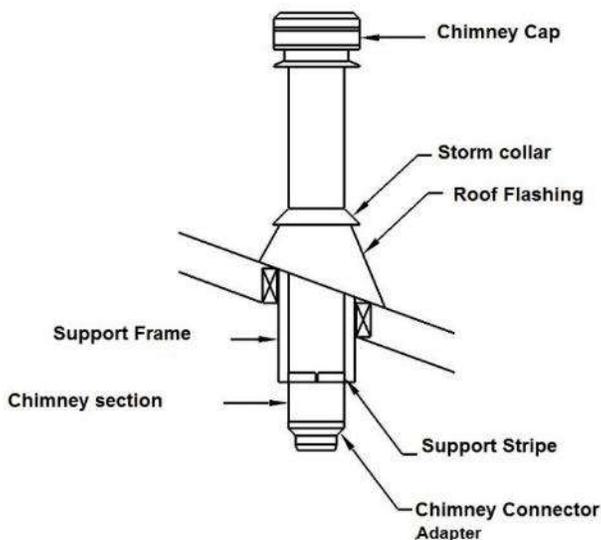
Do not fill the gap between the fire stop and the chimney. Nothing must be in contact with the chimney.

Always install a fire stop at each level, in a Floor, in a ceiling, attic and in a Roof.

Always pass with a straight section into a level joist.

The chimney should be support by the cathedral roof. Build a box around it to install ceiling support at its base.

Weight of the chimney never be allow to be support by the stove.



## Offset Installation

The wood appliance must be installed in accordance with the applicable local laws or the CAN/CSA-B365, NFPA211 (USA) norms. Follow the chimney manufacturer's instructions to install the chimney.

Always pass chimney between joists. If a joist needs to be cut, referring to the National Building code to know how to do it safely to avoid structural integrity fail. Call a carpenter or a certified Installer.

Always frame around chimney. Keep minimal clearances written into your chimney manual.

Do not fill the gap between the fire stop and the chimney. Nothing must be in contact with the chimney.

Always install a fire stop at each level, in a Floor, in a ceiling, attic and in a Roof.

A special fire stop needs to be installed into the attic. It keeps isolation and avoid the attic isolation to be in contact with the chimney.

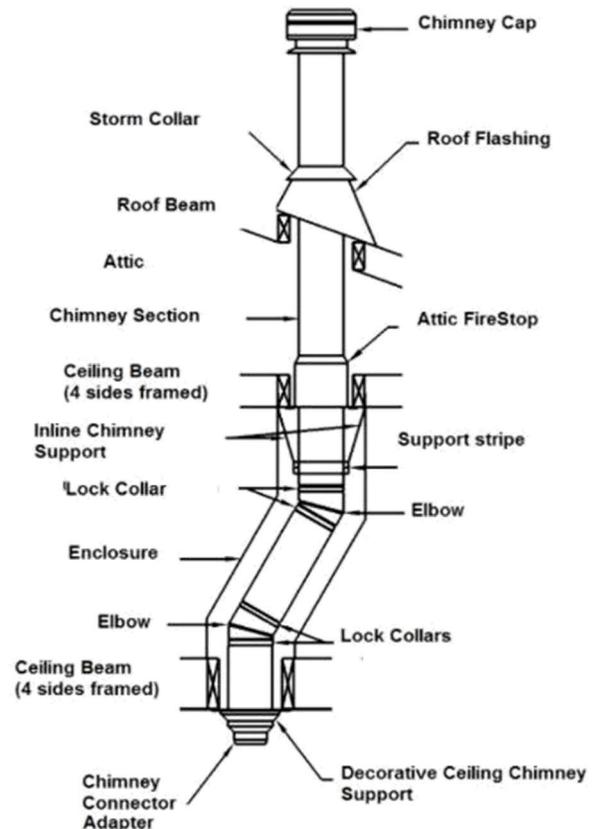
Always pass with a straight section into a level joist.

Chimney weight must be support by the lower level with a Ceiling support.

Chimney weight must never be onto the elbows. Install a support band to support the upper straight section over the elbow.

Weight of the chimney never be allow to be support by the stove.

Some restriction has to be respect regarding the maximum angle and length of the offset. See chimney manual for this restriction. Or local building code.



## Vertical Installation

The wood appliance must be installed in accordance with the applicable local laws or the CAN/CSA-B365, NFPA211 (USA) norms. Follow the chimney manufacturer's instructions to install the chimney.

Always pass chimney between joists. If a joist needs to be cut, referring to the National Building code to know how to do it safely to avoid structural integrity fail. Call a carpenter or a certified Installer.

Always frame around chimney. Keep minimal clearances written into your chimney manual.

Do not fill the gap between the fire stop and the chimney. Nothing must be in contact with the chimney.

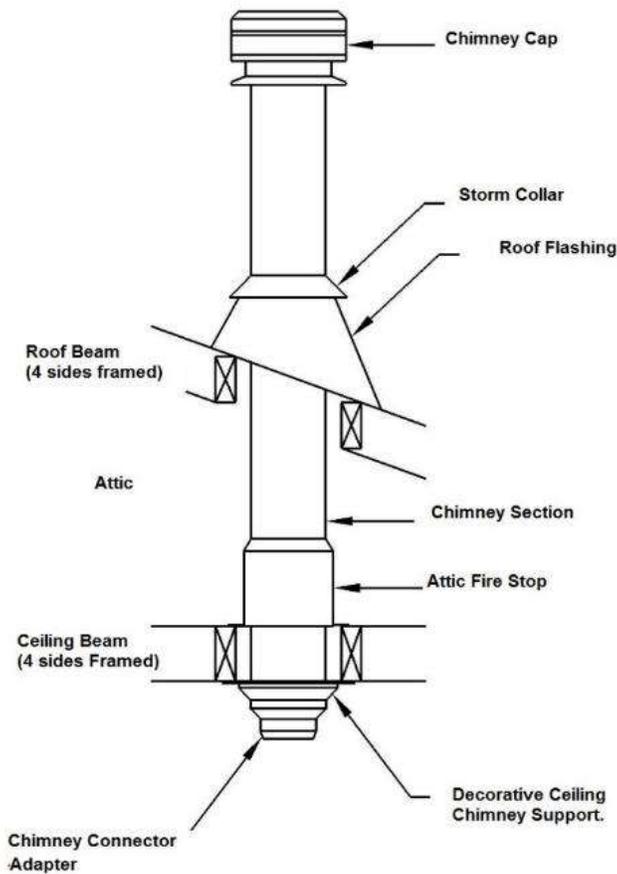
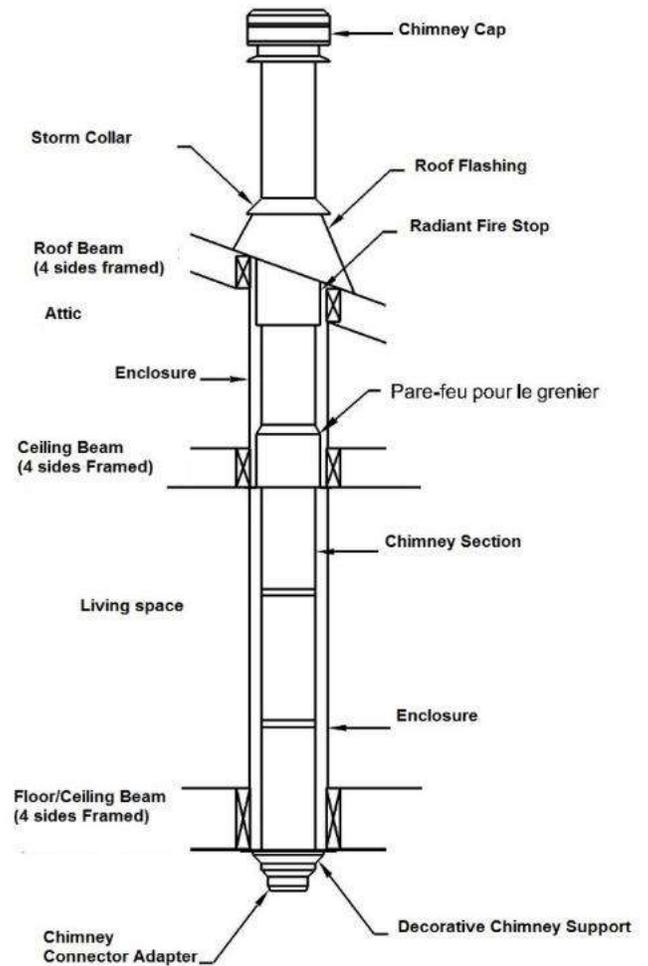
Always install a fire stop at each level, in a Floor, in a ceiling, attic and in a Roof.

A special fire stop needs to be installed into the attic. It keeps isolation and avoid the attic isolation to be in contact with the chimney.

Always pass with a straight section into a level joist.

Chimney weight must be support by the lower level with a Ceiling support.

Weight of the chimney never be allow to be support by the stove.



# EXTERNAL COMBUSTION AIR SOURCE

In conventional designed house, natural ventilation is enough to operate the wood stove.

In some new energy saving house, natural ventilation is not enough to good operation of your stove. To avoid reverse circulation of smoke caused by negative pressure when turning on some fan such as bathroom fan, cooking fan or a dryer, it is recommended to install the external combustion air inlet.

Without the external air inlet, open a window slightly in the room where the appliance is placed in order to avoid the negative pressure caused by the appliances mentioned above.

A mobile home on a foundation is considered as a conventional house.

## Exterior Air Intake pipe

This appliance is certified for the mobile home installation. An external air intake is necessary.

We recommend to use a 4 inches (10.7 cm) aluminum flexible pipe with a dumper outside air inlet equipped with grate.

Other pipe material must be complied with ULC-S110 norms or UL-181 Class1 norms, equipped with thermal resistant isolation and must be corrosion resistant.

The stove must be fix to the structure when an exterior air intake is installed.

## Installation of Air Intake Pipe

- 1) To install the exterior air intake pipe, find the hole under the stove back and fold the 3 tabs outside the Intake box. Insert the pipe into the hole and screw the pipe using the 3 holes in the tabs. Put a generous layer of high temperature latex caulking onto the joint to ensure the pipe is sealed.
- 2) Cut the exterior wall and install Air Inlet kit following the manufacturer installation instructions. Be sure to seal it correctly to preserve the vapour barrier of your house.

- 3) Install a small rigid section inside the house and put a damper to close the air Inlet. This damper is to reduce the cold air circulation into the stove when it is not in service.
- 4) Plug the flexible air inlet pipe onto the damper section.
- 5) Put a thermal resistant isolation onto the pipe if the pipe is not isolated.

To avoid that the cold air doesn't come in the stove, we recommend to install a valve which closes the pipe near the outdoor air inlet.

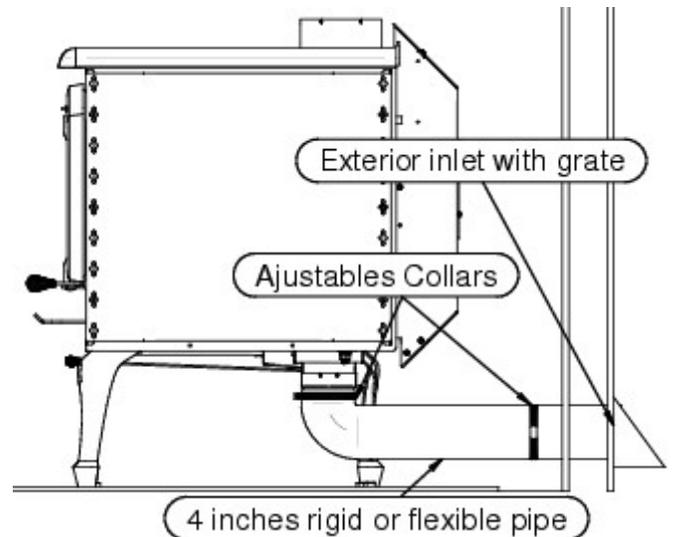
## Air Inlet Obstruction

If the stove extinguishes after closing the door, it's possible that the air inlet is obstructed by something.

After a long unused period, insects or animals can build a nest inside the air inlet.

After a storm in winter, snow can accumulate over the air inlet and obstruct it.

Before warming season, always inspect air inlet pipe to be sure nothing is obstructing the outside air inlet.



The air inlet shall prevent material from dropping into the area beneath the dwelling and also prevent rodents from entering from outside (a wire mesh having openings not larger than 1/4 by 1/4 inch (6.4 by 6.4 mm) meets the intents of the requirement).

Outside air kit number:

**ECPAE**

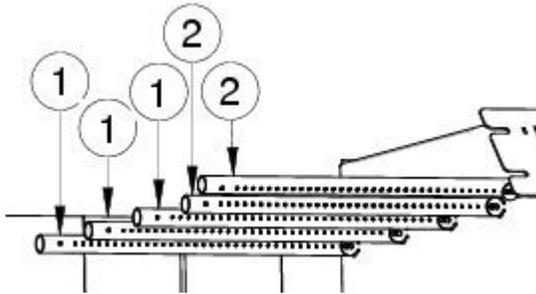
# STAINLESS STEEL TUBES REPLACEMENT

Although the tubes are in stainless steel, with extreme temperature and conditions, the tubes are eventually corroded and perforated by normal deterioration. They must be replaced by a new one to ensure the performance of your stove.

## Stainless steel tubes Installation

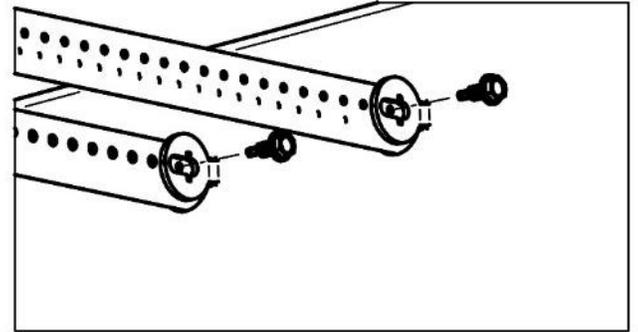
There are 2 types of tubes used into the stove. Three of them are single-side perforated (1) and are in the back of the heat chamber.

The 2 tubes in front of the heat chamber are double-side perforated tube (2).



## How to install tubes

- 1) Insert the tube into the round hole in the hot air corridor. (beginning of the back of the heat chamber)
- 2) Insert the other side in the corresponding hole of the hot air corridor.
- 3) Align holes and put the screw on both sides to hold the tube.



- 4) Install the next tube.

To remove tubes, do these steps in reverse order.

# OPERATING INSTRUCTIONS

- **OPERATE ONLY WHEN DOOR IS CLOSED:** Keeping the door open might over fire and cause permanent damage to the stove or a chimney fire.
- **IT'S RECOMMENDED TO INSTALL A CO, CO2 AND SMOKE DETECTOR INTO THE SAME ROOM THAN THE STOVE.** The smoke detector might go on when there is smoke leaking out.
- **NEVER SLAP THE DOOR.**
- **NEVER BURN INFLAMMABLE LIQUID:** Inflammable liquid makes very intense heat and it is hard to control the combustion. It might cause the runaway and overheat of stove. This can consequently make permanent damage to the stove or a chimney fire.
- **ALWAYS VERIFY IF THE AIR INLET IS NOT OBSTRUCTED BEFORE LIGHTNING A FIRE.**
- **NEVER ELEVATE FIRE WITH GRATE OR ANDIRON.** ALWAYS MAKE FIRE DIRECTLY IN THE HEARTH.

## Operating instruction according to ALT-125, ASTM E3053, Cord Wood

### High burn rate

- Start the fire with approximately 4.3 lbs (18 Kg). of start up fuel, 2.8 lbs (0.9 Kg). of kindling.
- Ignite the fire with a propane torch
- After 1 minute close the door.
- When left approximately 3 lbs (1.3 Kg). from the start up load, the high burn rate load can be inserted.
- The high burn rate load can be up to 31lbs (14 Kg). Open the door, load the stove with high burn load.
- Close the door immediately after.
- Leave the air damper fully open at maximum position
- Convection fan should be on (AUTO) mode, cycle automatically on Therm-O-Disc.

### Medium burn rate

- From the high burn rate coal bed, when 5 to 6 lbs. left, the load can be inserted in the firebox.
- Open the door
- Insert the 36 lbs (16.3 Kg). load in the wood heater
- Close the door immediately after.
- Keep the combustion air damper fully open for 1 to 3 minutes then shut down the air damper to the medium setting.
- Convection fan should be on (AUTO) mode, cycle automatically on Therm-O-Disc.

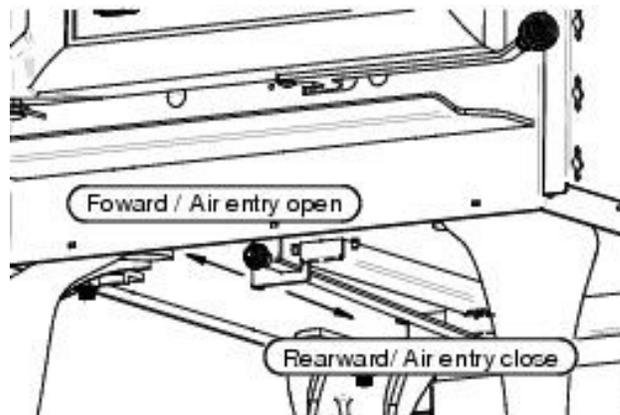
### Low burn rate

- From the high burn rate coal bed, when 5 to 6 lbs. left, the load can be inserted in the firebox.
- Open the door
- Insert the 36 lbs (16.3 Kg). load in the wood heater
- Close the door immediately after.

- Keep the combustion air damper fully open for 2 to 3 minutes then shut down the air damper to the minimum setting. (Fully closed)
- Convection fan should be on (AUTO) mode, cycle automatically on Therm-O-Disc.

## Primary and secondary air admission control

When the handle under the front tablet of the stove is pushed completely backward, the air admission is only from the tube. This is what we called "Secondary air admission". On the other hand, when the handle is pulled fully forward, the air admission is directly from the top of the door opening and this is what we called "Primary air Admission".



**Warning:** Operating your stove with the Primary air admission fully open for a long period of time can damage the stove.

**IT IS PROHIBITED TO MODIFY AIR ADMISSION TO OBTAIN A BRIGHT FIRE OR FOR ANY OTHER REASON. MODIFICATION CAN VOID GUARANTEE.**

## Lightning fire

After installing correctly the stove following the instruction of the manufacturer, you are ready to light it.

- 1) Pull the control knob forward to let the direct air admission in the combustion chamber.
- 2) Put paper and kindling wood into the combustion chamber and light the fire in your preferred way.
- 3) Close the door partially keeping a slight opening. When chimney has been hot enough, close completely the door and let the air admission in the horizontal position so that your fire is kindled.
- 4) Once you have a glowing ember, it's time to add logs. Follow now the instruction section on how to keep a fire.

**DO NOT OVER CHARGE THE STOVE OVER THE UPPER BRICK.**

You can control the combustion by turning up or down the handle. The wood will burn more rapidly when more primary air is set. Otherwise, the wood burn more slowly and more efficiently with the handle set to secondary air.

- **OPERATE STOVE WITH THE PRIMARY AIR ADMISSION FULLY OPEN FOR A LONG PERIOD OF TIME, CAN DAMAGE THE STOVE BY OVER FIRING.**
- **NEVER LEAVE THE STOVE UNATTENDED WHEN THE DOOR IS SLIGHTLY OPEN. ALWAYS CLOSE THE DOOR AFTER LIGHTNING.**
- **USE THE STOVE ALWAYS LEAVING THE DOOR CLOSED.**
- **NEVER USE CHEMICAL PRODUCTS OR INFLAMMABLE LIQUID TO START THE FIRE OR REVIVE THE FLAME.**
- **DO NOT BURN TRASH OR ANY OTHER INFLAMMABLE PRODUCT SUCH AS GAZOLINE, NAPHTHA OR MOTOR OIL.**
- **DO NOT BUILD FIRE NEAR THE DOOR GLASS.**
- **KEEP THE INFLAMMABLE PRODUCTS AWAY FROM THE APPLIANCE.**

## First fire

During the first hours of operation, you must heat it gradually. In order to allow an appropriate baking of the paint and 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 fade the color.

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 use.

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

## Keep a fire

To add wood into the stove and keep a fire:

- 1) Pull the control knob forward and wait a few second to let the fire adjust to the new conditions.
- 2) Open the door handle to the first position and wait for a while until the fire has been adjusted.
- 3) Turn the door handle completely and leave the door half-open and let the fire set up.
- 4) Open the door completely.
- 5) Move embers near the door with poker to supply it with oxygen and make it burn completely.
- 6) Add firewood over the ember, keeping it away from the glass door to avoid flame touching the ceramic glass.

### ATTENTION:

- **DO NOT OVER CHARGE THE STOVE OVER THE UPPER BRICK.**
- **DO NOT BUILD A FIRE NEAR THE WINDOW.**
- **THIS APPLIANCE IS DESIGNED TO BURN DRY CORDWOOD. WE DON'T RECOMMEND ANY OTHER TYPE OF WOOD.**

- 7) Close the door slightly and let the wood burn.

- 8) Once the fire gets stable, close and lock the door.
- 9) Push the air admission knob to needed setting.

**NEVER LEAVE THE STOVE UNATTENDED WHEN THE DOOR IS SLIGHTLY OPEN. ALWAYS CLOSE THE DOOR AFTER ADDING A LOAD. *Keeping the door open is not advised. When the appliance is heated, sparks may come out of the hearth. A fire runaway may be created causing the appliance and flue pipes to overheat.***

**DO NOT USE ANY INFLAMMABLE LIQUID TO REKINDLE THE FIRE.**

## Fan Control

When it's ON, the snap disc will start at the moment when the temperature of ventilation box gets 120 Fahrenheit (49 ° Celsius).

In OFF Position, the fan is turned off and it doesn't start.

**NEVER ROUTE THE ELECTRIC WIRE OF FANS IN FRONT OR UNDER APPLIANCE.**

## Fuel Selection

This heater is designed to burn only firewood. Using firewood dried properly results in higher efficiencies and lower emissions of pollutant compared with using softwood or fresh wood.

## Moisture Meter Information

Firewood is ready to use at 10-25% moisture content.

Fresh cut logs can have a moisture content of 80% or more, depending on species. During the drying process, wood might shrink, split, twist or change shape. In general, wood must be dried before use. Air drying, i.e. 'seasoning' is the most common method used for cordwood.

Season wood outdoors through the summer for at least 6 months before burning it. Properly seasoned wood is darker, has cracks at the ends, and sounds hollow when smacked against another piece of wood.

In most parts in the North America, the minimum moisture content that can be generally obtained in air drying is about 12 to 15 percent.

## Things not to burn

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.

- Garbage
- Lawn clippings or yard waste
- Materials containing rubber, including tires
- Materials containing plastic
- Waste containing petroleum products, paints or paint thinners, or asphalt products
- Materials containing asbestos
- Construction or demolition debris
- Railroad ties or pressure-treated wood
- Manure or animal remains
- Salt water driftwood or other previously salt water saturated materials
- Unseasoned wood
- 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.

## Wood storage

The cordwood must be store into dry place, away from bad weather.

It should not be stored under or near the stove.

If any wood is stored next to the stove, it must respect the minimum clearances to avoid self-ignition temperature.

- 10 inches (25.4 cm) behind
- 20 inches (50.8 cm) beside
- 48 inches (122 cm) in front

## Draft

Draft is the force which moves air from the appliance up through the chimney. The amount of draft in your chimney depends on its length, local geography, nearby obstructions and other factors. Too much draft may cause excessive temperatures in the appliance and may damage the appliance.

An uncontrollable burn or excessive temperature indicates excessive draft.

Insufficient draft will cause the appliance to leak smoke into the room through appliance and chimney connector joints.'

# MAINTENANCE

## Ash Removal

The wood burning doesn't transform the wood into combustion gas completely. It makes some residue called ash and it must be removed from the combustion chamber to help oxygen circulation.

The ash has to be removed periodically every 2 or 3 days during heavy warming period. Never had excessive accumulation into the combustion chamber because it can reduce performances of your stove by diminish the air circulation between logs.

When ashes get 3 to 4 inches deep in your firebox, and when the fire has burn 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.

The best time to remove ash is after a long warming period like morning when the stove is relatively cold enough to manipulate ash and the chimney is still hot. The hot chimney draft will vacuum the dust inside the stove.

To clean ash from the combustion chamber, you must have the following tool.

- Ash shovel
- Ash brush
- A metal bucket with airtight lid.

Some embers are mix with ash and still lit a few hours or a few days. It is very important that the metal lid was airtight. The bucket must be put on a non-combustible tile or brick.

## Ash Disposal

Some embers mixed with ash can still be lit. If embers have enough oxygen, they can still stay lit some hours and even a few days.

It's mandatory to store ash pending disposal:

- Into a metal container with an airtight metal lid correctly closed
- Outside the house on a non-combustible material such as gravels, concrete and bricks.
- Far enough any combustible material.
- Far enough any inflammable liquid and vapor.

If the ash are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled.

**NEVER PUT TRASH INTO THE ASH CONTAINER.**

## Creosote Formation

When wood is burning slowly, it produces tar and other organic vapors, which are combined with expelled moisture to form creosote. The creosote vapor condenses in the relatively cool chimney flue of a slow-burning fire. As a result, creosote residue accumulates on the flue lining and this creosote makes an extremely hot fire when ignited.

The chimney connector and chimney should be inspected at least once a week during the first month to determine if a creosote buildup has occurred and to see how often you have to sweep it. Warmer your fire is less creosote buildup occurs.

Contact your local fire authority to know how to handle a chimney fire.

## Chimney Inspection

Wood moisture, a type of wood, the combustion quality are the factors that can influence creosote buildup speed into the chimney and chimney connector.

The chimney and the chimney connector must be inspected at least one every two months during the warming season or more depending on your installation. You can call a Chimney sweeper to evaluate the creosote formation or you can do it yourself. Extinguish the wood stove, wait for cool down then unscrew the chimney connector and inspect the chimney connector and the factory build chimney with a spotlight to see if a creosote buildup as occurred. For a masonry chimney, insert a mirror in the cleanout opening at the bottom on a bright day. For an outdoor factory build chimney, open the cap at the bottom of chimney.

If there is 1/8 inches (3 mm) or more creosote buildup, smaller apparent diameter or if you cannot see the chimney cap, it's a sign to sweep your chimney connector and your chimney to remove creosote.

## Chimney Sweeping

Chimney Sweeping needs a special tool such as fiberglass rod, an adapted diameter brush and a rope.

Sweeping chimney also requires climbing on the roof to remove the chimney cap and sometime even a very high chimney section too.

We recommend to call a Professional chimney Sweeper certified by APC in Quebec, the WETT in the rest of Canada or by NFI in United States.

## Door maintenance

The door is the mobile element that needs a special attention. Its tightness is essential. One of the first signs of wear braided fiberglass rope is the white soot sticking on the glass where the air leaks.

## Air tight Adjustment

If the braided fiberglass rope still seems good enough but little flattened, it needs probably to be tightened.

### *Door adjustment (right side)*

This side adjustment can be done with the screw under the door near the hook hole.

- 1) Unlock and open the door.
- 2) With a square screwdriver, turn clockwise the adjustment screw a quarter turn.
- 3) Put a piece of paper between the frontage of stove and braided fiberglass rope. Close and lock the door.
- 4) If the paper slides easily when you pull it, repeat steps 1 to 3 again.
- 5) If the screws are tightened but the piece of paper comes off easily, the braided fiberglass rope must be changed.

## Cleaning up glass

To clean the glasses, J.A. Roby Inc. recommends using products sold for this purpose or an oven cleaner avoiding touching paint part.

Avoid cleaning with abrasives and cleaning the hot glass. Cleaning hot glass can cause a thermal shock and can break the glass.

## Uninstalling and installing door

Do not unscrew the lower hinge when disassemble the door.

- 1) Keep the door locked.
- 2) Loosen the upper hinge without removing the nut.
- 3) Unlock the door and open it while holding it.
- 4) Tilt the door slowly downward to remove the upper hinge
- 5) Lift the door and remove the lower hinge.

Installing the door:

- 1) Insert the bottom hinge and bring up the door. Place the nail in the upper hinge.
- 2) Close and lock the door, then make sure the door is placed horizontally.
- 3) Tighten the upper hinge and align the washer with the hinge support.
- 4) Carry out the air tighten adjustment.

## *Replacing broken glass*

**WARNING: NEVER OPERATE STOVE WHEN THE GLASS IS BROKEN OR CRACKED.**

**DO NOT SLAP THE DOOR.**

**NEVER BUILD FIRE NEAR THE GLASS.**

**NEVER PUT WATER ONTO THE GLASS TO AVOID A THERMAL SHOCK.**

Replace only with a 4mm ceramic glass with the right shape.

**DO NOT USE SUBTITUTE.**

Steps to replace broken glass

- 1) Loosen partially the screws retaining the four glass supports.
- 2) Remove the broken glass and all pieces of broken glass and clean the door.
- 3) There is a fiberglass rope for sealing. If not, you need to install it. Stick the flat fiberglass rope around the glass without pulling it excessively. A sticking side is already on the flat rope.
- 4) Install the new glass and put the lower support first and gently tighten screw. If screws are tightened too much, it makes pressure points and it might break the glass when it gets hot.
- 5) Install the top support and gently tighten screw.
- 6) Verify if all the screws are tightened properly.

If you cannot replace glass with the door in place, you may have to remove the door. To do so, follow the instruction of this manual.

## *Fiberglass rope replacement*

When it is impossible to adjust the door because of the flattened fiberglass rope, it is the time to change it. If the rope is damaged, you also have to replace it.

Use a ½ inches (12.7mm) braided fiberglass rope.

To install the new fiberglass rope, we recommend detaching the door from the stove. Please see the pertinent section in this manual.

## *Fiberglass rope preparation*

- 1) Take the end of the fiberglass rope and push fiber inside.
- 2) Add little touch of high temperature latex inside the end of the fiber glass rope to make a clean end.
- 3) Remove old fiberglass rope and clean the groove.
- 4) Starting at the lower corner near the hinge put the fiberglass rope into the groove without giving any tension to verify the length of the rope.
- 5) Cut the rope in more than ½ inches and repeat the step 1 and 2.

## *Fiberglass rope installation*

- 1) Put a high temperature latex inside the clean groove to glue the fiberglass rope.
- 2) Starting at the lower corner near the hinge put fiberglass rope into the groove without giving any tension
- 3) Align the two fiberglass rope ends perpendicularly and put some high temperature latex in between.
- 4) Let dry the high temperature latex for at least 48 hours. Put the door back on the hinge and readjust the tightness.

## **WHAT TO DO IN CASE OF CHIMNEY FIRE**

**CONTACT YOUR LOCAL AUTHORITY TO KNOW WHAT TO DO IN CASE OF CHIMNEY FIRE. AND BE SURE TO KNOW PROCEDURE IN CASE OF CHIMNEY FIRE.**

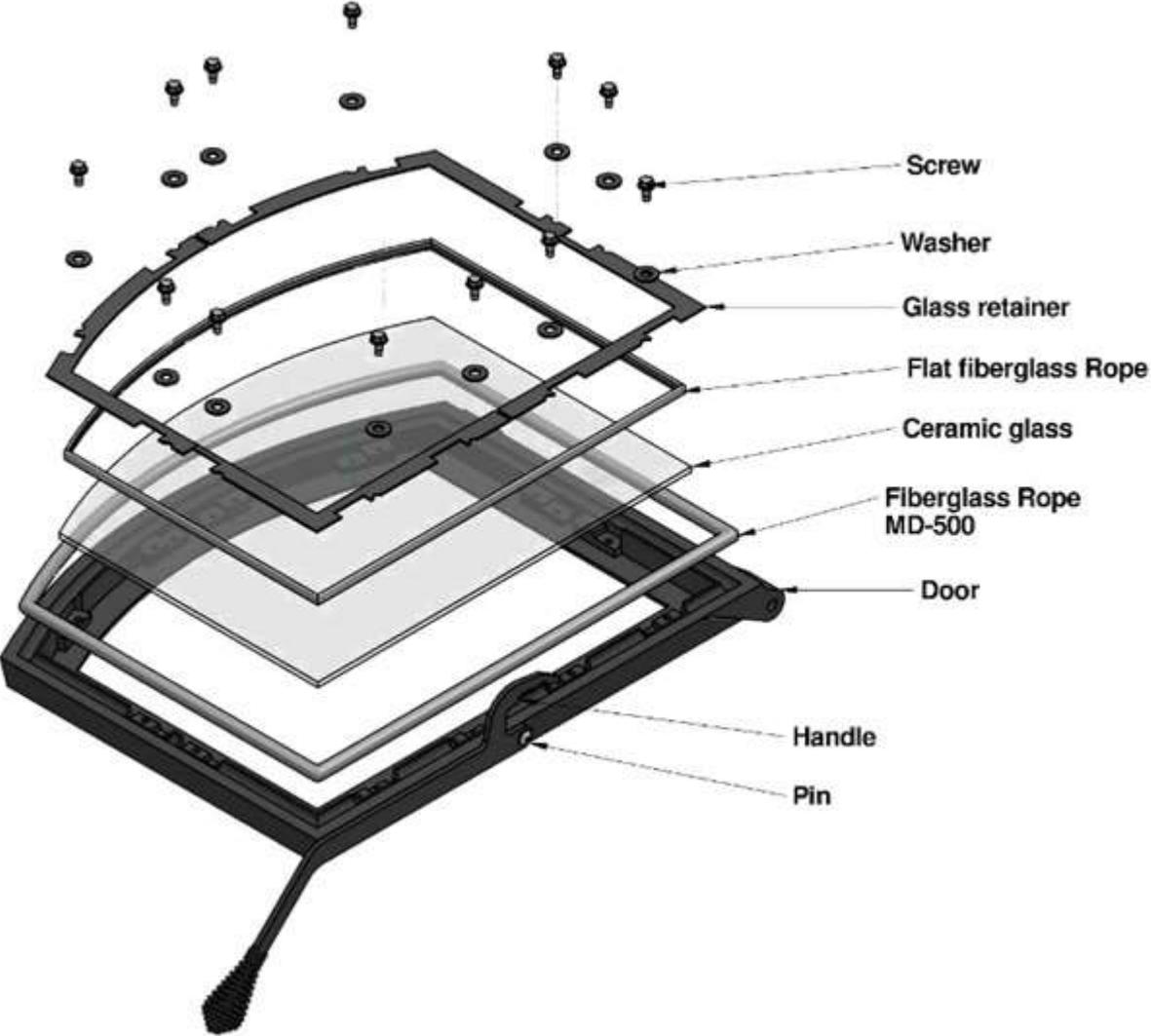
1. Close all door, the air inlet and the damper.
2. Water the combustible materials around the stove.
3. Trigger alarm and leave the house, if necessary, and call the Fire department.
4. Never touch the chimney while is burning.

Do not use the chimney before an inspection or repair necessary.

# ANNEX 1

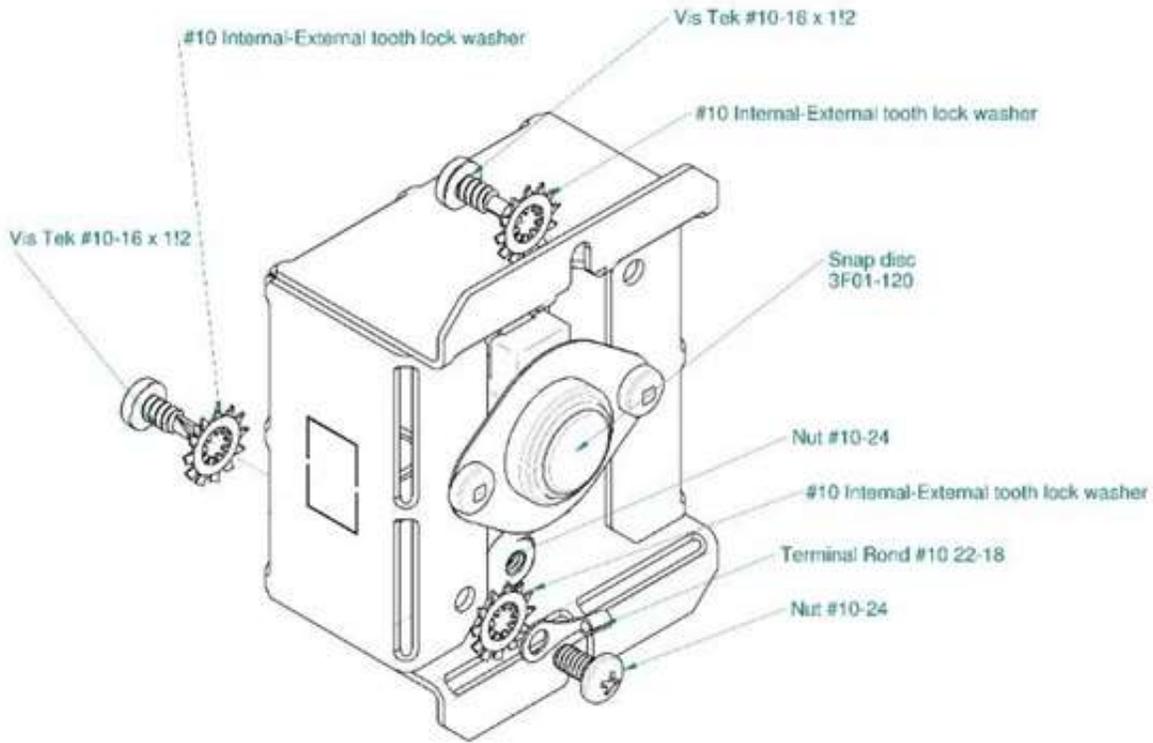
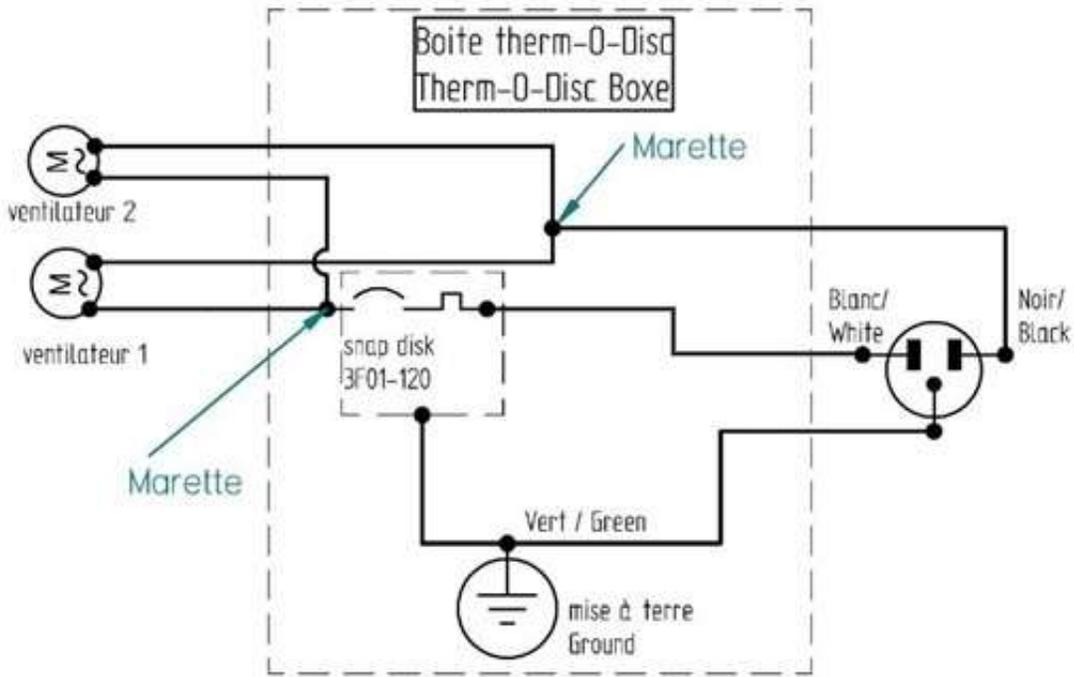
## Exploded diagram of door

### Arc door



# ANNEX 2

## Fans electric wiring diagram



## **ANNEX 3**

### **Parts that can be replaced**

- Bricks
- Door glass
- Spring Handle
- Stove Door with handle
- Fans
- Flat fiber glass rope (around glass)
- Round fiberglass rope
- Ash Plug
- Slotted Brick Washer

Call your stove seller representative to order parts.



**STOVES & FIREPLACES**

**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 J. A. ROBY. 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.

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

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	

Due to on-going 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 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

Review oct. 2014