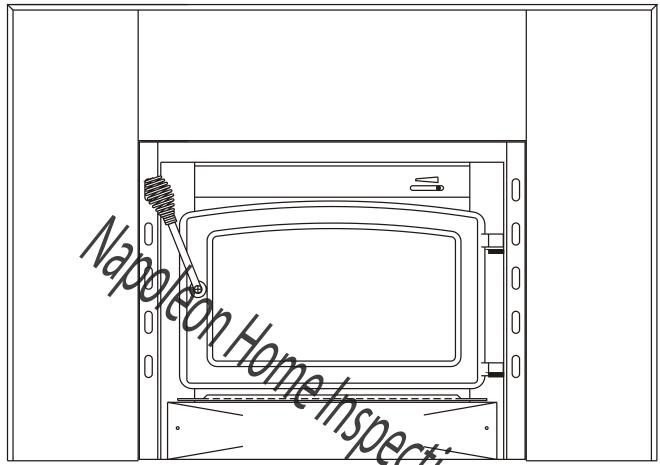
# MODEL CW2500X / CJW2500X SERIES EPA APPROVED HIGH EFFICIENCY AIR TIGHT INSERT

FOR INSTALLATION IN MASONRY FIREPLACES ONLY



SAFETY NOTICE

Read this entire manual before you install and use your freplace insert.

If not properly installed, a house fire may result.

To reduce the risk of fire, follow the installation instructions.

Failure to follow instructions may result in property damage, bodily injury, or even death.

Contact local building, fire officials or authorities having jurisdiction about permits, restrictions and installation inspection requirements in your area.

This unit is not mobile home approved.



# THIS APPLIANCE IS MANUFACTURED FOR A 6"(152mm) DIA CHIMNEY CONNECTION.

(See Page 6)

SAVE THIS MANUAL FOR FUTURE REFERENCE



TO HELP US HELP YOU! Fill in the information requested below and retain proof of purchase.

Date Of Purchase	Product Serial Number	Model Number

Model and product serial number can be found on the certification label of your stove.

#### **CAUTION**

After reading these instructions if you have any doubt about your ability to complete your installation in a professional like manner you should obtain the services of an installer versed in all aspects as to the correct and safe installation **DO NOT** use temporary makeshift compromises during installation.

#### ABOUT YOUR APPLIANCE

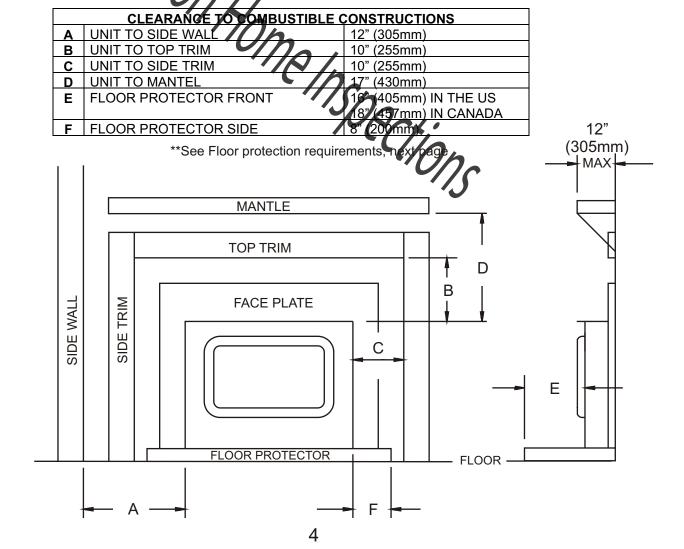
- 1. HOT WHILE IN OPERATION. KEEP CHILDREN, CLOTHING AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS.
- 2. DO NOT BURN GARBAGE OR FLAMMABLE FLUIDS.
- 3. Check with the building inspector's office for compliance with local codes; a permit may be required.
- 4. This appliance requires installation in a masonry type fireplace only. **DO NOT INSTALL IN A FACTOR BUILT FIREPLACE SUCH AS A ZERO CLEARANCE.**
- 5. Always connect this unit to a chimney and **NEVER** vent to another room or inside a building.
- 6. DO NOT CONNECT TO ANY AIR DISTRIBUTION DUCT OR SYSTEM.
- 7. **DO NOT** connect this unit to a chimned five serving another appliance.
- 8. A stainless steel chimney liner may be required theck with local building, fire officials or authorities having jurisdiction in your area.
- 9. DO NOT USE CHEMICALS OR FLUIDS TO START THE FIRE
- 10. The connector pipe and chimney should be inspected periodically and cleaned if necessary.
- 11. Remember the clearance distances when you place furniture or other objects within the area. **DO NOT** store wood, flammable liquids or other combustible materials too close to the unit.
- 12. Contact your local municipal or provincial fire authority for information on how to handle a chimney fire. Have a clearly understood plan to handle a chimney fire. In the event of a chimney fire, turn air control to closed position and **CALL THE FIRE DEPARTMENT.**
- 13. **DO NOT** tamper with air control beyond normal adjustment.
- 14. Once the required draw is obtained, operate only with doors closed and open doors slowly when re-fueling. (This will reduce or eliminate smoke from entering the room). These units are not mobile home approved. **Do not** install this unit in a mobile home or trailer.

#### Installation

- 1. Remove all boxes of firebricks and any packaging from inside the appliance.
- 2. Clean out the masonry fireplace ensuring the ashes are placed in a metal container.
- 3. Remove or lock open the damper plate in the masonry fireplace.
- 4. Contact local building, fire officials or authorities having jurisdiction about permits, restrictions and installation inspection requirements in your area.
- 5. The insert must be installed in compliance with the minimum clearances to combustible constructions and floor protection stated on appliance certification label (located on back of unit) and listed below. See page 5 for further instructions about floor protection.

# FAILURE TO FOLLOW THESE MINIMUM CLEARANCE REQUIREMENTS MAY RESULT IN AN UNSAFE INSTALLATION.

- 6. Install the refractory bricks (see page 10).
- 7. Install faceplate onto insert (see pages 9 and 11). The trim should fit against the face of the fireplace. If this is not a good fit, a 2"(50mm) wide strip of fibreglass insulation can be used to insure a good fit.



#### Floor Protector

This appliance must be installed in a masonry fireplace enclosure built in accordance with local building codes. DO NOT INSTALL IN A FACTORY BUILT FIREPLACE SUCH AS A ZERO CLEARANCE.

Floor protector must extend to cover area shown on the diagram below.

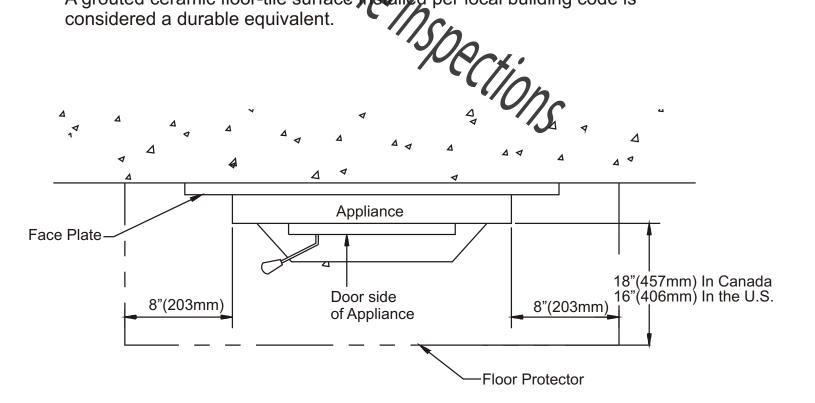
When the floor covering the area shown on the diagram below is concrete, no floor protector is required.

Carpeting and any other combustible material shall not cover the Floor Protector.

If a combustible surface is applied to the concrete floor, a clearance must be maintained equivalent to the area reserved for the floor protector. See diagram below.

If the area shown on the dagram below is a combustible floor or a combustible floor covering, a 3/8"(10 m) thick non-combustible millboard floor protector or durable equivalent must be installed. The pad must cover the area shown.

A grouted ceramic floor-tile surface in salled per local building code is considered a durable equivalent.



#### WHY THE CORRECT CHIMNEY SIZE IS IMPORTANT

Your appliance operates best using a minimum 6"(152mm) diameter chimney. The maximum chimney diameter must not exceed 10"(254mm) in diameter or have a cross sectional area greater than 85 in<sup>2</sup> (550cm<sup>2</sup>).

Today's solid fuel appliances are much more efficient than in the past. Your appliance has been designed to give you controlled combustion, good heat transfer, using less fuel to do so. The result of better heat transfer is lower chimney temperatures, making the chimney size important for good draft. Poor draft will create poor performance of your appliance, and a safety hazard.

Should you experience a problem with smoke entering the room or poor combustion call in a local chimney expert.

#### **BURN RATE**

With the door closed, the rate of burning is regulated by the amount of air allowed to enter the unit through the air control. With experience you will be able to set the control for the desired heat and burning time.

Attempts to achieve higher output rates that exceed heater design specifications can result in permanent damage to the heater. The recommended wood load is level with the top of the firebricks. Overloading may prevent sufficient air entering the heater to properly fuel the fire.

<u>Do not</u> tamper with air control beyond the pormal adjustment capacity.

WARNING Operate this heater only with the door posed

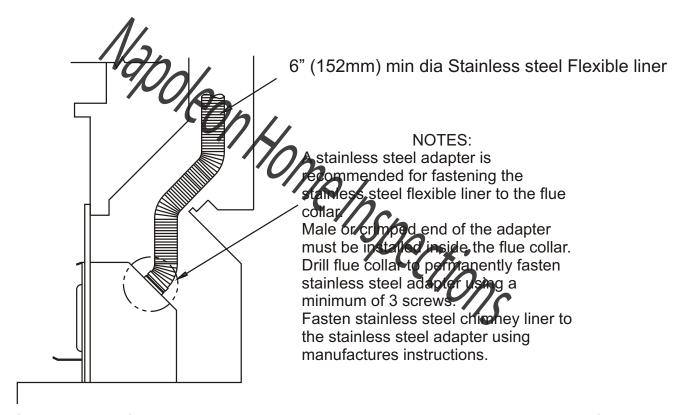
ALWAYS PROVIDE A SOURCE OF FRESH AIR INTO THE ROOM WHERE THE UNIT IS INSTALLED. FAILURE TO DO SO MAY RESULT IN AIR STARVATION OF OTHER FUEL BURNING APPLIANCES AND THE POSSIBLE DEVELOPMENT OF HAZARDOUS CONDITIONS.

THIS HEATER IS EXTREMELY HOT WHILE IN OPERATION. SERIOUS BURNS CAN RESULT FROM CONTACT. CAUTION SHOULD BE OBSERVED ESPECIALLY WHEN CHILDREN ARE PRESENT.

#### **CHIMNEY**

# CONTACT YOUR LOCAL BUILDING AUTHORITY FOR APPROVED METHODS OF INSTALLATION

- a) A chimney connector shall not pass through an attic, roof space, closet, floor, ceiling or simular concealed space. Where passage through a wall or partition of combustible construction is desired, the installation shall conform to CAN/CSA-B365 (in Canada). In the USA, check with local building officials for requirements in your area.
- b) It is advisable to have your masonry chimney inspected for deterioration such as cracks and crumbling mortar before you install your unit.
- c) To help ensure a good draft, the top of the chimney should be at least 3 feet (914mm) above the point of penetration through the roof, and be at least 2 (610mm) feet higher than any point of the roof within 10 feet (3048mm).
- d) Do not use makeshift compromises during installation.
- e ) Do not remove bricks or mortar from the fireplace.



**CANADA:** This fireplace insert must be installed with a continuous chimney liner of 6"(152mm) minimum diameter extending from the flue collar to the top of the chimney. The chimney liner must conform to the class 3 requirements of CAN/ULC-S635 STANDARD for lining systems for existing masonry or factory-built chimneys and vents, or CAN/ULC-S640 STANDARD for lining systems for new masonry chimneys.

**USA:** This fireplace insert must be connected to:

- 1) A chimney complying with the requirements for type HT chimneys in the Standard for Chimneys, Factory-built, Residential Type and building Heating Appliance, UI103, or
- 2) A code-approved masonry chimney with flue liner.
- 3) See page 8 for alternate chimney installation.

## ALTERNATE CHIMNEY INSTALLATION WHICH APPLIES TO THE USA ONLY

CONTACT YOUR LOCAL BUILDING AUTHORITY FOR APPROVED METHODS OF **INSTALLATION** 

**WARNING:** This fireplace insert must be connected to: A chimney complying with the requirements for type HT chimneys in the Standard for Chimneys, Factorybuilt, Residential Type and building Heating Appliance, UI103,

A code-approved masonry chimney with chimney liner.

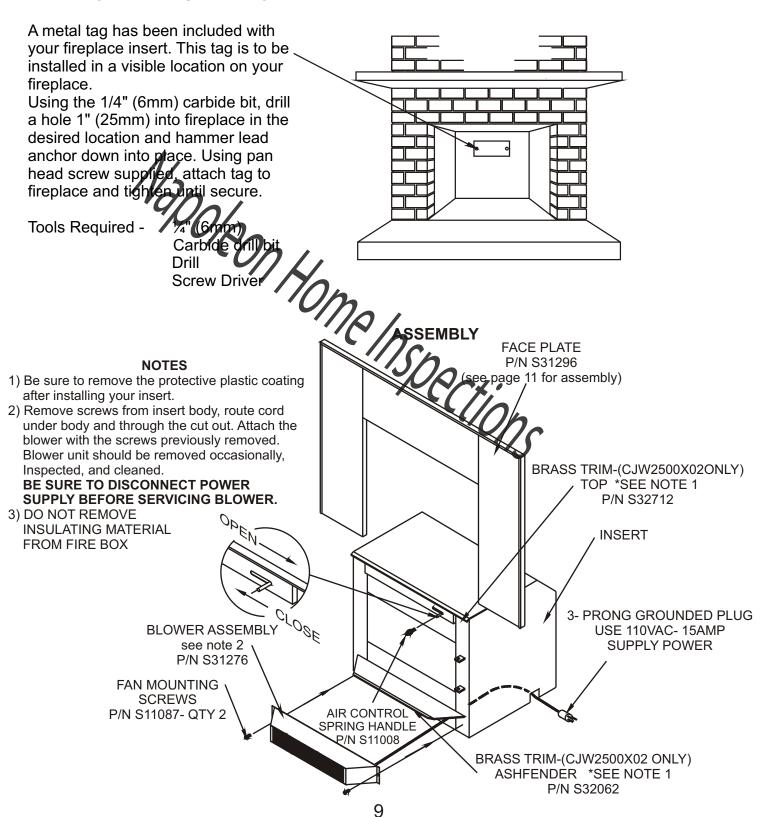
- a) This insert must be connected to a code-approved masonry chimney or listed factory-built fireplace chimney. When installation is to a factory-built fireplace chimney, a direct flue connection will be required. Contact the chimney manufacturer or local building authorities for approved method. When installation is into a masonry chimney, a chimney connector of a minimum 24 gauge steel must be installed into the first chimney liner section. The cross sectional area of either type of chimney must not be less than the inside cross sectional area of the flue collar, nor shall it be greater than 85 square inches (550 cm<sup>2</sup>). The chimney connector must be secured with a minimum 3 screws at the flue collar and each adjoining sections.
- b) A chimney connector shall not pass through an attic, roof space, closet, floor, ceiling or similar concealed space. Where passage through a wall or partition of combustible construction is desired. Check with local building officials for requirements in your area.
- c) It is advisable to have your masorry chimney inspected for deterioration such as cracks and crumbling mortar before you install your unit.
  d) To help ensure a good draft, the top of the chimney should be at least 3 feet (914mm) above the point of penetration through the roof and be at least 2 (610mm) feet higher than any point of the roof within 10 feet (3048 mm). Chimney liner

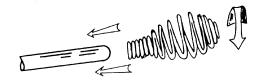
e) Do not use makeshift compromises during installation The cross sectional area must f) Do not remove bricks or mortar from the fireplace not exceed 85 square inches (550 cm²). him lev connector into the first The smoke chamber section of the flue liner. must be sealed using noncombustible material, to prevent smoke from reentering the room. The installation shall be such that the Masonry fireplace chimney system can be inspected and cleaned. Drill flue collar to permanently fasten chimney connector. A minimum of 3 screws will be required. Insert.

#### **EXCEPTION** (e), page 7:

Masonry or steel, including the damper plate, may be removed from the smoke shelf and adjacent damper frame if necessary to accommodate a chimney liner, provided that their removal will not weaken the structure of the fireplace and chimney, and will not reduce protection for combustible materials to less than required by the National Building Code. Consult with local building authorities having jurisdiction before starting.

# IMPORTANT WARNING LABEL INSTALLATION



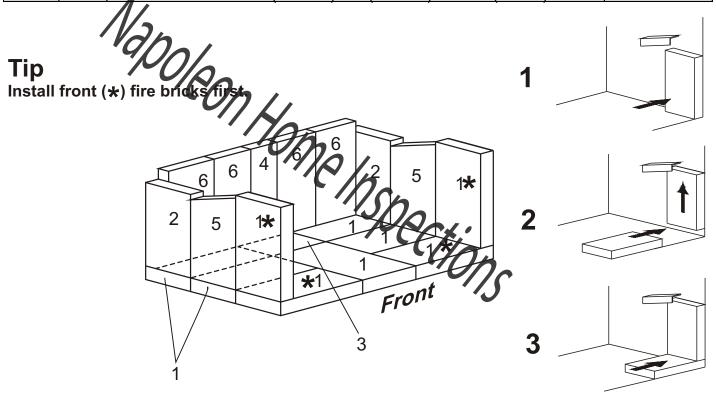


#### **Spring Handle**

Twist spring handle in a counter clockwise motion while pushing on the handle will "thread" down to desired location

#### **FIRE BRICK INSTALLATION**

PARTS LIST				
ITEM	QTY	QTY DESCRIPTION		
1	9	FIRE BRICK- 4-7/16 (113mm) X 9 (229mm) X 1-1/4 (32mm)	S16040	
2	2	FIRE BRICK- 4-7/16 (113mm) X 7-1/4 (184mm) X 1-1/4 (32mm)	S16043	
3	1	FIRE BRICK- 4-7/16 (113mm) X 4-1/2 (114mm) X 1-1/4 (32mm)	S16046	
4	1	FIRE BRICK- 2-1/4 (57mm) X 8 (203mm) X 1-1/4 (32mm)	S16271	
5	2	FIRE BRICK- ANGLED	S16013	
6	4	FIRE BRICK – 4-7/16 (113mm) X 8 (203mm) X 1-1/4 (32mm)	S16138	

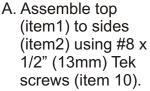


# Inlet air settings

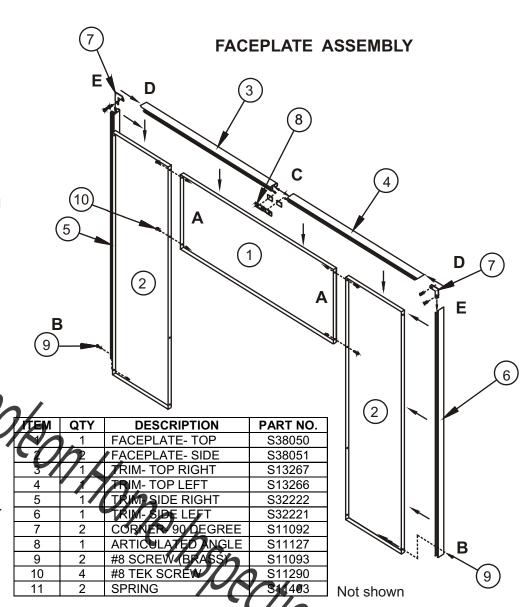
<b>Desired burn rate</b>	Inlet air setting	** Approximate BTU output
Low	Fully Closed	9,600
Med / High	1/2" (13mm) open	16,315
High	Fully Open	58,000

Under specific conditions this non catalytic wood heater has been shown to deliver heat ranges from 9,600 to 58,000 BTU per hour

<sup>\*\*</sup> Performance may vary depending on actual home operating conditions. (See "Helpful Hints" section of this manual)



- B. Attach the side right and left trims (items 5&6) to sides (item2) using #8 brass screws.
- C. Attach top right and left trims (items 3&4) together with the articulating angles (item8).
- D. Install corner brackets (item to top trim.
- E. Attach top thankon Faceplate puting corner brackets into side trim and tightening screws in the corner brackets to secure.





Masonry Fireplace

2 Hook the other end of the spring thru the 1/8" (3mm) hole in the Faceplate E top.

1 Hook one end of spring into hole on stove top

Faceplate assembly (see above)

**3** Slide the Faceplate against the masonry wall.

#### **Attention**

Use installation bulletin supplied with faceplate as protection to prevent scratching the stove top.

#### **OPERATION**

Do not use a grate or elevate fire. Build wood fire directly on hearth. When the stove is used for the first time the solvents in the paint will smoke off.

#### Wood

This heater is designed to burn natural wood only. Higher efficiencies and lower emissions generally result when burning air dried seasoned hardwoods, as compared to softwoods or to green or freshly cut hardwoods.

Only use dry seasoned wood. Green wood, besides burning at only 60 percent of the fuel value of dry wood, deposits creosote on the inside of your stove and along the chimney. This can cause an extreme danger of chimney fire. To be called "seasoned", wood must be dried for a year. Regardless of whether the wood is green or seasoned, it should be stored in a well-sheltered, ventilated area to allow proper drying during the year to come. Wood should be stored beyond recommended the area from combustibles.

DO NOT BURK: \*Treated Wood \*Solvents \*Trash \*Coal \*Cardboard \*Coloured Papers

# INSTRUCTION FOR FIRST BURN-CIPING THE STOVE PAINT

Your stove has been painted with the highest quality stove paint and has special break-in procedures. The heat generated by the normal operation of the stove, will serve to harden the paint.

**Ventilate the house** during the first three times the stove is used. The paint on the stove will give off smoke, carbon dioxide and an odor. Without adequate ventilation, concentrations of smoke could irritate, or be upsetting. **Open doors and windows and use a fan** if necessary. After the initial burns the paint will be cured and there should be no more smoke. Each of the initial burns should be conducted as follows:

- A) The 1st 2 burns should be at approximately 250 deg F (120 deg C) for approximately 20 minutes.
- B) The 3rd burn should be between 500 deg F (260 to 370 deg C) for at least 45 minutes. The important fact is the paint should be cured slowly. Avoid hot fires during the curing process.

During the curing process the paint will be gummy. Once cured the paint will remain hard. It is normal to see flat spots on painted surfaces of the stove. The flat spots on the paint surface indicate the hotter surfaces of the stove, and is caused by the heat radiating thru the paint. It is also expected that shinny spots caused by friction from the packaging materials, will disappear during the curing of the stove.

## **SO....** 1) Remember to Ventilate well.

- 2) Allow the stove to cure before burning for long periods at high temperatures.
- 3) Flat spots on the painted surfaces are normal.
- 4) Shinny spots on the paint surface before burning is normal.
- 5) Call your dealer if you have any questions.

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.

#### **BUILDING A FIRE**

- 1. Open inlet air control fully.
- 2. Place a small amount of crumpled paper in the stove.
- 3. Cover the paper with a generous amount of kindling in a teepee fashion and a few small pieces of wood.
- 4. Ignite the paper and close door. (If fire dies down substantially, open door slightly).
- 5. Add larger pieces of wood as the fire progresses being careful not to overload. (Do not fill firebox beyond firebrick area). An ideal coal bed of 1" (25mm) to 2" (50mm) should be established to achieve optimum performance.
- 6. This unit is designed to function most effectively when air is allowed to circulate to all areas of the firebox. An ideal means of achieving this is to rake a slight (1" to 2" wide) trough in the centre of the coal bed from front to back prior to loading the fuel.
- 7. Once fuel has been loaded, close door and open air inlet control fully until fire is well established (approx. 10 minutes) being careful not to over fire.
- 8. Re-adjust air inlet control to desired burn rate. (If excessive smoke fills firebox, open air inlet control slightly until flames resume and wood is sufficiently ignited). While a basic rule of thumb is "closed- low" "½ way nedium" and "fully open high". More information is available further in this manual (see page 9 for settings).

  9. When refuelling, adjust air control to the fully open position. When fire brightens, slowly and
- When refuelling, adjust air control to the fully open position. When the brightens, slowly and carefully open the door. This procedure will prevent gases from igniting causing smoke and flame spillage.

  1. Add fuel being careful not to overload.
- 10. Add fuel being careful not to overload.

#### **GLASS CARE**

# REPLACE GLASS ONLY WITH HIGH TEMPERATURE ROBAX PYROCERAM OF THE PROPER SIZE AND THICKNESS

The following use and safety tips should be observed:

- 1. Inspect the glass regularly for cracks and breaks. If you detect a crack or break, extinguish the fire immediately, and contact your dealer for replacement. See page 16 of this manual for replacement parts list.
- 2. Do not slam door or otherwise impact the glass. When closing doors, make sure that logs or other objects do not protrude to impact the glass.
- 3. Do not clean the glass with materials which may scratch (or otherwise damage) the glass. Scratches on the glass can develop into cracks or breaks.
- 4. Never attempt to clean the glass while unit is hot. Light deposits are normal. Heavier deposits may be removed with the use of a readily available oven cleaner.
- 5. Never put substances which can ignite explosively in the unit since even small explosions in confined areas can be well the glass.
- 6. This unit has an air wash system, designed to reduce deposits on glass.

#### **GASKET REPLACEMENT**

After extensive use, the sealing material which provides glass and door seal may need to be replaced if it fails to sustain its resilience. Inspect class and door seal periodically to ensure for proper seal: if gaskets become frayed or worn, replace in mediately. Contact your dealer for approved replacement parts. See page 16 of this manual for replacement parts list.

The following steps should be followed for glass gasket replacement

- 1. Ensure appliance is not in operation and is thoroughly cooled.
- 2. Remove screw and glass clips (see parts diagram).
- 3. Lift glass out.
- 4. Remove old gasket and clean glass.
- 5. Replace new gasket starting at the bottom of glass working along edges, being sure to centre gasket channel on glass.
- 6. Trim to length and butt ends together.
- 7. Replace glass in door, being sure not to over-tighten screws and clips.

The following steps should be followed for door gasket replacement:

- 1. Ensure appliance is not in operation and is thoroughly cooled.
- 2. Remove old door gasket and clean channel.
- 3. Using an approved high temperature gasket cement, apply a thin coat in bottom of channel.
- 4. Starting at hinge side of door, work into channel around door unit, end butt and trim to length.
- 5. Close door and allow three to four hours for cement to set before restarting appliance.

#### CREOSOTE

When wood is burned slowly, it produces tar and other organic vapours. These combine with moisture to form creosote. Creosote vapours condense in the relatively cool chimney flue of a slowburning fire. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote makes an extremely hot fire. The chimney should be inspected regularly during the heating season to determine if a creosote build-up has accumulated. If this is the case, the creosote should be removed to reduce the risk of chimney fire.

**WARNING:** Things to remember in case of chimney fire:

1. CLOSE DRAFT CONTROL. 2. CALL THE FIRE DEPARTMENT.

#### **KEEP UNIT FREE OF CREOSOTE**

- 1. Burn with air control open for several minutes at numerous intervals throughout the day during the heating season, being careful not to over-fire unit. This removes the slight film of creosote accumulated during low burn periods.
- 2. Burn stove with draft control wide open for several minutes every time you apply fresh wood. This allows wood to achieve the charcoal stage faster and burns wood vapours which might otherwise be deposited within the system.
- 3. BURN ONLY SEASONEO WOOD. Avoid burning wet or green wood. Seasoned wood has been dried for at least one year.

  4. A small hot fire is preferable to a large smoldering one that can deposit creosote within the
- 5. Establish a routine for the fuel, wood burner and firing technique. Check daily for creosote buildup until experience shows how often you need to clean to be safe. Be aware that the hotter the fire, the less creosote is deposited and weekly deaning may be necessary in mild weather even though monthly cleaning may be enough in the codest months. Contact your local municipal authority for information on how to handle a chimney in Have a clearly understood plan to Con handle a chimney fire.

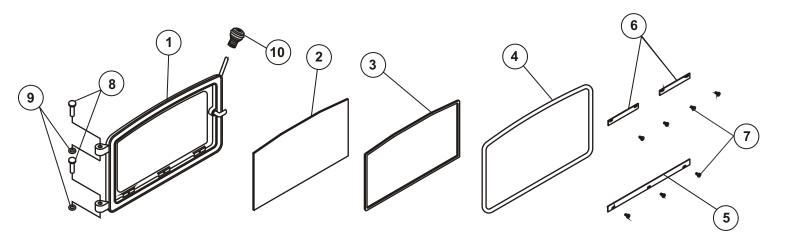
#### Ash Disposal

During constant use, ashes should be removed every few days, or whenever ashes get to three to four inches deep in the firebox. Remove ashes only when the fire has died down and the ashes have cooled.

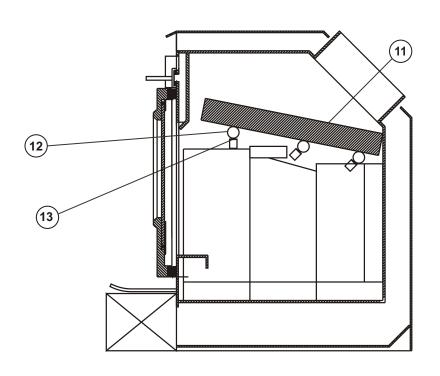
Ashes should be placed in a metal container with a tight-fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground, well away from all combustible materials, pending final disposal. If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have thoroughly cooled. Other waste should not be placed in the ash container.

#### Inspection of the Insert.

Inspection of the insert can be accomplished with the removal of the Face plate only. Once the Faceplate has been removed, there should be enough space to inspect the insert with the aid of a flash light. To remove the Faceplate, follow Faceplate installation instructions on page 11 of this manual in reverse sequence.



PARTS LIST		CW2500X	CJW2500X	
ITEM	QTY	DESCRIPTION	PART NO.	PART NO.
1	1	DOOR ASSEMBLY	S31139	S31168
1	1	DOOR NO GLASS	S41091	S41164
2&3	1	GLASS AND GASKET	S31139	S31168
3	4.3ft	1/8"(3mm) GLASS GASKET	S15001	S15001
4	5.0ft	5/8"(16mm) DOOR GASKET	S15011	S15011
5	1	BYASS CLIP	S37026	S37026
6	2	GASS CLIP	S37018	S37018
7	7	SCKEN	S11086	S11086
8	2	HINGE PIN	S11005	
8	2	HINGE PIN GOLD		S11066
9	2	PUSH NUT V	S11090	S11090
10	1	SPRING HANDLE	S11007	S11007
11	1	BAFFLE ASSEMBLÝ ///	S41467	S41467
12	3	SECONDARY AIR TUBE	S32711	S32711
13	3	COTTER PIN	S11421	S11421



WARNING! BEFORE REMOVING SECONDARY AIR TUBES SUPPORT BAFFLE ASSEMBLY. BAFFLE ASSEMBLY IS VERY HEAVY.

# **IMPORTANT**

#### HELPFUL HINTS WORTH REPEATING

## 1) What is the correct way to start a fire?

- a.) You will need small pieces of dry wood (kindling) and paper. Use only newspaper or paper that has not been coated or had unknown materials glued or applied to it. **Never** use coated (typically advertising flyers) or coloured paper.
- b.) Open the door of the wood stove.
- c.) Crumple several pieces of paper and place them in the centre of the firebox and directly on to the firebricks of the wood stove (see page 9 of this manual). **Never** use a grate to elevate the fire.
- d.) Place small pieces of dry wood (kindling) over the paper in a "Teepee" manner. This allows for good air circulation, which is critical for good combustion.
- e.) Light the crumpled paper in 2 or 3 locations. Note: It is important to heat the air in the stovepipe for draft to start.
- f.) Fully open the air control of the wood stove (see page 8 of this manual) and close the door until it is slightly open, allowing for much needed air to be introduced into the fire box. Never leave the door fully open as sparks from the kindling may occur causing injury. As the fire begins to burn the kindling, some additional kindling may be needed to sustain the fire. DO NOT add more paper after the fire has started.
- g.) Once the kindling has started to burn, stan by adding some of your smaller pieces of seasoned (dry) firewood. Note: Adding large pieces at the early stages will only serve to smother the fire. Continue adding small pieces of seasoned (dry) firewood, keeping the door slightly open until each piece starts to ignite. Remember to always oberithe door slowly between placing wood into the fire.
- h.) Once the wood has started to ignite and the smoke has reduced, close the wood stove door fully. The reduction of smoke, is a good indication that the draft in the chimney has started and good combustion is now possible. Larger pieces of seasoned (dry) firewood can now be added when there is sufficient space in the firebox. Adjust the air control setting to desired setting (see page 9)
- i.) Note: The lower the air control setting the longer the burn time of your firewood.

# 2) What type of wood is best to use as Firewood?

Dry seasoned hardwood should be used. Avoid green unseasoned wood. Green wood, besides burning at only 60 percent of the fuel value of dry seasoned wood, will deposit creosote on the inside of your stove and along the inside of your chimney.

# 3) What does dry seasoned wood mean, and what is considered hardwood?

Wood that has been dried for a period of one year in a well-ventilated and sheltered area would be considered dry seasoned wood. Hardwoods are generally from slow growth trees (Example: Oak and Fir). Softwoods are generally from fast growth trees. (Example: Pine and Spruce)

## HELPFUL HINTS WORTH REPEATING continued

#### 4.) Will following the above listed steps for starting a fire result in perfect results all the time?

The quick answer is most of the time. There are many variables that may affect your success rate when staring a fire. Most of those variables and how to deal with them will be learned through experience. Your ability to start a good fire will significantly increase with time and patience. Some of the reasons for poor stove performance will be covered in the next section of these instructions.

#### 5.) Why can't I get the fire lit?

Damp or wet wood and poor draft are the main reasons for poor results in starting a fire. Always use dry seasoned wood for your fire. Even wood dried for two years will be difficult to ignite, if it has become wet.

#### 6.) Why is there aways a large quantity of thick black smoke present in the firebox?

A large quantity of thick black smoke in the firebox, is a good indication that the draft is poor.

#### 7.) Is it normal for soot to cover the glass at the beginning of a fire?

Your stove has been built with an arr wash system that will help keep the glass clear when the firebox has reached a good operating temperature, and has a good draft. Cold firebox temperature and poor draft cause seeing of the glass. Once the firebox temperature and the temperature and poor and draft increases, the soot will burn off.

What is draft?

Draft is the ability of the chimney to exhaust draw by-products produced during the normal combustion process.

#### 8.) What is draft?

## 9.) What can cause a poor draft?

The most common factors for poor draft are:

- a.) Atmospheric pressure and air supply
- b.) Environmental conditions
- c.) Cold chimney temperature
- d.) Poor chimney installation and maintenance

# HELPFUL HINTS WORTH REPEATING continued

#### a.) Atmospheric Pressure and Air Supply

Atmospheric pressure affecting the draft from a chimney can be either outside the home, inside the home or both. Outside the home, a high-pressure day (clear and cool) generally creates a better draft in the chimney than a low-pressure day (overcast and damp). Inside the home, normal household appliances, such as clothes dryers and forced air furnaces compete for air resulting in inadequate amounts of air available to fuel a fire and create a condition known as negative pressure. Under extreme conditions of negative pressure the combustion by-products can be drawn from the chimney and into the house. This condition is commonly referred to as down drafting.

There are several factors that impact the amount of air available in the home. Increased amounts of insulation vinyl windows, extra caulking in various places and door seals can all keep heat in but may also make a home too airtight. If you are in doubt about whether or not there is sufficient air in your home for your stove, curtail from using those appliances known to consume the air where possible, or open a window or door to allow air to enter the home.

# b.) Environmental Conditions

High trees, low lying house location such as in a valley, tall buildings or structures surrounding your house and windy conditions can cause pool draft or down drafting.

#### c.) Cold Chimney Temperature

Avoid cold chimney temperatures by burning a hot fire for the first fifteen to forty minutes, being careful not to over fire. If any part of the chimney or parts of the stove start to glow, you are over firing the stove. Where possible, install a temperature gauge on the chimney so temperature drops can be seen.

#### d.) Chimney Installation and Maintenance

Avoid using too many elbows or long horizontal runs. If in doubt, contact a chimney expert and/or chimney manufacturer for help. Clean chimney, rain caps and especially spark arrester regularly, to prevent creosote build-up, which will significantly reduce chimney draw and possibly a chimney fire.

#### 10.) Should I close or open the air control fully when shutting down the stove?

When shutting down the stove, fully open the air control. This allows the chimney temperatures to remain as high as possible for as long as possible. Cold chimney temperatures create creosote.

Note: This sheet is intended as an aid and does not supercede any local, provincial or state requirements. Check with officials or authorities having jurisdiction in your area.

Manufactured by CFM Corporation 410 Admiral Boulevard Mississauga, ON L5T 2N6 Canada Napoleon Home Inspections