

# Blueridge Wood & Multi-Fuel Stove

# INSTALLATION AND OPERATING INSTRUCTIONS

BRL-02-BLACK + BRL-02-RED + BRL-02-RED-2 + BRL-02-CREAM + BRL-14-BLACK

# Table of Contents

General	. 1
Handling	. 1
Fire Cement	. 1
Asbestos	. 1
Metal Parts	. 1
Pre-Installation Assembly	.2
Flues	.2
Chimney	.2
Down Draughts	.3
Ventilation And Combustion Air Requirements	. 3
Permanent Air Vent	.4
Extractor Fan	.4
Commissioning & Handover	.4
Clearance To Combustibles	.5
Floor Protection	. 5
Clearance To Non-Combustibles	.6
Lighting	.7
Primary Air Settings	.7
Secondary Air Settings	.7
Re-Fuelling	.7
Recommended Fuels	.7

Lighting	9
Shutting Down	9
De-Ashing	9
Disposal Of Ash	10
Maintenance	10
Chimney Cleaning	10
Warning Note:	
Fire Safety	
Glass	
Glass Replacement	11
Enamel Cleaning	
Co Alarm	12
Warning:	
Installation Check List	15

#### WARNING

Your appliance is hot while in operation and will retain heat for a long period of time after use. Children, aged or infirm persons should be supervised at all times and should not be allowed to touch the hot working surfaces while in use or until the appliance has thoroughly cooled.

When using the stove in situations where children, aged and/or infirm persons are present a fireguard must be used to prevent accidental contact with the stove. The fireguard should be manufactured in accordance with

BS 6539.

# INSTALLATION & OPERATING INSTRUCTIONS

**NOTE:** Please note that it is our recommendation that the installation of the stove is carried out by a Competent Qualified Person.

#### GENERAL

When installing, operating and maintaining your Heritage Stove respect basic standards of fire safety.

Read these instructions carefully before commencing the installation. Failure to do so may result in damage to persons or property. Consult your local Municipal office and your insurance representative to determine what regulations are in force. Save these instructions for future reference.

Special care must be taken when installing the stove such that the requirements of the Health & Safety at Work Act are met.

# HANDLING

Adequate facilities must be available for loading, unloading and site handling.

# FIRE CEMENT

Some types of fire cement are caustic and should not be allowed to come into contact with the skin. In case of contact with the skin wash immediately with plenty of water.

#### ASBESTOS

This stove contains no asbestos. If there is a possibility of disturbing any asbestos in the course of installation then please seek guidance and use appropriate protective equipment.

# METAL PARTS

When installing or servicing this stove care should be taken to avoid the possibility of personal injury.



# IMPORTANT WARNING

This stove must not be installed into a chimney that serves any other heating appliance. There must not be an extractor fan fitted in the same room as the stove as this can cause the stove to emit fumes into the room.

The complete installation must be done in accordance with current Standards and Local Codes. It should be noted that the requirements and these publications may be superseded during the life of this manual.

# **PRE-INSTALLATION ASSEMBLY**

- 1. After removing the stove from its pack, open the fire door and remove all contents from the ash pan.
- 2. Fit the fire door handle.
- 3. Remove the stove from the pallet and position it in the final installation position.

#### **FLUES**

Flues should be vertical wherever possible and where a bend is necessary, it should not make an angle of more than 37.5° with the vertical.

# CHIMNEY

Heritage Stoves are radiant room heaters and must be connected to a chimney of the proper size and type. The chimney must have a cross sectional area of at least 20 square inches 124 sq.cm or a diameter of at least 5" (125mm). Never connect to a smaller size chimney. Do not connect to a chimney serving another appliance. Minimum chimney height 15' (4.1 meters) from the floor on which the stove is installed. A flue that has proved to be unsatisfactory, particularly with regard to down draught should not be used for venting this appliance until it has been examined and any faults corrected. An existing masonry chimney should be inspected and if necessary repaired by a competent mason or relined using an approved lining system. The stove must be connected to a chimney with a minimum continuous draught of 12 pascals. Poor draught conditions will result in poor performance.

All register plates, restrictor plates, damper etc., which could obstruct the flue at a future date should be removed before connecting this appliance.

Where a masonry chimney is not available a proprietary type of 5"/6" (125/150mm) twin wall, fully insulated pipe may be used. The pipe must terminate at a point not lower than the main ridge of adjacent outside obstructions. With such installation, access to the chimney must be provided for cleaning purposes.



# **DOWN DRAUGHTS**

However well designed constructed and positioned, the satisfactory performance of the flue can be adversely affected by down draught caused by nearby hills, adjacent tall buildings or trees. These can deflect wind to blow directly down the flue or create a zone of low pressure over the terminal.

A suitable anti-down draught terminal or cowl will usually effectively combat direct down blow but no cowl is likely to prevent down draught due to a low pressure zone.

# VENTILATION AND COMBUSTION AIR REQUIREMENTS

When calculating combustion air requirements for this appliance use the following equation: 550mm<sup>2</sup> per each kW of rated output above 5 kW should be provided; where a flue draught stabiliser is used the total free area shall be increased by 300mm<sup>2</sup> for each kW of rated output.

If there is another appliance using air fitted in the same or adjacent room, it will be necessary to provide an additional air supply.

All materials used in the manufacture of air vents should be such that the vent is dimensionally stable, corrosion resistant, and no provision for closure.

The effective free area of any vent should be ascertained before installation. The effect of any grills should be allowed for when determining the effective free area of any vent.

Air vents direct to the outside of the building should be located so that any air current produced will not pass through normally occupied areas of the room.

An air vent outside the building should not be located less than the dimensions specified within the Building Regulations and B.S. 8303: Part 1 from any part of any flue terminal. These air vents must also be satisfactorily fire proofed as per Building Regulations and B.S. 8303: Part 1.

Air vents in internal walls should not communicate with bedrooms, bedsits, toilets, bathrooms or rooms containing a shower.

Air vents traversing cavity walls should include a continuous duct across the cavity. The duct should be installed in such a manner as not to impair the weather resistance of the cavity.

Joints between air vents and outside walls should be sealed to prevent the ingress of moisture. Existing air vents should be of the correct size and unobstructed for the appliance in use. If there is an extraction fan fitted in adjacent rooms where this appliance is fitted, additional air vents may be required to alleviate the possibility of spillage of products of combustion from the appliance/flue while the fan is in operation. Refer to BS 8303 Part 1.

Where such an installation exists, a test for spillage should be made with the fan or fans and other appliances using air in operation at full rate, (i.e. extraction fans, tumble dryers) with all external doors and windows closed.



If spillage occurs following the above operation, an additional air vent of sufficient size to prevent this occurrence should be installed.

#### PERMANENT AIR VENT

The stove requires an adequate air supply in order for it to operate safely and efficiently. The installer may have fitted a permanent air supply vent into the room in which the stove is installed to provide combustion and/or ventilation air. This air vent should not under any circumstances be shut off or sealed.

#### **EXTRACTOR FAN**

There must not be an extractor fan fitted in the same room as the stove as this can cause the stove to emit smoke and fumes into the room.

#### **COMMISSIONING & HANDOVER**

On completion of the installation allow a suitable period of time for any fire cement and mortar to dry out, when a small fire may be lit and checked to ensure the smoke and fumes are taken from the stove up the chimney and emitted safely to the atmosphere. Do not run at full output for at least

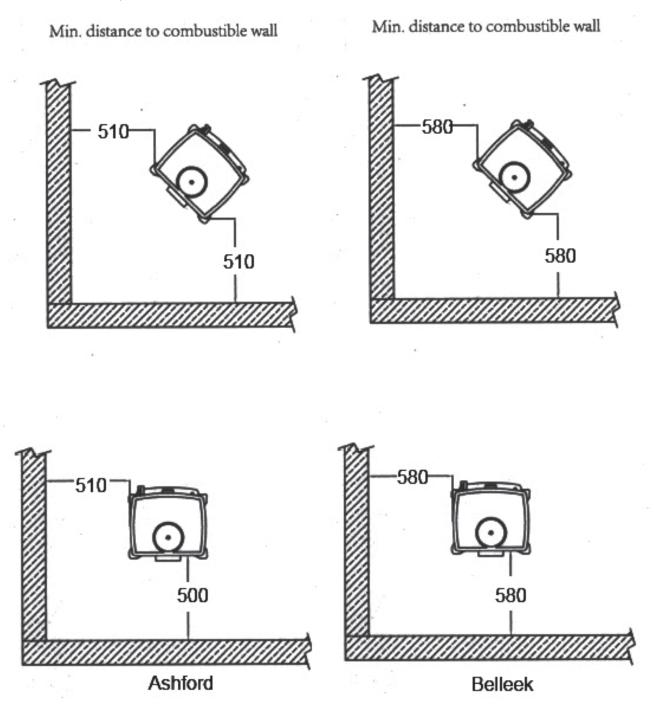
24 hours.



Wood & Multi-Fuel Stove

#### **CLEARANCE TO COMBUSTIBLES**

This stove is only intended to be installed within an existing fireplace and should not be considered for any other purpose other than as an insert room heater.



#### FLOOR PROTECTION

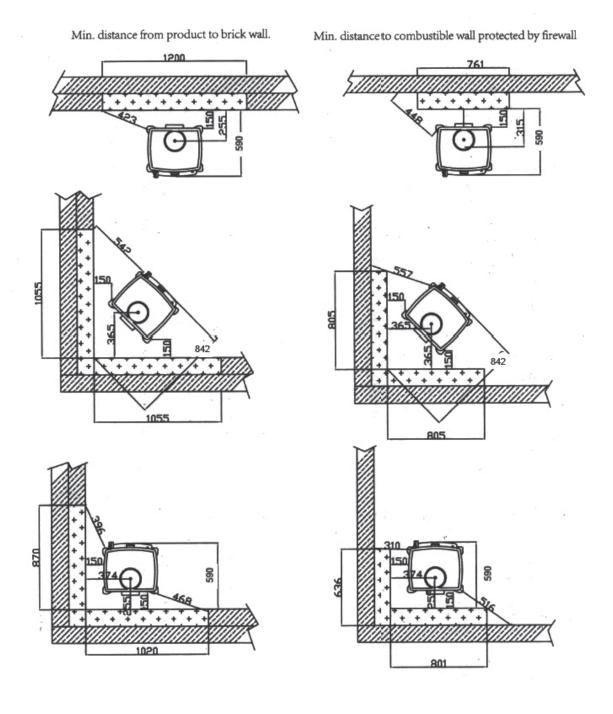
When installing this heater near a combustible floor, when clearance to the outer edge of the hearth is less than 225mm an additional floor protector, consisting of a layer of non-combustible material at least 10mm thick will provide protection from sparks and embers which may fall out from the door when stoking or fuelling.



# **CLEARANCE TO NON-COMBUSTIBLES**

It is recommended that this appliance is sited next to and on a non combustible surface. A minimum all round clearance of 100 mm will allow air circulation and not impede the performance of the stove.

The connector may pass through walls or partitions constructed of combustible materials provided the connector is either listed for wall pass-through or is routed through a device listed for a wall pass through and is installed in accordance with the conditions of the listing. Any unexposed metal that is used as part of a wall pass-through system is exposed to flue gases shall be constructed of stainless steel or other equivalent material that will resist corrosion, softening, or cracking from flue gas at temperatures up to 982°c.





#### LIGHTING

Before lighting the fire, check that all dampers and catches are operating correctly and ensure that all flue connections are thoroughly sealed.

#### PRIMARY AIR SETTINGS

This is operated by a Sliding valve (operated by pulling the lever in either or out) located at the bottom of the stove. The operating valve controls the primary air supply to the stove, providing a conventional air draught to the bed of the fire. For maximum heat output and burn rate open the valve fully and for a minimum heat output and burn rate close the valve. You will soon learn the valve settings to best suit your requirements. Do not leave the air vents fully open once the stove reaches its optimum output as this will lead to over firing and damage to your stove.

#### SECONDARY AIR SETTINGS

The Stove is fitted with a sophisticated Air Wash System. The secondary air flow is controlled by a slider valve located at the top right of the stove.

#### **RE-FUELLING**

Riddle the fire by the operating tool onto the rocker connection located at the bottom front of the stove, then gently pull and push the rocker arm until all dead ash has fallen through into the ash pan. Before opening the door, open the primary air valve, as this will help to eliminate any smoke or fly ash resident in the combustion chamber. Add fuel to fire, close fire door and reset primary air valve to required setting.

Only genuine manufacturer's parts should be used as replacement parts,

There should be no unauthorised alterations or modifications made to this appliance

Now that your Heritage solid fuel Stove is installed and no doubt you are looking forward to the many comforts it will provide, we would like to give you some tips on how to get the best results from your stove.

- 4. We would like if you could take some time to read the operating hints, which we are confident, will be of great benefit to you.
- 5. Do not burn fuel with high moisture content, such as a damp peat or unseasoned timber. This will only result in a build up of tar in the stove and in the chimney.

#### **RECOMMENDED FUELS**

Anthracite, smokeless fuels, peat briquettes and seasoned wood are all suitable fuels for consumption in your new stove. Do not use fuels with a Petro-coke ingredient. The stove output levels are assessed on standard House Coals of good quality (Grade A). Reduced outputs will result when fuels of lower calorific values are used.



All fuels should be stored under cover and kept as dry as possible prior to use.

#### FUEL CALORIFIC VALUES - SOLID FUELS

Anthracite 25-50mm	C.V.: 8.2kW/Kg	14,000 BTUs/lb
House Coal 25-75mm	C.V.: 7.2kW/Kg 12,000 BTUs/lb	
Timber Firebox size	C.V.: 5.0kW/Kg	8,600 BTUs/lb
Peat Briquettes	C.V.: 4.8kW/Kg	8,300 BTUs/lb
Bog Peat	C.V.: 3.4kW/Kg	6,000 BTUs/lb

- 3. CLEAN THE FLUE-WAYS OF THE STOVE EVERY WEEK AND ENSURE THAT THERE ARE NO BLOCKAGES.
- 4. Before loading fresh fuel into the firebox, riddle fully to remove all ashes this will allow better and cleaner burning.
- 5. Never allow a build up of ashes in the ash pan, as this will cause the grate to burn out prematurely.
- 6. Avoid slow burning of damp or unseasoned fuel as this will result in tarring flue ways and chimney i.e. peat or timber.
- 7. Allow adequate air ventilation to ensure plenty of air for combustion.
- 8. Do not burn rubbish/household plastic.
- 9. Clean the chimney at least twice a year.
- 10. Burning soft fuels such as timber and peat will stain the glass. Regular cleaning will prevent permanent staining.
- 11. Keep all combustible materials a safe distance away from unit; please see section for clearances to combustibles.
- 12. For safety reasons never leave children unaccompanied while stove is in use.
- 13. Avoid contact with unit when in use as stove reaches very high operating temperatures.
- 14. Before lighting the stove check with the installer that the installation work and commissioning checks described in the installation instructions have been carried out correctly and that the chimney has been swept clean, is sound and free from any obstructions. As part of the stoves commissioning and handover the installer should demonstrate how to operate the stove correctly.



# LIGHTING

**IMPORTANT:** The first few fires should be relatively small to permit the refractory to set properly and to season the stove.

- 1. Before lighting the stove, ensure that any build-up in the firebox has been removed and that the ash pan has been emptied.
- 2. Fully open the Primary Air Valve and Secondary Air Valve.
- 3. Lay a few crumpled sheets of paper on the hearth and then a few small sticks, kindling or an approved firelighter.
- 4. Ignite and close the door.
- 5. Never use inflammable liquid i.e. gasoline, petrol paraffin etc. to start or "freshen up" a fire in this heater.
- 6. Once the fire is well established additional fuel can be placed on the grate you may then adjust the valve settings as required.
- 7. When using solid mineral fuels it is recommended once the fire is established to close the secondary air supply. The primary air can be adjusted to establish your comfort level.
- 8. Do not stack fuel above the height of the fire bricks.
- 9. Wood can be stacked higher in the stove than solid fuel however you must avoid stacking the wood against the baffle plate.
- 10. Wood will burn with secondary air only adjust the fire as required by controlling the secondary air flow.
- 11. Burn only dry, well seasoned or kilned dried wood. Burning wet or unseasoned wood will create tar deposits in the stove and flue. This will result in an unsatisfactory performance from your stove.

#### SHUTTING DOWN

In order to shut down the stove close the primary air and then the secondary air. Once the valves are closed the fire will starve of oxygen and will extinguish. If you require restarting the fire open the primary air first and then the secondary air supply.

# **DE-ASHING**

Never allow ash pan to over fill as it will cause damage to fire bars.

Open the fire door and remove ash pan using the operating tool. Close the fire door. When the ash is disposed of, replace the empty ash pan.



# **DISPOSAL OF ASH**

Ashes should be placed in a metal container with a tight fitting lid. The closed container of ashes should be 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.

#### MAINTENANCE

CREOSOTE: Formation and Need for Removal

When some fuels are burned slowly, they produce tar and other organic vapours, which combine with expelled moisture to form creosote. The creosote vapours condense in the relatively cool chimney flue of a slow burning fire. As a result, creosote residue accumulates on the flue lining.

#### CHIMNEY CLEANING

The chimney and connector should be cleaned at least twice a year. Before the heating season commences and once again after the heating season has finished.

The chimney connector and chimney should be inspected at least monthly during the heating season to determine if a creosote build-up has occurred.

Remove the cast iron baffle plate located at the top end of the Fire bricks before chimney cleaning.

When inspecting a masonry chimney, start at the cleanout door, normally found at the base of the chimney, or on the outside. If your chimney does not have a clean-out door one should be provided.

#### WARNING NOTE:

Properly installed, operated and maintained this stove will not emit fumes into the dwelling. Occasional fumes from the de-ashing and refuelling may occur. However, persistent fume emission is potentially dangerous and must not be tolerated. If fume emission does persist, then the following immediate action should be taken:

- (a) Open doors and windows to ventilate room.
- (b) Let the fire out or eject and safely dispose of fuel from the stove.
- (c) Check for flue or chimney blockage and clean if required.
- (d) Do not attempt to relight the fire until the cause of the fume emission has been identified and corrected. If necessary seek expert advice. The most common cause of fume emission is flue way or chimney blockage. For you own safety these must be kept clean at all times.



# FIRE SAFETY

To provide reasonable fire safety the following should be give serious consideration:

- 1. The installation of smoke detectors.
- 2. A conveniently located class 'A' fire extinguisher to contend with small fires resulting from burning embers.
- 3. A practical evacuation plan.
- 4. A plan to deal with a chimney fire as follows:
  - a. Notify the fire department.
  - b. Prepare occupants for immediate evacuation
  - c. Close all openings into the stove.
  - d. While awaiting the fire department watch for ignition to adjacent combustibles from over head stove pipe or from embers or sparks from the chimney.

#### GLASS

How to clean: The glass will clean itself when there is sufficient heat generated by burning fuel. If a build-up of creosote occurs on the glass it may be due to draft conditions, poor quality fuel or very low burning for a long time. Only clean glass when stove is thoroughly cooled.

#### **GLASS REPLACEMENT**

- a. Open the door fully.
- b. Remove the four corner screws and clips and carefully remove the broken glass.
- c. Clean the glass recess in the door.
- d. Attach adhesive thermal tape to the perimeter of the replacement glass.
- e. Place the thermal tape side of the glass into the door recess and replace the four corner clips.
- f. Tighten screws.
- g. Replace glass only with ceramic glass 5mm thick.

# ENAMEL CLEANING

General cleaning must be carried out when the stove is cool. If your stove is finished in a high gloss vitreous enamel, to keep the enamel in the best condition observe the following tips:

- 1. Wipe over daily with a soapy damp cloth, followed by a polish with a clean dry duster.
- 2. For stubborn deposits a soap impregnated pad can be carefully used on the vitreous enamel.
- 3. Use only products recommended by the Vitreous Enamel Association, these products carry the vitramel label.



4. DO NOT USE ABRASIVE PADS OR OVEN CLEANSERS CONTAINING CITRIC ACID ON ENAMELLED SURFACES. ENSURE THAT THE CLEANSER MANUFACTURERS INSTRUCTIONS ARE ADHERED TO.

# CO ALARM

Heritage Stoves recommend the fitting of a CO Alarm in the same room as the appliance; this is a requirement under Building Regulations. Further guidance on the installation of a carbon monoxide alarm is available in BS EN 50292:2002 and from the alarm manufacturer's instructions.

Provision of an alarm must not be considered a substitute for either installing the appliance correctly or ensuring regular servicing and maintenance of the appliance and chimney system.

#### WARNING:

If the CO Alarm sounds unexpectedly:

- 1. Open Doors and windows to ventilate the room and then leave the premises.
- 2. Let the fire go out.

#### TROUBLE SHOOTING

#### DAMAGED LINERS

Stoves get very, very hot inside, it is quite usual for ceramic or vermiculite firebox liners to crack or craze, often within a very short time. They need usually only be replaced when they have almost completely disintegrated. Help them last longer by using only very dry fuel

#### **DETERIORATION OF SURFACE FINISH**

The siloxane paint usually used on stoves can withstand very high temperatures, but it is easily scratched and soon becomes dull, it is to be expected that it may need touching-up fairly regularly using proper stove refurbishment paint. The vitreous enamel finish used for bright, shiny colours on many stoves is almost impossible to scratch, but it can chip. Vitreous enamel cannot be repainted or repaired.

#### **POOR HEAT OUTPUT:**

A stove can heat a typical room of about  $12m^3$  volume for each kW of output, so a 5kW model can heat up to  $(12 \text{ x } 5) 63m^3$ , a room of about 5m square. The actual size depends on the insulation and air-change ratio of the room. To attempt to heat a larger room will result in excessive fuel consumption and damaging overheating.



#### LACK OF CONTROLLABILITY

Wood and some other fuels may burn excessively until the gases in them have been used up. You can reduce this effect by making sure that the fire is set to 'low' for a while before refuelling and checking that the door seals fully. Some appliances are deliberately made incapable of being fully closed down, in order to prevent smouldering and smoke emissions. On such appliances adjust the heat output by how much fuel you put on, as well as by using the controls.

#### DIFFICULTY BURNING FOR EXTENDED PERIODS

If the fire goes out with fuel still in the firebox, then this is probably because too little air has been reaching it, try leaving the air controls open a little more. Check that the door seals are sound and that there are no cracks or gaps anywhere in the flue. The fuel must be absolutely dry. Longest burning is likely to be achieved with harder fuels, such as anthracite, on appliances capable of burning this.

#### **CONDENSATION**

Condensation on cool surfaces inside the stove can be severe if fuel is in any way damp. With damp Wood Fuel this can be very severe. Use only very dry fuel.

#### SMOKE COMING INTO ROOM

NEW STOVE: There is often a smell and sometimes visible fumes as the paint cures. This normally stops after an hour or so.

INADEQUATE SEALS: Are all flue pipes and connectors absolutely gas-tight? Is the inside of the chimney absolutely air-tight from top to bottom. Even the tiniest crack or gap can spoil the draught. Does an inset appliances fully seal against the fireplace?

BLOCKED THROAT PLATE: Has soot and ash collected inside the flueways, on the 'throat plate' or 'baffle plate' beyond the firebox?

UNSUITABLE, BLOCKED OR UN-SWEPT CHIMNEY: The first requirement for correct operation is a sound chimney. In any case of doubt engage a professional sweep or chimney engineer.

POOR AIR SUPPLY: No appliance will burn at all without a supply of air from outside. It is commonly accepted that a closed solid fuel appliance ought to have about 550mm<sup>2</sup> of free air entry area for every 1kW of nominal heat output, of which the first 5kW or so can often be supplied though the cracks around door, windows etc in older properties. Lack of air to the fire is a common cause of smoking and poor performance. Air supply problems may be worse in certain wind conditions (often incorrectly ascribed to 'downdraught', which is in fact very rare), where air can be sucked out of the room. The answer is to fit an air vent, as near to the fire as possible, facing into the usual wind direction.



#### **DOWNDRAUGHT:**

Wind can blow down a chimney if there is something higher nearby such as a tree, hill or high building. Fitting an anti-downdraught cowl to the chimney top can cure this. Types which cannot be swept through are not recommended. Downdraught is actually fairly rare, smoke emission problems commonly have other causes.

#### **DIRTY WINDOW:**

Wood logs can be very smoky, especially if not entirely dry, raw bituminous coal is very dirty indeed and many 'smokeless' fuels produce plenty enough smoke to severely stain stove windows.

When using smoky fuels always have the stove's 'over-fire' or 'air wash' control (usually a slider above the fire-door) at least slightly open to pull extra air in above the fire, pushing dirty gases away from the window and helping them to ignite. If the appliance does not have such a control you can achieve the same effect by not quite shutting the fuelling door for no more than two or three minutes when you first light, or refuel, the stove.

Window stains can be removed by either operating the stove at a high rate for a few minutes to burn the dirt off, or using an ordinary supermarket spray bleach cleaner when the fire is cold.

The ceramic 'glass' commonly used for stove windows will develop very tiny cracks on its surface after a period of use, this is normal.



#### **INSTALLATION CHECK LIST**

- 1. Minimum Flue Height of 4.6 metres (15 feet).
- 2. Appliance should be connected to a minimum of 1.8 metres (6 feet) of 125mm (5") flue pipe with a horizontal run not exceeding 150mm (6").
- 3. Appliance should be connected to a chimney of less than 250mm (8") in diameter (otherwise the chimney must be lined with a 5" flue liner).
- 4. The chimney venting position must be above the main ridge of the roof or adjacent outside obstructions.
- 5. The chimney serving this appliance should not serve any other appliance.
- 6. Access should be provided to the chimney serving the appliance to allow for cleaning.
- 7. Location
- 8. Clearance to combustible materials must be adhered to as described in the Clearance to Combustible section.
- 9. The stove must be installed on a floor protector that covers the area under the stove and extends 18" to the front & 8" to the sides and back.
- 10. Ventilation & Combustion Air Requirements
- 11. The room in which the appliance is located should have an air vent of adequate size to support correct combustion (see Ventilation & Combustion Air Requirement Section for specific details).



