



4.2kw ECO Steel Multi-fuel Stove **INSTRUCTION MANUAL**

SKU: 106804
Model: RFZ0415

USER GUIDE

PLEASE RETAIN THIS GUIDE FOR FUTURE REFERENCE

Please read this user guide carefully when you assemble, install, operate and maintain your stove.

If you have any more questions, please contact your local dealer.

Item Code	Nominal Heat output	Energy Index	Dimension (W*D*H)	Weight
Z0415	4.1kW	A	387*328*585 mm	65kg

1. INSTALLATION INSTRUCTIONS

APPLIANCE LOCATION

The appliance must be located at specific distances from its surroundings. This is to prevent damage to products & furnishings within the vicinity of the appliance. Adequate space should be provided for servicing the appliance.

We recommend furnishings be always kept 1m away, to avoid heat degradation over time. There must be a minimum clearance of 150mm each side & back of the appliance, with 300mm clearance above and in front of the appliance, to provide sufficient space for heat to dissipate to room space. See below for suggested distance to combustible materials.

Distance to combustibles	Front	Side	Back	Hearth Temp
Z0415	100cm	50cm	60cm	>100°C

VENTILATION

Your stove requires ventilation to supply it with air for combustion. Ventilation is also required to ensure the proper operation of flues and chimneys to ensure that the products of combustion are safely dispersed to the outside air. Please ensure the stove has sufficient ventilation for operation.

Extraction fans lower the pressure in a building which can cause spillage of combustion products from an open-flued appliance. This can occur even if the appliance and the fan are in different rooms. If mechanical extraction is unavoidable in the same room as your stove, then seek specialist advice to ensure safe operation of the appliance

1.1. Safety Advice

1.1.1. Handling

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

1.1.2. Metal Parts

Be careful of personal injury when installing or maintaining this appliance.

1.1.3. Other possible injuries

The stove contains no harmful materials, but if there is a possibility of using any dangerous materials during installation then please seek specialist guidance and use appropriate protective equipment.

1.1.4. Important Warning

This appliance **MUST NOT** be installed into a chimney that is shared with 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.

2. Installation

2.1. Chimney

The chimney must be fitted in accordance with manufacturer's instructions and the relevant part of the Building Regulations. The chimney height and the position of the chimney terminal should conform to Building Regulations and all local regulations, including those referring to national and European standards. The chimney must be in good condition, any cracks and obstructions are not permitted. The diameter of the flue should not be less than 125mm and not more than 200mm. If any of these requirements are not met, the chimney should be lined by a suitable method.

The chimney must be swept and examined for soundness and suitability before the appliance is installed. Remedial action should be taken if required, seeking expert advice if necessary. Where the chimney is believed to have previously served an open fire installation it is recommended that the chimney be swept a second time within a month of regular use after installation.

If you have any doubts about the suitability of your chimney, consult a local installer.

2.2. Flue Draught

A flue draught of minimum 1.2mm to a maximum 2.5mm water gauge may keep the appliance in good performance. If the flue draught exceeds 2.5mm, a draught stabilizer must be installed to control the rate of burning and prevent overfire. You should check the flue draught when fire is on high output.

2.3. Chimney Connection

You should brick up or seal an existing fireplace opening with a register plate. A short length of flue pipe of a minimum 125mm internal diameter may then be used to connect the stove to the chimney. This flue pipe should conform to Building Regulations. Ensure that the pipe end is no closer than 76mm to the side or rear chimney walls.

Ideally, the old fireplace should be filled in so that there is a smooth streamlined entry into the flue way. The length of any horizontal run of flue pipe must not exceed 125mm.

It is essential that all connections between the stove and chimney-flue are sealed and made airtight. This appliance is not suitable for installation in a shared flue system.

Both the chimney and flue pipe must be accessible for cleaning and if any parts of the chimney cannot be reached through the stove (with baffle removed), a soot door must be fitted in a suitable position to enable this to be done.

2.4. Air Supply

A permanent, unobstructed air opening is essential for the room or space containing this appliance. The air opening should be at least 3625mm² when a draught stabilizer is equipped. Due care for air requirements will need to be taken if any other appliances are permitted to work in the same room and space.

2.5. Material Clearances

It is workable for the appliance to be recessed in a prepared fireplace, but a suitable free air gap must be left around the sides, top and back of the appliance to reach maximum heat output and for access to the rear of the stove.

In all instances the back wall of the fireplace recess and the hearth should be made of non-combustible material.

The hearth on which the stove is to be placed should not be less than 25-30mm thick and should be in accordance with the current building regulations.

Care should be taken to level the stove using the adjusting screws in the feet.

The appliance shall be installed on a floor with adequate load-bearing capacity. If the existing construction does not meet this prerequisite, suitable measures (e.g. load disturbing plate) should be taken to achieve it.

2.6. Commissioning and Handover

You should leave an appropriate period for fire cement and mortar to dry out upon completion of the installation. To ensure the smoke and fumes are taken from the stove up the chimney and emitted safely to atmosphere, a small fire should be lit first. Do not run the stove at full output for at least 24 hours.

Finishing the installation and commissioning, the operating instructions and tools for your stoves should be kept in hand. It is also important to know how to use the stove properly and use only the recommended fuels for this appliance. The user should know how to have smoke or fumes emitted properly from the stove and be warned to prevent injuries in case of the presence of children, aged or infirm persons.

3. Operating Instructions

Operation with the door open can cause excess smoke. The appliance must not be operated with the appliance door left open except as directed in this user guide.

Operation with the air controls or appliance dampers open can cause excess smoke. The appliance must not be operated with air controls, appliance dampers or door left open except as directed in this user guide.

3.1. Important Information

All local regulations, including those referring to national and European Standards need to be complied with when installing the appliance.

This appliance is not suitable for installation in a shared flue system.

The firebox and ashpit cover shall be kept closed except during ignition, refueling and removal of residue material to prevent fume spillage. It is important to use this appliance correctly to achieve best results.

3.2. Air Controls

Warning! Parts of the appliance, especially the external surfaces will be hot when in operation and due care need to be taken e.g. Protective gloves should be given in operation.

It is essential for the appliance to have sufficient air supply for combustion and ventilation.

3.2.1. Primary Air

Primary air is controlled through the assembly on the bottom of the door. This provides a conventional air draught which passes through the fuel bed. The primary air intakes can be adjusted to control the fire in combustion chamber.

3.2.2. Secondary Air

The appliance is fitted with an air wash system which can keep the heat-resistant glass of the fire door clean. This secondary air is controlled through the fittings on the bottom of the stove.

3.3. Grate

There are Two options: Rotary style and grid style. For rotary style grate, you can operate it by dragging a stainless-steel rod forward and backward to de-ash. For grid style grate, a special hook is supplied to de-ash. It is highly recommended to de-ash regularly in case any build-up of ash will damage the cast iron fuel bed. You should be careful of any hot parts.

3.4. Ashpan

It is essential that you clean up the ashpan regularly. Use the supplied tool to lift the ashpan out of the stove.

3.5. Burning Mineral Smokeless (Solid Fuel)

DO NOT have more than a 30-degree incline of the fuel bed from front to back, when you put solid mineral fuels on the fuel bed. The height of loading fuels must not exceed the rear cast iron lining.

The refueling intervals at nominal heat output will be approximately every 4 hours. We suggest you refuel in time to get the best possible results. When using solid mineral fuels, we suggest you keep the secondary air control in the closed position, so it can burn at maximum efficiency. At this time the primary air controls can adjust the burn rate of the appliance.

To prevent the ash from being stacked to the underside of the bottom grate, please always de-ash before refueling. Once the ash builds up, it is possible that it will restrict the airflow and cause the fire to die.

Important! It is very important to empty the ashpan regularly. In case the ash builds up the underside of the grate, burnout or distortion of the grate may be caused.

3.6. Burning Wood

The refueling intervals at nominal heat output will be approximately 1.5 hours. You may load wood higher in the stove than solid mineral fuel, but wood or logs are not permitted to touch the baffle plate. Wood burns most efficiently with the primary air controls closed and the secondary control partially open. Moving the secondary control will control the burn rate of the stove.

Wood burns best with a layer of ash on the fuel bed, and care should be taken to only remove surplus residue from the stove timely.

We recommend you only use dry, seasoned wood as fuels; the wood should have been cut, split and stacked for at least one year in a circulating air surround to dry out. Otherwise, wet or unseasoned wood will cause tar deposits in the stove and unsatisfactory heat output will occur.

We recommend the use of wood logs with a moisture content of less than 20% .

Burning wet or unseasoned wood will create excess smoke emissions, tar deposits in the stove and chimney and will not produce a satisfactory heat output. Wood fuel purchased from an approved source may still require some drying out to remove surface water before use.

3.7. Refueling on to a low fire bed

If there is insufficient burning material in the fire bed to light a new fuel charge, excessive smoke emission can occur. Refueling must be carried out onto enough glowing embers and ash that the new fuel charge will ignite in a reasonable period. If there are too few embers in the fire bed, add suitable kindling to prevent excessive smoke.

3.8. Fuel overloading

The maximum amount of fuel specified in this user guide should not be exceeded, overloading can cause excess smoke. We suggest that you refuel every 45 minutes to 1 hour, dependent on fuel.

The recommended maximum dimensions of wood logs are as specified below:

Model	Max fuel load	Max log length
Z0415	0.92kg	280mm

4. Lighting the stove

- 1. Open the door and ensure the secondary/ air-wash control lever is opened fully. It's the control on the right.**
2. On first lighting, we recommend using 2 - 3 firelighters along with wood kindling built in a pyramid above the firelighters to obtain a good fire bed. Ignite the firelighters then close the stove door and allow the firelighters and wood kindling to ignite to the point where the embers are glowing.
3. Add your fuel of choice and control the stove as advised. Burn small loads initially in your new appliance before full fires are used, to allow paint & fitting cement to cure.

4.1. Controlling Stove

4.1.1 Burning wood:

- Air-wash/secondary air lever (The control to the right) - Use this to control the fire when burning wood.
- Primary air control lever (The control to the left) – This should be closed as wood does not need air from below to burn effectively.
- Avoid overloading your appliance as this may cause damage to the product and cause unstable burn conditions. See max fuel load stated in 'Refueling Wood' section for more info.

4.1.2 Burning coal:

- The Air-wash/secondary air lever (The control to the right) – This should be left partially open, to allow the air-wash system to keep the glass clean.
- Primary air control lever (The control to the left) - When burning coal, the stove should be mainly controlled using this lever.
- Avoid prolonged periods of slow burning which may cause build-up of creosote with certain fuels. Using a flue temperature gauge can help achieve the optimum temperature for clean combustion.

4.2. Recommended Fuels

- Split and dried logs properly seasoned with less than 20% moisture content (max fuel load on page 8 should not be exceeded).
- Anthracite (Medium) smokeless fuel.
- Eco Logs.
- Briquettes.

5. Maintenance

5.1. Stove body

Use a soft brush to clean the stove; cleaning must ALWAYS be done after it has cooled down. The finish can be renewed with proprietary stove paint.

5.2. Baffle plate

Remove and clean the baffle plate once a month to avoid soot or fly ash.
Block the flue ways and produce dangerous fume emission.

5.3. Fireproof glass

Use a proprietary glass cleaner to clean the glass when cool. Any material that may damage the glass should not be used to clean the panel. Wet logs on heated glass, a badly aimed poker or heavy slamming of the doors could crack the glass panels and care should be taken.

5.4. Ceramic rope

Ceramic or fiber glass rope is used on the stoves. Inspect the rope around the door and glass. If rope is becoming detached, use a proprietary rope glue to reattach it. Ensure you replace the rope in the case of it being in poor condition.

5.5. Flue & Chimney

Keep the chimney, flue way and any connection flue pipe swept regularly.

For users of smokeless fuels, sweep at least once a year; for wood and other fuels, at least twice a year. If the stove is fitted in place of an open fire, then the chimney should be swept one month after installation to clear any soot falls which may have occurred due to the difference in combustion between the stove and an open fire.

6. Trouble Shooting

No Fire can be burnt

Please check the following measures: A proper fuel is being used.

The air inlet is unobstructed.

Chimneys and flue ways are clear.

Sufficient air supply is into the room.

No extractor fan is working in the same room as the stove.

Fire blazing out of control

Please check:

A suitable fuel is being used.

The doors are tightly closed.

The air controls are all in the closed position.

The primary air control flap is not wedged in the open position. The glass retaining clips are not loose.

The door rope seals are in good condition.

Product End-of-Life/Recycling: To dispose of the stove after the product life has expired, please observe the following information.

First, dispose of the items correctly i.e. separate the parts to be disposed of in material groups.

Second, always dispose of items in a way that is as sustainable as possible and that is in line with the current environmental protection, reprocessing/recycling and disposal technology.

TECHNICAL INFORMATION

Z0415	Wood – Primary Fuel	Smokeless Fuel
Nominal Heat Output	4.1 kW	4.5 kW
Efficiency	75.4 %	79.2%
CO at 13% O ₂	0.10vol%	0.09vol%
PM at 13% O ₂	23 mg/m ³	24 mg/m ³
OGC at 13% O ₂	93 mg/m ³	45 mg/m ³
NO _x at 13% O ₂	91 mg/m ³	140 mg/m ³
Mean Flue Gas Temperature	246 °C	263 °C
Flue Gas Mass Flow	5.1 g/s	4.1 g/s
Indirect Heating Functionality	No	No
Type of Heat output room Temperature control	Two or more manual stages, no temperature control	
Other Control Options	N/A	
Energy Index	100	

