

FIREBIRD



HEATING SOLUTIONS

FM5

Freestanding Multifuel Dry Stove Instruction Manual



QUALITY STOVES DESIGNED FOR YOUR COMFORT



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1.0 INTRODUCTION

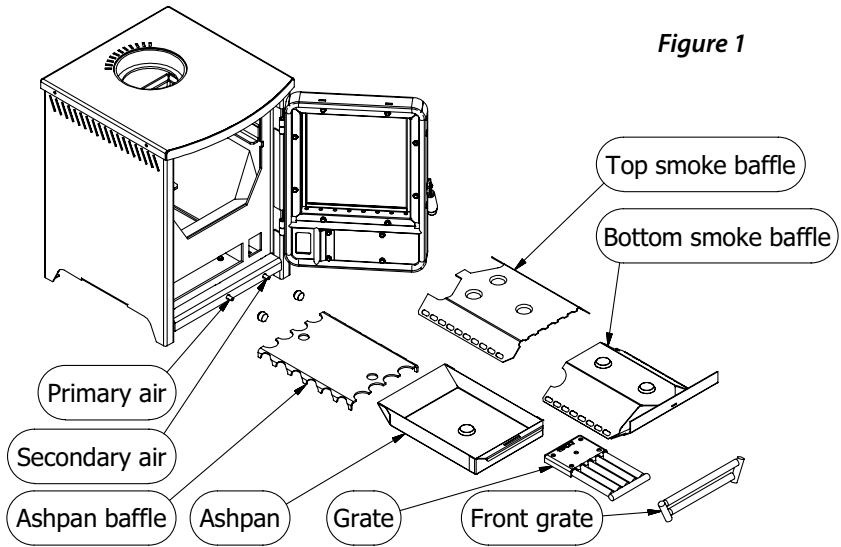
We would like to thank you for purchasing a high efficiency Firebird multifuel dry stove (hereinafter referred to as “the stove”). The stove is manufactured in our factory in Baile Mhic Íre, Macroom, Co. Cork, using the highest standard of workmanship and latest technology. This instruction manual has been produced for the reference and guidance of qualified installation technicians.

All installation, servicing and commissioning works should be carried out by a HETAS approved or competent, qualified engineer. It should be noted that it is the responsibility of the installer/householder to ensure that the stove is properly commissioned. Failure to do so may invalidate the warranty.

2.0 IMPORTANT SAFETY NOTES

- The term multifuel refers to commercially available solid fuels such as wood, smokeless coal and anthracite.
- Only recommended fuels should be used. Liquid fuels should never be used when lighting or filling the fire.
- Do not store liquid fuels in the close proximity of the stove.
- The stove is designed in such a way, that under normal burning conditions, the smoke passes up through the chimney flue and does not escape into the home. Please ensure that the flue system is checked regularly, that no cracks or openings are evident and that the seals on the stove are in good condition.
- ENSURE THE BAFFLES ARE ALWAYS IN PLACE WHEN LIGHTING THE STOVE AND NEVER LIGHT A FIRE IF THE BAFFLES ARE NOT IN PLACE.
- THE STOVE DOOR SHOULD NOT BE KEPT OPEN WHEN THE FIRE IS LIT/ BURNING.
- The stove should never be over stocked/over filled.
- A mechanical air supply should never be added to the stove.
- The stove reaches high temperatures and can be hot to touch. Ensure that safety guards (in accordance with BS 8423:2010) are in place.
- Do not place any furniture or combustible material within 400mm of the back or the side of the stove.
- Ensure that BS 8303:1994 – Code of practice for installation of domestic heating and cooking appliances burning solid mineral fuels, is adhered to at all times.
- Aerosols should not be sprayed near the appliance while alight.
- Ensure the following codes and standards are adhered to:
 - BS EN 15287-1:2007 + A1:2010 – Design, installation and commissioning of chimneys.
 - BS EN 12828:2012+A1:2004 – Heating systems in buildings.
 - BS EN 14336:2004 – Heating systems in buildings.
 - BS EN 12831:2003 – Heating systems in buildings.
 - Method of calculation of the design heat load.
- Please read this manual fully prior to installation of the stove.
- All local regulations, including those referring to national and European standards, need to be complied with when installing the appliance.

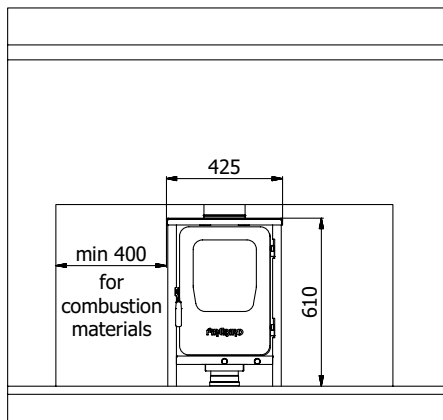
3.0 INSTALLATION INSTRUCTIONS



3.1 INSTALLATION

1. Remove the stove from its packaging and inspect for any damage.
2. Position the stove in accordance with building regulations.
3. Ensuring there is adequate access for cleaning the appliance.
4. Ensure that the flue manufacturer's instructions are adhered to at all times.
5. Remove any material from inside the appliance and verify that the flue outlet socket is clear.

Figure 2



3.2 CHIMNEY/ FLUE

In order for this appliance to have sufficient draw to perform satisfactorily, a height of no less than 4.5 meters, vertically from the top of the appliance to the top of the chimney, is required. Alternatively, a chimney design with sufficient draught can be calculated, in accordance with BS EN 13384-1:2015.

NOTE: A flue draught minimum of at least 12 Pa is required.

The existing chimney must be checked before installing the appliance. It must be sound, free from cracks and blockages and swept. It should not have an excessive cross sectional area greater than 250mm x 250mm square or equivalent area.

The chimney and connecting flue pipe must have a minimum diameter of 150mm and its dimension should not narrow to less than the size of the outlet socket of the stove at any point.

Firebird recommend that a thorough inspection of the chimney is carried out prior to installation and on a regular basis thereafter.

Do not connect the stove to a chimney flue which is connected to another appliance.

It is essential that you use only stainless steel flue pipes for your stove and that all installations are carried out in accordance with building regulations and manufacturer's instructions.

When installing the flue, use as few bends as possible, multiple bends will have an adverse effect on draught. Flues should not pass through ceilings, floors or any form of combustible wall without adequate, approved insulation having been installed to protect the combustible material.

3.3 AIR SUPPLY

It is essential that you provide an adequate air supply for safe and efficient operation of your stove. The air supply will ensure efficient combustion. Failure to do so could result in smoke filling into the room or blackening of glass.

If a flue draught stabiliser is fitted, the first 5kW of rated output needs 300mm² per kW. For newer build properties, the requirements may need to be higher if the design permeability of the home is less than 5m³/h.m². For more details, see approved document J of the Building Regulations.

External air can be supplied to the stove via an external air intake kit which is connected to the base of the unit (see below). The same equation with respect to total free area must be adhered to.

NOTE: Only Firebird's external air intake kit can be installed with a Firebird stove. Please refer to kit instructions for full guidelines.

NOTE: No extractor fan should be fitted in the same room as the appliance.

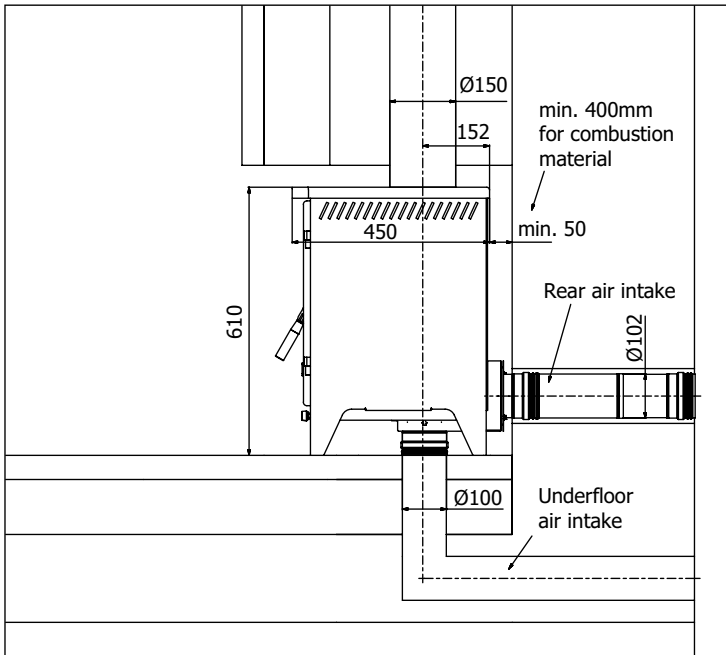
3.4 HEARTH

The appliance must be installed on a hearth that can take the weight and is of a non-combustible material.

Ensure that when installing the appliance, the following regulations are met:

- IRL - Building Regulations 1997, Technical Guidance Document 5, states that the hearth must extend in front of the appliance by 500mm and to the sides by 150mm.
- UK- Building Regulations for Class 1 Appliances, states that the hearth must extend in front of the appliance by 300mm and to the sides by 150mm.

Figure 3



3.5 PERFORMANCE

The following highlights the output and test performance of the stove:

Firebird FM5 Stove

Fuel Type	Wood	Ancit
Output to Space - kW	5.0	5.0
Efficiency - %	82.8	80.8
CO (@13% O ₂)	0.64	0.15
Mean Flue Gas Temp °C	219	232
Flue Gas Mass Flow g/s	3.2	4.3
BS Standard	BS EN 13240:2001 + Amendment A2:2004	
Weight	130	130
Test Type	Intermittent	Intermittent
Minimum safe distance from combustible materials: sides 400mm and back 400mm.		

Ancit = smokeless coal

Heat outputs and efficiencies are based on heat over a one hour period, using wood or ancit. Outputs are obtained by independent testing to BS Standard EN 13240.

3.6 EXTRACTOR FANS

Do not fit an extractor fan in the same room as this stove. This may cause the stove to emit smoke into the room.

3.7 HEALTH AND SAFETY

When installing the stove, please ensure that the following Health & Safety Regulations are met:

- UK - Health and Safety at work Act 1974.
- IRL - Safety, Health and Welfare at Work Act 2005, (Construction Regulations 2006).

Installation, commissioning and/or servicing should only be carried out by a HETAS approved or competent, qualified engineer.

The small amounts of adhesives and sealants used in the manufacture of this appliance are cured and do not present any known hazards when used for their intended purpose.

NOTE: If your Firebird stove is not installed, operated & maintained properly, a house fire may result.

WARNING: External surfaces are hot during operation. DO NOT MODIFY THIS APPLIANCE IN ANY WAY. IT MAY CAUSE SERIOUS INJURY AND WILL VOID THE WARRANTY.

CO ALARMS

Building Regulations require that whenever a new or replacement, fixed solid fuel or wood/biomass appliance is installed in a dwelling, a carbon monoxide alarm must be fitted in the same room as the appliance, as well as within bedroom proximities. Further guidance on the installation of the carbon monoxide alarm is available in BS EN 50292:2013 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.

Your installer should have fitted a CO alarm in the same room as the stove.

If the alarm sounds unexpectedly:

1. Open all windows and doors to ventilate the room.
2. Let the fire go out.
3. Check for flue or chimney blockage and clean if required.
4. Do not attempt to relight the fire until the cause of the smoke emission has been identified and corrected. If necessary seek expert advice.

The most common cause of smoke emission is flue way or chimney blockage. For your own safety these must be kept clean at all times.

Additional Material Safety Items:

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, 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 specialist 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.

4.0 COMMISSIONING

Light the fire (see Operating Instructions 5.0) and check all joints and seals. Ensure that smoke is being taken up the chimney and no smoke is entering the room.

The room should be kept well ventilated on the first lighting, as there may be an odour and some smoke may be released. This is just the paint reacting to the heat and will only last for a short time.

Before completing the commissioning, the householder should be advised on the operation of the stove (see 5.0).

Complete the warranty form and return it to Firebird.

The instruction manual should remain with the householder.

4.1 CHECKS BEFORE LIGHTING

Note: Prior to lighting the stove allow sufficient time for the sealant to dry at normal conditions.

The following checks should be carried out:

1. The fire grate is in place.
2. The flue is clear.
3. Ensure that baffles are in place.

5.0 OPERATING INSTRUCTIONS

5.1 FUEL

HETAS Ltd. approval covers the burning of the following smokeless fuels in this stove:

- Ancit (smokeless coal).
- Anthracite Large Nuts.
- Centurion.
- Cosycoke.
- Maxibrite.
- Phurnacite.
- Sunbrite Doubles.
- Welsh Dry Steam Coal (large nuts).

This stove was tested using Ancit - other fuels may not prove as efficient.

NOTE:

Petroleum coke should never be used on this appliance. If used it will invalidate the warranty.

Wood can be used in this appliance. The two main factors to be considered when burning wood are the moisture content and density.

Within smoke control areas, wood burned in the appliance must be dry, seasoned wood, with a maximum length of 23cm and a maximum diameter of 15cm. Recommended moisture content of the wood is 12-20%.

Wood that has been contaminated or treated with varnish, paint or other coatings and preservatives, should not be used. Not only does it release noxious chemicals into the air, but it can also contribute to the amount of tar and deposits building up in your chimney.

NOTE:

This appliance is not an incinerator - only use the recommended fuels.

NOTE:

You should never over stock/over fill your stove. This is essential to avoid fuel falling out onto the glass door and also to avoid chimney fires. Best practice is to not fill above the grate bars.

5.2 LIGHTING AND CONTROLLING THE FIRE

- 1) Place a bed of coal/logs on the grate and place a firelighter with some kindling on top. Place a small amount of coal/ logs on top of the kindling. Light the firelighter and close the door.
- 2) Open the dampers completely until a full flame is established (8-10mins. depending on the draught). See Figure 4.
- 3) When the fire is well lit, adjust the primary and secondary air controls to give you the required level of flame. For best results, wood will generally need more secondary air than primary air.

The following can be used as a starting basis for settings:

- Coal - primary air set on 2 and secondary air set on 1.5
- Wood - primary air set on closed; secondary air set on 1.

Please note however that these settings may differ with respect to fuel quality and draught. The householder should ensure that they become familiar with the settings to find the optimum solution for their particular stove.

The room should be kept well ventilated on the first lighting, as there may be an odour and some smoke may be released. This is just the paint reacting to the heat and will only last for a short time.

Once the fire is lit, the door should only be opened for refuelling.



Figure 4

Refuelling the Appliance

Refuel the appliance when there is still a good bed of glowing embers. Place the required amount of fuel on the bed and open the dampers sufficiently to establish a good flame. Adjust the dampers again when the flame is established.

Recommended refuelling volumes are as follows (to achieve outputs highlighted in section 3.5):

- Wood logs - 1.4 kg/hr.
- Ancit - 0.76 kg/hr.

Once the new fuel has taken, adjust the primary and secondary air settings.

5.3 CLEARANCE OF ASH

The ash pan should be emptied on a regular basis and always before it becomes too full. If ash is left to build up close to the grate it will cause underperformance of the stove.

6.0 MAINTENANCE

6.1 CLEANING

When cleaning the glass, always do so when the stove is cold. Abrasive cleaners or pads should never be used on the glass. For stubborn deposits use a proprietary stove glass cleaner.

The appliance may be wiped with a damp lint free cloth and then dried with a dry lint free cloth. Again, make sure the appliance is cold.

6.2 DOOR SEALS

Check that the seals are in good condition and in the correct place. If they are worn, they should be replaced.

6.3 WHEN NOT IN USE

In the summer months or anytime that the stove is not being used for a long period of time, clean out the inside thoroughly and open the primary air control slightly. This will help to prevent condensation, and hence corrosion.

Check chimney for blockages before relighting.

6.4 CHIMNEY CLEANING

The chimney should be cleaned at least once a year and this can be done through the stove. Remove the baffles and front grate prior to undertaking a chimney clean.

Where the chimney is believed to have served an open fire installation, it is possible that the higher flue gas temperature from a closed appliance may loosen deposits that were previously adhered, with consequent risk of flue blockage. It is therefore recommended that the chimney be swept a second time within a month of regular use after installation.

6.5 CHIMNEY FIRES

Should the chimney go on fire, close both air intakes and ensure the door is fully closed. This should be enough to ensure the chimney fire extinguishes. If the fire continues, then call the fire brigade. Do not open the stove door at any time during this period as it may cause re-ignition. Leave the door closed until the stove is cold.

The chimney must be swept and carefully examined for damage after a chimney fire.

6.6 EMISSIONS CONTROL

Excess Smoke – Control measures

Ensure that the door is closed at all times during the burning of fuel in the stove.

Smoke from Appliance

Properly installed, operated and maintained, this stove will not emit smoke into the dwelling.

6.7 SERVICING

The following is a guideline checklist which can be used during servicing. Note that other checks may be required (system dependent):

- Check flue to ensure it is clear and free from soot.
- Remove baffles, clean and ensure they are replaced correctly.
- Check air supply to room or stove. Ensure that it is clean, secure and free from debris.
- Ensure that all seals are in good condition.
- Ensure that air wash openings are clear.

6.8 SPARE PARTS

For spare parts please contact Firebird directly at the following contact number:
Ireland: + 353 (0)26 45253

ONLY USE FIREBIRD SUPPLIED PARTS

7.0 FM5-R Rear Flue Outlet Stove

For installation instructions, please see section 3 of this manual.

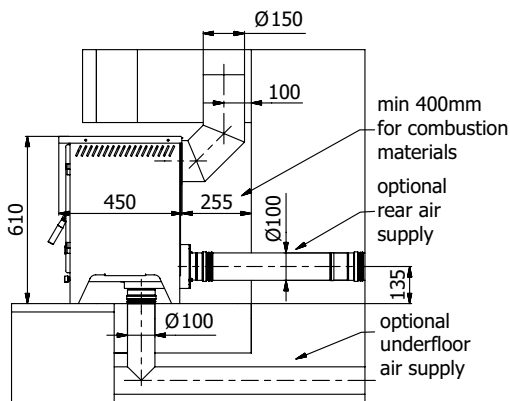


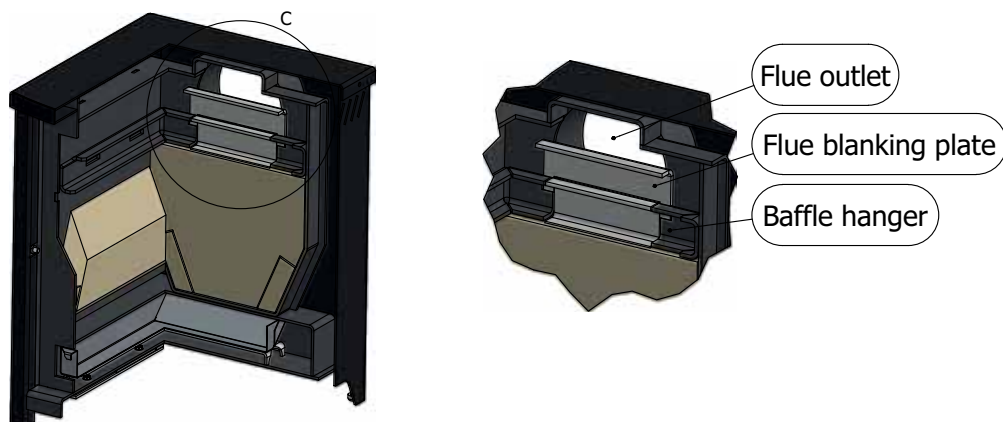
Figure 5

Flue Cleaning of FM5-R

1. Remove both baffles from the stove.
2. Remove the rear blanking plate by sliding upwards. See Figure 6.
3. Clean all soot and debris from behind the blanking plate.
4. Replace the blanking plate and reinsert both baffles.

ONLY needs to be carried out when the chimney is being cleaned.

Figure 6



8.0 TROUBLE SHOOTING

FIRE WILL NOT BURN

Check that:

- Primary and secondary air supplies are open with no obstructions.
- Chimney and baffles are clear.
- Correct fuel is being used.

Only use recommended fuel.

- Air supply to room is adequate and not blocked.

FIRE NOT RESPONDING TO AIR CONTROLS/OVER BURNING

Check that:

- The door is fully closed.
- Both air controls to the appliance are fully closed.
- The door seals are in place and in good condition.
- The correct fuel is being used.

REDUCING BLACKENING OF GLASS

This stove is designed with an air wash, the function of which is to reduce deposits on the glass. Please note that certain fuel types can cause blackening of glass.

Check that:

- The appliance is not being starved of air.
- Bad quality fuel or damp fuel is not being used.
- The balance between primary and secondary air is correct.

ADVERSE WEATHER CONDITIONS

Draught may be affected during bad/poor weather conditions. In this case, air adjustments may be required.

9.0 TERMS & CONDITIONS OF WARRANTY

This Firebird product is designed and manufactured to give many years of trouble free service. We provide a comprehensive warranty of 5 years on the stove shell and a 2 year warranty on other parts from date of installation, provided installation has occurred within 12 months from date of purchase.

Other parts include:

- Ceramic glass for thermal breakage-supply only.
 - Refractory materials.
 - Rope seals, glass seals and cement seals.
 - Grates.
 - Paint finish.
- The warranty will only apply if the stove is installed by a HETAS approved or competent, qualified engineer and is serviced annually thereafter. It is important to retain a copy of all service records and/or invoices.
 - This warranty does not cover special, incidental or consequential damages, injury to persons or property, or any other consequential loss.
 - The warranty does not cover installation and operational related problems such as draught related issues external to the stove, inadequate venting or ventilation, excessive offsets, negative air pressure caused by insufficient burning of improper fuel.
 - Please ensure the warranty registration form (at the back of this manual) is fully completed by a HETAS approved or competent, qualified engineer and returned to Firebird within 28 days of complete installation and commissioning.

The following terms, laid out in the warranty must be adhered to:

- a) All claims under the warranty must be within the above stated time limits.
- b) Warranty implies that the product shall be free from defective parts or workmanship for a period of warranty cover which begins from the date of installation.
- c) The stove must be installed and commissioned by a HETAS approved or competent, qualified engineer, in accordance with a) this instruction manual b) all relevant standards and codes of practice.
- d) Maintenance should be carried out at the intervals outlined in this manual.
- e) Firebird can accept no liability in respect of any defect arising from incorrect installation, negligence, fair wear and tear, misuse, alteration or repair by unqualified persons.
- f) The warranty extends to reasonable labour costs except in the case of a 5 year warranty period, whereby any valid claim made after 3 years will not include labour costs.
- g) Firebird's prior authorisation must be obtained before examination or repair of the stove takes place.
- h) Firebird will examine all claims made under the warranty and for any claims deemed invalid, costs incurred will be borne by the householder.
- i) The stove must be used for domestic heating purposes only.
- j) Any defective part removed under any or all of the warranties MUST be returned to Firebird.

**THE STATUTORY RIGHTS OF THE HOUSEHOLDER
ARE NOT AFFECTED BY THIS WARRANTY**

FIREBIRD



HEATING SOLUTIONS

WARRANTY CARD

Please complete & return to Firebird to register your FM5 Stove.

HOUSEHOLDER

Name:

Address:

Tel:

INSTALLER

Name:

Address:

Tel:

STOVE DETAILS

FM5 Stove

Serial Number:

Stove and System Check

- Stove installed and system tested to manufacturer's manual and regulations.
- Sufficient air requirements.

Chimney/Flue System

- Clay pot connection.
- Stainless steel relining.
- Flue diameter (minimum flue diameter of 150mm).

Chimney/Flue Requirements

- Chimney cleaned.
- Flue system sealed.

Flue Draught

Flue draught test complete. Result of test (min. 12 Pascal's draught).

Handover Details

- First ignition of stove complete.
- Operation and controls confirmed.
- Manuals handed to householder.

INSTALLER SIGNATURE DATE

FIREBIRD



HEATING SOLUTIONS



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QUALITY STOVES DESIGNED FOR YOUR COMFORT