

INISMOR

USER MANUAL

and

INSTALLATION MANUAL

Inis Mor

User manual.

Congratulations on the purchase of your Inis Mor back boiler stove. When fitted and operated correctly, you should enjoy many years, trouble free warmth from your Inis Mor stove. Please read the user manual fully before operating the stove.

Before you operate the stove, consult with the installer that all the relevant work has been carried out correctly and that they have ignited a small fire in the stove and it is operating correctly. Check that all relevant local, national and European Standards have been adhered to when installing the stove.

- C. Solid fuel, recommend
- D. HETAS approved smokeless fuels in nugget form. An example is 'ECOBRITE' smokeless coal.
- 5. Never use liquid fuels to light the Stove.
- 6. When in operation, the stove will be hot and care should be taken to avoid injury.
- 7. When using solid fuels like smokeless coal, the ash pan should be emptied every day.
- 8. Never attempt to modify the stove in any way and always use genuine spare parts.
- 9. Never place combustible or noncombustible materials near, in or around the stove that will interfere with the proper heat convection and air supply to the stove. The stove surround should be fireproof. Never leave the stove fuels too close to the stove.
- 10. For safe and efficient operation of the stove, regular cleaning of the stove and chimney is essential. Dirty surfaces within the stove will lead to poor heat transfer to the water and the room and will waste your money.
- 11. Care should always be taken when emptying the ash pans of the stove. Hot ashes should never be put in a plastic dust bin, bag or container. Ideally, empty the ash pans when the ashes are cold.

Some important points to note are,

- 1. This stove is not designed to operate in a shared flue.
- 2. This stove should not be used as an incinerator.
- 3. The use of petroleum based industrial fuels is to be strictly avoided. Do not burn plastics in the stove.
- 4. We are dedicated to the principal of using renewable fuels in all our Stoves. We recommend using wood fuel in the stove if possible. Some recommended fuels for this stove are below,
 - A. Hard or soft woods below 20% Moisture content
 - B. Peat in solid form with low moisture content.

Stove features.





As per fig 1.and 2. the twin door is opened by turning the right side door handle anti-clockwise over 90 degrees. The single door version the door is opened by turning the handle clockwise over 90 degrees. Although the door handles have been designed to be operated with bare hands, when burning at full output over extended periods, a kitchen glove is recommend



The stove has been designed for ease of use by the operation of only one air control knob. This adjustment knob is found on the left side of the stove and to increase the air turn clockwise and to close turn anti-clockwise. After installation and the stove is operational, adjustment of the secondary air/air wash can be made if needed. A slider plate on the damper box is shown Fig3. shows the two screws are slackened and the plate is adjusted to achieve the required results. Some experimentation may be required to achieve the required cleaning of the glass with the airwash. To help with keeping the stove glass clean, load the fuel toward the back of the stove and fire the stove at a high rate and avoid prolonged periods at a very low setting. The Inis Mor stove is fitted with a multi-grate which facilitates the combustion of various fuels. The multi-grate can also be riddled with the doors closed for cleanliness and safety. To achieve this use the riddling/ash pan removal tool as shown in Fig 4



To riddle the grate, use the riddling hand tool and operate the riddler as shown above. To put the grate in the closed position turn fully anticlockwise as shown, to put in the open position turn clockwise fully.

Normally it is advisable to have the doors closed at all times except when re-fuelling, de-ashing and when igniting the stove. If excess fuming to the room results at any time when the doors are opened, they should be closed immediately.

Fuel

We recommend that wood be used to fuel the stove. Other fuels however can be burned in the stove.

Using wood to fuel the stove, the grate should be in the closed position. Excessive riddling should be avoided and a good ash layer on the grate is recommended. When using wood fuel, please ensure that the wood has moisture content below 20%. Well seasoned and kiln dried wood will achieve this. Burning wood with a higher moisture content will result in much reduced heat output and a build up of heavy tar deposits in the stove and chimney.

Hardwoods are denser and burn longer than softwoods. Beech, oak and ash are excellent hard wood fuels.

To refuel the stove the firebox should be well filled without fuel falling out over the firebar against the doors. By operating the stove this way refuelling should only be needed every 90 minutes at full output and the stove will operate most efficiently and cleanly this way. As a general rule the stove will produce more energy to the room when burning wood than when burning other fuels.

When using other recommended solid fuels, the grate should be in the open position. Fill the firebox up but do not have fuel over flowing over the firebar. Using smokeless nuggets like 'Ecobrite' a refuelling period of over 4 hours is achieved.

With all fuels, if it is desired to operate the stove with less fuel than recommended, the damper should be closed in an amount to avoid too much air drawing through the stove when less fuel is present. If less heat is required than the stove is supplying, we recommend filling the stove as normal and adjusting the damper down to limit the combustion rate.

Achieving required output

With the Stove operated with the maximum fuel load and the damper fully opened, the maximum output from the stove is achieved. By the use of a radiator in the same room as the stove, good heating of the room will result. To achieve lower heating rates, the thermostatic damper control is used. By adjusting this down to the required output, the damper decreases the amount of air to the stove and a decrease in room and space heating results. In some installations, adjustment of the various radiator valves and circulation pump rates may be needed to achieve a uniform heating level in all the rooms.

Continuous burning

The Inis Mor is capable of continuous burning making overnight burning possible at a reduced output. To achieve overnight burning, open the damper fully until the fire is burning rapidly. Fill the firebox with a full charge of fuel and let it ignite fully. When the fire is burning brightly, the stove damper can then be closed down. With the damper fully closed and the correct draft in the chimney, a 10-12 hour burn time is possible. For more heat output over a shorter time span the damper can be opened up as necessary. To revive the fire after overnight burning, Refuel the firebox with a small amount of fuel, open the damper fully and riddle the grate.

Ash clearance

The stove has two ash pans designed for ease of handling. The ash pans should be emptied before they are over filled to protect the grate from over heating especially when burning mineral fuels as the ash is an excellent insulator and excess build up of ash will cause grate damage.

Stove cleaning and maintenance

Regular cleaning of the stove is essential for safe and efficient operation of the stove. The ash pans should be fully emptied.

With the use of the scraper tool all internal surfaces can be cleaned to remove the build up of soot and

ashes.



Access to the stove for cleaning and for cleaning of the chimney can be achieved by the removal and cleaning of the lower and upper throat plates as per fig 5 and 6. The firebox rear and side plate should be removed regularly and excess build up of ash behind the plates should be hovered out.

The regularity of full cleaning of the stove will be dictated by the amount of use of the stove and the fuels used. Prolonged use at very low outputs will result in the necessity of more regular cleaning.

Cleaning of the paintwork and glass of the stove should be done when the stove is cold, use warm soapy water with a soft cloth or sponge. The use of harsh chemicals and abrasive materials is to be avoided. To clean the stove glass more thoroughly, the use of commercially available oven cleaning agents is permissible. If using these oven cleaners always adhere to the products instructions in their use.

Inspect on a regular basis the condition of the door seals and if found to be worn replace immediately. Inspect all internal parts of the stove and replace if needed. Only our engineers or an approved agent should modify the stove.

If the stove is to be unused for a prolonged period of time, for instance over the summer months, the stove should be fully cleaned and a lubricant applied to all moving parts. The damper may be left slightly open to facilitate a little air movement through the stove and avoid moisture build up. Avoid excess opening of the damper as this will result in excess heat loss through the stove up the chimney. After a prolonged period being unused, inspect the chimney before use to ensure no blockage has occurred. Also ensure that the air vent to the room of the stove is clear.

Regular cleaning of the chimney is essential for safe and efficient operation. Chimney cleaning once per year is essential and more so if the stove is under heavy use. A blockage to the chimney or stove due to lack of cleaning can result in flue gases being forced in the room.

Trouble shooting <u>Fire burns very rapidly and refuelling</u> periods are not being met.

1 Chimney draw is too high, chimney damper required.

- 2 Fuel load too small for damper setting.
- 3 Door seals are worn.

Fire will not burn properly

- 1 Fuel is wet
- 2 Damper is closed
- 3 Ash covering all air ways into firebox
- 4 Chimney and/or stove blocked
- 5 Chimney draw is too low
- 6 Room vent blocked or extractor fan running

Stove emits fumes

- 1 Chimney blocked
- 2 Door seals require replacing
- 3 Excess downdraft in chimney

Glass blackens excessively

If the stove glass blackens too much, adjustment of the air wash can be made, please see Fig 3.

Some/all radiators not heating

- 1 Check stove damper is fully open
- 2 Fuel the fire fully
- 3 Circuit pump not working
- 4 Circuit pump running too fast
- 5 Radiator balancing needed

5 Radiators/heating system low in water or needs bleeding

NOTE, excess fume emission to the room must not be tolerated.

Chimney fire

If the stove and chimney are kept clean, no fire should occur. If however it does happen, close the stove damper fully, close the stove doors tightly. Only once the fire in the stove and chimney has gone out should the stove be opened and the stove and chimney cleaned thoroughly. If the fire is substantial and doesn't extinguish the fire brigade should be called. After a bad chimney fire, expert help should be sought to have the chimney examined for any damage before the stove is used again.

Installation Instructions



Specification

Name	INIS MOR
Nominal Heat output kw	Wood 21.5
	Mineral fuel 20.0
Nominal heat to water kw	Wood 13.1
	Mineral fuel 13.0
Nominal heat to room kw	Wood 8.4
	Mineral fuel 7.0
Max water pressure bar	1.5
Min distance to	Sides 200
combustibles mm	Rear 175
Maximum Hearth Temp	55
degrees centigrade	
CO %	Wood 0.64
	Mineral fuel 0.40
Efficiency%	Wood 75.3
	Mineral fuel 75.8
Flue gas temp degrees	Wood 280
centigrade	Mineral fuel 258
Flue gas mass flow g/s	Wood 18.8
	Mineral fuel 17.3
Stove weight Kg	220
Boiler capacity Litres	27

The heat outputs as shown above were obtained using well seasoned hardwood using a refuelling time of 1.5 hrs and Smokeless anthracite in nugget form over a 4.3hr refuelling time.

Unpacking and placement of the Stove

The Stove is covered and bolted to the wooden pallet. After removal of the wrapping, care should be taken while removing the stove off the pallet to avoid damage to the thermostatic damper on the underside of the stove. The pallet can be cut up and used as kindling for the fire.

After the stove and flue connections are in place (read all installation instructions before beginning installation), four levelling bolts are attached to the inside of the stove legs and should be used to level the stove to within a couple of degrees of level.

Health and Safety precautions

Please ensure that the installation of the stove complies with all the requirements of the relevant Health and safety at work acts applicable.

Some materials used in fire cement are caustic and contact with the skin should be avoided. In case of contact with the skin wash with plenty of cold water.

If any structural work is required for installation please take note of the possible presence of asbestos. If the presence of asbestos is found to be the case please contact a registered asbestos removal firm.

Proper air supply must be insured to the room into which the stove is to be installed. A permanent vent opening with a minimum free area of 92 cm sq must be present and care should be taken to ensure this vent cannot be blocked.

Under no circumstances should there be an extracting fan in the same room as the stove, to avoid the possibility of combustion gases being drawn into the room.

This stove is not suitable for a shared flue arrangement.

In addition to installation instructions supplied, the requirements of BS.8303 and BS.6461 Parts 1&2; 1984 must be fulfilled. Also all local authority bylaws and domestic building regulations including those referring to national and European Standards regarding the installation of solid fuelled burning appliances, flues and chimneys must be observed.

Hearth and Fire Surround

If the installer has any doubts as to the positioning of the stove and necessary fire proofing etc, expert advice should be sought before any work begins.

The stove must be placed onto a fire proof hearth of at least 12mm in depth and no combustible materials is used unless adjacent fireproofing fitted. Be aware of the full loaded weight of the stove and insure it is placed on a proper load bearing surface. The stove positioning and hearth size are governed by building regulations for class 1 appliances. The hearth must extend 300mm to the front of the stove, and by 150mm to the sides of the stove.

The installation must allow good air circulation around the stove to maximise heat transfer to the room and to avoid the fireplace over heating. To achieve this, at least an air gap of 300mm above the stove and 150 either side should suffice.

Please note that in an installation with a wooded mantelpiece or wood beam, a greater air gap of up to 650mm or the use of appropriate shielding should be fitted. Building regulations should also be checked in this regard.

Chimney

A chimney height of at least 3.5m from the top of the stove must be used. The chimney diameter must be at least 175mm. The chimney must be in good condition, be cleaned and free from cracks and blockages.

The chimney must not have too great a cross sectional area and if it is, the chimney should be lined with a suitable flue liner for solid fuel.

If a chimney is not present, then a prefabricated block chimney or twin walled flue can be installed.

The draught in the chimney must be at least 13 Pa when warm and must not suffer from down draughts and if there is an excessive draw in the chimney a draught stabiliser should be fitted. If any doubt exists please contact a chimney expert.

Connection to flues

When installing the stove, care should be taken to assure that the chimney can be swept and soot removed properly and easily. If the stove is to be connected using the top flue outlet the chimney can be swept through the stove, however for rear flue outlet connections, it will most often require the fitting of a soot door. Horizontal sections of flue should be avoided or at least kept to a minimum. The flue collar must be sealed using fire cement and properly bolted to the stove. The blanking plate must be removed and fire cement applied to the sealing face before refitting.

Soot doors

Where the flue is installed from the rear flue outlet, the use of a soot door is necessary for proper sweeping of the chimney and removal of the soot. Adequate access to the soot door is necessary. The soot door may be placed in the existing block work or on a suitable register plate between the flue pipe and the chimney.

Central heating and domestic hot water systems

The stove can be used to heat both hot domestic water and central heating. It is best practice to have a radiator fitted in the room the stove is to be fitted to allow greater flexibility in heating this room.

The stove is designed for open vent central heating system and a gravity feed circuit usually to the domestic hot water should be present. This gravity feed circuit should rise directly up from the stove and be vented at the top. A minimum of 1" diameter piping must be used. A heat sink radiator should be fitted to the gravity circuit with a heat capacity of 1.5Kw to allow for the removal of excess heat in the case of a pump failure. The flow and return pipes in a circuit should be plumbed diagonally across from each other.

It is important that the return water temperature is not too low (below about 45 degrees Celsius), to avoid excess condensation in the combustion chamber, gas ways and chimney so as to avoid corrosion. This can be achieved by the fitting of a low limit thermostat on the return pipe that will stop the pump if the water temperature drops to low.

The return circuits should always have a drain cock at the lowest point to facilitate the draining of the system if required.

Thermostat

The Inis Mor is fitted with a thermostatic damper and before the stove is fired for the first time, the 'Cold Setting' of the damper must be made. As per fig 5. The thermostatic damper should be adjusted to the lowest setting and the flap adjusted to be just closed. The flap should also be checked to ensure the flap covers the air opening completely.

The operation of the thermostat knob should be free and smooth.

Initial firing pre-check

Once the stove has been installed, all plumbing connections should be checked for leaks, check that the system is filled with water, check that the circulation pump is operational.

Check that all flue connections are properly sealed with fire cement.

Within the stove check that all riddler bars are in place, that the rear and side firebox plates are in position and that the rear and top throat plate are in place, see fig 5. for detail.



Initial firing

The first firing is to be a small fire used to check the operation of the chimney to draw the flue gases from the stove, to check operation of the riddler mechanism and to begin the process of curing the stove paint. The thermostatic damper should be fully open.

To help to clear fumes if the chimney isn't operating properly, a widow should always be open when first firing. Also, the stove will emit some fumes as the paint cures particularly on first firing. The window should be left open until such time as the fumes subside.

Using a small amount of kindling wood, (approx 1 kg), use fire lighters to ignite the kindling and close the doors almost completely leaving the small opening to allow more air in for quicker ignition.

After the kindling is well alight (usually about 5 minutes), a small charge of fuel can be loaded into the stove and the doors fully closed (not more than about 3 kg of wood or solid fuel. Too large a first firing may damage the paint).

While fired, check the plumbing fittings again when warm for leaks. Use a gas analyser to check that the draft in the chimney is at least 13 pa. Check that no fumes are entering the room. If fumes do enter the room, close the damper fully and open all windows and doors in the room. Avoid re lighting the stove until the cause of the fume emission is found and rectified.

Commissioning and handover.

Once the stove is found to be operating correctly, advice the user with the help of the user guide as to the correct operation of the stove.

Spare Parts.

For spare parts please see adjacent page for complete list. Once you identify the part you need then please contact us on number below and one of our representatives will help you with your request.

Phone 00353 91 705297.

www.awpeng.com



INIS MOR Spare Parts List

#	Part description	Part no.	#	Part Description	Part no.
	Riddler bar	Sp/001	18	Ash pit side plate left&right	Sp/018
2	Door Seal kit	Sp/002	19	Rear ash pit plate	Sp/019
3	Doorglass seal kit	Sp/003	20	Riddler mechanism face plate	Sp/020
4	Door Hinge	Sp/004	21	Riddling mechanism swinging arm	Sp/021
5	Right Door Casting	Sp/005	22	Riddling tool	Sp/022
6	Left Door Casting	Sp/006	23	Riddling bar connecting rod	Sp/023
7	Door Glass Left& right	Sp/007	24	Thermostatic damper	Sp/024
8	Upper Throat Plate	Sp/008	25	Thermostatic damper knob	Sp/025
9	Firebar Casting	Sp/009	26	Airwash Adjustment plate	Sp/026
10	Door&hand tools handle	Sp/010	27	Damper box&Mount bolts	Sp/027
	DoorSpindle	Sp/011	28	Flue collar,Spacer Ring&Bolts	Sp/028
12	Ash pan Left& right	Sp/012	29	Flue way Blanking plate&Bolts	Sp/029
13	Left Firebox plate	Sp/013	30	Door Locking block	Sp/030
14	Right Firebox plate	Sp/014	31	Scraper tool	Sp/031
15	Rear Firebox Plate	Sp/015	32	Door glass clamp & screws	Sp/032
16	Central Riddler Support	Sp/016	33	Door mounting Pins (Set of 4)	Sp/033
17	Lower Throat plate	Sp/017	34		





CURING THE PAINT.

1. Build a small kindling fire to start.

2. Add fuel to build a medium size fire to bring the stove surface temperature to about 450°F.

3. Keep the medium size fire going for about 60 minutes.

4. For the second stage of curing, add fuel to this fire to make it a very hot fire (surface temperature above 600°F) and keep it at this level for about 45 minutes.

Note : During the second higher temperature burn phase there will be some smoke and unpleasant odor. To mitigate this effect, ventilate the room with open windows and doors to provide airflow. This smoke is NOT toxic.

Health Warning: The smoke from the curing process displaces oxygen. Small children, elderly folks and persons with existing breathing problems should vacate the area during the hot burn to avoid the discomfort of lost oxygen. The smoke is primarily carbon dioxide, and therefore nontoxic but uncomfortable.

Trouble-shooting for Paint Curing.

Take care to build slowly to the medium temperature fire. Building a hot fire immediately will "shock" the paint and cause it to release from the surface. The only remedy to this problem is to remove the paint, prepare the surfaces for repainting and repaint.

To avoid problems during the curing process, do not touch the surface with anything until the paint is fully cured. If something touches the surface during the curing process, the remedy is to sand and clean the paint area and repaint.

Cured paint will be flat in terms of gloss. Many colors we supply contain a metallic flake, giving a nice reflective quality to the finish.



Warranty Validation Form

Please fill in details below and return to validate your 5 year warranty.

Customer Details :	Supplier Details.
Name : *	Name : *
Address :	Country :*
	Contact No. *
	Date of purchase : *(dd/mm/vr)
Country : *	
Contact No : *	
Fax No.:	
Email Address: *	
Stove Details :	
Туре : *	
Serial No :*	
(found on back of stove)	

To validate your boiler stove warranty please fill out the form above abd return it to your dealer or fax it to the number listed below. Thank You.

00353 91761804