

portway

STOVES

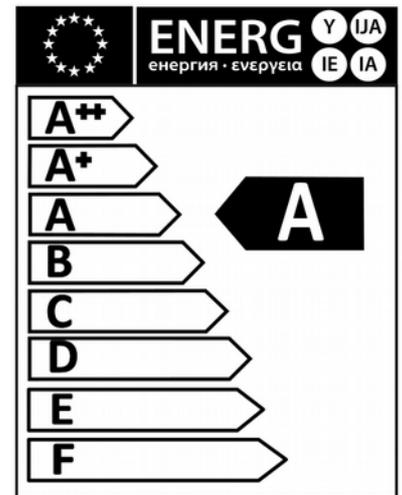
**'PANORAMIC'
HIGH-PERFORMANCE
WOOD-FIRED
INSET CONVECTOR STOVES**

**INSTALLATION AND OPERATING INSTRUCTIONS
LEAVE THIS DOCUMENT WITH THE HOUSEHOLDER!**



All Portway Stoves exceed the safety and performance requirements of European Standards Intermittent burning solid fuel roomheaters for installation with a single dedicated chimney.

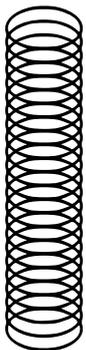
	Portway Panoramic	
	Wood logs (Beech) with standard firebox	Wood logs (Beech) with reduced firebox
Fuel	Wood logs (Beech) with standard firebox	Wood logs (Beech) with reduced firebox
Test Standard	EN 13229	
Test Cycle	1.35kg over 0.75hr	0.88 kg over 0.75hr
Settings	70% open	50% open
Flue Draught Pa (ins WG)	12 (0.05)	12 (0.05)
Efficiency %	74.4	80.5
Recommended Output Rating kW	6.9 kW	4.9kW
Mean Flue Gas Temp Rise °C	240 °C	190 °C
Minimum room air entry requirement	4000 mm ²	2700 mm ²
Minimum Clearance to combustibles	Sides 100mm, above 350mm	Sides 100mm, above 350mm
Emissions as if O ₂ =13%	NOx mg/m ³	-
	CO %	0.46
	CxHy mg/m ³	-
	Gas flow g/sec	7.5
	Smoke Emission mg/m ³	179



Glyn Hughes

I declare that this information is true, these products meet the requirements of Harmonised Standards and are fit for sale. Signed on behalf of the manufacturer by Glyn Hughes, Design Engineer, at Winster, Derbyshire, England 28. Nov. 2017

Read these instructions! Use only Dry Wood Logs!



This document, when completed by the installer, constitutes part of a 'Hearth Notice' for purposes of Building Law. It must be left with the householder and placed where it can easily be found.

INSTALLED AT LOCATION:

BY:

EMERGENCY CONTACT:

I definitively assert that this installation is safe, has been lit and demonstrated to the householder, conforms with current building regulations and with these instructions

SIGNED:

DATE:

Flue Draught measured on commissioning:

Pa
WG

Fuel used on commissioning

[Empty box for fuel used on commissioning]



PRODUCTION NUMBER

TO FIND A QUALIFIED INSTALLER, FUEL SUPPLIER or CHIMNEY SWEEP, CONTACT:

UK: The Solid Fuel Association, 7 Swanwick Court, Alfreton, Derbyshire DE55 7AS Tel:0845-601-4406 www.solidfuel.co.uk
RoI: Irish Nationwide Fireplace Organisation, 162 Capel Street, Dublin 1 Tel:01-801-5959 www.fireplace.ie

This stove may be used in smoke control areas when operated strictly in accordance with these instructions and with Soliftec Smoke Advice Sheet No1 (www.soliftec.com/smokeadvice.htm), when burning:
UK: Untreated wood logs (Exempted from s20 of the Clean Air Act 1993)
RoI: Wood logs (Control of Atmospheric Pollution Regulations, 1970)



IN 1830 Charles Portway built a stove to heat his ironmongery shop at Halstead in Essex. It was so good that his neighbours started asking for them. Mr Portway had done something completely new - designed his stoves right from the start to give out the maximum heat from the minimum fuel, so that he is known as "The Founding Father of Energy Efficiency". The stoves that bear his name are still made in Britain by the direct successors of the company he established.

THIS APPLIANCE BECOMES EXTREMELY HOT AND CAN PRODUCE POISONOUS GASES.

A fire-guard should be used if children or the infirm are present. The installer is required to EXACTLY follow these instructions and to completely comply with all local, national and international standards.

Building regulations are available at www.soliftec.com

INSTALLING a stove is a 'controlled service', the law expects that it is either supervised by a qualified installer or that the building inspector is informed. Check with your local authority.

ASBESTOS: Your stove does not contain asbestos, but take care to avoid disturbing asbestos in an old installation.

WEIGHT: Your stove is heavy - take great care when moving it and ensure that the intended fireplace can support the weight- consider fitting a load distributing plate.

YOUR CHIMNEY, by becoming warm, makes the gas inside it rise, pulling fresh air into the stove to make it work. It must:

- Generate a draught in use of at least 12Pa (0.05ins wg)
- Be capable of withstanding the temperatures generated.
- Be absolutely incapable of leaking fumes into the dwelling

This may commonly be achieved by it:

- Being at least 5m high.
- Terminating at least 1m above any roof ridge.
- Having an internal cross-section equivalent to not less than 150mm diameter, and never more than 0.14m² (eg 375 x 375mm)
- Being free from even the slightest crack or source of leakage.
- Having no bends sharper than 45°.
- Being swept and entirely free of obstructions
- Being connected only to this one appliance.
- Being of thick masonry or otherwise adequately insulated.
- Conforming to local building regulations.

Special rules apply where the flue passes through timber, thatch or other vulnerable materials- take specialist advice.

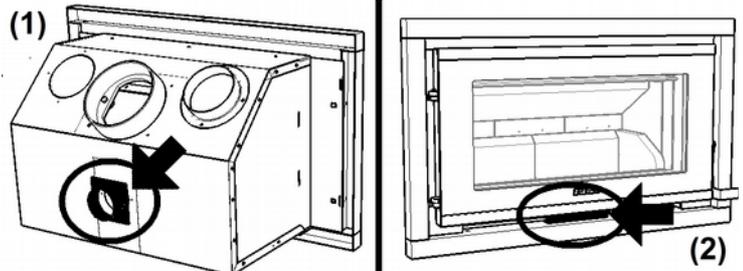
Although it is possible to access the chimney through the fire with the baffle removed, fit hatches to provide access if needed.

YOUR FIREPLACE: Stoves become VERY hot, the setting must be

made entirely of durable fireproof materials. Thin (<50mm) stone slabs risk cracking unless cut into sections to allow for expansion and backed with a heat resistant concrete. Even beyond the safety clearance items can still become very hot - take great care in siting wax, paper etc. Inset convector stoves deliver **very** hot air into the room, so that the 350mm clearance above to combustible materials must be strictly observed.

FRONT HEARTH: To guard against fallen embers and protect against fire we recommend a solid non-combustible hearth, which may simply be an area of solid flooring, extending at least 300mm in front of the appliance, no matter at what height the stove is fitted.

AIR SUPPLY: Your stove needs air to breathe - there **must** be a



(1) AIR FROM OUTSIDE (LEFT) remove rear blank and fit to 75mm alloy flexi-tube. (2) AIR FROM ROOM (RIGHT) remove front air port.

permanent fresh air supply to the stove, provided either by:

(1) AIR SUPPLY FROM OUTSIDE THE BUILDING:

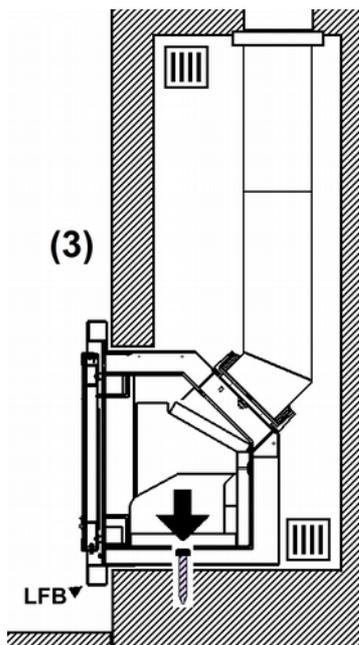
Remove the rear air port and fit connector and 75mm flexi air supply tube direct to outside. Make sure the inlet can't be blocked by snow, rodents, etc.

(2) AIR SUPPLY IN THE ROOM:

Remove the front air port. There should be an air supply from *outside* the building into the room in which the stove is installed equal to about 550mm² for each kW of output. This can often be provided by air leaking around door frames etc. (it is commonly accepted that this alone may suffice for appliances <c.5kW) but in any case of doubt, fit a purpose-made air vent. An extractor fan, or another fuel-using appliance in the same building, can remove this air.

FITTING

The stove **must** be fixed down to the solid hearth through the two points under the base insulation panels. It may be connected to the chimney flue in many different ways, three of which are shown here. If required, the lower frame bar ('LFB') may be removed.



◀ 'FREE INSET' or 'CASSETTE' METHOD (3):

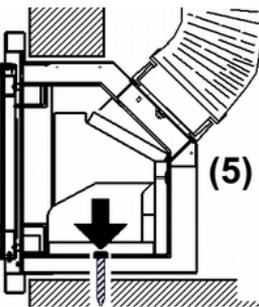
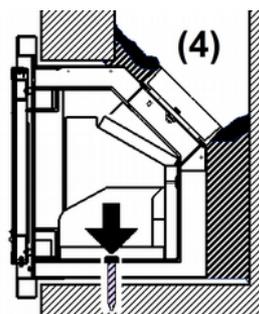
The stove is fitted inside a hollow chimney breast which is ventilated to the room at high and low levels, creating extra hot air circulation. The stove flue is connected to the chimney using up to 1.5m of uninsulated flue pipe.

'FIREPLACE SEAL' METHOD (4): ▶

Fix the stove and, through the flue outlet, fill any gap behind with vermiculite granules topped with mortar. Carefully check that the fire has an absolutely airtight seal against the fireplace.

'CHIMNEY SEAL' METHOD (5): ▶

Remove the round connector. Fit the flue pipe, or flexible liner with a 150mm adaptor, into the chimney and seal its loose end to the round connector with fire cement. Fix the stove. Bolt the connector and pipe back in place from inside. Check that the pipe forms a clear route from stove to chimney terminal with no leaks into the masonry space.



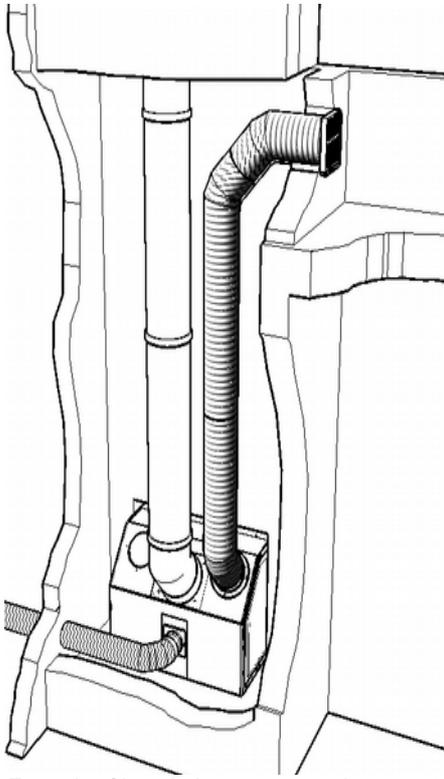
CONVECTION

This Portway stove is not just a 'firefront' or a simple 'inset stove', but a genuine hot-air convector fire. It has a very precisely shaped, sealed chamber, behind, above and underneath the fire to collect heat and naturally force a stream of **extremely** hot air into the room, to evenly heat every corner.



Whichever method is used it is **imperative** that: (1) The route for gases from the stove to the chimney terminal is **completely** air-tight; even the tiniest gap or crack can spoil the updraught. Seal all joints with fireproof cement and/or heatproof rope. (2) It is possible to sweep the entire length- access doors may be required. (3) The entire construction is of durable fireproof materials. (4) Fit a CO alarm!

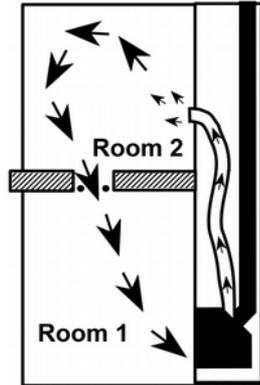
HOT AIR DISTRIBUTION



Example of hot-air duct to a room above - cut-away diagram ('Free Inset' method)

Hot air can be distributed from the stove to other rooms using the Convented Hot Air Duct kit available as an extra. The 125mm alloy ventilation tube is connected to one or other of the opened vents located to left and right of the central flue outlet on the top back of the stove, using the connectors provided.

Where this is used, the following must be VERY STRICTLY observed:



Air circulating route

- Joins throughout the hot-air duct must be completely and permanently sealed, using, for instance, a solid aluminium duct-tape.
- The hot-air duct must be entirely and permanently separated from the flue. Smoke and waste gas must **never** be able to contact even the outside of the hot air duct.
- The hot-air duct must rise continuously - no falls and no horizontal lengths.
- The hot-air duct, and its outlet grille must be entirely unrestricted.
- The entire duct system and its surroundings, must be capable of withstanding temperatures up to 350°C.
- There must be a route for the heated air to return to the front of the stove. An open doorway or floor vent. Without a clear circulating route - it just won't work!
- Fit a CO alarm in the room hot air is being circulated to, as well as in the room with the stove.

CHECK THE INSTALLATION !

Once installed, light the fire, demonstrate it to the householder and check that:

- 1) It burns controllably and does not emit fumes to the room
- 2) The route for gases from the stove to the chimney terminal is completely airtight, unobstructed and able to be swept.
- 3) The entire construction is of durable fireproof materials.
- 4) The flue presents a draught in use of at least 12Pa
- 5) Fit CO alarms!

LIVING WITH YOUR STOVE

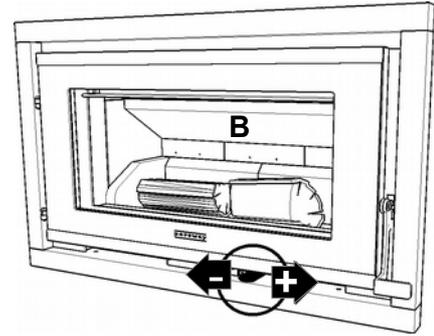
Every fuel, chimney and condition of use is different. Only experience will show which are the best settings for you.

PREPARING THE FIRE FOR USE Make sure the flue is clear and that the liner set is correctly installed (see diagram on back page). The smaller inner liner set can be fixed in place for a firebox creating about 5kW heat output, or removed to give a larger fuel space suitable for creating about 7kW heat output.

LIGHTING If lighting after a period of non-use, do check that the flueways and chimney are completely clear.

Don't remove ash unnecessarily! The Portway Panoramic is a true flat-bed woodburner. It will burn best if a layer of ash is maintained.

(1) Fully open the air control - ie. move to the right. Place two or three firelighters close together, or screwed-up paper, cover with thin, dry sticks, at the front of the stove and light them. To get the fire going quickly, it may be helpful to keep the door just a tiny fraction open



Air control (circled). Baffle shown at 'B'
Effective loading of just two or three logs.

When they are burning well, use a poker to distribute the hot embers and gently add just two or three dry logs, close the door. Once the logs are burning well, set the air control to the lowest practical setting.

FILLING: Filling too full will waste fuel, create smoke and reduce efficiency. Just adding one log every hour or so is all that is needed. Don't fill above the level shown in the diagram.

CONTROL How fast the fire burns depends on how much air reaches the fuel. There is only one control. Slide to the right for higher output, to the left for lower.

EMPTYING ASHES The white powder deposited as wood burns is not ash but cellulose, which this appliance is designed to burn away, leaving only a slight residue of brownish, gritty, true ash. Help the fire work best by maintaining a bed of ash and cellulose - it is only necessary to remove a little if it is actually at risk of overflowing, normally just once every few weeks.

Remember to let residues cool before disposing in plastic sacks or dustbins.

KEEPING THE WINDOW CLEAN Reduce the risk of staining by using only very dry fuel. Simply operating the stove for a few minutes at high output will often burn-off any deposits left by tarry or wet fuel. Severe stains can be removed when cold with plain water and a coarse scourer. The window is not glass but a transparent ceramic, it may develop tiny hairline cracks, these are harmless, and a characteristic of the toughest and most heat-resistant material known.

OPENING THE DOOR This stove is designed to be operated only with the door closed. Open the door very slowly to minimise fume emission and prevent hot fuel falling out. Remember that the whole stove becomes extremely hot - use a glove when touching hot parts.

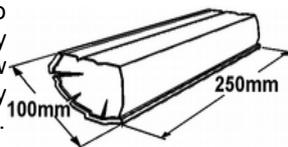
SUMMER SHUT DOWN: Before a long period of non-use, empty fuel and ash and leave all the air controls open to allow ventilation to reduce condensation.

FUEL

This appliance is designed to burn dry wood logs only.

SMOKE CONTROL: In certain areas special rules apply to reduce smoke nuisance. Check with your local authority.

WOOD only emits as much carbon to the atmosphere as the tree took in when growing, so wood is considered the 'carbon neutral' fuel. When wood is cut down its cells are full of water. Burning such wet or 'green' wood wastes heat in making steam and produces flammable, acidic tars which will cling to, and rapidly damage, your stove and chimney. Split logs will typically take two years to become reasonably dry, round logs very much longer. Cracks in the ends, a hollow sound when tapped and bark falling away are all signs that a log may be ready for use.



For best performance, and *always* for low smoke emission:

Split logs lengthways for drying

- Use logs no bigger than about 100mm x 250mm
- Ensure logs are absolutely dry (less than 20% moisture)
- Fill the stove criss-cross, so air can circulate between logs.

- Fill 'little and often' - one log every 30 to 90 minutes is usually all that is needed.
- When first lighting, or reviving a fire from embers, use only very small, thin, dry, sticks.

JOINERY WASTE Dry wood offcuts will burn well, but don't expect softwood waste to burn as cleanly or for as long as hardwood logs.

PROBLEMS?

Problems like those listed here are usually due to some difficulty with the installation, chimney or fuel, so please check back through this leaflet carefully. If necessary seek specialist advice.

SMOKE FROM THE CHIMNEY A little smoke will be emitted when the fire is first lit. Once hot, barely any smoke should be visible, though steam may be seen if damp fuel is used. Use only VERY dry wood.

DAMAGED LINERS The Portway stove gets very, very hot inside, it is quite usual for the replaceable liners to crack or craze. They need only be replaced when they have almost completely disintegrated. Help them last longer by using only *very dry* fuel.

HEAT OUTPUT: A stove can heat a typical room of *about* 12m³ volume for each kW of output, so a 5kW model can heat up to (12 x 5) 63m³, 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 may cause excessive fuel use and damaging overheating.

CONDENSATION onto cool surfaces inside the stove can be severe if fuel is in any way damp. *Use only very dry fuel.*

OVER-FIRING: It is possible to leave the fire too long with the controls set too high leading to 'over firing', seen as glowing metal parts, excessive chimney temperature and risk of parts failing or chimney fires. Always set control to the lowest practical setting.

SMOKE COMING INTO ROOM Fumes are poisonous- smoke emission must NEVER be tolerated, causes might be:

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

INADEQUATE SEALS: Are all flue pipes and connectors *absolutely* gas-tight? Even the tiniest crack or gap can spoil the draught. Does the inset appliances fully seal against the fireplace?

BLOCKED BAFFLE: Has soot and ash collected on the baffle above the firebox?

UNSUITABLE, BLOCKED OR UN-SWEPT CHIMNEY: The first requirement for correct operation is a sound chimney. Check the requirements earlier in this document and in any case of doubt engage a professional sweep or chimney engineer.

POOR AIR SUPPLY: 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 outside 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.

POOR CHIMNEY DRAUGHT- Draught in use MUST be 12Pa.

CHIMNEY FIRE: In the rare event of deposits inside the chimney igniting (roaring sound + dense smoke and sparks from the chimney) immediately close the door, shut all air controls and call the fire brigade. Prevent fires by using *very dry fuel* and having your chimney swept regularly.

MAINTENANCE

MONTHLY- With the fire cold, carefully check that the flue is clear and unblocked, that there is no build-up of deposits behind the baffle and that the door seals are sound.

ANNUALLY- SWEEP THE CHIMNEY The entire length of the chimney from stove to outlet should be swept annually.

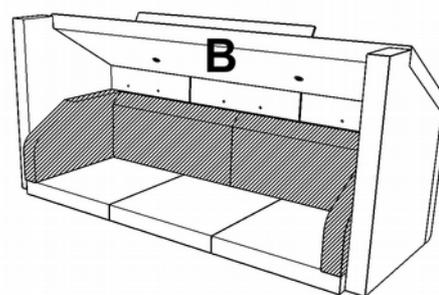
NEW PARTS Your stove has been extensively tested for safety - please don't try to modify it and always obtain genuine spare parts.

SURFACE FINISH Wipe the stove body with a slightly damp cloth when cool. Don't use aerosol spray or wax near the hot fire - they can ignite. Painted steel parts can be refurbished using special spray paint. Your stove generates **VERY** high temperatures. Eventually the internal parts will require replacement. Help parts to last by using only *very dry*, fuel.

PARTS AND ACCESSORIES

Portway spares Tel. 01782 339034 Fax 01782 339028

First Line Spare Parts
Liner set, base (3 pcs)
Liner set, Inner (4 pcs)
Liner set, rear (3 pcs)
Liners, side (2 pcs)
Baffle (B) (1 vermiculite + 1 steel pc)
Window
Touch-up paint
Outside Air Connector Kit
Hot Air Duct kit
Adapter for vertical rear flue take-off



LINER SET:
Inner Liners shown hatched, baffle at 'B'

Also Available from BFM: Freestanding and inset stoves. Marine model to Boat Safety Standards. 16kW Central Heating stove with automatic control. Gas stoves.

BFM Europe
BRITISH FIRE MANUFACTURERS

MADE IN ENGLAND

BFM Europe Ltd, Trentham Lakes, Stoke on Trent, Staffordshire, England ST4 4TJ
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