NEWMAN FIREPLACES LTD

Smoke exempt WOOD burning stove

Installation & user instructions

(To be left with customer)

PANTHER SE

Reference: NS-20

CE

Edition 2

Date: 14th February 2022

Index

1.0 Pre-installation checks & general safety notes

- Installation of this stove **must be** completed in accordance with current local codes and Regulations in each country. All local Regulations & any Rules in Force, including those which refer to National and European standards, **must be** observed when installing this product.
- Reference **must be** made to current issues of British Standard BS 8303, code of practice for installation of domestic heating and cooking appliances burning solid mineral fuel and BS EN 15287-1:2007 design, Installation, and Commissioning of chimneys.
- Note: It is a legal requirement under England & Wales Building Regulations that the installation of this stove is undertaken under Local Authority Building Control or is installed by a competent person registered with a Government Approved Competent Persons Scheme. Hetas Ltd operate such a scheme and a listing of their registered Competent Persons can be found on their website at www.hetas.co.uk
- Should any conflict occur between these instructions and any current Regulations and Rules in Force then the Regulations and Rules in force must apply.
- An approved Carbon Monoxide alarm conforming to the latest edition of BS EN 50291 **must be** installed into the room into which the stove is installed. Installation and positioning **must be** in accordance with current National Building Regulations & any Rules in Force including (Approved Document J. England & Wales). Also refer to alarm manufacturer's instructions.
- This stove **must not** be installed into a flue that shares any other appliance.
- Extractions fans or units **must not** be installed into the room of stove installation.
- The installer has a responsibility to **ensure** that all requirements of Health & Safety at Work Act are observed & implemented as stated on the date of installation.
- Due to the weight of this stove adequate facilities **must be** available for loading, unloading & installation.
- **Always** ensure that there is an adequate air supply into the room containing the stove.
- It is very important that flue ways are regularly swept & checked by an approved person. It is recommended that sweeping and checking should be done at least twice each year for approved smokeless fuel use and quarterly each year for wood burning. The installer must ensure that the chimney is 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 possible that the higher flue gas temperatures from a closed appliance may loosen deposits that were previously firmly adhered, with the 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.
- All dampers or restrictors **must be** removed from the flue.
- This stove **must be** maintained to ensure safe operation & efficiency.
- **Only use** this appliance for domestic property heating in accordance with these instructions.
- This appliance **is not** suitable and **must not** be installed to any type of water vessel.
- Fire cement can be caustic & should **not be allowed** to come into contact with skin. Refer to manufacturer's instructions.
- This stove contains no asbestos. If there is any situation or possibility of disturbing any asbestos during installation **seek professional advice**.
- An installation / user manual is enclosed with this product. The installation **can only be used** after it has been inspected by a qualified inspector. A name plate of heat-resistant material is affixed to this product. This contains information about identification and documentation for the product.

1.2 The Clean Air Act 1993 and Smoke Control Areas

Under the Clean Air Act local authorities may declare the whole or part of the district of the authority to be a smoke control area. It is an offence to emit smoke from a chimney of a building, from a furnace or from any fixed boiler if located in a designated smoke control area. It is also an offence to

acquire an "unauthorised fuel" for use within a smoke control area unless it is used in an "exempt" appliance ("exempted" from the controls which generally apply in the smoke control area).
The Secretary of State for Environment, Food and Rural Affairs has powers under the Act to authorise smokeless fuels or exempt appliances for use in smoke control areas in England. In Scotland and Wales this power rests with Ministers in the devolved administrations for those countries. Separate legislation, the Clean Air (Northern Ireland) Order 1981, applies in Northern Ireland. Therefore, it is a requirement that fuels burnt or obtained for use in smoke control areas have been "authorised" in Regulations and that appliances used to burn solid fuel in those areas (other than "authorized" fuels) have been exempted by an Order made and signed by the Secretary of State or Minister in the devolved administrations.
Further information on the requirements of the Clean Air Act can be found here: http://smokecontrol.defra.gov.uk/
Your local authority is responsible for implementing the Clean Air Act 1993 including designation and supervision of smoke control areas and you can contact them for details of Clean Air Act requirements."
To ensure smokeless operation opertate the stove in accordance with these instructions. (Please see instructions within this manual).
The Panther 5 SE have been recommended as suitable for use in smoke control areas when burning wood.
The appliance must be fitted with a mechanical stop to prevent closure of the secondary aircontrols beyond 4mm open.
The appliance is only exempt when used in accordance with these instructions.
Operation with the air controls or appliance dampers open can cause excess smoke.
The appliance must not be operated with air control, appliance dampers or door left open except as directed in the instructions.

1.3 HETAS LTD approval

The Panther SE appliance has been approved by HETAS Ltd as intermittent operatingappliances for burning wood logs.

2.0 Technical and Emission data

Material:	Steel and Cast iron
Finish:	High-temp resistant paint Fuel
Wood:	Approved wood logs
Log length:	23cm x 8cm Diameter Maximum
Flue outlet:	Top and rear
Flue pipe dimension:	Internal 125mm / 113cm2 cross section
Approx. weight:	66kgs
Dimensions, distances etc.:	Figure 2

Technical data according to EN 13240+A2:2004

Nominal heat output:	4.9kw
Flue gas mass flow:	5.0g/sec
Recommended chimney draft:	12 Pa
Efficiency:	78.7%
Co emission (13% O_2):	0.10%
Flue gas temperature:	235° C
Operational mode:	Intermittent

Emission data

Seasonal efficiency:	68.4%	
Din Plus particulates:	@ (13% 02), mg/Nm3	27
Mean CnHm emission:	@ (13% 02), mg/Nm3	97
Mean CO emission:	@ (13% 02), mg/Nm3	1209
Mean NOX emission:	@ (13% 02), mg/Nm3	116
Energy Rating:	A	
Energy Index:	104	

3.0 Installation

3.1 Unpacking the stove

After removing the outer packaging, remove the stove from the wooden pallet and place it gently on its back. The cardboard packaging can be placed underneath to prevent marring. Remove the leg pack from the stove if not assembled at manufacture, bolt each leg securely to the underside of the base on the combustion chamber, using the bolts provided (found inside the stove). Note: There are lower bolts supplied for fitment into holes in the base of each leg, these areadjustable to allow level adjustment of stove to uneven surfaces.

Remove all parts and instruction and any combustible products from the stove including the energy label affixed to the glass door. All instruction manuals and energy label to be given to thecustomer / user. See commissioning and handover section 3.9

We recommend that two people perform the assembly and installation procedure.

3.1.1 Installing this stove

The stove and chimney installations **MUST** comply with all current National and Local Building Regulations and any Rules in Force including current issues of British Standard BS 8303 code of practice for installation of domestic heating and cooking appliances burning solid mineral fuel and British Standards BS EN 15287-1:2007 design, installation, and commissioning of chimneys; your approved dealer or your local building control officer can advise regarding this. Ultimately, it is you and your installer who is responsible to ensure that the installation complies with all relevant regulations and any rules in force.

3.1.2 Assembling the baffle and separate internal parts (see Figures 1.1 to 1.8)

All stove internal parts are assembled at manufacture, however with movements and handling during stove delivery it is possible that some or all the located parts inside the stove may have moved, therefore it is important to check all these parts for correct position and fitment after the stove is located. Check the baffle and all other parts are located into correct positions including side bricks, rear brick, grate assemblies, banking bar and ash pan. Before lighting the stove for the first time, confirm the baffle and all parts are in correct location.

Location of non-bolted stove internal parts

Figure 1.1 Drawing of parts that are not bolt fixed to the inside of stove that may have moved during transportation. These parts must be checked to ensure they are incorrect location before lighting the stove.

Figure 1.1

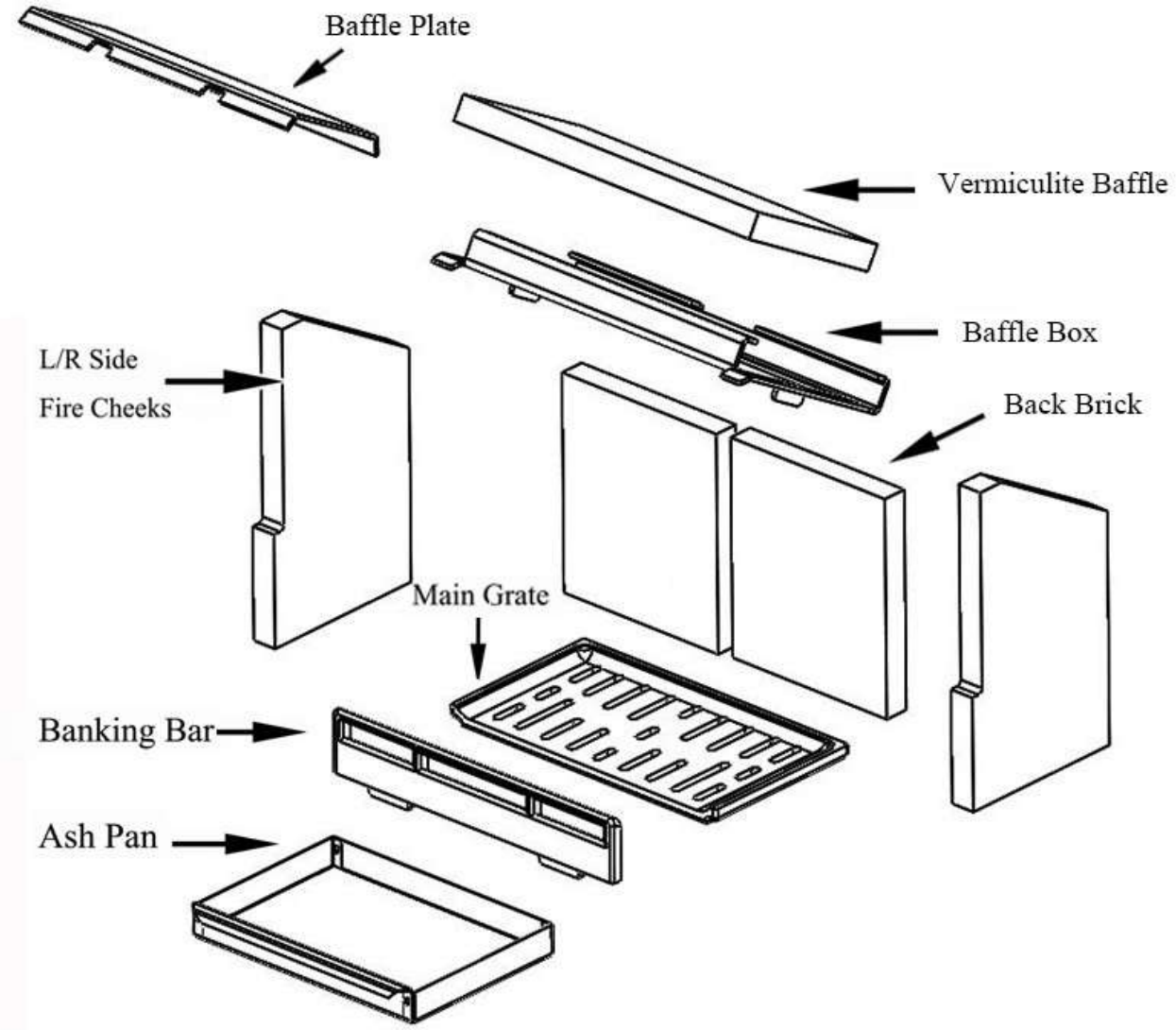

Baffle Plate
Vermiculite Baffle
Baffle Box
L/R Side
Fire Cheeks
Back Brick
Main Grate
Banking Bar
Ash Pan

Figure 1.2 Top baffle positioning

Position the top baffle through the aperture into the firebox, ensure the 2 cut outs of the top baffle are facing the front of stove and the angled lips are facing downwards. Position the top baffle into position by feeding in an upward direction and locating the front angled edge with the 2 cut outs onto the top of the top baffle support bracket, then lower the lower angled edge of the top baffle so it locates into the left- and right-hand side support brackets.

Figure 1.2

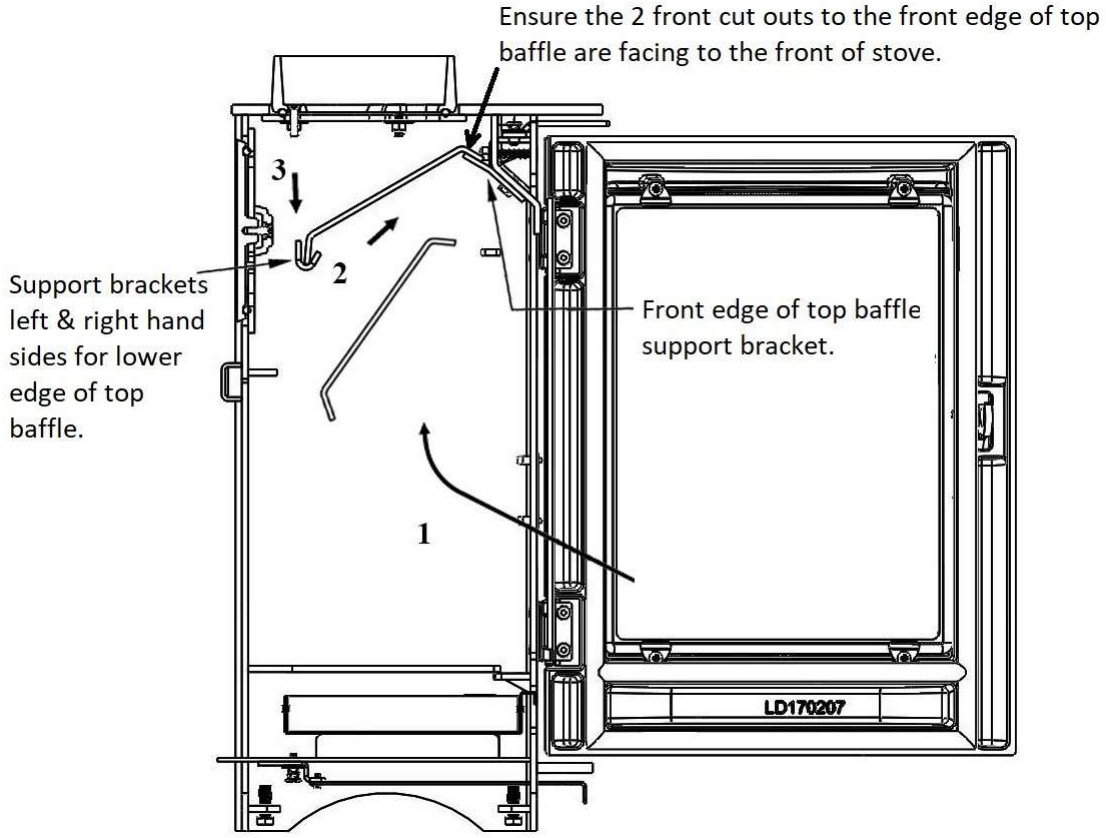


Figure 1.3 Lower baffle positioning

Position the lower baffle through the firebox aperture; ensure the lower front lugs are to the front of the stove. Feed the lower baffle in an upward direction and locate the front left and right-hand lugs to each tab located to the left- and right-hand side of stove.

Lower the lower rear edge of the top baffle into correct position on top of the platform to the rear of the stove above the tertiary air inlets.

Figure 1.3

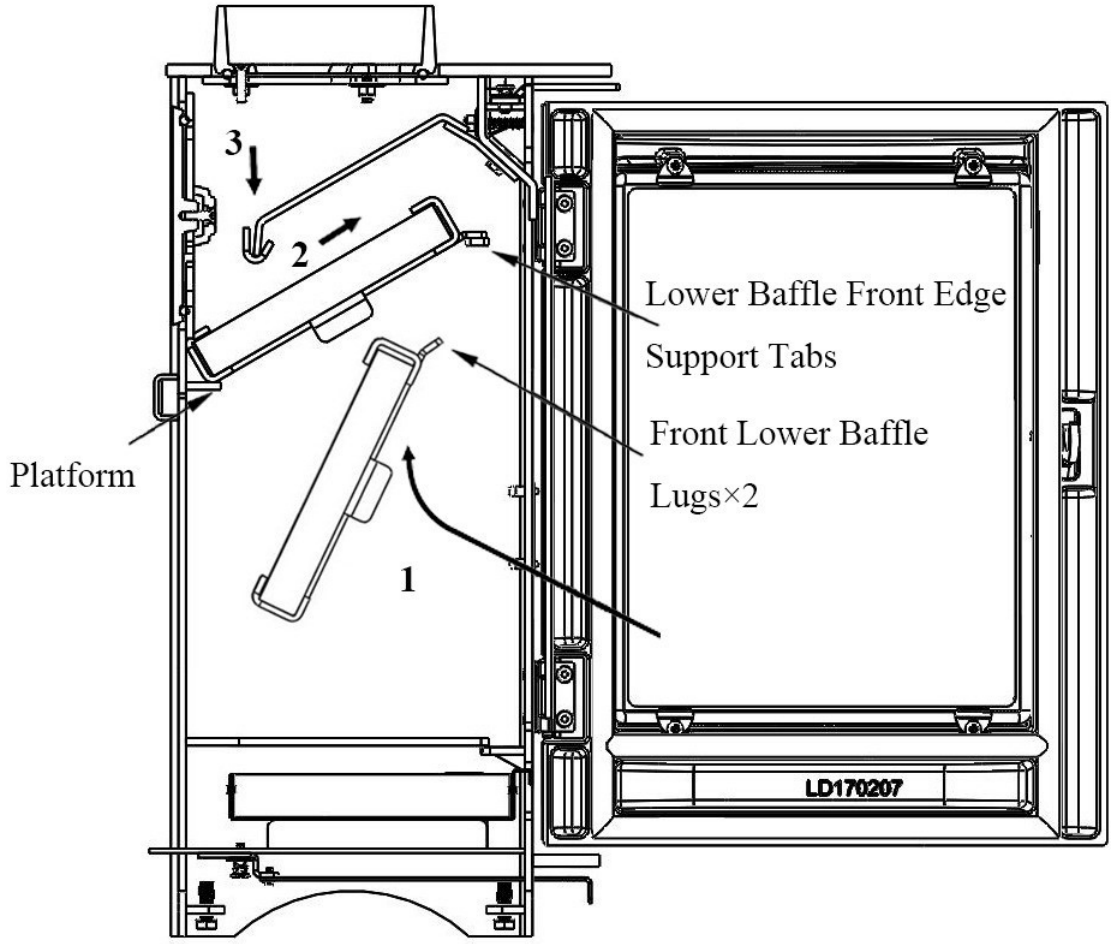


Figure 1.4 Rear brick positioning

Position both rear fire bricks into correct position to the rear of the stove ensuring they are both firmly against the internal rear wall of the stove ensuring not to leave a gap between each rear brick where they meet.

Figure 1.4

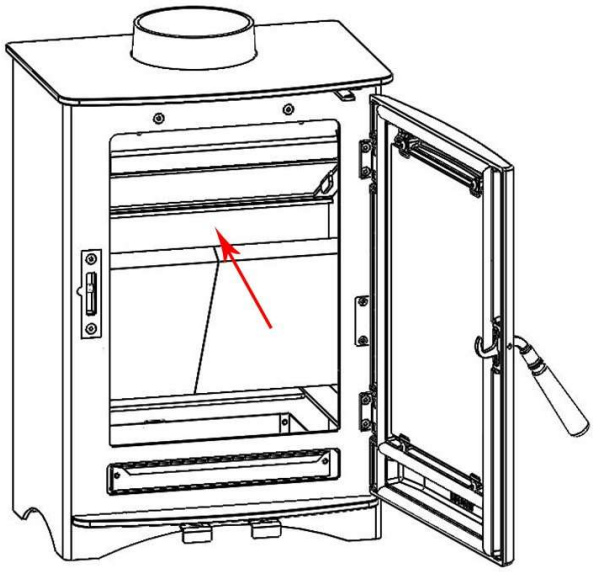


Figure 1.5 Side brick positioning

Position the left- and right-hand side bricks through the aperture to the front of the stove and position the top of each side brick behind each locating tab to the left- and right-hand side of the lower baffle, lightly push the lower edges of each side brick so they both fit against the internal side walls of stove.

Figure 1.5

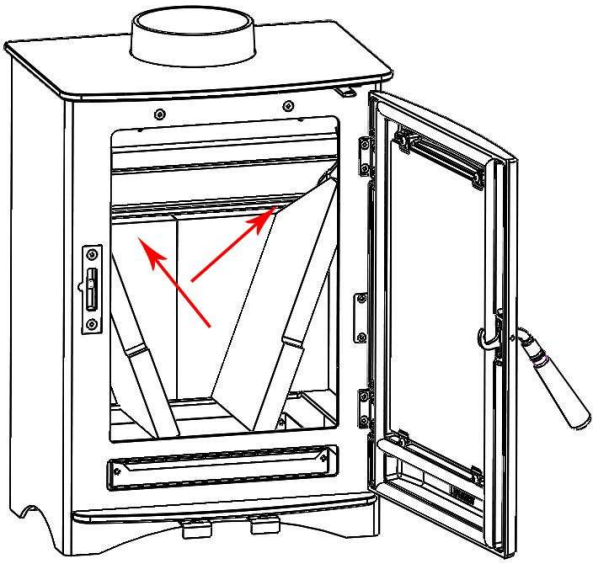


Figure 1.6 Stove main grate position

Position the main grate into correct position ensuring the lipped edge faces to the rear of the stove.

Figure 1.6

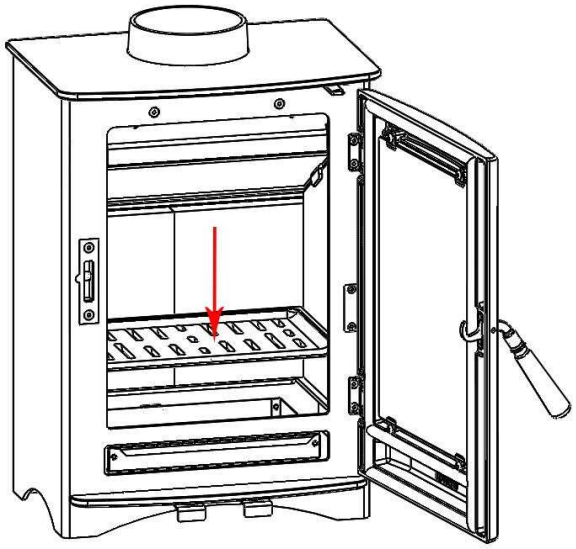


Figure 1.7 Banking bar positioning

Locate the banking bar through the aperture to the front of the stove. Locate the banking bar lower tabs into slots provided in the lower chassis ensuring the banking bar sits in front of both side cheeks.

Figure 1.7

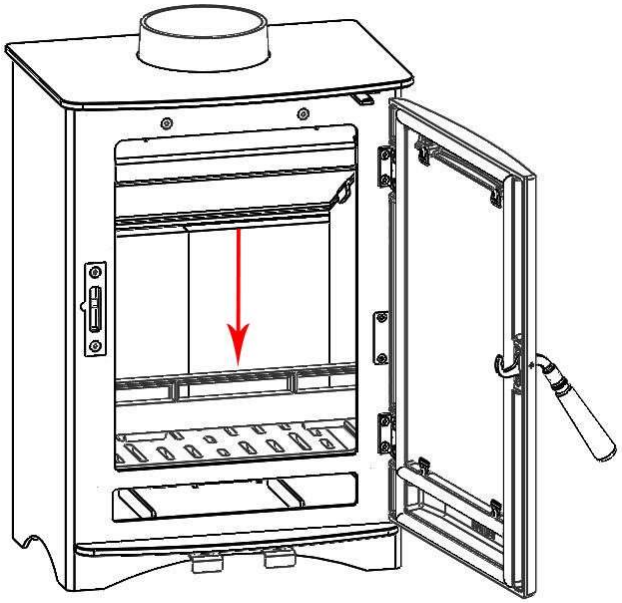
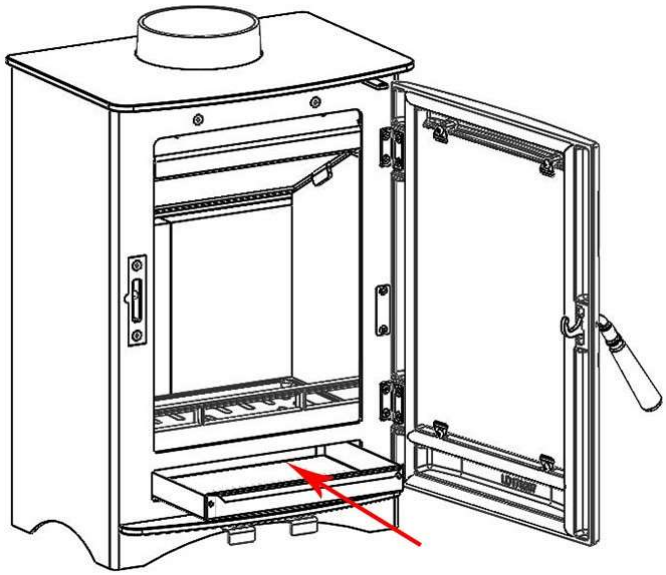


Figure 1.8 Ash pan positioning

Slide the ashpan into the lower cut out to front of the stove below the main grate ensuring it is fully inserted.

Figure 1.8

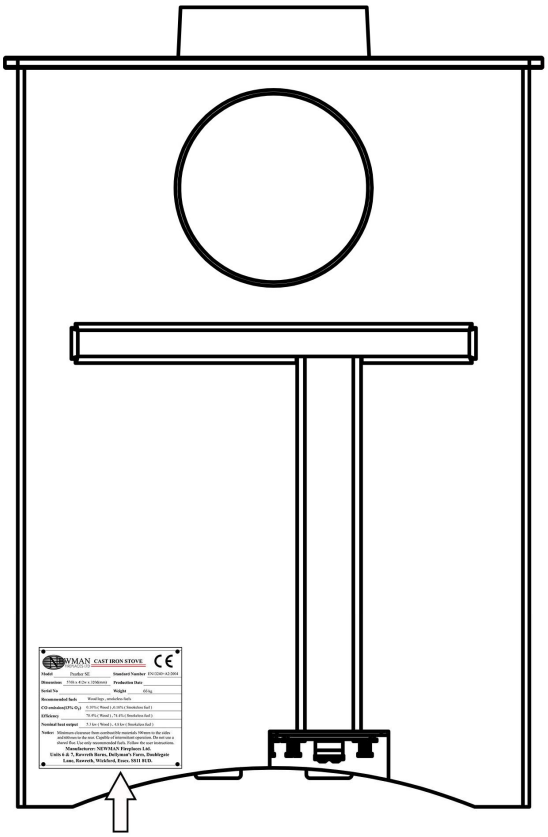


3.2 Data plate location (see figure 1.9)

Figure 1.9 shows the position of the stove data plate which is located to the rear of the stove. This shows important information, including:

A) Model
B) Standard number
C) Production date
D) Dimensions
E) Serial number
F) Weight
G) Recommended fuel
H) Co Emissions
I) Efficiency
J) Nominal heat output
K) Notice showing minimum distance to combustibles and other safety notes
L) Manufacturers details

Figure 1.9 Data plate position



Data Plate position to rear of stove

3.3 Stove placement / clearance requirements

This stove must only be installed onto floors with an adequate load-bearing capacity. If an existing construction does not meet this requirement, suitable measures (e.g., load distributing plate) must be taken. **Must be in accordance with National Laws, Building Regulations & any Rules in Force,including BS 8303 and BS EN 15287-1:2007.**

Wooden floor protection for Panther SE

The product can be placed directly onto a wooden floor providing that it is covered by a metal plate or other suitable, non-combustible material. The minimum thickness is 12mm. Any flooring made of combustible material, such as linoleum, carpets, etc. must be removed from under the floor plate. Requirements for protecting combustible flooring below, in front, rear & sides of the stove **must be in accordance with National Laws, Building Regulations & any Rules in Force, including BS 8303 and BS EN 15287-1:2007.**

Important:

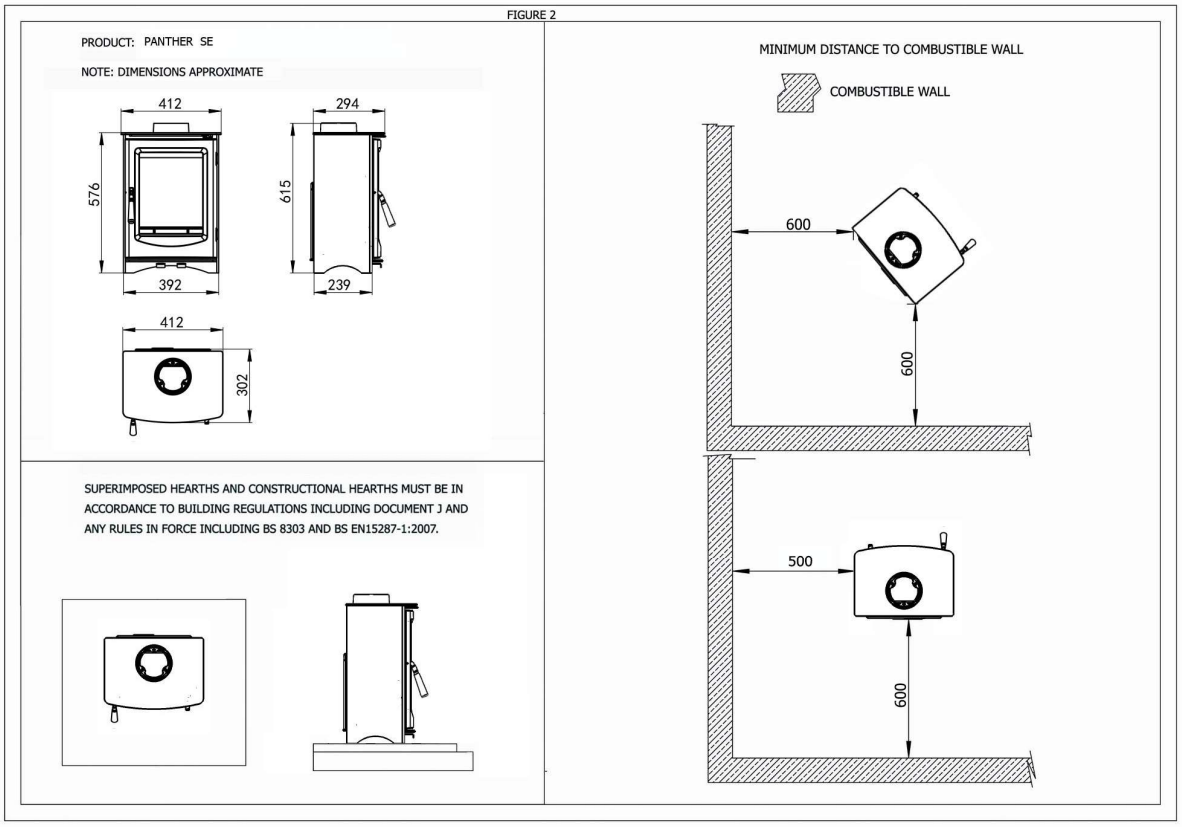
This applies for free standing installations only, if the stove is fitted into a conventional class 1 chimney a constructional and superficial hearth is required and must be in accordance with **National Laws, Building Regulations & any Rules in Force, including BS 8303 and BS EN 15287-1:2007.**
See: **Figure 2 and 2A.**

Panther SE stove fixing to hearth and constructional hearth

Refer to current National Laws, Building Regulations & any other Rules in Force, including British standard BS EN 15287-1:2007 and BS 8303

Distance to wall made of combustible material (see figure 2)

Refer to current National Laws, Building Regulations & any other Rules in Force, BS 8303 and BS EN 15287-1:2007. Contact your local building authority regarding restrictions and installation requirements.



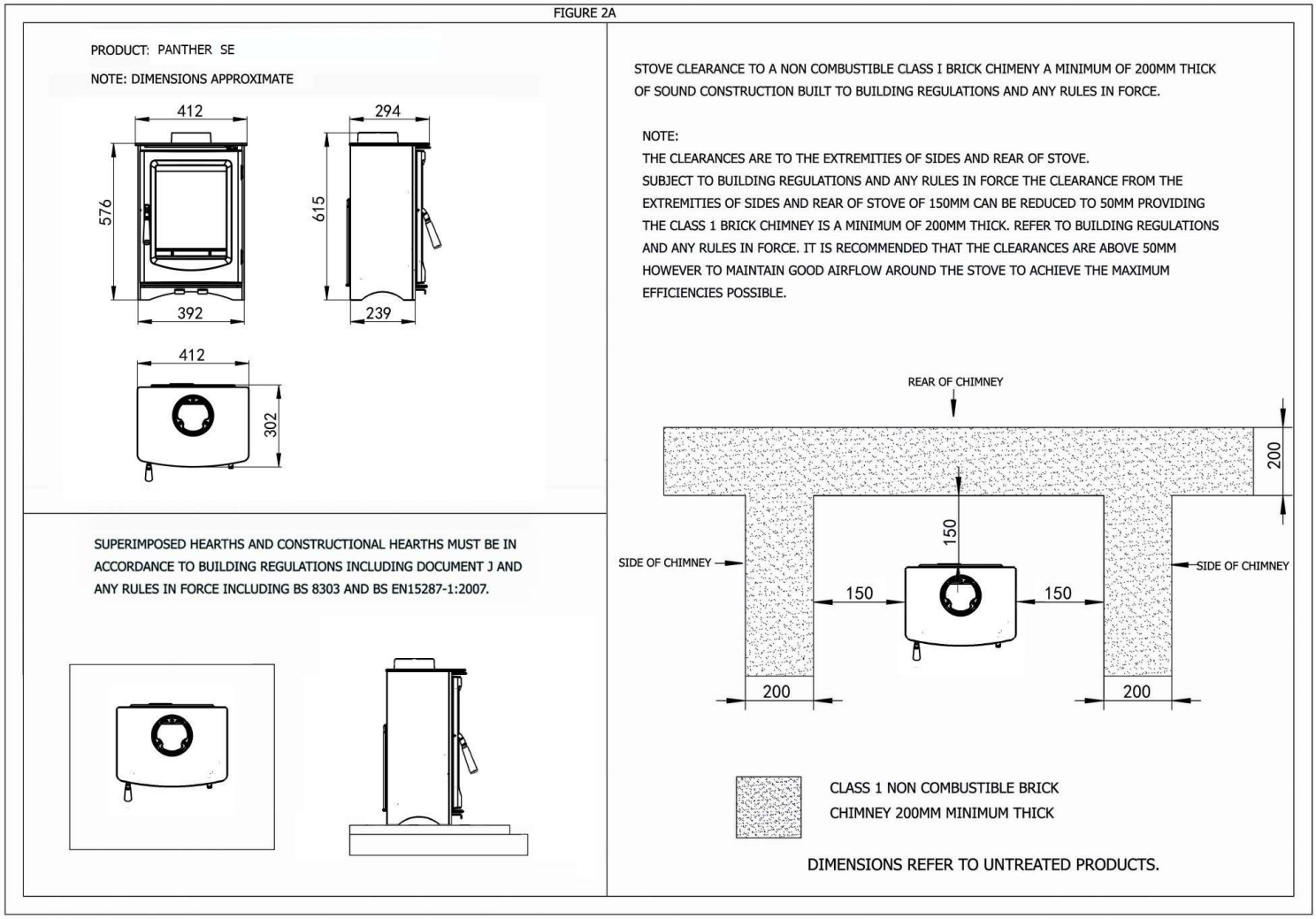
Distances between stove and a conventional brick Class 1 Chimney (see figure 2A)

Refer to current National Laws, Building Regulations & any other Rules in Force, including BS 8303 and BS EN15287-1:2007.

When installing this stove into a conventional class 1 non-combustible brick chimney built to building regulations and any other rules in force including BS 8303 and BS EN 15287-1:2007 the clearances to the sides and rear of stove required is 150mm, however providing all surrounding non-combustible brick walls have a minimum thickness of 200mm the clearance between the rear & sides of stove can be reduced to 50mm, refer to building regulations & any rules in force. However it is recommended that the measurement between the sides & rear of stove to be as large as possible above this dimension, as the efficiency of this stove is dependent on the clearances as shown in figure 2A. Distance from the top of the stove to a **non**-combustible wall or fireplace above is recommended to be a minimum of 200mm. Refer to building regulations & any other rules in force, including BS 8303 and BS EN 15287-1:2007 and refer to fireplace manufacturer's instructions.

For all other clearances to a non-combustible brick wall and chimney **refer to Current National Laws, Building Regulations & any other Rules in Force, including BS 8303 and BS EN 15287-1:2007.**

Contact your local building authority regarding restrictions and installation requirements.



Ceiling protection

Refer to current National Laws, Building Regulations & any other Rules in Force, including BS 8303 and BS EN15287-1:2007

Clearances to furniture and soft furnishings

Serious consideration should be given to positioning of any furniture or soft furnishings that couldbe adversely affected by heat. We recommend that the stove be installed a **minimum of 2000mm** from furniture, soft furnishings, and any combustible materials. When lit, a wood-burning stove gets hot and therefore adequate protection must be provided, particularly in situations where thereis a safety risk to children or the infirm. When using this stove in situations where children, aged and / or infirm persons are present a fireguard manufactured in accordance with BS 8423:2002must be used and such persons must be supervised at all times.
It is also recommended that all other people should use a fireguard in accordance with BS8423:2002 at all times when the stove is a-light or hot.

3.4 The chimney

Refer to current National laws, Building Regulations, and any Rules in Force, including British standard BS EN 15287-1:2007 and BS 8303 and (Approved Document J England & Wales)

The construction of the masonry chimneys, flue block chimneys and connecting flue pipe system must meet the requirements of the *Current National laws, Building Regulations, and any Rules in Force.*

This stove must **never** be connected to any shared chimney.

An efficient modern stove places heavy demands on the chimney, and you should have the chimney regularly swept and inspected at least twice a year for smokeless fuel use and quarterly for wood fuel use by an approved chimney sweep.

The flue or chimney system **must be** in good condition. It must be inspected and swept by a competent registered person and passed for use with the appliance before installation. The National Association of Chimney sweeps (NACS) and for Northern Ireland (NIACS) Northern Ireland Association of Chimney Sweeps offer a register of approved chimney sweeping and inspection services who will issue certificates after inspection and sweeping.

Where the chimney is believed to have previously served an open fire installation it is possible that the higher flue gas temperatures from a closed appliance may loosen deposits that were previously firmly adhered, with the 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 by an approved & competent chimney sweep.

If it is necessary to fit a register plate it **must** conform to the *Current National laws, Building Regulations, and any Rules in Force.*

The minimum height of the flue or chimney must be 4.5m from the hearth to the top of the flue, with no horizontal sections and a maximum of 4 bends. Bends must have angles of less than 45 degrees from the vertical. There should be at least 600mm of vertical flue pipe above the appliance before any bends are introduced. Ensure the connecting flue pipe is kept a suitable distance from any combustible material and does not form part of the supporting structure of the building.

The installer **must ensure** the flue pipe diameter is not less than the diameter of the outlet of the appliance and does not narrow to less than the size of the outlet at any point in the system.

Make provision to remove the appliance without the need to dismantle the chimney.

Any existing flue **must be** confirmed as suitable for the new intended use as defined in the Current Building Regulations.

The flue or chimney systems **must be** inspected and swept by an approved chimney sweep to confirm the system is structurally sound and free from obstructions.

The flue exit from the building **must comply** with *Current National laws, local building control rules, Building regulations and any Rules in Force.*

Chimney heights and / or separations may need to be increased in particular cases where wind exposure, surrounding tall buildings, high trees or high ground could have adverse effects on flue draught

It is **highly recommended** that an approved and certified flexible flue liner that complies with *Current National laws, Building Regulations and any Rules in Force* of the correct internal diameter be used to line the chimney, the liner **must be** approved for use with Multi Fuel burning. Flue liner installation **must comply** with *Current National laws, Building Regulations, and any Rules in force,* also refer to the flue liner manufacturer's instructions. The flue liner **must be** replaced when an appliance is replaced, unless proven to be recently installed and in good condition.

The cross-sectional area of the chimney (at its narrowest point) **must comply** with *Current National and Local Building Regulations and any rules in force.* Generally, the area needed for a wood-burning stove installation should measure at least 150 mm internal diameter. Please refer to *Current National laws, Building Regulations, and any Rules in Force.*

Important note: The Panther 5 SE has been tested for smoke exemption so a minimum internal flue

diameter of 125mm can normally be used. *(This **must be** confirmed with HETAS or Local Authority Building Control and all *Current National laws, Building regulations and any Rules in Force).*
An over-sized chimney is generally hard to keep warm and results in poor draft. In cases where there is an oversized masonry chimney, it is highly recommended that the chimney be lined using an appropriate and approved chimney lining system with the correct internal diameter as stated above.
With respect to the chimney termination, all chimneys **must** terminate in accordance with *Current National and Local Building Regulations.*
Note: *Current National and Local Regulations* also apply with regard to the placement of chimneys and flues in connection with thatched roofs.
The chimney or flue system **must be** equipped with access doors for inspection and cleaning. The size of the cleaning door in the chimney must at least equal to that of the cross-sectional area of the chimney. In the event that a chimney fire occurs resulting from faulty operation or prolonged use of damp wood fuel, if safely possible close the air vents of the stove completely, evacuate all persons from the building and contact your local fire department immediately.

3.4.1 Stove Pipe connection

Refer to: Current National laws, Building Regulations, and any Rules in Force including BS 8303 and BS EN 15287-1:2007 and (Approved Document J England & Wales)
There are two stove flue exits enabling either top or rear venting depending on installation requirements. See figure 3.
Check that the flue collar adaptor and flue blanking plate rope seals are not damaged and in correct position.
The flue collar adaptor is fixed using 3 x nuts, bolts, and washers.
The blanking plate to blank the redundant flue position is supplied with a fixing clamp and bolt fixing.
Ensure that the flue collar adaptor and blanking plate are fully sealed to the stove when installed.

Top flue exit position

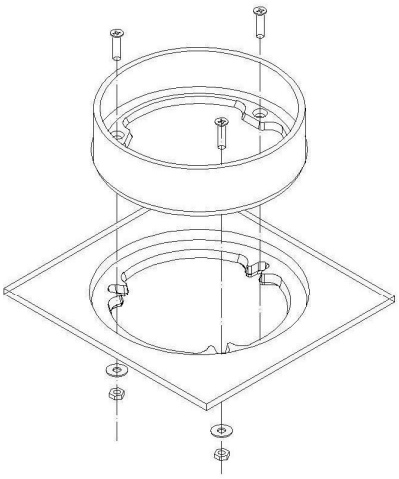
If using the stove top flue exit position.
Check that the flue collar adaptor rope seal is not damaged and in correct position.
Align the flue collar adaptor to the stove top flue exit position ensuring the 3 flange bolt hole positions align with the 3 holes to the stove top flue exit position.
Pass each bolt provided through each flue collar adaptor flange into the corresponding holes within the stove top, place the washer and screw each nut to each bolt that can be accessed through the top flue collar. Evenly tighten the 3 nuts and washers so the flue collar adaptor is securely fastened to the top of the stove.

Rear flue exit position

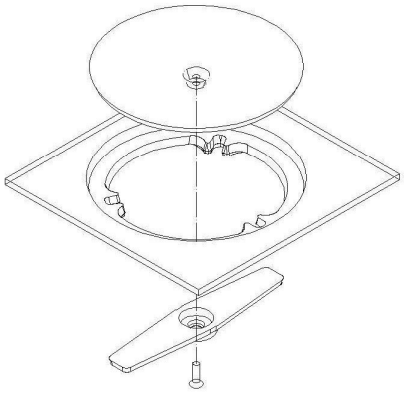
If using the rear flue exit position, remove the rear flue blanking plate by removing the bolt and clamp located to the rear of the blanking plate.
Check the flue blanking plate rope seal is in correct position and not damaged.
Install the flue blanking plate to the stove top flue position as described above.
Securely bolt the flue collar adaptor to the stove rear exit flue position as described above.
A suitably gauged metal rigid stove flue pipe of the correct size **complying** with *Current National laws, Building Regulations, and any Rules in Force* (not supplied), is connected to the flue collar. This part is not supplied.
The joint between the stove collar and rigid stove pipe **must be** fully sealed using suitable stove rope / fire cement. When the rigid stove flue pipe is **fully** inserted into the stove flue collar drill two suitably sized holes in a suitable position 180° apart through the stove flue collar and rigid stove pipe and use either corrosion proof self-tapping screws or bolts, nut, and washers of a suitable size to

ensure the rigid stove pipe is unable to be pulled out of the stove collar. **Ensure** the self-tapping screw or bolt nut and washers do not obstruct the stove collar flue way and ensure the screws or bolts and locating holes are airtight.
The chimney or flue way that the stove pipe is connected **must be** at least 125mm internal diameter. (ii) rectangular or square flues having the same internal cross-sectional area and a minimum dimension of 100mm for straight flues or 125mm for flues with bends or offsets. Refer to *Current National laws, Building Regulations, any Rules in Force including BS 8303 and BS EN 15287-1:* (This **must be** confirmed with HETAS or Local Authority Building Control and all *National laws, Building regulations and any Rules in Force*).

Figure 3



Flue outlet collar



Blanking plate

3.4.2 Connecting to a masonry chimney

Refer to Current National laws, Building Regulations, & any Rules in Force, including BS 8303 and BS EN 15287-1:2007 & (Approved Document J England & Wales)

Installation & all parts used for the connection of the stove & rigid stove pipe to the masonry chimney & flue way **must be** in accordance with *Current National laws, Building Regulations, and any Rules in Force.*
It is **highly recommended** that an approved certified flexible flue liner that **complies** to *Current National laws, Building Regulations and any Rules in Force* of the correct internal diameter be used to line the chimney, the liner **must be** approved for use with multi fuel burning. Refer to the Flue liner installation instructions and *Current National laws, Building Regulations, and any Rules in Force.*
The masonry chimney or flue system **must be equipped** with access doors for inspection and cleaning. The size of the cleaning door in the chimney must at least equal to that of the cross-sectional area of the chimney.
The chimney or flue way that the stove pipe is connected **must be** at least 125mm internal diameter or (ii) rectangular or square flues having the same internal cross-sectional area and a minimum dimension of 100mm for straight flues or 125mm for flues with bends or offsets. Refer to *Current National laws, Building Regulations, and any Rules in Force including* BS 8303 and BS EN 15287-1: (This **must be** confirmed with HETAS or Local Authority Building Control and all *Current National laws, Building Regulations, and any Rules in Force*).

3.4.3 Connecting to a stainless-steel twin wall insulated flue system

Refer to Current National laws, Building Regulations, & any Rules in Force, including BS 8303 and BS EN 15287-1:2007. Also refer to (Approved Document J England & Wales)

If the installation is to use a suitable and approved twin walled stainless steel insulated flue system for Multifuel use then you **must comply** with *Current National, Local Building Regulations and any Rules in Force*, including referring to the flue manufacturer's instructions concerning installation and clearances to combustible materials such as walls, floor joists and ceilings etc.
It is important that the insulated flue system is properly supported both at ceiling level and at roof level.
The Stove **must not** bear the weight of the chimney system (See chimney flue manufacturer's instructions). Excessive weight on the stove will inhibit expansion and could lead to damage of the stove top. Damage caused to the stove in this way would not be covered by the manufacturers guarantee.
The chimney or flue system **must be** equipped with access doors for inspection and cleaning. The size of the cleaning door in the chimney must at least equal to that of the cross-sectional area of the chimney.
The chimney or flue way that the stove is connected **must be** at least 125mm internal diameter.
(This **must be** confirmed with HETAS or Local Authority Building Control and all *Current National laws, Building regulations and any Rules in Force).*

3.5 Ventilation (Fresh air supply)

Refer to Current National laws, Building Regulations, & any other Rules in Force, including BS 8303 and BS EN 15287-1:2007 & (Approved Document J England & Wales)

The Panther 5 SE, nominal heat output 4.9kw. Note: This is the nominal heat output **not** the maximum heat output.

- A wood fuel burning stove **requires air** for combustion and therefore you may need to install additional ventilation to the room. An adequate air supply for ventilation & combustion **is required** to the room into which the stove is installed. As this stove is CE tested to 4.9kw nominal heat output a purpose provided air vent is not normally required, (England and Wales). However, in certain circumstances a purpose provided air vent may be required such as: insufficient natural ventilation, a flue draught stabiliser is fitted and date of building construction etc.
- Refer to *Current National laws, Building Regulations and any other Rules in Force* to any other country, Nation or area outside of England for ventilation requirements.
- **We suggest that it is advantageous** to provide an air supply into the room that the stove is installed.
- When determining the ventilation requirements account will need to be made for any other combustion devices in the room.
- Purpose provided air vents **must be** of the correct size, be non-closable and unrestricted, and **must** comply with *Current National laws, Building Regulation & any other Rules in Force.*
- Installation of purpose provided air vents must be installed to comply with Current National laws, Building Regulation & any other Rules in Force.
- Extractor fans or any other similar devices **must not** be installed in the room into which the stove is installed.
- Air inlet vents should be positioned in the room at locations to avoid them becoming blocked. If the air supply is inadequate the chimney draft may be too weak, with the possible result that the stove will not burn properly leading to a potentially dangerous situation. Smoke spillage may also occur especially during the refueling process.

- 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 B.S. 8303 Part 1. Where such an installation exists, a test for spillage **must** be made with the fan or fans and other appliances using air in operation at full rate, (i.e., extraction fans, tumble dryers) with interconnecting doors fully open. and all external doors and windows closed. If spillage occurs following the above operation, an additional air vent of sufficient size to prevent this occurrence **must be** installed.
- This stove requires an adequate air supply for the stove 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.

3.6 Chimney Draft conditions

If smoke spillage occurs when the fire door is opened, it is probably due to poor chimney draft. This type of stove requires at least **12 pa** of chimney draft to achieve satisfactory combustion and smoke spillage prevention. However, in cases where the stove door is opened too vigorously you could expect that slight smoke spillage may occur.
If the flue draft is too high then this can create run away combustion making the stove difficult to control and cause damage to the stove by over firing.
If you have any doubts, you may want to have your installer measure the draft in the chimney.

Draft conditions

The chimney's draft is the resulting effect within the flue caused by the difference in temperature within the flue and the cooler temperature outside, plus the outside air flow across the top of the chimney pot exit, factors that can influence the level of draft include the length of the flue, insulation of the chimney, adverse weather conditions or tall buildings or trees nearby the flue terminal.

Poor draft occurs when:

- The atmospheric temperature difference is too low.
- The outside temperature is too high, e.g., during the summer months.
- There is no air movement (wind) outside.
- The chimney is not tall enough, with the result that the terminal sits in the lee of the roof surface or in the vicinity of tall trees or neighboring buildings. These conditions are also associated with downdraft where the flue gases are pushed back down the chimney.
- Flue draft is diluted by residual air entering the chimney, e.g., due to inadequate fluepipe joints or leaks at the cleaning door or flue collar.
- Unsealed, unused fireplaces are connected to the chimney.
- The flue is blocked, e.g., by soot, due to inadequate cleaning, loose debris or even a bird's nest.
- The room to which the stove is installed is too tightly sealed. (See section on Fresh air supply).

A good draft is achieved when:

- The temperature difference between the flue way or chimney and outside atmosphere is high. (Higher temperature in flue way or chimney and cooler temperature to external atmosphere). This also applies during firing when the need is greatest.
- The weather is clear and there is a good wind.
- The chimney is of the correct height.
- The room that the stove is installed is adequately ventilated.

3.7 Carbon Monoxide Alarm

Refer to Current National laws, Building Regulations, & any Rules in Force, including BS 8303 and BS EN 15287-1:2007 & (Approved Document J England & Wales)

An **approved** Carbon Monoxide alarm conforming to the latest edition of BS EN 50291 **must be** installed into the room into which the stove is installed. Installation and positioning **must be** in accordance with *Current National laws, Building Regulations and any Rules in Force including (Approved Document J England & Wales).* Also refer to the alarm manufacturer's instructions.

3.8 Handle (see figures 3.5 - 3.5A - 3.5B)

This stove is supplied with three types of handles for customer preference. One is a Bakelite handle, the second is a removable stainless-steel handle and the third is provision to fix the stainless-steel handle into position.

Handle assembly

This stove is assembled with one type of handle when manufactured. If your preference is to use the other handle supplied, then please refer to the handle assembly picture for instructions on how to change. A stove mitten is supplied with this stove for your use when operating the stove; if the mitten supplied is of the incorrect size for the user, then it is recommended that the user sources a CE approved stove mitten or glove to the correct size before lighting and operating this stove.

Important

Only change the handles when the stove is cold and not being used.

Bakelite Handle (see figure 3.5)

Step 1: Position Bakelite handle, screw, and washer fixings, into correct position with steel elbow. Tighten screw securely. To operate the handle, move in direction as shown in figure 4 to either open or close the door.

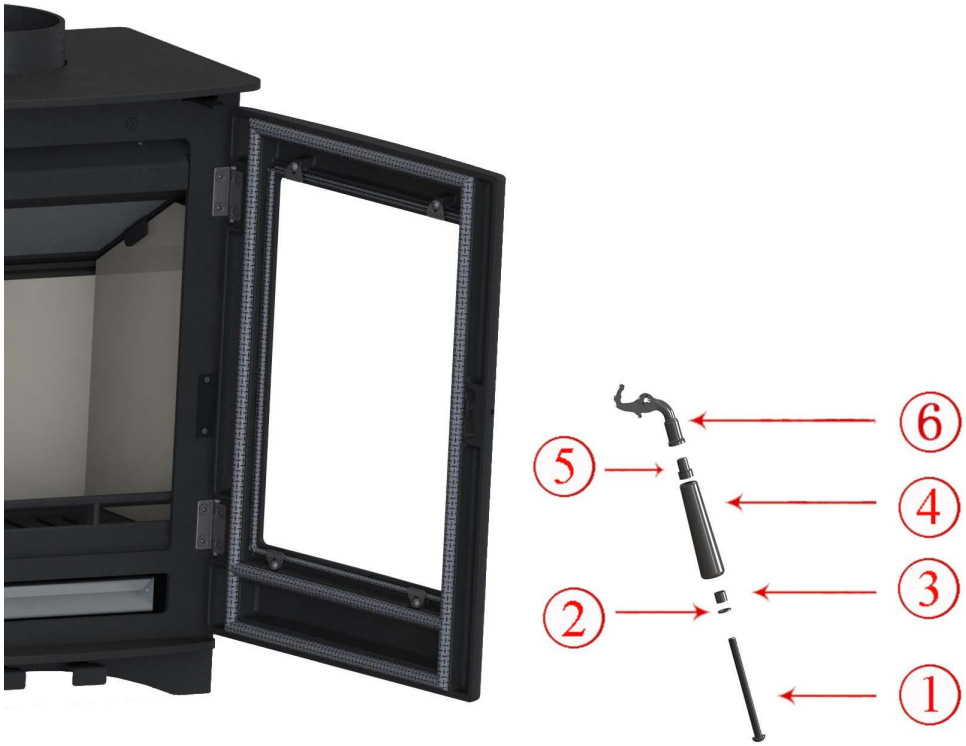
Figure 3.5

Stainless Steel Handle removeable, (Plug in and out) (see figure 3.5A)

The optional stainless-steel handle is designed to be of plug in and plug out type, this will enable the handle to be removed when not operating the door to avoid excessive heat transfer into the handle when the stove is in operation and hot.

Parts: 1. Screw. 2. Washer. 3. Spacer. 4. Stainless steel handle. 5. Plug in adaptor 6. Elbow. Position the screw, washer, and spacer through the stainless-steel handle and tighten screw securely into the plug-in adaptor. The handle can now be plugged into the elbow when operating the door and then removed when handle operation is not required. It is recommended the stainless-steel handle to be placed into position away from the stove and any heat when unplugged onto a non-combustible surface, protect any surfaces that the handle is to be placed with a non-combustible and non-heat transfer material. To operate the handle, move in direction as shown in figure 4 to either open or close the door.

Figure 3.5A



Stainless Steel Handle fixed (see figure 3.5B)

(Optional configuration when stove is not in use and cold**)**

For aesthetic purposes the stainless-steel handle can be fixed into position when the stove is not in use and cold.

For this configuration unscrew the plug-in type handle and remove the spacer (part 3) and the plug-in adaptor (part 5).Pass the screw and washer (part 1 & 2) through the handle (part 4) and securely tighten the screw into the threaded elbow (part 6).

Note: Due to the heat transfer from the stove to the handle this will subsequently make the handle extremely hot, therefore it is recommended that this handle is only used for aesthetic purposes when the stove is not a-light and not being used such as the summer period and changed for handle assembly option 3.5 or 3.5A when the stove is required to be used.

Figure 3.5B

3.9 Commissioning and handover

- **Ensure** the installation of this stove is completed in accordance with Current National laws, local codes, and Regulations in each country. All local Regulations & any Rules in Force, including those which refer to National and European standards, **must be** observed when installing this product.
- **Ensure** all parts are fitted in accordance with these instructions.
- Check the soundness of door seals, castings, and all joints.
- On completion of the installation allow a suitable period for any fire cement and mortar to dry out, before lighting the stove.
- Check the operation of all air controls.
- Carry out a final smoke draw test.
- Warm the flue within inside the stove with a blowlamp or similar product, for approximately 10 minutes.
- Place a smoke pellet on the Centre of the grate. **Ensure** all air controls are fully open.
- Close the stove door. The smoke emitted from the smoke pellet should now be drawn fully up the flue and be seen to exit from the flue terminal.
- Complete the test with all windows and doors closed within the room the stove is fitted.
- If there are any extractor fans fitted in adjacent rooms the test **must be** repeated with the fans switched on and running on maximum with interconnecting doors fully open and all external windows and doors closed.
- Check the effect of any ceiling fans that may be installed on their maximum setting.
- If the smoke spillage test fails, re-check the flue system and room ventilation. Products of combustion entering the room are **potentially very dangerous** and the stove must never be left installed in this condition.
- When the fault of the smoke test failure has been identified and rectified another smoke test must be completed to ensure that no products of combustion enter the room and property.
- Check the stove for smoke or fume spillage under normal use, light the stove and slowly increase the temperature.
- Once the stove is under fire check all seals for soundness and check that the flue is functioning correctly and that all products of combustion are vented safely to atmosphere via the chimney terminal.
- Complete the test with all windows and doors closed within the room the stove is fitted.
- If there are any extractor fans fitted in adjacent rooms the test must be repeated with the fans switched on and running on maximum and with interconnecting doors fully open and all external doors and windows fully closed.
- Check the effect of any ceiling fans that may be installed.
- Ensure no products of combustion enter the room and property.
- When the appliance reaches its normal operating temperature open the door and carry out a spillage test with a smoke match or pellet around the door opening.
- If spillage occurs allow the stove and chimney system to cool and re- check the flue system and ventilation. This **must be** rectified to **ensure** safe operation of this stove before handing over to the end user.
- Whenever a stove or chimney is installed or renovated, it is a mandatory requirement that a Check List and Notice Plate be completed. The purpose of the Check List is to ensure that the installation has been carried out correctly. The Notice Plate is a record of the installation, the appliance and fuels that can be used with the chimney. It must be located in a convenient and accessible location, for example, near a services meter. Completion of the data required on the Notice Plate can be by the heating appliance installer, builder, chimney supplier/installer or other competent person.
- On the completion of the installation and commissioning **ensure** that the operating instructions for the stove are left with the customer and user.

- **Explain to the user** the safe operation of the appliance, use of controls and the importance of using suitable fuels and never to exceed the maximum fuel load stated within these instructions.
- **Explain to the user** how to open and close the door and the importance of not operating the stove with the stove door open other than as explained within these instructions.
- **Explain to the user** the high temperatures the stove can reach and never to touch any part of the stove and flue pipe. Explain that the stove and flue pipe will remain hot for some time after the stove has been used and not to touch any part. Show and hand to the user the stove mitten and tool supplied for use in operating the handle and all air controls, including the ash pan and explain how to use.
- Advise the user that when using the appliance for the first few days, to allow the appliance to settle and allow fixing sealers and paint to fully cure. Advise the user to operate the appliance at a **lower temperature** for the first few days to achieve this.
- **Advise the user** what to do should smoke or fumes be emitted from the stove.
- **Ensure** that an approved carbon monoxide alarm has been fitted and make the user aware of its operation and importance.
- **Explain to the user** the cleaning and routine maintenance requirements.
- **Explain to the user** the requirement to use a suitable fireguard when children, elderly or infirm persons are within the room the appliance has been installed.
- **Explain to the user** that it is recommended that **all persons** within the room the appliance is installed **to use** a suitable fireguard.
- Explain to the user that a suitable fireguard must be used when the appliance is left unattended.
- Record the appliance serial number and give a copy to the user as this will be needed for any spares that may be required and any warranty claim. The serial number is located on the data plate that is fixed to the rear of the stove.

4.0 User Manual

4.1 Warnings and Safety

Important. Please read the Installation and User Instructions so that you become fully acquainted and understand how to use and operate this stove safely.

= **Warning sign**

- Installation of this stove **must be** completed in accordance with Current Local Codes and Regulations in each country. All local Regulations & any Rules in Force, including those which refer to National and European standards**, must be** observed when installing this product.
- **Important Note:** It is a legal requirement under England & Wales Building Regulations that the installation of this stove is undertaken under Local Authority Building Control or is installed by a competent person registered with a Government Approved Competent Persons Scheme. Hetas Ltd operate such a scheme and a listing of their registered Competent Persons can be found on their website at www.hetas.co.uk
- **Always** ensure that whenever operating the stove and near to the stove that:
- Long hair is tied back.
- Do not wear any loose-fitting jewelry.
- Do not wear loose fitting clothes.
- Ensure all clothing is fire retardant to Current Regulations.
- Check & ensure anything else that maybe worn or part of your physic such as beards etc.; that is not possible to inadvertently either touch or enter the fire chamber area of the stove.
- This stove is a **high heat** producing appliance and **may cause severe burns & injury** if touched to any part.
- **Do not** touch the surface of this stove whenever alight or hot. **Caution** This stove may still be hot even after the fire is extinguished and can take many hours before the stove cools down therefore **do not** touch the surface of stove until it is completely **cold.**
- This stove gets **extremely hot when burning and remains very hot** for some time even when the fire is extinguished, therefore adequate protection **must be** provided, particularly in situations where there is a safety risk to children, aged and the infirm. When using this stove in situations where children, aged and / or infirm persons are present a fireguard manufactured in accordance with the latest edition of BS 8423 + A1 **must be** used and such persons **must be supervised at all times.**
- It is also recommended that **all other people** should use a fireguard in accordance with the latest edition of BS 8423+ A1 at **all times** when the stove is a-light or hot.
- It is **not** recommended that the stove is left operating unattended. If the stove is operating unattended a fireguard **must** be used and comply with the latest edition of BS 3248

- **Ensure** the area around the stove is clear of all obstacles so as not to be a trip hazard and allowing a totally un-obstructed space whilst lighting, re fueling, adjusting the air controls, removal, and replacement of ash pan and at all other times.
- **Ensure** the area around the stove is safely clear of all people and animals whilst lighting, re fueling, adjusting the air controls, removal, and replacement of ash pan and at all other times.
- A stove mitten is supplied with this stove for your use when operating the stove, however if the mitten supplied is of the incorrect size for the user, then it is **recommended** that the user sources a CE approved stove mitten or glove to the correct size before lighting and operating this stove.
- **Use** the long ash pan / operating tool provided for operating and adjusting all the air controls, including when removal & replacement of the ash pan is required. Use a stove mitten when operating the stove and when holding and using the long ash pan / operating tool.
- Ash and all residue materials including the ash pan will be **extremely hot** and can cause severe **life-threatening injuries**, therefore extreme care **must be** taken whenever removing hot ash and residue material including the ash pan from the hot stove. See section 4.3.3
- **It is highly recommended** providing the ash pan is not full of residue material that the ash pan is emptied when the fire is **not in use** and the stove, with all residue and components are **cold.**
- It is **recommended always** to use approved and suitable stove tongs for loading and refueling the stove with suitable fuel to avoid any part of your arms and hands entering or touching the stove. Use the stove mitten to hold the tongs.
- **Never** leave any ash and residue material burning or smoldering within the building as this will release carbon monoxide into the air that is extremely dangerous and a potential fire hazard.
- Where the chimney is believed to have previously served an open fire installation it is possible that the higher flue gas temperatures from a closed appliance may loosen deposits that were previously firmly adhered, with the consequent risk of flue blockage. It is therefore **recommended** that the chimney be swept by an approved chimney sweep a second time within a month of regular use after installation.
- Chimneys / Flues and connectors should be **swept, cleaned**, and checked at least **twice** a year if burning approved smokeless fuel and at least **quarterly** each year when burning wood, by an approved and registered Chimney Sweep. Ensure the Chimney / Flue sweeping and checking; schedules for both fuels include sweeping and checking **at least once** before the heating season and **at least once** after the heating season.
- Registered chimney sweep associations:
  The National Association of Chimney sweeps (NACS) and for Northern Ireland (NIACS Northern Ireland Association of Chimney Sweeps. Both associations have a register of suitably qualified chimney sweeping and inspection services that issue certificates after inspection.
- If the stove is to be left unused for a prolonged period, then it should be given a thorough clean to remove ash and unburned fuel residues. To enable a good flow of air through the appliance to reduce condensation and subsequent damage, leave the air controls fully open.

- It is **important** that the flue connection, any appliance baffles or throat plates and the chimney are swept, cleaned, and inspected by an approved and registered chimney sweep prior to lighting up after prolonged shutdown periods.
- 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 **must not** under any circumstances be shut off or sealed.
- **Clearances to furniture, soft furnishings & combustible materials**
  Serious consideration should be given to positioning of any furniture or soft furnishings that could be adversely affected by heat. Newman Fireplaces Ltd recommend that any furniture or soft furnishings or any combustible materials to be a **minimum of 2000 mm** away from the stove. **Never** use or store aerosol sprays or any other combustible products in the vicinity of the stove when it is in operation or whenever the stove is hot. The stove will remain hot for some time even after the fire is extinguished.
- **Never** place laundry near to the stove.
- **DO NOT** place photographs, TV's, paintings, porcelain, etc or other combustible items on the wall or near to the appliance. Exposure to hot temperatures can be dangerous and cause damage.
- **Never** over fire or use incorrect fuel to the stove as this can be dangerous and cause damage to the stove and invalidate the stove warranty.
- This appliance has been tested at a nominal heat output to the requirements of EN 13240:2001 for intermittent operation, it is **VERY IMPORTANT** you **DO NOT** exceed the maximum fuel loads and operation of the stove is followed as the instructions.
- **Only use** this appliance for domestic property heating in accordance with these instructions.
- This stove **is not suitable** for any type of water vessel.
- Your **home building insurance** company may require you to inform them that a new heating appliance has been installed on your property, so it is strongly advised to check with your insurance provider. Check that your cover is still valid after installing the appliance and check with them if all chimney sweeping, cleaning and inspections certificates are required to be kept together with the approved stove installer, installation, and service maintenance records.
- This stove should be serviced at **least annually** by a suitably qualified and registered stove installer.
- Extra fuel **must not** be stored on, below or next to the stove.
- **Never** use or store aerosol sprays or any other combustible products in the vicinity of the stove when it is in operation or whenever the stove is hot. The stove will remain hot for some time even after the fire is extinguished.
- This stove contains consumable parts, and their replacement intervals can vary depending on how the stove is operated and the fuel being used. Also, a heavy buildup of ashes on the main grate will cause premature damage, see section 4.3.3
- An approved Carbon Monoxide detector alarm conforming to the latest edition of BS EN 50291 **must be** installed into the room the stove is installed. Installation and positioning

must be in accordance with current National laws, Building Regulations including (Approved Document J England & Wales) and alarm manufacturers instruction.

Actions to take if the alarm sounds in a CO emergency

If you suspect fumes are escaping from your combustion appliance into your home, or your carbon monoxide alarm goes off.

- Turn the appliance off, by closing the air controls.
- Open doors and windows to ventilate the building.
- Leave the building immediately and do not return until your appliance has extinguished and the air in the room is clear.
- If you feel unwell go to your Doctor, or call one of the following:
- NHS England on 111
- NHS Direct on 0845 46 47 (in Wales)
- NHS 24 on 111 (in Scotland)
- If it is urgent phone 999 for an ambulance. Tell them you feel your symptoms may be related to carbon monoxide poisoning.
- Before you reuse the appliance, have it serviced by a **Hetas Registered Installer (England & Wales)** or an equivalent approved installer for other Nations and the chimney swept and condition checked by an **approved chimney sweep**.
- Do not use the appliance until you are told it is safe to do so.
- Provisions of an alarm must not be considered a substitute for either installing the appliance correctly or ensuring regular servicing and maintenance of the stove and chimney system.

The common symptoms of carbon monoxide poisoning can include:

- Headaches
- Breathlessness
- Nausea and / or vomiting
- Dizziness or collapse

WARNING NOTE

Properly installed, operated, and maintained this stove will not emit fumes into the dwelling. Occasional fumes from de-ashing and re-fueling 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 by the stove user:

- Evacuate all people and animals from the room to a safe area.
- Open outside doors and windows to ventilate the room and then evacuate to a safe area.
- Let the fire go out and leave until the stove and residue material is cold.
- Have the flue **checked** for chimney blockage and cleaned if required by an **approved** registered chimney sweep.
- **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 your safety these **must always be** kept clean and unrestricted.

Fire Safety:

Serious consideration should be given for the following:

- The installation of **smoke detectors.**

- A conveniently located **approved fire extinguisher** to contend with small fires resulting from burning embers and any residue material.
- A practical evacuation plan.

A plan to deal with a chimney fire as follows:

- **Notify** the fire department.
- Prepare all occupants for **immediate evacuation**.
- **If safely possible**, close all air openings into the stove.

4.2 Maximum fuel loads and recommended fuel

Maximum fuel load

Stove model	Wood
Panther 5 SE	1 to 2 x Small sized logs maximum total weight 1.03kg

Recommended fuel: Seasoned hardwood

Only use seasoned hardwood logs with a moisture content of 16 % plus or minus 4 %.

Never use wet wood or unseasoned wood.

The fuel **must not** contain halogenated organic compounds or heavy metals as a result of treatment with wood-preservatives or coatings.

Suitable hardwood is available commercially and normally sold in bags, ensure if your fuel is sourced this way that it meets the criteria above. It is **recommended** that your fuel supplier uses a managed and renewable source.

Pieces of wood with a diameter greater than 8cm should always be chopped. The pieces of wood should be short enough to be able to lie flat over the layer of embers, with air at both ends. The maximum length of wood to be no more than 23cm.

Maximum fuel load & Nominal heat output

The nominal heat output of approximately 4.9kw is achieved by loading the stove with a maximum of 1 or 2 small logs (total weight 1.03kg), the burn rate to be adjusted by the secondary air control so the logs burn for 0.77 hours before the stove needs to be refueled.

Ensure the wood fuel does not obstruct the tertiary air inlet holes to the rear of inside of the stove. The wood fuel to be placed below all tertiary air inlet holes.

Ensure that all wood is placed so as not to touch and obstruct the glass and door when closed, all fuel to be loaded behind the banking bar, ensuring that all fuel does not project passed the banking bar.

Please note that HETAS Ltd Appliance approval only covers the use of wood logs on this appliance. HETAS Ltd Appliance approval does not cover the use of other fuels either alone or mixed with the recommended fuels above, nor does it cover instructions for the use of other fuels.

Not recommended as fuel:

Green or damp wood

Green or damp wood reduces stove efficiency and soils the glass and the internal walls of the flue (Soot, tar) etc. This can cause the flue ways to become blocked. pollutes the environment (pollution and smell,) etc, and cause the fire to burn too quickly and overheat.
Green wood or damp wood can **eventually cause a chimney fire**.

Softwood, Used wood and Treated wood

Burning softwood, previously used wood and treated wood (railway sleepers, telegraph poles, off cuts of plywood or chip board, pallets, etc.) quickly clogs and blocks the flue ways (soot, tar,) etc, pollutes the environment (pollution and smell) etc, and cause the fire to burn too quickly and overheat.
Softwood, previously used wood and treated wood can **eventually cause a chimney fire**.

Prohibited fuel:
Plastic bags and any form of bituminous coal or petroleum-based coke. **Do not** use the appliance as an incinerator or use any liquid fuels. This is **very dangerous** and may damage the product and pollute the atmosphere.
Smokeless fuels.
All other fuels.

4.3 General use & operation

Important

- The Panther 5 SE is approved as an intermittent operating appliance as such it is strongly **recommended** that you **do not** leave the stove alight at night. It harms the environment and constitutes extremely poor use of the wood fuel, as the gases in the wood fuel do not ignite at the low temperature but settle as soot (unburned gases) in the chimney and stove, this can cause damage to the chimney flue and stove. Extreme conditions, such as poor draught in the chimney, large quantities of wood or wet wood, may, in the worst-case scenario, **cause an explosive ignition**.
- When firing in the summer period, when there is minimal need for heat, the combustion will be poor due to low air settings whilst controlling the fire, this will cause the gases in the wood fuel to not ignite at the low temperature but settle as soot (unburned gases) in the chimney and stove, this can cause damage to the chimney flue and stove. Extreme conditions, such as poor draught in the chimney, large quantities of wood or wet wood, may, in the worst-case scenario, **cause an explosive ignition**.
- After a prolonged shut-down period the stove and chimney system should be checked by an **approved and competent** stove installer such as Hetas registered (England & Wales) or equivalent for other nations, and an **approved and qualified** chimney sweep to **ensure** that there is no blockage. For example, a bird may have nested at the top of the chimney.
- If you fire the stove using wet wood, a lot of the fuel's thermal energy will be spent forcing the water out of the wood, without releasing any heat to the stove. This incomplete combustion results in a layer of soot being left in the stove, pipe, and chimney. this can cause damage to the chimney flue and stove. Extreme conditions, such as poor draught in the chimney, large quantities of wood or wet wood, may, in the worst-case scenario, cause an **explosive ignition**.
- **Never overload the firebox**. The maximum amount of fuel specified in this manual **should not** be exceeded, overloading can be dangerous, cause excess smoke and damage the stove.
- **Ensure** the fuel does not obstruct the tertiary air outlet holes to the rear of inside of stove.
- The fuel to be **below** all tertiary air outlet holes.
- **Ensure** that all fuel is placed so as **not to** touch and obstruct the glass and door when closed, all fuel to be loaded behind the banking bar, ensuring that all fuel does not project passed the banking bar.

- **Never** leave the appliance unattended for long periods and **always ensure** that the newly charged fuel is burning well before leaving the room.
- **Do not** refuel when a large amount of flame is in the firebox as this could cause smoke or flames to spill into the room. Only refuel when the fuel and fire is **low**.
- **Close** the stove door immediately after refueling.
- Wood is a material that contains a great deal of gas (approximately 75 %). The gases are released when the wood is ignited and heated up. For this reason, it is important that the gases are ignited quickly after stoking. If the wood just lies smoldering, a lot of smoke is created, which, in the worst case, may cause an explosive ignition of the gasses, resulting in damage to the stove and a possible dangerous situation.
- To ignite the gases that are released from the wood, and to keep clear, lasting flames during the combustion process, it is always important to let in the required quantity of oxygen (air supply). The setting of the air supply, the method of ignition and the lighting intervals depend on the draught in the chimney, the wind and weather, the amount of heat required & fuel, etc. This means that it may take some time before you get to know the correct functioning of the stove under any given circumstances.
- Note: (To load fuel, the door should be opened **slowly**, avoiding a sudden rush of intake air, so that smoke does not escape into the room). **Always close** the door after re fueling.
- Dampers left open. Operation with the air control 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 the instructions.

Operation with the door left open

Warning: The firebox door shall be kept closed except during ignition, refueling and removal of residue material.

It is **recommended** providing the ash pan is not full of residue material that the ash pan is emptied when the fire is **not in use** and the stove, and all residue and components are **cold.**

The stove door should **never** be opened when the stove is being fired vigorously and only opened when the fire requires lighting, when the fuel is low and needs to be re fuelled or removal of residue material via the ash pan, at all other times the stove door **MUST BE CLOSED.**

Operation with the door open can be dangerous and cause excessive smoke. The appliance **must not** be operated with the appliance door left open except as directed in the instructions.

Stove shut down

If there is still fuel burning in the stove firebox, it is not recommended closing the air controls completely unless there is a chimney fire in progress (See section 4.0 User manual, under the heading (A plan to deal with a chimney fire as follows). Closing the air controls during the combustion process will cause poor combustion and could cause a build-up of gases that could **ignite dangerously**.
Always ensure that the air controls are open enough to maintain some flames in the firebox.
If it is required to shut down the appliance, then run the stove on a higher setting without over firing until all the fuel has been burnt before closing the air controls.

Odours when using the stove for the first time

Painted products:

The stove may emit an irritating gas when used for the first time, and it may smell a little. The room should be thoroughly ventilated. Let the fire burn with a high draught (without over firing) until all traces of the gas have disappeared and no smoke or smells can be detected. **Evacuate all** people from the room until all odours have cleared. If for any reason the odours do not clear, do not add more fuel and allow the fire to extinguish, seek professional assistance.

Panther 5 SE Air Controls (see Figure 4)

Always use the long ash pan / operating tool and stove mitten to operate the air controls.

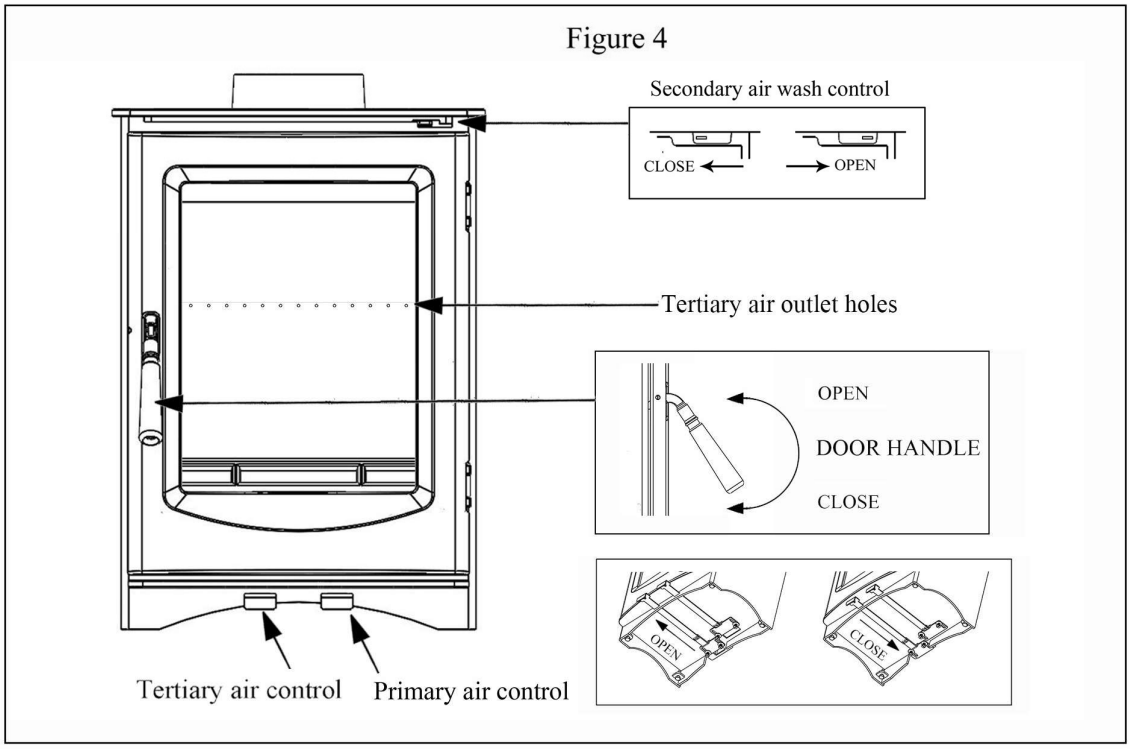
For **wood burning** the amount of heat emitted by the stove is regulated by using the **secondary** air control.

The exact positioning of the air controls to achieve optimum burn for the Panther 5 SE will depend on many factors such as weather conditions, chimney size and local topography. However, to give some guidance please read section 4.3.1 and section 4.3.2.

Panther 5 SE controls (see Figure 4)

A stove mitten and long ash pan / operating tool are supplied with this stove for your use when operating the stove, if the mitten supplied is of the incorrect size for the user, then it is recommended that the user sources a CE approved stove mitten or glove to the correct size before lighting and operating this stove.

Figure 4



A stove mitten and long ash pan / air control tool are supplied with this stove for your use when operating the stove, if the mitten supplied is of the incorrect size for the user, then it is recommended that the user sources a CE approved stove mitten or glove to the correct size before lighting and operating this stove.

To Open the door:
Pull the handle towards you.

To close the door:
Push the handle towards the stove ensuring the door is fully closed.

Operation of the Primary, Secondary and Tertiary air controls

The primary air control is located to the right-hand side below the stove door, to operate push to close, pull to open. The tertiary air control is located to the left-hand side below the stove door, to operate pull to open thus increasing the air flow or pushing to close thus reducing the air flow. **Always use** a suitable stove mitten or glove and use the ash pan / operating tool to adjust the air setting controls.
The secondary air control is located to the right-hand side above the stove door, to operate move to the left to reduce the air flow and move right to increase the air flow.

4.3.1 Use with wood (see Figure 4)

It is recommended **always** to use approved and suitable stove tongs for loading and refueling the stove with wood to avoid any part of your arms and hands entering or touching the stove.

Use the stove mitten to hold the tongs.

Always use the long ash pan / operating tool and stove mitten to operate the air controls**.**

The stove door should **never** be opened when the stove is being fired vigorously and only opened when the fire requires lighting, when the fuel is low and needs to be re fueled and removal of residue material via the ash pan, at all other times the stove door **must be closed**.

It is highly recommended providing the ash pan is not full of residue material that the ash pan is emptied when the fire **is not in use** and the stove, and all residue and components are **cold.**

Lighting

Ensure the area around the stove is safely clear of all people and animals.

Ensure any obstacles so as not to be a trip hazard and allowing a totally unobstructed space whilst lighting, refueling, adjusting the air controls, removal, and replacement of ash pan and at all other times.

1) Pull the primary air control fully open.
2) Slide the secondary air control fully open to the right.

3) To achieve clean burning and maximize the performance and efficiency of the appliance it is important to raise the temperature of the stove and chimney as quickly as possible. Thus, when lighting the appliance, the technique is to open the door and start with a small amount of kindling with the secondary and primary air controls fully open, use a long taper to ignite the kindling and then close the stove door.
4) After a few (~5) minutes, open the stove door and add some larger pieces of wood. Close the stove door.
5) Only when these have been well-alight and the flames dying down, should the stove door be opened and normal sized logs be added, then close the stove door.
6) When the logs are well alight, the primary air control should be fully pushed in to close the air supply.
7) Use the secondary air control to control the burn rate.
8) To operate at the nominal heat output of approximately 4.9kw the primary air control must be fully closed, and the secondary air control should be adjusted so the maximum fuel load of 1.03kg of suitable wood burns for approximately 0.77 hours.

Refueling

- 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 a sufficient quantity of glowing embers and ash so 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.
- **Only open the door slowly** when the **fire is low** but with sufficient glowing embers to ignite the new fuel charge. Add more logs and close the stove door and open both the primary and secondary air controls.
- When the appliance is refueled, leave the primary and secondary air controls open for 2 to 3 minutes, or until the logs are well alight, before closing the primary air control and using the secondary air control to control the fire.
- **Always** refuel onto a good bed of glowing embers.
- **Never** leave the primary air control open, other than when lighting and re-fueling the appliance.

Operation with door left open

Warning: The firebox door shall be kept closed except during ignition, refueling and removal of residue material.

It is **highly recommended** providing the ash pan is not full of residue material that the ash pan is emptied when the fire is **not in use** and the stove, with all residue and components are **cold.**

Operation with the door open can be **dangerous** and cause excessive smoke. The appliance **must not** be operated with the appliance door left open except as directed in the instructions.

4.3.2 Ash removal, disposal of ash & cleaning the main grate (see Figure 5)

WARNING

Ash and all residue materials including the ash pan will be **extremely hot** and can cause severe **life-threatening injuries**, therefore extreme care **must be** taken whenever removing hot ash and residue material including the ash pan from the hot stove.

- **It is highly recommended** providing the ash pan is not full of residue material that the ash pan is emptied when the fire is **not in use** and the stove, with all residue and components are **cold.**
- **Ensure** the area around the stove is clear of all obstacles so as not to be a trip hazard and allowing a totally unobstructed space whilst removing the ash pan, ash, and residue material.
- Other than the stove user **ensure** that all people and animals are kept well away from the stove and kept well clear of any pathways and areas that the hot ashes and ash pan may be carried.
- **Ensure** to take necessary action to avoid breathing in any ashes or any other particles or products when carrying out ash removal.
- A suitably **approved dust mask, stove hand protection mittens or gloves and eye protection is** recommended to be used for this process.
- **Always** wear the stove mitten to hold the ash pan key provided to operate and lift the ash pan.
- It is **essential** to keep the grate free from a heavy build-up of ashes.
- **Never allow** the ash pan to overfill allowing ash to be in contact with the underside of the main grate. If this condition is allowed, the grate will wear out pre-maturely.
- Only open the door **slowly** when the **fire is low.**
- **Always** empty the ash pan at least once a day or whenever it is full of ashes. Use the stove mitten to hold the ash pan key provided to operate and lift the ash pan.
- **Always wear** the stove mitten and ashpan key when lifting the ash-pan and operating the stove.
- **Always wear** the stove mitten when opening and closing the stove door.

1) If the ash-pan requires to be emptied whilst the stove is a-light, wait until the fire is low before slowly opening the stove door.
2) Wear the stove mitten to hold the ash pan key and locate the forked end into the underside of the ash pan tab as figure 5. Gently lift the ash pan so it can be withdrawn from the stove, taking extreme care ensuring that the ash pan with hot ashes is not carried over or placed on any combustible materials.
3) Close the stove door.
4) Dispose of the ash and residue material as explained below.
5) When the ash pan has been emptied, open the stove door, and replace the ash pan into correct position under the fire grate of stove wearing the stove mitten to hold the ash pan key provided to operate and lift the ash pan.
6) Wear the stove mitten to close the stove door.
7) Never place the ash-pan with or without residue material when hot onto any combustible surfaces and any surfaces that can be damaged by heat.

Disposal of ash and residue material

- Ashes and any residue material should be placed in a non-combustible leak proof metal container with a tight-fitting lid. The closed container of ashes must be placed on a suitable non-combustible floor or ground that is resistant to very high temperatures without causing any damage well away from all combustible materials.
- People and animals **must be** protected from any hazard including the hot container and residue material pending final disposal.
- **Never** leave any ash and residue material burning or smoldering within the building as this will release carbon monoxide into the air that is extremely dangerous and a potential fire hazard.
- If the ashes are disposed of by burial in soil or otherwise locally dispersed, in accordance with current National Regulations and Bylaws, they should be retained in the closed container until all residue material and the container have completely cooled.

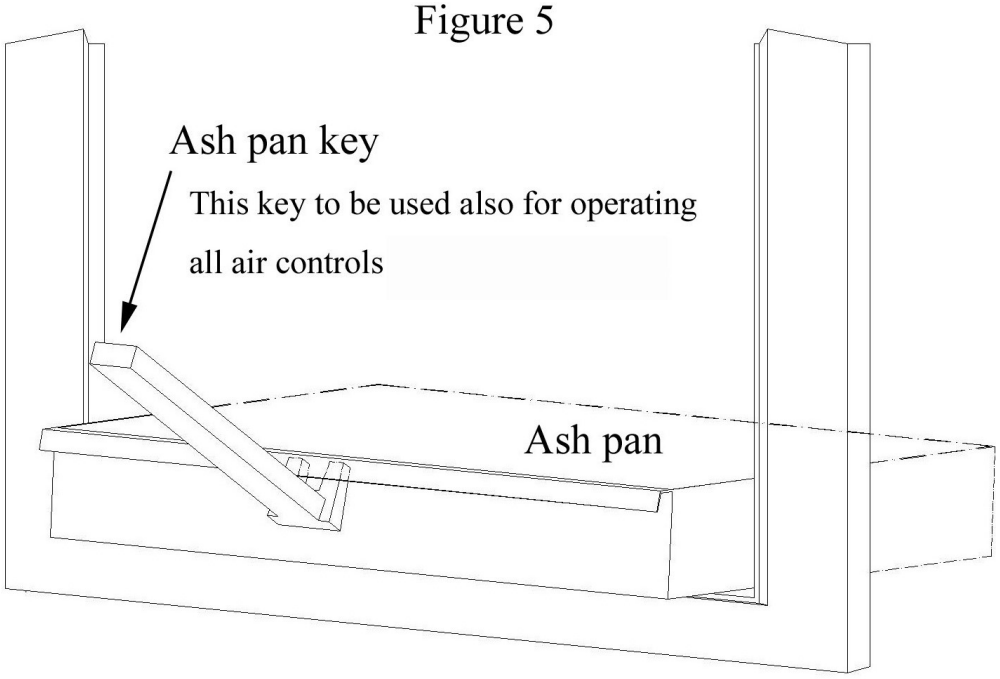
Cleaning the fire grate

- Only clean the fire grate, when the fire is **not in use** and the stove, with all residue and components are **cold.**
- **Ensure** to take necessary action to avoid breathing in any ashes or any other particles or products when carrying out ash removal.
- Suitably **approved dust mask, hand protection gloves and eye protection** are recommended for this process.

1) Protect the hearth and all other areas that are at risk from ash and residue contamination with suitable material before opening the stove door and commencement of cleaning.
2) Open the stove door, it is **recommended** to use a specialist approved Hepa filtered stove ash vacuum for this task, (See manufacturer's instructions), alternatively sweep the ashes and residue material into the ash pan with a suitable brush.
3) Safely dispose of the ashes in accordance with National Regulations and Bylaws.
4) Replace the ash pan into correct position within the stove and close the door.
5) Remove the protection from the hearth and other areas and dispose of in accordance with current National Regulations and Bylaws.

When locating or removing the ash-pan **always use** the cast iron key provided, this key is also used to operate the air controls. **Always use** a stove mitten or glove to hold the key.

Figure 5



4.4 Maintenance (By a professional registered, and approved, stove installer)

Refer to: Current National laws, Building Regulations & any Rules in Force. Also refer to: (Approved Document J England & Wales).

4.4.1 Professional Safety and service checks.

- The stove should be **regularly serviced** (At least once every year) by an approved and competent stove installer such as Hetas registered (England & Wales) or equivalent for other Nations to ensure continued safe and efficient operation.
- Keep the stove instructional manual safe and readily available so the installer / maintenance engineer as detailed above has a reference to the maintenance and service checks as sections 4.4, 4.4.1 & 4.4.2
- Maintenance & service checks **only** to be carried out when the stove is **not in use and cold,** the only exception to this is when it is required to test the stove for safe and efficient operation when the stove is alight where adequate precautions must be taken.
- **Always** comply with all **Health and Safety Regulations** whist servicing and maintaining this stove.
- **Ensure the correct PPE is used** for each operation that is being undertaken, for example, suitable protective masks whilst cleaning the stove and re painting stove, suitable hand protection gloves to protect from any sharp edges, broken glass and any residue materials, suitable eye protection goggles to protect against sharp objects, broken glass and any dust or particles. Suitable body and clothes protection. If vacuuming ashes and any residue material, ensure the vacuum cleaner is suitable and approved for stove use and is equipped with the correct HEPA filters.

- Check to ensure the chimney and flue system is in sound condition and working correctly and safely.
- Check that the chimney has been swept and inspected by a suitably qualified and registered chimney sweep to ensure that the chimney / flue is clean and free from any obstructions and to check that the chimney / flue is in sound and safe serviceable condition, also to check the chimney / flue is suitable for the stove being serviced.
- Remove all non-bolted stove parts within the stove. Clean all parts and check for wear and damage. Any parts that are worn or damaged to be replaced with authorized replacements.
  Note: Vermiculite parts can become brittle with use so take care whilst removing and re fitting. It is recommended that these parts should be changed at least annually of before if required.
- Whist all the non-bolted parts are removed from the inside of the stove clean all remaining internal stove parts, check all other internal stove parts for wear and damage and replace with authorized parts if required. Remove both top baffles for cleaning and checking, replace with authorised parts if required.
- Replace the ceramic glass panel fibre rope seal, ensure the rope seal is the same type and size as the original.
- Replace the fibre rope seal to the door, ensure the rope seal is the same type and size as the original.
- Check all external parts of the stove for wear and damage if found replace with authorised parts.
- Check the stove collar and stove pipe for damage and wear and ensure any joints are sealed correctly. Rectify with authorized parts if any fault is found.
- Check the register plate (for installations that require) is in good serviceable condition and fitted correctly.
- Check the Carbon Monoxide alarm to ensure it is installed and operating correctly.
- Check that any combustible materials are a safe distance from the stove.
- Check that all fireplace components such as hearths and any other component are in accordance with current National Laws, Building Regulations, and any Rules in Force and suitable for the stove installed.
- **Air Supply:** It is **essential** to check any air supply ventilator in the room is suitable and fully clear and open to ensure the safe operation of the stove
- Check for correct operation of all air controls.
- Check the correct operation and adjustment of the door handle.
- Clean the glass panel as section 4.5.2
- Clean or repaint the external black painted surfaces of the stove as section 4.5.4
- All parts to be re-installed to the stove into their correct positions.
- To carry out correct and safe operation tests of the stove as listed in section 3.8 Commissioning and handover.
- Refresh the user on the safe operation of this stove.

4.4.2 Replacing the glass panel and rope seal

Only change the glass panel and rope seals when the stove **is not in use and completely cold.**

Wear suitable protective gloves, mask and goggles during this process.

Replacing glass panel to stove door (see Figure 6)

In the unfortunate event the glass panel to main door gets damaged the glass panel must be replaced with an approved stove glass panel, by an **approved and competent** stove installer such as

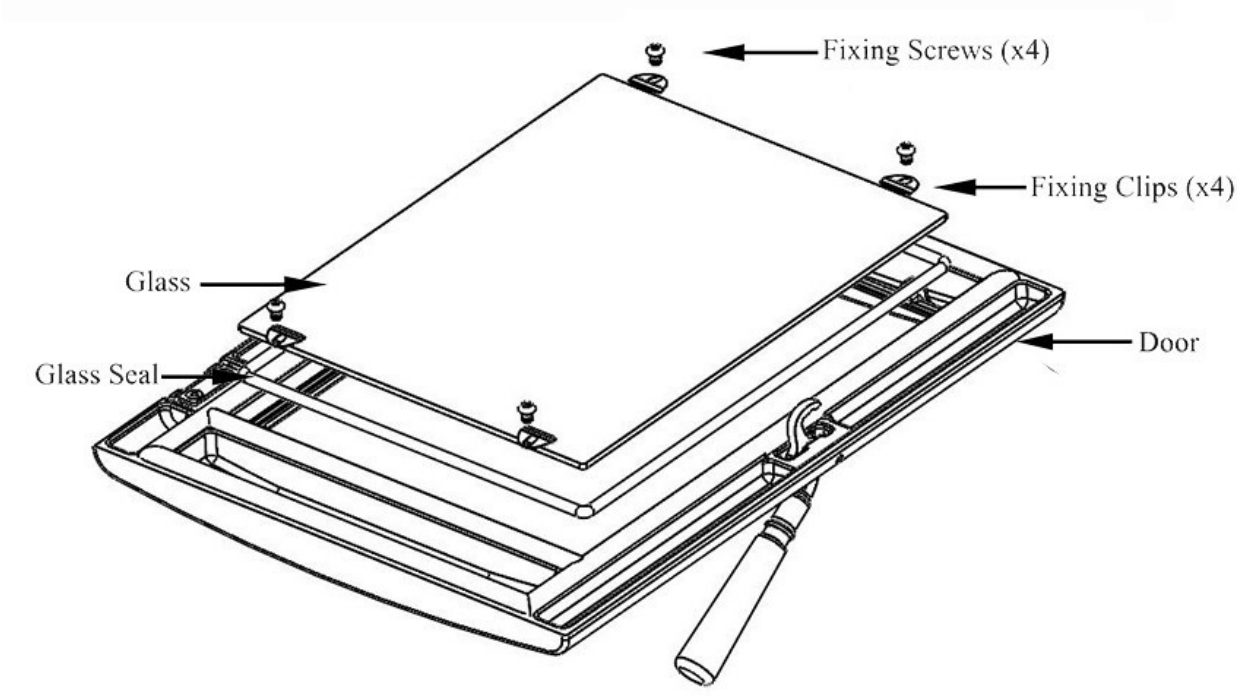
Hetas registered (England & Wales) or equivalent for other Nations.

- Open the door. Remove the glass panel by removing the 4 screws and fixing tabs located to the inside of the door, the glass panel will require supporting during this process. Remove the glass panel. Check the glass rope seal for wear and damage, if found replace the rope seal. When fitting the new glass panel locate the glass so it is central to the stove glass seal and located correctly to ensure the glass panel will be sealed to all sides. Replace the 4 screws and fixing clips and secure the glass panel to door. **Do not** over tighten the screws as this can damage the glass.

Replacing the glass rope seal

- Remove the stove door by removing the 4 screws retaining the hinges to the door and place face down onto a soft sound surface so as not to damage the door or glass. To replace the glass panel to door seal: Remove the glass panel. Note the position of the glass rope seal join positions in relation to the door. Remove the old door rope seal and scrape old glue from the door locating groove.
- Clean the locating groove with a clean, dry cloth to remove all old dust and debris. Use suitable stove rope glue into the rope locating groove and press the new rope into the locating groove, noting the joint positions. Replace the glass panel. Refer to the stove rope glue manufacturer's instructions for drying times and when the stove can be used after the stove rope glue has been used.
- Using the appliance with a damaged glass seal or damaged glass can cause dangerous fumes to enter the room, or the appliance to over fire resulting in damage.

Figure 6



4.4.3 Replacing the door rope seals (see Figure 7)

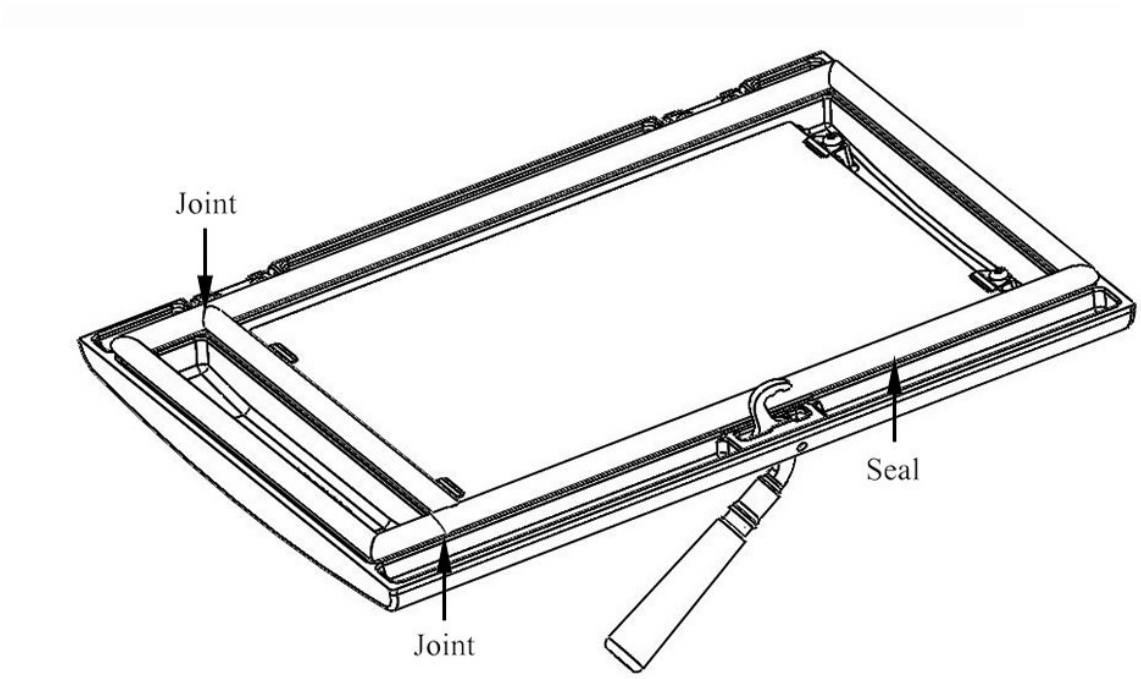
Only change the glass panel and rope seals when the stove **is not in use and completely cold.**

Wear suitable protective gloves, mask and goggles during this process.

The fibre rope seals in the door will wear out over time and should be replaced as required and renewed at least annually by an **approved and competent** stove installer such as **Hetas registered (England & Wales) or equivalent for other nations**, in order to prevent runaway combustion.

- Remove the stove door by removing the 4 screws retaining the hinges to the door and place face down onto a soft sound surface so as not to damage the door or glass.
- Note the door seal joining positions in relation to the door. Remove the old fibre rope seals and scrape old glue from the locating grooves.
- Clean the locating groove with a clean, dry cloth to remove all old dust and debris. Squeeze a generous bead of fresh stove rope seal glue into the rope locating groove. Press the new fibre rope seal into the locating groove, noting the joint positions. Refit door and close to apply pressure to new rope. Leave the door closed for at least 12 hours before lighting the appliance and run at a low temperature for approximately one day. Also refer to the stove rope glue manufacturer's instructions. This allows the adhesive to fully bond to the seal.
- Using the appliance with a damaged door seal can cause dangerous fumes to enter the room, or the appliance to over fire resulting in damage.

Figure 7



4.5 User Cleaning and Maintenance

4.5.1 User Maintenance Safety Warnings

- If the user does not feel confident to undertake the user cleaning and maintenance, it is **highly recommended** that you use a suitably qualified stove installer regularly to ensure continued safe and efficient operation of this appliance.

- Cleaning and maintenance **only** to be carried out when the stove is **NOT IN USE** and the stove plus all components including ashes and any residue material are completely **COLD**

- **Ensure the correct PPE is used** for each operation that is being undertaken, for example, suitable protective masks whilst cleaning the stove and re painting stove, suitable hand protection gloves to protect from any sharp edges, broken glass and any residue materials, suitable eye protection goggles to protect against sharp objects, broken glass and any dust or particles. If vacuuming ashes and any residue material, ensure the vacuum cleaner is suitable and approved for stove use and is equipped with the correct HEPA filters.

4.5.2 Cleaning glass (user)

This product is equipped with an air wash system to help keep the glass clean when burning wood. Air is sucked in through the air vent above the stove and down along the inside of the glass.
However, some soot will always stick to the glass, but the quantity will depend on the local draught conditions, type of wood used and adjustment of the air wash vent. Most of the soot layer will normally be burned off when the air wash vent is opened all the way and a fire is burning briskly in the stove. **Warning:** Do not exceed the maximum fuel load stated in these instructions and do not over fire the stove.
If it is necessary to clean the glass more thoroughly, we recommend using an approved stove glass cleaner, generally available from your stove retailer. (Follow manufacturer's instructions).

4.5.3 Cleaning and checks inside the firebox (user)

Inner firebox: Brush the inside of the firebox clean from time to time to check the integrity of the plates and liners etc. See section 3.1.3 for details of removeable parts of the stove. It is not normally necessary to paint inside the firebox due to the high temperatures that mean that the paint does not have much effect before being burnt off.
The vermiculite firebox side and back brick linings may require replacement occasionally depending upon fuels and the type of usage experienced. If the firebox side or back linings are damaged or worn replace with manufacturers recommended parts, it is essential that the cast iron behind the side and rear bricks is not exposed to the fire. Side and back brick linings are not covered by warranty, as they are a wearing consumable part.

Baffles: **It is essential** to check both top baffles for buildup of soot and ash regularly irrespective if the stove has been used or not used. From time to time remove the baffles, to ensure that the flue way entrance is completely clear. Baffle plates will require replacement from time to time and are a wearing consumable part.

Visual checks: Make visual checks to the inside and outside of the stove if any other items are found to be worn damaged or cracked consult a suitably approved stove installer and do not use the stove until any fault is rectified.

Stove controls: Check the stove controls for full and free movement if any ash or debris is restricting

the use of the controls, clean as necessary.

Air Supply: It is essential to check any air supply ventilator in the property is fully clear and open if installed.

4.5.4 External surface cleaning (user)

The steel and cast surface of the Panther 5 SE stove is painted with black heat-resistant paint. It is best maintained by simply vacuuming it with a soft brush attachment or wiping it down with a dry, dust-free cloth, but only when the stove is not in use & fully cold.
If the stove is used too vigorously, the painted surface may assume a grey tinge over time, but the stove can easily be freshened up with an approved heat resistant spray paint which should be available from your local stove retailer.

 The stove **must be fully cold and not be in use** before the stove is re painted.
Refer to the approved heat resistant spray paint manufacturer's instructions.
This process is recommended to be carried out by an approved and competent stove installer such as Hetas registered (England & Wales) or equivalent for other countries when the stove is being serviced.

4.6 Operational problems – troubleshooting

Seek advice from a qualified chimney & stove specialist

Operation troubleshooting

Problem	Probable Cause	Action
Difficulty getting the fire alight andkeeping it burning well	Low flue draught	Consult your stove installer
	Wet wood (Over 20% moisture content)	Use dry seasoned hardwood. (Less than 20% moisture content)
Poor burning control	Flue draught high	Consult your stove installer
Burning time is short	Wet wood (Over 20% moisture content)	Use dry seasoned hardwood. (Less than 20% moisture content)
Heat output too high (Over firing)	Flue draught high	Consult your stove installer
	Air controls set too high	Reduce output by closing air control.
Low heat output	Flue draught low	Consult your stove installer
	Wet wood (Over 20% moisture content)	Use dry seasoned hardwood. (Less than 20% moisture content)
Excessive fuel being used	Flue draught high	Consult your stove installer
	Wood too dry	Do not use unsuitable wood such as constructional timber or pallets. Only use dry seasoned hardwood with less than 20% moisture content

Smoke emission troubleshooting

Problem	Probable Cause	Action
Small flames and smoke	Wet wood (Over 20% moisture content)	Use dry seasoned hardwood (less than 20% moisture content)
When appliance door is openedsmoke spillage enters the room	Flue draught low	Consult your stove installer
	Room ventilation not correct	Consult your stove installer
Smoke is emitted into the room	Flue blocked	Evacuate all people from the room into a safe area. If safely possible open all outside doors and windows to the affected room to ventilate. Vacate the room into a safe area. Allow the stove tofully burn out. Consult your stove installer. **Do not** re use the stove until the problem is fully rectified
The chimney is emitting grey / bluesmoke	Wet wood (Over 20% moisture content)	Use dry seasoned hardwood (less than 20% moisture content)

Adverse weather troubleshooting

Problem	Probable Cause	Action
Intermittent smoke enters the roomwhen the stove door is opened on windy days	Down draught	The flue terminal position can affect the stove and flue performance i.e. nearby trees or structures. Also weatherconditions can contribute to flue down draughts. Consult your stove installer
Intermittent smoke enters the roomwhen the stove door is opened on calm days	Poor flue draught usually caused by an oversize flue	Consult your stove installer
Lighting and burning problems ondamp and rainy days	Temperature of flue is low.Water ingress into the flue	Consult your stove installer
Noisy air control, (wind noise)	Flue draught high	Consult your stove installer

Troubleshooting the stove

Problem	Probable Cause	Action
The rapid build up of creosote in the chimney	Wet wood (Over 20% moisture content)	Use dry seasoned hardwood (less than 20% moisture content). To avoid a large buildup of creosote operate the stove at a higher temperature for a short period of timewhenever the stove is used. **Warning**: Do not exceed the maximum fuel load stated
Flue joints expelling tar	Stove operated at a continuouslow temperature	Operate the stove at a higher temperature for a short period of timewhenever the stove is used. **Warning**: Do not exceed the maximum fuel load stated. Refer to user instructions
	Poor quality wood being used	Use dry seasoned hardwood (less than 20% moisture content)
When the stove is lit a strong smell occurs	Stove operated at a continuouslow temperature	Operate the stove at a higher temperature for a short period of time whenever the stove is used. **Warning**: Do not exceed the maximum fuel load stated. Refer to user instructions
	Poor quality wood being used	Use dry seasoned hardwood (less than 20% moisture content)
Noisy air control (wind noise)	Flue draught high	Consult your stove installer
Excessive dirty glass	Wet wood (Over 20% moisture content)	Use dry seasoned hardwood (less than 20% moisture content)

Troubleshooting the stove (Continued)

Problem	Probable Cause	Action
Excessive blackening of glass	Poor quality wood being used	Use dry seasoned hardwood (less than 20% moisture content)
	Flue draught low	Consult your stove installer
	Air control use incorrect	Refer to user instructions for correct use of air controls
	Stove operated at a continuous low temperature	Operate the stove at a higher temperature for a short period of timewhenever the stove is used. **Warning**: Do not exceed the maximum fuel load stated. Refer to user instructions

Important:

Major causes of chimney fires are creosote and tar built up in the flue and stove. Consult an approved chimney sweep if you are experiencing tar and creosote problems before continued use of the stove.
Consult a qualified heating engineer if you experience continued flue problems and do not use the stove until the problem is rectified.

4.7 Replacement parts and Modifications

- **Only use** replacement parts recommended by the manufacturer
- Modifications to this appliance **must not** be made

4.8 Product End-of- Life / Recycling

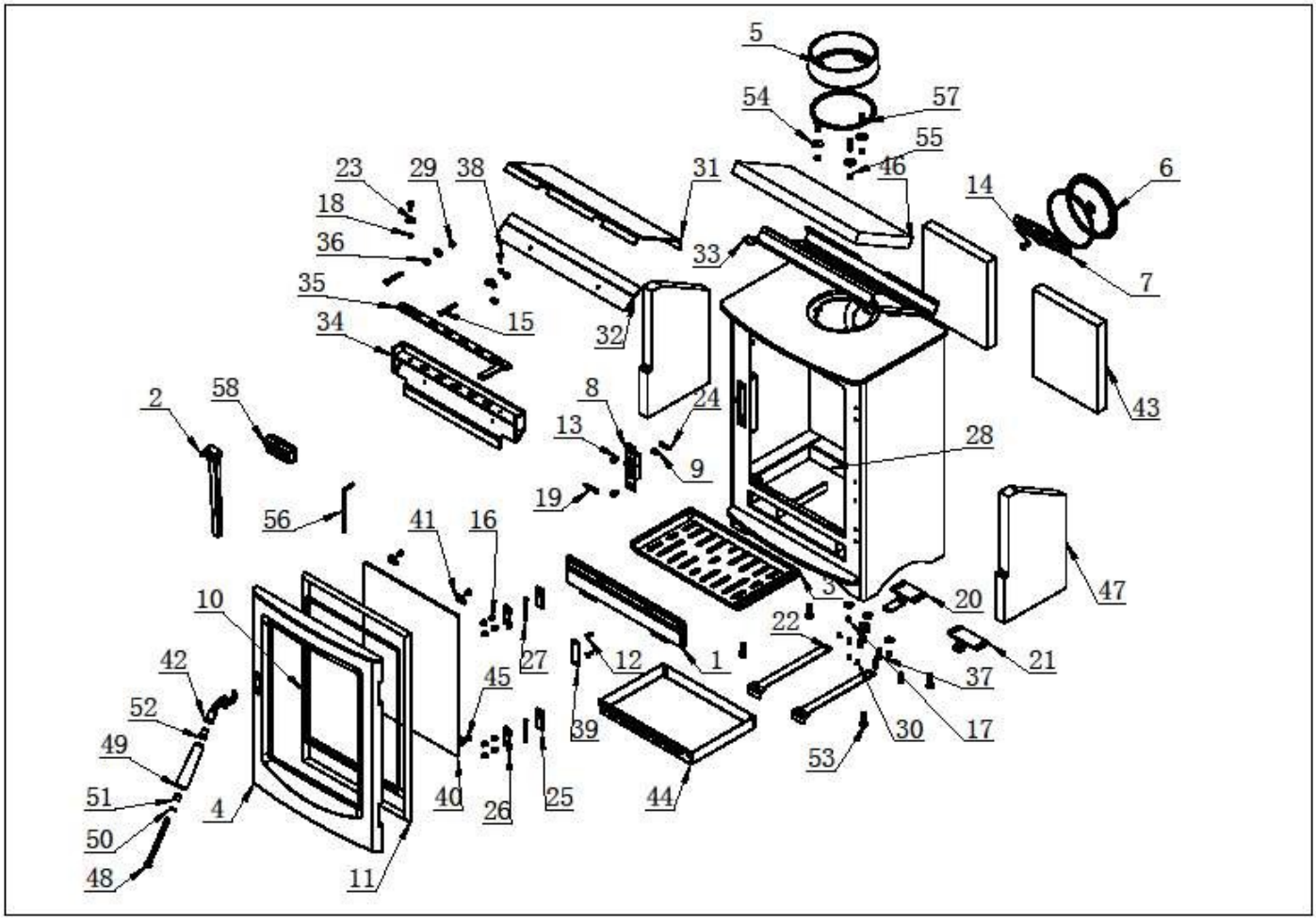
To Dispose of the stove after the product life has expired, please observe the following information:
Dispose of the items correctly i.e., separate the parts to be disposed of in material groups.
Always dispose of items in a way that is sustainable as possible and that is in line with the current environmental protection, reprocessing / recycling, and disposal technology.

4.12 Consumable parts

Grate, Banking bar, glass, all sealing ropes, side bricks, Back brick, both top baffles, springs, Ashpan.
Consumable parts **are not** covered under any stove guarantee.

4.13 Exploded view with part identification for:

Panther SE



Item	Description	Code	Specification /hole qty	Qty
1	Banking bar	NW0120V1	0	1
2	Ash Pan Handle	CA0105	0	1
3	Grate	LD170114	0	1
4	Fire Door	LD170207	17	1
5	Spigot	125	3	1
6	Blanking Plate	C125	2	1
7	Blanking Plate Locking Bar	C125Y	1	1
8	Handle frame	CA22-LD1601-15	24×108×19mm	1
9	Handle Pin Roller	CA0153-NW03	Φ9×Φ6.2×10	1

10	Fiberglass rope	CA0801	Φ6	1
11	Fiberglass rope	CA0809	Φ13	1
12	Rivet	BXGMD-2	Φ5×12	2
13	Flat counter sunk in hexagon bolts	CA0273	M6×15	2
14	Flat counter sunk in hexagon bolts	CA0274	M6×20	1
15	Flat counter sunk in hexagon bolts	CA0276-1	M6×45	2
16	Flat counter sunk in hexagon bolts	CA0293	M6×8	8
17	Spring	CA0707	Φ8×Φ6.4×11(6)	4
18	Spring	CA0708	Φ0.8×Φ8×6	2
19	Spring Pin	CA0604	Φ6×35	1
20	Air inlet piece	CA1912-LD1702A	3mm	1
21	Air inlet piece	CA1912-LD1702B	3mm	1
22	Air inlet stick	CA1912-LD1601-1	2mm	2
23	Washer	CA0301	Φ6×18	8
24	Screw	CA0281-3	M6×30	1
25	Hinge part A	CA1605	17×46	2
26	Hinge part B	CA1606	17×46	2
27	Hinge pin	CA0614	Φ5×50	2
28	Steel body	CA22-LD1702	412×306×576	1
29	Nut	CA0402	M6	2
30	Sunk in hexagon bolts	CA0293-3	M4×8	4
31	Baffle plate	CA22-LD1701-12	4mm	1
32	Baffle support	CA22-LD1701-11	4mm	1
33	Baffle box	CA22-LD1601-16	378×197×4	1
34	Air Wash Cover	CA22-LD1702-09	364×39×95	1
35	Air Wash Shutter	CA1113-LD1702	320×85×4	1
36	Hexagon head bolts	CA0211	M6×10	2
37	Screw	CAL0112	M5×Φ6.2×20	4
38	Screw	CAL0112-1	M5×Φ6.2×16	2
39	Serial No. Plate	CAL0101-ZJ	60×19	1
40	Door Glass	CA10-LD1702	276×358×4	1
41	Glass Clip	CA1112	18×24.5×0.7	4
42	Door Handle Axle	CA0143A-NW03	/	1
43	Back Brick	FRLD160111	189×222×26	2
44	Ash pan	CA1245	270×200×30	1
45	Sunk in hexagon bolts	CA0293-1	M6×8	4
46	Stainless steel handle	FRLD160129	362×182×26	1
47	Right/Left Brick	FRLD16011213	182×317×26	2
48	Cup head bolts(+)	CA0266	M8×105	1
49	Stainless steel handle	CA0144	Φ19×Φ26×100	1
50	Spring washer	CA0501-1	Φ8	1
51	Handle Roller	CA0104-ZH	Φ12×10	1
52	Cylinder part of handle	CA0103-ZH	Φ15×Φ11×20	1

53	Hexagon head bolts	CA0225	M8×25	4
54	Washer	CA0302	Φ6×22	3
55	Nut	CA0402	M6	3
56	Hexagon Spanner	NLFBS-004	4mm	1
57	Flat counter sunk in hexagon bolts	CA0275	M6×25	3
58	Desiccant	GZJ-001	50g	1

5.0 Declaration of Performance, Energy Labels & Product Fiche.

5.1 Declaration Of Performance

EC Declaration of Performance CE

The undersigned, representing the following:

Manufacturer

Newman Fireplaces Ltd

Unit 6 & 7, Rawreth Barns, Dollymans Farm, Doublegate lane, Wickford, Essex. SS11 8UD

Herewith declare that the products:

Description	Product code
Panther SE	NS-20

Description of product: Panther SE domestic wood heating stove.

Are in conformity with the provisions of the following EC directive(s) when installed in accordance with the installation instructions in the product documentation:

98/106/EEC Constructional products regulation 305/2011
and the standards referenced below have been applied:
EN 13240 : 2001 Roomheaters fired by solid fuel- Requirements and test methods

Product: Roomheater fired by solid fuel as covered under the scope of the standards listed.
Intended use: Space heating in residential buildings.

Characteristic	Performance	Report
Fire safety	Satisfies	EZKA / 2017-06 / 00001-1
Emission of combustion products	Panther SE CO @ 13% O^2. Wood 0.10%	
Release of dangerous substance	None	
Surface temperature	Satisfies	
Mechanical resistance (To carry a chimney / flue)	Maximum weight to be supported 1Kg	
Thermal output / efficiency	Panther SE Wood: 4.9Kw @ 78.7%.	
Distance to combustible wall	Rear wall 600mm Side wall 500mm	

Test laboratory: NB 0608
Name: R. A. Newman
Position: Director

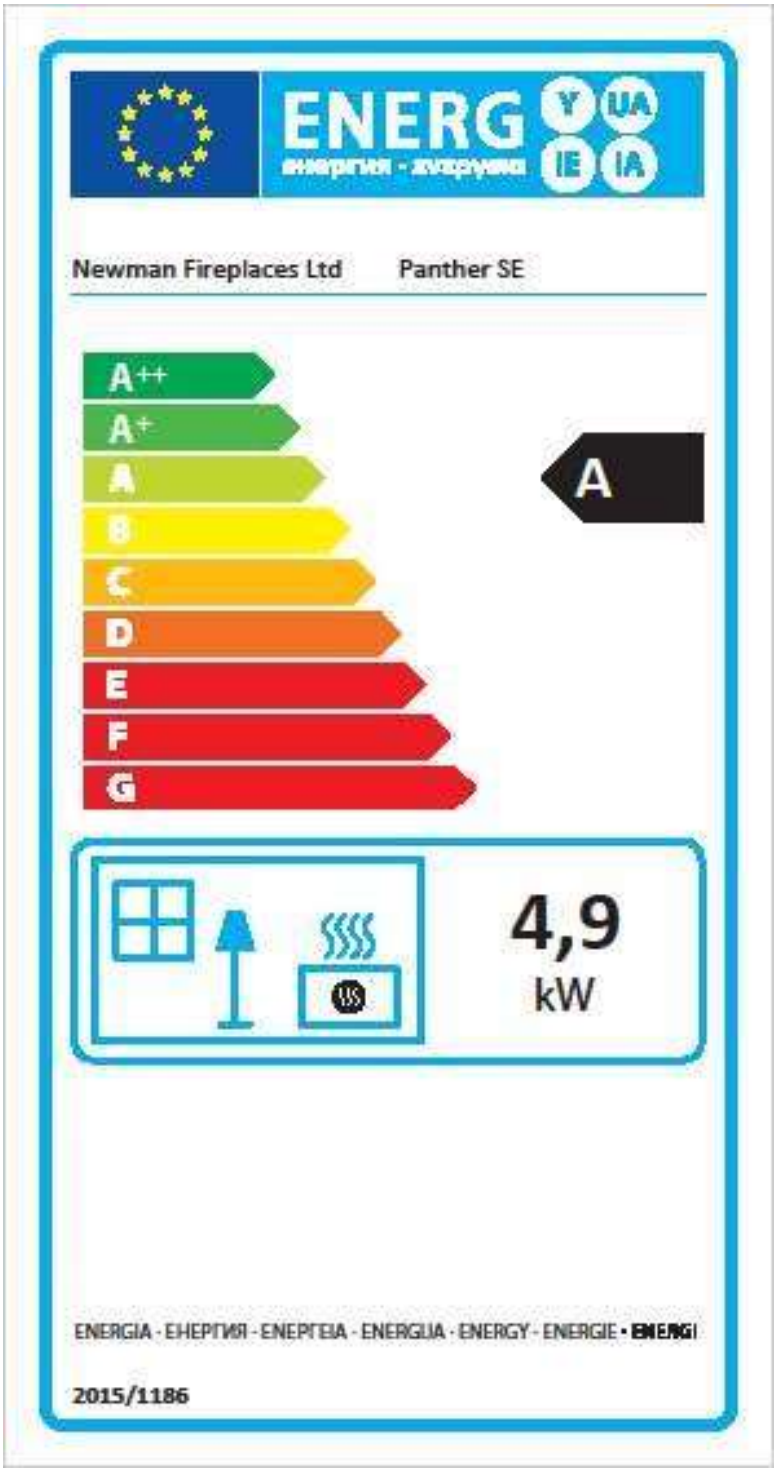
Signature:
Date: 26th June 2018

5.2 Product Fiche

Product Fiche	
Commission Delegated Regulation (EU) 2015/1186Energy Labelling of Local Space Heaters	
Supplier`s Name or Trademark:	**Newman Fireplaces Ltd**
Suppliers Model Identifier:	**Panther SE Wood Stove**
Energy Efficiency Class of Model:	**A**
Nominal Heat Output to Room (kW):	**4.9**
Nominal Heat Output to Water (kW):	**n/a**
Net Efficiency (%):	**78.7**
Energy Efficiency Index (%):	**105**

5.3 Energy label

The energy label is affixed to the front glass of stove; this must be removed and given to the customer before lighting the stove.



Address: Units 6 & 7, Rawreth Barns, Dollyman's Farm, Doublegate Lane, Rawreth
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