

OPERATION AND INSTALLATION MANUAL

Opus Calypso

OPUS

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Congratulations on choosing an Opus!

This opus stove is a highly efficient, clean burning, EcoDesign-ready boiler stove utilising the latest combustion technology to effectively heat your house and hot water.

When fitted with the Smoke Control kit the Calypso is also DEFRA Exempt and so may be used to burn wood in Smoke Control Areas.

Please read these operating instructions carefully before installing the stove to ensure that it is fitted and used safely and correctly.

In addition to the information on its installation and safe operation, this manual also contains valuable information about the care and maintenance of your stove.

This stove is designed to burn wood, and heating with sustainably sourced wood contributes less to climate change than heating with oil or gas. When the wood is sustainably sourced the logs only release as much carbon dioxide as the tree originally took in, the trees are continually being replanted and replaced, and so that CO₂ is then taken back in as part of an ongoing cycle.

1. 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).

In England appliances are exempted by publication on a list by the Secretary of State in accordance with changes made to sections 20 and 21 of the Clean Air Act 1993 by section 15 of the Deregulation Act 2015. Similarly in Scotland appliances are exempted by publication on a list by Scottish Ministers under section 50 of the Regulatory Reform (Scotland) Act 2014.

In Wales and Northern Ireland these are authorised by regulations made by Welsh Ministers and by the Department of the Environment respectively.

The Opus Calypso SE Stove has been recommended as suitable for use in smoke control areas when burning wood logs.

Suitable Authorised fuels can also be used in the appliances in Smoke Control Areas (see Authorised fuel list <https://smokecontrol.defra.gov.uk/fuels.php>)

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

2. General information

Make sure that your stove is installed by a qualified, knowledgeable and experienced installer who is registered under one of the Competent Persons schemes such as HETAS.

The cladding and window of the stove can get very hot giving a risk of burns. We therefore recommend that you install a guard for infants and elderly or infirm persons.

Never leave a burning stove unattended.

Always operate the stove with the door closed. The door should only be opened to light, load or clean the stove.

The warranty on the stove is null and void if any structural change is made to it, and is only valid if the guidelines in this manual are carefully followed.

Please keep this manual, in order to remind yourself how to operate the stove before the winter months.

3. Delivery

As soon as it is delivered, the stove must be carefully inspected and any damage must be noted on the delivery note. Also check the stove before installation to ensure that there has been no damage to the functional parts (air regulators, seals, door, chimney connector, etc.) during transportation.

Any damage must be reported immediately to the retailer.

When transporting the stove you must ensure that only safe, strong and approved carrying methods are used. The stove may only be moved in a stable, standing position or slightly inclined on a sack truck. A sack truck should only be used against the back of the stove. All parts of the stove must be protected against damage, moisture and rain, or other types of contamination during transport and installation.

4. Disposal of packaging

The packaging protects the stove from damage during transportation. Any cardboard packaging materials can be recycled. The wooden parts of the packaging are untreated and can be used as firewood.

5. Assembly instructions

Your stove should be installed by a qualified, knowledgeable and experienced installer who is registered under one of the Competent Persons schemes such as HETAS.

The installer must do a thorough check of the appliance to ensure that it is in full working order before it is installed.

6. Installation

i. Basic installation regulations and requirements

When installing and operating the stove, make sure that all the relevant local and national standards are adhered to.

The stove may only be installed in rooms suitable for such an appliance and where it can be operated safely and maintained appropriately and may not be installed in areas in which flammable or explosive substances and mixtures are processed, which could lead to an ignition or explosion.



Throughout the installation the installer must refer to Document J of the Building Regulations for detailed guidance on recommended ways of meeting the building regulation requirements.

ii. The hearth and floor

Before installing the stove, make sure that the floor on which the appliance is standing has sufficient load capacity. Pay attention to the information on the weight and, if necessary, ensure a sufficient weight distribution by utilising an appropriate hearth.

Floors made of combustible material must be protected by a layer of non-flammable material. This can be done, for example, by tiles or a plate made of glass or sheet metal at least 12mm thick. The floor and hearth must also be strong enough to take the weight of the stove, and be completely level and stable.

Please also observe the necessary measures for the fire protection of the floor. Further details can be found in Building Regulations Document J.



Please also refer to “Firepower Hearth Guidance” which can be found on the www.firepower.co.uk website. This gives recommendations for instances where we recommend that the size of the hearth is increased over and above the minimum sizes given in the building regulations, and also contains some suggestions for how you can make a feature of the hearth.

iii. Removing the self-closing door mechanism

The stove is supplied with a self closing door mechanism. This can be disabled by removing the spring from the door hinge.



iv. Combustion air supply

The stove needs sufficient combustion air. This can be drawn from the installation room, which must have a suitable fresh air supply from the outside.

Document J of the Building Regulations provides guidance, including information on the minimum area of ventilation that must be provided to the room. Care and consideration should be given to whether there are any ventilation or extraction systems in the house and when a draught test or smoke spillage test is done these should be switched on so that the “worst case” is tested for. The installer should refer to the HETAS technical notes and guidance on ventilation.

Relatively little air is required for combustion when the door of the stove is closed. It is when the door is opened that air rushes up the chimney and there must be a matching supply of air to the room, otherwise smoke is liable to escape into the room.

When installing a stove into a modern well-sealed house, or one which has been extensively upgraded with well-sealed windows and doors, it is likely that there will not be enough fresh air supply to the room when the door of the stove is opened. It is also likely that the homeowner will not want to install a permanent vent to the room because that creates a hole in their well-sealed house.

Opus stoves can be connected to a direct air supply duct and, if the intention is to not install a permanently open vent to the room, or to install an AirSmart system in its place, then the installer must follow the procedure in Hetas Technical Note TN_0020 to confirm that the supply of air will be sufficient.



Please also refer to our “Firepower Direct Air Guidance” document which can be found on the www.firepower.co.uk website. This gives further consideration as well as mandatory duct sizing information if a direct air supply duct is being connected to the stove.

v. Direct combustion air supply

The spigot for connecting to a direct combustion air supply is at the back of the stove. The design and sizing should follow the methods described in the “Firepower Direct Air Guidance” document.

Unless appropriate safety devices are employed to ensure that the stove can only be run with the air supply open, all direct air ducts should be fixed open.



The installer must refer to the “Firepower Direct Air Guidance” document which can be found on the www.firepower.co.uk website. This gives mandatory duct sizing information and design considerations.

vi. AirSmart

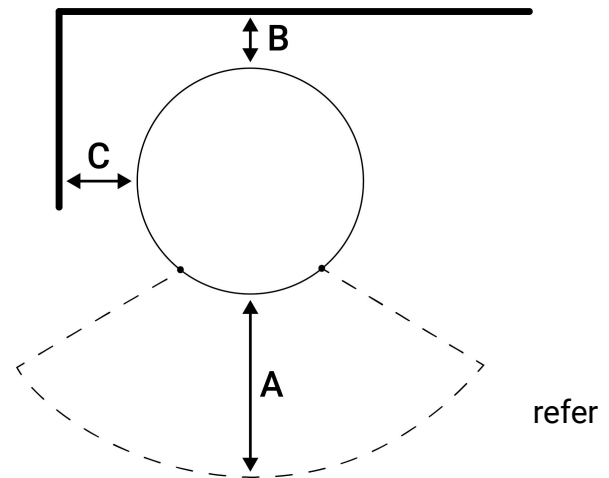


Connecting an AirSmart controller and vent is a way to avoid potential ventilation problems. A door sensor is fitted to the stove and whenever the door is opened the controller opens a sealed vent to the room to supply extra fresh air. If there is a powercut then the vent is also opened as an additional safety feature. The AirSmart controller can be a stand-alone unit, or combined with a full automated stove controller (as pictured) which also automatically regulates the burning rate of the stove, and adds in additional safety features.


If the intention is to not install a permanently open vent to the room, or to install an AirSmart system in its place, then the installer must follow the procedure in Hetas Technical Note TN_0020 to confirm that the supply of air will be sufficient.

vii. Minimum distance to combustible materials

A	800mm	In the area of thermal radiation
B	150mm	Back space between the wall and stove
C	200mm	Side space between wall and stove



It is also possible to heat shield combustible materials if the stove must be installed at a closer distance than specified here. For heat shielding refer to the guidance detailed below.

 For further information on heat-shielding please refer to the “Firepower Heat Shielding Guide” which can be found on the downloads section of the www.firepower.co.uk website. This gives in depth guidance on heat-shielding combustible materials using metal or Thermalux sheets.

viii. Technical Specification

Stove Model	Calypso
Nominal Output	8.3 kW
Output to water	4.9 kW
Output to room	3.4 kW
Efficiency	83.9% (net)
Weight	172 kg
Mean flue gas temperature	222 °C
Flue gas mass flow	6.46 g/s
Minimum flue pressure	0,12 mbar
Diameter of flue pipe	150 mm
Diameter of the connection to the outdoor air supply	100mm
Fuel	Wood
Average refuelling interval at nominal output	42 minutes

i. The Chimney



All flue components used must be suitable for solid fuel fires, rated for T400°C or over, and comply with the relevant regulations regarding their construction and installation and all manufacturers' instructions must be followed.

Particular attention must be made in regard to the distance to combustible materials.

The following chimney designs are possible:

Brick or block wall chimney: This should be lined with pumice liners (not clay liners) of the correct diameter and the starter block should be set on the slab. The stove is then connected to the starter block with an adjustable length of single skin flue.

Stainless steel flexible liner (Class 1 - suitable for solid fuel, either 316 or 904 grade). This is used to re-line an existing Class 1 masonry chimney: The liner should connect to the appliance via a length of rigid flue at least 500mm long. The liner should be firmly fixed to the chimney wall with a bottom support bracket or, if that isn't possible, then every pipe connection, including the connection to the stove, should be secured with at least two stainless steel self-tapping screws. The flexible liner should be insulated. The chimney should be fitted with a cowl or appropriate chimney pot to prevent rain entry.

Offsets used in the flue run can adversely affect the chimney's performance. Any bends used should be the minimum offset possible from the vertical (maximum permissible is 45°) and no more than four offsets should be used in any one system. If bends are used then it may be necessary to increase the height of the chimney to counteract any detrimental effect they may have on the chimney draught.

The chimney must be able to maintain a draught of 12 Pascal's.

Flue termination heights must comply with the requirements of Document J of the Building Regulations.

Adequate provision must be made so that all internal parts of the chimney can be cleaned.

This stove is not suitable for use on a shared chimney.

2. Connecting the stove into the heating and hot water system

The Opus Calypso is supplied 'system fit', so connecting to existing pipe work should be straightforward. The Calypso has been designed and built for both open vent and pressurised heating and hot water systems, incorporating an over heat quench coil with built in quench valve to prevent the boiler over heating.

The flow and returns must be connected to a pumped circuit. The Calypso is not designed for a thermo-syphon type circuit.

Connecting the stove to a central heating and hot water system must be carried out by a suitably qualified and experienced heating engineer. All safety requirements must be adhered to and any safety components that need to be checked or serviced must be made accessible.

To access the pipe work, the rear panel must first be removed from the stove. Remove the stove top, unscrew the two hex head bolts on either side at the top of the panel, and lift panel away from stove.

All protective caps on the connections must be removed during assembly. All plumbing connections must be connected according to their intended use.

i. Connections

To access the pipe work, the rear panel must first be removed from the stove. Remove the stove top, unscrew the two hex head bolts on either side at the top of the panel, and lift panel away from stove.



- I Over heat coil discharge
- II Primary flow
- III Primary return
- IV Cold mains connection for over heat coil
- V Pressure relief valve
- VI Manual bleed vent
- VII $\frac{3}{4}$ " BSPF (optional connection)
- VIII Over heat valve sensor

Bleed and refill the heating system and heat exchanger before the initial start-up when air locks are detected.

All necessary safety devices must be installed in such a way that their safe operation is ensured. Carefully follow the installation and operating instructions of these safety components.

ii. Overheat safety valve

The stove has an overheat safety valve fitted which consists of a temperature probe which is installed into a tapping on the stove boiler which opens a valve if the boiler overheats. The valve allows mains cold water to run through a heat exchange coil inside the boiler. This cools down the boiler and the resultant hot water is then discharged outside. Care must be taken that the discharge cannot cause harm and so should be treated in a similar way to the discharge of a pressure or temperature relief valve.

Before the system is commissioned it should be checked for leaks and to ensure that it is functioning correctly.

A water pressure of at least 2 bar and a minimum throughput of 900 l / h must be provided at the cold water inlet of the overheat safety valve. This supply line must not be capable of being shut off and it must maintain a constant water pressure.

The installation of the overheat safety valve must be designed in such a way that it is possible to access it to test that it works. This should be at least yearly and is done by pressing the red button down to verify that cold water flows through the boiler coil and outside to waste.

Before connecting the cold water pipe to the stove, the pipe must be flushed to prevent the introduction of impurities into the opening and closing mechanism of the overheat safety device.

iii. Load unit or load valve



The stove must be installed with a load unit or load valve to ensure that the return temperature is always above 55°. The circulation pump should be controlled by a flue thermostat or via an automated stove controller. This will inhibit the formation of tar on the boiler and so extend cleaning intervals, it will protect the boiler against condensation, and it will improve the efficiency and effectiveness of the combustion by getting the firechamber up to running temperature fast, and then maintaining that temperature.

Fitting a load unit extends the warranty from 1 year to 3. See the warranty section for more details.

iv. Integration into the heating system

The boiler stove should only be integrated into a heating system after the complete system has been designed by an appropriately qualified and experienced heating engineer.

All the relevant safety standards must be complied with.

The intended heating system can be laid out as an open or closed heating system. In any case sufficient overheating safeguards must be installed.

If installed on a closed (pressurised) system, connection and use of the pre-installed pressure relief valve is mandatory.

If installed on an open vented system, the feed and expansion tank must be manufactured to BS 4215, and be designed to withstand the 500-hour boil test without leaking or collapsing. It should be installed as high as possible, in the highest part of the circuit and as near as possible to the boiler.

A heat sink radiator can be fitted in addition to the overheat safety valve if desired.

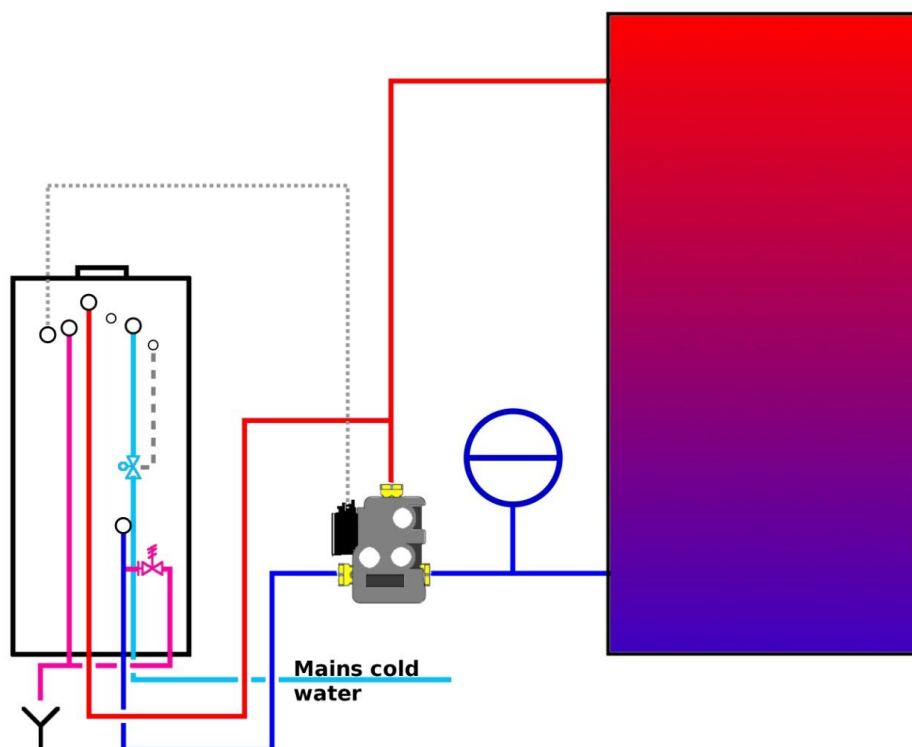
The water in the central heating system should contain suitable antifreeze to give frost protection. After a period of inactivity, on no account should the appliance be lit until it is ensured that there is a free flow of water through the central heating and hot water systems. The use of a return-flow-elevation/load unit (such as an LK 810 ThermoMat Eco load unit) with an adjusted minimum temperature of 60°C is essential to ensure the stove burns cleanly and efficiently. The maximum operating temperature is 90°C. The maximum operating pressure may not exceed 2.5 bar.

Pay attention to a correct design of all components in the heating system.

The operator must be instructed in the operation, functioning and maintenance of the entire system including any additional specialist components.

At the lowest points of the heating system an outlet valve needs to be installed.

The figure below is a typical plumbing schematic showing the boiler stove connected to a thermal store. The positioning of the pipes for the heat leak radiator around the load unit is very important. In the LK 810 ThermoMat range, the gravity circuit flap grub screw should be removed to allow circulation around the heat leak radiator in the event of power failure.



3. Advice on fitting suitable alarms

At least one suitable and effective smoke alarm should be fitted in a suitable location. Alarms should be mounted on the ceiling at least 300mm from any walls and within 5 meters of the protected area. This may mean installing more than one alarm, and it is recommended to choose units that can be linked together. The smoke alarm should be capable of waking any occupants sleeping. The alarm should be tested with this in mind before the final fixing is made. The smoke alarm should be of the optical or photo electrical type since this is particularly sensitive to dense smoke such as produced from a smouldering fire. The smoke alarm should be fitted with an extra-long life battery and have a hush button to allow for temporary deactivation. This should be tested routinely.

A carbon monoxide alarm certified to BS EN 50291 should also be fitted and, on boats, it should be suitable for marine use.

4. Operating Instructions

Before starting to use the stove please read these installation and operating instructions carefully. Please remove any loose items and packaging remnants (except the combustion chamber lining) from the combustion chamber and the ash pan.

Your installer should show you the function and operation of the stove during the handover and ensure that you fully understand the controls and how the stove should be used.

When operating this stove you must observe local and national standards and regulations.

i. General information on operation

- Risk of burns. Soon after the stove is lit, the window and exposed parts of the stove become very hot. Infants and infirm persons should be kept away from the stove. We recommend installing a guard and if there are children in the home then it is a building regulation requirement that fixings for a fireguard are installed by the installer. Pay attention at all times to the potential dangers of a woodburning stove.
- During the operation of the stove do not put objects on the stove or lean anything against the stove. Never place objects or laundry on the stove to dry. Drying racks are only to be set up outside the immediate radiation area of the stove.
- Combustion in the stove releases thermal energy that causes the stove surfaces and components to become hot. Do not touch the door, handles, glass or flue pipes, etc. without a suitable protective glove when the stove is in operation.
- The enclosed protective glove serves only as heat protection when operating the stove during or shortly after firing. The glove is not fireproof and so you should not, for example, attempt to pick up burning logs with it or put it into direct contact with flames.
- Only operate the stove with the combustion chamber door closed. It must always be kept closed when the stove is cold. The door is only opened for lighting, refuelling or cleaning.
- The stove must not be altered structurally or technically. In particular, no installation parts may be placed in the combustion chamber or in the exhaust or combustion air ducts, unless these are expressly approved by Opus. Any unauthorised conversion of the stove will void the warranty.

5. Using the stove

i. Initial commissioning

The installation, assembly and initial commissioning of the stove must be carried out by a suitably qualified and knowledgeable engineer. The owner or operator of the stove must be made familiar with the operation of the appliance and given a certificate of installation, and the commissioning sheet at the back of this manual should be completed.

Before commissioning, make sure that all necessary components and safety components are installed and functioning. The plumbing connections and components must be filled and vented (if necessary several times). Check all plumbing connections for leaks after filling. Check the functionality of the stove. Never use the stove without it being connected to the heating system as this can lead to severe damage and leakage. There is no warranty for damages caused by the use of the stove without it being filled with water and properly connected to a functioning heating system.

ii. First Lighting

Light only a small fire when the stove is first put into operation. The combustion chamber lining can still contain residual moisture and could form cracks if the initial heat is too high. Increase the heat output by 30% over the next three firings so that the heat-resistant paint can cure. Until fully cured, the paint can be soft. Please avoid any contact with the painted surfaces of the stove until the paint has fully hardened.

It may happen that during the paint curing process, an unpleasant odour with a slight smoke is formed. This is normal - please open the windows and doors during this process to ensure good room ventilation.

During the first operation, condensation water may escape from the combustion chamber lining on the bottom of the stove. This is residual moisture from the production process of the firebricks. These should be collected and disposed of.

iii. Heating and normal burning

Please pay attention to the minimum space between the stove and flammable objects when lighting a fire.

- Primary and secondary controls should be fully open. If the flue pipe has a flue damper it should also be fully open.
- Remove enough ash from the grate to let air through but leave some of the ash there. Put 2 larger logs as a base in the centre of the firebox, then some kindling on top, and finally 2-3 firelighters on top.
- Light the firelighters and close the door.
- After approximately 5 to 10 minutes, when the fire is burning fully, carefully open the door, put 1 to 2 pieces of the wood into the firebox, and then close the door.
- When all the fuel is properly burning, and the working temperature of the stove is achieved (after approximately 20-30 minutes), gradually move the primary air regulator backwards, but ensure that there is still a visible flame.
- When the stove is up to temperature and the fire burning well then the primary regulator can be completely closed.
- The door should only be opened again when the fuel has burned right down and you want to put new fuel in.
- If there is insufficient burning material in the firebed to light a new fuel charge, excessive smoke emission can occur. Refuelling must be carried out onto a sufficient quantity of glowing embers and ash that the new fuel charge will ignite in a reasonable period. If there are too few embers in the fire bed, add suitable kindling to prevent excessive smoke.

- It is recommended that the secondary air regulator is kept fully open in order for the “glass cleaning” to be most efficient, and to avoid the glass “fogging”.
- Use the amount of fuel you place in the stove to regulate the room temperature
- To burn at the nominal output, the stove requires refuelling every 45-50mins with approximately 2 kg of wood logs.
- When adding larger wood it is good practice to put in a couple of smaller bits first as the larger logs then light faster, so producing less smoke. When adding wood, the primary air control must always be open, and left open until the new logs have caught fire. At that point close the primary control and leave the secondary air to facilitate the combustion.

THE STOVE SHOULD NEVER BE FILLED EXCESSIVELY. EXCESSIVE AMOUNTS OF WOOD OR AIR FOR COMBUSTION CAN CAUSE OVERHEATING AND DAMAGE THE STOVE.

- During the first few times the stove is used, it is possible that it can produce a slight smell while the paint is curing. This will disappear after a short while. If the smell appears, open the windows of the room for ventilation.
-

ATTENTION

THE ASHPAN MUST BE TIGHTLY CLOSED FOR PROPER REGULATION OF THE PRIMARY AND SECONDARY AIR.

- If ash is allowed to build up behind the ashpan then it can prevent the ashpan sealing properly.
- The door should only be opened slowly when refuelling so that the higher volume of airflow can be established so that no flue gases spill into the living space.
- Do not refuel until the logs have burnt down to a bed of red embers. This makes the burn more efficient because burning wood has different requirements throughout the burning cycle, so it is best to fully complete a cycle before reloading to start again. This will make the burn more efficient and reduce particulate emissions.
- If the chimney draft is very strong, the wood can burn too fast. Regulate the air supply with the air lever for a steady and economical burn. Do not let it burn without a good flame, or “turn it down for the night” as attempting to run it too slowly will lead to a smoky, dirty burn and black glass.

iv. Suitable materials for lighting

The stove should be used for the combustion of natural wood and wood briquettes.

Some of the best wood for the stove is beech and birch. These types of wood have the highest burn temperature, and they burn the cleanest, as long as they have been stored in a dry place for a sufficient length of time.

If the glass window blackens excessively during burning it is usually an indication that the moisture content of the firewood is too high.

Do not use any of the following:

- Damp wood or treated wood
- Cardboard
- Bark or plywood
- Plastic or other waste

Fresh wood should be cut up and stored 12 to 18 months in open storage, but protected from rain. According to the manual, any wood used should have a maximum humidity of 20%.

6. Fuels

This stove is designed to burn **wood or wood briquettes only**, that is approximately 300mm in length (or shorter), and no more than 100mm in diameter. The wood must not exceed a moisture content of 20% measured on a wet basis (or 25% if using a moisture meter that measures on a dry basis). Look out for the Woodsure Ready to Burn logo which verifies that the wood is dry and ready to be used.

Only the approved fuels may be used and therefore the burning of these materials is not permitted:

- Painted or plastic coated wood
- Particle board or wood treated with wood preservative
- Wood from europallets
- Waste, household or clothing waste
- Paper, paper briquettes, cardboard
- Coal, coal briquettes, lignite
- Plastics and foams.
- Solid and liquid non-wood materials

Burning materials other than the permitted fuels may result in the formation of harmful fumes, damage to the stove and uncontrolled burns. Damages caused by the use of unauthorized fuels are not covered by the guarantee.

i. Wood seasoning and storage

In order to dry or “season” freshly cut firewood should be stored in a well-ventilated area protected from moisture for approximately 2-3 years. Store your wood split so that the release of moisture is quicker. Do not stack the logs too tight to ensure the best possible air

circulation. Firewood should not be stored directly on the ground. Do not store your firewood under tarpaulins, plastic sheeting or in poorly ventilated locations.

Firewood that is already seasoned or dry should be stored in a suitable dry location.

ii. Reducing particulate emissions

Sustainably managed and sourced wood has significantly lower carbon emissions than oil or gas. On the other hand particulate emissions have a harmful effect on health, and there many ways in which you can reduce them:

- Only burn dry, well seasoned wood (with a moisture content of 20% or less measured on a 'wet basis', or 25% or less measured on a 'dry basis'). Look out for the WoodSure "Ready to Burn" logo.
- Light your stove using the "upside down method" described in this manual where you start with a couple of bigger logs, then the kindling, then the firelighters. This gets the firebox up to temperature faster and has been shown to result in lower particulate emissions in lab tests.
- If there is insufficient burning material in the firebed to light a new fuel charge, excessive smoke emission can occur. Refuelling must be carried out onto a sufficient quantity of glowing embers and ash that the new fuel charge will ignite in a reasonable period. If there are too few embers in the fire bed, add suitable kindling to prevent excessive smoke
- Adjust the amount of wood you put into the fire based on how much heat you actually need. Do not fill the fire chamber up and then try to control the heat output by turning down the air controls.
- The maximum amount of fuel specified in this manual should not be exceeded, overloading can cause excess smoke.
- Operation with the door open can cause excess smoke. The appliance must not be operated with the appliance door left open.
- Operation with the air controls or dampers fully open all the time can cause excess smoke. The appliance must not be operated with air controls or dampers door left open all the time except as directed in these instructions.
- Make sure that the fire is burning well. Some signs of this are that the ash should be white. Black charcoal in the ash indicates an incomplete burn. The combustion chamber lining of the stove should be bright after firing and not sooty black. You should see good flames in the firebox at all times, without wisps of smoke. Incomplete combustion is generally always to do with an improper mix of three things: temperature, air, and fuel.
- Never "turn it down for the night".
- Your stove must not be used to burn waste.

- Fitting an AirSmart automated controller can help to reduce smoke even further because the air supply to the stove is automatically adjusted.

iii. Controlling the heat output

The heat output from a stove is controlled by the amount of fuel that is put into it, NOT by opening or closing the air control.

The air control lever is there to enable the user to establish the optimum burn.

Closing the air control lever too much can lead to an incomplete combustion. In addition to wasting fuel and creating unnecessary pollution it also risks an explosive ignition of the flue gases.

Opening the air control lever too much can result in the stove overheating and can risk damaging the appliance.

If an AirSmart controller is fitted then many aspects of the proper control of the burn rate of the stove is automated.

iv. Emptying the ashpan

It is recommended to clean out the ash every day.

Be careful that too much ash is not accumulated otherwise there is the danger that, if the ash reaches up to the grate, it will not cool sufficiently and may get damaged.

Before emptying the ashpan, check if there are any embers left in the ashtray.

Even though the ash is cold from the outside, it is possible that there are embers within the ash which can lead to a fire in the waste bin.

7. Cleaning and care

Clean your stove only when it is cold. Use work clothing and cover the area in front of your stove with a protective sheet. Make sure that any disassembled parts are correctly positioned back in the stove after cleaning.

The stove can be cleaned only when it is cold.

Pay attention while cleaning your stove not to damage, scratch or break essential parts.

Cleaning the glass should be done when the stove is cold using a damp cloth or, for heavier deposits, a pad designed specifically for cleaning stove glass.

After washing, wipe over with clean water and if there are condensates, do not wait until they are dried, rather wipe them immediately.

Attention, the stove paint only achieves its ultimate strength after reaching its rated temperature a few times. To avoid damaging the paint, it is recommended to clean the stove surface only when the paint achieves its ultimate hardness.

It is important to have the chimney regularly checked and cleaned by a qualified chimney sweep.

i. Stove maintenance

Periodically check that the door seals are in good condition and replace the fire rope if it is worn or damaged. The thermal safety devices (overheat safety valve, pressure relief valve, etc.) must be checked by a qualified engineer before the start of the heating season. Only use spare parts authorised by your heating engineer.

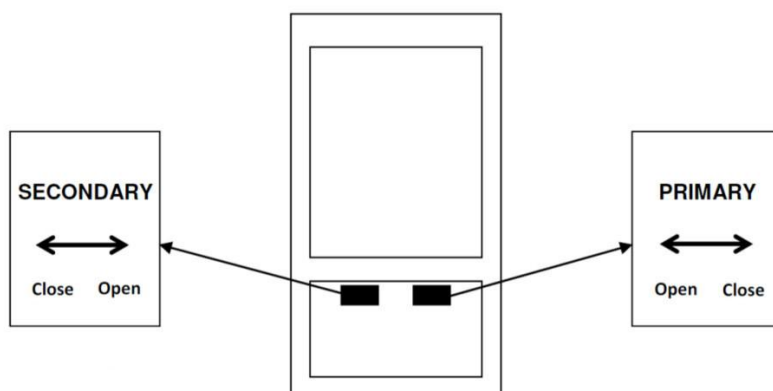
8. Chimney fire

A chimney fire can be caused by regularly burning unseasoned wood, persistently slow burning for long periods, not having the chimney swept regularly or burning unsuitable fuels.

In the event of a chimney fire close the doors and air inlet of your stove and call the fire brigade.

After a chimney fire, the chimney must be inspected by a qualified engineer before it is used again.

9. Layout and usage of air regulators



10. Instructions on how to access the flue through the stove



Remove grate and base fire bricks.



Slide outside retaining bars.



Carefully lift out both side fire bricks, ensuring the securing clip remains with the brick.

Attention, when removing the second side fire brick, ensure you support the throat baffle to prevent it from being dropped.



Now lower the throat plate baffle to remove.



Using a 5mm hex key, unscrew the second baffle and it's bracket being careful to support its weight whilst removing.



You can now sweep through the stove.

To replace the fire bricks, please repeat steps 1 – 5 in reverse.

11. Malfunction and service

In the event of a product malfunction please contact your supplier. If the stove is under warranty your supplier will take care of the warranty claim.

Regular maintenance of the stove and flue should be carried out by a competent engineer.

Use only replacement parts as recommended by the manufacturer.

12. Troubleshooting

Symptom	Cause and Solution
The stove glass is black and sooty. The glass should be wiped clean every few days but if it is getting excessively black then there are a number of probable causes.	<ul style="list-style-type: none">• The firewood is too wet. Only use wood with a moisture content of 20% or less.• The firebox is being overloaded with too much wood. This will cause an excess of moisture in the firebox leading to blacking of the glass.• Too little wood is being used from the start or the air lever has been closed down too quickly after the fire has been lit. This prevents the stove and chimney coming up to the proper working temperature and causes an incomplete combustion.• The chimney has insufficient draw due to it being too short or terminating in the wrong place.• The fire is receiving insufficient combustion air caused by a blockage or an undersized combustion air duct.
Fire is difficult to start	<ul style="list-style-type: none">• The moisture content of the wood is too high. Only use wood with a moisture content of 20% or less.• The logs are too thick. Kindling and thinner split logs should be used to start the fire. Bigger logs should only be used once the stove is hot.• The fire is receiving insufficient air. Is the supply air control set correctly and are the combustion air ducts free of obstructions?• Are the chimney and connectors free of obstructions?
When adding wood, smoke is spilled from the door opening.	<ul style="list-style-type: none">• Is the wood dry enough?• Has sufficient wood burnt to bring the stove and chimney to operating temperature?• Is the chimney correctly sized?• Is the chimney suffering from downdraft (ie puffing smoke during certain weather conditions). Check that the chimney terminates sufficiently far away from trees or nearby buildings. Fit an anti-downdraft cowl.• Has the stove door been opened too fast?
Too fast burning / wood consumption too high	<ul style="list-style-type: none">• Were adequately sized logs used?• Has too much wood been loaded into the firebox• Was the air supply control set correctly and the supply of combustion air reduced?

The overheat safety valve is constantly running water	<ul style="list-style-type: none"> Your central heating system may not need any more heat. Turn the air controls of the stove down. Do not load more wood into the stove. If connected to a thermal store then it may have reached its maximum temperature, but the stove is still burning. Turn down the air controls on the stove. Turn on your central heating so that that it uses up some heat from your thermal store. Check the function and setting of the pump control and the load valve. Is the circulation pump running? Vent the boiler and check the system pressure. The valve may have become stuck or there may be detritus inside it. There is a red button on the valve – when pressed down this can be used to test that it works. Press down a couple of times on this red button and this may re-seat the valve.
Noises in the heat exchanger / air in the heating system	<ul style="list-style-type: none"> 0
The overheat safety valve drain is dripping	<ul style="list-style-type: none"> The valve may have become stuck or there may be detritus inside it. There is a red button on the valve – when pressed down this can be used to test that it works. Press down a couple of times on this red button and this may re-seat the valve. Check the seat of the connection seals and the piston (see instructions for the overheat safety valve). Add a filter in the cold water inlet in front of the overheat safety valve.
The radiators stay cold	<ul style="list-style-type: none"> The heating system takes time to pass the heat to the radiators. Has the heating system been balanced? Check that the circulation pump is working.
The combustion chamber lining is black	<ul style="list-style-type: none"> Check the combustion chamber, the baffle deflectors and the chimney for blockages. The moisture content of the wood is too high. Only use wood with a moisture content of 20% or less. Check that the stove is receiving sufficient combustion air.

13. General warranty conditions

The warranty cover is effective from when the unit is handed over to the buyer.

In case the commissioning does not take place within 3 months from the date of purchase then the warranty period starts on the day of purchase of the product, which must be demonstrated by proof of purchase such as a sales receipt or paid invoice from the seller.

OPUS declines all liability for any accidents due to failure to observe the specifications contained in the use and maintenance manual accompanying the device. Furthermore, OPUS declines all liability deriving from improper use of the product by the user (including heat-shock, overload or misuse of the firebox), unauthorised modifications and/or repairs, and the use of non-original spare parts or spare parts not designed for use on this product model.

Duration of warranty is three years on the firebox house, grate, flame baffle, moving parts (hinges, handle, and fittings).

Please note that the warranty does not cover glues, seals, ceramic glass, and firebricks.

If a load unit or load valve is not fitted then this warranty reduces to 1 year.

The warranty period and the scope of the warranty are granted under these terms and conditions beyond the statutory warranty, which remains unaffected.

The guarantee is not valid if there has been:

- Non-compliance with the assembly and operating instructions or there have been technical modifications to the stove by non-company personnel
- Improper handling, improper use, incorrect installation or incorrect connection of the stove to the heating system
- The stove has been lit when not connected to a heating system
- Missing or faulty maintenance to the stove or chimney
- Improper transport or improper storage
- Overheating, thermal overload and resulting deformation or discolouration of the stove or the viewing window
- Normal wear and tear of the stove.

Regardless of the statutory warranty, which has priority over the warranty within the statutory warranty periods, any defective parts that are demonstrably based on a material defect or manufacturer's defect are replaced free of charge within the scope of the stated warranty conditions.

Opus reserves the right to either eliminate the defect or replace the appliance. The warranty covers supplying a replacement part but does not cover any labour associated with fitting the part or any further damages or costs related to the defect nor costs arising from de-installation or re-installation of the appliance.

If parts are replaced then the warranty period will be extended for the replaced part. Only spare parts approved by Opus may be used.

14. Opus commissioning checklist

General Information

Stove purchased from.

Tel: _____

Email: _____

Installed by.

Tel: _____

Email: _____

Installation date.

0

Notice plate and accompanying checklist completed.

Notice plate location.

0

Confirm that relevant local and national regulations have been followed, including, in the UK, Document J of the Building regulations.

☐

Water safety

Pressure release valve fitted and tested

☐

If the system is pressurised then please confirm that an expansion vessel of the right volume has been fitted, and precharged to the correct pressure.

☐

Load unit fitted and verified to be working

☐

If a direct air duct has been used then the guidelines in the Firepower Direct Air Duct Guidance has been followed.

☐

The system has been commissioned including running the boiler through a complete burn cycle.

☐

Handover

Handover: user shown how to use the appliance and has the necessary documentation.

☐

Handover: the importance of using only well seasoned wood has been explained.

☐

Handover: safety issues and required maintenance explained to the user.

☐

Signed

Commissioning engineer's signature*

**By signing this you confirm that all commissioning checks above have passed, and that operation and maintenance of the*

appliance have been explained to the customer in full in line with this user manual.

15. Dataplate

UK
CA₂₁

CE₁₃

Make and Model

Fuel Type

Nominal Heat Output

Output to Water / Room

Notified Body Identification

EN standard Number

Efficiency

CO Emission at 13% O₂

Min Distance from Combustible Materials

Mean Flue Temperature

Maximum Operating Pressure

DoP Reference

Opus Calypso

Wood logs

8.3 kW

4.9 kW / 3.4 kW

1625

EN13240:2001

83.9%

0.09%

Rear 150mm
Sides 200mm

260°C

FPOS_001

Manufactured in the EU.
Capable of intermittent operation. Only use recommended fuels.
Do not use a shared flue. Follow the user instructions.

Firepower Heating, Flightway, Dunkeswell Business Park EX14 4RD
sales@firepowerheating.co.uk

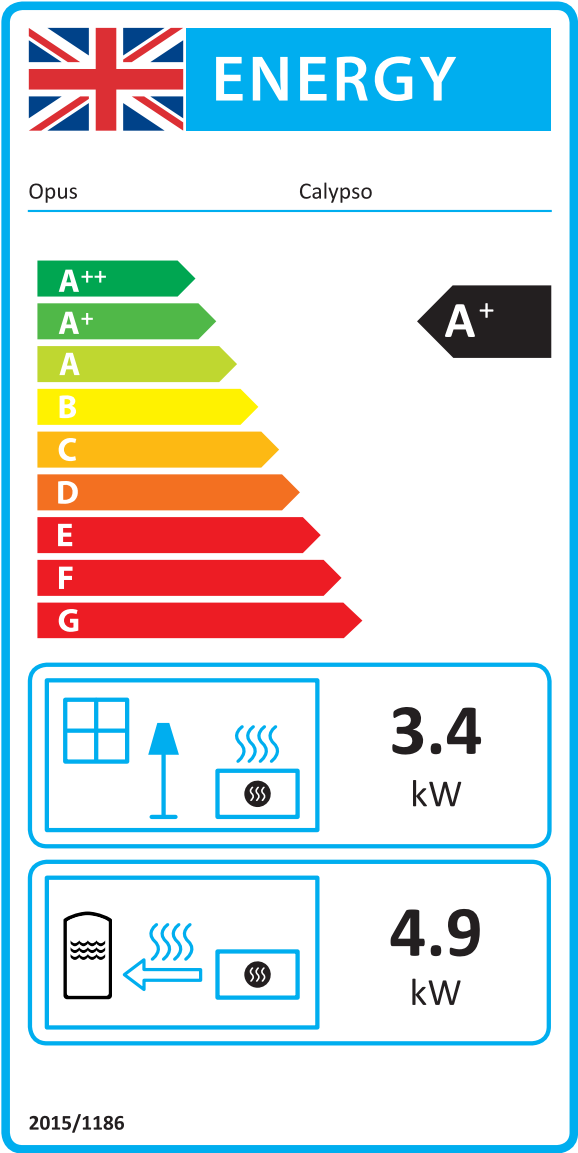
16. Product Fiches



Product Fiche
Commission Delegated Regulation (EU) 2015/1187
Energy Labelling of Local Space Heaters

Supplier's Name or Trademark:	Opus				
Model	Aria	Melody	Harmony	Trio	Calypso
Energy Efficiency Class of Model	A	A	A	A	A+
Nominal Heat Output to Room (kW)	5	5	7.1	5	3.4
Nominal Heat Output to Water (kW)	n/a	n/a	n/a	n/a	4.9
Net Efficiency (%)	81	77.4	80	77.2	83.9
Energy Efficiency Index	107	105	105	102	110

17. Energy Labels





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