OPERATION AND INSTALLATION MANUAL

WOODFIRE EX10, EX15, EX22, EX12, EX17, EX12 DS & EX 17 DS

Dear Customer,

This Woodfire EX range of woodburning stoves are highly efficient, clean burning, EcoDesign-ready boiler stoves utilising the latest combustion technology to effectively heat your house and hot water.

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 wood is beneficial for the environment because it is largely CO2 neutral. The logs only release as much carbon dioxide as the tree originally took in. That CO2 is then taken back in by the tree planted to replace it.

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1 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 combustion chamber door closed. The stove is provided with a self-closing combustion chamber door, so that the door only has to 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.

Your Woodfire stove has a one year manufacturer's warranty, automatically extended to three years if the stove has been correctly installed by a suitably qualified fitter and utilises a draught stabiliser and back end protection in the form of a load unit.

1.1 **Delivery**

As soon as it is delivered, the stove must be carefully inspected and any damage must be noted on the delivery note. Afterwards the damage must be reported immediately to the dealer.

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 can only be used against the back of the stove. All parts of the stove must be protected against damage or contamination during transport and installation.

2 **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.

2.1 **Basic requirements for installation**

When installing and operating the stove, make sure that all the relevant local, national and European 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.

2.2 **Installation**

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.

Please also observe the necessary measures for the fire protection of the installation floor.

The stove must be installed so as to be completely level and stable.

2.2.1 **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.

When using the stove in low-energy houses with sealed windows and doors, it is possible that there will not be enough fresh air supply. It must be ensured that all air ducts are open during operation. Simultaneous operation with ventilation systems, such as extractor fans, can adversely affect the function of the stove and a suitable calculation should be done to ensure that there is sufficient air for the stove and any extraction system.

2.2.2 **Direct combustion air supply**

The spigot for connecting to a direct combustion air supply is pre-mounted on the right side of the stove (Ø 125 / 150mm). If required it can instead be fixed to the left side. Any ducting used to bring air from the outside must be at least the diameter of the spigot and then up-sized to take into account any length over two metres and an extra 25mm in diameter is required for each offset in the run.

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 cross-section of the combustion air duct should not be narrowed by a grille.

2.2.3 **Fire protection**

When the stove is installed, all fire protection regulations and the minimum distances specified by the manufacturer must be adhered to.

The stove must be installed on a non-combustible 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 non-combustible hearth must extend at least 300mm in front of the appliance and must be at least 150mm wider than the body of the stove on each side. Where an insert model is positioned higher up the wall, it is strongly recommended that the non-combustible hearth should extend the required 300mm plus the distance from the hearth to the base of the door opening. The width of the hearth should also be increased in that situation.

2.2.4 **Chamber construction**

When the plumbing is completed, the system filled and the chimney connected, the stove should be thoroughly checked over and test-fired before the chamber is built around it.

The insert chamber must be designed in such a way that any serviceable plumbing component, draught stabiliser or chimney cleaning access point is accessible.

The chamber construction must be self supporting and not connected to the stove.

The warranty does not cover any damage caused by a static connection between the insert stove and the chamber.

Facing masonry: Any cladding shall be created so that the surfaces reach a maximum temperature of 85 ° C. Surfaces made of natural stone or ceramic, on which no objects can be placed, may be heated up to a maximum temperature of 120 ° C (only applies to vertical or inclined surfaces). If these maximum temperatures cannot be adhered to, then thermal insulation must be installed.

Stove chamber: Keep a distance of at least 5 cm from the stove to the chamber wall.

The chamber can be constructed using masonry, a fireproof board on a metal studding frame with insulation, or a self supporting and insulating fireproof material such as Thermalux (calcium silicate board). In most situations 50mm thick Thermalux board has been found to be the safest, quickest and most cost effective material for chamber construction.

Other insulating materials (for example made from mineral building materials or expanded concrete) must have DIBt approval. They must also be installed according to the manufacturer's instructions.

When facing the front of the chamber it is necessary to make a cut-out in the centre of the section of Thermalux below the stove door to accommodate the air control lever casing. This cut-out should be 25mm deep and 35mm wide and, measured from the bottom of the frame, extend 180mm down.

All substitute insulating materials have different thermal conductivities and may therefore need to be of different thicknesses.

No flammable materials should be used in the chamber. If the back wall of the chamber is not masonry then it must be protected to the full height of the chamber using suitable non-flammable insulation materials.

When installing the EX12 or EX17 Panorama Double Sided models the depth of the chamber, from finished wall to finished wall, including the plaster, should be 550mm.

Heat Dissipation

It is important to vent the chamber to ensure adequate heat dissipation and prevent any heat build up within the chamber.

The Woodfire EX range gives the majority of their heat to the water, with most of the radiant heat coming from the glass door panel. Nonetheless the chamber should have a non-closable vent positioned near the bottom and another near the top of the chamber to ensure a flow of convection air through the chamber. These air ducts must be made of non-flammable materials.

2.2.5 **The Chimney**

All the Woodfire EX models have a 200mm flue connection. All flue components used must be suitable for solid fuel fires 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 chamber should be closed off above the stove with a concrete slab, lintels or fireproof stud work.

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.

Twin wall stainless steel insulated chimney: The hole in the top of the chamber should be a good fit around the pipe using a fire stop plate.

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.

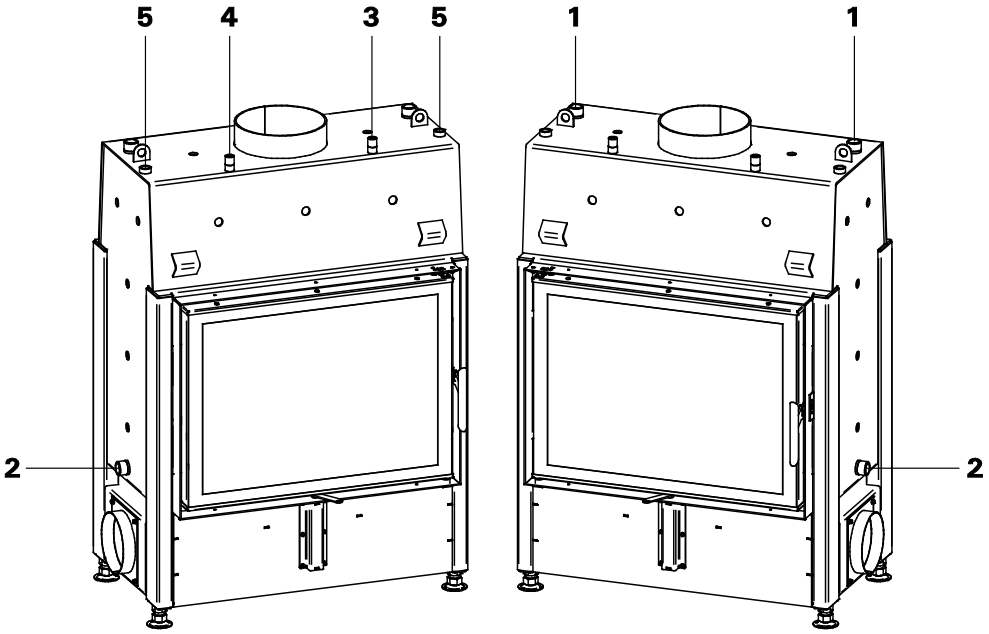
Adequate provision must be made so that all internal parts of the chimney can be cleaned.

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

A draught stabiliser should always be included in the chimney system. This both increases the efficiency of the stove and is necessary for the warranty to be increased from the statutory one year to three years.

2.2.6 **Connecting the stove into the heating and hot water system.**

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.



1. Heat exchanger flow connection 1”
2. Heat exchanger return connection 1” (min. 55 ° C return temperature)
3. Overheat safety coil mains water connection 1/2”
4. Overheat safety coil connection to drain 1/2”
5. Temperature sensor pocket 1/2”

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

When the Woodfire EX boiler models are installed into a sealed pressurised system, an overheat safety valve must be installed. The connections must be done using compression fittings.

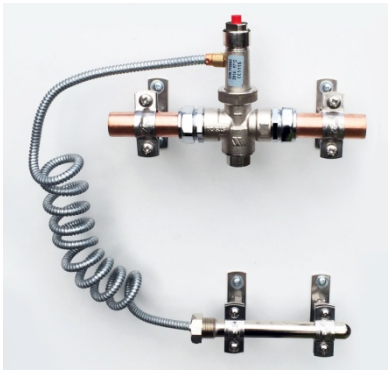
All pipe work and sealing materials used within the chamber and chimney must be temperature-resistant. All pipe work must be protected against frost.

A pressure relief valve with a maximum response pressure of 3.0 bar must be installed in the system. There must be no isolation valve between the boiler and the safety valve.

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.

2.2.7.1 **Overheat safety valve**



The stove must have a suitable overheat safety valve installed. 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 check its functionality at any time.

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.

2.2.7.2 **Load Valve**

The stove must be installed with a load valve to ensure that the return temperature is always above 55°. The circulation pump should be controlled by a flue thermostat. This will inhibit the formation of tar on the boiler and so extend cleaning intervals as well as protecting the boiler against condensation.

2.2.7.3 **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, a pressure relief valve should be installed in the water circuit as close as practicable to the appliance and in a position where it would vent safely, along with an overheat safety valve (see section 2.2.7.1).

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 means of dissipating heat, e.g. a radiator fed by gravity, should be provided so that heat can be dissipated in cases where the pump fails or is not switched on and the appliance continues to produce heat.

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.

A minimum pipe size of 28 mm should be employed up to and back from the load unit. If there is a heat leak radiator in the circuit then a minimum pipe size of 28mm should be used on the flow and return from that radiator to facilitate thermosyphoning.

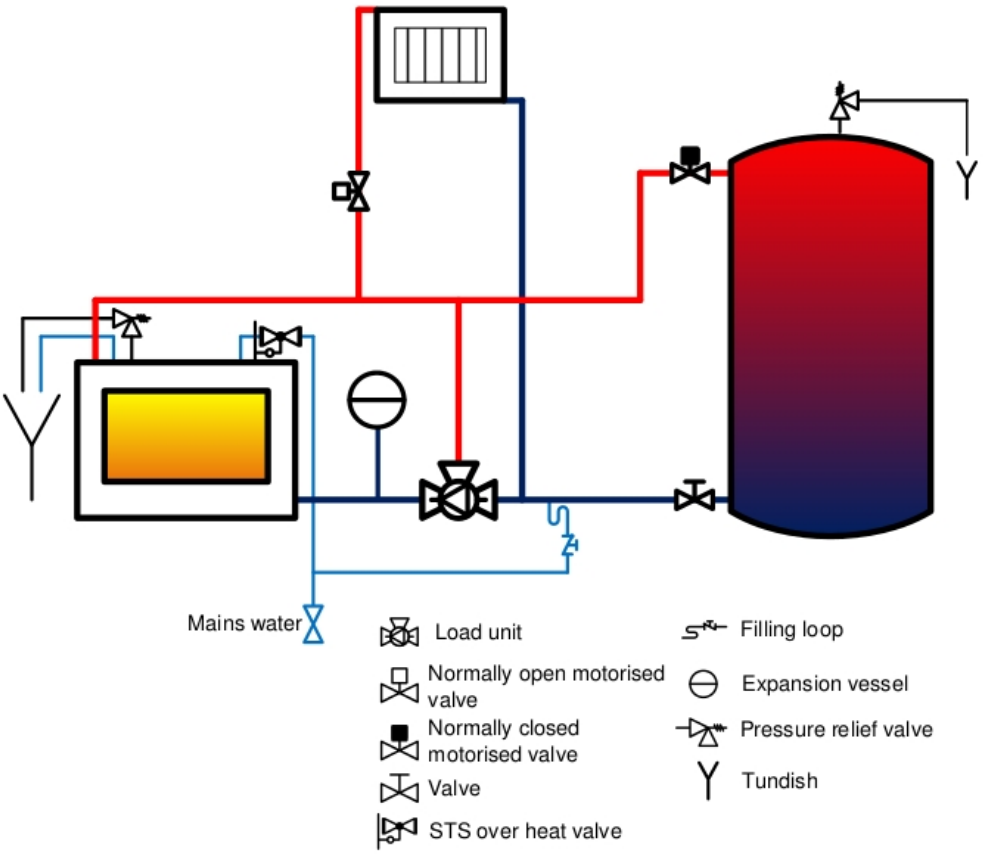
Pay attention to a correct design of all components in the heating system.

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

To realise the full potential of a heating and hot water system run by a Woodfire boiler stove it is important to have an accumulator (buffer) tank in the system.

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.



2.3 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.

3 **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 national and European standards and local regulations.

3.1 **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. 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 radiation area.

• 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 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.

• 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 Woodfire. Any unauthorised conversion of the stove will void the warranty and the operating license.

• The function and safety of the stove can be negatively influenced if cooker hoods, ventilation systems etc. are installed in the same or adjoining rooms to where the stove is installed. It can lead to smoke spillage and in the worst case to smoke poisoning. Extractor fans are therefore not to be operated without appropriate measures to ensure sufficient air is supplied to ensure the safe working of both the extractor fan and the stove.

• It must be ensured that there is a sufficient supply of combustion air available for the safe working of the stove.

4 **Using the stove**

4.1 **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.

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 connected to the heating system and fully filled.

4.1.1 **First Lighting**

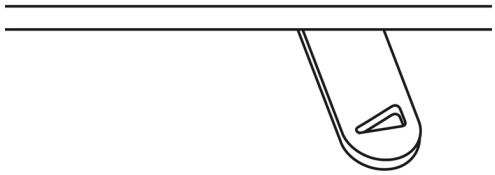
Light only a small fire when the stove is first put into operation. The combustion chamber lining can still contain residual moisture and could form cracks if the heat is too high. Increase the heat output by 30% over the next three firings so that the heat-resistant paint can cure. Until fully cured, 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. 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. Volumes of up to half a litre can occur. These should be collected and disposed of.

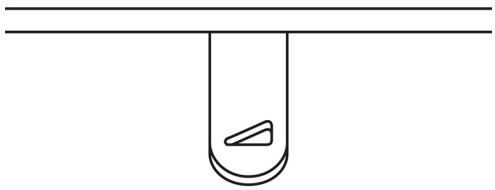
4.1.2 Stove controls

Combustion air completely open (1st fig.)

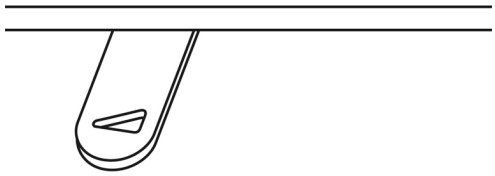
When lighting and refuelling the lever is pushed to the far right. As a result, the maximum volume of combustion air is supplied through the grate to the combustion chamber.



Combustion air throttled (2nd fig.)
This is the normal setting during burning.
With the lever in the middle position the combustion chamber only receives secondary air.
The fire burns at a moderate rate. The secondary air flows through the combustion chamber, giving a clean and efficient burn. The lever may need to be set slightly more to the right or the left depending on the weather conditions and chimney draught to achieve the optimum combustion.



Combustion air closed (3rd fig.)
With the control lever in the left position no air is supplied to the combustion chamber. The air supply must not be closed until the fuel has burned out completely. If the stove is not in operation, always close the air supply.



4.2 **Heating and normal burning**

Please observe the following instructions when starting the stove:

• The stove may only be operated with the combustion chamber lining in place.

• Air extraction devices (in the kitchen, bathroom, toilet, etc.) must be switched off to prevent smoke spillage.

• Before lighting always check that the stove has a sufficient supply of combustion air.

• Move the control lever fully to the right and open the firebox door.

• In the centre of the combustion chamber lay some split logs on the grate with a few smaller split logs on top of them then place the kindling on top.

• Place firelighters in among the kindling and light them. Leave the combustion chamber door open approx. 3 cm. (Do not leave the stove unattended when the door is open)

• Do not use paper, petrol, oil, spirit, or other flammable liquids to start the fire.

• Once the kindling and smaller split logs are burning well the combustion chamber door can be closed.

• Leave the air supply lever in the fully right position for another 10-20 minutes.

• After the stove has reached its operating temperature, the air lever can be set to the middle position. Once the fire has settled adjust the lever for a regular burn - aim to always have a good flame pattern above the burning logs and that will give a clean and efficient burn.

• The door should only be opened slowly when refuelling so that no flue gases are drawn into the living space.

• Do not refuel until you have just a bed of red embers. Please take note of the information in the Technical Details section regarding the wood feed rate per hour.

• 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 as attempting to run it too slowly will lead to a smoky, dirty burn and black glass.

4.2.1 **Adding wood**

Refuel when the logs have burnt away but there is a solid bed of red embers.

1. Put the combustion air regulator to the far right fully open position and slowly open the combustion chamber door. Use the heat protection glove.

2. Place the firewood with the bark up on the embers and close the combustion chamber door.

3. Do not overfill the firebox with wood, it should never be loaded more than a third full.

4. Wait until the logs burn brightly and intensely. After approx. 3-5 minutes, bring the control lever to the middle position. Once the logs are burning well adjust the lever to give a steady burn with a good flame pattern.

5. Only when the wood has completely burned away should the air lever be brought over to the left. If the lever is closed while there is still wood to be burnt it will produce a dirty smouldering fire.

4.2.2 **Fuel feed rate per hour**

The correct amount of wood to be burnt per hour for each model can be found in the technical data at the end of the manual.

The circumference of the individual logs should be about 25 cm. When using wood briquettes, the hourly feed quantity should be reduced by approx. 20%, as wood briquettes have a significantly higher heating capacity than hardwood.

To avoid overheating damage (deformations, discoloration, etc.) and to ensure the optimal functioning of the stove over many years, care must be taken that the maximum heating capacity is not exceeded. Damage due to overheating or burning excessively large amounts of wood is not covered by the guarantee.

4.3 **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 leads 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.
The performance of your stove is influenced by the chimney draught. Depending on the length and cross section of the chimney, as well as the weather or wind, the chimney draught changes. The control lever allows small adjustments to compensate for a stronger or weaker draught.
Fitting a draught stabiliser will result in the stove producing more heat and burning less wood. It is also a requirement of the extended three year warranty.

4.4 **Heating during unfavourable weather conditions**

At higher outside temperatures (above 15 ° C) or in adverse weather conditions (gusting winds, etc.), the chimney draft can be negatively affected, which means that existing flue gases are not completely removed. In this situation the stove should only be loaded with a small amount of fuel and the air lever set in the fully open position, i.e. fully to the right. Once the stove is pulling strongly then the air control can be moved to the central position.

5 **Fuels**

This stove is designed to burn wood or wood briquettes only. The wood must not exceed residual moisture content of 20%.

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.

5.1 **Wood storage**

Firewood should be stored in a well-ventilated area for approximately 2-3 years, protected from moisture. 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.

5.2 **Your contribution to environmental protection**

When you are burning wood to heat your house you are using a largely carbon-neutral fuel source which means you are making a contribution to reducing global warming. To ensure that your stove burns in an environmentally friendly manner, the following instructions should be observed:

• Do not use resinous wood (spruce, pine, fir). These types of wood will darken the window more quickly and increase sparking. If possible, use hardwood (birch, beech, oak, fruit trees).

• Adjust the wood feed quantity to the actual heat requirement.

• Make sure that the fire is burning with a complete combustion. The ashes should be white. Black charcoal remains indicate a bad burn. Also the combustion chamber lining of the stove should be bright after firing and not sooty black.

Your stove must not be used to burn waste.

6 **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.

6.1 **Cleaning the combustion chamber and firebrick lining**.

Cleaning the combustion chamber and the flue:

The combustion chamber, the baffle deflector plates and the combustion air duct must be examined for deposits at regular intervals and, if necessary, cleaned. Use a hand brush or an ash vacuum cleaner to remove the debris. Do this cleaning at least once a year or after each heating season. The chimney should be swept at least once a year. Heavy use of the stove may require more frequent chimney sweeping and cleaning in the stove. Before each heating season check the chimney and flue for any blockage. The stove should be serviced annually by a specialist.

The heat exchanger tubes will also need cleaning and can be reached by taking the baffle deflector plates out of the stove. Carefully note their position before removing them to ensure that they are re-positioned correctly.

A woodburning stove burns best with an ash bed. It is therefore not necessary to remove the ash from the stove after each burn. If too much ash has accumulated, then sweep or push the ashes into the ash pan below. Remove the ash drawer by the handle and dispose of the ash properly. After cleaning, the ash box must be put back. Dispose of the ash into a non-combustible container outside as the embers can be hot for 24 hours or longer.

The viewing window is easiest to clean with a commercially available glass cleaner, then wipe it with a dry cloth. Make sure that the fire rope does not get wet and that no scratches are made in the glass. Any damage due to improper cleaning is not covered by the warranty.

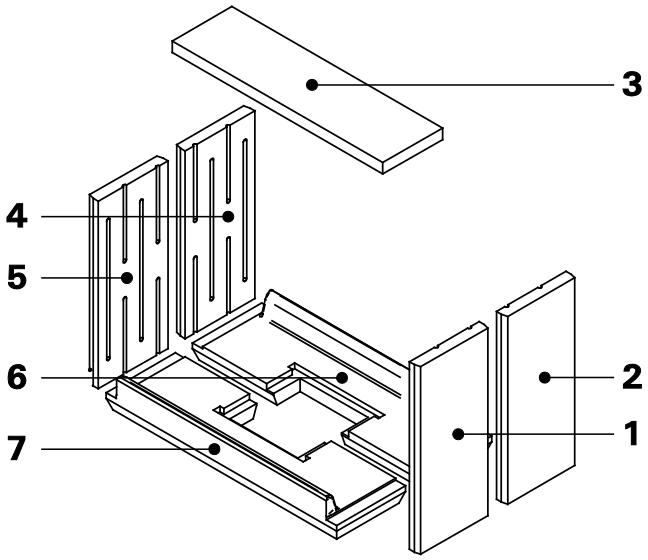
Cleaning the frame: Clean the outside painted cladding of your stove with a damp cloth (not microfibre) without detergent. For stainless steel elements we recommend a stainless steel cleaner.

6.2 **Combustion chamber lining**

During the ignition phase, it is normal for the combustion chamber lining to be covered with a dark soot coating. When the operating temperature is reached, the soot deposits burn and the combustion chamber lining turns white again.

Combustion chamber linings are exposed to very high loads. Crack appearing in the lining is normal and doesn't affect the working of the stove as long as the liner is complete. A liner only needs replacing if a section become dislodged and falls out.

The illustration shows how the combustion chamber lining is made up in the stove. When ordering spare parts, please indicate the respective number of the desired lining section.



6.3 **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.

6.4 **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.

7 **Troubleshooting**

The stove glass is black and sooty.

The glass should be wiped clean every few days but if it is getting excessively black then:

• The moisture content of the wood is too high. 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

• 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.

• 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

• 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

• The thermal store has reached its maximum temperature but the stove is still burning its fuel load. Use heat from the store to lower its temperature and dampen down the stove.

• 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.

Noises in the heat exchanger / air in the heating system

• Vent the stove and check the system pressure. When refilling, multiple venting operations may be necessary. Repeat the venting after a few days.

The overheat safety valve drain is dripping

• Rinse the thermal safety valve by pressing the red head on 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

• 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

• 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.

8 **General warranty conditions**

All Woodfire EX models are covered by a 12 month warranty from the date of delivery. If the stove is installed by a qualified installer and the installation incorporates a draught stabiliser, which prevents overdrawing, and a load valve, which gives back end protection, then the warranty is automatically extended to three years from the date of delivery.

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

The warranty does not cover combustion chamber linings, fire ropes, grates or viewing windows unless, in the first six months, it can be shown that there has been a manufacturing fault that caused the defect.

The warranty period begins on the date of delivery to the customer. This must be proven by a receipt or an invoice.

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 discoloration 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.

Woodfire 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 Woodfire may be used.

Woodfire commissioning checklist

General information

Stove purchased from _____

Telephone number _____

Stove installed by _____

Telephone number _____

CPS registration with (e.g. HETAS) _____

CPS registration number _____

Installation date _____

Stove model _____

Physical checks

Installation is in accordance with the design, including material specification, flue length and diameter	
The installation instructions have been followed	
There is no damage to any components	
Joints between the appliance and chimney and within the chimney system are secure and in good condition	
The separation of components from combustible materials conforms to this code of practice	
The appliance and chimney can be fully cleaned, once the installation is complete	
Components for weatherproofing are installed correctly	
Smoke spillage test has been carried out	
CO Alarm fitted and tested	

Handover

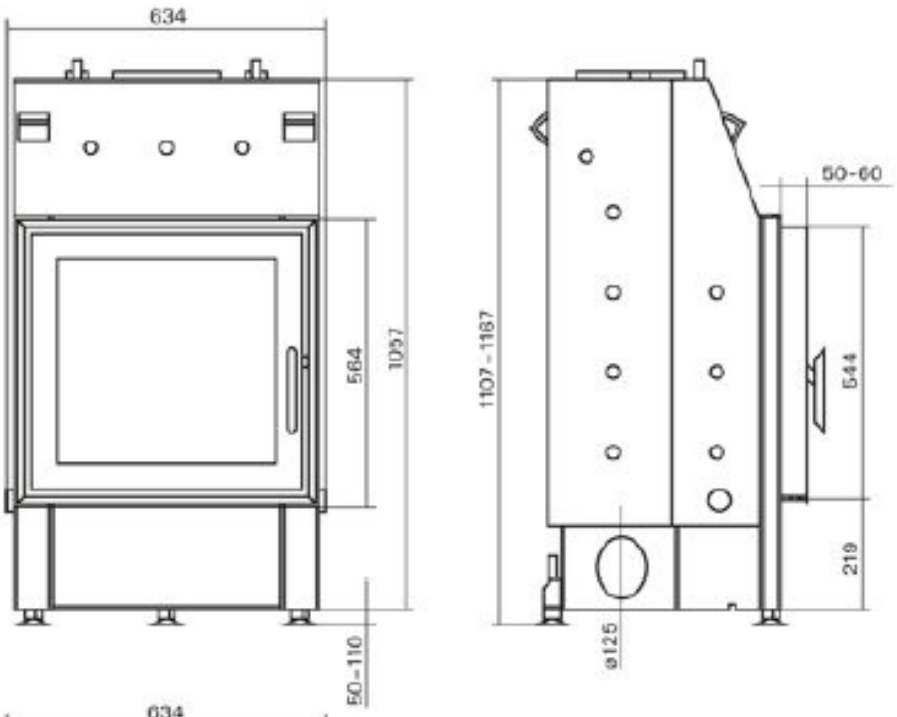
At handover all user instructions should be given to the user and an explanation of the appliance operation and safety issues should be given.

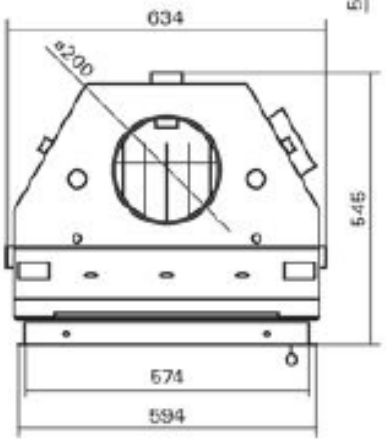
Commissioning engineer's signature* _____

*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.

Technical Details Woodfire EX10 EX15 EX22

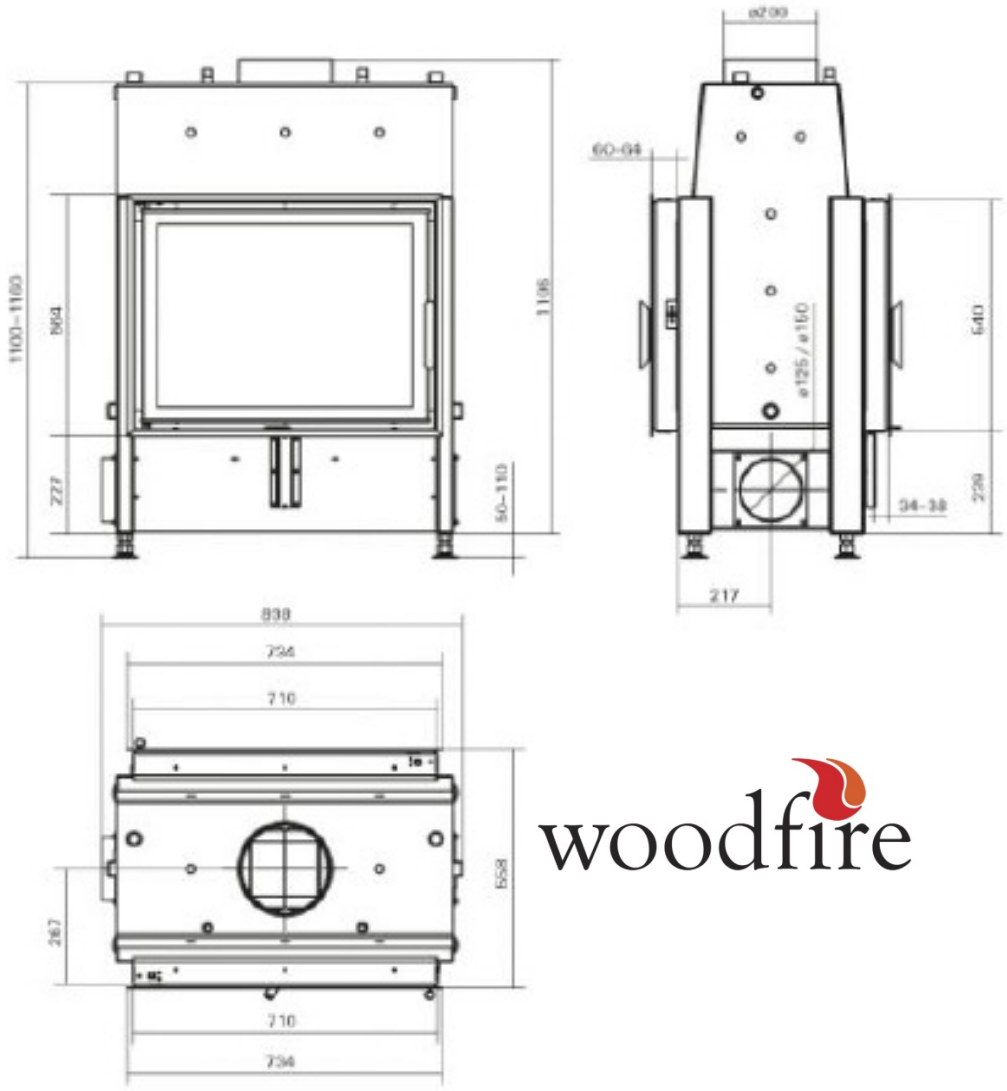
	EX10	EX15	EX22
Output kW	9.9	14.9	21.8
Output to water kW	8.5	12.5	18.5
Output to air kW	1.5	2.5	1.5
Efficiency %	84	83	82
Boiler volume l	40	52	69
Weight kg	177	188	204
Maximum Operating Pressure (bar)	2.5	2.5	2.5
Minimum chimney draft pascals	12	12	12
Combustion Chamber Lining	Schamotte	Schamotte	Schamotte
Fuel	Wood & Wood Briquettes	Wood & Wood Briquettes	Wood & Wood Briquettes
Test Standard	DIN EN 13229	DIN EN 13229	DIN EN 13229
Rating	A+	A+	A+
External air supply diameter mm	125	125	125
Flue diameter	200	200	200
Door size WxH	574x544	574x544	574x544
Frame size WxH	594x564	594x564	594x564
Max Log length	400	400	400

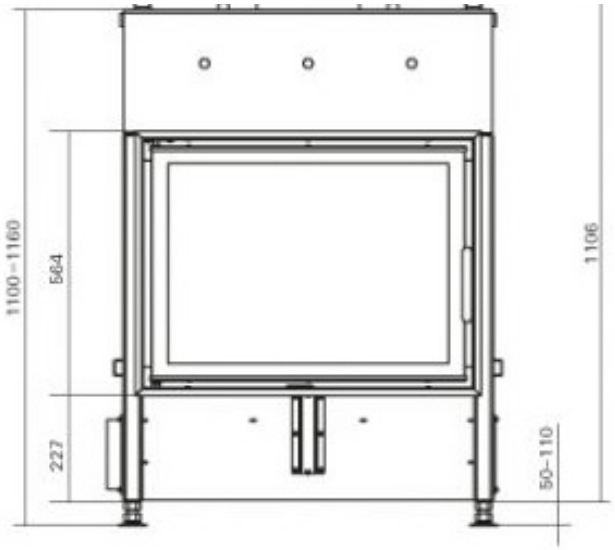
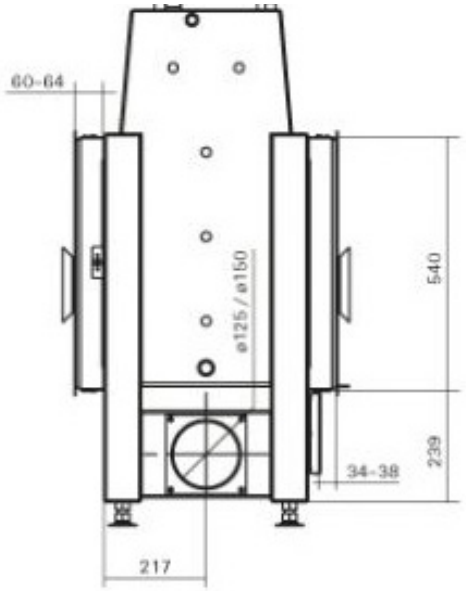
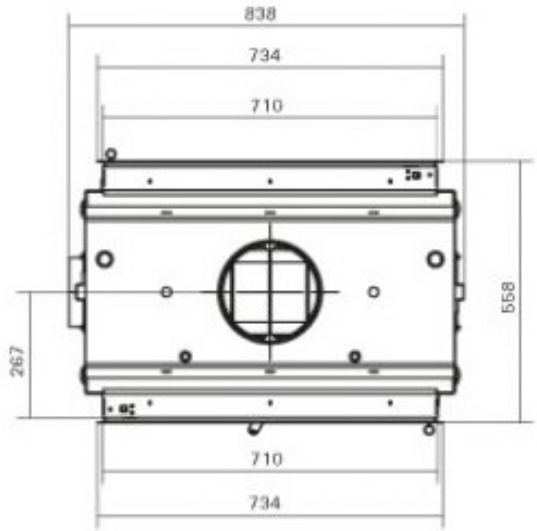




Technical Details Woodfire EX12 EX17 Panorama DS

	EX12 Panorama DS	EX17 Panorama DS
Output kW	12.4	17.3
Output to water kW	6.5	8.7
Output to air kW	5.9	8.3
Efficiency %	85	82
Weight kg	253	253
Maximum Operating Pressure (bar)	2.5	2.5
Minimum chimney draft pascals	12	12
Combustion Chamber Lining	Schamotte	Schamotte
Fuel	Wood & Wood Briquettes	Wood & Wood Briquettes
Test Standard	DIN EN 13229	DIN EN 13229
Rating	A+	A+
External air supply diameter mm	125	150
Flue diameter mm	200	200
Door size WxH mm	540x710	540x710
Frame size WxH mm	734x564	734x564
Max Log length mm	600	600



Technical Details Woodfire EX12 EX17 Panorama DS

	EX12 Panorama DS	EX17 Panorama DS
Output kW	12.4	17.3
Output to water kW	6.5	8.7
Output to air kW	5.9	8.3
Efficiency %	85	82
Weight kg	253	253
Operating Pressure bar	2.5	2.5
Minimum chimney draft pascals	12	12
Combustion Chamber Lining	Schamotte	Schamotte
Fuel	Wood & Wood Briquettes	Wood & Wood Briquettes
Test Standard	DIN EN 13229	DIN EN 13229
Rating	A+	A+
External air supply diameter mm	125	150
Flue diameter mm	200	200
Door size WxH mm	540x710	540x710
Frame size WxH mm	734x564	734x564
Max Log length mm	600	600