

# ADEPT

## CONCEPT by *ekol*

Instruction Manual for Woodburning and Bioethanol range. Inset (Cassette) and free-standing versions.



## IMPORTANT

THIS PRODUCT BECOMES VERY HOT DURING USE. TO AVOID SERIOUS INJURY, IT IS RECOMMENDED THAT A SUITABLE FIREGUARD IS USED WHEN YOUNG CHILDREN, THE ELDERLY OR OTHER VULNERABLE PEOPLE ARE PRESENT.

ONLY HIGH QUALITY SEASONED LOGS OR HIGH QUALITY, SUITABLE DOMESTIC HEATING BIOETHANOL FUEL IS TO BE BURNT ON THIS APPLIANCE (DEPENDENT ON MODEL VERSION). NEVER ATTEMPT TO BURN RUBBISH.

Please read instructions carefully prior to installation and keep them in a safe place.



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When purchased new from an Authorised Ekol Retailer your new adept stove includes an Extended 10 year limited warranty.

Details of Authorised Retailers can be found at [www.defrastoves.com](http://www.defrastoves.com)

Your warranty needs to be registered within 30 days of purchase and will be effective from date of purchase.

Appliances purchased outside of the Authorised Ekol Retailer network will carry the standard 12 month warranty.

For full details of the warranty and how to register can be found at the back of this manual.

# General Specifications

(For general dimensions please see final page)

|                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Achievable Heat Output Range                                                                                                                                                                            | <b>2.0 to 7.5kW</b>                                                                                                                                                                                                                                                                                          |
| Nominal Heat Output                                                                                                                                                                                     | <b>5.0kW</b>                                                                                                                                                                                                                                                                                                 |
| Efficiency                                                                                                                                                                                              | <b>80.3%</b>                                                                                                                                                                                                                                                                                                 |
| CO <sub>2</sub> emission                                                                                                                                                                                | 11.4%                                                                                                                                                                                                                                                                                                        |
| CO emission (at 13% O <sub>2</sub> )                                                                                                                                                                    | 0.12%                                                                                                                                                                                                                                                                                                        |
| Mean flue gas temperature                                                                                                                                                                               | 282 °C                                                                                                                                                                                                                                                                                                       |
| Mean C <sub>n</sub> H <sub>m</sub> (at 13 % O <sub>2</sub> )                                                                                                                                            | 107 Nmg/m <sup>3</sup>                                                                                                                                                                                                                                                                                       |
| Mean NOx (at 13 % O <sub>2</sub> )                                                                                                                                                                      | 86 Nmg/m <sup>3</sup>                                                                                                                                                                                                                                                                                        |
| DIN Plus dust (at 13 % O <sub>2</sub> )                                                                                                                                                                 | 30 Nmg/m <sup>3</sup>                                                                                                                                                                                                                                                                                        |
| Weight (Adept Classic Standard)                                                                                                                                                                         | 90 kg                                                                                                                                                                                                                                                                                                        |
| Tested to BS, EN (CE), UK Smoke Control (DEFRA), EcoDesign 2022 tested and compliant.<br>Tested to EN 13240:2001+Amd 2 (as freestanding stove)<br>Tested to EN 13229:2001+A1:2003+A2:2004 (inset stove) | ✓                                                                                                                                                                                                                                                                                                            |
| Suggested Clearances to Non-combustible materials                                                                                                                                                       | 30mm all round (to suitably thick solid materials)                                                                                                                                                                                                                                                           |
| Minimum Clearances to Combustible materials:                                                                                                                                                            | <ul style="list-style-type: none"> <li>• Rear of stove = 200mm (as a free standing stove), when used with optional heat-shield.</li> <li>• Sides of stove = 250mm (when used as a FREE-STANDING stove).</li> <li>• Sides of stove = 100mm (when used as an INSET stove).</li> <li>• Above = 400mm</li> </ul> |
| Suitable for positioning on hearth of just 12mm thick                                                                                                                                                   | ✓                                                                                                                                                                                                                                                                                                            |
| <b>10 Year</b> body warranty                                                                                                                                                                            | ✓                                                                                                                                                                                                                                                                                                            |
| Dual fuel capable, bioethanol and wood (fuels must never be used together), when purchased with optional bioethanol burner system (1.5kW output on bioethanol)                                          | ✓<br><b>(5 hour refuel period when using bioethanol)</b>                                                                                                                                                                                                                                                     |
|                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                              |

# Getting Started

## Welcome

Thankyou for choosing the Ekol Adept.

We are confident that your new stove will provide many years of pleasure and reliable service.

The main purpose of this manual is to guide you in the use and maintenance so that you can get the best out of your home-fire experience.

All stoves will vary and we recommend that even those experienced in the use of wood-stoves read this manual thoroughly in order to fully understand the workings of the Ekol Adept.

This manual will also provide installation guidelines however this is not a step by step installation manual as each installation will be dependent upon local and national Building Regulations and safety standards which must be adhered to in addition to any information given here.

## Safety & General Points

NB. Safety is the most important consideration when installing and using your stove. If not installed correctly or used incorrectly a house fire or carbon monoxide poisoning can result.

1) All users of this appliance should fully read and ensure they understand the 'User Instructions' section of this manual.

2) The appliance must be fitted by a registered installer who is officially deemed competent to undertake the installation, or approved by your local Building Control department.

3) All local, national and European Standards and regulations need to be adhered to when installing.

4) Only seasoned, dry logs of between 10% and 20% moisture are to be burnt (unless you have purchased the Bioethanol kit). Fuels must never be mixed. Never use as an incinerator and never burn any liquid fuels other than bioethanol, and only then when the appliance is fully setup for bioethanol burning.

5) All surfaces will become hot during use. Ensure that children, the elderly or other vulnerable people are kept safe by using a suitable fireguard.

6) Take note of the minimum distance to combustible items within the 'Specifications' section of this manual, and in addition, avoid placing TVs, photographs etc on the wall above the stove or anywhere close by. Never allow combustible items or furnishings to be positioned within 1m from the front of the appliance.

7) Do not store any fuel on or near the appliance.

8) NOT suitable for use in a shared flue system.

9) Your stove will require a constant air supply - Extractor fans and cooker hoods should never be located in the same room as the appliance as this will disturb air supply to the stove potentially causing harmful gases to be emitted into the room.

10) Never make unauthorised changes to the appliance.

11) Chimney/ flue system should be swept at least once a year, and more frequently depending on usage and soot build up, as advised by your qualified chimney sweep.

12) This appliance is designed to be used with the door shut, with exception of start up procedure when burning wood, and when burning bioethanol the door should be slightly ajar (see more detailed user instructions).

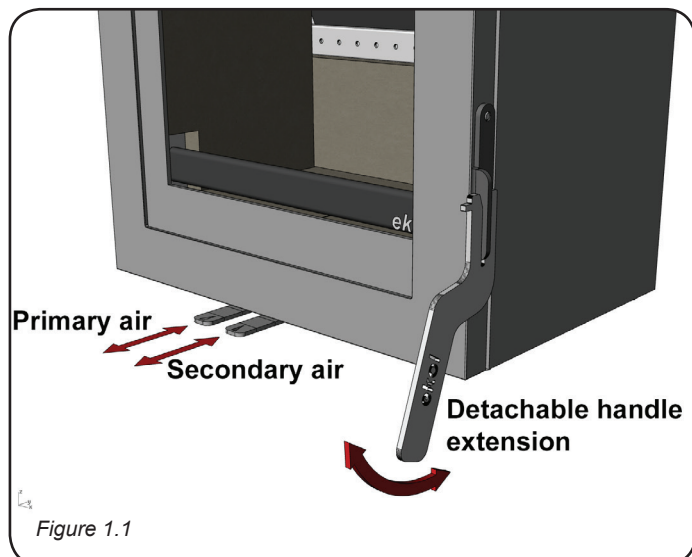
13) Upon first few uses the stove may produce an unpleasant odour due to the paint curing process. Open a window in the room if this occurs.

14) Your stove will be heavy and will require between 2 and 4 people to lift. Lifting or trolley equipment may be required dependent upon the body options chosen and the chosen stove location.

15) Unpacking: Do not drag the stove to its location, instead it should be carefully lift into place. Do not use sharp blades to cut through packaging material as the stove paint surface and other components may become damaged. Incidental scratches to paint surfaces on the stove from moving or installation can be touched up using suitable high temperature stove paint.

# User Instructions

## Controls for wood-burning



**CAUTION HOT! Always use the glove provided or the extension handle tool to control handle and vents when in use.**

Your Adept stove uses two controls to control the burning process.

Figure 1.1 shows these controls located under the door. Each control works by varying the amount of air which can enter the fire box. The more air that can enter the firebox the faster the fuel will burn.

Each of the vent controls allows air to enter the firebox in specific places.

1) The 'Primary' air control allows air to enter the fire box through a channel plate at the top of the stove window. This air then flushes down the inside of the glass, keeping a blanket of air between the glass and the fire, therefore helping to keep the glass clean.

Some of this air also reaches down to the bottom of the firebed, providing fresh air to enable the wood to burn. We call this 'Primary Combustion'.

To increase the flow of this air, pull the lever (on the left side as you look at the stove), towards you.  
To decrease this flow of air, push the lever back inwards.

2) The 'Secondary air' control is located next to the 'Primary control', on the right hand side as you look at the stove.

The 'Secondary' air enters the firebox via a series of horizontal holes which can be seen as you look into the

stove above the rear fire bricks.

These inlets allow fresh air to reach the upper parts of the firebox, allowing rising smoke and gases to re-ignite, and burn thoroughly and cleanly before escaping out into the flue.

To increase the flow of this air, pull the lever (on the left side as you look at the stove) towards you.  
To decrease this flow of air, push the lever back inwards.

(To comply with the Clean Air Regulations and to ensure efficient, clean burning, both control levers are set to always allow a minimum air flow so that the firebox cannot be starved of fresh air.)

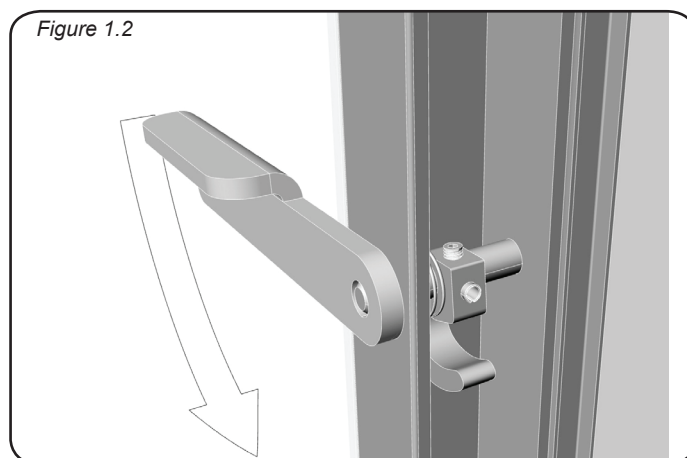
Both the Primary and Secondary controls can if necessary be operated using by attaching the end of the 'Detachable handle extension' tool. This can be useful when the controls are hot or if the stove installed into a deep recess.

## Handle Operation

Your Adept stove is fitted with a standard handle for operation of the door. In addition your stove is supplied with a separate handle extension tool (figure 1.1). The detachable handle simply slots over the standard handle when required. It does not permanently affix.

This handle offers more leverage and is useful for:

- a) users with a weaker grip
- b) When handle is hot during use
- c) When installed into a recess and hand access to the side of the stove is limited.



**IMPORTANT** - When closing and locking the door, the handle must be lifted into the horizontal position before shutting the door so that the hook can engage. Never slam the door on the closure hook as this will cause damage affecting its smooth operation. (Figure 1.2)

## How does heat come out?

There are three ways in which the heat generated in your Adept stove will come into the room.

- 1) Radiant heat comes through the large window, and heats objects in the room
- 2) Some radiant heat also comes from the body of the stove, though due to the stove's dual-layer construction, this heat is less intense and more uniform compared to single layer type stove.
- 3) The Adept also benefits from convected heat - air between the two layers of the inner and outer stove body warms up, then expands out of the venting holes on either side of the stove, circulating into the room. Cooler air from lower down in the room is then drawn into the underneath of the stove creating a cyclical warm air movement.

## Lighting the Fire (wood burning)

Once the appliance has been correctly installed, it is ready for the first fire. We would encourage even experienced stove users to follow this guide as every stove model operates differently.

These instructions may at first seem complicated, but when followed correctly you will quickly be confident at operating your Ekol at its optimal level safely and efficiently.

The stove needs to go through an initial period of 'running-in' in order to enable the steelwork to normalise to higher temperatures, and for the paint surfaces to cure correctly.

The stove is finished in specialist high temperature coating which is air-dry but not yet cured. The stove should be brought up to temperature gradually over the course several fires to complete this process. If the stove gets too hot or not hot enough during this process then the curing process can fail causing issues with the paint surface.

- 1) For the first three fires (all on the same night), use **KINDLING ONLY**, with each burning for 15-20 minutes and each fire using approx 500 grams of kindling. Start the second and third kindling fires whilst the fire is still warm from previous fires. Once the three kindling fires has burnt through, and whilst the stove is still warm, but slightly cooled, light a normal fire with three dry logs weighing around 1.2 kgs in total. This fire should burn for between 45 and 60 minutes. Now allow to **FULLY COOL** naturally.

The paint should now be cured.

- 2) Once the curing process has been completed satisfactorily, normal fires can be lit -

Place 4 or 5 pieces of good quality solid chemical firelighter on the base of the stove.

- 3) Arrange approx' 500 grams+ of thin thoroughly dry kindling sticks (*figure 1.3 shows 500 grams of softwood kindling on top of the stove*) in an open tower shape similar to *figure 1.4*, taking care not to assemble the fuel too close to the door glass.

Figure 1.3



Figure 1.4



- 4) Ensure both air controls are fully open (pull towards you)
- 5) Light the firelighters with a long match or long lighter.
- 6) Close the door but do not lock it - leave it cracked-open (ajar) an inch or so.
- 7) The kindling should within a few minutes take light and begin to heat the flue/chimney.
- 8) When the kindling is fully alight, glowing red and with lots of flame, wait for the kindling tower to burn down and collapse, creating a bed of embers.
- 9) If it appears there is a good glowing bed of embers,

proceed to *step 10*), otherwise build another stack of kindling sticks on top.

10) Have ready 3 or 4 pieces of seasoned dry hardwood logs (10 to 20% moisture content), weighing a total of not more than 1.2kgs (*figure 1.5 shows three logs weighing a total of 1.2kgs*).

Load the logs carefully on to the hot ember fuel bed one at a time and push them down to make contact with the ember bed. (logs over 80mm diameter or heavier than 500 grams should be split down into smaller pieces). *Figure 1.6 shows the logs laid in the stove.*

Figure 1.5



Figure 1.6



11) Ensure logs do not extend above the clean-air inlets at the back of the firebox.

12) Close the door and leave it cracked open an inch or so.

13) Once these logs are fully ablaze and with glowing surfaces (usually 5 to 8 minutes), fully secure the door.

14) The flames will reduce to a calmer steadier burn and already your stove will be burning extremely cleanly and efficiently.

If the flames die down too much and stop glowing, crack the door ajar an inch or so for a few more minutes until the fire on the logs is fully established.

15) Once the fire is established, and to maintain an average 5kW output, the system will consume approximately 1.5 kgs of wood per hour, but the best way to burn for clean and efficient results is to load wood 'little and often'.

16) Ensure the firebox is never overloaded and when refueling always ensure logs are positioned away from the front, avoiding logs toppling over the front retaining bar. Keep logs well away from glass to ensure efficient operation of the airwash system.

17) If the bed of embers builds up too much, allow it to burn down a bit before refueling.

18) If there is a delay when refueling, and the bed of embers has mostly burnt through, first reload with more kindling or thin logs to establish a new hot ember bed before putting on larger logs.

19) The two vent controls will control the speed of the burn. Both should always be open at least enough to ensure airwash system has a ready supply of air and that there is constant air supply for the solid particles and gases to burn cleanly.

You Ekol Adept is fitted with constant minimal air supply such that the appliance cannot be made airtight.

20) When you have finished using the stove for the day, fully open the vents until any remaining fuel has burnt away. This final burning of the day should always be fast and hot, to help clear deposits from the glass and to minimise soot/tar and creosote deposits in the appliance and in the chimney.

21) Prior to relighting from cold, using a scoop/dustpan or small coal shovel clear out the majority of ashes from the firebed. It is NOT essential to remove all ash though as some of the ash will re-burn.

22) Weather conditions including wind pattern and temperature outside along with flue design and chimney height and location will all have an effect on draught strength of your flue system which can vary from day to day.

Sometimes it may be necessary to use more kindling or keep the door ajar for longer when establishing a fire (when draught is weak).

Conversely you may need to close the door earlier and reduce vent openings sooner when there is a strong draught. - REMEMBER - warm chimneys draw more

powerfully than cold chimneys.

23) When used as a wood-burner, never be tempted to use liquid fuels.

Never use any fuel other than dry solid wood kindling or dry-seasoned logs. We do NOT recommend the use of kiln-dried logs as a primary fuel source. This is because kiln dried wood can burn too quickly and is more likely to produce smoke.

#### **IMPORTANT: Refuelling on to a low fire bed:**

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.

#### **Fuel overloading**

The maximum amount of fuel specified in this manual should not be exceeded, overloading can cause excess smoke.

#### **Operation with door left open**

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

#### **Dampers left open**

Operation with the air controls or dampers open can cause excess smoke. The appliance must not be operated with air controls or dampers door left open except as directed in the instructions.

#### **Tips for Successful Wood-Burning:**

- Use good quality seasoned-dry logs.
- We recommend investing £10 to £20 in a digital moisture meter - Split some logs and insert the probe deep into the centre of the log.
- Do not burn anything more than 20% moisture content as this will have detrimental effects on heat output, ease of use, and will create excess tar, creosote and moisture which will prematurely damage your stove and flue system and could cause chimney fires.
- Never burn treated, painted, dirty wood, pallet wood or manufactured boards
- Get the flue and belly of the fire nice and hot using a good quantity of dry kindling.
- Do not overload the stove with wood - best to load 'little and often', once the stove is up to temperature.

## Bioethanol Option

### Safety & Important Points

- 1) When burning bioethanol fuel, all fuel from any previous wood fire, including any ashes must first be removed.
- 2) The Bioethanol burner tray and all its components must always be used when burning bioethanol.
- 3) A maximum 1200ml of fuel should be used, including any fuel which remains in the reservoir from previous use.
- 4) The door of the appliance must be left largely closed but slightly ajar when burning bioethanol (approximately 1 inch/ 25mm open), otherwise the flame is likely to go out. Do NOT use with the door fully open.
- 5) Use only high quality bioethanol liquid fuel suitable for use on Bioethanol Fireplaces.
- 6) Only ever begin to use the Bioethanol burner option when the appliance is completely cool - if burning wood, the stove must be first allowed to completely extinguish and cool to room temperature before attempting to insert and use the Bioethanol burner.
- 7) Fuel should only ever be poured into the tray when cool. Never refuel when still hot or when still alight.
- 8) Never overfill the burner tray.
- 9) Before lighting, clean up any overspill or drips of fuel which do not land in the reservoir when filling.
- 10) The Bioethanol system can be used outside of the Adept stove, but must be assembled as a complete unit, on its legs and with inner and outer trays. When using outside of the stove, it should only be used outdoors. This complete unit should be placed on a suitable non-combustible/ insulative material surface such as stone or concrete, on a flat level and stable surface and out of reach of children. Combustible objects must be positioned a minimum of 1metre away from the burner. Never use when raining and do not allow any water or other liquids to come into contact with the reservoir.
- 11) The combustion block is a consumable/replaceable part - It should be replaced when burning time becomes significantly reduced or inconsistent which is an indication of degradation of the ceramic inner material. - Contact Ekol or your Ekol dealer to purchase replacement when necessary.
- 12) After use, ensure the bioethanol burner system is kept in a cool dry place, covered and protected from dust or moisture entering the reservoir.

## Using the Bioethanol Burner

1) Ensure you have read and understood the 'Safety & Important Points' opposite.

2) Position the burner system and its component parts into the Adept stove and ensure it is sitting level - each leg support of the tray outer has a height adjustment foot. See *Figure '2.0' for parts and Figure '2.1' for assembled illustration.*

Figure 2.0

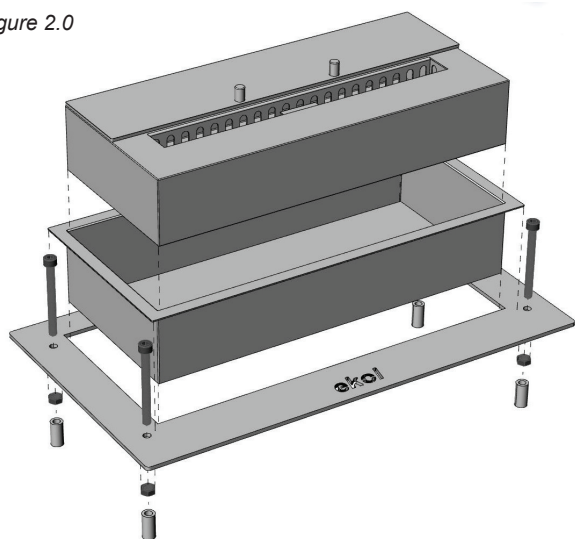
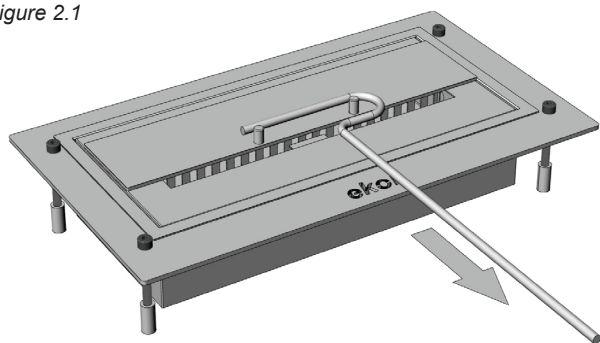


Figure 2.1

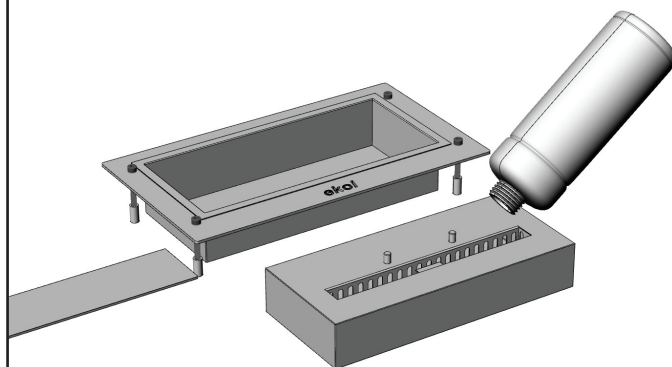


3) Remove the inner combustion block part of the burner system from the stove and place on a level surface.

4) Measure a maximum 1.2 litres of bioethanol fuel into a measuring container (a plastic measuring jug with pouring spout is ideal).

5) Carefully pour the fuel into the reservoir, taking care not to spill any fuel. Clean any spills with absorbent paper towels. *'Figure 2.2'*

Figure 2.2



6) Allow 20 seconds for the fuel to be absorbed by the ceramic wick material within the combustion block (1.2 litres fuel will be almost entirely absorbed leaving little liquid visible in the bottom of the reservoir).

7) Place the combustion block back into its outer tray inside the stove.

8) Using a long lit match or long lighter, carefully ignite the fuel by placing the lighter into the reservoir just below the top of the combustion block.

9) Sometimes the fuel may ignite then self-extinguish, especially when temperatures are cold. Simply repeat lighting process until the fuel stays alight.

10) Close the door to the stove but do not secure the door lock, simply leave it ajar an inch (25mm) or so.

11) Ensure both air controls are fully open (pulled towards you).

12) The flames will grow to their full size within around 10 minutes.

13) When the fuel is running low, the flames will make a whisping noise and will reduce in size. Allow the fuel to completely burn through. If you decide to extinguish the fire early, simply use the closure tool to slide the top closure plate over the reservoir opening.

14) Before refueling, the combustion block must be allowed to cool, a minimum of 20 minutes.

# MAINTENANCE

## At least Annually.....

- 1) A minimum of once per year the flue system should be cleaned/swept by a qualified chimney sweep or suitably qualified stove installer. The servicing of the appliance can usually be carried out at the same time. Whether the system needs sweeping more frequently than this will depend on use.
- 2) Baffle plate should be removed and checked above for debris - to remove the baffle, first push it up into the roof of the stove and with one hand, hold it there - this will release the left and right side firebricks which with the spare hand can then be carefully removed in turn. The baffle can then be dropped down and maneuvered out of the stove. Warped/mishapen baffle plates can be a warning sign that the stove has been over-fired (allowed to excessively heat on one or more occasions).
- 3) Brush the baffle using a stiff brush or wire brush to remove any deposits. Clear any debris from the upper parts of the stove above where the baffle normally sits.
- 4) Inspect firebricks on both the sides, rear and base for cracks - (thin cracks are normal and not a fault. Nor are they detrimental to the workings of the stove, however it is good practice to be aware as any develop and over time if they worsen they may need replacing). Firebricks material is delicate so handle with care. Minor cracks can be patched with fire cement.
- 5) Vacuum or brush out the inner stove box thoroughly.
- 6) Visually check that the glass is still making a good seal against its rope on the inside of the door frame and that its retaining clips remain firmly in place to the touch.
- 7) Check that the door is making a good seal with the body of the stove all around (over time the rope will flatten out and lose some flexibility - when this happens and when it is no longer sealing fully all the way round, it needs to be replaced). The rope size used here is a 15mm-Medium-Soft type.
- 8) Blemishes or scratches to the paintwork can be touched up using the a suitable high temperature stove paint in a spray can. Ensure the stove is cool and clean before applying and follow the paint manufacturer's instructions. Contact Ekol directly if you are unsure which paint to use.

## More Frequently as required....

Throughout the season, it is good practice to keep the stove in generally good clean order which will prolong the life of serviceable components and enhance the experience you have with your fire.

- 1) NEVER wipe the stove in the early stages (prior to paint fully curing), as the paint will be very soft and will damage easily. NEVER attempt to clean or wipe the paint surface when warm or hot.
- 2) To keep the outer body clean, simply dust over with a clean soft duster when cold.
- 3) If there are marks which cannot be removed with a duster, use a slightly moistened cloth very gently, but only when the stove is cool and has not been in use. Then pat dry with absorbent paper towel.
- 4) Regularly clear the firebox of ashes and debris using a small dustpan and brush or a vacuum.
- 5) Regularly vacuum soot and dust from around the inside of the door and around the glass and rope seals.
- 6) If glass gets dirty on the inside from soot, clean with liquid 'stove glass cleaner' and a soft cloth OR with an "Atmosfire Dry Wiper", produced by Schott, the manufacturers of the glass, and available online. Do this as soon as possible once the soot appears, but only when the fire is completely cool. Never use newspaper or soot or any other abrasive or cleaning method on the glass.

## The Clean Air Act

### 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 Northern Ireland appliances are exempted by publication on a list by the Department of Agriculture, Environment and Rural Affairs under Section 16 of the Environmental Better regulation Act (Northern Ireland) 2016. In Wales appliances are exempted by regulations made by Welsh Ministers.

Further information on the requirements of the Clean Air Act can be found here:

<https://www.gov.uk/smoke-control-area-rules>

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

The “Ekol Adept” free-standing stove and inset stove have been recommended as suitable for use in smoke control areas when burning wood logs. A factory-fitted modification to the air controls has been implemented to ensure a minimum opening of the secondary air and also for the tertiary air.

# Installation Instructions

**As every installation is unique, it is not possible to provide a step by step guide to cover the entire installation.**

**This guide will help identify the key points to observe when fitting the Ekol Adept stove.**

**All installations need to be carried out in compliance with local and national Building Regulations by a Competent Person.**

## Unpacking & Manoeuvring

1) This stove is heavy and requires between 2 and four strong people to lift, and more depending on optional body extras (such as concrete sides).

Ensure that the stove and its constituent parts are never dragged across the floor and are lifted carefully into position.

A two wheeled 'sack trolley' or lifting trolley may be helpful or necessary.

Inside the stove you will find several components:

- 1) Heat resistant Glove
- 2) User manual
- 3) Cast iron Flue collar with 3x fixing screws
- 4) Small set of allen keys
- 5) Set of legs (depending on option ordered)
- 6) Bioethanol kit (only if ordered with Bioethanol option)
- 7) Rectangular plate with white gasket (this is the sealing plate for the air vent control box underneath the stove and should only be fitted when using the external (outside) air supply option)

## Attaching Flue Collar etc.

**Flue Outlet:**

The stove has the option of having a top or rear flue outlet.

There are three components which require fitting into their correct positions to set up the flue outlet.

1) Choose which outlet (top or rear) is required. If the Cover-Plate and Blanking-Plate are in place covering the outlet, remove them first. Take the cast iron Flue-Collar and secure it relatively tightly to the outlet on the stove body using the three fixing screws supplied. (figure 3.0)

2) Secure the Blanking-Plate to the other (none used) outlet using the remaining three screws. Ensure the attached rope seal on both the Flue-Collar and the Blanking-Plate are compressed and making a good seal. If in doubt, use a bead of fire cement to enhance this seal. (figure 3.1)

3) Place the Cover-Plate over the hole on the outer stove body, above or in front of the Blanking-Plate (this is primarily aesthetic, and although it does have to be fitted, it is not necessary to seal this plate).

If fitting to the rear, there are two holding brackets which tighten to secure the Cover-Plate on the back of the stove.

If fitting this Cover-Plate to the top of the stove, it simply sits in place. (figure 3.1)

Figure 3.0

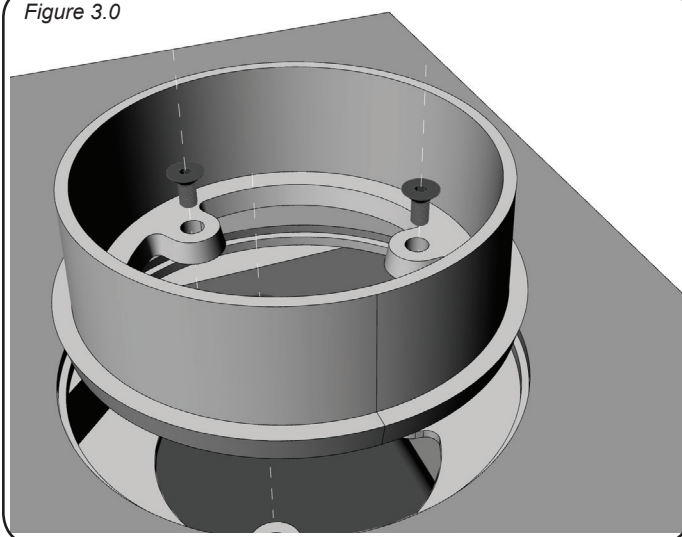
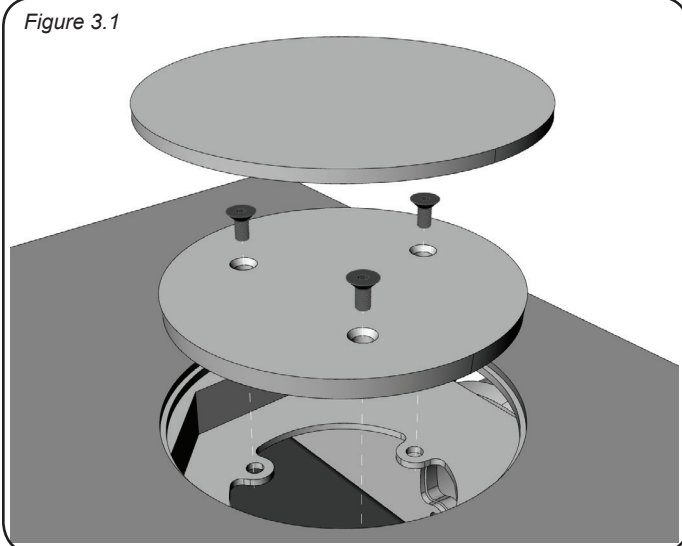


Figure 3.1



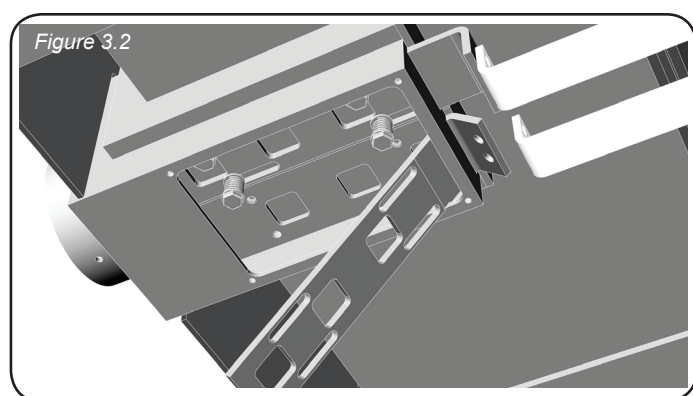
## Pre Install Checks

1) Check that the door handle mechanism locks the door securely.

2) Check the smooth operation of the two vent controls - If there is friction or a non-smooth movement or jamming, it is possible there is residue from steel shot blasting in the vent mechanism. - In this case, carefully lie the stove on its back to enable access to the underneath of the stove.

Firstly remove the 4x spring loaded screws which hold each vent control slider to the underside of the stove.

(figure 3.2)



Using the correct allen key, the two parts of the sliding control can be separated, then the inner part can be manoeuvred out of the air control box for inspection. Check that the slider and the underside of the stove with which it slides against are free from any grit or debris. The parts can then be re-assembled and checked again for smooth operation - don't forget to use a washer on each spring/bolt.

3) Check that the inside door glass is correctly in position, making a seal on its rope and that the fixings are not loose, but hand tight (never over-tighten glass retaining clips).

4) Check that the baffle plate above the burn area inside the firebox is in position - It should be firmly located resting on top of the firebricks to the sides, and pushed backwards, leaving a smoke escape gap at the front of the plate just behind the top of the door frame.

5) Check that the intended location of the stove is safely accessible and that all adjacent walls, floors and objects (adjacent to the stove) and their substructures (ie. stud walls) are either fully non-combustible or are located beyond the minimum clearances required (See Page3 'General Specifications').

6) Check that the Hearth and its substructure are suitably strong and stable if taking the weight of the stove. The hearth needs to be made of suitable non-combustible

material.

7) Ensure the hearth is compliant with relevant Building Regulations.

To comply with Building Regulations in England and Wales, the aesthetic hearth needs to be a minimum 12mm thick, needs to extend at least 150mm either side of the appliance, and at least 225mm in front of the appliance. The distance in front of the stove should be increased when the appliance is in an elevated position above the hearth, to account for potential falling embers traveling further forwards when the door is opened.

8) Chimney/Flue -

a) The flue system should be checked for draught strength - a minimum flue draught of 12Pa is required, and a maximum of 20Pa. Flue systems of excessive strength should be fitted with a balanced 'flue draught regulator'.

b) A flue system of 4.5+ metres height (from the top of the stove) would normally provide the minimum for adequate draught strength (assuming there are no other external factors which counteract the flue draught strength).

c) Any flue system needs to be compliant with the current England and Wales Building Regulations specifications for a Class1 Chimney. Existing brick and clay-lined chimneys should be fitted with a suitable stainless steel liner ideally of 5" (125mm) diameter. The maximum internal flue diameter used should be 6" (150mm). Suitable insulation between the inner walls of the chimney and the liner should be used.

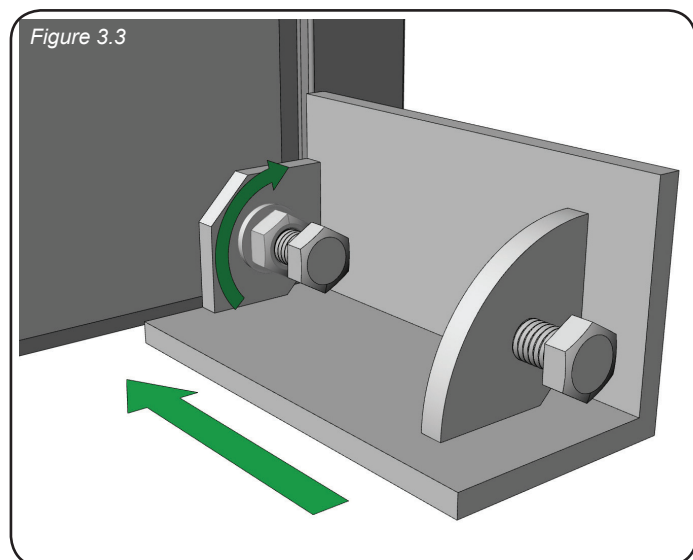
9) Ventilation - The appliance requires room ventilation when used as a wood-burner. - This is air which is drawn from the outside to replace air in the room consumed by the burning of the fire. Houses built before 2008 are likely to have enough natural ventilation to supply this air, unless the house has had extensive draught proofing works carried out. For more modern houses or those with minimal natural ventilation (air permeability less than 5.0 m<sup>3</sup>/h.m<sup>2</sup>), an air vent with equivalent-free-surface area of at least 2750mm<sup>2</sup> needs to be used. In any case, additional rules for vents apply when fitting the system with flue draught stabiliser (if in doubt consult either HETAS, Building Regulations Document J, or your engineer).

10) CO Alarm. The fitting of a CO alarm is now a Building Regulations requirement and should be fitted in the same room as the stove. Existing alarms should be checked for current suitability. If in doubt fit a good quality new alarm.

## Connecting 'Classic' legs

When using the Adept with the standard 'Classic' legs, each leg simply bolts into place.

- 1) Carefully lower the stove onto its back
- 2) Offer up each leg in turn using a bolt, nut and washer as in *Figure 3.3*.
- 3) Screw the bolt by hand into the corresponding hole on the underside of the stove 4 or 5 turns.
- 4) Then tighten the nut against the washer to tighten the leg to the stove. Use a spanner if necessary to tighten just enough so that the leg doesn't rotate - do not over tighten.
- 5) The bottom of the leg uses a second bolt to enable height adjustment when the stove is a slightly non-level surface.



## Connecting to External Air (option)

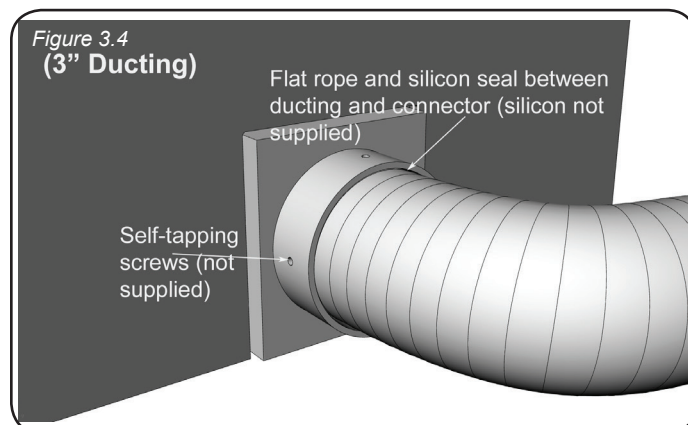
The Adept stove can as an option be fitted with ducting from the rear to an external air supply outside of the building.

Either circa 3"(75mm) or 4"(100mm) ducting can be used. Ducting would most commonly be flexible single skin aluminium but any steel rigid flue could also be used but must have anti-corrosive properties.

We do not recommend the use of ducting more than 3 metres.

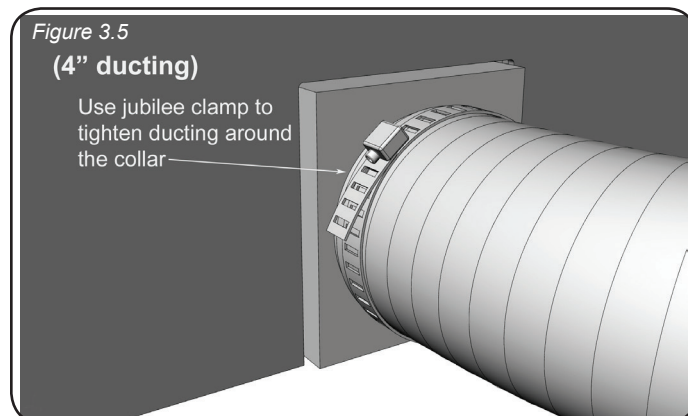
**When using flexible ducting less than 80mm diameter,**

**the ducting should be inserted into the connector on the back of the stove: (figure 3.4)**



- 1) Apply a layer of flat self-adhesive ceramic fire rope around the end of the ducting and insert it into the connector.
- 2) Using some 15mm self-tapping or 'tek' screws, screw through the holes on the connector biting into the ducting.
- 3) Finish the seal with a bead of high temperature silicon between the edge of the connector and the ducting.

**When using larger sized ducting, the ducting will go over the connector on the back of the stove: (figure 3.5)**

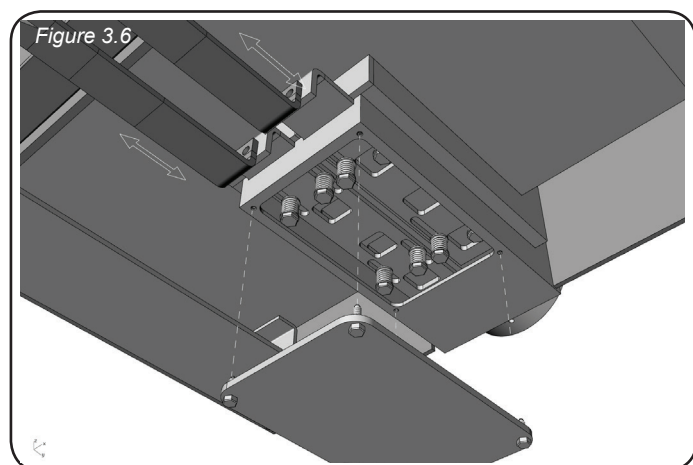


- 1) If there is space between the inside diameter of the ducting and the outside diameter of the stove connector, apply a layer of flat self-adhesive ceramic fire rope around the stove connector.
- 2) Carefully feed the end of the ducting over the connector until it is firmly in place.
- 3) Use the jubilee band to tighten the ducting to the connector.
- 4) The optional External Air Kit from Ekol also includes a cowl with built in anti-insect mesh, to be used on the

outside wall. The ducting can be secured to this cowling with the built-in clips and self-tapping or 'tek' screws. It is crucial that rainwater or any excess moisture must NOT be allowed to enter the ducting/stove air system.

5) Ensure that the ducting is not damaged nor overly kinked along its route.

6) When using the external air supply, the plate and ceramic seal should be affixed to the air box underneath the stove (**figure 3.6**)



## Specific Instructions for Inset Version

When used as an inset, the Adept stove can either be installed into an existing prepared masonry chimney cavity or into a purpose made non-combustible wall/void.

1) It is important that any fabricated wall/void is made entirely from non combustible materials. Framework, if not masonry, should be aluminium or steel or other non combustible stud-work.

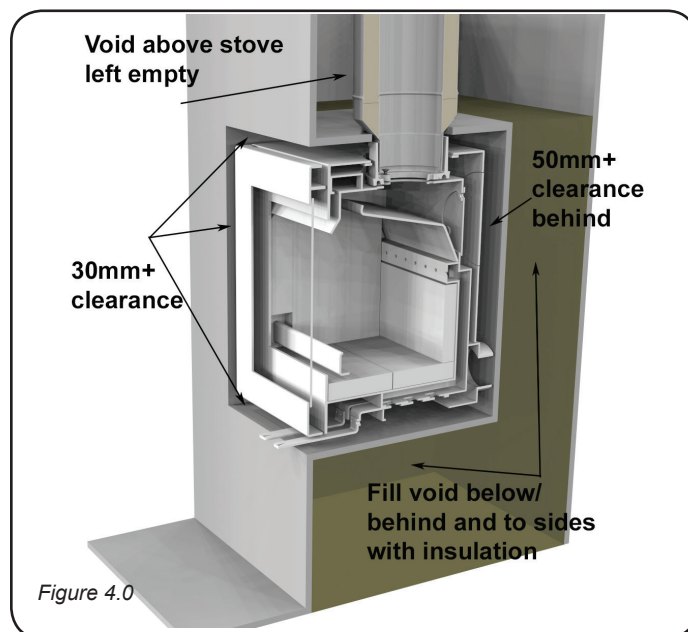
2) All boarding to construct the facets of the structure should be non-combustible. 'Pink' fire-resistant plasterboard is NOT suitable and should never be used for constructing walls adjacent to fireplaces.

3) The Adept stove when used in an inset situation can be low down, close to hearth level or raised up higher in the wall.

4) In any case the structure needs to be strong enough to adequately support the stove weight.

5) The Adept, unlike many other 'cassette' type stoves, does not require any additional outer frame to be separately fitted into the wall. The basic stove body itself already has a secondary shell and convection air system to allow the warm air to escape into the room.

**6) The appliance does however, require that the cavity in which it is placed, is large enough to maintain a minimum 30mm gap all around, including to the sides, below, and above, and 50mm to the rear. Figure 4.0**



7) When constructing a wall for the appliance to fit within, it is important to ensure that the voids to the sides, rear and below the appliance are well insulated with a non-

combustible material such as mineral wool or vermiculite. (Figure 4.0)

8) The area above the appliance should be left clear and NOT insulated.

The top of the recess cavity should be closed off with a steel or non-combustible board register/ closure plate. A hole with sufficient diameter to allow the flue pipe to pass should be incorporated into this plate.

The space above the register plate should then be vented by a minimum of two vents, one just above the height of the top of the appliance, and a second further up towards the ceiling. (See figure 4.1) - This system will then allow cooler air to enter the lower vent, whilst the air in the void expands pushing warm air through the higher vent back into the room. This is called a warm air convection system and as well as boosting efficiency of the system further, will help to ensure the void above the stove does not get too hot.

Figure 4.1



9) When constructing a fireproof chamber from non-combustible boarding for the stove to sit within, a suitable rigid insulated stainless steel flue system should be used. -Alternatively when installing into a prepared opening within an existing or 'Class-1' chimney of either masonry or one which is already lined with a clay type flue liner, the stove should be connected to a new stainless steel flexible flue liner to run the length of the chimney. The flexible flue liner should be wrapped with a suitable insulation 'blanket' type wrap if space permits.

10) Once the chimney aperture is prepared, the appliance can be offered into the opening temporarily to check levelling of its feet. The Adept inset is supplied with height adjustable levelling feet which have a broad plastic base. Ensure these are in position and all four set to the same height (minimum 30mm height). Slide the stove into the recess and adjust one of the legs to balance the stove if required.

11) Whichever type of flue system and connecting pipes are used, a method of releasing the flue from the stove without dismantling the entire flue system should be

considered. This could for example include a telescopic height adjustable flue length or an access hatch in the fireplace chamber above the appliance.

This will enable simple disconnection and removal of the stove if it ever becomes necessary.

## 12) Flue Connection:

The Adept is designed so that final flue connection can be made from within the appliance itself if necessary.

a) With the included cast iron flue collar (supplied) separated from the stove, attach your flue adaptor (not supplied) to the inside of the cast iron flue collar and seal with fire cement. (Ensure the three fixing holes of the collar will approximately line up with the three holes of the flue outlet on the stove itself).

Ensure the lowest part of the flue collar is pushed up slightly into the chimney recess, ready for the stove to be pushed back into place.

b) Carefully remove the stove baffle plate - to do this, simply place one hand inside the stove, lift the baffle up into the upper ceiling of the stove, whilst the other hand gently lowers each side firebrick down to be removed horizontally through the stove door. Lay each firebrick carefully on a flat surface.

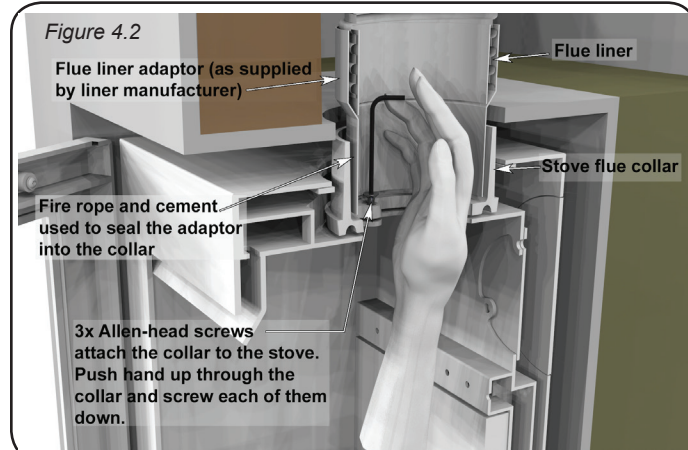
With the firebricks removed, the baffle can then be lowered down and out through the door giving access to the flue connection above.

c) Push the stove back into position in the recess.

d) Put one hand into the stove and up through the flue outlet, grabbing on to the flue collar. Pull the collar down to locate into position on the stove top outlet. (Depending on flue liner/rigid flue, an additional person may be needed at this stage to help lower the flue back down a few inches).

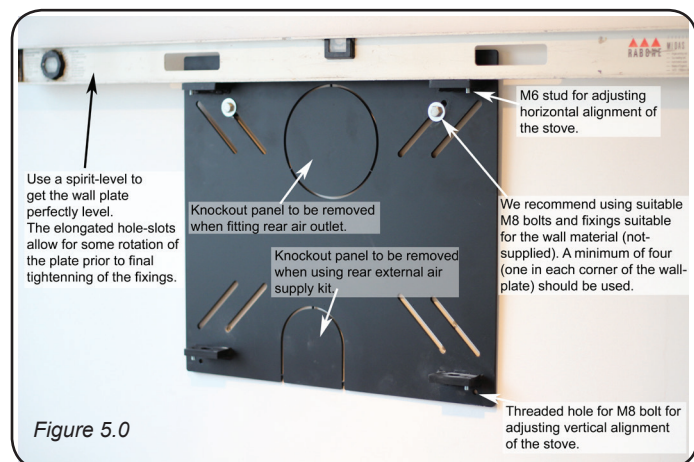
e) Using the three allen-head machine screws provided, secure the flue collar by screwing the collar to the stove (the screws need to be fitted by screwing downwards into the pre-threaded stove outlet). See figure 4.2

Figure 4.2



## Specific Instructions for Wall-Hung

The 'Adept Wall-Hung' option comes supplied with heavy duty wall fixing bracket (*figure 5.0*) which should be securely affixed to a suitably level, and strong wall / structure.



The wall needs to be of suitable non-combustible material.

Fixings for attaching the stove to the wall plate are supplied, as are fitments for adjusting the levelling of the stove.

Fixings to attach the wall plate to the wall are NOT supplied.

We recommend using M8 diameter suitably strong fixings with 'penny' type washers and 10mm spacing nuts/ washers to keep a gap of 10mm between the wall and the plate.

1) Using a spirit level, and the plate as a template, wall fixing points can be pencil marked on the wall through the elongated holes on the plate. (Do not aim for the very ends of the elongated slots as fixing points as this will reduce your adjustment capability once the fixing locations have been drilled). Plan on using a minimum of four fixing points, one towards each corner of the plate.

2) Once the fixing location are marked, remove the wall plate and make the fixing points in the wall.

3) Secure the wall plate to the wall ensuring to use 10mm spacer washers to keep a slight gap between the plate and the wall. Ensure the plate is level and square.

4) Using 2 people to carefully lift the stove, locate the four bracket tabs which are at the back of the stove, ON TOP of the corresponding tabs on the wall plate. Whilst holding the stove in position, affix the stove the plate by dropping through its supplied M10 bolts, nuts and washers. See *figure 5.1*

Figure 5.1

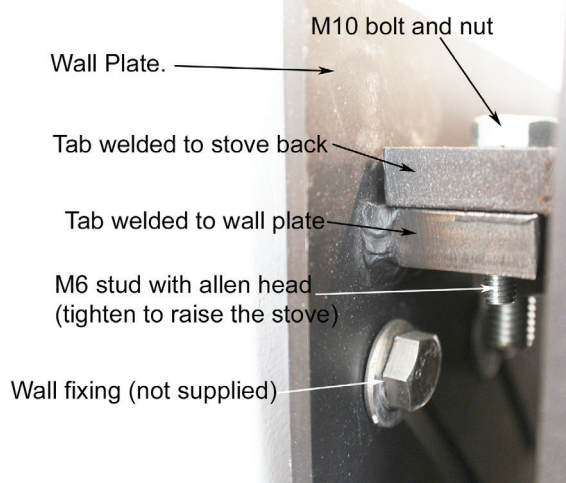
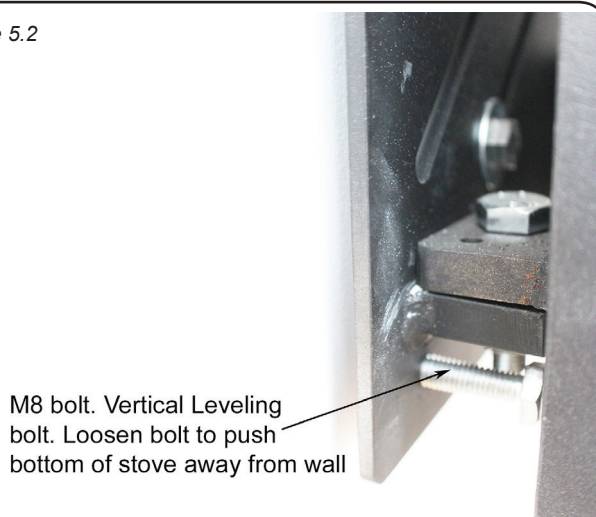


Figure 5.2



5) Use the M6 studs from underneath to level the stove horizontally using an allen key. *See figure 5.1*

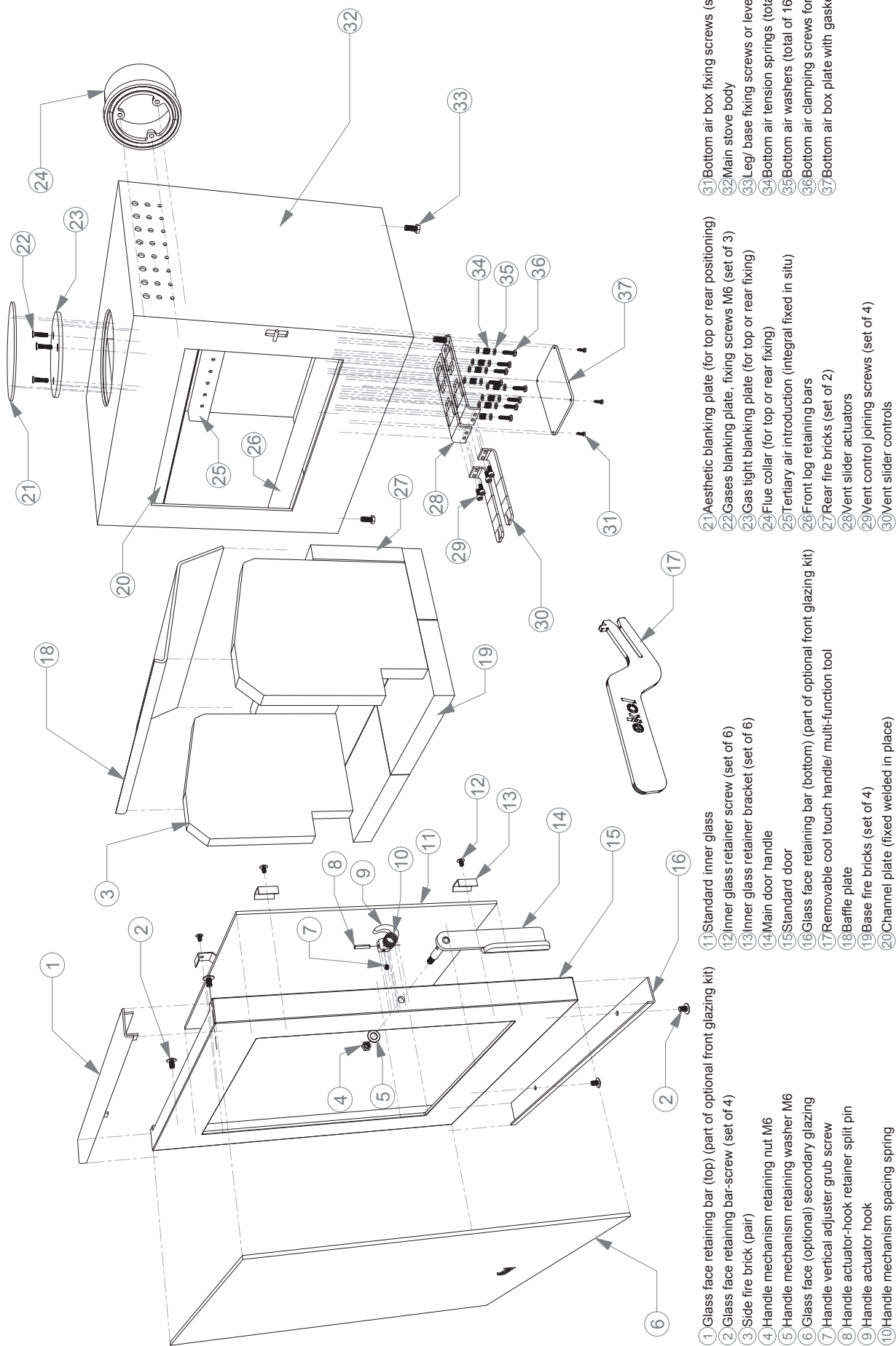
As you tighten the stud, the two tab brackets on the plate and stove respectively, will move away from each other slightly, thus raising that side of the stove.

If necessary, washers can be used between the tabs to maintain close larger gaps when leveling the stove.

6) Using the M8 bolts located at the bottom left and right hand corners of the wall plate, the stove can be aligned vertically. By loosening each bolt anti-clockwise, the bottom of the stove will move away from the wall, thus providing this vertical adjustment if necessary. *See figure 5.2*

7) When fitting flue pipe using the top exit on the stove, ensure that the weight of the flue system is self supported (the flue system should not be supported by the stove itself).

# Exploded View & Spare Parts





# Service Records (to be completed by Service Engineer)

## 1st SERVICE

Date of Service:.....

Next Service Due:.....

Details of Service work completed:

Signed:.....

Dealer's Stamp/HETAS Registration Number:

## 2nd SERVICE

Date of Service:.....

Next Service Due:.....

Details of Service work completed:

Signed:

Dealer's Stamp/HETAS Registration Number:

## 3rd SERVICE

Date of Service:.....

Next Service Due:.....

Details of Service work completed:

Signed:

Dealer's Stamp/HETAS Registration Number:

## 4th SERVICE

Date of Service:.....

Next Service Due:.....

Details of Service work completed:

Signed:

Dealer's Stamp/HETAS Registration Number:

## 5th SERVICE

Date of Service:.....

Next Service Due:.....

Details of Service work completed:

Signed:

Dealer's Stamp/HETAS Registration Number:

## 6th SERVICE

Date of Service:.....

Next Service Due:.....

Details of Service work completed:

Signed:.....

Dealer's Stamp/HETAS Registration Number:

## 7th SERVICE

Date of Service:.....

Next Service Due:.....

Details of Service work completed:

Signed:

Dealer's Stamp/HETAS Registration Number:

## 8th SERVICE

Date of Service:.....

Next Service Due:.....

Details of Service work completed:

Signed:

Dealer's Stamp/HETAS Registration Number:

## 9th SERVICE

Date of Service:.....

Next Service Due:.....

Details of Service work completed:

Signed:

Dealer's Stamp/HETAS Registration Number:

## 10th SERVICE

Date of Service:.....

Next Service Due:.....

Details of Service work completed:

Signed:

Dealer's Stamp/HETAS Registration Number:

# Warranty

When purchased new from an Authorised Ekol Retailer your new adept stove includes an Extended 10 year limited warranty on the main body of the stove.

Details of Authorised Retailers can be found at [www.defrastoves.com](http://www.defrastoves.com)

Your warranty needs to be registered within 30 days of purchase and will be effective from date of purchase.

Your stove can be registered online:  
<http://www.defrastoves.com>

Appliances purchased outside of the Authorised Ekol Retailer network will carry the standard 12 month warranty.

If you do not register in time, or have not purchased through an Authorised Retailer don't worry - our stoves are built to last and you are unlikely to have any issues. In the unlikely event you do encounter any problems, we will still be here to help.

The Extended Warranty is valid for the first owner at the first fitted location only.

To qualify, the appliance has to be installed to the relevant Building Regulations standards by a suitably trained competent person (such as a HETAS installer in the UK). Certificate of installation and the commissioning report

Any use of the appliance contrary to any instructions in this manual will invalidate the warranty.

The 10 year Extended Warranty guarantees the main stove body be free of manufacturing defects for this period.

**Excluded** from any warranty are:

1) Paint finish discolouration can occur normally and is not considered a fault. Paint which has failed to cure properly due to initial over or under firing is excluded from warranty.

2) Consumable items including but not limited to internal firebricks, glass, baffle plates, log retaining bars, paint and surface finishes, door and glass rope seals.

3) Damage caused by incorrect use, incorrect/ non-recommended fuel, over-firing or poor maintenance will not be covered and will invalidate the warranty.

4) Damage caused by unauthorised modifications or repair.

5) Faults or defects caused by local specific conditions such as draught problems or chimney defects.

6) Damage caused by corrosion due to the appliance being stored in unheated damp environments or by excessive moisture ingress via flue system.

7) Bioethanol burner units are excluded from the Extended Warranty.

8) Warranty claims are limited to the repair or supply of replacement parts or entire appliance where necessary (to be determined by Ekol) including shipping costs (UK mainland only), and fitment of the replaced or repaired part if required, at the Ekol factory. This is not an 'onsite' warranty and any installation or removal costs or incidental costs will neither be covered nor accepted.

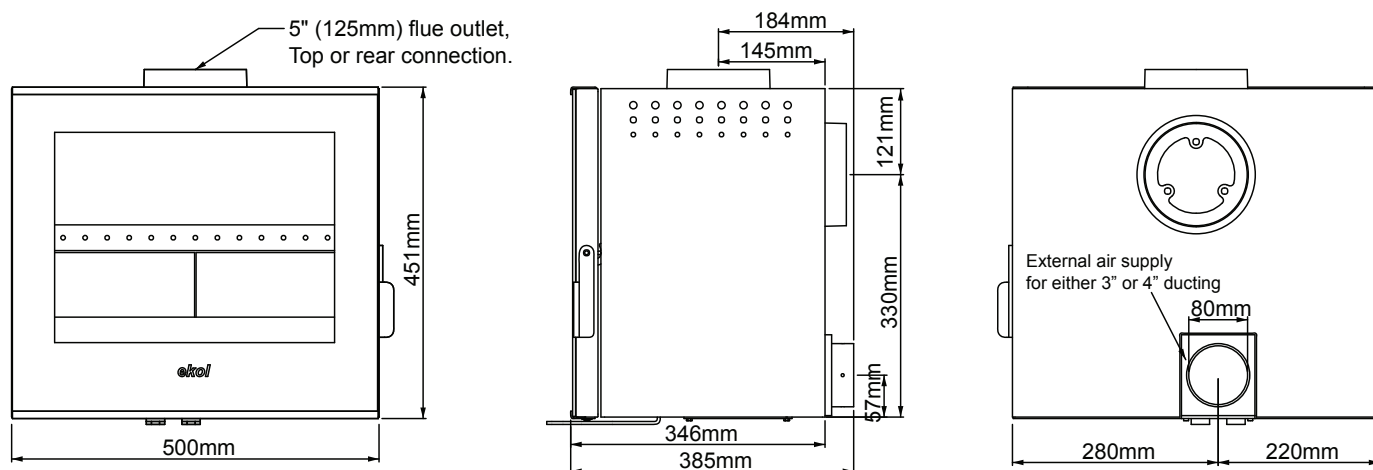
In the event of a successful warranty claim Ekol reserve the right to either replace, repair or refund the purchase price of the goods in question.

Replaced or repaired parts are covered for the remainder of the Warranty period.

Should you encounter any problems with your system and if there is any doubt as to the cause of the issue, first contact your installer.

If the appliance is suspected to be at fault, contact your Ekol Retailer from whom you purchased the appliance - They will be able to help you quickly or contact us at Ekol on your behalf. You will need to provide a copy of your original sales receipt, installation certificate (i.e. from HETAS)/or Building Control Certificate, and Service Record (see previous pages of this manual).

# Ekol Adept General Dimensions



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 01929 555211

