

# Sapphire<sup>®</sup>

## User Manual



Sapphire Fully Modulating Liquid Fuel Boilers, Operates via OpenTherm Protocol for smart connectivity, Intelligent flame detection functionality, ErP and BED tested and approved. Exceeds the 2018 ErP Directive for NOx emissions.



# Customer Appraisal

Dear Customer,

EOGB Energy Products Ltd would like to thank you very much for purchasing your new revolutionary, highly efficient condensing Sapphire boiler.

We expect you to receive many trouble free years of service from this new appliance with the reassurance of lower running costs and emissions.

Please read through the guide carefully before using the product. In order to ensure continued safe and efficient operation we recommend that the product is serviced annually. Our customer service organisation can assist with this.

We hope you enjoy years of problem-free operation with the product.



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# Information and General Warnings

## 2.0 Introduction

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The Sapphire User Manual.

## 2.1 Delivery of the appliance and the User manual

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Installation/Service & Commissioning Manuals can be found in the QR codes displayed below.

## 2.2 Warranty terms and conditions

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EOGB Energy products Ltd guarantees the manufacture of the boiler including all non serviceable electrical and mechanical components for a period of five years from the date of installation, provided that the boiler has been installed in full accordance with the installation and servicing instructions issued.

The stainless steel heat exchangers have a **25** year warranty and all non serviceable parts have a **5** year warranty.

For full terms and conditions, please visit - [www.sapphireboilers.co.uk](http://www.sapphireboilers.co.uk)

Please note that the installation, commissioning and servicing MUST only be carried out by a competent, OFTEC registered engineer, trained and registered to generic industry standards of competence and who has undertaken additional Sapphire manufacturers appliance training. In accordance with BS5410 part 1 2019.

### Annual service

A service must be completed every 12 months from the date of installation to maintain your warranty. This service must be completed by a Sapphire approved service agent.

Please make sure that your Sapphire approved agent has logged the service information at the back of the "User Manual" which you would have in the boilers accessory kit. You will be asked for your service history on any in-warranty repair visit.

### If a fault or defect occurs within the manufacturer's guarantee period

In the unlikely event that a fault occurs within the guarantee period, you must contact the Sapphire Agent who installed/commissioned the appliance who will arrange for the repair under the terms of the guarantee, providing that the appliance has been correctly installed, commissioned and serviced and the fault is not due to tampering, running out of liquid fuel, liquid fuel contamination, debris, system water contamination, misuse, trapped air or the failure of any external components not supplied by EOGB Energy Products Ltd, e.g. fire valve, motorised valve, etc. They will ensure that the fault does not lie with the system components or any incorrect setting of the system controls that falls outside of the manufacturer's guarantee, otherwise a service charge could result. EOGB Energy Products Ltd will not be liable for any charges arising from this process.

### Remember - before you contact EOGB Energy Products Ltd

- Ensure the appliance has been installed, commissioned and serviced by a Sapphire Approved Agent and in accordance with the installation and servicing instructions.
- Ensure there is liquid fuel supply to the boiler.
- Ensure the problem is not being caused by the heating system or its controls.

### Warranty repairs

During the 5/25 year guarantee period no charge for parts or labour will be made provided that:

- The appliance has been installed and commissioned correctly in accordance with the manufacturer's instructions,
- For an appliance over 12 months old, full details and reports of annual services are available on request.

The following documents must be made available to EOGB Energy Products Ltd on request:

- Proof of purchase
  - CD10 OFTEC Installation Completion Form or a PO10 Regin Domestic Central Heating & Hot water System inspection report
- Note, the installer should leave a copy of one of these forms once installation is completed.**
- CD11 OFTEC Service & Commissioning Report Form or a PO11 Regin Service & Commissioning Report Form (or equivalent document)
- Note, the installer should leave a copy of one of these forms once installation is completed.**

### Chargeable repairs

A charge may be made (if necessary following testing of parts) if the breakdown is due to any fault(s) caused by the plumbing or heating system, e.g. contamination of parts due to system contamination, sludge, scale, debris or trapped air. Refer to 'Extent of manufacturer's guarantee'.

# Information and General Warnings

## 2.3 Extent of manufacturer's guarantee

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Full terms and conditions and warranty can be found by visiting [www.sapphireboilers.co.uk](http://www.sapphireboilers.co.uk)

### IMPORTANT

The nozzle fitted is covered for the period up to the time of the first service (twelve months), and must be changed on the first service and on every annual service thereafter.

### IMPORTANT

A suitable liquid fuel filter with a minimum 15µ filtration must be installed in the liquid fuel supply line.

Do not wait until the fuel supply runs out before you re-order. Sludge in the bottom of the tank may be drawn into the fuel lines.

It is recommended that the boiler is switched off when the new liquid fuel supply is delivered and that the fuel is allowed to settle for an hour before restarting the appliance.

### Terms of manufacturer's guarantee

- The appliance must be installed by a Sapphire approved agent and in full accordance with the relevant Codes of Practice, Regulations and Legislation in force at the time of installation.
- The boiler heat exchanger is guaranteed for **25** years and **5** years on non serviceable parts from the date of installation, providing that every twelve months the annual service has been completed and the appliance registered with the Company within thirty days of installation. Any work undertaken must be authorised by the Company and carried out by a Sapphire approved service engineer.

## 2.4 Liquid fuel information and general instructions

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To ensure consistency, the supplier of the fuel must be able to demonstrate that the fuel supplied is in conformity with the liquid fuel standard stated in this manual and compliance with a recognised Quality Control and management system to ensure high standards are maintained within the storage, and delivery processes.

The installation of a liquid fuel storage tank and its ancillaries must also adhere to BS2869.

## 2.5 Product disclaimer statement

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CAREFULLY READ THE FOLLOWING DISCLAIMER. YOU ACCEPT AND AGREE TO BE BOUND BY THIS DISCLAIMER BY PURCHASING EOGB BOILERS/BURNERS AND/OR COMPONENTS.

Although the information and recommendations (hereinafter "Information") in this guidance is presented in good faith, believed to be correct and has been carefully checked, EOGB (and its subsidiaries) makes no representations or warranties as to the completeness or accuracy of the Information. Information is supplied upon the condition that the persons receiving will make their own determination as to its suitability for their purposes prior to use. In no event will EOGB (and its subsidiaries) be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information.

Other than set forth herein, EOGB (and its subsidiaries) makes no additional warranties with respect to the boiler, either express or implied, including that of merchantability or fitness for a particular purpose or use.

In no event shall EOGB (and its subsidiaries) be liable for any indirect, incidental, special or consequential damages including, without limitation, loss of profits, damages for loss of business profits, business interruption, loss of business information, loss of equipment, or other pecuniary loss or compensation for services whether or not it is advised of the possibility of such damages.

With the exception of injuries to persons, EOGB's liability is limited to the customer's right to return defective/non-conforming products as provided by the relevant product warranty.



# Safety and Prevention

## 3.0 Health and safety introduction

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The boiler has been designed and built in compliance with current regulations and directives, applying the known technical rules of safety and envisaging potential danger situations. It is necessary, however, to bear in mind that the improper use of the equipment may lead to situations which could result in risk of the user or third parties, as well as to the health, safety and sound operation of the boiler or other items. Inattention, thoughtlessness and excessive confidence often cause accidents.

Please remember the following:

- The boiler must only ever be used as expressly described. Any other use should be considered improper and therefore dangerous.  
  
In particular:  
It can be applied to boilers expressly named by the manufacturer, the type and pressure of the fuel, the voltage and frequency of the electrical power supply, the minimum and maximum ratings for which the burner has been regulated, the pressurisation of the combustion chamber, the dimensions of the combustion chamber and the room temperature must all be within the values indicated in the Installation manual.
- Modification of the boiler to alter its performance and destinations is not permitted under any circumstances.
- The boiler must be used in technically safe working conditions. Any disturbances that could compromise safety must be quickly eliminated.
- Opening or tampering with the boiler components is not permitted, apart from the parts requiring maintenance undertaken by an approved Sapphire Service agent.
- Only those parts detailed as available as spare parts by the manufacturer can be replaced.
- Only liquid fuel as specified specifically for this make and model of appliance can be utilised.

## 3.1 Health and safety information

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The installer should be aware of their responsibilities under the current, local Health and Safety at Work Act. The interest of safety is best served if the boiler is installed by a competent, qualified engineer, OFTEC trained and registered. If not, a Building Notice is required in England & Wales. Other parts of the British Isles, including the Channel Islands, also require notification to building control.

Adhesives, sealants and paints used in the manufacture of the product are cured and present no known hazards when used in the manner for which they are intended the following other materials are present in the product:

### INSULATION MATERIALS

**Material Types:** Ceramic fibre board, mineral wool

**Description:** Rigid board, slabs, sleeves, gaskets, ropes.

**Known Hazards:** May cause temporary irritation or rash to skin. High dust levels may irritate eyes and upper respiratory system.

**Precautions:** Avoid unnecessary or rough handling, or harsh abrasion of boards. Normal handling and use of material should not produce high dust levels. Avoid inhalation, and contact with skin and eyes. After handling always follow normal good hygiene practices.

**Protection:** Use disposable glove, face mask and eye protection.

**First Aid:** Eyes - If irritation occurs, wash eyes with copious amounts of water. If symptoms persist, seek immediate medical advice.

Skin- If irritation occurs, wash under running water before washing with soap and water.

Inhalation - Remove to fresh air, drink water to clear throat and blow nose to remove dust/fibres.

Ingestion - Drink plenty of water.

### SEALANT AND ADHESIVE

**Material Types:** Silicone elastomer.

**Description:** Sealant and adhesive.

**Known Hazards:** Irritation to eyes.

**Precautions:** Avoid inhalation of vapour, contact with eyes and prolonged or repeated contact with skin. After handling always follow normal good hygiene practices.

**Protection:** Use eye protection. Rubber or plastic gloves should be worn where repeated contact occurs and a face mask worn when working in confined spaces.

**First Aid:** Eyes - Flush eyes with water for 15 minutes. Seek immediate medical attention.

Skin - Wipe off and wash with soap and water.

Inhalation - Remove to fresh air.

### LIQUID FUELS

Please refer to the Material Safety Data Sheet (MSDS) of the liquid fuel being used. This can be obtained from the liquid fuel suppliers/delivery company.

For further information on all materials used on the Sapphire Boiler, please see the Material Safety Data Sheets (MSDS) section on our website [www.sapphireboilers.co.uk](http://www.sapphireboilers.co.uk)

# Your Appliance

## 4.0 What is Sapphire

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EOGB Energy products Ltd has developed its new Sapphire low NOx boiler which not only offers significant improvement in boiler performance but also reduces carbon and NOx emissions using its fully modulating low NOx blue flame technology which delivers excellence in performance and reliability

### Low NOx – High performance

Sapphire has been designed from the outset to bring about a step-change improvement in domestic heating performance. The burner meets the new 2018 ErP Directive NOx emission standard.

At the same time, Sapphire's fully modulating operation delivers the best in energy efficiency and carbon emission reduction of any domestic liquid fuel boiler on the market today.

### Innovative modulating control

Sapphire's innovative control system offers a fully modulating with precision load tracking and optimum efficiency across the firing range delivering industry-leading energy performance with ultra-low running costs and significantly reduced carbon emissions.

### Sapphire Key Features

- 15-25% reduction in fuel consumption.
- Stainless steel high grade 316 Ti (Titanium).
- Less sensitivity to issues caused by poor water quality.
- Scale reduction due to unique construction..
- Increased thermal heat up times.
- Lower maintenance with self cleaning construction.
- A clean service, no baffles to remove, just wash and go!
- 25 years warranty!
- Fully modulating heat load compensation specifically designed for different zone smart heating.  
i.e. Only heating areas of the home that need heating.
- OpenTherm certified "smart" boiler.

### Serviceable Parts

- Nozzle
- Ignition electrodes
- ignition leads
- Flexible oil line
- Service isolation valve
- Internal Pump Filter

# Your Appliance

## 4.1 About your appliance

The appliance is fully automatic once switched on, providing central heating (and also domestic hot water if you have a hot water cylinder fitted).

Your appliance has a 'mains on' neon on/off switch, see Fig.2, which lights when the power is switched on.

**PLEASE NOTE** - The 'on/off' neon light switch does not necessarily indicate the burner is firing.

If your appliance is connected to a Programmer/Smart Controls, it will provide hot water and central heating during the time periods set on the programmer/Smart controls

## 4.2 Appliance access

To gain access to the appliance controls, For Internal Boilers, Pull the front door panel forward from the top to disengage the fixing clips, then lift it away from the appliance see Fig.1 For External Boilers, Use the key provided to open the door, then pull open. see Fig.1.2



Fig. 1



Fig. 1.2

## 4.3 What the installer should leave with you

- A completed OFTEC CD10 (installation completion report) or Regin PO10 Domestic Central Heating & Hot water System Inspection Commissioning Report
- A completed OFTEC CD11 (servicing and commissioning report) or Regin PO11 – Domestic Liquid Fuel Fired Pressure Jet Appliance Servicing, Commissioning & Inspection Record
- This "Sapphire User Manual"

The installer should have advised you how to operate the appliance and controls, and whether the boiler operates as part of a sealed system or an open vented system.

If the boiler operates as part of a sealed system, the installer should have shown you how to check and top up the heating system should your system pressure drop. See Section 6.3

## 4.4 Commissioning

Following installation, your appliance should be commissioned by an approved Sapphire Service agent, to validate the guarantee. During the commissioning process, your appliance will be set to its optimum efficiency.

## 4.5 Activating the guarantee

In order for your appliances \* full guarantee to be activated, your appliance must be registered with EOGB Energy Products Ltd within 30 days of its installation\*\*.

Your Sapphire Service Agent should have registered the appliance on your behalf and provided you with the relevant documentation, However, if in doubt then please contact EOGB Energy Products Ltd on: 01480 477066 or visit [www.sapphireboilers.co.uk](http://www.sapphireboilers.co.uk)

\*If registered within 30 days of installation, your appliance will come with a five year guarantee on all non serviceable parts and ten years on the heat exchanger.

\*At the rear of this user manual is a warranty form.

Please refer to [www.sapphireboilers.co.uk](http://www.sapphireboilers.co.uk) for the full terms of the manufacturer's guarantee.

## 4.6 Appliance servicing

Your appliance must be serviced every 12 months from the date of commissioning to maintain the guarantee.

The nozzle MUST be replaced annually but is not included in the guarantee. If the boiler is part of a sealed system, the air pressure charge of any expansion vessels fitted to the system must also be checked annually.

Please make sure that your installer has recorded the service information in the Service Log at the back of this manual. Should you ever need to utilise the product guarantee, you will be asked to provide the service history of the appliance.

## 4.7 Appliance data plate

Your appliance is fitted with a data plate, which shows any engineers who come to service or repair your boiler some basic information they may need to know in order to carry out their required works. The data plate also contains the appliance serial number, which is required by EOGB Energy Products Ltd when registering the appliance.

This data plate can be found inside the appliance casing by removing the Top casing panel

**WARNING** - Interference with the appliance (or any sealed component), other than where information is given in these user instructions will invalidate the guarantee.





# Using Your Appliance

## 5.0 Switching on your appliance

The switching on procedure is as follows:

1. Ensure that:
  - a) There is sufficient fuel, of the correct type, in the supply tank and that all fuel supply valves are open.
  - b) The electricity supply to the appliance is OFF.
  - c) The appliance panel On/Off switch is set to OFF- **SEE FIG.2**
  - d) External smart controls are paired, bound and connected.
2. Switch the electricity supply to the appliance ON.
3. Set the appliance panel On/Off switch to ON. - **SEE FIG.2**  
If fitted, Smart controls to ON (either central heating (CH) or hot water (HW)).
4. The appliance will now light automatically.
5. If a programmer/smart control is fitted, refer to the instructions supplied with the unit and set the CH and HW functions to TIMED. The appliance will now operate during the 'on' periods set on the programmer/smart control

## 5.1 What if your appliance fails to operate

Make the following checks:

1. Check that the appliance panel On/Off switch is set to ON and that the POWER indicator LED on the switch is lit. - **SEE FIG.2**
2. Check that the programmer/smart control (if fitted) is working and is set to ON (CH or HW).
3. Check that room(s) thermostats are set to the desired setting and are calling for heat.
4. Check that the LCD display on the appliance panel is lit. - **SEE FIG.2**
5. Check if the LCD display is displaying a 'lock-out code' (take a note of the lock-out code displayed) - **SEE FIG.2**

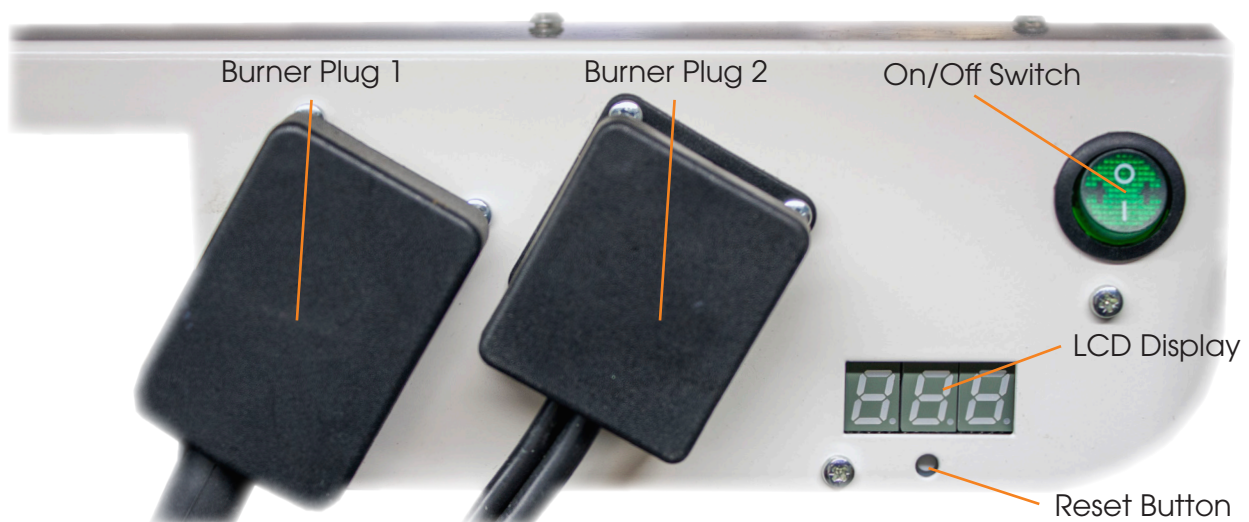
Press the reset button located under the LCD screen - **SEE FIG.2** if the appliance fails to ignite contact the Sapphire Service Agent

**WARNING - DO NOT RESET THE BOILER MORE THAN 3 TIMES!** If after the third attempt the appliance has not fired. Please contact the Sapphire Service agent.

6. Check that the fire valve in the fuel supply line has not tripped. If in doubt please contact the Sapphire Service Agent
7. Ensure that a fuse has not blown or that the electricity supply has not failed. If in doubt please contact the Sapphire Service Agent
8. Check to see if the overheat thermostats have tripped - **see section 5.5**

This could indicate that the overheat thermostat has operated due to faulty circulating equipment, blocked or obstructed pipework, lack of system pressure or the other overheat causes. It is recommend that you contact the Sapphire Service agent.

If the burner still fails to light after carrying out these checks then a fault exists or the fuel supply is low. If you have sufficient fuel, switch off the electricity supply to the boiler and contact your Sapphire Service agent.



**Fig. 2**

# Using Your Appliance

## 5.2 Turning off the boiler

You should leave your boiler on permanently however, to turn off your boiler:

- For short periods Set the On/Off switch to OFF. To restart, simply set the switch to On.
- For long periods Set the On/Off switch to OFF and switch off the electricity supply to the boiler. If required, the fuel supply valve may be closed and the water and electricity supplies turned off at the mains.

To restart, refer to Section (5.0 Switching on your Appliance).

## 5.3 About your fuel

EOGB Sapphire appliance only operates on **Class C2 Kerosene to BS 2869:2017**. You should always quote this type of fuel when ordering from your supplier. **No other fuel type is permitted.** Do not wait until the fuel runs out before you order some more as sludge in the bottom of the tank may be drawn into the fuel lines. If it is possible, switch off the boiler when the new supply is delivered and leave the fuel to settle for an hour before restarting the boiler.

## 5.4 Boiler thermostat

The boiler thermostat is located within the appliance and allows the temperature of the water leaving the boiler to heat the radiators (and/or other heat emitters if fitted) and domestic hot water to be adjusted. The temperature of the water leaving the boiler is displayed on the LCD screen whilst the appliance is running and in stand by (with the exception of a lock-out scenario where the LCD screen would then display a lock-out code)

The temperature of this thermostat is set by the Sapphire approved agent during the commissioning phase and is set to achieve maximum appliance efficiencies and therefore it is not possible to adjust this after commissioning has taken place. **Only a Sapphire approved agent are able to alter this setting**

## 5.5 Primary and secondary overheat thermostats

Your appliance is fitted with two safety overheat thermostats, which will automatically switch off the boiler in the case of a control malfunction causing overheating.

If your appliance goes off and you try to light it but nothing happens and there is no light on the appliance control panel on/off switch **See FIG.2**, Then the Secondary overheat thermostat may have tripped.

If your appliance goes off and you try to enable it but nothing happens and the 'LCD screen' is giving a "E09" code, Then the Primary overheat thermostat has been tripped.

The appliance will not enable until the overheat thermostat is reset. To reset the overheat thermostat, Remove the boiler door - **See FIG.1** Then press the button on top of the overheat thermostat - **See FIG.3 & FIG.4** - If this condition continually repeats, contact your Sapphire Service agent.



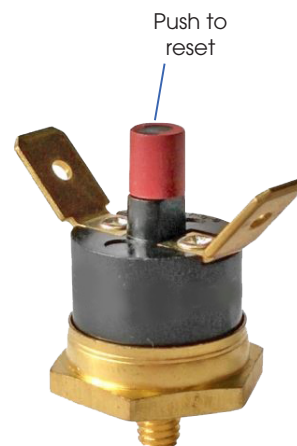
**WARNING - Always ensure that the appliance is electrically isolated from the wall socket before resetting the overheat thermostat**



Secondary Overheat  
Thermostat 110 °C

**Fig. 3**

Primary Overheat  
Thermostat 95 °C



**Fig. 4**

# Using Your Appliance

## 5.6 Heating system controls

EOGB Energy Products Ltd recommends two separate heating system controls, Evohome and EPH. Please seek guidance on your heating system controls from the heating system controller manufacturers instructions or discuss these with the installer

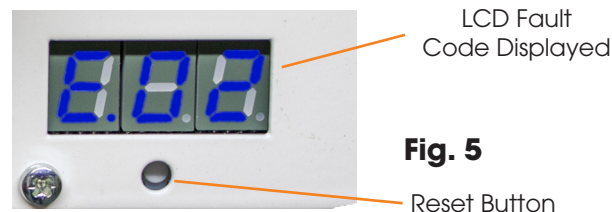
## 5.7 Boiler lockouts and fault codes

A boiler lockout is a situation where the safety controls on the boiler have detected an issue with the heating system and as a precaution it will place the boiler into a "Lockout" state and stop it from operating.

In the event of a failure, the appliance will go into a lockout phase. The cause of the lockout could be down to a number of reasons but an error code will be displayed on the appliance panel LCD screen. **SEE FIG.5**

This error code can be looked up below to provide possible causes of the fault.

To reset the burner, you can press the reset button located under the LCD screen **SEE FIG.5**.



**Fig. 5**

Fault Code List		
Error Code	Description of Fault	Possible Causes
E01	Oil Pump Start-Up Failure	Check connections between control unit and pump Contact Sapphire Approved Agent
E02	No Flame Detected	No Fuel (faulty pump/solenoid), Faulty or Obstructed Flame Scanner (Check sight glass is clean) Faulty ignition equipment, Incorrect combustion settings Contact Sapphire Approved Agent
E03	Low Air Pressure	Check air pipe connection to air pressure switch and fan Faulty Air Pressure Switch or loose connection Faulty Fan Motor or loose connection Contact Sapphire Approved Agent
E04	Oil Pump Drive Fault	Check connections between oil pump and PCB Contact Sapphire Approved Agent
E05	Oil Pump Over-current	Check fuel supply to pump and electrical connections Contact Sapphire Approved Agent
E06	Oil Pump Fault	Check fuel supply to pump and electrical connections Contact Sapphire Approved Agent
E07	Oil Pump Fault	Check fuel supply to pump and electrical connections Contact Sapphire Approved Agent
E08	Flame on Start Up	Contact Sapphire Approved Agent
E09	Primary Boiler Overheat	Allow boiler to cool then reset thermostat before pressing "reset" see section 5.5 Check external water pumps Contact Sapphire Approved Agent
E10	System Load Failure	Switch mains power on and off Contact Sapphire Approved Agent
E11	Flame After Shut-down	Contact Sapphire Approved Agent
E12	Pump Communication Failure	Switch mains power on and off Contact Sapphire Approved Agent
E13	Safety Communication Failure	Switch mains power on and off Contact Sapphire Approved Agent
E14	Incorrect Pump Pressure	Check connections between PCB and pump Contact Sapphire Approved Agent
E15	Incorrect Fan Speed	Check connections between PCB and Fan Contact Sapphire Approved Agent
E16	Pump Pressure Sensor Failure	Check connections between PCB and pump Contact Sapphire Approved Agent
E17	Safety Reset Failure	Switch mains power on and off Contact Sapphire Approved Agent

**Table 1**

# Appliance Care

## 6.0 Checking the system pressure

If your appliance is operating on a sealed system, your installer will have pressurised the system and should have told you the system pressure when cold. This pressure is normally around 0.5 bar for a bungalow, 1.0 bar for a two storey house and 1.5 bar for a three storey house, which will increase slightly when the system is hot.

See FIG.6 & FIG.7 of System Pressure gauge during cold and hot operation



**Fig. 6**

Normal - Pressure whilst the system is off and cold  
Typically between 0.5 and 1.0 bar



**Fig. 7**

Normal - Pressure whilst the system is on and hot  
Typically between 1.0 and 1.5 bar

You should frequently check that the system pressure is correct. If the pressure (when the heating system is cold) is below the set pressure mentioned above, you can re-pressurise the system by following the instructions given in **Section 6.3**. If the system requires re-pressurising frequently, ask your installer or service engineer to check the heating system for leaks and to check the expansion vessel air charge.

## 6.1 Air vents

The boiler and/or system will be fitted with an air vent to remove air from the system. Any air trapped in the radiators should be removed by venting the radiators using the vent screw at the top of each radiator. Only vent a radiator if the top is cool and the bottom is hot. Excessive venting will reduce the system pressure, so only vent when necessary and check the system pressure as mentioned above. Re-pressurise the system if necessary.

## 6.2 Pressure relief (safety) valve

The sealed system is fitted with a safety valve to release excess pressure from the system. If water or steam is emitted from the safety valve discharge pipe, switch off the boiler and contact your installer or service engineer immediately.

## 6.3 How to fill or top up your sealed system

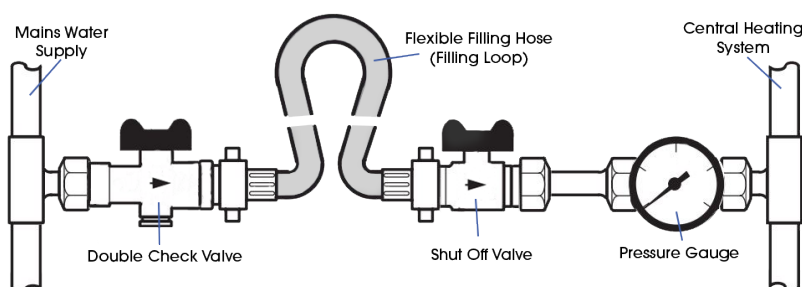
To fill or top up your heating system, proceed as follows:

1. Check the appliance and circulating pump are switched off and any air vents on the system are open.
  2. Connect the filling loop\* between the two filling valves.
  3. Open the filling valve on the mains water end of the filling loop (the valve is open when the operating lever is in line with the valve).
  4. Open the filling valve on the heating end of the filling loop to allow water to flow into the heating system (the valve is open when the operating lever is in line with the valve).
  5. When the pressure gauge shows the required cold system pressure (refer to Section 6.0) close the filling valve on the heating system.
  6. Vent each radiator to remove any air that may be trapped in them. Start with the lowest radiator in the system, i.e. downstairs.
  7. Locate the circulating pump(s) and vent the pump(s) by following the manufacturer's instructions.
  8. Now, check the system pressure on the system pressure gauge. If necessary, re-open the filling valve on the system until the gauge shows the required pressure. **Take care not to over-fill!**
  9. Finally, close both filling valves and disconnect the filling loop at one end only. Take care, as the filling loop may contain water!
- \*If you cannot locate the filling loop, please contact your installer.

**NOTE** - If the system has been drained down or requires frequent topping up, then the level of inhibitor and/or anti-freeze will need to be checked by your installer.



**WARNING** - Only add water to the system when the system is cold and the boiler is switched off. Do not overfill!



**Fig. 8**

# Appliance Care

## 6.4 Expansion vessel

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The expansion vessel should be checked annually, as part of your annual service, to ensure that there is a 1.0 bar air charge in the vessel. Failure to do this will invalidate the boiler guarantee. Refer to Section 1.6 for further details regarding servicing.

**NOTE** - The pressure gauge on the system (shown in FIG.8) does not show the air charge pressure in the expansion vessel.

**NOTE** - In order to properly care for your Sapphire appliance, an annual service by a Sapphire Service Agent should always be undertaken.

## 6.5 Ventilation

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Your EOGB Sapphire boiler is provided with a balanced flue system only\*, you will not require any additional ventilation openings in your property

\*Balanced flue systems have an air intake system incorporated into their design, and provide the boiler with fresh air. This removes the need to have ventilation openings installed in your property for this purpose.

## 6.6 Flue terminal & condensate disposal

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### Flue Terminal

If your appliance flue system has a terminal on the outside wall, make sure that the terminal is not damaged or obstructed in any way.

A wire mesh guard is required to cover the terminal if the terminal is less than 2 metres above ground level. If you think one is required, contact your installer.

You should periodically check for and remove any obstructions, e.g. cut back any bushes that may have grown over the terminal.

Do not stack anything against or in front of the terminal.

In severe weather conditions, check that the terminal does not become blocked by snow or ice.

### "Plumbing" From The Flue Terminal

Whilst operating, it is quite normal for the appliance to produce a white plume of condensation vapour from the flue terminal.

This is due to the high efficiency of the appliance and may be particularly evident with low outdoor temperatures.

### Condensate Disposal

During the operation of the appliance, condensate is produced from the flue gases and this is drained to a suitable disposal point through a condensate pump (fitted within the boiler) and a plastic waste pipe.

The condensate drain must not be modified or blocked.

Blockage of the condensate drain, caused by debris or freezing can cause automatic shutdown of the appliance. If you suspect freezing and the pipe run is accessible, you can try to free the obstruction by pouring hot water over the exposed pipe and clearing any blockage from the end of the pipe. If this fails to remedy the problem, you should contact your service engineer.

### Frost Protection

The Sapphire boiler has frost protection built into it's firmware in 3 different states -

No Frost - Heat exchanger water temp above 10°C - Boiler will act dependant on heat load required

Pre-Frost - Water temp fallen below 9°C - Circulation Pump will start to move the water around the system.

Frost - Water temp fallen to 0°C - Boiler will fire until water temp is above 10°C

**Please note that MOST smart Opentherm controls have frost protection, this will be operated before the sapphires frost protection would be needed.**

### Failure of Electricity Supply

If the electricity supply fails, the boiler will not operate. It should relight automatically when the supply is restored.

### Cleaning your Appliance

Lightly wipe over the case with a damp cloth and a little detergent and dry completely.

Do not use abrasive pads or cleaners.

Take care not to touch any hot surfaces.

# After Sales Support

## 7.0 After care

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In the unlikely event that your Sapphire boiler breaks down during the guarantee period, in the first instance you should contact your Sapphire Approved Agent to identify the cause of the problem and if necessary your Sapphire Approved Agent will contact us.

If you are unable to contact your Sapphire Approved Agent please telephone the EOGB Energy Products Ltd Service Department for assistance. Authorisation to carry out guarantee repairs must be obtained from EOGB Energy Products Ltd via a Sapphire Approved Agent before any work is carried out.

Costs incurred by unauthorised work will not be covered by EOGB Energy Products Ltd

To contact the EOGB Energy Products Ltd customer support team, please call 01480 477066.

If you need to contact EOGB Energy Products Ltd please have the following information available:

- The address at which the installed boiler is located and the name of the householder.
- Details of the fault and any checks you may have carried out.
- Details of the Sapphire Approved Agent who has carried out work on the install in the past (if possible)



# Commissioning Report

## Commissioning Report

**First Service due 1 year after commissioning;**

### Commissioning Report Sheet

Commissioning Engineer					
Site Address					
OFTEC Registration Number					
Date of Commissioning					
Appliance					
Make					
Model					
Serial Number					
Output (kW)					
Smoke Number					
Flue Gas Temp (°C)					
Settings					
Pump Pressure	Fan Speed	CO <sup>2</sup> %	O <sup>2</sup> %	CO	NOx
Bar	%	%	%	ppm	%
5					
6		<div>Visual Only</div> <div>Visual Only</div> <div>Visual Only</div> <div>Visual Only</div>			
7					
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Service Notes					



**Please note: This report sheet must be completed by the Commissioning Engineer and the book is to be left with the appliance.**

# Service Report

## Service Report

Service date;

Next Service due;

### 1st Year Service Report

Commissioning Engineer	
Site Address	
OFTEC Registration Number	
Date of Commissioning	

#### Appliance

Make		
Model		
Serial Number		
Output (kW)		
Smoke Number		
Flue Gas Temp (°C)		

#### Settings

Pump Pressure	Fan Speed	CO <sup>2</sup> %	O <sup>2</sup> %	CO ppm	NOx %
Bar	%	%	%	ppm	%
5					
6		Visual Only			
7					
8					
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12					
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14					
15					
16					
17					
18		Visual Only			
19					
20					

#### Service Notes



**Please note: This report sheet must be completed by the Commissioning Engineer and the book is to be left with the appliance.**

# Service Report

## Service Report

**Service date;**

**Next Service due;**

### 2nd Year Service Report

Commissioning Engineer					
Site Address					
OFTEC Registration Number					
Date of Commissioning					
Appliance					
Make					
Model					
Serial Number					
Output (kW)					
Smoke Number					
Flue Gas Temp (°C)					
Settings					
Pump Pressure	Fan Speed	CO <sup>2</sup> %	O <sup>2</sup> %	CO	NOx
Bar	%	%	%	ppm	%
5					
6		Visual Only			
7					
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9					
10					
11					
12					
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14					
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18					
19					
20					
Service Notes					



**Please note: This report sheet must be completed by the Commissioning Engineer and the book is to be left with the appliance.**

# Service Report

## Service Report

**Service date;**

**Next Service due;**

### 3rd Year Service Report

Commissioning Engineer					
Site Address					
OFTEC Registration Number					
Date of Commissioning					
Appliance					
Make					
Model					
Serial Number					
Output (kW)					
Smoke Number					
Flue Gas Temp (°C)					
Settings					
Pump Pressure	Fan Speed	CO <sup>2</sup> %	O <sup>2</sup> %	CO	NOx
Bar	%	%	%	ppm	%
5					
6		Visual Only			
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Service Notes					



**Please note: This report sheet must be completed by the Commissioning Engineer and the book is to be left with the appliance.**

# Service Report

## Service Report

**Service date;**

**Next Service due;**

### 4th Year Service Report

Commissioning Engineer					
Site Address					
OFTEC Registration Number					
Date of Commissioning					
Appliance					
Make					
Model					
Serial Number					
Output (kW)					
Smoke Number					
Flue Gas Temp (°C)					
Settings					
Pump Pressure	Fan Speed	CO <sup>2</sup> %	O <sup>2</sup> %	CO	NOx
Bar	%	%	%	ppm	%
5					
6		Visual Only			
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19					
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Service Notes					



**Please note: This report sheet must be completed by the Commissioning Engineer and the book is to be left with the appliance.**

# Service Report

## Service Report

**Service date;**

**Next Service due;**

### 5th Year Service Report

Commissioning Engineer					
Site Address					
OFTEC Registration Number					
Date of Commissioning					
Appliance					
Make					
Model					
Serial Number					
Output (kW)					
Smoke Number					
Flue Gas Temp (°C)					
Settings					
Pump Pressure	Fan Speed	CO <sup>2</sup> %	O <sup>2</sup> %	CO	NOx
Bar	%	%	%	ppm	%
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6		Visual Only			
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Service Notes					



**Please note: This report sheet must be completed by the Commissioning Engineer and the book is to be left with the appliance.**



# Service Report

## Service Report

**Service date;**

**Next Service due;**

### 6th Year Service Report

Commissioning Engineer					
Site Address					
OFTEC Registration Number					
Date of Commissioning					
Appliance					
Make					
Model					
Serial Number					
Output (kW)					
Smoke Number					
Flue Gas Temp (°C)					
Settings					
Pump Pressure	Fan Speed	CO <sup>2</sup> %	O <sup>2</sup> %	CO	NOx
Bar	%	%	%	ppm	%
5					
6		<div>Visual Only</div> <div>Visual Only</div> <div>Visual Only</div> <div>Visual Only</div>			
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Service Notes					



**Please note: This report sheet must be completed by the Commissioning Engineer and the book is to be left with the appliance.**

# Service Report

## Service Report


**Service date;**

**Next Service due;**

### 7th Year Service Report

Commissioning Engineer					
Site Address					
OFTEC Registration Number					
Date of Commissioning					
Appliance					
Make					
Model					
Serial Number					
Output (kW)					
Smoke Number					
Flue Gas Temp (°C)					
Settings					
Pump Pressure	Fan Speed	CO <sup>2</sup> %	O <sup>2</sup> %	CO	NOx
Bar	%	%	%	ppm	%
5					
6		<div>Visual Only</div> <div>Visual Only</div> <div>Visual Only</div> <div>Visual Only</div>			
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### Service Notes



**WARNING**

**Please note: This report sheet must be completed by the Commissioning Engineer and the book is to be left with the appliance.**

# Service Report

## Service Report

**Service date;**

**Next Service due;**

### 8th Year Service Report

Commissioning Engineer					
Site Address					
OFTEC Registration Number					
Date of Commissioning					
Appliance					
Make					
Model					
Serial Number					
Output (kW)					
Smoke Number					
Flue Gas Temp (°C)					
Settings					
Pump Pressure	Fan Speed	CO <sup>2</sup> %	O <sup>2</sup> %	CO	NOx
Bar	%	%	%	ppm	%
5					
6		Visual Only			
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Service Notes					



**Please note: This report sheet must be completed by the Commissioning Engineer and the book is to be left with the appliance.**

# Service Report

## Service Report

**Service date;**

**Next Service due;**

### 9th Year Service Report

Commissioning Engineer					
Site Address					
OFTEC Registration Number					
Date of Commissioning					
Appliance					
Make					
Model					
Serial Number					
Output (kW)					
Smoke Number					
Flue Gas Temp (°C)					
Settings					
Pump Pressure	Fan Speed	CO <sup>2</sup> %	O <sup>2</sup> %	CO	NOx
Bar	%	%	%	ppm	%
5					
6		Visual Only			
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Service Notes					



**Please note: This report sheet must be completed by the Commissioning Engineer and the book is to be left with the appliance.**

# Service Report

## Service Report

**Service date;**

**Next Service due;**

### 10th Year Service Report

Commissioning Engineer					
Site Address					
OFTEC Registration Number					
Date of Commissioning					
Appliance					
Make					
Model					
Serial Number					
Output (kW)					
Smoke Number					
Flue Gas Temp (°C)					
Settings					
Pump Pressure	Fan Speed	CO <sup>2</sup> %	O <sup>2</sup> %	CO	NOx
Bar	%	%	%	ppm	%
5					
6		Visual Only			
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Service Notes					



**Please note: This report sheet must be completed by the Commissioning Engineer and the book is to be left with the appliance.**

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# Warranty Activation

To activate the 25 Year Heat Exchanger and 5 Year Parts and Labour Warranty, please either

Scan this QR code and follow the instructions.



Or fill out the below table and email it to **[activation@sapphireboilers.co.uk](mailto:activation@sapphireboilers.co.uk)** or post this page to  
EOGB Energy Products Ltd, 5 Howard Road, Eaton Socon, CAMBS, PE19 8ET, UK

Item		Tick Box		Tick Box
Has it been flushed in accordance with BS7593?	YES		NO*	
Was an inhibitor used?	YES		NO*	
Has a magnetic filter been fitted in the return?	YES		NO*	
Has the boiler been fitted to BS5410 Part 1?	YES		NO*	
Boiler Serial Number:				
Date of Installation				
Signed by Installer:				
Signed by Homeowner:				
*If any of the above questions were ticked as "No" please explain why here;				







Reliable energy. Flexible approach.

EOGB Energy Products Ltd, 5 Howard Road, Eaton Socon, St Neots, Cambridgeshire PE19 8ET

Tel: 01480 477066 Fax: 01480 477022 Email: [sales@sapphireboilers.co.uk](mailto:sales@sapphireboilers.co.uk)

[www.sapphireboilers.co.uk](http://www.sapphireboilers.co.uk)



[www.youtube.com/EOGBenergyproducts](http://www.youtube.com/EOGBenergyproducts)



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