

Envoy 30, 40, 50, 60, & 80

USER'S GUIDE

USER'S INSTRUCTIONS

It is important that the inner case door of this appliance is not removed for any reason other than for servicing by a qualified service engineer. The appliance must not be operated without the inner casing door correctly fitted and forming an adequate seal.

**THIS APPLIANCE IS FOR USE ON NATURAL GAS ONLY.
IT MUST BE INSTALLED AND SERVICED BY A COMPETENT PERSON AS STATED IN THE GAS SAFETY (INSTALLATION AND USE) REGULATIONS 1994.**

If the appliance is installed in compartment, do not use for storage purposes and do not obstruct any purpose provided ventilation openings.

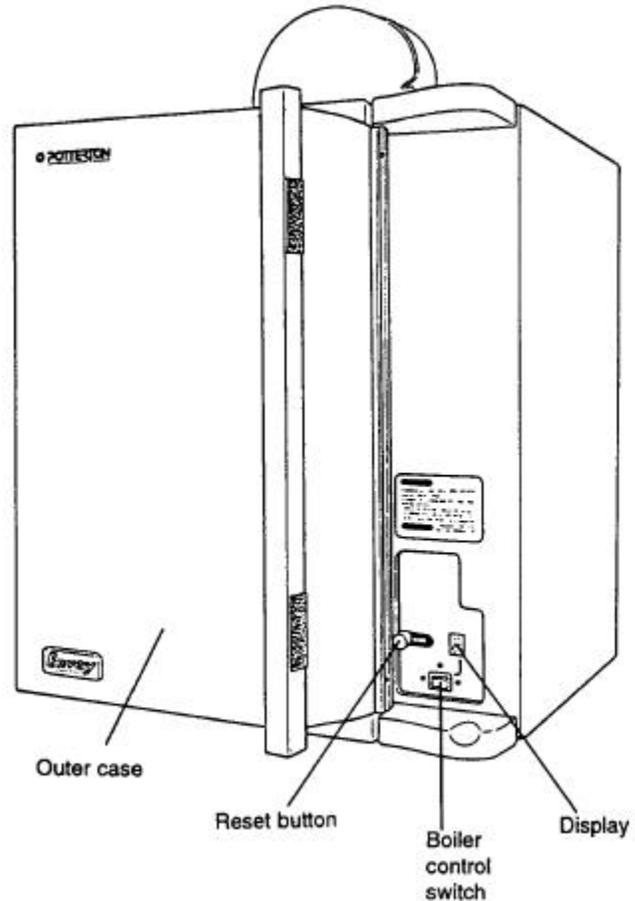
If a gas leak or fault is suspected, turn off the appliance and consult your local gas region or service engineer.

INTRODUCTION

The Potterton Envoy is a wall mounted, room sealed, fully automatic gas fired condensing boiler. The very high efficiency of this appliance results in the flue gases cooling to the point where part of their moisture content condenses inside the boiler, giving up further heat as it does so. This condensate is drained to a suitable disposal point through the plastic waste pipe at the lower rear of the boiler.

Due to the high efficiency and the resulting low flue gas temperature a white plume of condensate will be emitted from the flue outlet terminal. This will be particularly evident during periods of low outdoor temperatures.

Annual skilled servicing is required to maintain the safe and efficient operation of your boiler throughout its long working life. Further information on this subject is given at a later stage.



ELECTRICITY SUPPLY

WARNING: This appliance must be earthed. Connection shall be made to a 240V 50Hz supply. The appliance must be protected by a 3 amp fuse.

SAFETY

The boiler should have the following minimum clearances for safety and maintenance, 610mm (2ft) at the front of the boiler, 5mm (0.2in) each side, 100mm (4in) at the bottom, 140mm (5.5in) at the top. Flammable materials must not be stored in close proximity to the boiler. Ensure that the flue terminal outside the house does not become obstructed, particularly by foliage.

SYSTEM CONTROLS

Because this is a high efficiency appliance Potterton recommend the use of an external control system which independently controls the temperatures of heating and hot water.

A Potterton Electronic Programmer or other type of clock may have been fitted, together with room and/or cylinder thermostats. Full instructions on the use of these controls should be supplied with them.

BOILER CONTROLS

All boiler mounted user controls are situated in the front of the boiler control box behind the hinged door. These are:-

BOILER CONTROL SWITCH

In the mid i.e.  position the boiler is at STANDBY and under normal conditions the boiler will not operate. However, if the water temperature within the boiler falls below 5°C an in-built low temperature device will operate the boiler to maintain a water temperature between 5°C and 10°C to prevent freezing of the boiler.

In the  position will allow the boiler to operate on demand from the time clock or any other external control device. The water temperature leaving the boiler will be controlled at approximately 82°C.

In the  position will allow the boiler to operate on demand from the time clock or any other external control device. The water temperature leaving the boiler will be controlled at approximately 60°C.

When the boiler is only being used to supply domestic hot water and there is no independent hot water temperature control the switch should be set at the  position which will probably be hot enough to meet most hot water requirements.

When the control switch is set at the  position it must be remembered that unless the temperature of the

water in the domestic hot water is controlled independently, the stored hot water could be at a temperature that could scald, i.e. about 82°C.

DIGITAL DISPLAY

During normal operation of the boiler the following characters will be shown on the display:-
Display not illuminated. All power off.

Illuminated Character		Power on, boiler at standby.
Illuminated Character		Heat demand, boiler operating at high temperature
Illuminated Character		Heat demand, boiler operating at low temperature
Illuminated Character		Boiler operating but up to temperature
Illuminated Character		Boiler re-start delayed to prevent rapid cycling
Illuminated Character		Main burner off, pump running to transfer remaining heat from boiler into the system
Illuminated Character		Flashing - boiler at lock-out

To assist the service engineer a fault diagnostic system is incorporated within the electronic control. If a fault should develop within the boiler upto 30 different characters can be displayed thereby directing the engineer to the precise area of the problem.

RESET BUTTON

Pressing the reset button will allow the control to be reset and the boiler restarted should a lockout condition have occurred.

OTHER CONTROLS

A Potterton Electronic Programmer or other type of clock may have been fitted in your system, together with room and/or cylinder thermostats. Full instructions on the use of these controls should be supplied with them.

TO LIGHT

1. Ensure that the boiler control switch is set to the mid position i.e. .
2. Switch 'ON' the main electricity supply. (Character  will be displayed).
3. Ensure the electronic programmer or other time control, if fitted, is in an 'ON' period.

Proceed as follows:-

Switch boiler control switch to the **L** or **H** position, (Character **L** or **H** as appropriate will be displayed). After a short period the boiler will light. Set the time control and any thermostats, where fitted, to their desired settings.

NOTE When the boiler is first lit, there may be a slight smell. This will disappear with use.

TO SHUT THE BOILER OFF

Set the boiler control switch to mid position i.e. **0** or switch the external programmer to the 'OFF' position.

FOR LONGER SHUT DOWN PERIODS

Switch the boiler control switch to mid position i.e. **0**, isolate the electrical supply at the isolating switch or pull the plug out of its socket.

NOTE The boiler **IS** fitted with an internal low water temperature device to prevent it from freezing during cold weather. Should the water temperature in the boiler fall below 5°C the boiler will operate to maintain a system water temperature between 5°C and 10°C. It is therefore important during cold weather not to isolate the boiler from the electrical supply, but to shut OFF the boiler only by turning OFF the programmer or setting the boiler control switch to the mid position i.e. **0**.

IMPORTANT

Gas and electricity are required to operate your boiler. Its performance will not be affected by normal variation in gas or electricity supply, but a gas or electricity failure will put the boiler out of operation. In the case of electricity failure the boiler will automatically re-start when the supply is restored, provided that the time clock and/or thermostats are in an 'ON' position.

In the event of your boiler not working, there are several checks you should carry out before calling in a service engineer, as this could save you unnecessary expense.

1. Check that the gas, electricity and water are all turned on at the main supply.
2. Check that the time control, if fitted, is in an 'ON' period.
3. Check that all thermostats in the system are not at low settings.
4. If the character F is shown flashing on the display a lockout condition is indicated due to either to the burner failing to light during a start sequence or a high temperature being recorded. To relight the boiler press the reset button adjacent to the display and the boiler will go through the restart sequence. If the character returns to the display consult your local Gas Region or Service Engineer.

Having checked these points, run through the lighting procedure once more and if the boiler still fails to light, call in your local service engineer.

CARE OF YOUR BOILER AND SYSTEM

Annual skilled servicing is required to keep your boiler operating safely and efficiently throughout its long working life.

It is also advisable to have the whole heating system checked over annually, so that excessive costs are not incurred by such things as air temperature thermostats or radiator valves getting out of adjustment. Servicing should be carried out by a trained service engineer, and it is suggested that an annual contract be arranged. Contact your local Potterton regional service office.

The outside of the boiler casing can be wiped when necessary using a damp cloth to remove finger marks etc. Do not use an abrasive material.

ADDITIONAL FROST PRECAUTIONS

Your boiler is fitted with a device to protect it from freezing. However, since this device is located within the boiler there may be some pipework etc more vulnerable to frost and additional protection will be required. Various methods can be used.

1. Insulation of pipework etc. taking care not to impede any ventilation supply.
 2. Completely draining the water system if not in use for long periods. On a sealed system, draining and refilling must be carried out by a competent person, e.g. your service engineer.
- NOTE** Although the system can be emptied using the drain off taps installed in the pipework around the system, to empty the boiler it is necessary to remove the drain off cap positioned within the boiler case. This operation is best left to your service engineer.
3. Having an additional low limit thermostat fitted. Seek advice from your installer.

NOTE Frost protection devices cannot operate if the boiler is completely shut down and the electricity supply turned off. Where there is vulnerable pipework and no additional protection is provided it may be necessary to run the boiler at the low setting at times when it would normally be turned off.

To ensure that the highest possible efficiency can be obtained from your Envoy boiler an aluminium heat exchanger is used. Your installer has therefore been advised that the heating system should be protected by a corrosion inhibitor.

The products recommended by Potterton are; FERNOX COPAL or GRACE DEARBORN SENTINEL X100. Periodical checks will need to be made to ensure that the correct concentration levels are maintained. Your installer should provide further information on these aspects.

CARE OF YOUR BOILER AND SYSTEM DURING THE GUARANTEE PERIOD AND BEYOND

1. Registration of Purchase

It is important to register the purchase of your Potterton boiler to ensure you receive prompt and efficient handling in the event your boiler requires attention during the guarantee period.

To register your guarantee simply complete and detach the Registration of Purchase form enclosed with these instructions. It is important to include details of your installer (if known) and to return the completed form to the Potterton Registration Department.

2. During the Guarantee Period

In the event of any problems with your system or the operation of your boiler, you should **first call your installer**. If there is a fault with the boiler under guarantee which your installer is unable to rectify, he will call Potterton Service Operations. For 12 months after the date of installation of the boiler (or 18 months from the date of manufacture, whichever is the shorter), Potterton will attend to any manufacturing defect, on the appliance only (not the system or ancillary controls), free of charge for parts and labour, subject to there being no misuse or abuse. This does not affect your statutory rights.

Service visits by Potterton Service Operations outside the terms of the boiler guarantee will be charged for both parts and labour at our normal rates for chargeable work.

During the period of the boiler guarantee, Potterton will only be responsible for the costs of work done by them or on their instructions by their Agent. We cannot accept any liability for expenditure or work done by other parties without our knowledge and/or approval.

3. Safety Check/Routine Maintenance

It is strongly recommended you have your boiler checked annually for safety and to have routine maintenance. This should be carried out by a CORGI Registered Installer/Service Agent or Potterton Service Operations to comply with the requirements of the Gas Safety (Installation and Use) Regulations 1994.

4. Boiler Breakdown Insurance

We are pleased to offer you the opportunity to protect your investment once your boiler guarantee has expired, by the payment of an annual premium. You can continue with this insurance for the normal life of your boiler and you will find a special 30 day introductory offer for second year cover together with a card to register your purchase, as part of the 'User Pack' supplied with your boiler.

If you have not been handed a Registration Card/Optional 2nd Year Breakdown Insurance Offer, please contact the Potterton Registration Department for a copy by telephoning 0181 944 4972