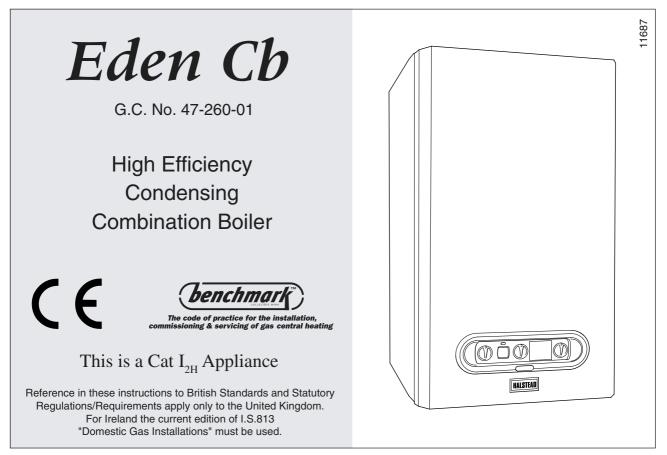


# Instructions for Use Installation and Servicing

## To be left with the user



The instructions consist of three parts, User, Installation and Servicing Instructions, which includes the Guarantee Registration Card. The instructions are an integral part of the appliance and must, to comply with the current issue of the Gas Safety (Installation and Use) Regulations, be handed to the user on completion of the installation.

Halstead Boilers Limited, 20/22 First Avenue, Bluebridge Industrial Estate, Halstead, Essex CO9 2EX Tel: 01787 272800. Sales Direct Line: 01787 475557. Fax: 01787 474588. Service Helpline: 01926 834834. e-mail: sales@halsteadboilers.co.uk or service@halsteadboilers.co.uk Website: www.halsteadboilers.co.uk

#### General

This condensing combination boiler is able to provide room heating as part of a central heating system, and domestic hot water direct from the cold water supply without the need for secondary storage. The central heating water temperature and domestic hot water temperature can both be adjusted on the boiler.

Once the controls are set the boiler operates automatically.

A frost protection program is also included.

Please read these instructions and follow them carefully for the correct and economical use of your boiler.

#### **Gas Category**

This boiler is for use only on Natural gas (G20).

#### Gas Safety (Installation and Use) Regulations

In your own interests and that of safety, it is the Law that ALL gas appliances are installed by a competent person in accordance with the current issue of the above regulations.

#### **Gas Testing and Certification**

The boiler is tested and certificated for safety and performance. It is, therefore, important that no alteration is made to the boiler unless approved, in writing, by Halstead Boilers Ltd.

Any alteration not approved by Halstead Boilers Ltd., could invalidate the certification, boiler warranty and may also infringe the current issue of the statutory requirements.

#### **CE Mark**

This boiler meets the requirements of Statutory Instrument, No. 3083 The Boiler (Efficiency) Regulations, and therefore is deemed to meet the requirements of Directive 92/42/EEC on the efficiency requirements for new hot water boilers fired with liquid or gaseous fuels.

Type test for purposes of Regulation 5 certified by: Notified body 0086.

Product/production certified by: Notified body 0086.

The CE mark on this appliance shows compliance with:

1. Directive 90/396/EEC on the approximation of the laws of the Member States relating to appliances burning gaseous fuels.

2. Directive 73/23/EEC on the harmonisation of the Laws of the Member States relating to electrical equipment designed for use within certain voltage limits.

3. Directive 89/336/EEC on the approximation of the Laws of the Member States relating to electromagnetic compatibility.

#### **Control of Substances Hazardous to Health**

Under Section 6 of The Health and Safety at Work Act 1974, we are required to provide information on substances hazardous to health.

The adhesives and sealants used in this appliance are cured and give no known hazard in this state.

#### **Insulation Pads**

These can cause irritation to skin, eyes and the respiratory tract.

If you have a history of skin complaint you may be susceptible to irritation. High dust levels are usual only if the material is broken.

Normal handling should not cause discomfort, but follow normal good hygiene and wash your hands before eating, drinking or going to the lavatory.

If you do suffer irritation to the eyes or severe irritation to the skin seek medical attention.

#### **Spare Parts**

REMEMBER, When replacing a part on this appliance, use only spare parts that you can be assured conform to the safety and performance specification that we require. Do not use reconditioned or copy parts that have not been clearly authorised by Halstead Boilers Ltd.

#### Manual Handling Guidance

During the appliance installation and the replacement of the heat exchanger it will be necessary to employ caution and assistance whilst lifting as the appliance or component exceeds the recommended weight for a one man lift.

In certain situations it may be required to use a mechanical handling aid.

Take care to avoid trip hazards, slippery or wet surfaces.

CONTENTS	DESCRIPTION	SECTION	PAGE No.
INSTRUCTIONS FOR USE	Important Information Operating the Boiler		2 4
INSTALLATION INSTRUCTIONS	General Information Boiler Location and Ventilation Flue Location and Ventilation Heating System Domestic Hot Water System Installation Preparation Flue Preparation Gas/Water Connections and Boiler Fixing Safety Valve Discharge and Condensate Connections Electrical Connections Commissioning	1 2 3 4 5 6 7 8 9 10 11	5 8 9 11 13 14 16 18 19 20 22
SERVICING INSTRUCTIONS	Servicing Fault Finding Replacement of Parts Spare Parts	12 13 14 15	24 29 31 42

## WARNINGS

#### **Gas Leak or Fault**

If a gas leak or fault exists or is suspected, turn the boiler mains electrical supply off and turn off the gas supply at the meter. Consult your local gas company or your local installation/servicing company.

### Clearances

Minimum clearances must be left around the boiler as shown in diagram 2.1.

### **Sheet Metal Parts**

This boiler contains metal parts (components) and care should be taken when handling and cleaning, with particular regard to edges.

#### **Sealed Components**

Under no circumstances must the User interfere with any sealed component as this could result in a potentially dangerous situation arising.

## **Electrical Supply Failure**

The boiler must be earthed.

The boiler will not work without an electrical supply.

Normal operation of the boiler should resume when the electrical supply is restored.

Reset any external controls, to resume normal operation of the central heating.

If the boiler does not resume normal operation turn the mains reset switch off and on. If the boiler does not resume normal operation after this the overheat stat may have operated. The overheat stat would only operate under abnormal conditions and, under these circumstances; it would be advisable to consult your installation / servicing company.

#### **Maintenance and Servicing**

For the continued efficient and safe operation of the boiler it is recommended that it is checked and serviced at regular intervals. The frequency of servicing will depend upon the installation conditions and usage, but in general, once a year should be enough.

If this appliance is installed in a rented property in the UK there is a duty of care imposed on the owner of the property by the current issue of the Gas Safety (Installation and Use) Regulations, Section 35. Servicing/maintenance should be carried out by a competent person in accordance with the rules in force in the countries of destination.

To obtain service, please call your installer or Halstead Boilers using the telephone number on the front cover of this booklet.

Please be advised that the installation engineer on completion of commissioning and servicing should complete the 'Benchmark' logbook.

All CORGI Registered Installers carry a CORGI ID card, and have a registration number. Both should be recorded in your boiler Logbook. You can check your installer is CORGI registered by calling CORGI direct on: - 01256 372300.

#### Boilers Installed in a Compartment or Cupboard

If the boiler is fitted into a compartment or cupboard, it does not require any ventilation openings. Do not use the compartment or cupboard for storage.

#### **Protection Against Freezing**

The boiler has a built in frost protection programme as long as the electricity and gas are left switched on.

This device operates the pump when the temperature inside the boiler falls below  $7^{\circ}C$ .

The burner will fire if the temperature inside the boiler falls to  $3^{\circ}$ C.

Any other exposed areas of the system should be protected by a seperate frost thermostat.

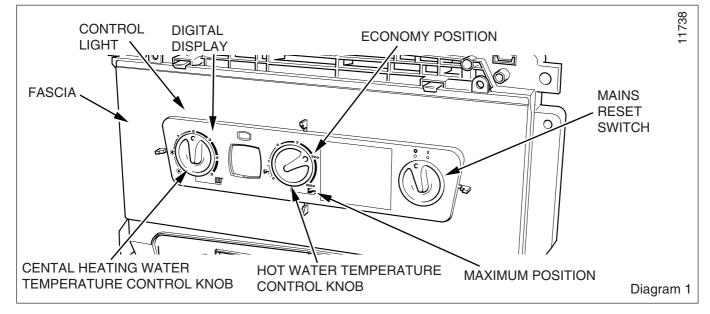
If the mains electricity and gas are to be turned off for any long periods during severe weather, it is recommended that the whole system, including the boiler, should be drained to avoid the risk of freezing. Make sure that, if fitted, the immersion heater in the cylinder is switched off.

If you have a sealed water system contact your installation/ servicing company as draining, refilling and pressurising MUST be carried out by a competent person.

As a safety feature the boiler will stop working if the condensate drain becomes blocked. During freezing conditions this may be due to the forming of ice in the condense drain external to the house. Release an ice blockage by the use of warm cloths on the pipe. The boiler should then restart. Contact your installation/ servicing company if the fault persists.

## **Draining and Filling**

This boiler works in a pressurised system, which must only be drained, refilled and pressurised by a competent person.



#### **Pressure Relief Safety Valve**

A pressure relief safety valve and discharge pipe is fitted to the boiler. This valve must not be touched. Should there be any discharge from the pipe, isolate the boiler electrical supply and call your installer or Halstead Boilers using the telephone number on the front cover of this booklet.

## **Condensate Drain**

The condensate drain, see section 9.2, must not be modified or blocked.

## Cleaning

This appliance contains metal parts and care should be taken when handling and cleaning with particular regard to edges.

The boiler casing can be cleaned using a mild liquid detergent with a damp cloth, then a dry cloth to polish.

Do not use any form of abrasive or solvent cleaner as you may damage the paintwork.

## Pluming from flue terminal

Like all condensing boilers this appliance will produce a plume of condensation from the flue terminal in cool weather. This is due to the high efficiency and hence low flue gas temperature of the boiler. It is normal and not a fault indication.

## **Replacement Parts**

If replacement parts are required contact Halstead Boilers using the telephone number on the front cover of this booklet.

Please quote the name of the appliance this infomation will be on the front of the appliance.

## To Operate the Boiler

1. Check that all five isolating valves are open, see diagram 8.1.

2. A sealed pressurised system must be filled and pressurised by a competent person.

3. Check that the electrical supply to the boiler is ON at the external isolator.

Only operate the boiler when you are sure that the system has been filled and pressurised. Check this by looking at the pressure reading on the digital display, which should read 1.0bar, see diagram 1. The digital display gives a pressure reading when there is no demand or when the appliance is in the domestic hot water mode.

4. Open a hot water tap, check that water flows, then close it.

5. If you are in any doubt about the boiler being filled with water contact your installer or Halstead Boilers using the telephone number on the front cover of this booklet.

6. Set any remote controls as required.

7. Turn the mains reset on/off switch to the ON position (I), see diagram 1. The control light will illuminate (green) indicating the boiler is lit.

## **User Controls**

The temperature of the domestic hot water and the central heating water can be set on the control knobs on the controls fascia, see diagram 1.

## **Mains Reset Switch**

0: Off.

I: On.

A fault is indicated by a RED flashing light on the control light and flash fault code on digital display.

To reset:

Turn mains reset switch to O anti-clockwise.

Wait five seconds.

Turn mains reset switch to I clockwise.

## **Central Heating Temperature Control:**

0: Temperature control is Off.

I: Temperature control is On. To adjust the temperature turn the control to the desired setting between I 'Min' and the 'Max'.

'Max' is approximately 82°C (180°F).

## Hot Water Temperature Control:

0: Hot water is Off.

Turn selector between 1 and MAX to adjust water temperature between  $40^{\circ}$ C and  $60^{\circ}$ C.

The **ECO** setting, water temperature 55°C, is the recommended optimum position for constant use.

## **Digital Display**

If the digital display shows pressure less than 0.7bar, repressurise the system to 1bar. If the system repeatedly looses pressure, YOU MUST CONTACT YOUR INSTALLER OR HALSTEAD BOILERS USING THE TELEPHONE NUMBER ON THE FRONT COVER OF THIS BOOKLET.

Please note: The digital display will only indicate the system pressure when there is no demand for heat.

## To Turn the Boiler Off

There is a mains/reset switch on the right hand side of the controls fascia, which will isolate the boiler. However, it is preferable to leave the electrical supply on whenever possible to permit operation of the built-in frost protection (see 'Protection Against Freezing') and daily pump and valve exercise.

To turn off the central heating use the room thermostat or clock/ timer.

To turn off the domestic hot water turn the domestic hot water knob to the minimum setting.

For holiday mode turn both of the temperature knobs to the minimum setting.

To turn off the boiler for servicing, isolate it from the electrical supply. To turn it on again follow the instructions given in 'To Operate the Boiler'.