



# Eden X Type CBX 24, 32 & 38 SBX 30

## USER INSTRUCTIONS

TO BE GIVEN TO THE USER



G.C. Appliance No. 47-260-05 (Eden CBX 24)

G.C. Appliance No. 47-260-04 (Eden CBX 32)

G.C. Appliance No. 47-260-14 (Eden CBX 38)

G.C. Appliance No. 41-260-13 (Eden SBX 30)

G.C. Appliance No. 47-260-07 (Eden CBX 24 Propane)

G.C. Appliance No. 47-260-06 (Eden CBX 32 Propane)

G.C. Appliance No. 47-260-15 (Eden CBX 38 Propane)

G.C. Appliance No. 41-260-16 (Eden SBX 30 Propane)

## 1 INTRODUCTION

The **Halstead Eden CBX 24, 32 & 38, SBX 30** and **Eden CBX 24, 32 & 38 SBX 30 Propane** are high efficiency condensing, fully automatic, wall mounted gas appliances for use with natural gas or propane. The appliances incorporate a microprocessor based, fully modulating pre-mix gas control system with direct burner ignition.

The **Eden CBX 24** provides central heating at outputs between 5.9 kW (20,100 BTU/h) and 19.3 kW (65,900 BTU/h) and instantaneous domestic hot water at outputs between 5.9 kW (20,100 Btu/h) and 24.0 kW (81,900 Btu/h).

The **Eden CBX 32** provides central heating at outputs between 7.9 kW (27,000 BTU/h) and 25.7 kW (87,700 BTU/h) and instantaneous domestic hot water at outputs between 7.9 kW (27,000 Btu/h) and 32.0 kW (109,200 Btu/h).

The **Eden CBX 38** provides central heating at outputs between 9.0 kW (30,700 BTU/h) and 32.1 kW (109,500 BTU/h), and instantaneous domestic hot water at outputs between 9.0kW (30,700 BTU/h) and 38.0kW (129,600 BTU/h).

The **Eden SBX 30** provides central heating at outputs between 8.2 kW (28,000 BTU/h) and 30.0 kW (102,400 BTU/h).

The **Eden CBX & SBX Propane** versions are similar in performance but use propane instead of natural gas. Heat output is controlled according to demand (in both domestic hot water and central heating modes) by the fully modulating pre-mix burner control. The appliance always gives priority to domestic hot water supply.

The appliance incorporates frost protection. However this is not operational when the main switch on the appliance is in the off position, or the electrical supply to the appliance is isolated. An electro/mechanical 24hr time clock is fitted as standard (Eden CBX 24/32 & 38 only).

### Gas Consumer Council

The Gas Consumer Council (GCC) is an independent organization which protects the interests of gas users. If you need advice, you will find the telephone number in your local directory under 'Gas'.

## 2 SAFETY

Read these user manual instructions or the user label (fitted inside the lower decorative front panel) carefully before attempting to operate the appliance. Comply with all applicable warnings. Do not interfere with any sealed components and use the appliance only in accordance with these instructions.

## 3 CURRENT GAS SAFETY (INSTALLATION AND USE) REGULATIONS OR THE RULES IN FORCE

It is the law that all gas appliances are installed by a competent person in accordance with the above regulations. Failure to install appliances correctly could lead to prosecution. It is in your own interest, and that of safety, to ensure that the law is complied with. If the appliance is damaged, turn off the appliance and consult a CORGI registered installer.

If it is known or suspected that a fault exists on the appliance it **MUST NOT** be used until the fault has been rectified by a competent person.

### 2.2 ELECTRICAL SUPPLY

**This appliance must be earthed.**

Supply: 230V - 50Hz fused at 3A. The method of connection to the mains supply must facilitate complete isolation of the appliance. Either a 3A fused three pin plug and unswitched shuttered socket outlet, or a 3A fused double pole switch having a 3 mm contact separation in both poles, serving only the boiler (and its external controls), may be used.

### 2.3 CLEARANCES AND VENTILATION

It is not necessary to have a purpose provided air vent in the room or internal space in which a room-sealed appliance is installed.

Cupboard or compartment ventilation is not necessary for a room-sealed appliance providing that the minimum clearances are maintained.

Where an open flued (B23) system is used (for example KIT E 'Flexible flue liner kit for chimney') then an air vent must be provided in the same room or internal space as the flue duct air inlet with a minimum free-area as stated in the boilers instructions.

## 3 BOILER LOGBOOK

Please ensure that you have a Logbook supplied with your appliance. This Logbook should be completed by your installer to verify that the correct installation and commissioning procedure was followed.

Failure to complete the Logbook may result in difficulties should a problem arise with your appliance during the guarantee period.

This Logbook forms part of the industry's Benchmark code of practice for the installation, commissioning and servicing of central heating systems. All CORGI Registered Installers carry a CORGI ID card and have a registration number. Both should be recorded in your Logbook. You can check your installer is CORGI registered by calling CORGI on 01256 37230.

## 4 APPLIANCE OPERATION

On a demand for DHW (Eden CBX 24/32), water flow is detected and the ignition sequence initiated. The fan and pump will start and the boiler will light.

If the DHW draw off rate is high (approx 13l/min.), the appliance will run continuously at full output until the tap is either turned off, or the flow rate is reduced, in which case the heat supplied will reduce accordingly to maintain a steady temperature (60°C max)

Hot water is made available at the appliance outlet almost immediately, but the final temperature and time taken for the hot water to reach a tap depends upon the thermostat setting, the rate at which water is drawn off and the length of the pipe runs between the boiler and taps.

When the tap is turned off, the appliance after a short period of time will revert to heating mode if there is a demand. Otherwise the burner will be extinguished until the next demand for hot water. The burner may stay on for few seconds (see the Installation and Servicing Instructions clause 5.8 'Keep hot facility').

Priority is always given to DHW demand.

With no call for heat, the boiler will fire periodically for a few seconds to maintain the DHW plate heat exchanger in a preheated condition.

This feature can automatically adjust to the user's habitual requirements. Thus, during long stand still periods, such as overnight, no pre-heat is provided.

The preheat feature can also be switched off by turning the DHW temperature control knob to the Economy position and then turning the DHW temperature control back to the desired temperature setting.

Repeating this procedure will turn the pre-heat back on.

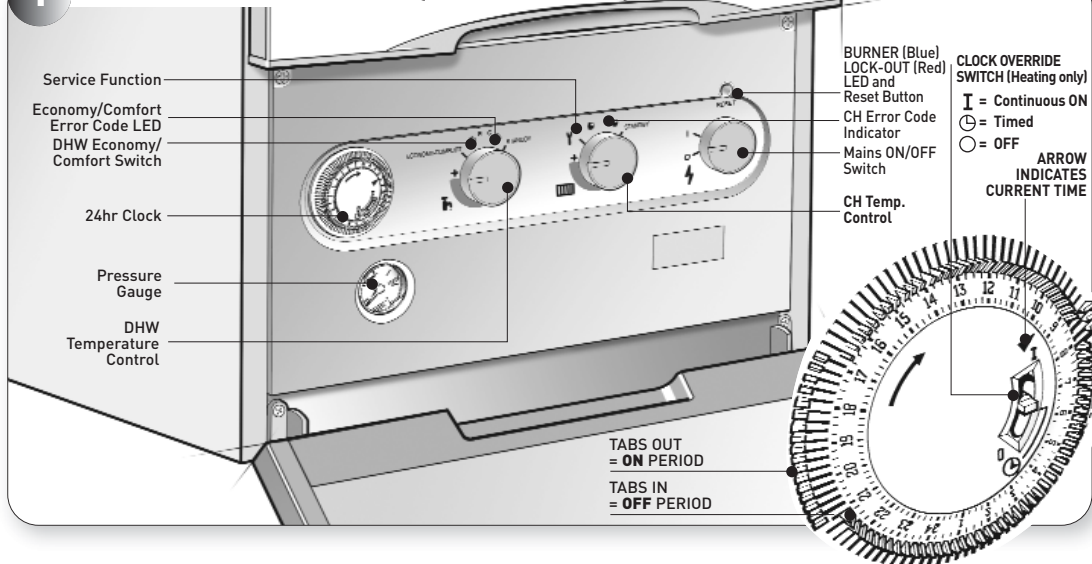
## 5 OPERATING INSTRUCTIONS

Refer to Fig. 1

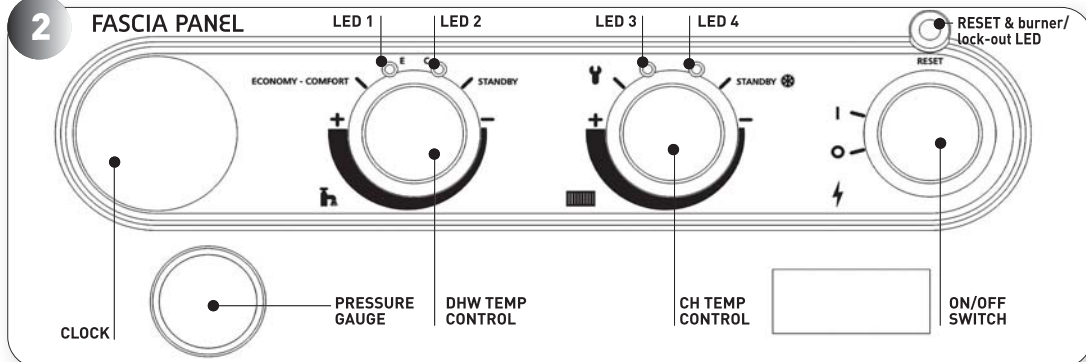
### 5.1 TO LIGHT THE BOILER

- 1) Check that the electricity supply to the boiler is OFF.
- 2) Check that the two CH and one DHW (Eden CBX) isolation valves underneath the appliance are OPEN.
- 3) Set the boiler ON/OFF switch to OFF.
- 4) Set the CH temperature control knob to the '+' position (approx. 80°C).
- 5) Set the DHW temperature control knob to the '+' position (approx. 60°C). On the Sbx the DHW control knob is disabled if the appliance is connected to a 'Y' or 'S' plan system.
- 6) Turn all DHW taps off.
- 7) Ensure that the standard fitted clock (Eden CBX) is set to an ON period, or set the override switch to the ON position.
- 8) Check that all external controls, eg. programmer, room thermostat, are ON and switch ON the electricity supply to the boiler.

# 1 FASCIA PANEL AND CONTROLS (CBX model shown)



# 2 FASCIA PANEL



LED CODE	FAULT/EFFECT	REASON
1234		
○○○●	Overheated appliance	Water temperature greater than 105 °C
○○●○	No gas/No flame	Low gas pressure
○○●●	Lockout flame signal/Lockout after 5 ignition	No flame signal on ignition, or loss of signal during operation attempts
○●○○	Flue gas sensor/No flame	Flue gas temperature greater than 95 °C
○●●○	Defective sensor/No flame	Defective flow, return or flue sensor
○●●○	Defective gas valve/Flame continues after demand ends	5 sec flame signal after burner is switched off
○●●●	Defective fan/No flame	Missing or Erroneous RPM signal
●○○○	CRC error/No flame	Internal Eprom data error
●●○○	Error in power supply/No flame	Low mains voltage
●●○○	Water flow failure/Flame for a short period only	Sensor temperature differential incorrect
●●●○	PCB error/No flame	Internal error
●●○○	BCC error/No flame	Incorrect /missing BCC
●●●○	Differential check faulty/Flame for 15 seconds	Zero check faulty DHW or CH
●●●○	Activate BCC/No flame	New BCC
●●●●	Safety system failure/No flame	Failure of internal self checking system
○○○○	DHW cold	Defective DHW turbine or Diverter valve
○○○○	No light indication	Defective power supply
○○○○	No flame	Faulty connector

- 9) Set the boiler ON/OFF switch to ON.  
The boiler will perform a series of self-checks and then light, first to pre-heat the DHW plate heat exchanger (if set to 'Comfort' mode) and then to CH.mode

## 5.2 CONTROL OF WATER TEMPERATURE

**DHW:** Adjustable via the DHW temperature control knob and limited to a maximum of 60°C at low draw-off rates (CBX only).

The temperature can also be controlled by the user via the draw-off tap.

**Note:** To select the Economy DHW control, ie without DHW preheat, turn the DHW temperature control knob fully clockwise and then back to the desired temperature setting. LED 1 will illuminate.

**CH:** Adjustable via the CH temperature control knob to give radiator temperatures of between 30°C and 80°C. To operate the boiler more efficiently it is recommended to set the CH temperature about half way (between '+' and '-'). Please check with your installer the size of your radiators.

During periods of no central heating requirement, this control should be set to the Standby position.

**Note:** With the control in the Service position, the boiler will fire continuously at full output and LEDs 3 and 4 will flash.

**This setting is for the convenience of the Service Engineer ONLY.**

## 5.3 TO TURN THE BOILER OFF

**For short or long periods**

Switch the clock over-ride switch to the **OFF** position.

**Note:** The appliance is fitted with a frost protection device. In the event of very cold conditions, the pump may operate and the boiler light for a few minutes to protect the appliance and system from potential frost damage. This can only function if the gas and electricity supplies are maintained and the ON/OFF switch on the appliance is left ON.

The clock can be switched to the OFF setting.

If either of the services is to be isolated during a period when frost is likely, the water circuits must be drained.

## 5.4 BOILER OVERHEAT THERMOSTAT

The appliance is fitted with two thermistors located on the flow and return pipes. In the event of overheating, the boiler will shut down and the reset LED will show RED. Allow the boiler to cool, then briefly press the reset button to reset the appliance. If the fault persists, consult a CORGI registered installer.

**NOTE:** If the reset LED shows RED, the error code will be displayed via the LED's 1-4 (for overheat, code 0001 will illuminate). Briefly press the reset button to reset the appliance.

## 5.5 DIAGNOSTIC LED INDICATORS

**FASCIA PANEL, Figure 2**

The **Reset** LED shows steady RED in a lockout condition.

For fault finding, refer to the diagnostic chart shown on previous page, together with the notes given in sections 8.3, 8.4 and 8.5 of the boilers instructions.

**Fault Finding Codes**

In the event of the appliance failing to light, refer to the Diagnostics Chart. Figure 2.

## 5.6 PRESSURE GAUGE

The pressure gauge on the control fascia panel indicates the central heating system pressure. If the normal running pressure is seen to decrease from the original installation pressure of around 1 bar (cold) over a period of time, then there may be a water leak. In this event consult a CORGI registered installer.

**Do not attempt to fire the boiler if the pressure has reduced to zero from the original setting.**

## 6 GENERAL CARE

The front panel, being a powder coated white finish should be cleaned with a damp cloth and mild detergent. Do not use abrasive cleaners.

## 7 ROUTINE SERVICING

To ensure continued efficient operation of the appliance, it is recommended that it is checked and serviced as necessary at regular intervals. The frequency of servicing will depend upon the particular installation conditions and usage but in general once a year should be adequate. It is law that any service work must be carried out by a competent person such as British Gas or other CORGI registered personnel.

## 8 WARNING

**If a gas leak is suspected or exists, turn the gas OFF at the incoming mains (adjacent to the meter). Do not operate any electrical switches. Do not operate any electrical appliances. Open all windows and doors. Do not smoke. Extinguish all naked lights. Contact the Gas Supplier immediately.**



The code of practice for the installation, commissioning & servicing of central heating systems

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**halstead**

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Halstead Boilers is continuously improving its products and may therefore change specifications without prior notice. The statutory rights of the consumer are not affected.

07/08 751031 Issue 3

**SERVICE HELPLINE: 0844 371 1111 TRAINING: 01926 834838**