



System 30

User Instructions

FAN POWERED HIGH EFFICIENCY
MODULATING DOMESTIC CONDENSING
GAS BOILER

CE/PI No. 86-CL-08
System 30 - GC No. 41-930-39



These instructions must be left either with the
user or next to the site gas meter.

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COMPLIANT WITH BUILDING REGULATION PART L1 & L2

SEDBUK A RATED



FOR ANY QUERIES PLEASE RING THE KESTON CONSUMER HELPLINE : 01482 443005

NOTE. BOILER RESET PROCEDURE -

To reset boiler, turn mode control knob to reset position and immediately turn knob back to required setting.

Introduction

The **Keston System** is a wall mounted, room sealed, condensing system boiler, featuring full sequence automatic spark ignition and fan assisted combustion.

Due to the high efficiency of the boiler, condensate is produced from the flue gases and this is drained to a suitable disposal point through a plastic waste pipe at the base of the boiler. A condensate 'plume' will also be visible at the flue terminal.

Safety

Current Gas Safety (Installation & Use)

Regulations or rules in force.

In your own interest, and that of safety, it is the law that this boiler must be installed by a Gas Safe Registered Engineer, in accordance with the above regulations.

In IE, the installation must be carried out by a Registered Gas Installer (RGII) and installed in accordance with the current edition of I.S. 813 "Domestic Gas Installations", the current Building Regulations and reference should be made to the current ETCI rules for electrical installation.

It is essential that the instructions in this booklet are strictly followed, for safe and economical operation of the boiler.

Electricity Supply

This appliance must be earthed.

Supply: 230 V ~ 50 Hz. The fusing should be 3A.

Important Notes

- This appliance must not be operated without the casing correctly fitted and forming an adequate seal.
- If the boiler is installed in a compartment then the compartment **MUST NOT** be used for storage purposes.
- If it is known or suspected that a fault exists on the boiler then it **MUST NOT BE USED** until the fault has been corrected by a Gas Safe Registered Engineer or in IE a Registered Gas Installer (RGII).
- Under **NO** circumstances should any of the sealed components on this appliance be used incorrectly or tampered with.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instructions concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.

In cases of repeated or continuous shutdown a Gas Safe Registered Engineer or in IE a Registered Gas Installer (RGII) should be called to investigate and rectify the condition causing this and carry out an operational test. Only the manufacturers original parts should be used for replacement.

Minimum Clearances

Clearances of **165mm (6 1/2")** above, **100mm (4")** below, **2.5mm (1/8")** at the sides and **450mm (17 3/4")** at the front of the boiler casing must be allowed for servicing.

Bottom clearance

Bottom clearance after installation can be reduced to 5mm.

This must be obtained with an easily removable panel, to enable the consumer to view the system pressure gauge, and to provide the 100mm clearance required for servicing.

To light the boiler. Refer to Frame 1

If a programmer is fitted refer to separate instructions for the programmer before continuing.

1. CHECK THAT THE ELECTRICITY SUPPLY TO BOILER IS OFF.
2. Set the mode control knob (B) to 'Off'.
3. Set the Central Heating temperature control (A) to 'max'.
4. Switch ON electricity to the boiler and check that all external controls, e.g. programmer and room thermostat, are ON.
5. Set the mode control knob to ON.

The boiler will commence the ignition sequence supplying heat to the central heating, if required.

Note. In normal operation the boiler status display (C) will show codes:

- | | |
|----------|---|
| O | Standby - no demand for heat. |
| E | Heat being supplied. |
| F | Boiler frost protection - boiler will fire if temperature is below 5 degrees C. |

During normal operation the burner on indicator (D) will remain illuminated when the burner is lit.

Note: If the boiler fails to light after five attempts the fault code **L-2** will be displayed.

RESET PROCEDURE

To reset boiler, turn the mode control knob (B) to reset position and immediately turn knob back to ON. The boiler will repeat the ignition sequence. If the boiler still fails to light consult a Gas Safe Registered Engineer or in IE a Registered Gas Installer (RGII).

All Gas Safe Register installers carry a Gas Safe Register ID card, and have a registration number. Both should be recorded in the Benchmark Commissioning Checklist. You can check your installer by calling Gas Safe Register direct on 0800 4085500.

Keston is a member of the Benchmark scheme and fully supports the aims of the programme. Benchmark has been introduced to improve the standards of installation and commissioning of central heating systems in the UK and to encourage the regular servicing of all central heating systems to ensure safety and efficiency.

THE BENCHMARK SERVICE INTERVAL RECORD MUST BE COMPLETED AFTER EACH SERVICE



Operation

Note. The pump will operate briefly as a self-check once every 24 hours, regardless of system demand.

Control of water temperature

The boiler controls the central heating radiator temperature to a maximum of 80°C, adjustable via the CH temperature control (A) or is automatically set by the weather compensation device provided, the potentiometer adjusts the heating slope.

The Keston System is a high efficiency condensing boiler which is most efficient when operating in condensing mode.

The boiler will operate in this mode if the CH temperature control (A) is set to the 'e' position (economy mode). This control should be set to maximum for very cold periods

To shut down the boiler

Set the mode control knob to OFF.

To relight the boiler

Repeat the procedure detailed in 'To light the boiler'.

Frost protection

If no system frost protection is provided and frost is likely during a short absence from home, leave the heating controls (if fitted) at a reduced temperature setting. For longer periods, the entire system should be drained.

If the system includes a frost thermostat then, during cold weather, the boiler should be turned OFF at the time switch (if fitted) ONLY. The mains supply should be left switched ON, with the boiler thermostat left in the normal running position.

Boiler Overheat Protection

The boiler controls will shut down the boiler in the event of overheating. Should this occur, a fault code L-1 will be displayed.

Refer to fault chart.

Flame Failure

Should this occur a fault code L-2 will be displayed. Refer to fault chart.

Loss of system water pressure

The gauge (E) indicates the central heating system pressure. If the pressure is seen to fall below the original installation pressure of 1-2 bar over a period of time then a water leak may be indicated. In this event conduct the re-pressurising procedure as follows:

Re-pressurise via the filling loop to 1 bar (if unsure contact your installer), turn off the tap on the filling loop and turn switch (B) to the reset position and then back on again to reset the boiler.

If unable to do so or if the pressure continues to drop after filling a Gas Safe Registered Engineer or in IE a Registered Gas Installer (RGII) should be consulted.

NOTE. THE BOILER WILL NOT OPERATE IF PRESSURE HAS REDUCED TO LESS THAN 0.3 BAR UNDER THIS CONDITION.

Condensate Drain

The condensate drain (F) must not be modified or blocked.

Blockage of the condensate drain, caused by debris or freezing, can cause automatic shutdown of the boiler.

If freezing is suspected and the pipe run is accessible an attempt may be made 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 the assistance of a Gas Safe Registered Engineer or in IE a Registered Gas Installer (RGII) should be sought.

Escape of gas

Should a gas leak or fault be suspected contact the National Gas Emergency Service without delay. **Telephone 0800 111 999**

Do NOT search for gas leaks with a naked flame.

Cleaning

For normal cleaning simply dust with a dry cloth.

To remove stubborn marks and stains, wipe with a damp cloth and finish off with a dry cloth.

DO NOT use abrasive cleaning materials.

Maintenance

The appliance should be serviced at least once a year by a Gas Safe Registered Engineer or in IE a Registered Gas Installer (RGII).

1 BOILER CONTROLS

Legend

A. CH Temperature Control

B. Mode Control

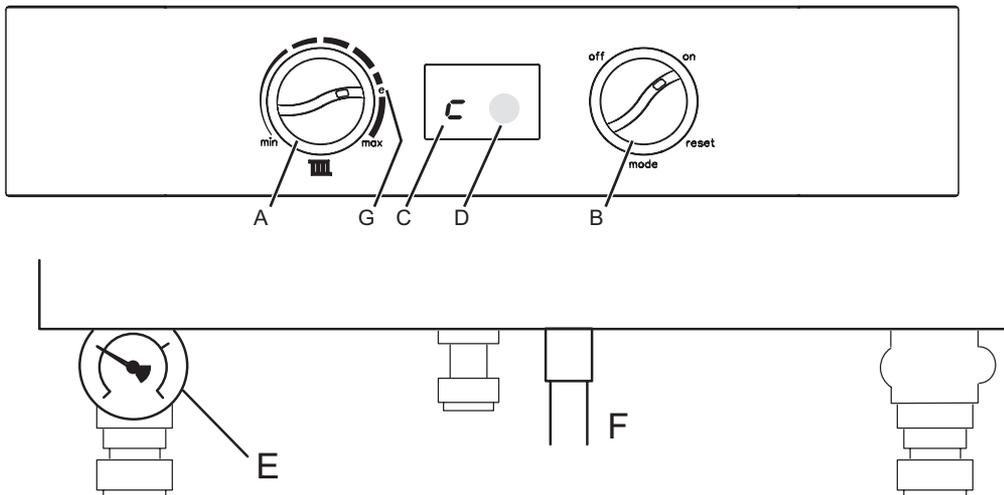
C. Boiler Status

D. Burner 'on' Indicator

E. Pressure Gauge

F. Condensate Drain

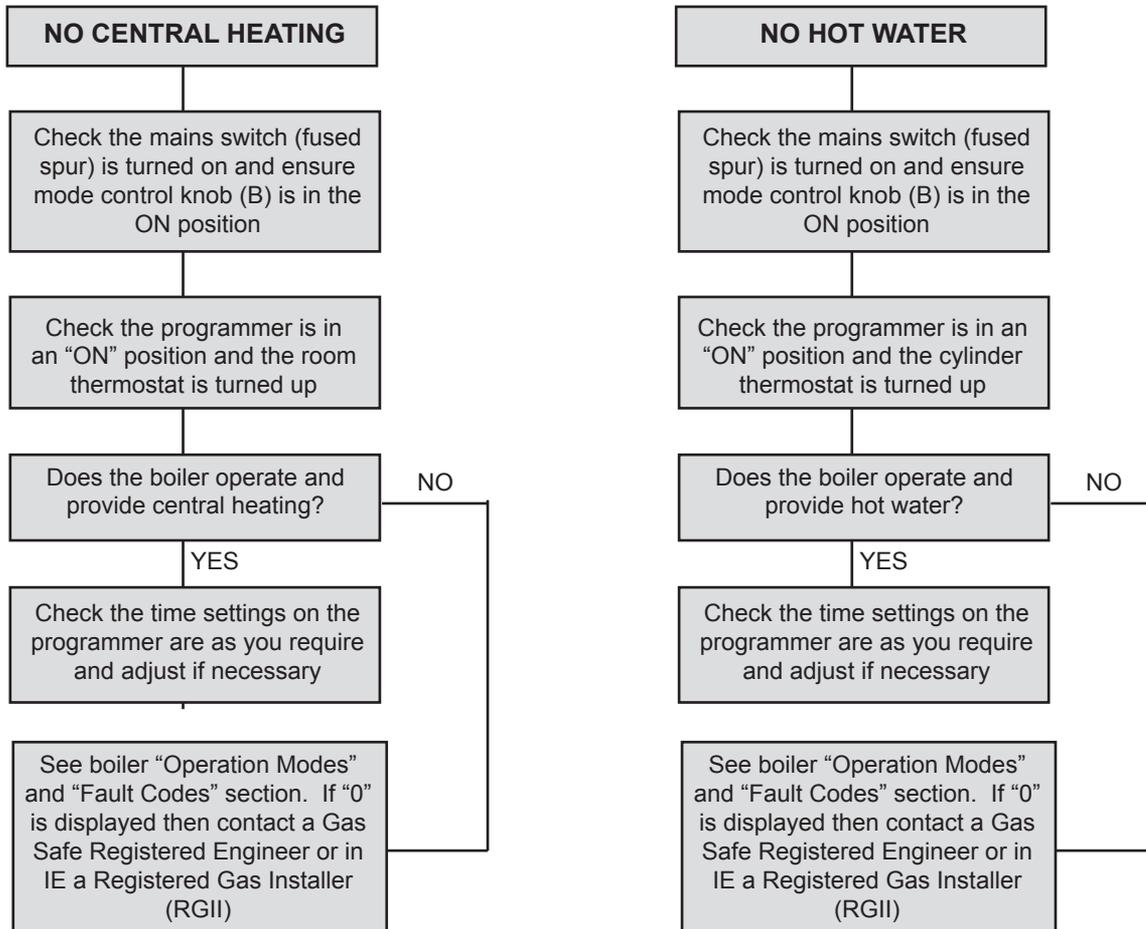
G. Economy Mode



POINTS FOR THE BOILER USER

Note. In line with our current warranty policy we would ask that you check through the following guide to identify any problems external to the boiler prior to requesting a service engineers visit. Should the problem be found to be other than with the appliance we reserve the right to levy a charge for the visit, or for any pre-arranged visit where access is not gained by the engineer.

TROUBLESHOOTING

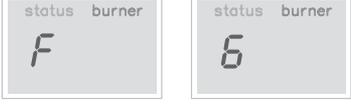
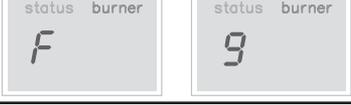
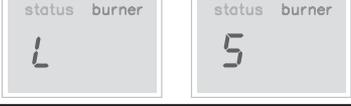


OPERATION MODES

DISPLAY CODE ON BOILER	DESCRIPTION
	The boiler is in standby mode awaiting either a central heating call or hot water demand.
	The boiler has a call for central heating / hot water but the appliance has reached the desired temperature set on the boiler.
	The boiler is operating for central heating / hot water.
	The boiler is operating in frost mode.

continued

FAULT CODES

DISPLAY CODE ON BOILER	DESCRIPTION	ACTION
	Boiler Chip Card (BCC) Not Fitted	Please contact Keston (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
	Outside Sensor Failure	Reset the appliance - if the boiler fails to operate then please contact Keston (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
	Low Mains Voltage	Contact a qualified electrician or your electricity provider.
	PCB Fault	PCB Fault. Please contact Keston (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
	5 Boiler Resets in 15 minutes	<ol style="list-style-type: none"> 1. Turn power off and on at the fused spur. 2. If the boiler fails to operate please contact Keston (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
	False Flame Lockout	Reset the appliance - if the boiler fails to operate then please contact Keston (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
	BCC Activation Fault	Reset the appliance - if the boiler fails to operate then please contact Keston (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
	BCC Fault	
	Low Water Pressure	Check system pressure is between 1 & 1.5bar on the pressure gauge. If the boiler fails to operate then please contact Keston (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
	Flow Temperature Overheat	
 	Flame Loss	<ol style="list-style-type: none"> 1. Check other gas appliances in the house are working to confirm a supply is present in the property. 2. If other appliances do not work or there are no other appliances, check the gas supply is on at the meter and/or pre payment meter has credit. If the boiler fails to operate then please contact Keston (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
	Fan Fault	Reset the appliance - if the boiler fails to operate then please contact Keston (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
	Control / No Flow Thermistor	Reset the appliance - if the boiler fails to operate then please contact Keston (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
	Return Thermistor	Reset the appliance - if the boiler fails to operate then please contact Keston (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).

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Keston pursues a policy of continuing improvement in the design and performance of its products. The right is therefore reserved to vary specification without notice.