

users guide

excel

Your Ideal users guide

See reverse for **excel** installation & servicing instructions

HE C24, C28, C32

When replacing any 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 Ideal Boilers.

i Ideal BOILERS
ENGINEERED FOR PEACE OF MIND

excel HE C24, C28, C32

(Natural Gas Only)

Destination Countries: GB, IE

C24 G.C. Appliance No. 47-348-35

C28 G.C. Appliance No. 47-348-36

C32 G.C. Appliance No. 47-348-37

Introduction

The **excel HE** is a wall mounted, room sealed, condensing combination 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 the plastic waste pipe at the lower rear of the boiler. A condensate 'plume' will also be visible at the flue terminal.

The **excel HE** is a combination boiler providing both central heating and domestic hot water on demand.

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 CORGI registered installer, in accordance with the above regulations.

In Ireland, the installation must be carried out by a Competent Person 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.

Connection must be made in a way that allows complete isolation of the electrical supply such as a double-pole switch, having a 3mm (1/8") contact separation in both poles, serving only the boiler and system controls. Alternatively, a 3-pin UNSWITCHED socket may be used. The means of isolation must be accessible to the user after installation.

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 CORGI registered installer or in Ireland a competent person.
- Under NO circumstances should any of the sealed components on this appliance be used incorrectly or tampered with.

In cases of repeated or continuous shutdown a CORGI registered installer or in Ireland a competent person 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.

All CORGI registered installers carry a CORGI ID card, and have a registration number. Both should be recorded in the **Benchmark** Commissioning Checklist. You can check your installer by calling CORGI direct on 01256 372300.

Caradon Ideal Limited is a member of the Benchmark initiative 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

Minimum Clearances

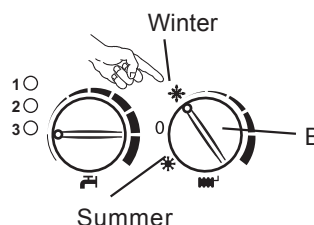
Clearances of **200mm (8")** above, **100mm (4")** below, **10mm (3/8")** at the sides and **450mm (17 3/4")** at the front of the boiler casing must be allowed for servicing.

The minimum front and bottom clearance allowed when built into a cupboard is 5mm.

To light the boiler.

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

1. Switch the electricity supply on.
2. If the boiler is to be used for CH and DHW position the main switch (B) as in the following illustration.

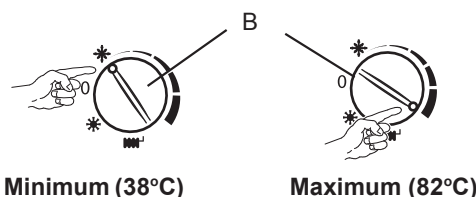


3. The boiler will commence the ignition sequence. The green operational light 1 (E) indicates boiler running for central heating.

Control of CH Temperature

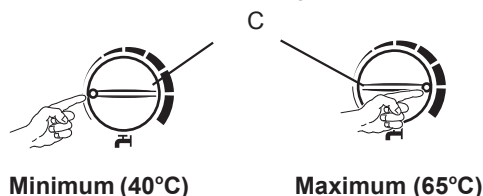
The output temperature of CH water is adjustable from a minimum of about 38°C to a maximum of about 82°C by turning the knob B. The green operational light 1 (E) indicates boiler running for Central Heating.

Approx. CH flow temperature for the boiler thermostat settings:



Control of DHW Temperature

The temperature of the DHW leaving the boiler can be varied from a minimum of about 40°C to a maximum of about 65°C (within the power limits for the appliance) by turning the temperature control knob C. The green operational lights 1 and 3 (E) indicates boiler running for domestic hot water.



Adjustment of the DHW temperature is completely separate from that of the CH circuit.

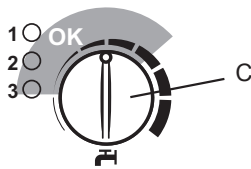
The adjustment system integrated within the boiler automatically controls the flow of gas to the burner in order to keep the temperature of DHW delivered constant, between the limits of maximum and minimum output.

Where the demand is at a low level or with the temperature set to the minimum, it is normal to see a cycle of lighting and extinguishing of the burner when running.

Adjustment

It is advisable to adjust the DHW temperature to a level suitable for the demand, minimising the need to mix with cold water. In this way, the automatic control facilities will be fully exploited.

Moreover, where the amount of limescale present in the water may be particularly great, not exceeding the position as shown in the following illustration (about 50°C) minimises annoying incidence of scale deposits and clogging.



In these cases, however, it is advisable to install a small water treatment device or softener. With such a device you should avoid periodic descaling.

Consequently, the DHW heat exchanger will keep its performance consistent for a longer period of time with resulting gas savings.

To Shut Down the Boiler

For Short Periods

To turn the boiler off set the main switch (B) to the '0' position.

For long periods

When you do not expect to use the boiler for a long period:

1. Set the boiler 'ON/OFF' switch (A) to 'OFF' and switch the electricity supply off.
2. For longer periods the entire system should be drained.

To Relight the Boiler

Repeat the procedure detailed in 'To Light The Boiler'.

Frost protection

excel HE appliances are provided with a built in anti-freeze system that operates the boiler when the temperature is below 5°C. Internal frost protection operates regardless of the position of the main switch and CH heating thermostat knob (B). Therefore, when the boiler is not lit and used in cold weather, with consequent risk of freezing, the supply to the boiler should be left switched on.

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

Loss of system water pressure

The gauge (D) 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 is indicated. In this event a CORGI registered installer or in Ireland a competent person should be consulted.

Note. THE BOILER WILL NOT FIRE IF THE PRESSURE HAS REDUCED TO ZERO FROM THE ORIGINAL SETTING.

Condensate Drain

The condensate drain (G) 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 CORGI registered installer or in Ireland a competent person should be sought.

Escape of gas

Should a gas leak or fault be suspected, contact your local gas supplier without delay.

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.

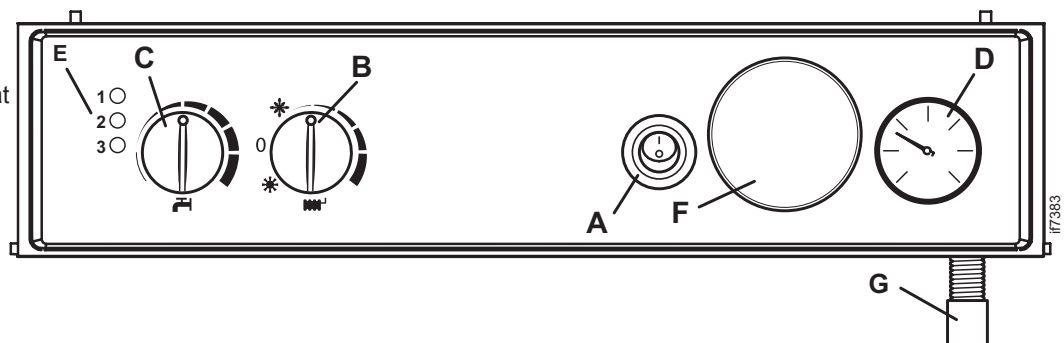
Maintenance

The appliance should be serviced at least once a year by a CORGI registered installer or in Ireland a competent person.

1 BOILER CONTROLS

Legend

- A. Boiler ON/OFF switch
- B. Main switch & CH thermostat knob
- C. DHW thermostat knob
- D. Pressure gauge
- E. Operational lights (1 & 3)/ Fault indication light (2)
- F. Optional programmer
- G. Condensate drain



CAUTION. To avoid the possibility of injury during the installation, servicing or cleaning of this appliance care should be taken when handling edges of sheet steel components

Faults

No heating or hot water

Check that gas and electricity are available at the boiler and that all switches are on.

Check that the system water pressure gauge (D) reads at least 0.5 bar.

Reset Procedure

Check the red fault indication light (2). If it is illuminated turn the main switch (B) to '0', wait until the boiler reaches standby state, indicated by no fan or pump running. This can take up to 10 minutes in an overheat condition. Turn the main switch (B) to the winter setting wait for 2 seconds then set the main switch (B) back to the desired position to restart the ignition sequence.

Hot water but no heating (winter setting)

Check that the programmer and room thermostat (if fitted) are both calling for heat.

Heating but no hot water

Check that cold water flows out of the taps at a minimum rate of 3.5 litres per minute (or 1 pint in 10 seconds or less). If not, look for stop valves not fully open.

If these simple checks fail to solve the problem, or the problem recurs, consult your service engineer.

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 - TYPICAL NON PRODUCT FAULTS

Problem	Solution
Boiler is not working for central heating or hot water	<ul style="list-style-type: none">Is there power to the boiler – check by switching the boiler 'ON/OFF' switch (A) off and then back on. The lights (E) should flash. If not this is not a boiler fault - contact the installer.Check pressure gauge on boiler (D) shows a minimum of 1 bar. If not re-pressurise via the filling loop to 1 bar (if unsure contact your installer), turn off the tap on the filling loop and carry out ignition restart sequence detailed under 'Faults'. If unable to do so or if the pressure continues to drop then contact your installer.Is the fault indication light (2) alight - see Reset Procedure under 'Faults'.
Boiler goes through ignition sequence but will not fire for either central heating or hot water and then goes to ignition lockout	<ul style="list-style-type: none">Check gas supply (try another gas appliance – cooker/fire etc.) – If no gas supply then this is not a boiler fault – contact gas supplier.
Fan and pump run continuously but there is no attempt at ignition	<ul style="list-style-type: none">Check that the flue product test cap, on top of the boiler is fitted correctly.
Operating for hot water but will not operate for central heating.	<ul style="list-style-type: none">Check that integral programmer (if fitted) is set to an 'on' period and the function switch is set to 'auto' - If it still does not operate contact your installer.If fitted with an external programmer check that the central heating channel is set at an 'on' period - If it still does not operate contact your installer.Check the room thermostat is set at the required temperature - Test the room thermostat by turning fully up - If this does not respond contact your installer.Check the CH thermostat knob (B) is set at the winter setting for central heating.

The nature of all combination boilers is to heat up water directly from the incoming mains water supply directly through the boiler to supply domestic hot water at the stated flow rates, (as shown in the boiler installation instructions), to achieve a set temperature rise. As the ambient temperature of the cold main varies during the summer and winter months it is likely in the colder winter months that the flow rate will need to be reduced at the outlet taps to achieve the same temperatures achieved in the warmer summer months. **This is not a fault with the appliance but is relevant to the varying temperature of the incoming cold mains water supply.**