ideal HEATING

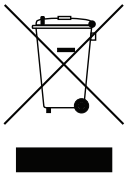
USER GUIDE

LOGIC MAX COMBI^2
C24 C30 C35

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 Heating.

For the very latest copy of literature for specification and maintenance practices visit our website idealheating.com where you can download the relevant information in PDF format.

10/2023
UIN 237660 A01



WEEE DIRECTIVE 2012/19/EU
Waste Electrical and Electronic Equipment Directive

- At the end of the product life, dispose of the packaging and product in a corresponding recycle centre.
- Do not dispose of the unit with the usual domestic refuse.
- Do not burn the product.
- Remove the batteries.
- Dispose of the batteries according to the local statutory requirements and not with the usual domestic refuse.

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.

Ideal Heating 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.

benchmark
COLLECTIVE MARK
THE MARK OF QUALITY FOR THE INSTALLATION, COMMISSIONING AND SERVICING OF DOMESTIC HEATING AND HOT WATER SYSTEMS

THE BENCHMARK SERVICE INTERVAL RECORD MUST BE COMPLETED AFTER EACH SERVICE

CONTENTS

1.1 INTRODUCTION

The Logic MAX Combi^2 is a combination boiler providing both central heating and instantaneous domestic hot water. Featuring full sequence automatic 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.

It is the law that this appliance installation and any work carried out on the appliance is carried out by a Gas Safe Registered engineer in accordance with the above Regulations.

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 3 A.

Important Notes

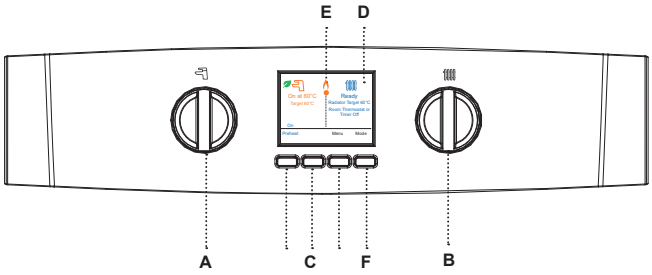
- This appliance must not be operated without the casing correctly fitted and forming an adequate seal.
- If the boiler is installed in a compartment then the compartment MUST NOT be used for storage purposes.
- If it is known or suspected that a fault exists on the boiler then it MUST NOT BE USED until the fault has been corrected by a Gas Safe Registered Engineer.
- Under NO circumstances should any of the sealed components on this appliance be used incorrectly or tampered with.
- **This appliance can be used by children 8 years and above. Also persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, provided they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.**

CARBON MONOXIDE ALARMS

Carbon monoxide detectors are installed near to the boiler to detect a gas leak. If a leak is detected the alarm will make a very loud noise. If you suspect that there is a fault with the alarm, you should first change the batteries.

If you change the batteries and the fault does not clear, you must speak to your landlord or replace the device with another that complies to BS EN 50291-1:2010.

1.2 BOILER OPERATION



Legend

A. Domestic Hot Water Temperature Knob
B. Central Heating Temperature Knob
C. Hot Keys
D. Boiler Status Display
E. Burner On Indicator
F. Mode Button

TO START THE BOILER

Start the boiler as follows:

1. Ensure that all hot water taps are turned off.
2. Switch on electricity to the boiler and check that all external controls, e.g. programmer and room thermostat, are on.
3. Press the Mode Button until Ready or On is shown underneath both the Tap and Radiator symbols.
4. Turn the Domestic Hot water temperature knob (A) clockwise until a 65°C target temperature is shown. Turn the Central Heating temperature Knob (B) clockwise until an 80°C target temperature is shown.

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

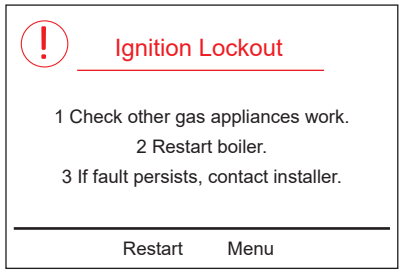
Note. In normal operation the boiler status display (D) will display messages.

Refer to Section 1.8

Boiler frost protection - boiler will fire if temperature is below 5ºC.

During normal operation the burner on symbol (E) will remain illuminated when the burner is lit.

If the boiler fails to light after five attempts the following fault messages will be displayed:



To restart the boiler, press 'Restart'. The boiler will repeat the ignition sequence. If the boiler still fails to light consult a Registered Gas Installer.

OPERATION MODES

Winter Conditions - (Central Heating and Domestic Hot Water required)

Press the Mode Button until either Ready or On is shown under both the Tap and Radiator symbols [ ].

The boiler will fire and supply heat to the radiators.

The domestic hot water preheat will operate with the preheat button set to **'Preheat On'**.

Summer Conditions - (Domestic Hot Water only required)

Press the Mode button until Ready or On is shown under the Tap symbol [ ] and Off is shown under the Radiator symbol [ ].

OR

Set the central heating demand on the external controls to OFF.

The domestic hot water preheat will operate with the preheat button set to '**Hot Water On**'.

Boiler Off

Set the mode button (C) to '**BOILER OFF**'. The boiler mains power supply must be left on to enable frost protection (see Frost Protection).

PREHEAT - DOMESTIC HOT WATER

The domestic hot water heat exchanger within the boiler can be preheated to provide faster delivery of hot water at the tap.

The boiler is factory set with the preheat turned off to give standard hot water delivery and reduce gas usage.

If required, the preheat can be switched on for faster domestic hot water delivery. It can be turned to either 'On' or 'Timed'. With preheat turned On, the boiler will operate periodically to maintain the domestic hot water heat exchanger in a preheated condition at all times.

If 'Timed' is selected then the intelligent preheat function is active which learns the usage patten for domestic hot water over 7 days. It then fires the boiler to maintain the temperature of the domestic hot water heat in the boiler, as required to meet the predicted hot water draw-off. This improves the speed of response for DHW whilst minimising the use of gas.

CONTROL OF WATER TEMPERATURE

Domestic Hot Water

The domestic hot water temperature is limited by the boiler controls to a maximum temperature of 65˚C, adjustable via the domestic hot water temperature knob (A). At low DHW draw off rates the maximum temperature may exceed 65ºC.

Approximate temperatures for domestic hot water:

Knob Setting	Hot Water Temperature (approx.)
Minimum	40ºC
Maximum	65ºC

Due to system variations and seasonal temperature fluctuations, domestic hot water flow rates/temperature rise will vary, requiring adjustment at the tap : the lower the flow rate the higher the temperature, and vice versa.

CENTRAL HEATING

The boiler controls the central heating radiator temperature to a maximum of 80°C, adjustable via the central heating temperature knob (B).

Approximate temperatures for central heating:

Knob Setting	Central Heating Radiator Temperature (approx.)
Minimum	30ºC
Maximum	80ºC

For economy setting [ ] refer to Efficient Heating System Operation.

EFFICIENT HEATING SYSTEM OPERATION

The boiler is a high efficiency, condensing appliance which will automatically adjust its output to match the demand for heat. Therefore gas consumption is reduced as the heat demand is reduced.

The boiler condenses water from the flue gases when operating most efficiently. To operate your boiler efficiently (using less gas) turn the central heating knob (B) until the leaf symbol is shown [ ]. In winter periods it may be necessary to turn the knob clockwise towards a higher temperature e.g. 80, to meet your heating requirements. This will depend on the house and radiators used.

Reducing the room thermostat setting by 1ºC can reduce gas consumption by up to 10%.

WEATHER COMPENSATION

When the Weather Compensation option is fitted to the system then the central heating temperature knob (B) becomes a method of controlling room temperature. Turn the knob clockwise to increase room temperature and anti-clockwise to decrease room temperature. Once the desired setting has been achieved, leave the knob in this position and the system will automatically achieve the desired room temperature for all outside weather conditions.

BOILER FROST PROTECTION

The boiler is fitted with frost protection that operates in all modes, provided the power supply to the boiler is always turned on. If the water in the boiler falls below 5ºC, the frost protection will activate and run the boiler to avoid freezing. The process does not guarantee that all other parts of the system will be protected.

If a system frost thermostat has been installed, the boiler must be set in winter mode, [ ], for the system frost protection to run.

If no system frost protection is provided and frost is likely during a short absence from home it is recommended to leave the system heating controls or built in programmer (if fitted) switched on and running at a reduced temperature setting. For longer periods, the entire system should be drained.

BOILER RESTART

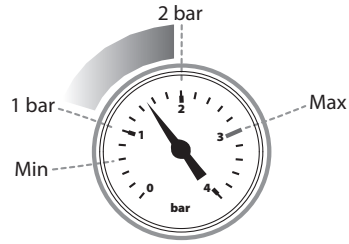
To restart the boiler, when directed in the listed fault messages press the “Restart” button. The boiler will repeat its ignition sequence. If the boiler still fails to start consult a Gas Safe Registered Engineer.

MAINS POWER OFF

To remove all power to the boiler the mains power switch must be turned off.

1.3 SYSTEM WATER PRESSURE

The system pressure gauge which can be viewed by lowering the drop down door, 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 and continue to fall then a water leak may be indicated. In this event re-pressurise the system as shown below. If unable to do so or if the pressure continues to drop a Gas Safe Registered Engineer should be contacted.



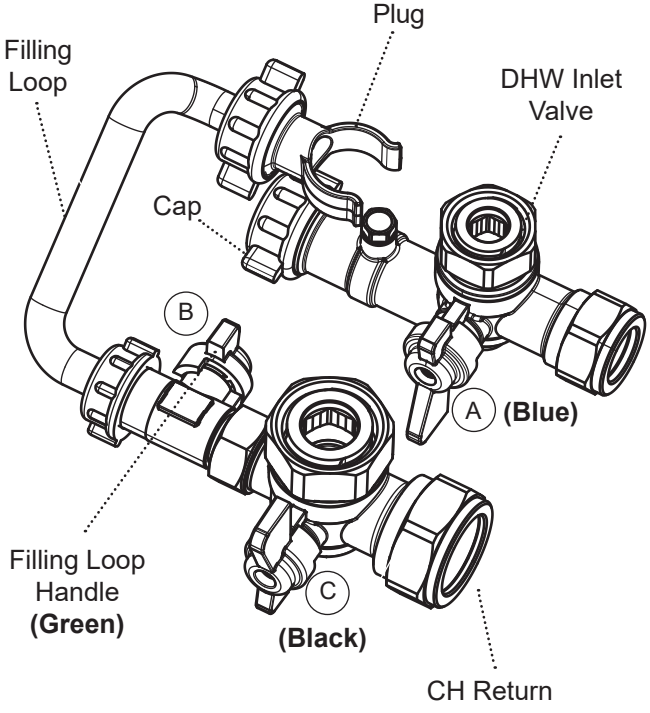
THE BOILER WILL NOT OPERATE IF THE PRESSURE HAS REDUCED TO LESS THAN 0.3 BAR UNDER THIS CONDITION.

To Top up the system :-

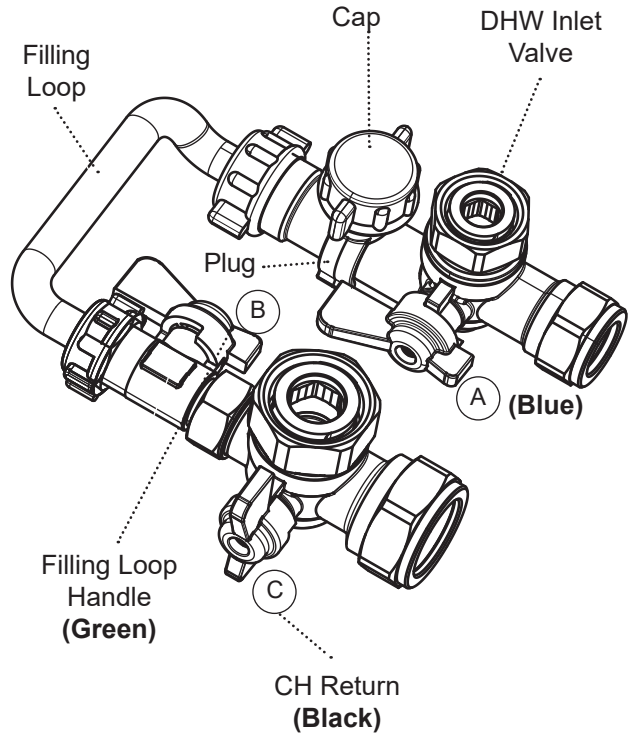
1. Ensure both (A) & (B) handles (blue & green) are in closed position (as shown below)
2. Remove the plug and cap and retain.
3. Connect the filling loop to the Domestic Hot Water (DHW) inlet and tighten. Also ensure that the other end of filling loop is hand tight.
4. Turn the Domestic Hot Water (DHW) Inlet (A) blue handle to the horizontal position.
5. Ensuring no leaks are seen, gradually turn the filling loop handle (green) (B) to the horizontal position.
6. Wait for the pressure gauge to reach 1 to 1.5 bar.
7. Once pressure is reached turn valves (A) & (B) back to the closed position.
8. Disconnect the filling loop, replace cap and plug. There can be some water spillage at this point.

SCAN
for video

Filling Positions shown



Top Up Positions shown



USER

1.4 POINTS FOR THE BOILER USER

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.

FOR ANY QUERIES PLEASE RING THE IDEAL CONSUMER HELPLINE : 01482 498660

BOILER RESTART PROCEDURE - To restart boiler press the restart button

1.5 FROZEN CONDENSATE DRAIN

This appliance is fitted with a siphonic condensate trap system that reduces the risk of the appliance condensate from freezing. However should the condensate pipe to this appliance freeze, please follow these instructions:

a. If you do not feel competent to carry out the defrosting instructions below please call your local Gas Safe Registered installer for assistance.

b. If you do feel competent to carry out the following instructions please do so with care when handling hot utensils. DO NOT attempt to thaw pipework above ground level.

If this appliance develops a blockage in its condensate pipe, its condensate will build up to a point where it will make a gurgling noise prior to locking out displaying “Ignition Lockout” on the display. If the appliance is restarted it will make a gurgling noise prior to it locking out displaying “Ignition Lockout” on the display.

To unblock a frozen condensate pipe;

1. Follow the routing of the plastic pipe from its exit point on the appliance, through its route to its termination point.

   Locate the frozen blockage. It is likely that the pipe is frozen at the most exposed point external to the building or where there is some obstruction to flow. This could be at the open end of the pipe, at a bend or elbow, or where there is a dip in the pipe in which condensate can collect. The location of the blockage should be identified as closely as possible before taking further action.

2. Apply a hot water bottle, microwaveable heat pack or a warm damp cloth to the frozen blockage area. Several applications may have to be made before it fully defrosts.

   Warm water can also be poured onto the pipe from a watering can or similar. DO NOT use boiling water.

3. Caution when using warm water as this may freeze and cause other localised hazards.

4. Once the blockage is removed and the condensate can flow freely, restart the appliance. (Refer to “To Start the boiler”)

5. If the appliance fails to ignite, call your Gas Safe Registered engineer.

Preventative Solutions

During cold weather, set the central heating temperature knob (B) to “**MAX**”, (Remember to return to original setting once cold spell is over).

Place the heating on continuous and turn the room thermostat down to 15ºC overnight or when unoccupied. (Return to normal after cold spell).

SCAN
for video

1.6 GENERAL INFORMATION

BOILER PUMP

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

MINIMUM CLEARANCES

Clearance of 165 mm above, 100 mm below, 2.5 mm at the sides and 450 mm at the front of the boiler casing must be allowed for servicing.

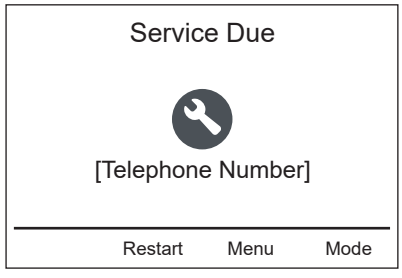
BOTTOM CLEARANCE

Bottom clearance after installation can be reduced to 5 mm.

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

SERVICE REQUEST FUNCTION

When the boiler has been installed for more than 1 year the following message will appear on screen:



Press “Restart” to clear this message.

ESCAPE OF GAS

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

Ensure that;

- All naked flames are extinguished.
- Do not operate electrical switches.
- **Open all windows and doors.**

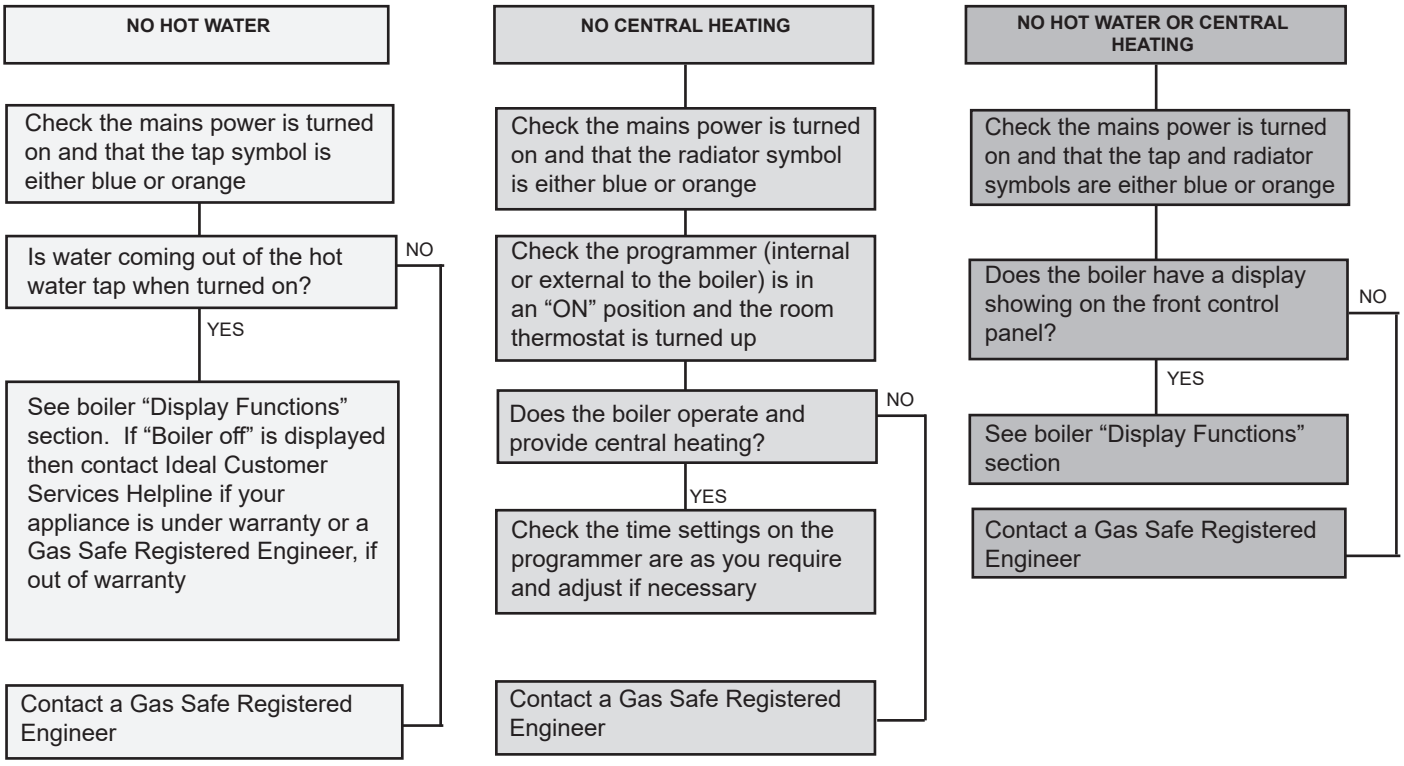
CLEANING

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 frequency of servicing will depend upon the installation condition and usage but should be carried out at least annually by a Gas Safe Registered Engineer.

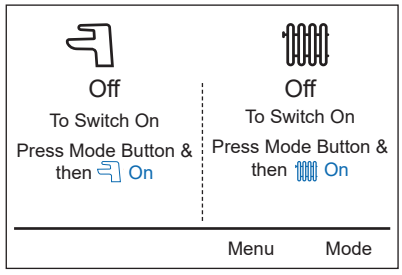
1.7 TROUBLESHOOTING



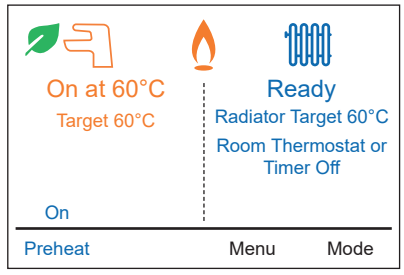
1.8 DISPLAY FUNCTIONS - NORMAL OPERATION MODE

Normal Operation Screens

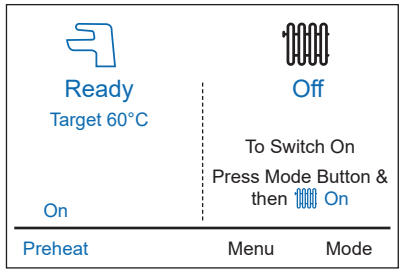
Off Mode



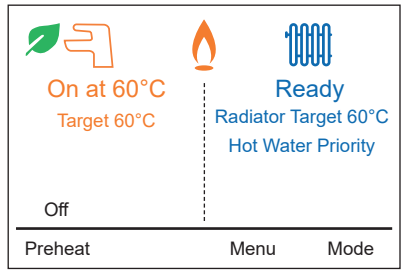
Winter Mode, DHW Demand



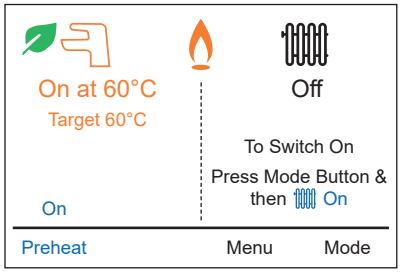
Summer Mode, No Heat Demand



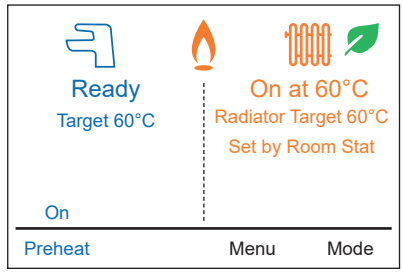
Winter Mode, DHW & CH Demands



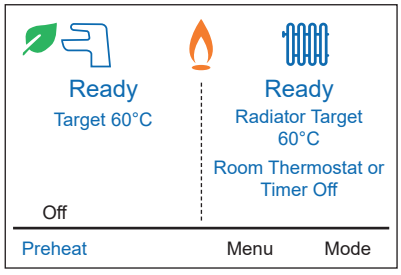
Summer Mode, DHW Demand



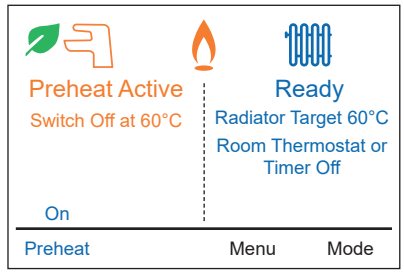
Winter Mode, CH Demand



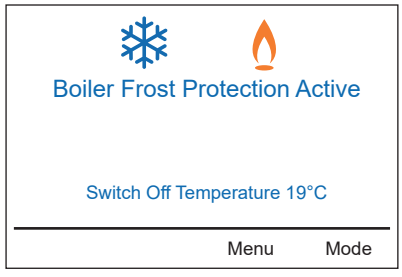
Winter Mode, No Heat Demand



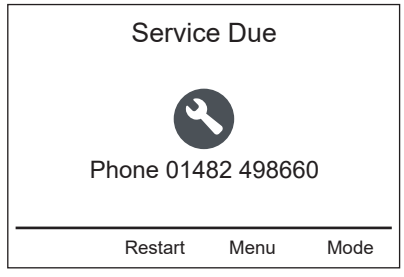
Winter Mode, Pre-heat Demand



Boiler Frost Protection

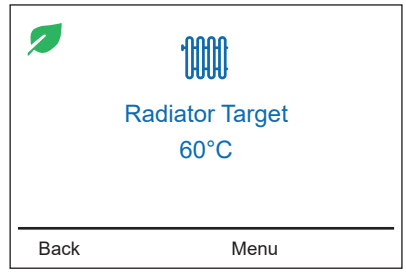


Service Required

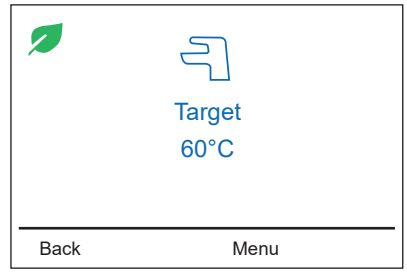


How to adjust Boiler Temperatures

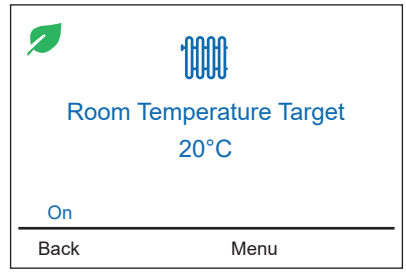
CH Knob Rotated
(without outside sensor connected)



DHW Knob Rotated



CH Knob Rotated
(outside sensor connected)



The display scrolls through a maximum of 3 messages under any operational condition, as shown above

Note. The temperatures shown below are for illustration purposes only. The measured temperatures will be shown on the boiler.

USER

1.9 DISPLAY FUNCTIONS - FAULT MESSAGES

Overheat Lockout
1 With boiler off & system cold, fill system to 1.0 bar.
2 Bleed radiators, refill system to 1.0 bar.
3 Check radiator valves & boiler valves are open.
4 Restart boiler.
5 If fault persists contact installer.

Restart Menu

Outside Sensor Fault
Contact Installer

Menu

Room Thermostat Fault
Check room thermostat batteries

Menu

Ignition Lockout
1 Check other gas appliances work.
2 Restart boiler.
3 If fault persists, contact installer.

Restart Menu

Return Thermistor Fault
Contact Installer

Restart Menu

Spare PCB Not Set
Contact Installer

Menu

Flame Loss
Contact Installer

Menu

Fan Fault
Contact Installer

Menu

No Water Flow
1 With boiler off & system cold, fill system to 1.0 bar.
2 Bleed radiators, refill system to 1.0 bar.
3 If fault persists, contact installer.

Menu

Too Many Restarts
Contact Installer

Menu

PCB Fault
Contact Installer

Menu

Pump Rotor Blocked
Contact Installer

Menu

Flame On Before Gas On
Contact Installer

Restart Menu

Low Mains Voltage
Contact electricity provider

Menu

Pump Dry Run
1 With boiler off & system cold, fill system to 1.0 bar.
2 Bleed radiators, refill system to 1.0 bar.
3 If fault persists, contact installer.

Menu

Flow Thermistor Fault
Contact Installer

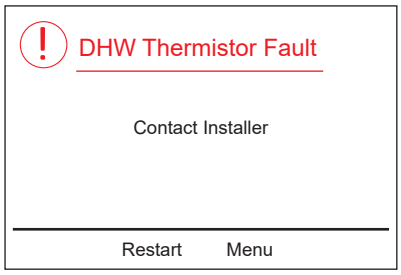
Restart Menu

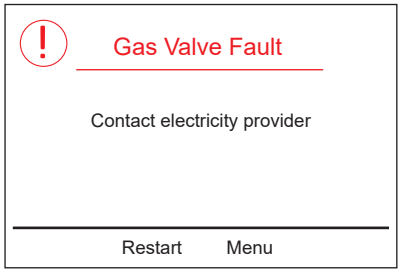
Low Water Pressure
1 With boiler off & system cold, fill system to 1.0 bar.
2 Bleed radiators, refill system to 1.0 bar.
3 If fault persists, contact installer.

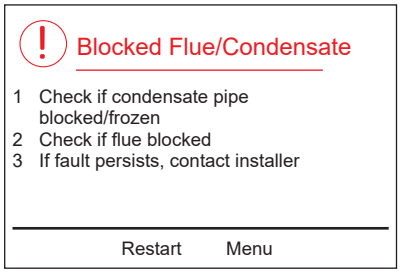
Menu

Pump Fault
Contact Installer

Menu


DHW Thermistor Fault
Contact Installer
Restart
Menu


Gas Valve Fault
Contact electricity provider
Restart
Menu


Blocked Flue/Condensate
1 Check if condensate pipe blocked/frozen
2 Check if flue blocked
3 If fault persists, contact installer
Restart
Menu

At Ideal Heating we take our environmental impact seriously, therefore when installing any Ideal Heating product please make sure to dispose of any previous appliance in an environmentally conscious manner. Households can contact their local authority to find out how.
See https://www.gov.uk/managing-your-waste-an-overview for guidance on how to efficiently recycle your business waste.

Technical Training

Our Expert Academy offer a range of training options designed and delivered by our experts in heating.
For details please visit: expert-academy.co.uk

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

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Ideal Parts: 01482 498665

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