
257 to 265 Ifield Road User guides

1. Ideal Logic combi boiler guide
2. Honeywell Room Thermostat Guide
3. Heat Detector / CO Alarm User Guide
4. MVHR – Nuaire user guide
5. Shower mixing tap



USER GUIDE

**LOGIC CODE COMBI ESP1
26 33 38**

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.

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

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1. INTRODUCTION

The **Logic Code Combi ESP1** 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.

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 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.

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 Boilers 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.

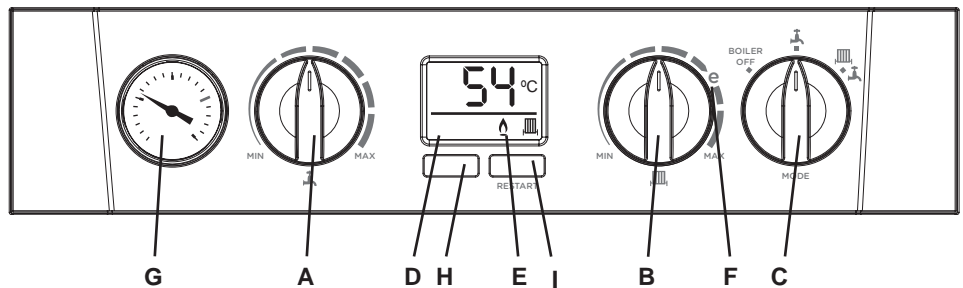
THE BENCHMARK SERVICE INTERVAL RECORD MUST BE COMPLETED AFTER EACH SERVICE



2. BOILER OPERATION

Legend

- A. Domestic Hot Water Temperature Knob
- B. Central Heating Temperature Knob
- C. Mode Knob
- D. Boiler Status Display
- E. Burner 'on' Indicator
- F. Central Heating Economy Setting
- G. Pressure Gauge
- H. Function Button
- I. RESTART Button



TO START THE BOILER

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

Start the boiler as follows:

1. Check that the electricity supply to boiler is off.
2. Set the mode knob (C) to 'BOILER OFF'.
3. Set the Domestic Hot Water temperature knob (A) and Central Heating temperature knob (B) to 'MAX'.
4. Ensure that all hot water taps are turned off.
5. Switch on electricity to the boiler and check that all external controls, e.g. programmer and room thermostat, are on.
6. Set the mode knob (C) to '❄️' (winter).

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

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

- 00 Standby - no demand for heat.
- 🔥 Central Heating being supplied
- 🚿 Domestic hot water being supplied
- FP Boiler frost protection
- boiler will fire if temperature is below 5°C.

During normal operation the burner on indicator '🔥' will remain illuminated when the burner is lit.

Note: If the boiler fails to light after five attempts the fault code L2 will be displayed (refer to Fault Code page).

OPERATION MODES

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

Set the mode knob (C) to '❄️' (winter).

The boiler will fire and supply heat to the radiators but will give priority to domestic hot water on demand.

Summer Conditions - (Domestic Hot Water only required)

Set the mode knob (C) to '🚿' (summer).

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

Boiler Off

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

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).

Approximate temperatures for domestic hot water:

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

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	30°C
Maximum	80°C

For economy setting 'e' 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 temperature knob (B) to the 'e' position or lower. In winter periods it may be necessary to turn the knob towards the 'MAX' position to meet heating requirements. This will depend on the house and radiators used.

Reducing the room thermostat setting by 1°C 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 5°C, 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 run 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 codes (see section 8) press the restart button (I). The boiler will repeat its ignition sequence. If the boiler still fails to start consult a Gas Safe Registered Engineer or an IE Registered Gas Installer (RGII).

MAINS POWER OFF

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

3. SYSTEM WATER PRESSURE

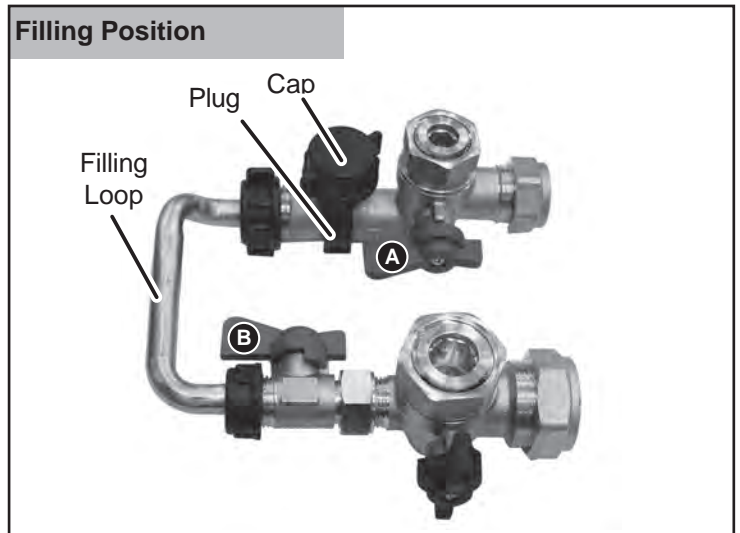
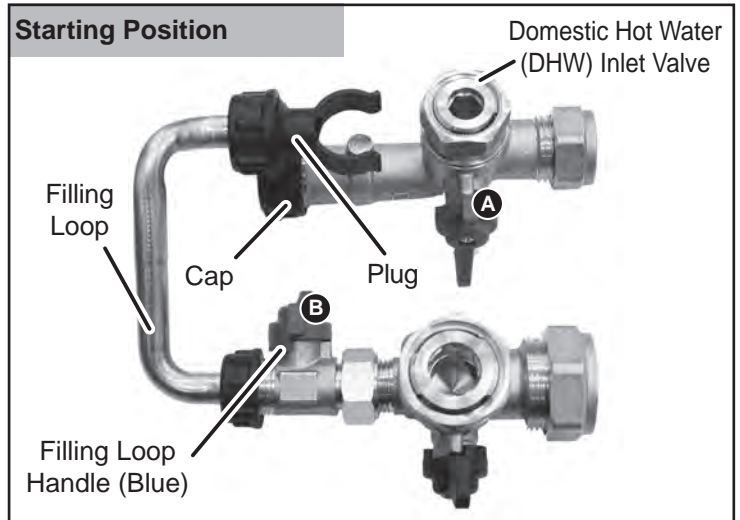
The system pressure gauge (G - see page 3) indicates the central heating system pressure. If the pressure is seen to fall below the original installation pressure of 1-2 bar over a period of time and continue to fall then a water leak may be indicated. In this event re-pressurise the system as shown below. If unable to do so or if the pressure continues to drop a Gas Safe Registered Engineer or in IE a Registered Gas Installer (RGII) should be consulted.



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) 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 (blue) **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. Note there can be some water spillage at this point.

4. 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 an "L2" fault code. If the appliance is restarted it will make a gurgling noise prior to it locking out on a failed ignition "L2" code.

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 Light 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 maximum, (Must return to original setting once cold spell is over).

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

5. 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 165mm above, 100mm below, 2.5mm at the sides and 450mm 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 provide the 100mm clearance required for servicing.

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.**

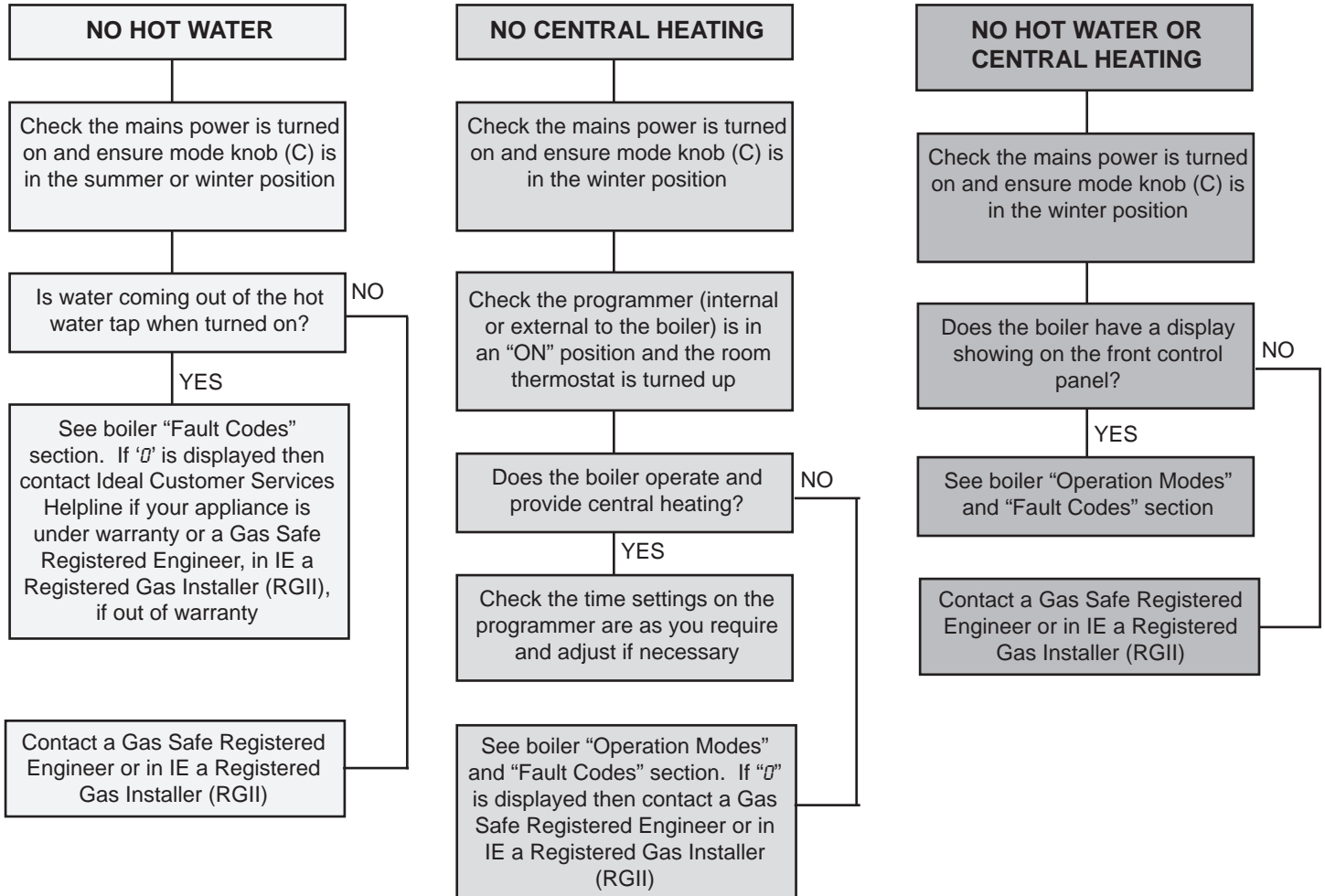
MAINTENANCE

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








6. 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 engineer's 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



7. NORMAL OPERATION DISPLAY CODES




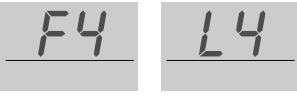



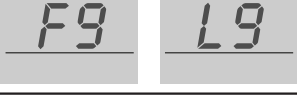







DISPLAY CODE ON BOILER	DESCRIPTION
	The boiler is in standby operation awaiting either a central heating call or hot water demand.
	The boiler has a call for central heating but the appliance has reached the desired temperature set on the boiler.
	The boiler has a call for hot water but the appliance has reached the desired temperature set on the boiler.
	The boiler is operating in central heating mode.
	The boiler is operating in domestic hot water mode.
	The boiler is operating in frost protection.
	The boiler mode knob (C) is in the off position, rotate fully clockwise for hot water and central heating operation.

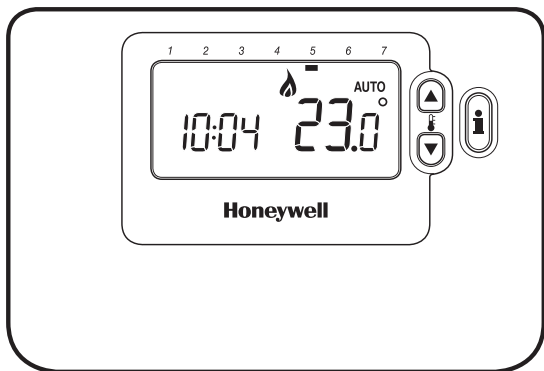
**FOR ANY QUERIES PLEASE RING THE
IDEAL CONSUMER HELPLINE : 01482 498660**

NOTE. BOILER RESTART PROCEDURE -

To restart the boiler press the RESTART button. The boiler will repeat the ignition sequence if a heat demand is present.

8. FAULT CODES

DISPLAY CODE ON BOILER	DESCRIPTION	ACTION
	Low Water Pressure	Check system water pressure is between 1 & 1.5bar on the system pressure gauge. To re-pressurise the system see Section 3. If the boiler still fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
	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 Ideal (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	Restart the appliance - if the boiler fails to operate then please contact Ideal (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 Thermistor	Restart the appliance - if the boiler fails to operate then please contact Ideal (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	Restart the appliance - if the boiler fails to operate then please contact Ideal (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	Restart the appliance - if the boiler fails to operate then please contact Ideal (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.
	Unconfigured PCB	Unconfigured PCB. Please contact Ideal (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 or No Water Flow	Check system water pressure is between 1 & 1.5bar on the system pressure gauge. To re-pressurise the system see Section 3. If the boiler fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
	Ignition Lockout	<ol style="list-style-type: none"> 1. Check condensate pipe for blockages (refer to Section 4). 2. Check other gas appliances in the house are working to confirm a supply is present in the property. 3. 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 Ideal (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	Restart the appliance - if the boiler fails to operate then please contact Ideal (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 electrical supply to boiler off and on. 2. If the boiler fails to operate please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
	Negative Differential Flow/Return Thermistor	If the boiler fails to operate then please contact Ideal (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/Return Differential > 50°C	If the boiler fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
	Diverter Valve in mid-position for service	Rotate all knobs fully clockwise, turn boiler power off and on then press restart



CM707

Programmable Room Thermostat with
Optimum Start, Optimum Stop and Delayed Start

User Guide

An explanation for householders...

A programmable room thermostat is both a programmer and a room thermostat. A programmer allows you to set 'On' and 'Off' time periods to suit your own lifestyle. A room thermostat works by sensing the air temperature, switching on the heating when the air temperature falls below the thermostat setting, and switching it off once this set temperature has been reached.

So, a programmable room thermostat lets you choose what times you want the heating to be on, and what temperature it should reach while it is on. It will allow you to select different temperatures in your home at different times of the day (and days of the week) to meet your particular needs.

Turning a programmable room thermostat to a higher setting will not make the room heat up any faster. How quickly the room heats up depends on the design of the heating system, for example, the size of boiler and radiators.

Neither does the setting affect how quickly the room cools down. Turning a programmable room thermostat to a lower setting will result in the room being controlled at a lower temperature, and saves energy.

The way to set and use your programmable room thermostat is to find the lowest temperature settings that you are comfortable with at the different times you have chosen, and then leave it alone to do its job. The best way to do this is to set low temperatures first, say 18°C, and then turn them up by one degree each day until you are comfortable with the temperatures. You won't have to adjust the thermostat further. Any adjustments above these settings will waste energy and cost you more money.

If your heating system is a boiler with radiators, there will usually be only one programmable room thermostat to control the whole house. But you can have different temperatures in individual rooms by installing thermostatic radiator valves (TRVs) on individual radiators. If you don't have TRVs, you should choose a temperature that is reasonable for the whole house. If you do have TRVs, you can choose a slightly higher setting to make sure that even the coldest room is comfortable, then prevent any overheating in other rooms by adjusting the TRVs.

The time on the programmer must be correct. Some types have to be adjusted in spring and autumn at the changes between Greenwich Mean Time and British Summer Time.

You may be able to temporarily adjust the heating programme, for example, 'Override', 'Advance' or 'Boost'. These are explained in the manufacturer's instructions.

Programmable room thermostats need a free flow of air to sense the temperature, so they must not be covered by curtains or blocked by furniture. Nearby electric fires, televisions, wall or table lamps may prevent the thermostat from working properly.

Description

The Honeywell CM707 is a programmable room thermostat designed to control your heating system efficiently, providing comfortable temperatures when you are at home and energy savings when you are away. The following instructions explain how to program and use the thermostat to provide the most home comfort at the least cost.

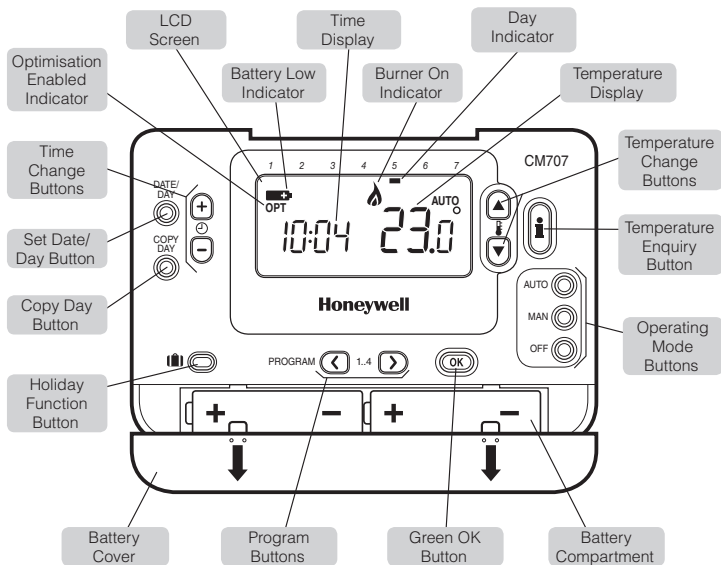
Features

- Ergonomic user interface featuring an 'OK-button'.
- Large LCD (Liquid Crystal Display) Screen with backlight.
- 7-day heating program to match your lifestyle, whilst maximising energy savings.
- 4 independent temperature levels per day (from 5°C to 35°C).
- Holiday button saves energy by letting you reduce the temperature for 1 to 99 days.
- Automatic Summer/Winter Time Change.
- Optimum start, optimum stop and delayed start to enhance energy saving potential.
- Built-in Memory holds the user program indefinitely.

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Controls Layout



This section shows you how to setup and run the thermostat in 3 simple steps:

STEP 1: Installing the Batteries

Note: Please follow the instructions in this section only if the thermostat screen is blank (no symbols or digits are displayed). If the room temperature is already displayed move on to **Step 2: Setting the Date and Time**.

To install the Batteries:

- Lift up the front cover of the thermostat to reveal the battery cover and product controls.
- Remove the battery cover by pressing down and sliding out.
- Insert the 2 x AA LR6 Alkaline Batteries supplied with the thermostat, ensuring the correct orientation (see '**Controls Layout**' above).

- d. After a short pause the thermostat will display information on the screen and is now ready for use.
- e. Replace the battery cover by sliding it firmly back into the front of the thermostat.

STEP 2: Setting the Date and Time

To set the Date and Time:

- a. Press the **DATE/DAY** button to begin setting the date. When you set the date for the first time after the batteries are inserted, the display will show:



Press the \ominus \oplus or \ominus buttons to set the current day of the month (e.g. *d 01* = 1st day of the month) then press the green **OK** button to confirm.

- b. Press the \ominus \oplus or \ominus buttons to set the current month of the year (e.g. *m 01* = January) then press the green **OK** button to confirm.



- c. Press the \ominus \oplus or \ominus buttons to set the current year (e.g. *yr 13* = 2013) then press the green **OK** button to confirm.



The date is now stored and the Day Indicator will be displayed under the current day of the week (e.g. 1 = Monday, 2 = Tuesday, etc.)

- d. Use the \ominus \oplus or \ominus buttons to set the correct time then press the green **OK** button to confirm. Each press of the buttons will change the time by one minute and holding them down will change the time slowly at first and get progressively quicker.



Note: If this mode is entered accidentally then press the **AUTO**, **MAN** or **OFF** buttons to exit.

STEP 3: Running the Built-in Heating Program

The thermostat is now ready for operation. Press the **AUTO** button and the built-in heating program will start running. **Note:** The built-in heating program has been designed to provide normal comfort requirements, but if you want to customise the settings please see the next section '**Programming the CM707**'.

The Built-in Heating Program

The built-in heating program has 4 temperature level changes per day that can be set between 3.00am and 2.50am the following day - allowing you to maintain the evening temperature after midnight. Each temperature level can be set between 5°C and 35°C, and adjusted in 0.5°C increments. The factory default program for heating is as follows.

Monday to Friday (Day 1 to 5)

Period	1	2	3	4
Time	6:30	8:00	18:00	22:30
Temperature	20°C	16°C	20°C	14°C

Saturday & Sunday (Day 6 & 7)

Period	1	2	3	4
Time	8:00	10:00	16:00	23:00
Temperature	20°C	18°C	20°C	14°C

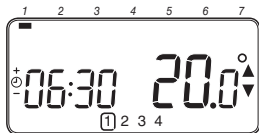
Reviewing the Heating Program

To review or edit the heating program use the **PROGRAM** (◀) or (▶) buttons to navigate between the 4 individual programming periods for that day. Use the **DATE/DAY** button to step through each day of the week, so the complete 7 day heating program can be reviewed or edited.

Modifying the Heating Program

To change the heating program:

- Press either of the **PROGRAM** (◀) or (▶) buttons to enter the programming mode. The time / temperature settings for period (1) on Monday (Day 1) will be flashing as shown. The active period is highlighted by a flashing square around the numbers at the bottom of the screen and the selected day is shown with the day indicator.
- To adjust the period start time use the (⊖) (+) or (⊕) (-) buttons, the 'OK?' indicator will be displayed to confirm the change. Holding the button down will change the time quickly.



Note: If you are pressing the (⊖) (+) or (⊕) (-) buttons and the display flashes the next period, it means the next period will be pushed forward.

- c. Once the required time is reached press the green **OK** button to confirm.

Note: *If the original time setting did not require adjustment press the green **OK** button to move to step 'd'.*

- d. The temperature setting for period **1** on Monday (Day 1) will now be flashing. To adjust this press the **▲** or **▼** buttons and confirm the setting again by pressing the green **OK** button.
- e. The next time and temperature period will now be active. Adjust this by repeating steps b - d above until all 4 periods are set for Monday or press the **AUTO** button to run the program as set, at any time.

You now have a choice of how to set the program for the next day:

- f. i) Press the **COPY DAY** button to copy Monday's program into Tuesday. The display will go blank apart from the 'non flashing' day indicator, which indicates the day copied and the 'flashing' target day to copy the program to. To accept this day press the green **OK** button. To select a different target day press the **DATE/DAY** button until the 'flashing' day indicator is under the required day, then accept it by pressing the green **OK** button. **Note:** *Once the target day is confirmed it becomes the day that is copied if the **COPY DAY** button is pressed again.*

OR

- ii) Press the **DATE/DAY** button to move the day indicator to Tuesday (Day 2). The program for that day can then be adjusted by following steps **b to e**. Programs for the remaining days can be set in the same way, using the **DATE/DAY** button to move to the next day.

To exit the programming mode select the desired operating mode by pressing the **AUTO**, **MAN** or **OFF** buttons. **Note:** *To run the adjusted program select the **AUTO** mode.*

Disabling / Enabling Time Periods



The thermostat has 4 periods each day that can be programmed, but you may not need all of these switch points for your heating requirements. Therefore, any period from 2 to 4 can be removed from (or returned to) the heating program profile.

To disable or enable time periods:

- a. To disable unwanted periods go to the desired period (**2** to **4**) using the **PROGRAM** **◀** or **▶** buttons to navigate, ensure the correct period is highlighted with the flashing square symbol. Press and hold the **⏏** button for at least 2 seconds and the display will indicate the period has been removed from the program.
- b. To enable periods again follow the same procedure as above, navigating to the already disabled period. To enable this period again press and hold the **⏏** button for at least 2 seconds.


Operating Modes

The thermostat can operate in three different modes: Automatic, Manual or Off. To set the operating mode press either of the **AUTO**, **MAN** or **OFF** buttons. The screen indicates which mode is currently active by displaying **AUTO**, **MAN** or **OFF**.






- **AUTO (automatic)** mode sets the thermostat to follow the built-in temperature program (default or personalised). Operating the thermostat in this mode is the best way to maintain a high level of temperature comfort whilst maximising your energy savings.
- **MAN (manual)** mode sets the thermostat to act as a simple thermostat with a fixed setpoint throughout the day. The setpoint can be adjusted from 5°C to 35°C by using the  or  buttons. The thermostat will continue to maintain this temperature until another operating mode or temperature is selected.
- **OFF** mode sets the thermostat to control to a minimum temperature setting of 5°C (default) that acts as a frost protection measure for your home.

Temperature Enquiry/Adjustment




• Temperature Enquiry

In **AUTO**, **MAN** and **OFF** operating modes the thermostat will display the current room temperature. To review the programmed '**target**' temperature (the temperature which the thermostat is trying to maintain) press the  button. This 'target' temperature value will be displayed flashing for 5 seconds before returning to the current room temperature value.

• Temperature Override

During normal operation (**AUTO** mode) the programmed temperature can be adjusted manually by pressing the  or  buttons or the  button. The 'target' temperature will be displayed and flash for 5 seconds - during this time the  or  buttons can be used to modify the set value. **Note:** *This temperature override is cancelled at the next programmed temperature change.*









Time Adjustment

To adjust only the time during normal operation use the  or  buttons and press the green  button again to confirm any changes.

Holiday Function

The holiday function allows you to set a constant temperature (default = 10°C) for a specified number of days (from 1 - 99 days). This lets you save energy and related costs when you are away from home, but resumes normal operation on the day of your return.

To set the Holiday function:

- Ensure the thermostat is running in **AUTO** or **MAN** operating modes.
- Press the holiday  button to display the holiday days counter and temperature setting, along with the holiday indicator .
- Press the  or  time buttons to set the holiday time (1 - 99 days) and press the green  button to confirm.
- Press the  or  buttons to set the holiday temperature (5°C - 35°C) and press the green  button to confirm.

The thermostat will now control to the new temperature for the set number of days that your home is vacant. At midnight the holiday counter will be reduced by one until the selected number of days have passed. The thermostat will then return to normal operation as set by the **MAN** or **AUTO** mode. To cancel the HOLIDAY function or to exit the function at any time press the  button a second time.

Special Features

• Display Backlight

The CM707 has a backlit display that will illuminate when a button is pressed for easier viewing of the display in low light conditions.

• SERVICE indicator (optional)

Note: This option only works if activated by your installer.

The 'SERVICE' indicator is displayed at set intervals as a reminder that your heating system requires a routine check. Please call your installer to arrange a maintenance visit.

The 'SERVICE' indicator will remain on the display of the CM707 until it is either reset or disabled by your installer. The CM707 and heating system will continue to operate as normal.



- **Automatic Summer/Winter Time Change**

The CM707 has a built-in Automatic Summer/Winter Time Change feature that will automatically adjust the clock forward or backward by one hour for 'Daylight Saving Time'. This is carried out on the last Sunday of March and October each year.

- **Optimum Start** (tick if enabled)

Optimum Start measures how quickly your system normally takes to heat up, and then calculates how far in advance it needs to switch the boiler on to reach the comfort temperature at the programmed time.

This setting ensures the desired temperatures are reached nearer the actual programmed times, removing the need to guess how long the heating will take to warm up.

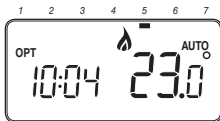
- **Delayed Start** (tick if enabled)

If you program your heating to come on early to allow it to heat up, Delayed Start will save energy by delaying the start of the boiler a little depending on the difference between the programmed temperature and the actual room temperature. When the two temperatures are close to one another the delay will be longer than when they are further apart, and in both cases will achieve the same set temperature within a similar time frame.




- **Optimum Stop** (tick if enabled)

Optimum Stop will save energy by switching the boiler off a little bit earlier than the programmed time. If the house is up to temperature, you should not notice the effect on the temperature, but you should see a difference in your energy bill.

When the Optimum Start or Optimum Stop function is enabled the “OPT” symbol will appear on the display.



Troubleshooting Guide

Symptom	Remedy
Blank Display (Power Loss).	<p>Check batteries are installed by removing the battery cover.</p> <p>Check batteries have been installed in the correct orientation.</p> <p>Replace the batteries.</p>
Display shows flashing  symbol.	<p>The batteries in the thermostat are low on power - Replace the batteries.</p>
Display shows  symbol.	<p>A fault has occurred in your heating system. Remove and re-insert the batteries.</p> <p>If the  symbol does not clear after a few minutes contact your installer.</p>
Display shows the word 'SERVICE'	<p>Your installer has set a scheduled maintenance alert period on your CM707 as a recommendation that your heating system should receive a routine inspection.</p> <p>Call your installer to arrange a maintenance visit.</p> <p>Note: <i>The CM707 and heating system will continue to operate as normal.</i></p>



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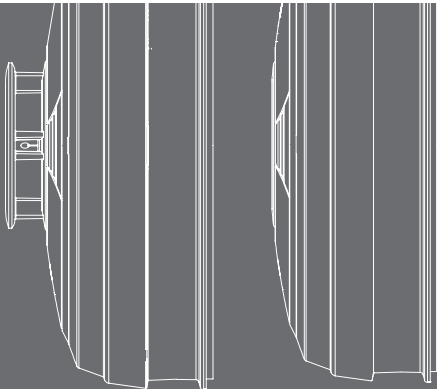
Technical Help Desk: 08457 678999

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Honeywell

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Mains Powered

Ei3028 / 3018

Alarms

Instruction Manual

Read and retain carefully for as long as the product is being used. It contains vital information on the operation and installation of your Alarm. The leaflet should be regarded as part of the product.

If you are just installing the unit, the leaflet **MUST** be given to the householder. The leaflet is to be given to any subsequent user.



User Guide

3

What is
Carbon Monoxide?

Many people are killed each year, and many more suffer ill health from Carbon Monoxide (CO) poisoning. CO is an invisible, odourless, tasteless and extremely toxic gas. It is produced by appliances and vehicles burning fuels, such as coal, oil, natural/bottled gas, paraffin, wood, petrol, diesel, charcoal etc. CO is absorbed by red blood cells in the lungs in preference to oxygen - this results in rapid damage to the heart and brain from oxygen starvation.

High levels of CO in a house can be caused by:

- Incorrectly or poorly installed fuel-burning appliances.
- Blocked or cracked chimneys/flues.
- Blocked vents or draught-proofing which makes areas with fuel burning appliances or fireplaces airtight.
- Engines of cars, lawnmowers etc. left running in confined spaces.
- Portable paraffin or gas heaters in badly ventilated rooms.

Most people know that high levels of CO are harmful, however the period of exposure is also important.

A low level for a long period (e.g. 150 ppm for 90 minutes) can cause the same symptoms (a slight headache) as a high level of CO for a short period (e.g. 350 ppm CO for 30 minutes). Table A shows how exposure to different concentrations of CO generally affects people.

Many cases of reported Carbon Monoxide poisoning indicate that while victims are aware they are not well, they become so disorientated they are unable to save themselves by either leaving the building or calling for assistance. Young children and household pets may be the first affected.

3.1 Symptoms of CO poisoning

Table A

Concentration of CO in Air ppm	Inhalation Time (approx) and Symptoms Developed
35	The maximum allowable concentration for continuous exposure in any 8 hour period according to OSHA *.
150	Slight headache after 1.5 hours.
200	Slight headache, fatigue, dizziness, nausea after 2-3 hours.
400	Frontal headaches within 1-2 hours, life threatening after 3 hours, also maximum parts per million in flue gas (on an air free basis) according to US Environmental Protection Agency.
800	Dizziness, nausea and convulsions within 45 minutes. Unconsciousness within 2 hours. Death within 2-3 hours.
1,600	Headache, dizziness and nausea within 20 minutes. Death within 1 hour.
3,200	Headache, dizziness and nausea within 5-10 minutes. Death within 25-30 minutes.
6,400	Headache, dizziness and nausea within 1-2 minutes. Death within 10-15 minutes.
12,800	Death within 1-3 minutes.

^ ppm = parts per million

*OSHA Occupational Safety and Health Association

3.2 How to protect your family against CO

Follow these guidelines to reduce the risk of Carbon Monoxide poisoning.

(1) Know and look out for tell-tale signs that Carbon Monoxide may be present.

These include:

- The CO Alarm warning of abnormal levels.
 - Staining, sooting or discolouration on or around appliances.
 - A pilot light frequently going out.
 - A strange smell when an appliance is operating.
 - A naked gas flame which is yellow or orange, instead of the normal blue.
 - Family members (including pets) exhibiting the "flu-like" symptoms of CO poisoning described above. If any of these signs are present get the appliance checked out by an expert before further use. If family members are ill get medical help.
- (2) Choose all appliances and vehicles which burn fossil fuels such as coal, oil, natural/bottled gas, paraffin, wood, petrol, diesel, charcoal etc. with care and have them professionally installed and regularly maintained.
- (3) These appliances must "breathe in" air to burn the fuel properly. Know where the air comes from and ensure vents/air bricks etc. remain unobstructed (particularly after building work).
- (4) The appliances must also "breathe out" the waste gases (including the CO) – usually through a flue or chimney. Ensure chimneys and flues are not blocked or leaking, and get them checked every year. Check for excessive rust or cracks on appliances and pipe work.
- (5) Never leave your car, motor bike or lawnmower engine running in the garage with the garage door closed. Never leave the door from the house to the garage open if the car is running.














- (6) Never adjust your own gas pilot lights.
- (7) Never use a gas cooker or a barbecue for home heating.
- (8) Children should be warned of the dangers of CO poisoning and instructed never to touch, or interfere with the CO Alarm. Do not allow small children to press the test/hush button as they could be subjected to excessive noise when the CO Alarm sounds.
- (9) Leaving windows or doors slightly open (even a few inches) will significantly reduce the risk of high levels of CO occurring. The high levels of draught-proofing in modern houses reduces ventilation and can allow dangerous gases to build up.
- (10) Install CO Alarms in all the areas recommended in this booklet.
- (11) Recognise that CO poisoning may be the cause when family members suffer from “flu-like” symptoms when at home but feel better when they are away for extended periods.

IMPORTANT: The Installation of a CO Alarm should not be used as a substitute for proper installation, use and maintenance of fuel burning appliances including appropriate ventilation and exhaust systems.



3.3 How does your Alarm work?

When the Alarm detects Fire and/or abnormal levels of CO, the red LED starts to flash and the horn will sound.

The standard Ei Electronics Fire alarm pattern is a continuous rapid pulsing sound type, while the distinctive Carbon Monoxide alarm pattern is a repeating cycle of 3 slower sound pulses followed by a pause. On the Ei3028, the LED display will indicate if Fire or CO is detected. The flash rate of the red LED indicator is dependent on the alarm event type, and in the case of CO, on the level detected. Table B shows how the CO sensor reacts to different levels of CO gas and exposure time.

Table B – Alarm indicators			
Event type	Red LED	LED icon Fire or CO (Ei3028 only)	Alarm
FIRE (Ei3028 only)	 every 5 sec	 Flashing	
CO Gas Level ≥ 50ppm	 every 4 sec x 2	 Flashing	 within 60-90 mins
CO Gas Level ≥ 100ppm	 every 4 sec x 3	 Flashing	 within 10-40 mins
CO Gas Level ≥ 300ppm	 every 4 sec x 4	 Flashing	 within 3 mins
Alarm triggered by interconnected Alarm	—	—	

















Note: The CO Alarm may sound if cigarette smoke is blown into it, or aerosols are released nearby

 = LED on solid  = LED flashing

The Alarm will also trigger all interconnected Alarms to sound, so that the occupier is alerted even if they are in a different room to the emergency event.

Note: In an interconnected system, the Alarm may also be triggered to sound by another Alarm. In this case, the Alarm will sound but will not flash its red LED alarm indicator. This means that while the Alarm is sounding, it is not the unit actually sensing the alarm event. If you have an Ei1529RC or Ei450 Remote Control installed, press the locate switch to leave just the Alarm that has triggered the system sounding and identify the source and type of the alarm.

- When fire is detected, you should evacuate the residence, closing all doors and windows along the way.
- If CO is detected, you should open all windows and doors (if safe to do so), and then evacuate.

Table C - Memory indicators				
Event type	Red LED		LED icon - Fire or CO (Ei3028 only)	
	1 st 24h	> 24h on test button	1 st 24h	> 24h on test button
FIRE	 x 2 every 48 secs	 x 2 every 8 secs	—	Flashing  FIRE 
CO Gas Level ≥ 50ppm	 x 4 every 48 secs	 x 4 every 8 secs	—	Flashing  CO 
CO Gas Level ≥ 100ppm	 x 6 every 48 secs	 x 6 every 8 secs	—	Flashing  CO 
CO Gas Level ≥ 300ppm	 x 8 every 48 secs	 x 8 every 8 secs	—	Flashing  CO 

The Alarm memory is an important feature of the Alarm where even if the house is unoccupied during an alarm condition it warns the homeowner that the Alarm has previously detected Fire or CO gas and been in alarm. Table C outlines the indicators that are displayed in the memory mode.

Hush feature

The Alarm has a combined Test/Hush Button. When the alarm sounds, pressing the Test / Hush button will immediately silence the alarm for a period of 10 minutes, if due to heat, or 4 minutes, if due to CO (the red light will continue to flash). After that period of time the Alarm will reset to normal functionality. In the case of CO, the Alarm can only be silenced once during a CO incident and only if the CO level detected is < 150ppm.

Note: To stop all alarms on an interconnected system, press the Test/Hush Button on the Alarm sensing heat, CO or smoke (i.e. the one with the red LED alarm indicator flashing rapidly) to silence all Alarms. Pressing the Test/Hush Button on any other Alarm will not cancel the source Alarm. Alternatively, in an interconnected system fitted with a Control switch, you can identify the source Alarm by pressing the LOCATE switch. When all Alarms are sounding, it will silence all Alarms apart from the Alarm that is sensing fire / smoke / heat / CO.

4

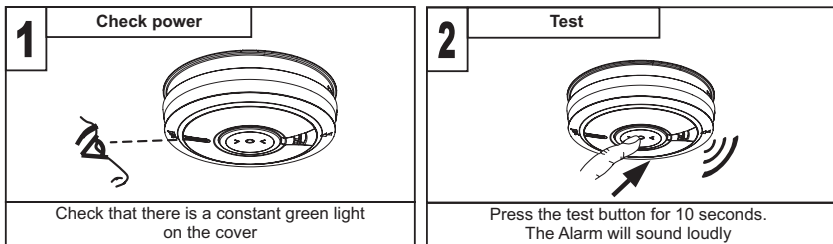
Testing

4.1 Testing and maintaining your Alarm

Frequent testing of all your Alarms is a requirement to ensure they are functioning correctly. Guidelines and best practices for testing are as follows:

1. After the system is installed.
2. Once monthly thereafter.
3. After prolonged absence from the dwelling (e.g. after holiday period).
4. After repair or servicing of any of the systems elements or household electrical works.

Inspecting and Testing procedure



(i) Check that the **green LED power indicator** is on continuously.

(ii) Check also that there are no faults i.e. NO green, yellow or red LED flashing (if this is the case please see indicator summary table)

(iii) Press the **test button** for up to 10 seconds and ensure that the Alarm sounds. (**Note:** On initial press the Ei3028 will alarm the fire sound pattern. On second press the Ei3028 will alarm the CO sound pattern). This tests the sensor, electronics and sounder are working. The Alarm will stop when the button is released. Pressing the test button simulates the effect of smoke and/or heat and therefore is the best way to ensure the Alarm is operating correctly. (Refer to indicator summary table if you see Red or Yellow LED flashes).

(iv) **Interconnected Alarms only** - Test the first unit by pressing the test button for 10 seconds. All the Alarms should sound within 10 seconds of the first horn sounding. After releasing the test button, the local horn will stop sounding immediately and the interconnected Alarms will be heard sounding in the distance for a further 3-4 seconds. This feature gives an audible verification that the interconnection is OK. Check all the other Alarms in the same way.

(v) Check the functioning of the mains battery back-up directly after installation and then at least yearly as follows:

- Turn off the mains power at the distribution board and check that the green indicator light is now flashing (1 flash every 48 seconds) to indicate the Alarm is on backup battery power.
- Press the Test/Hush button for up to 10 seconds and ensure the horn sounds loudly.
- Monitor the Alarm over a 3 minute period for any fault chirps and or yellow LED fault indicator flashes (Refer to "**Fault Modes**" table on what to do if this occurs)
- Turn the mains supply at the distribution board back on.

Switching off Mains for long periods

If the premises are regularly being left without mains power for long periods the Alarms should be removed from their mounting plates and the Ei3000MRF modules (if fitted) should be removed to

prevent the batteries becoming fully depleted. (This is sometimes done with holiday homes which are only occupied in the summer).

The Ei3000MRF modules (if required) must be re-fitted to the Alarms and the Alarms must be re-attached to the mounting plates when the premises are re-occupied. Ensure to match the original RF module back to the same Alarm head.

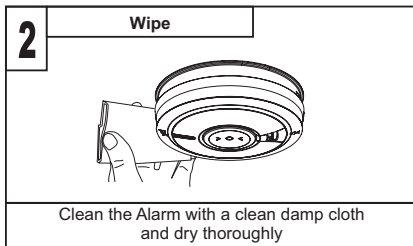
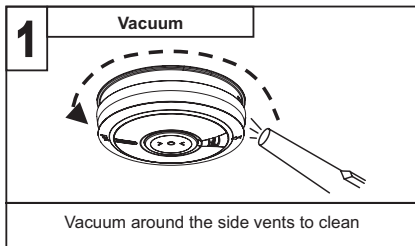
(Long term storage (over 1 year) can damage the batteries such that they will not recharge when the units are re-connected to the mains supply).

WARNING: DO NOT TEST WITH FLAME

This can set fire to the Alarm and damage the house. We also do not recommend testing with heat as the results can be misleading unless special apparatus is used.

4.2 Cleaning your Alarm

Clean your Alarm regularly. In dusty areas it may be necessary to clean the Alarm more frequently.



Use the narrow nozzle attachment of your vacuum cleaner to remove dust, insects and cobwebs from the sides and cover slots where the airflow enters. Clean the outside cover by occasionally wiping with a clean damp cloth then dry thoroughly with a lint free cloth. Do not use any cleaning agents, bleaches, detergents or polishes, including those in aerosol cans.

WARNING: Do not paint your Alarm.

Other than the cleaning described above, no other customer servicing of this product is required. Servicing or repairs, when needed, must be performed by the manufacturer.

All Alarms are prone to dust and insect ingress, which can cause false alarms or failure to alarm. In certain circumstances, even with regular cleaning, contamination can build up in the sensor causing the Alarm to sound or fail. Contamination is beyond our control, it is totally unpredictable and is considered normal wear and tear. For this reason, contamination is not covered by the guarantee.

5

What to do in
case of FIRE?

(i). Check room doors for heat or smoke. Do not open a hot door. Use an alternate escape route. Close all doors behind you as you leave.



(ii). If smoke is heavy, crawl out, staying close to floor. Take short breaths, if possible, through a wet cloth or hold your breath. More people die from smoke inhalation than from flames.



(iii). Get out as fast as you can. Do not stop for packing. Have a prearranged meeting place outside for all family members. Check everybody is there.



(iv). Call the Fire Brigade immediately on a mobile phone or from a neighbour's house. Make sure to call the Brigade for all fires no matter how small - fires can suddenly spread. Also call the Brigade even if the alarm is automatically transmitted to a remote manned centre - the link may have failed.



(v). NEVER re-enter a burning house.



6

What to do in case
your Alarm detects
Carbon Monoxide?

- (i) Open the doors and windows to ventilate the area (if it is safe to do so).
- (ii) Turn off all fuel appliances where possible.
- (iii) Evacuate the property leaving the doors and windows open.
- (iv) Get medical help immediately for anyone suffering the effects of Carbon Monoxide poisoning (headache, nausea), and advise that Carbon Monoxide poisoning is suspected.
- (v) Ring your gas or other fuel supplier on their emergency number. Keep the number in a prominent place.
- (vi) Do not re-enter the property until the alarm has stopped. (If the Alarm has been silenced by pressing the Test/Hush button, wait at least 5 minutes. The Alarm will then check that the CO has cleared).
- (vii) Do not use the fuel appliances again until they have been checked by an expert. In the case of gas appliances this must be a Registered Gas Installer.

The alarm will stop once the CO has cleared.

Pressing the Test/Hush button will silence the alarm immediately for 4min if <150ppm CO. If CO is still present after 4min, the red LED indicator and horn will turn on again.

Note: When ventilation is provided by leaving the window and doors open, the CO build up may have dissipated by the time help arrives and the Alarm may have stopped sounding. Although your problem may appear temporarily solved, it is crucial that the source of the CO is determined and appropriate repairs made.

NEVER IGNORE THE ALARM!

7
























Troubleshooting and Indicator summary tables

<p>Your Alarm does not sound when you press the Test button</p>	<ul style="list-style-type: none"> • Check the Alarm is secured correctly on the mounting plate. • Wait 15 seconds after connecting the power before button testing. • Hold button down firmly for at least 10 seconds. • If the horn does not sound, then your Alarm must be returned for repair or replacement - see "GETTING YOUR ALARM SERVICED" section
<p>Your Alarm sounds for no apparent reason</p>	<ul style="list-style-type: none"> • Follow the detailed instructions in section 5 and/or section 6 regarding the alarm condition. • Locate the Alarm that sounds and has a flashing red LED. • Identify the alarm type – Fire or CO (Ei3028) • For Fire: <ul style="list-style-type: none"> - If you have thoroughly investigated and are sure that it is just a nuisance alarm, simply press the Test/Hush button briefly to silence the Alarm and any interconnected devices for 10 minutes. When the Alarm is in 'Hush' mode the red LED will continue to flash while it detects the presence of heat. The Alarm will reset to normal functionality at the end of the 10 minute. If additional silenced time is required, simply push the Test/Hush Button again. - If you experience frequent nuisance/false alarms, it may be necessary to re-locate the Alarm away from the source of the fumes or if it continues to sound without smoke or heat being present and cleaning the Alarm does not solve the problem, it needs to be replaced



- **For CO:**

- Ensure there are no fuel burning appliances in the vicinity which could be leaking CO gas (e.g. even from next door).
- Ensure there are no fumes or aerosols in the area (e.g. paint, thinners, hair spray, chemical cleaners, aerosol sprays, damp proofing done with and aqueous emulsion such as Aminofunctional siloxane and Alkylalkoxysilane) which can cause false CO alarms.
- Ensure there is no outdoor source of CO in the vicinity (e.g. a car with engine running, heavy traffic, heavy air pollution, barbecue fumes etc).
- Ensure there is no source of hydrogen such as batteries being charged (e.g. on boats or in Uninterruptable Power Supplies (UPS)), as this can lead to false CO alarms.
- Ensure there is not excessive smoke or fumes from devices such as Egyptian shisha, hookah or hubbly bubbly pipes, especially those that use coal or charcoal to heat the tobacco.
- Press the Test/Hush button to silence the Alarm for 4 minutes.
- If the CO Alarm continues to sound it is possibly defective and should be replaced

<p>Interconnected Alarms do not all sound</p>	<ul style="list-style-type: none"> • Hold test button for 10 seconds after the first alarm has sounded to ensure signal is transmitted to all units. • If this is not the case and you have a hardwired interconnection, we recommend you consult a qualified electrician. • If the Alarm is fitted with an RF module for wireless interconnection, check that all Alarms in the RadioLINK system are powered and are house-coded correctly. (see the Ei3000MRF RadioLINK+ module manual)
<p>Pressing the Test/Hush button does not silence the Alarm</p>	<p>Always make sure that you are pressing the Test/Hush button on the Alarm that sounds with the red LED flashing.</p>
<p>Your Alarm chirps/beeps/ flashes</p>	<p>In standby mode, the Alarm does not sound, beep, chirp or flash. The only light on is the green power LED.</p> <p>The Alarm automatically monitors the battery, sensor and electronics periodically to ensure that all are satisfactory. If a fault has been found, the alarm alerts the occupier to this via short chirps from its sounder and yellow LED fault indicator flashes every 48 seconds. The alarm will also indicate any faults when the test button is pressed.</p> <p>See indicator summary table on the next pages</p>

Normal Operation						
Mode / Action	Green LED (Power)	Yellow LED (Fault)	Red LED (Alarm)	Alarm	Icon Display FIRE/CO (Ei3028 only)	Notes
Power up				—	1 Flash 	
Standby		—	—	—	—	
Testing (pressing and holding Test button)	 *	—	—		Flashing	
In Alarm						
Detecting Fire		—	 as per Table B		Flashing 	Fire sound pattern
Detecting CO		—			Flashing 	CO sound pattern
Activated via Interconnect		—	—		—	
Pressing Silence Button on Alarm detecting fire		—	 as per Table B	 x 10mins	Flashing 	
Pressing Silence Button on Alarm detecting CO		—		 x 4 min if < 150ppm	Flashing 	once per alarm event

* With the test button held the green LED will flicker/pulse every second

 = LED on solid  = LED flashing

The Alarm memory is an important feature of the Alarm where even if the house is unoccupied during an alarm condition it warns the homeowner that the Alarm has previously detected Fire or CO gas and been in alarm. It is particularly useful in the case of CO leakages which may have occurred when the owner is away from the property - for example, CO leaking from a faulty boiler operating on a timer. The memory feature also helps identify the unit and event type which has previously triggered an entire alarm system, which can also be very helpful after the entire alarm system has gone into alarm and then stopped, for no obvious reason.

Once the source Alarm has been identified, appropriate action can be taken e.g. In the case of a CO alarm event in memory, investigate any potential sources of CO leaks, or in the case of a fire alarm event in memory, investigate the cause of nuisance / false alarms by ensuring kitchen or bathroom doors are kept closed to prevent very hot air or steam from cookers / showers reaching the heat sensor on the Alarm, locate the Alarm further away from the source of steam or condensation, replace the Alarm if it is thought to be defective or remove the unit in the short term.

















The memory feature has two operation modes:

- memory indication for 24 hour period after alarm.
- memory recall on demand
















24-hour memory indicators: For 24 hours after alarming, the red LED alarm indicator will flash at different rates every 48 seconds (approx) depending on the alarm event type (Fire or CO) and in the case of CO, on the level detected - see Table C.

Memory recall on demand: To review the memory status at any time, press and hold the test button, the red LED alarm indicator will flash in accordance to Table C to convey the alarm event in memory, if any.

Memory mode

What you hear / see					What type of alarm event has occurred
Red LED		Icon Display FIRE/CO (Ei3028 only)			
0-24h	>24h on button test	0-24h	>24h on button test		
 every 48 sec x2	 x2 every 8 secs	—	 Flashing  FIRE	Fire	
 every 48 sec x4	 x4 every 8 secs	—	 Flashing  CO	CO Gas Level 50ppm	
 every 48 sec x6	 x6 every 8 secs	—	 Flashing  CO	CO Gas Level 100ppm	
 every 48 sec x8	 x8 every 8 secs	—	 Flashing  CO	CO Gas Level 300ppm	

Alarm memory can be erased by pressing & holding the test button for >20 seconds after which a 1-second-long flash of the red LED alarm indicator indicates memory cleared

Fault modes and Memory indicator					
What you hear / see				What it means	What to do
Green LED ¹ (power)	Yellow LED ² (fault)	Red LED (alarm)	Chirps		
 every 48 sec x1	—	—	—	AC mains off	Reconnect AC mains power
—	 every 48 sec x1	—		AC mains off Low battery backup	Reconnect AC mains power
	 every 48 sec x1	—		Low battery backup	Replace Alarm
	 every 48 sec x2	—	 x2	Sensor fault	Replace Alarm
	 every 48 sec x3	—	 x3	End of Life	Replace Alarm
	Flashes as per fault type	—	—	Fault chirps have been silenced. Rate of the yellow LED flashing indicates fault type	If required chirping can be silenced again by pressing Silence button
	—	 when pressing Test button	—	There has been an alarm in your absence	Check Alarm memory section

1 ON when AC mains power is switched on, flashes every 48s when on backup battery, OFF when both AC mains and backup battery are off.

2 If you are unsure of the amount of flashes of the Yellow LED you can at any time while a fault condition exists, press the Test button. The relevant number of flashes will then be 8s apart.

Note: Fault chirps can be silenced by pressing the Test/Hush button.

Reset Memory: Hold down the test button for at least 20 seconds. Cover the horn with a cloth to muffle the alarm during this time. Clearing of the memory is indicated by a 1-second-long flash of the red LED alarm indicator. Please note that the alarm memory will also be reset if the Alarm is removed from its mounting plate (switched off).

The Alarm can communicate its status and history through various Led flashes and chirps/beeps. However, a more comprehensive report of all such events is available through the AudioLINK download via the App.

Low Battery Backup Fault

If the battery backup supply is depleted, the sounder will give one short chirp with one yellow LED fault indicator flash every 48 seconds. In this case check that the green LED power indicator is on continuously. If it is off, or flashing every 48 seconds, the Alarm is not receiving 230V AC mains power and is being powered by the battery backup. The chirp every 48 seconds indicates that the battery is depleted. The battery is not replaceable. Check fuses, circuit breakers and wiring to determine the cause of the interruption to the mains power. If in doubt, contact a qualified electrician. Once mains power is reinstated, the chirps should cease within 2 hours as the battery charges up. If the chirping persists for over 2 hours with the green light on, there may be some other problem with the Alarm. The Alarm must be returned for repair or replacement - see **GETTING YOUR ALARM SERVICED** section.

Sensor Fault

The Alarm regularly checks the CO sensor and/or thermistor heat sensor for correct operation. If the Alarm has found a fault with the sensor, it will give 2 short chirps with 2 yellow LED flashes every 48 seconds. In this case, the Alarm must be returned for repair or replacement - see **GETTING YOUR ALARM SERVICED** section.

End of Life

Once the Alarm passes its 10th year of installation, it will give 3 short chirps with 3 yellow LED flashes every 48 seconds to indicate it has reached its end of useful life.

The entire Alarm must be replaced (Also check the replace by date on the label on the side of the Alarm). Disconnect the mains first and replace the Alarm - see 'Removing the Alarm' section.

Temporarily Silencing the Fault chirps

If the test / hush button is pressed on an Alarm that is giving fault chirps and yellow LED fault indicator flashes, the Alarm will be silenced (Fault Hush mode) for a period of 12 hours. However, the Alarm will sound / function as normal within that period should it detect Fire (except if the fault detected is a sensor fault). The yellow LED fault indicator will continue to flash as before to indicate the fault is still present. This is a useful feature should the fault occur at night as it keeps the disturbance at a time when people in the building are trying to sleep to a minimum. The fault chirps would return 12 hours later, which perhaps may be a more suitable time to address the fault issue with the Alarm. In case of low backup battery voltage and end of life fault chirps, this can be repeated as required. A sensor fault condition can only be hushed once.

8

Important
Safeguards

Limitations of Heat and CO Alarms

- Mains powered Alarms will not work if the mains power supply is off or disconnected and the backup battery is depleted.
- The Alarms may not be heard. The sound output is loud but it may not be heard behind a closed door or if it is too far away. Interconnecting Alarms greatly improves the probability that they will be heard. The Alarm may not wake up somebody who has taken alcohol or drugs. The alarm sound may be masked by other sounds such as T.V., stereo, traffic noise etc. This Alarm is not designed for people with impaired hearing.
- Heat Alarms will not detect fire if sufficient heat does not reach the Alarms. Heat may be prevented from reaching the Alarm if the fire is too far away, for example, if the fire is on another floor, behind a closed door, in a chimney, in a wall cavity, or if the prevailing air drafts carry the heat away. Interconnecting heat alarms with smoke alarms located throughout the house or premises will significantly improve the probability of early detection.
- The Heat Alarm may not detect every type of fire to give sufficient early warning.
- Carbon Monoxide must enter the CO Alarm for it to be detected. There may be Carbon Monoxide in other areas of the house (e.g. downstairs, in a closed room etc) but not in the vicinity of the CO Alarm. Doors, air draughts and obstructions can prevent the CO from reaching the Alarm. For these reasons we recommend CO Alarms are fitted both near and in bedrooms, particularly if bedroom doors are closed at night. Additionally, install in rooms where members of the household spend much of their time, and in rooms with potential sources of CO gas.
- The Alarms don't last indefinitely. The manufacturer recommends regular testing and replacement after, at most, 10 years, as a precaution.
- CO Alarms are not a substitute for life insurance. House-holders are responsible for their own

insurance. The CO Alarm warns of increasing CO levels, but we do not guarantee that this will protect everyone from CO poisoning.

- CO Alarms are not suitable as early warning Smoke Alarms. Some fires produce Carbon Monoxide, but the response characteristics of these CO Alarms are such that they would not give sufficient warning of fire. Smoke Alarms must be fitted to give early warning of fire.
- This CO Alarm does not detect the presence of natural gas (methane), bottled gas (propane, butane) or other combustible gases. Fit combustion gas alarms to detect these.

WARNING: THIS CO ALARM IS DESIGNED TO PROTECT INDIVIDUALS FROM THE ACUTE EFFECTS OF CARBON MONOXIDE EXPOSURE. IT WILL NOT FULLY SAFEGUARD INDIVIDUALS WITH SPECIFIC MEDICAL CONDITIONS. IF IN DOUBT CONSULT A MEDICAL PRACTITIONER.

When a fire and/or CO Alarm system is installed, basic safety precautions should always be followed, including those listed below:

- Please read all instructions.
- Use the testing of the Alarm as a means to familiarise your family with the alarm sound. Rehearse emergency escape plans so everyone at home knows what to do in case the Alarm sounds. Further information can be obtained from your local fire prevention officer.
- To maintain sensitivity to Fire/CO, do not paint or cover the Alarm in any manner and; do not allow cobwebs, dust or grease to accumulate.
- If the Alarm has been damaged in any way or does not function properly, do not attempt a repair. Return the Alarm - see Section 9 '**SERVICE AND GUARANTEE**' section.
- This appliance is only intended for premises having a residential type environment.
- Fire/CO Alarms are not a substitute for insurance. The supplier or manufacturer is not your insurer.
- Do not dispose of your Alarm in a fire.

MVHR ECO - ECO2 RANGE

USER GUIDE FOR OCCUPANTS

MRXBOX-ECO2 / MRXBOX-ECO2-OH
MRXBOXAB-ECO2 / MRXBOXAB-ECO2-OH



Today's homes are built with extra insulation to keep warm air in and reduce energy costs. This however leaves very little opportunity for your home to be naturally ventilated.

Ventilation establishes a good level of indoor air quality and an environment that is free from condensation, odours and indoor pollutants caused by cooking, washing and day to day living. It is therefore important that you have adequate ventilation in your home.

Having the **Nuaire ECO2** ventilation unit installed in your home will not only ensure that your property has good indoor air quality, it will protect the fabric of your home from condensation and mould, thus resulting in a healthier living environment.

How do I operate the unit?

At installation your unit will have been set to run continuously to a level that will adequately ventilate your home for the majority of the day.

However, there will be occasions when the humidity/ moisture levels in your home will rise; this is usually due to activities such as cooking and bathing or showering. During these times your unit has the functionality to increase its extract rates via a boost mode, and remove the excess moisture.

There are a few ways in which the **ECO2** system can be set to boost. A housing provider/ housebuilder will determine system settings as part of the installation, but you may override these functions with manual operation. The most common method is via remote switches which may also be provided at the time of install; usually situated in the kitchen and bathroom areas. To increase the extract rates manually simply set the switch to boost, and when you are ready to resume normal operation turn it back off.

The system installed in your home has an integral humidistat (AB models only). This means that it measures the humidity in your wet rooms, i.e. kitchen and bathrooms, and will automatically switch to boost should the humidity levels rise above normal.

Please note that your boost setting may have been commissioned with a run-on timer which will result in the boost function running between 5 to 30 minutes after it has turned off. This is to ensure the excess moisture is totally cleared.

What maintenance is required?

The filters (located on the front of the unit) need to be cleaned or replaced, depending on your environment, every 12-18 months.

For replacement filters either scan the QR code located on the front panel of your unit or contact Nuaire and quote part number **MVHR-ECO2-FILTERKIT**.

If I need some advice, who do I contact?

In the first instance please contact your housing provider or house builder.

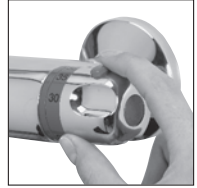
Nuaire have a team of technical experts on hand to help. Our operating hours are 9am to 5pm Monday to Friday (excluding Bank Holidays). Contact us on **029 2085 8400**.

When calling Nuaire, if possible, please check your fan for the serial number located on the fan label.

Midas 100 shower valve and bath/shower mixer

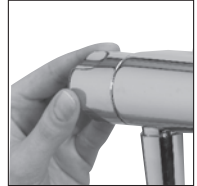
1. When the temperature lever knob on the right of the valve when viewed from the front has the red maximum temperature override button at the top of the knob, the valve is in the mid blend position. The mid blend temperature is dictated by the temperature of the incoming supplies. To select a comfortable showering temperature, depress the red button and slowly rotate the knob away from the finished wall surface to increase the temperature and towards the finished wall to decrease the temperature, using the temperature markings as a guide.

N.B. Should it be necessary to reset the maximum temperature position, please refer to the commissioning instructions on page 24. **We recommend the MAXIMUM outlet temperature is set to 46°C.**



2. Turn the valve on by carefully rotating the flow control knob on the left of the valve when viewed from the front, towards the finished wall surface until the required volume of flow is reached. Turn the valve off by rotating the flow control knob away from the finished wall until a stop is reached.

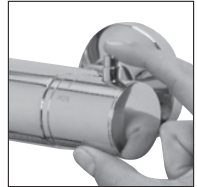
N.B. With all Midas shower valve and Midas bath/shower mixers fitted to combination boiler systems, it may be necessary to adjust the flow control knob and reduce the flow to achieve a comfortable showering and bathing temperature.



Midas 200/300 shower valve and bath/shower mixer

When the temperature lever knob on the right of the valve when viewed from the front has the maximum temperature override button at the top of the knob, the valve is in the mid blend position. The mid blend temperature is dictated by the temperature of the incoming supplies. To select a comfortable showering temperature, depress the button and slowly rotate the knob away from the finished wall surface to increase the temperature and towards the finished wall to decrease the temperature, using the temperature markings as a guide.

N.B. Should it be necessary to reset the maximum temperature position, please refer to the commissioning instructions on page 24. **We recommend the MAXIMUM outlet temperature is set to 46°C.**



Midas 200/300 low pressure flow control

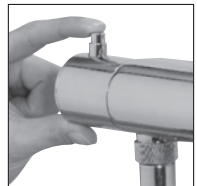
Turn the valve on by carefully rotating the flow control knob on the left of the valve when viewed from the front, towards the finished wall surface until the required volume of flow is reached. Turn the valve off by rotating the flow control knob away from the finished wall until a stop is reached.



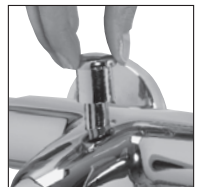
Midas 200/300 high pressure flow control

Turn the valve on by carefully rotating the flow control knob on the left of the valve when viewed from the front, towards the finished wall surface until a stop is reached. To increase the volume of flow, depress the eco stop button and rotate the flow control knob further. Turn the valve off by rotating the flow control knob away from the finished wall until a stop is reached.

N.B. With all Midas shower valve and Midas bath/shower mixers fitted to combination boiler systems, it may be necessary to adjust the flow control knob and reduce the flow to achieve a comfortable showering and bathing temperature.



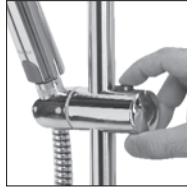
To divert from bath fill to shower, with the valve running, lift the diverter knob and twist a quarter turn to lock the knob into position. To divert back from shower to bath, twist the diverter knob a further quarter turn until it sits flush on the bath spout.



User guide - Shower head

NEVER ATTEMPT TO MAKE ANY ADJUSTMENT TO THE SHOWER HEAD BY PULLING ON THE SHOWER HOSE.

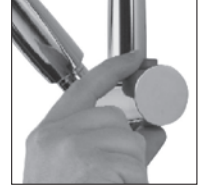
1. To select the preferred height for the shower head, dependent on the system purchased, depress the handset holder button or levers fully to enable the slider to be moved up or down the rail.



Midas 100

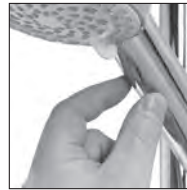


Midas 200



Midas 300

2. Angular adjustment is made by carefully but firmly pulling forwards or pushing back the shower head against the knuckle in the holder.



Midas 100/200



Midas 300

3. To select the desired spray pattern rotate the shower spray plate clockwise or anti-clockwise.



Midas 100/200



Midas 300

Cleaning & maintenance

Your Midas shower system should be cleaned using only a soft cloth and washing up liquid.

! DO NOT USE ABRASIVE CLEANERS.

To reduce the need for chemical descaling in hard water areas, your shower head incorporates a 'clear flow' system, whereby any scale build up can be broken down by gently rubbing the flexible tips of the jets during use. This procedure should be completed regularly, as often as once a week in some hard water areas, as scale build up can affect the spray pattern and cause the shower to perform poorly. Failure to descale the shower head can affect the internal seals and may affect the warranty.

Should chemical descaling of the head become necessary, remove the shower head fully and immerse in a mild proprietary descalant.

IT IS IMPERATIVE THAT DESCALING IS CARRIED OUT STRICTLY IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS. SUBSTANCES THAT ARE NOT SUITABLE FOR PLASTICS AND ELECTROPLATED SURFACES MUST NOT BE USED.

Trouble shooting guide

Symptom	Possible cause	Action
Water output is either all hot or all cold, or cold only	Reversed inlet supplies	Check that the supplies correspond with the inlet markings
Water output is not hot enough	The temperature of the hot water cylinder is too low	The cylinder temperature should be at least 15°c hotter than the blend
	Water flow through the hot water appliance is too fast	Check the flow rate recommendations with the heater manufacturer
	Water flow through the hot water appliance is too fast (If fitted on a combination boiler)	Adjust the flow control knob on the mixer valve to reduce flow until a comfortable showering or bathing temperature is achieved
Flow rate is poor and water temperature is low	Airlock in the hot water supply	Check that the pipe work is laid out in accordance with correct practices, paying particular attention to potential air-traps
Water temperature swings regularly between hot and cold	Cold water pressure is too high	If the static water pressure exceeds 10 bar, install a pressure reducing valve (PRV) in accordance with the installation guide
Poor flow rate	Twisted hose Debris in shower head Debris in filters	Check for debris and clear as necessary