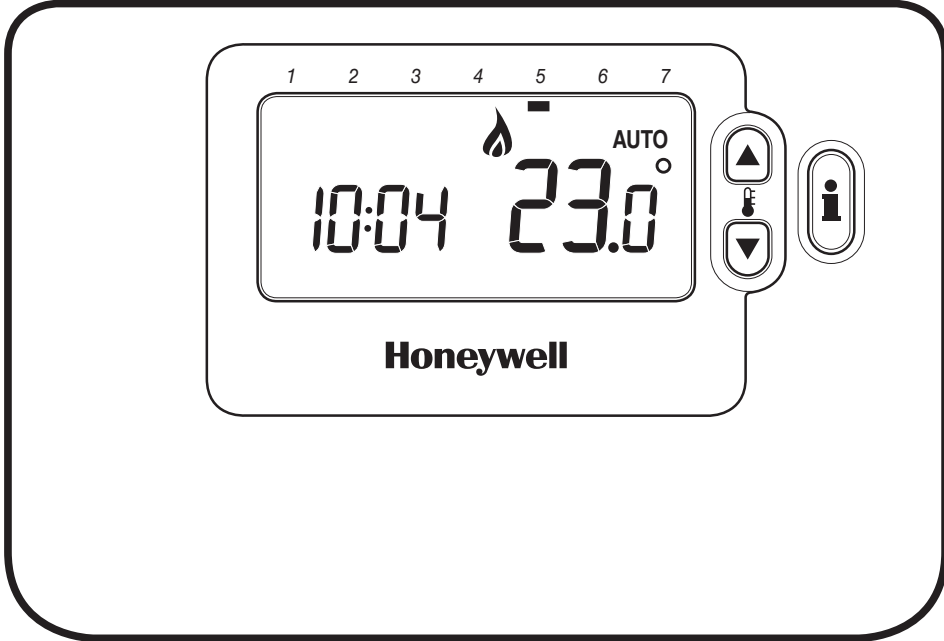




USER GUIDES
Combi boiler



Renelec Chalgrove Limited
Unit 43
Monument Business Park
Chalgrove
Oxfordshire
OX44 7RW



CM7012-6

CM7077-11

USER GUIDE

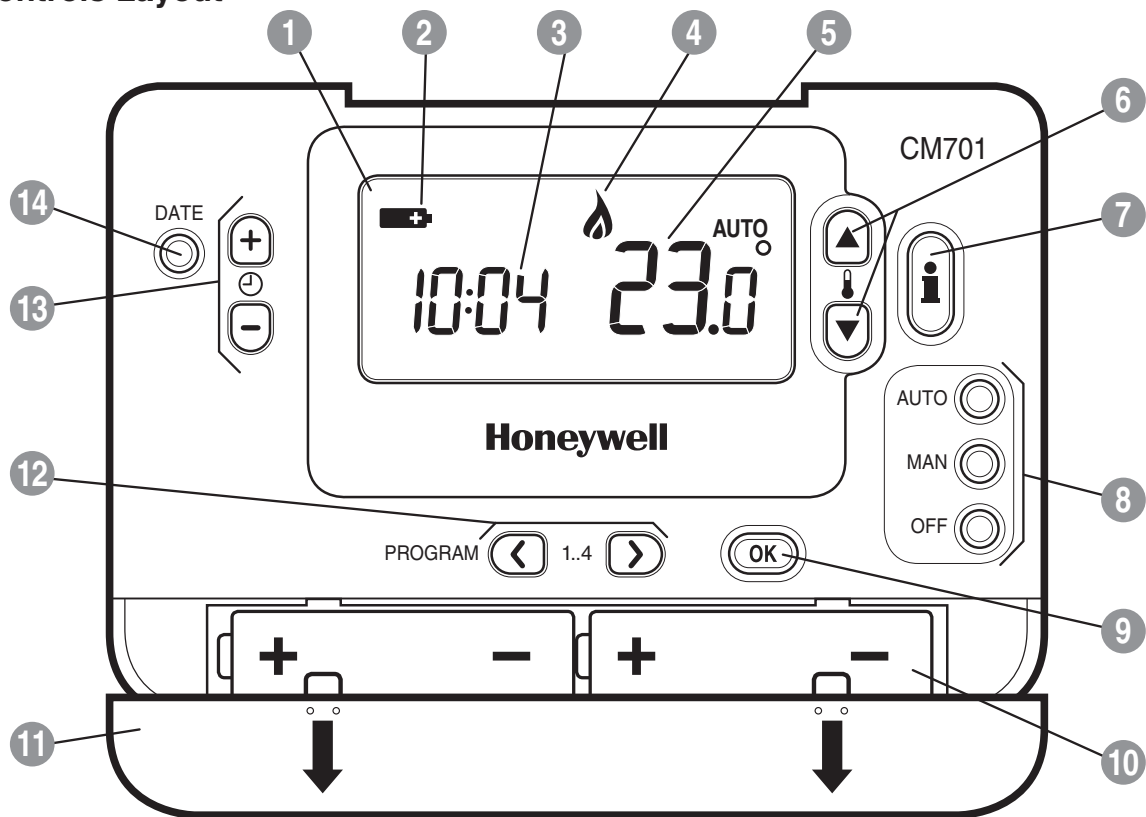
Description

The Honeywell CM701 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.
- 4 independent temperature levels (from 5°C to 35°C).
- Automatic Summer/Winter Time Change.
- Optimum Start to achieve the right temperature at the right time.
- Built-in Memory holds the user program indefinitely.

Controls Layout



- | | | |
|-------------------------|------------------------------|-----------------------|
| ① LCD Screen | ⑥ Temperature Change Buttons | ⑪ Battery Cover |
| ② Battery Low Indicator | ⑦ Temperature Enquiry Button | ⑫ Program Buttons |
| ③ Time Display | ⑧ Operating Mode Buttons | ⑬ Time Change Buttons |
| ④ Burner On Indicator | ⑨ Green OK Button | ⑭ Set Date Button |
| ⑤ Temperature Display | ⑩ Battery Compartment | |

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**' on page 2).
- After a short pause the thermostat will display information on the screen and is now ready for use.
- 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:

- Press the **DATE** 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 \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.

- Press the \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.



- Press the \oplus or \ominus buttons to set the current year (e.g. *yr 06* = 2006) then press the green **OK** button to confirm.

The date is now stored.



- Use the \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 CM701**'.

The Built-in Heating Program

The built-in heating program has 4 temperature level changes 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.

Period	1	2	3	4
Time	6:30	8:00	18:00	22:30
Temperature	21°C	18°C	21°C	16°C

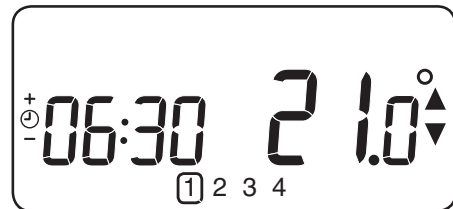
Reviewing the Heating Program

To review or edit the heating program use the **PROGRAM** (◀) or (▶) buttons to navigate between the 4 individual programming periods.

Modifying the Heating Program

To change the heating program:

a. Press either of the **PROGRAM** (◀) or (▶) buttons to enter the programming mode. The time / temperature settings for period (1) will be flashing as shown. The active period is highlighted by a flashing square around the numbers at the bottom of the screen.



b. To adjust the period start time use the (⊕) (+) or (⊖) (-) buttons, the display will stop flashing and the 'OK?' indicator will be displayed. 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) will now be flashing. To adjust this press the (▲) (up) or (▼) (down) 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 or press the **AUTO** button to run the program as set, at any time.

Disabling / Enabling Time Periods

The thermostat has 4 periods 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 (i) 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 (i) button for at least 2 seconds.


Choosing the Operating Mode

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.

During Normal Operation

• 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.

Adjusting the Time

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

Using the Special Features

- **Display Backlight**

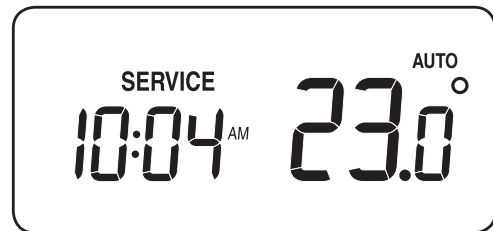
The CM701 has a backlit display that will illuminate when a button is pressed for easier viewing of the display in low light conditions.

- **SERVICE indicator**

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 CM701 until it is either reset or disabled by your installer. The CM701 and heating system will continue to operate as normal.






- **Automatic Summer/Winter Time Change**

The CM701 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**


Optimum Start is a program which ensures that the optimum temperature conditions are achieved at the required times. This is an Energy Efficiency feature that adjusts the start time of your heating system depending upon how cold it is. For example, on cold days your heating system will be started earlier to ensure that your home is warm when you get up (at the target temperature) and on warmer days the heating system will be started later to save energy. So, if the Optimum Start Feature is used, then the time / temperature settings which are entered into the thermostat should be set to when you want to be warm by and not when you want the heating system to start.

TROUBLESHOOTING THE CM701



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 CM701 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 CM701 and heating system will continue to operate as normal.</i></p>

FAQ's

How do I change the batteries on the thermostat when they run out?

The thermostat constantly monitors the battery power level, which typically lasts for about 2 years before needing replaced. When the power is running low a flashing  symbol will be displayed on the screen. To change the batteries follow the steps in the above section ('**STEP 1: Installing the Batteries**' on page 3), replacing the used batteries with new ones in Step c. Note: While changing the batteries your program settings will be stored but you may need to adjust the time settings to be correct.

How do I set one temperature for the whole day?

To operate as a simple thermostat with one temperature throughout the day, select the manual operating mode by pressing the **MAN** button. Adjust the temperature by pressing the  or  buttons - this can be set anywhere from 5°C to 35°C in 0.5°C steps. The thermostat will continue to maintain this temperature until another operating mode is selected or the temperature is adjusted.

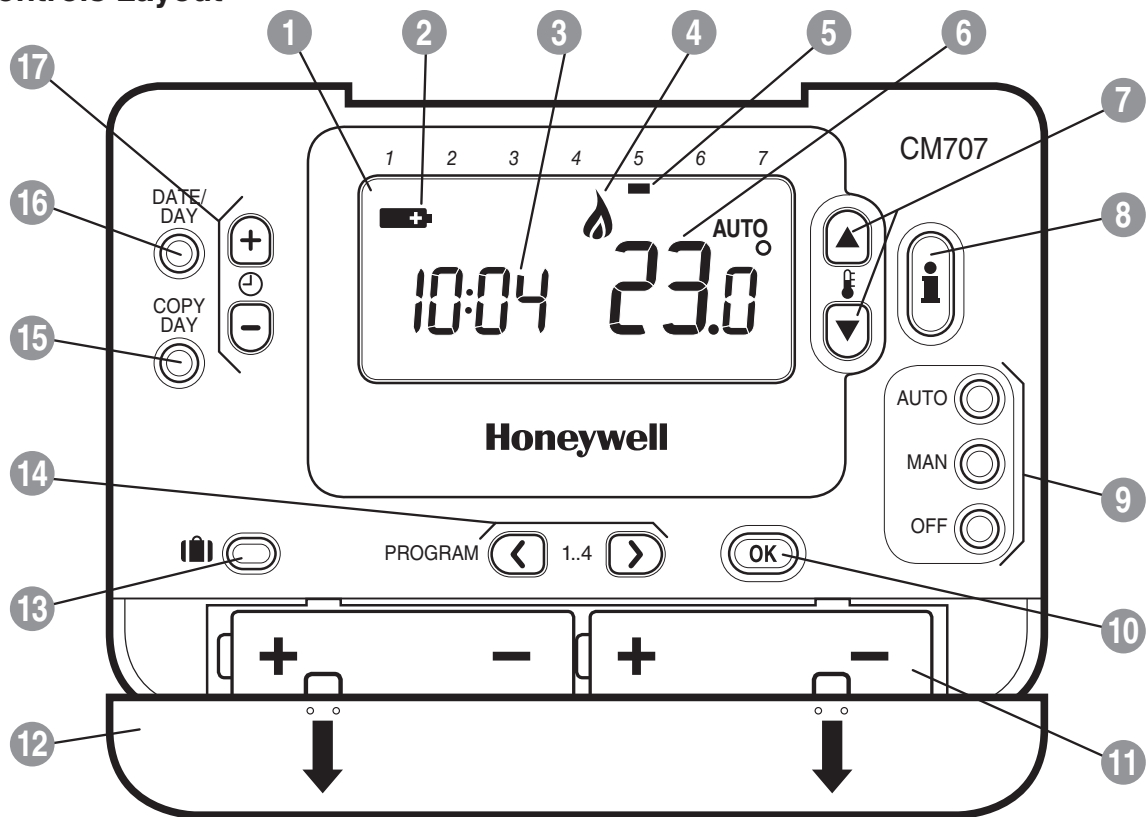
Description

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 to achieve the right temperature at the right time.
- Built-in Memory holds the user program indefinitely.

Controls Layout



- | | | |
|-------------------------|------------------------------|---------------------------|
| ① LCD Screen | ⑦ Temperature Change Buttons | ⑬ Holiday Function Button |
| ② Battery Low Indicator | ⑧ Temperature Enquiry Button | ⑭ Program Buttons |
| ③ Time Display | ⑨ Operating Mode Buttons | ⑮ Copy Day Button |
| ④ Burner On Indicator | ⑩ Green OK Button | ⑯ Set Date/Day Button |
| ⑤ Day Indicator | ⑪ Battery Compartment | ⑰ Time Change Buttons |
| ⑥ Temperature Display | ⑫ Battery Cover | |

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**' on page 8).
- After a short pause the thermostat will display information on the screen and is now ready for use.
- 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:

- 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.



- 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.



- Press the \ominus \oplus or \ominus buttons to set the current year (e.g. *yr 06* = 2006) 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.)



- 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	21°C	18°C	21°C	16°C

Saturday & Sunday (Day 6 & 7)

Period	1	2	3	4
Time	8:00	10:00	18:00	23:00
Temperature	21°C	21°C	21°C	16°C

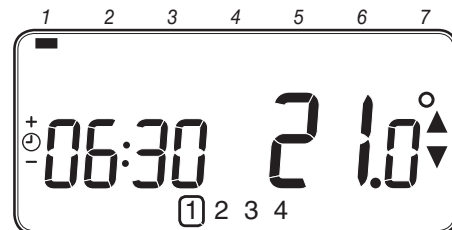
Reviewing the Heating Program

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.

- 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'.

- 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.
- 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:

- 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.
- 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.


Choosing the Operating Mode

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.

During Normal Operation

• 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.

Adjusting the Time










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


Using the Special Functions

• 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:

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

Using the Special Features

- **Display Backlight**

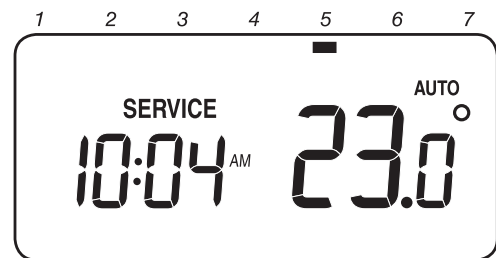
The CM707 has a backlit display that will illuminate when a button is pressed for easier viewing of the display in low light conditions.

- **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**


Optimum Start is a program which ensures that the optimum temperature conditions are achieved at the required times. This is an Energy Efficiency feature that adjusts the start time of your heating system depending upon how cold it is. For example, on cold days your heating system will be started earlier to ensure that your home is warm when you get up (at the target temperature) and on warmer days the heating system will be started later to save energy. So, if the Optimum Start Feature is used, then the time / temperature settings which are entered into the thermostat should be set to when you want to be warm by and not when you want the heating system to start.

TROUBLESHOOTING THE CM707



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>

FAQ's

How do I change the batteries on the thermostat when they run out?

The thermostat constantly monitors the battery power level, which typically lasts for about 2 years before needing replaced. When the power is running low a flashing  symbol will be displayed on the screen. To change the batteries follow the steps in the above section ('**STEP 1: Installing the Batteries**' on page 3), replacing the used batteries with new ones in Step c. Note: While changing the batteries your program settings will be stored but you may need to adjust the time settings to be correct.

How do I set one temperature for the whole day?

To operate as a simple thermostat with one temperature throughout the day, select the manual operating mode by pressing the **MAN** button. Adjust the temperature by pressing the  or  buttons - this can be set anywhere from 5°C to 35°C in 0.5°C steps. The thermostat will continue to maintain this temperature until another operating mode is selected or the temperature is adjusted.

WHAT IS A PROGRAMMABLE ROOM THERMOSTAT?

...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.



+ USER GUIDE

LOGIC COMBI ES
ES24 ES30 ES35

For Installation Guide see reverse of book

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.

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.

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

NOTE. BOILER RESET PROCEDURE -

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

Introduction

The **Logic Combi ES** is a wall mounted, room sealed, condensing combination boiler, featuring full sequence automatic spark ignition and fan assisted combustion.

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

The **Logic Combi ES** is a combination boiler providing both central heating and instantaneous domestic hot water.

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 (RGI) 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 (RGI).
- Under **NO** circumstances should any of the sealed components on this appliance be used incorrectly or tampered with.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instructions concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.

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

All 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 Stelrad Group 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

Minimum Clearances

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

Bottom clearance

Bottom clearance after installation can be reduced to 5mm.

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

To light the boiler. Refer to Frame 1

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

1. CHECK THAT THE ELECTRICITY SUPPLY TO BOILER IS OFF.
2. Set the mains mode knob control (D) to 'Off'.
3. Set the Domestic Hot Water temperature control (B) and Central Heating temperature control (C) 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 control to winter (☁️ III).

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

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

D Standby - no demand for heat.

C CH being supplied.

d DHW being supplied.

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

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

RESET PROCEDURE

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



Operation

Winter conditions - i.e. CH and DHW required.

Ensure the mode knob control (D) is set to winter (☔)

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

Summer conditions - i.e. DHW only required.

Set the mode knob control to Summer (☀).

Set the CH external controls to OFF.

The boiler will fire whenever there is a demand for DHW.

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

Control of water temperature

Domestic Hot Water

The DHW temperature is limited by the boiler controls to 64°C maximum at low draw-off rate, adjustable via the DHW temperature control (B).

Approx. flow temperatures for the boiler thermostat settings are:

Knob Setting	Flow Temperature
Minimum	40°C (104°F)
Maximum	64°C (147°F)

Due to system variations and seasonal temperature fluctuations DHW flow rates/temperature rise will vary, requiring adjustment at the draw off tap : the lower the 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 CH temperature control (C).

The Logic Combi ES is a high efficiency combination boiler which is most efficient when operating in condensing mode.

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

Weather Compensation

When the Weather Compensation option is fitted to the system then the CH Temperature Control (C) 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.

To shut down the boiler

Set the mode knob control to OFF

To relight the boiler

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

Frost protection

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

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

Boiler Overheat Protection

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

Refer to fault chart.

Flame Failure

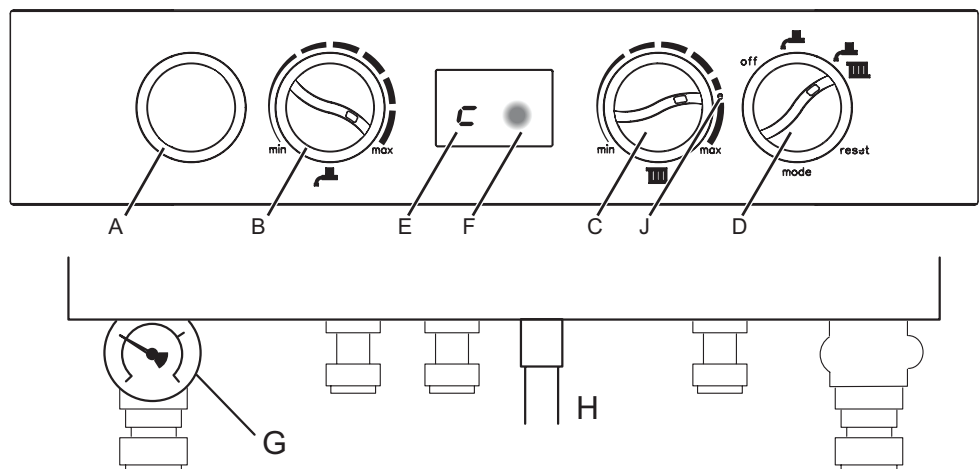
Should this occur a fault code F-2 will be displayed. Refer to fault chart.

continued

1 BOILER CONTROLS

Legend

- A. Blank
- B. DHW Temperature Control
- C. CH Temperature Control
- D. Mode Control
- E. Boiler Status
- F. Burner 'on' Indicator
- G. Pressure Gauge
- H. Condensate Drain
- J. Economy Mode



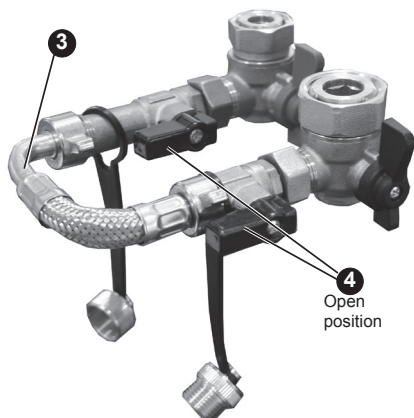
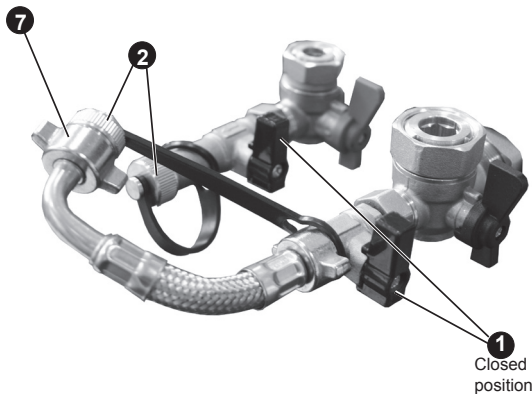
Loss of system water pressure

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

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

To re-pressurise:

1. Ensure filling loop isolation valves are closed.
2. Remove the left hand caps.
3. Attach on the filling loop.
4. Turn the filling loop isolation valves to the open position. The system will now fill.
5. Wait for pressure gauge to reach 1 to 1.5 bar.
6. Close the filling loop isolation valves.
7. Disconnect the filling loop at left hand side and angle upwards.
8. Replace caps.



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 reset 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, reset 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 boiler stat to maximum, (Must return to original setting once cold spell is over)

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

Escape of gas

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

Do NOT search for gas leaks with a naked flame.

Cleaning

For normal cleaning simply dust with a dry cloth.

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

DO NOT use abrasive cleaning materials.

Maintenance

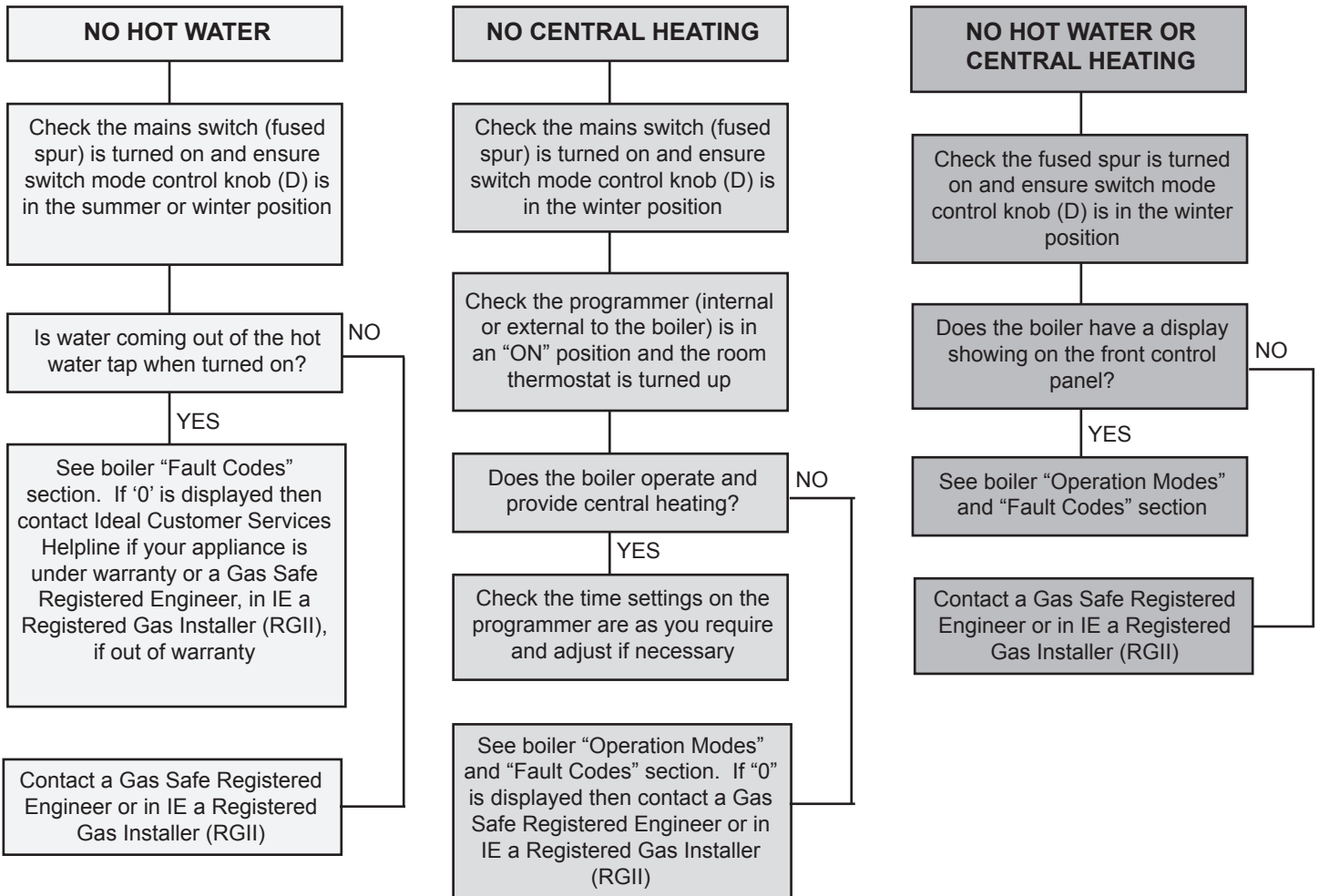
The appliance should be serviced at least once a year by a Gas Safe Registered Engineer or in IE a Registered Gas Installer (RGI).

continued

POINTS FOR THE BOILER USER

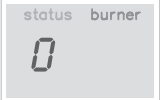
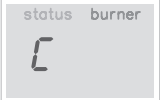
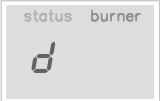
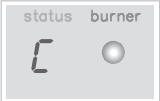
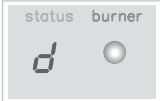

Note. In line with our current warranty policy we would ask that you check through the following guide to identify any problems external to the boiler prior to requesting a service engineers visit. Should the problem be found to be other than with the appliance we reserve the right to levy a charge for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

TROUBLESHOOTING



continued

OPERATION MODES

DISPLAY CODE ON BOILER	DESCRIPTION
	The boiler is in standby mode awaiting either a central heating call or hot water demand.
	The boiler has a call for central heating 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 hot water mode.
	The boiler is operating in frost mode.

continued

FAULT CODES

DISPLAY CODE ON BOILER	DESCRIPTION	ACTION
<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner F</div> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner 6</div> </div>	Outside Sensor Failure	Reset 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).
<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner F</div> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner 7</div> </div>	Low Mains Voltage	Contact a qualified electrician or your electricity provider.
<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner F</div> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner 9</div> </div>	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).
<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner L</div> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner 5</div> </div>	5 Boiler Resets in 15 minutes	<ol style="list-style-type: none"> 1. Turn power off and on at the fused spur. 2. If the boiler fails to operate please contact 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).
<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner L</div> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner 6</div> </div>	False Flame Lockout	Reset 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).
<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner L</div> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner 0</div> </div>	BCC Activation Fault	Reset 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).
<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner L</div> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner 2</div> </div>	BCC Fault	
<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner F</div> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner 1</div> </div>	Low Water Pressure	Check system pressure is between 1 & 1.5bar on the pressure gauge. 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).
<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner L</div> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner 1</div> </div>	Flow Temperature Overheat or No Water Flow	
<div style="display: flex; flex-direction: column; justify-content: space-around;"> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner F</div> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner 2</div> </div> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner L</div> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner 2</div> </div> </div>	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).
<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner F</div> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner 3</div> </div>	Fan Fault	Reset 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).
<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner F</div> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner 4</div> </div>	Flow Thermistor	Reset 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).
<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner F</div> <div style="border: 1px solid black; padding: 2px; text-align: center;">status burner 5</div> </div>	Return Thermistor	Reset 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).



Self-contained Carbon Monoxide Alarm “The Professional’s Choice”

Our products and services protect millions of people every day. Why would you trust your life or the safety of your family to anyone else?

H450EN Self-contained Carbon Monoxide Alarm



Why choose the H450EN

Carbon Monoxide (CO) alarm:

- 6 year guarantee, up to 7 year life of alarm
- Superior electrochemical cell sensing technology
- Easy to install and use
- Automatic sensor adjustment function ensures complete accuracy
- Approved to EN50291-1:2010 and Kitemarked
- Continuous self test function
- Batteries pre-fitted in alarm
- No sensors to replace
- No mains power
- No maintenance
- End of unit life indication

The H450EN is an easy to use and reliable self-contained Carbon Monoxide alarm. Designed for use in all domestic environments such as homes, static caravans and home parks.



All gas appliances should be checked for safety annually.

The H450EN has a unique fold down flap on the front of the unit which provides a range of useful information to the user without having to refer back to the comprehensive instruction manual.

This includes:

- A description of the potential alarm and fault signals that the unit can give
- What to do if the full alarm sounds and a contact telephone number
- Contact details for our CO Advice Line and CO alarm replacements
- Contact details for Gas Safe Register (ensure gas installers are properly registered)

Sensor Technology

The latest electrochemical cell technology ensures complete accuracy and reliability giving a 6 year guarantee and up to 7 year life under normal operating conditions. It is officially approved and Kitemarked to the stringent performance requirements of EN50291-1:2010 - the European Standard for domestic Carbon Monoxide alarms.

Installation

The H450EN is easily attached using the fixing kit provided, with no need for any wiring. No maintenance is required for the full 7 year life of the alarm, with no sensors or any parts to replace.

Maintenance-free Operation

This alarm, including batteries, is guaranteed for 6 years. The batteries are sealed inside the alarm, preventing access by the user and do not require replacement for the whole life of the alarm (up to 7 years).

The Professional's Choice

The H450EN is widely regarded as the professional's choice of Carbon Monoxide alarm and is the chosen unit of numerous major organisations such as gas suppliers, energy companies, local authorities and housing associations etc.

Visual signalling



The H450EN provides a visual signalling in addition to its audible alarm. It enables the user to clearly distinguish between a

dangerous alarm situation, a fault situation like almost empty batteries, and normal operation. This is achieved with the new dual-colour status light, which will flash green to indicate normal operation, and yellow in case of a fault. This also provides a clear end of unit life indication for the unit.



BS EN50291-1:2010

Honeywell is a leading manufacturer of Carbon Monoxide alarms

General Specification



Specification	
Detection Principle	Electrochemical cell
Operating Voltage	3V
Alarm Life	Up to 7 years under normal operating conditions
Alarm Indication	Audible and visual alarm
Buzzer Output	> 85 decibels (dB) at 1m
Operating Temperature Range	-10 to +40°C
Humidity Range	30 to 90% RH non condensing
Alarm Levels	50ppm between 60 to 90 minutes 100ppm between 10 to 40 minutes 300ppm < 3 minutes (as required by EN50291-1:2010)
Weight	0.1kg (100g) approx.
Dimensions	110mm x 76mm x 34mm
Test Facility	Yes
Self Check Function	Yes

Ordering Information	
Blister Pack (UK/FR/DE/NL)	H2109B0181SE
Trade Box (UK/FR/DE/NL)	H2109B0180SE
Trade Box (UK/IT/ES/PT)	H2109B0180SEB



Customer Branding

For specific volume contracts, we are able to screen print a customer logo on the front of the unit. This is particularly popular with Local Authorities, Housing Associations and Utilities. Terms and conditions apply - full details on request.



The H450EN is available in a blister pack or trade box.

Contact Us

We also provide a **UK CO Advice Line/Call Centre** facility which is available Monday to Thursday 8.30am to 5pm and Friday 8.30am to 3.30pm. The Call Centre will answer any queries on our products and on CO. Please call **01202 645 577** for more information.



From 1 April 2009, all gas engineers in Great Britain and Isle of Man must be on the new Gas Safe Register® to do gas work lawfully. We fully support the efforts of Gas Safe Register® and will only recommend the use of Gas Safe registered engineers for the servicing of gas appliances.

Honeywell Analytics is a keen supporter of numerous national awareness campaigns designed to raise the profile of CO safety and the use of officially approved CO alarms. These include the *Be Alarmed* campaign, *CO Awareness Week* and *Gas Safety Week*. Honeywell Analytics is actively committed to reducing the injuries and deaths resulting from CO poisoning and works with government and key lobby groups to evolve domestic safety legislation.



Carbon Monoxide - Be Alarmed! is the national campaign to encourage the use of properly approved CO alarms to reduce

the number of deaths and injuries caused by Carbon Monoxide. For more information about how to stay safe please visit the campaign website: www.co-bealarmed.co.uk