

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.

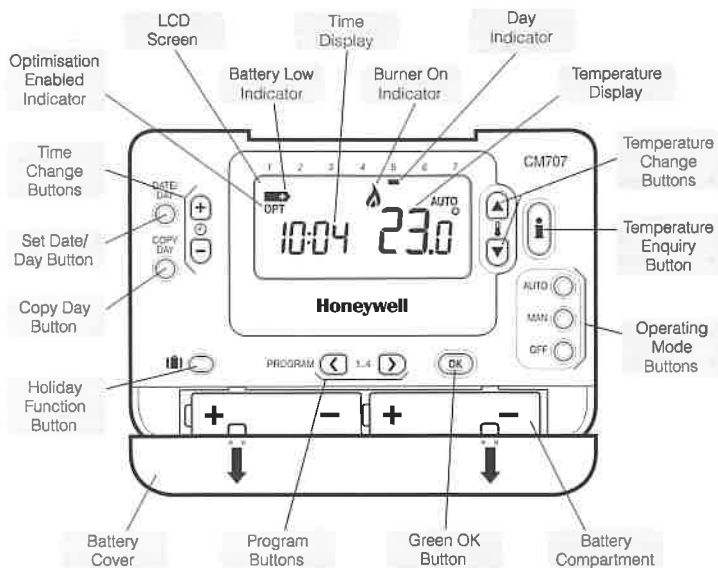
Features

- 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).

- 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 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.)



- 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.

- 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:

- 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

- 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.

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 \uparrow Δ or \downarrow 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 H 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 \uparrow Δ or \downarrow buttons or the H button. The 'target' temperature will be displayed and flash for 5 seconds - during this time the \uparrow Δ or \downarrow 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 \oplus or \ominus buttons and press the green OK 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 H button to display the holiday days counter and temperature setting, along with the holiday indicator H .
- Press the \oplus or \ominus time buttons to set the holiday time (1 - 99 days) and press the green OK button to confirm.
- Press the \uparrow Δ or \downarrow buttons to set the holiday temperature (5°C - 35°C) and press the green OK 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 H 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.	The batteries in the thermostat are low on power - Replace the batteries.
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: The CM707 and heating system will continue to operate as normal.</p>



Honeywell Control Systems Ltd.

Skimped Hill Lane

Bracknell

Berkshire

RG12 1EB

Technical Help Desk: 08457 678999

www.honeywelluk.com

Honeywell

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