

OPERATING INSTRUCTIONS

MAINS POWERED DIGITAL 7 DAY PROGRAMMABLE ROOM THERMOSTAT

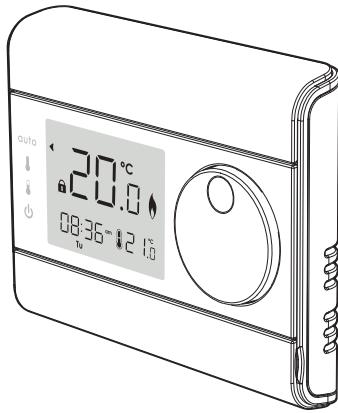


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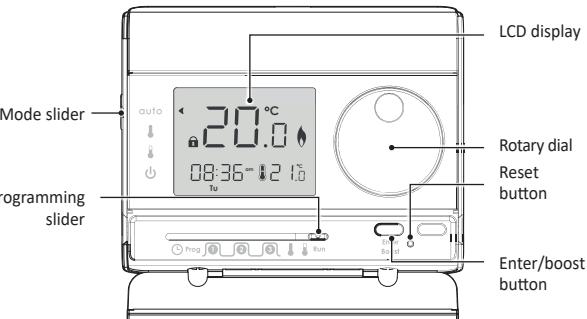
OVERVIEW

Thank you for purchasing our RT7SD PLUS, 7 day programmable digital room thermostat. It is by listening to your requirements we have created and designed our products to be easy to operate and install. It is this ease of operation that is intended to make your life easier and help you save energy and money.



CONTROLS AND DISPLAY

• Thermostat

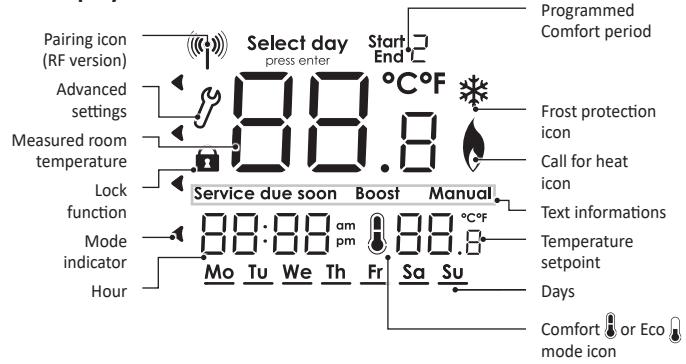


Programming sliders sequences:

Time/date → Day to be programmed → Comfort period setting → Comfort temperature → Eco temperature → Run.



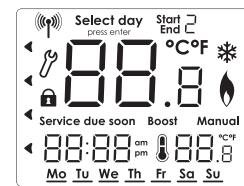
• LCD Display



SETTINGS

INITIAL POWER UP

1- Once the thermostat is connected, all symbols will be displayed on the LCD screen as shown for two seconds.



2- After 2 seconds, the LCD will show:
- The ambient temperature (°C) solid.



PLEASE READ BEFORE PROGRAMMING YOUR THERMOSTAT

OPTIMISATION EXPLAINED

WHAT IS OPTIMISATION – OPTIMUM START?

Historically, most UK heating systems waste vast amounts of energy by firing unnecessarily early for most of the year. Homeowners tend to set their boiler on times based on when they wake up by guessing what time they feel that their boiler should fire in order to reach the requested target temperature; for example turning the boiler on at 6am in order to have a warm room/ home by their wake up time at 7am.

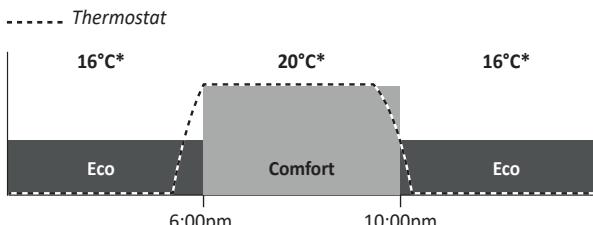
Dual function optimisation, priority to comfort or energy savings, the choice is yours: Depending on various parameters: room inertia, ambient temperature, desired temperature, the thermostat calculates and optimises the programming for each heating period whether set to Comfort or Savings (Eco):



PLEASE READ BEFORE PROGRAMMING YOUR THERMOSTAT

In OPTI COMFORT mode, priority to comfort

In OPTI COMFORT mode, the thermostat's inbuilt algorithm optimises in order to guarantee maximum comfort during the COMFORT programme.



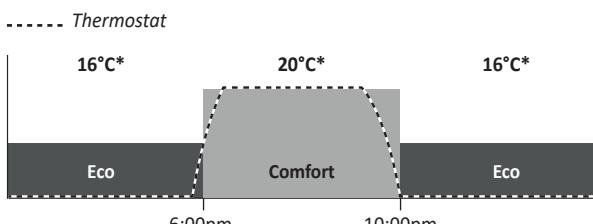
*Default temperature setting

The processor within the thermostat starts the boiler operation at the optimum time to achieve the setpoint temperature at the start of the occupancy period.

In this mode, the priority is given to anticipating and maintaining the comfort temperature during periods of occupancy.

In OPTI ECO mode, priority to energy savings

In OPTI ECO mode, the thermostat's inbuilt algorithm optimises in order to guarantee maximum energy savings throughout the ECO programme.



*Default temperature setting

In this mode, a slight drop in the temperature level at the beginning and end of the comfort period is allowed to maximise energy savings.

Instead of using a fixed start time, Optimum Start calculates how long the house will take to warm up depending on the temperature of the home, then fires the boiler automatically at the most efficient moment in order to reach your target temperature by your programmed time.

HOW DOES OPTIMUM START WORK?

Optimum Start works on a daily basis. You set the time that you want to be warm and Optimum Start will do the rest; for example - if you wake up at 7:30AM, then set your thermostat's start time for 7:30AM. Optimum Start ensures that you are warm when you want to be (and not before), reducing wasted energy and saving money (up to 10% of energy costs).

To change the optimisation type, refer to the installation instructions/ advanced installer settings.

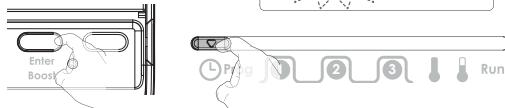


PROGRAMMING

SET DATE AND CLOCK

1- Move the Programming slider to position . The default year 2019 is flashing. Turn the dial clockwise to increment the year. Turn the dial counter-clockwise to decrement the year.

Press **Enter** to confirm and go to next setting.

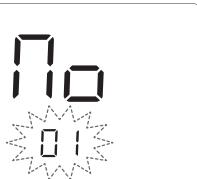
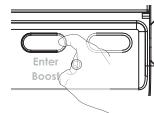


2- The default month 01 is flashing.

Turn the dial clockwise to increment the month. Turn the dial counter-clockwise to decrement the month.

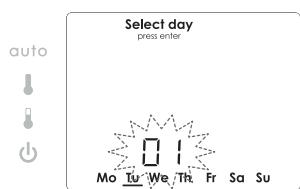
01 = January; **02** = February; **03** = March; **04** = April; **05** = May; **06** = June; **07** = July; **08** = August; **09** = September; **10** = October; **11** = November; **12** = December.

Press **Enter** to confirm and go to next setting.

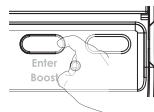


3- The default day 01 and the corresponding day underlining are flashing. Turn the dial clockwise to increment the day. Turn the dial counter-clockwise to decrement the day.

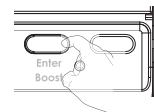
Mo = Monday ; **Tu** = Tuesday ; **We** = Wednesday ; **Th** = Thursday ; **Fr** = Friday ; **Sa** = Saturday ; **Su** = Sunday



Press **Enter** to confirm and go to next setting.



Press **Enter** or slide the programming slider to any other position to confirm/finish this setting.

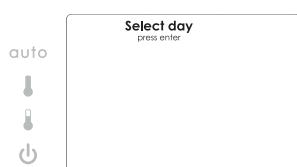


Note regarding the clock: The summer/winter change will be performed automatically by the room thermostat.

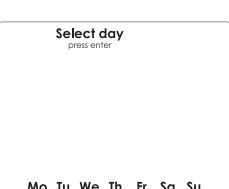
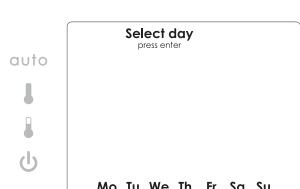
To disable this feature, refer to the installation instructions/ advanced installer settings.

SET THE PROGRAM DAY

1- Move the Programming slider to position . The current day setting is flashing. The default day is Monday.



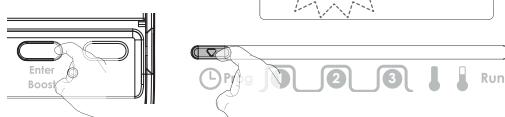
2- Option 1: Single day programming. Rotate dial to day required, eg Monday, press **Enter**. Underscore will become solid. Move the Program slider to any other position to confirm/finish this setting.



Option 2: Multiday programming. Select first day by pressing enter then turn the dial to right, to add additional days to be programmed and press **Enter** to confirm each additional day. Move the Program slider to any other position to confirm/finish this setting.

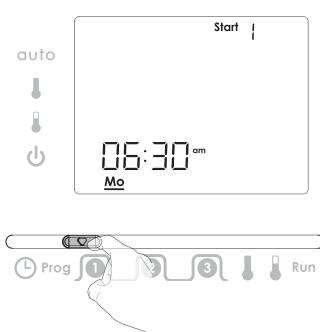
1- Move the Programming slider to position . The default year 2019 is flashing. Turn the dial clockwise to increment the year. Turn the dial counter-clockwise to decrement the year.

Press **Enter** to confirm and go to next setting.

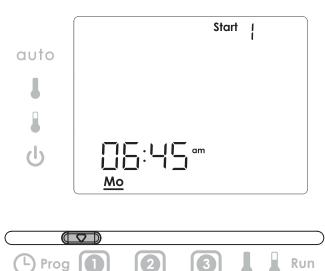


SET THE PROGRAM COMFORT PERIOD

1- To set the first Comfort start time, move the Programming slider to position ①. The default time is 6:30am.



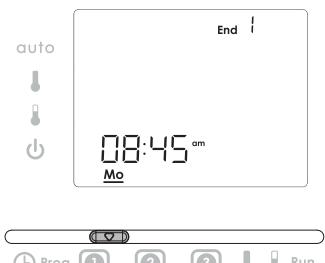
2- Turn the dial to set the time. Move the Program slider to the next position to confirm/finish this setting.



3- To set the first Comfort end time, move the Programming slider to position ①. The default time is 8:30am.



4- Turn the dial to set the time. Move the Program slider to the next position to confirm/finish this setting.

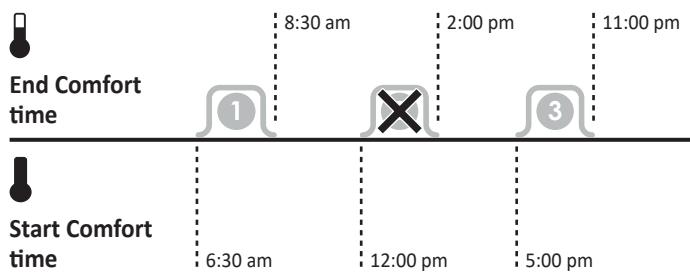


5- Repeat for the second comfort period ②, and for the third comfort period ③.

Comfort period	Default times	
Comfort period 2	Start at 12:00 pm	End at 02:00 pm
Comfort period 3	Start at 05:00 pm	End at 10:00 pm

Note: if you wish not to use a period then this can be done by Coinciding the End time with Start time.

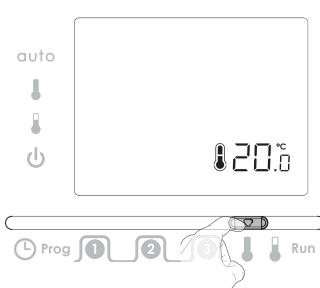
Customisable default Comfort temperature



TEMPERATURES SETTING

Two temperatures can be set: Comfort temperature and Economy temperature.

1- To set the Comfort temperature, move the Programming slider to position ①. The default temperature is 20°C (68°F).



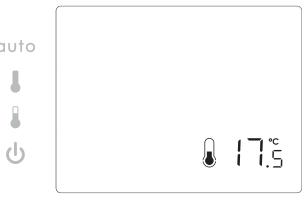
2- Turn the dial to set the temperature between 5°C and 30°C, in increments of 0.5°C.

Move the Program slider to the next position to confirm/finish this setting.



3- To set the Economy temperature, move the Programming slider to position ②. The default temperature is 16°C (61°F).

4- Turn the dial to set the temperature between 5°C and 30°C, in increments of 0.5°C. Move the Program slider to the next position to confirm/finish this setting.



5- Move the program mode slider to the Run position to confirm and finish all previous settings.

OPERATING

MODE SELECTION AND DESCRIPTION

Mode sliders sequences:

Auto mode → Comfort mode → Economy mode → Standby.

AUTO: Automatic mode. The unit is controlling to the time and temperature program that have been selected (refer to "programming" section page 2).

COMFORT: Permanent comfort mode. The unit is controlling continuously to the comfort temperature setpoint. The default temperature setting is 20°C (68°F). Refer to section temperatures setting to change the value page 3.



ECO: Permanent eco mode. The unit is controlling continuously to the eco temperature setpoint. The default temperature setting is 16°C (61°F). Refer to section temperatures setting to change the value page 3.

STANDBY: Permanent standby mode with frost protection. The unit is controlling continuously at the frost protection temperature factory set. i.e 8°C. The ambient temperature will be displayed.

Use it when you will be away from your home for a long time to protect your installation against frost.



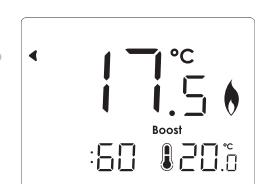
MANUAL: A TEMPORARY CHANGE

MANUAL: Indicates when the temperature has been moved from setpoint. This temperature will operate until the next switching time. This is only active when the controller is in AUTO or COMFORT mode.

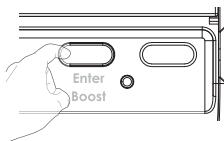


BOOST

BOOST: Boost mode is a temporary mode which allows you to operate at the comfort temperature for 1 hour. At the end of 1 hour the device will revert to its prior setting.



BOOST will work from any running mode.
BOOST is entered by pressing **Enter/Boost** button.



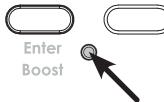
FACTORY SETTINGS

BOOST is cancelled by any press of button, movement of dial or slider.
When BOOST is running the time and day disappear. The minute array will count down from 60 – 0 to indicate time left in BOOST mode.

Note: the Programming slider must be in the **Run** position.

Settings	Factory settings	
Comfort temperature	20°C	
Eco temperature	16°C	
Comfort period 1	Start at 06:30 am	End at 08:30 am
Comfort period 2	Start at 12:00 pm	End at 02:00 pm
Comfort period 3	Start at 05:00 pm	End at 10:00 pm

Note: To restore factory settings, press and hold down this part for more than 3 seconds using the tip of a pen.



All LCD display will be turned ON for 2 seconds and the factory settings will be restored.

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TROUBLESHOOTING

The boiler is not heating:

- Check that the Thermostat is calling for heat if yes then the thermostat would appear to be working check that the boiler has not switched itself off.
If no increase set temperature.
- In the event of a power failure or the thermostat being disconnected, the thermostat will maintain its programmed settings for up to 10 Hours.

The room temperature is not high enough, the boiler is not providing enough heat:

- Check the active operating mode (see page 3) - the room thermostat may be in an Eco, Standby or Auto Mode entailing a temperature drop.
- Check the active desired temperature and increase it if needed (see page 3).

The temperature in the room is lower than the setpoint temperature:

- Check the programming. The thermostat could be in a scheduled Eco period.
- Ensure that the time displayed is the same as the current time.

You made a mistake while setting:

- You just need to restore factory settings, as explained in the "Factory settings" section (see page 4). This will reverse any changes you might have made.

The system is not heating but is on:

- If  and indicator light is on but the system remains cold, then you should contact your installer.

The thermostat is programmed and you observe a delay between the active mode Comfort or Eco and your requirement:

- The optimisation function can generate slight offsets to guarantee the level of comfort at the right time or to save energy by slightly anticipating an Eco passage.

Heating comes on before programmed start time and comes off after programmed end time:

- Thermostat maybe set to OPTI Comfort mode. The thermostat will start the boiler at the optimum time to achieve the set point temperature at the start of the occupancy period. (On cold days your heating may come on earlier than expected in order for the programmed occupied temperature to be achieved).
- To change the optimisation type, refer to the installation instructions.

Heating does not come on at programmed start time and comes off before programmed end time:

- Thermostat maybe set to OPTI ECO mode. The thermostat will stop the boiler at the optimum time to slightly reduce the set point temperature before the end of the occu-

pancy period. (This helps you to save money on your heating bills).

- To change the optimisation type, refer to the installation instructions.

If the problem persists, then contact your installer.

If either Service due soon or Service due appear in the display then contact your installer or land lord.

TECHNICAL SPECIFICATIONS

In the event of a power failure or the thermostat being disconnected, the thermostat will maintain its programmed settings for up to 10 Hours.

i NOTE

In some instances the unit may have been set with the service interval function enabled. By Law in rented accommodation, your gas boiler should be inspected/serviced annually to ensure it is working correctly.

This option is designed to remind the end user to contact the relevant person to have the annual service carried out on the boiler.

This function will be enabled and programmed by your Installer, maintenance Engineer, or Landlord.

If it has been set to do so, the unit will display a message on the screen to remind you that a boiler service is due.

The Service Due Soon countdown will be indicated up to 50 days before the Service is due to allow time to arrange for an engineer to attend, normal functions will continue during this stage.

At the end of this service due soon period, the unit will go to Service Due OFF at which point only the 1hour boost will operate on the thermostat, it will operate at 20°C during this hour.

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WHAT IS A ROOM THERMOSTAT



... an explanation for householders
A room thermostat simply switches the heating system on and off as necessary. It 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.

Turning a 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 room thermostat to a lower setting will result in the room being controlled at a lower temperature, and saves energy.

The heating system will not work if a time switch or programmer has switched it off. The way to set and use your room thermostat is to find the lowest temperature setting that you are comfortable with, and then leave it alone to do its job. The best way to do this is to set the room thermostat to a low temperature – say 18°C – and then turn it up by one degree each day until you are comfortable with the temperature. You won't have to adjust the thermostat further. Any adjustment above this setting will waste energy and cost you more money.

If your heating system is a boiler with radiators, there will usually be only one 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.

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.



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