

ESRTP4+

# Programmable Room Thermostat

## Installation Instructions

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All our products are tested in the UK so we are confident this product will reach you in perfect condition and give you many years of service. However, for additional peace of mind, we recommend you register your product online at [www.esicontrols.co.uk/warranty](http://www.esicontrols.co.uk/warranty) for your extended warranty.

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## Installation Instructions

# 1. Technical Specification

Programmable Room Thermostat	
Programming	7 Day, 5/2 Day & 24Hr
Power supply	2 x 1.5V Lithium batteries (type: AA size)
Temperature sensor type	+/- 0.5°C at 20°C
Temperature adjustment range	5°C to 35°C
Total switch rating	6(2)A 230VAC
Contact type	SPDT (Volt free changeover contacts)
<b>OpenTherm</b>	
Connections	Polarity free
Maximum line length	50 meters
Maximum cable resistance	2.5 Ohms
Plastic	Thermoplastic, flame retardant
Number of programs	4 or 6 (Default: 4)
Protection rating	IP30
Dimensions	127mm(L) x 81mm(W) x 28mm(D)
Number of events per day	4 - 6
BST/GMT time change	Automatic
Factory pre-set programme	Yes
Complies with:	EN60730-1 EN 60730-2.7, EMC Directive 2014/30/EU, LVD Directive 2014/35/EU

# 2. Installation

## 2.1 Installation Safety Instructions

The unit must be installed by a suitably qualified person in accordance with the latest IEE Wiring Regulations.

Isolate mains supply before commencing installation. Please read all instructions before proceeding.

Ensure that the fixed wiring connections to the mains supply is via a fuse rated at not more than 6 amps and class 'A' switch having a contact separation of a minimum of 3mm in all poles. The recommended cable sizes are 1.0mm sq or 1.5mm sq. No earth connection is required as the product is double insulated but ensure continuity of earth throughout the system.

## 2.2 General Safety Instructions

When fitting batteries, do not mix old and new batteries together. Do not use rechargeable batteries.

This product complies with the essential requirements of the following EC Directives:

- Electro-Magnetic Compatibility Directive 2014/30/EU
- Low Voltage Directive 2014/35/EU
- EC Marking Directive 93/68/EEC

## 2.3 Maintenance

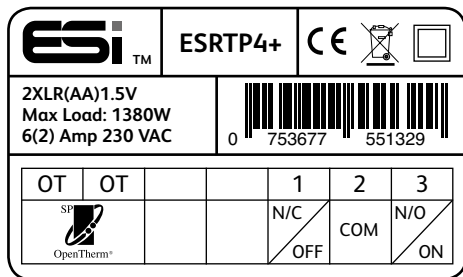
Always isolate the mains supply before commencing any work, servicing or maintenance on the system. And please read all instructions before proceeding.

Arrange for an annual maintenance and inspection schedule to be carried out by a qualified person on every part of the heating and hot water system.

## 2.4 Warning Notices

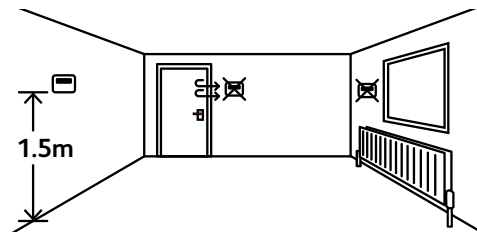
**WARNING:** Always isolate the AC mains supply before installing. This product must be fitted by a competent person, and installation must comply with the guidance provided in the current editions of BS767 (IEE wiring regulations) and part “P” of the building regulations.

## 2.5 Wiring Diagram



For information on wiring to the boiler please contact your boiler manufacturer directly!

Terminal	Identifier	Description
1	N/C	Normally closed (NC)
2	COM	Linked Live Feed (230V AC Heating Applications Only)
3	N/O	Normally open



## 2.6 Fitting the Programmable Room Thermostat

The ideal position to locate the Programmable Room Thermostat is about 1.5m above floor level, in a location where the thermostat is accessible, reasonably lit and free from extremes of temperature and draughts. Do not position the thermostat near sources of heat, such as radiators, lights, TV, direct sunlight or on an outside wall

### Installation

1. Remove the front cover using a flat screwdriver in the two holes at the top of the programmer and separate from back plate.
2. Fix the back plate directly on the wall using suitable wall plugs and screws.
3. Unscrew the cover that is protecting the live terminals. Lift the cover to expose the wiring block, taking care to retain the screw.
4. Complete the connections in accordance with the wiring diagram (page 8).
5. Replace the thermostat onto the back plate, securing the bottom of the thermostat first and clicking the thermostat into place.

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6. Insert the 2 x AA batteries provided in the battery compartment on the front of the thermostat, underneath the fascia. The Programmable Room Thermostat is now installed and will automatically start to control the room temperature according to the factory pre-set programme as shown in the User Instructions. The display shows the correct time and date which is automatically set together with the actual room temperature.

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## 3. Technical Settings

### 3.1 Setting TPI, Delayed or Optimum Start

1. Switch the slider to OFF. Press and keep holding the **A** and **H** buttons together (under the fascia), then press the **Next ►►** button to enter the technical settings. Release all buttons.
2. Press the **+/-** buttons to choose between:-
  - OFF:** The programme will run according to settings
  - DS (dL StAr DS):** When ON, the programmer will run in Delayed Start mode. The start of the next programme may be delayed up to 45 minutes depending on the room temperature
  - OS (OP StAr OS):** When ON, the programmer will run in Optimum Start mode
3. Press the **Next ►►** button and press the **+/-** buttons to turn OP STOP (Optimum Stop) ON/OFF.
4. Press the **Next ►►** button to enter the TPI settings. Press **+/-** to choose between:-
  - OFF:** Working under normal swing value
  - 3 Cycles:** ON/OFF one cycle is 20 minutes. This is recommended for oil boilers
  - 6 Cycles:** ON/OFF one cycle is 10 minutes. This is recommended for gas boilers (default setting)
5. Press the **Next ►►** button to continue to the Sensitivity/Swing and Calibration settings below.

### 3.2 Setting Sensitivity/Swing and Calibration

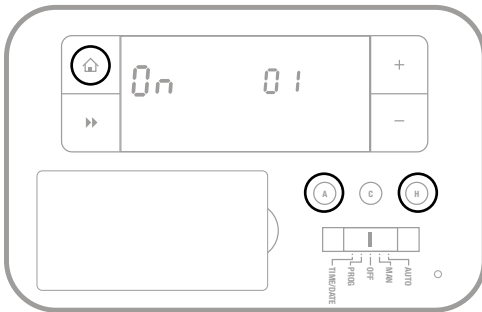
1. Switch the slider to **OFF**. Press and keep holding the **A** and **H** buttons together (under the fascia), now press

the **Next ►►** button and the technical settings menu will be displayed. Release all buttons.

2. Press the **Next ►►** button until you get to the **SWING** settings (5U1n9 is displayed at the bottom of the LCD next to a flashing 0.5). Press **+/-** to choose between 0.5 to 2.0
3. Press the **Next ►►** button to enter the **ADJ** settings. Press **+/-** to choose between -3 to 3 (this calibrates the temperature).

### 3.3 OpenTherm Parameter Settings

**OpenTherm Settings:**



#### To Adjust the OpenTherm Settings:

1. Move the slider to the **OFF** position
2. Press and hold **A**, **H** and the **Home** button until Parameter 01 on the right-hand side of the screen is displayed.
3. Continue to press the **Next ►►** button to scroll through the different menus below

### Menu Parameter Settings

Parameter	Feature	Comment
01	Low Load control	Use + or – to disable (OFF) / enable (ON). default is ON.
02	Flow Water Temperature	
03	Return Water Temperature	
04	Domestic Hot Water Temperature	
05	DHW settings	Use + or – to disable (OFF) / enable (ON). default is OFF
06	Hot Water Set Point	(60°C default setpoint) N.B. Hot Water Set Point is only displayed if DHW is enabled in 05 above

### 3.4 Setting the Landlord Service & Time Events

1. Switch the slider to **OFF**. Press and keep holding the **A** and **H** buttons together (under the fascia), now press the **Next ►►** button and the technical settings menu will be displayed. Release all buttons.
2. Press the **Next ►►** button until you get to **CODE**. A numeric password will be required to enter this section. The factory default password is 0000.

**N.B.** The screen will display **Err** if the incorrect password is entered.

3. Press **+/-** to enter the first digit of the password. Press the **H** button to move to the next digit. Repeat this until all 4 digits have been entered.
4. Press the **Next ►►** button to enter the service interval settings.
5. Use the **+/-** buttons to choose between:-  
**OFF:** Turns the service interval off

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- 1: Reminds the user when the annual service is due by displaying **SER** in the screen 30 days before due date
  - 2: Reminds the user when the annual service is due by displaying **SER** in the screen 30 days before due date and only allows the system to run for 45 minutes per hour after the due date has passed
  - 3: Reminds the user when the annual service is due by displaying **SER** in the screen 30 days before due date and only allows the system to run for 30 minutes per hour after the due date has passed
  - 4: Reminds the user when the annual service is due by displaying **SER** in the screen 30 days before due date and only allows the system to run for 15 minutes per hour after the due date has passed
6. Press the **Next ►►** button. Use **+/-** to set the due date (from 28 - 366 days).
  7. The left of the LCD screen will display the recorded running time. Holding the **C** button for 2 seconds will zero to the time.
  8. To change the code, go to the Due Date setting (in **SER** settings), press the **A** button for 2 seconds. **NEU CODE** will appear at the bottom of the LCD display. Press **+/-** to set the first digit, then press the **H** button. Repeat this for all four digits. Press the **A** button for 2 seconds again to set the new code. The screen will display **SET** to confirm the change.
  9. The system will start timing after the thermostat is powered on (Running Time). When the running time reaches 30 days from the Due Date, the screen will display **SER**. When the running time is more than or equal to the Due Date, the screen will display **SER**

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constantly and the system ON time will be controlled by the **SER SET**.

**N.B.** *When the system is running to the ON condition, but is limited by the **SER SET** (and therefore cannot be ON), the screen will flash the ON symbol.*

10. Press the **Next ►►** button to enter the **PROGRAMMES** setting, press **+/-** to choose either 4 or 6 time temperature events per day.
11. To exit the installer setting press the **🏠 Home** button.

### 3.5 Lockout Feature:

The RTP4 and RTP4RF comes with a lockout feature which enables the installer to disable certain functions of the thermostat to a complete lockdown depending on the mode selected.

### 3.6 Setting the Installer Lockout Mode

1. Follow steps 1 to 4 above
2. Press the **Next ►►** button to enter the installer lock settings.
3. Use the **+/-** buttons to choose between: -

#### Default Setting 1

This mode works as a standard Programmable Room Thermostat.

#### Partial Lockout 2

This mode allows the installer to set the Maximum temperature Setpoint (factory default 21°C), and allows the end user to adjust all other settings apart from maximum temperature set point.



### Partial Lockout 3


This mode allows the installer to set the Maximum temperature Setpoint (factory default 21°C), and locks all keys/slider except, to change the time and date, off (frost protection) and allow temporary manual override (temperature Up/Down arrows).

### Partial Lockout 4

This mode allows the installer to set the Maximum temperature Setpoint (factory default 21°C), and locks all keys/slider except from off (frost protection) and allow temporary manual override (temperature Up/Down arrows).

### Full Lockout 5

This mode locks all keys/slider. The End user cannot adjust anything.

4. To exit the Installer Menu, press the  **Home** button.

Number	Time / Date	Program	Permanent Manual Override	Temp Manual Override	All Day	Holiday
1	✓	✓	✓	✓	✓	✓
2	✓	✓	✓*	✓*	✓*	✓*
3	✓	✗	✗	✓*	✗	✗
4	✗	✗	✗	✓*	✗	✗
5	✗	✗	✗	✗	✗	✗

**N.B.** \*Temperature can be adjusted up to the installer set limits.

**WARNING: Interference with sealed parts renders the guarantee void.**

In the interests of continuous product improvement we reserve the right to alter designs, specifications and materials without prior notice and cannot accept liability for errors.

We are continuously developing our products to bring you the very latest in energy saving technology and simplicity. However, should you have any questions setting up your controls please email us at [tech@esicontrols.co.uk](mailto:tech@esicontrols.co.uk) or for technical queries call us on our dedicated technical helpline **01280 816868**.



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