

ESRTP4RF+

RF 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 for your extended warranty.

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Installation Instructions

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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 |
| Plastic | Thermoplastic, flame retardant |
| Number of programs | 4 or 6 (Default: 4) |
| Protection rating | IP30 |
| Dimensions | 127mm(L) x 81mm(W) x 28mm(D) |
| 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 |

| Receiver | |
|--------------------------|---|
| Fixing | Easy fit back plate |
| Power supply voltage | 230VAC, 50Hz |
| Power consumption | 6W |
| Contact type | 6 (2)A, 230VAC SPDT (Volt free changeover contacts) |
| OpenTherm | |
| Connections | Polarity free |
| Maximum line length | 50 meters |
| Maximum cable resistance | 2.5 Ohms |
| Plastic | Thermoplastic, flame retardant |
| Transmission distance | Approx. 30m in open terrain |
| Protection rating | IP30 |
| Dimensions | 135mm(L) x 90mm(W) x 33mm(D) |
| Complies with: | EN60730-1 EN 60730-2.7, EMC Directive 2014/30/EU, LVD Directive 2014/35/EU, R&TTE Directive 1999/05/EC. |

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
- R&TTE Directive 1999/05/EC

2.3 Maintenance

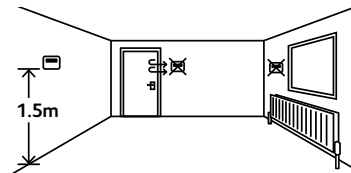
Always isolate the mains supply before commencing any work, servicing or maintenance on the system. And please read all instructions before proceeding.

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.

WARNING: Do not fit the receiver to a back plate that is live. Switch off mains before fitting back plate as live and neutral contacts may touch while mounting receiver on plate and damage the product.



2.5 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. If required, fix the back plate directly on the wall using suitable wall plugs and screws or mount over existing wall box. Replace the thermostat onto the back plate, securing the bottom of the thermostat first and clicking the thermostat into place. Alternatively, use the stand provided.
3. 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.

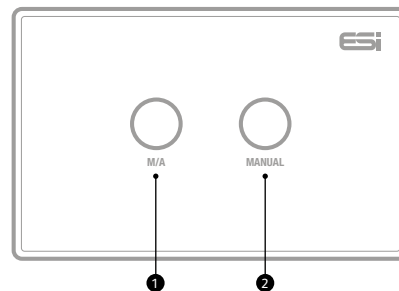
2.6 Fitting the Receiver

Installation

1. Loosen the screws on the back-plate and remove from the Unit.
2. Fix the back-plate, terminals at the top, either direct onto a flat wall using wall plugs and screws or on a flush mounting single conduit box. Route the wires through the back of the wall plate and fit the wires to the wall-plate in accordance with the relevant diagram and in accordance with I.E.E. regulations.
3. Fit the Unit onto back-plate and tighten the screws.
4. Ensure an appropriate fuse is fitted to the circuit before reconnecting to the mains supply.

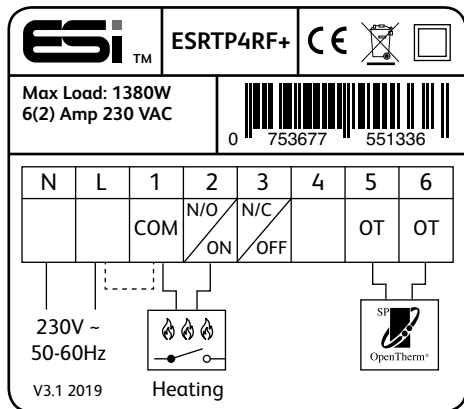
2.7 Commissioning/Configuring

1. If the receiver and thermostat have been supplied as a kit, the units have already been paired in the factory and no pairing is needed.
2. Power up the receiver and press **M/A** (Manual/Auto) button **1** for approximately 10 seconds until the **MANUAL** (green) light **2** begins to flash.
3. On the thermostat, switch the slider to OFF. Press and hold the **A**, **H** and **+** buttons for 3 seconds until the **↯** symbol flashes.
4. When the light on the receiver stops flashing the two units are paired.
5. If unsuccessful, repeat steps 2-3. If still unable to pair, leave the unit powered on for 5 minutes and repeat the steps above.
6. The programmer display will show **▼** symbol when it is able to receive signal and **⊕** symbol when it is unable to receive signal.



2.8 Wiring Diagram

Programmable Room Thermostat Receiver



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

| Terminal | Identifier | Description |
|----------|------------|--|
| N | Neutral | Neutral |
| L | Live | Live Feed (230V AC) |
| 1 | COM | Linked Live Feed (230V AC Heating Applications Only) |
| 2 | N/O | Normally open |
| 3 | N/C | Normally closed (NC) |
| 4 | | Empty |
| 5 | OT | OpenTherm connection |
| 6 | OT | OpenTherm connection |

3. Technical Settings

3.1 Setting TPI, Delayed or Optimum Start

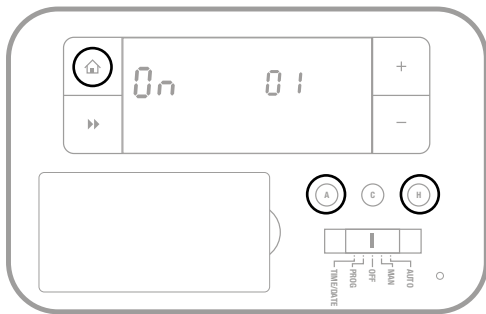
- Switch the slider to OFF. Press and keep holding the **A** and **H** buttons together (under the fascia), then press the **Next ►►** button to enter the technical settings. Release all buttons.
- Press the **+/-** buttons to choose between:-
 - OFF:** The programme will run according to settings
 - 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
- Press the **Next ►►** button and press the **+/-** buttons to turn OP STOP (Optimum Stop) ON/OFF.
- 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)
- 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
 - 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** 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.



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