

ESRTP4RFW

# RF Programmable Room Thermostat

## Installation Instructions





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## **Thank you for choosing ESi Controls.**

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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## Technical Specifications

<b>Programmable Room Thermostat</b>	
Programming	7 Day, 5/2 Day & 24Hr
Power supply	2 x 1.5V LR6 (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 Program	Yes
Complies with:	<p>CE directives: EN60730-1 EN 60730-2.7, EMC Directive 2014/30/EU, LVD Directive 2014/35/EU EC Marking Directive 93/68/EEC</p> <p>UKCA directives: Electromagnetic Compatibility Regulations 2016 Electrical Equipment (Safety) Regulations 2016</p>

<b>RF Receiver</b>	
Fixing	Easy fit back plate
Power supply voltage	230VAC, 50Hz
Power consumption	6W
Contact type	6 (2)A. 230VAC 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
Transmission distance	Approx. 30m in open terrain
Protection rating	IP30
Dimensions	135mm(L) x 90mm(W) x 33mm(D)
Complies with:	<p>CE directives: EN60730-1 EN 60730-2.7, EMC Directive 2014/30/EU, LVD Directive 2014/35/EU EC Marking Directive 93/68/EEC</p> <p>UKCA directives: Electromagnetic Compatibility Regulations 2016 Electrical Equipment (Safety) Regulations 2016</p>

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## **Installation**

### **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.

### **General Safety Instructions**

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

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This product complies with the essential requirements of the following:

#### **CE Directives:**

EN60730-1 EN 60730-2.7,  
EMC Directive 2014/30/EU,  
LVD Directive 2014/35/EU  
EC Marking Directive 93/68/EEC

#### **UKCA Directives:**

Electromagnetic Compatibility Regulations  
2016  
Electrical Equipment (Safety) Regulations 2016

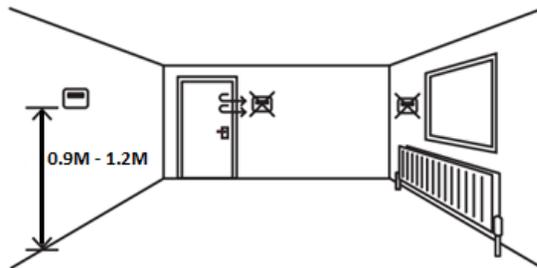
### **Maintenance**

Always isolate the mains supply before commencing any work, servicing or maintenance on the system. 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.

**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 RF 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.



### Fitting the Programmable Room Thermostat

The ideal position to locate the Programmable Room Thermostat is between 0.9M and 1.2M

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, TVs/monitors, direct sunlight or on an outside wall.

### Installation

Remove the rear cover using a flat bladed screwdriver in the two holes at the top of the thermostat and separate from the front cover. If required, fix the rear cover directly on the wall using suitable wall plugs and screws or mount over existing wall box. Replace the thermostat onto the rear cover, securing the bottom of the thermostat first and clicking the thermostat into place. Alternatively, use the stand provided.

Insert the 2 x AA batteries provided into the Battery compartment on the front of the thermostat, underneath the facia. The Programmable Room Thermostat is now installed and will automatically start to control

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the room temperature according to the factory pre-set profile as shown in the User Instructions. The display should show the correct time and date which is automatically set together with the actual room temperature.

### **Fitting the RF Receiver**

Loosen the screws on the back-plate and remove them from the unit. 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. Fit the Unit onto the back-plate and tighten the screws. Ensure an appropriate fuse is fitted to the circuit before reconnecting to the mains supply.

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### **Commissioning/Configuring (RF Pairing)**

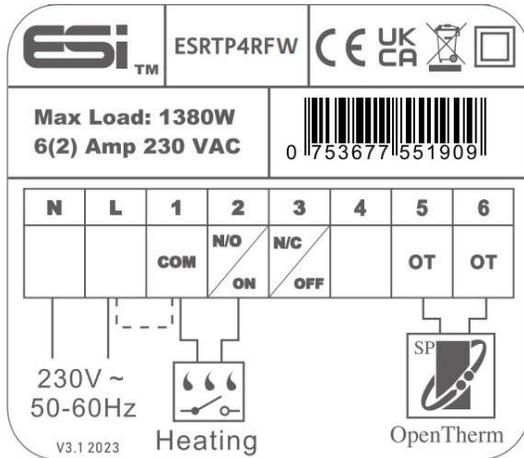
If the RF receiver and thermostat have been supplied as a kit, the units have already been paired in the factory and no pairing is needed. In the event of a loss of RF comms, follow these steps.

- 1.** Power up the receiver and hold **HEATING** button for approximately 10 seconds until the **MANUAL OVERRIDE** (green) light begins to flash.
- 2.** On your ES RTP4RFW, tap the **MODE** button to select **OFF (\*)**.
- 3.** Press and hold the **ALL DAY, HOLIDAY** and **+** buttons until the display shows **SAVING** and the green light on the RF receiver stops flashing.

If unsuccessful, repeat steps 2-3 above. If you are still unable to pair, isolate the power to your RF receiver for 10 minutes, and then repeat the steps above.

## Wiring

For information on wiring to a 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

## Technical Settings

### Setting TPI, Delayed or Optimum Start

1. Tap the **MODE** button until you see a snowflake on your thermostat display. Press and hold the **ALL DAY & HOLIDAY** buttons together. Then, tap ►► to enter the technical settings menu. Release all buttons.
2. Use the +/- buttons to choose between: -  
**OFF**: Optimum & Delayed Start are switched off.

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**DS & ON:** Delayed Start is switched ON.

**OS & ON:** Optimum Start is switched ON.

3. Press ►►.
4. Use the +/- buttons to choose between: -  
**OPSTOP ON** – Optimum Stop is ON.  
**OPSTOP OFF** – Optimum Stop is OFF.
5. Press ►► to enter the TPI settings.
6. Use the +/- buttons to choose between: -  
**OFF** – TPI is switched OFF.  
**3 CYCLES** – one cycle every 20 minutes.  
This is recommended for oil boilers.
7. **6 CYCLES** – one cycle every 10 minutes.  
This is recommended for gas boilers.
8. Press the **HOME** button to exit the technical settings menu.

### Sensitivity/Swing & Manual Calibration

1. Tap the **MODE** button until you see a snowflake on your thermostat display.

Press and hold the **ALL DAY & HOLIDAY** buttons together. Then, tap ►► to enter the technical settings menu. Release all buttons.

2. Tap ►► until you get to **SWING (5U1n9)**
3. Use the +/- buttons to adjust the swing between 0.1 & 2.0.
4. Tap ►► to enter the **ADJ** settings.
5. Use the +/- buttons to adjust the **ADJ** (Calibration) setting between +3.0 and -3.0.
6. Press the **HOME** button to exit the technical settings menu.

### 4 Or 6 Daily Programs

Your thermostat will be defaulted to use 4 daily programs. If you would like to add a further 2 daily programs, please follow these steps.

1. Tap the **MODE** button until you see a snowflake on your thermostat display. Press and hold the **ALL DAY & HOLIDAY**

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buttons together. Then, tap the ►► button to enter the technical settings menu. Release all buttons.

2. Tap ►► until you see **CoDe**. You won't need a code, so tap ►► once more.
3. The screen will show **Err** and will then be replaced with **Pro9ran5** and the number of programs that are currently being used. Use the + button to select either 4 or 6 programs.
4. Press the **HOME** button to exit the technical settings menu.

### OpenTherm Parameter Settings

1. Press and hold the **ALL DAY & HOLIDAY** buttons together.
2. Tap on the **HOME** button to enter the OpenTherm Parameter Settings.
3. Use the ►► button to scroll through the options below.
4. Press the **HOME** button to exit.

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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

### Landlord Service Settings

Your ES RTP4R FW has software included to prompt tenants to allow access to engineers so they can perform an Annual Gas Safety Inspection or Service.

1. Tap the **MODE** button until you see a snowflake on your thermostat display. Press and hold the **ALL DAY & HOLIDAY** buttons together. Then, tap ►► to enter the Technical Settings Menu. Release all buttons.
2. Tap ►► until you can see **CoDe**. A numeric code (PIN) is required to enter

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the Landlord Settings Menu, the factory default is 0000. You can change the PIN to your own memorable 4-digit number (see page 25). If the incorrect PIN is entered, the display will show **Err**.

3. Use the +/- buttons to enter the first digit, then press the **HOLIDAY** button to move to the next digit. Repeat this until all 4 digits have been entered.
4. Press ►► to enter the Landlord Settings Menu.
5. Use +/- to set Landlord Settings. You can choose between the following:  
**OFF:** Landlord Settings are switched off.  
**1:** Reminds the user when the Service is due by displaying **SER** on the screen 30 days before the due date.  
**2:** Reminds the user when the Service is due by displaying **SER** on the screen 30 days before the due date and only

allows the system to run for 45 minutes per hour when the due date has passed.

**3:** Reminds the user when the Service is due by displaying **SER** on the screen 30 days before the due date and only allows the system to run for 30 minutes per hour when the due date has passed.

**4:** Reminds the user when the Service is due by displaying **SER** on the screen 15 days before the due date and only allows the system to run for 15 minutes per hour when the due date has passed.

6. Press ►► to enter the **Due Date** settings. You will see a number flashing. This is the number of days remaining until the next Service is due. Use +/- to change this between 28 days and 366 days.

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7. The number on the left of the display is the recorded running time. This **must** be reset to **0** when the Service has been completed. To reset this to **0**, hold the **COPY** button for 2 seconds.
  8. Press **HOME** to exit the menu.

### Change PIN

1. Follow steps 1 to 6 above to enter the **Due Date** settings.
2. Hold the **ALL DAY** button until **Neu CoDe** is displayed with a flashing **0**.
3. Use the +/- buttons to enter the first digit, then press the **HOLIDAY** button to move to the next digit. Repeat this until all 4 digits have been entered.
4. When you have set your new PIN, hold the **ALL DAY** button until you see **Set**.
5. Press **HOME** to exit the menu.

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### Lockout Feature

Your ES RTP4R FW buttons can be locked to ensure your programs and other settings are not accidentally altered.

1. Tap the **MODE** button until you see a snowflake on your thermostat display. Press and hold the **ALL DAY & HOLIDAY** buttons together. Then, tap ►► to enter the Technical Settings Menu. Release all buttons.
2. Tap ►► until you can see **CoDe**. A numeric code (PIN) is required to enter the Landlord Settings Menu, the factory default is 0000. You can change the PIN to your own memorable 4-digit number (see page 25). If the incorrect PIN is entered, the display will show **Err**.
3. Use the +/- buttons to enter the first digit, then press the **HOLIDAY** button to move to the next digit. Repeat this until all 4 digits have been entered.

4. Press ►► to enter the Landlord Settings Menu.
5. Press ►► again to enter the Lock screen (**Pro Part**)
6. Use the +/- buttons to select the level of Lock you would to set from the table below.

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

\* Can be adjusted to preset level

## RF Receiver Button & Lights

- **No lights**  
Your heating is off.
- **Solid red light only**  
Your heating is on.
- **Solid green light only**  
Your RF receiver is in manual override and the heating is off, (the MANUAL OVERRIDE button has been pressed). This should only be used if you lose or damage your room thermostat as a backup for your heating. Press the MANUAL OVERRIDE button to turn this off.
- **Solid red & green lights**  
Your RF receiver is in manual override and your heating is on (the MANUAL OVERRIDE and HEATING buttons have been pressed). No programs will run. Press the HEATING button, then the MANUAL OVERRIDE button to turn these off.

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- **Flashing green light only**  
Your RF receiver has been put into pairing mode (long press on HEATING button) and is looking for a room thermostat to bond with. To take your RF receiver out of pairing mode, follow the steps in your installation manual for RF Pairing or switch off the power to your RF receiver for 10 seconds and then switch back on again.
  - **Flashing red & green lights**  
the bond between your RF receiver and your room thermostat has been lost. Your RF receiver power must be isolated for 10 minutes and then re-pair your thermostat with your RF receiver – see page 16.

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## **Optional Wi-Fi Hub (ESWIFIHUB)**

To upgrade the ES RTP4RFW to smart control, the thermostat can be RF paired with the ESWIFIHUB and can then be used with our ESi Centro app.

### **Pairing ES RTP4RFW With ESWIFIHUB**

1. On your ESWIFIHUB, hold the right (red) button until the left button flashes green.
2. Release the button.
3. On your ES RTP4RFW, tap the **MODE** button to select **OFF (\*)**.
4. Hold the **ALL DAY** button, the **HOLIDAY** button and the **+** button until the display shows **SAVING** and the green light on your ESWIFIHUB stops flashing. Your thermostat will now be paired with your ESWIFIHUB.

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## Pairing ESWIFIHUB With Centro

1. Download the ESi Centro app from you're the Apple App Store or Google Play store.
2. Create an account using an email address and memorable password.
3. Log into Centro.
4. Tap on **ADD A NEW DEVICE** at the bottom of your phone screen and follow the on-screen instructions to pair your Wi-Fi Hub to your home network.



We are continuously developing our products  
to bring you the very latest in energy-saving  
technology and simplicity.  
Version 1.0.0

