

SANGAMO

CHPRSTATDRF

Wireless Digital Room Thermostat

The latest ESP product manuals can be found on-line:



1 // Features:

The CHPRSTATDRF is a non-programmable wireless room thermostat designed to be simple to use whilst bringing you comfort and energy economy. Comprising of a battery powered thermostat (transmitter) and a separate relay unit (receiver). The transmitter is intended for wall mounting in the main living area in your house with the receiver being mounted close to the boiler.

- Easily adjustable dial
- LCD showing room temperature
- Comfort/Economy or ON/OFF modes
- Battery Powered (with battery low indication)
- TPI control

2 // Specifications:

a. Transmitter:

- Power Supply: 2 Alkaline batteries 1.5V (type AA)
- Battery lifespan: 1 year
- Temperature adjustment range: 5-30°C
- Temperature frost protection: 5°C (Non adjustable)
- Temperature display range, scale: 3 to 51°C, 1°C
- Switching differential: 1°C
- Transmission frequency: 433 Mhz
- Transmission distance: 80m open, 30m indoors
- Mounting: Wall /Surface

b. Receiver:

- Power supply: 230Vac, 50Hz
- Contact rating: 16A, 250Vac(Volt Free contact)
- Insulation class: 2
- Flexible wire size: 0.5-1.5mm²
- Rigid wire size: 0.5-2.5mm²
- Dimensions: 86.8mm x 88.8mm x 35.3mm
- Wall mounting: surface mounting box

c. Transmitter & Receiver:

- Accessory Pack: 4x M3.5*30mm screws, 2*PA3.5*30mm, 2* Rawl plugs and surface mounting box
- Operating temperature: 0 to 50°C
- Storage temperature: -10-60°C

• Front View:

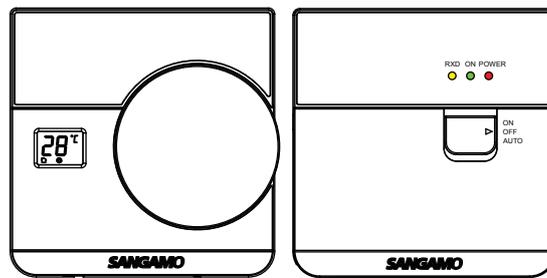


Fig.1

Fig.2

• Back View:

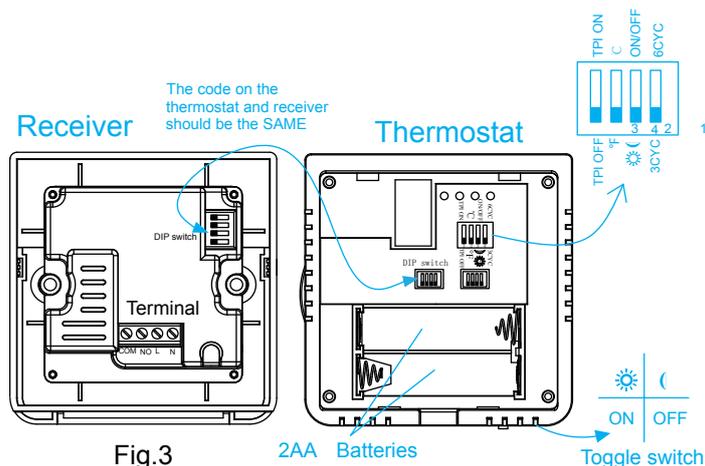


Fig.3

2AA Batteries

Toggle switch

3 // Wiring Diagram:

- Routes wires into the backbox and connect wiring in accordance with the following diagram.
- There is also a Loop terminal for earth continuity.

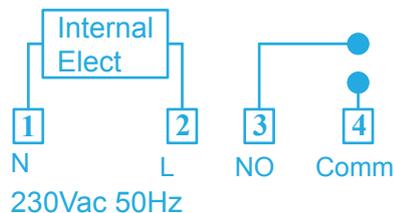


Fig.4

- Fit two fresh AA alkaline batteries in the battery compartment of the thermostat. Check LCD to confirm batteries correctly fitted(see Fig. 3).

4 // Pre-Installation Set Up:

There are one 4 DIP switch on the back of the receiver and two 4 DIP switches on the back of the thermostat. Before installation, the installer needs to set the DIP switches first. The one of the 4 DIP switch is used for RF code setting. The thermostat and receiver are automatically paired when you receive them, however, if there is another unit nearby(e.g. in a neighbours home) the thermostat may trigger their receiver. To avoid this you can change the RF address code on both the thermostat and receiver as per Fig. 3. Another 4 DIP switch on the thermostat is used to set below control modes. Please set the position of the DIP switch as per the DIP switch label(see Fig. 3):

- The TPI (Time Proportional & Integral) can be selected ON or OFF using the DIP switch 1 on the rear of the unit(TPI on as default). We suggest setting this to the ON position. As the room temperature approaches the set temperature, the thermostat will intermittently turn the heating ON and OFF, to help prevent temperature over-shoot.

- When TPI is on, the default proportional band is 3°C. If change the thermostat from one room to another room, users need to set the DIP switch to OFF position first and supply power to the thermostat, and then cut off power to the thermostat and reset to ON position again, so that the thermostat can relearn your room characteristics for best TPI performance.

- Select °C and °F readout (Default °C) via DIP switch 2: when set the switch to °C, temperature in the display will be shown °C readout; When set the switch to °F, temperature in the display will be shown °F.

- Select '☼' (and ON/OFF via DIP switch 3(ON/OFF as default): when set the switch to ON/OFF, the DIP switch at the base of the thermostat is used as an ON/OFF switch; when set the switch to '☼' (' , the DIP switch at the base of the thermostat is used to switch between '☼' comfort mode and ' ' economy mode.

- The boiler type can be set to either 6CYC (Gas) or 3CYC (Oil), using the DIP switch 4 on the rear of the unit(6CYC as default).

5 // Installation Guide:

5.1 Installation of the Transmitter

- Remove the mounting plate from the unit by prying off the mounting plate in position A(as showing in Fig.5) with a screwdriver, and pivoting the bottom of the unit outwards.The transmitter body can then be lifted off.

- Using mounting screws provided secure the mounting plate directly to the wall or the pattress box.

- Engage the top of the transmitter onto the mounting plate retaining tabs, and push firmly to reinstall the unit onto the mounting plate.

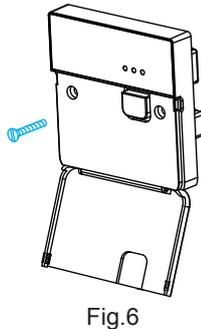
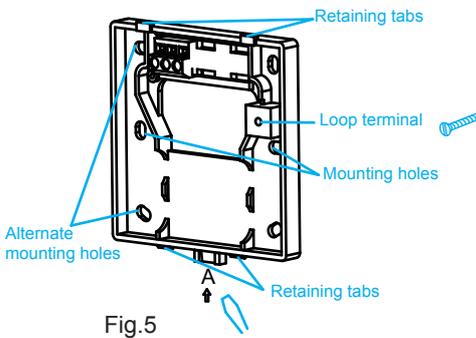
5.2 Installation of the Receiver:

There are three easy steps for installation the receiver:

Step one: Flip open front plate;

Step two: Wiring according to the wiring diagram and the labelled terminals of the switch; and

Step three: Install the switch in the wall or onto mounting box with screws(as shown in Fig.6)



6 // Operation Guide:

6.1 Transmitter:

- Display:** ☼ means current room temperature, the LCD displays actual room temperature until the setting dial is moved.

- Setting the temperature:** turn setting dial to required temperature. The selected temperature will 'flash' in the LCD to signify it is showing the set temperature. After a short period the display stops flashing and shows actual room temperature.

- Thermostat status:** a flame symbol will be lit whenever the thermostat is calling for heat.

- Low battery indication:** a battery symbol will flash in the display when batteries require replacement. Batteries should be replaced within 15 days, after which the thermostat will turn off the load it is controlling. When this happens "OF" will be displayed.

- ON/OFF Switch function:** the function of the switch at the base of the thermostat has 2 mode options. See above 'DIP Switch Setting'.

- ☼ (Comfort/Economy setting:** when the switch is set to '☼' , the thermostat controls at the temperature set by the dial. When the switch is set to the ' (' , the thermostat controls at 4°C below the temperature set by the dial.

- ON/OFF Setting:** the switch is used as ON/OFF control. When the switch is set to "ON",the thermostat controls at the temperature set by the setting dial. When set to "OFF",thermostat shuts down its output, thus the heating system is turned OFF and "OF" is displayed.

- Error Code:**

E1 flashing in the display: Room sensor short circuit. Thermostat shuts down its output.

E2 flashing in the display: Room sensor broken. Thermostat shuts down all its output.

- Temperature Notes:**

If the room temperature is higher than 30°C. The heating will stop working.If the room temperature is lower than 5°C. The heating will start working(Frost Protection).

6.2 Receiver:

Switch:

OFF = Receiver is permanently off

ON = Receiver is permanently on

AUTO = Receiver accepting signals and operating according to the thermostat

LED:

RED = Power to receiver on

GREEN = Receiver output energized

YELLOW = Flashes when signals received from thermostat

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Health & Safety

This 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 installation instructions before proceeding.

Example circuit diagrams for typical installations are shown. These diagrams are schematic and should be used as a guide only. Please ensure that all installations comply with the current IEE regulations. For reasons of space and clarity not every system has been included and the diagrams have been simplified, for instance some Earth connections have been omitted. Other control components shown in the diagrams i.e. Valves, Room Stats etc. are general representations only. However, the wiring detail can be applied to the corresponding models of most manufacturers.

Your product is not user serviceable. Do not dismantle this product.

Due to our policy of continuous product improvement and development, the specifications in this guide may be subject to change without prior notice.

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