RFC^{V2}

60.0°
°C

Boost

EPH

EPH CONTROLS

RF Cylinder Thermostat with Boost Button

Installation and Operation Guide

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RFC^{V2} Cylinder Thermostat
Installation Instructions

Factory Default Settings

Temperature indicator:	˚C
Hysteresis:	5˚C
Keypad lock:	Off

Specifications

Power supply:	2 x AAA Alkaline Batteries
Power consumption:	50 uA
Battery replacement:	Once a year
Temp. control range:	10 … 90˚C
Dimensions:	80 x 80 x 25.7mm
Temperature sensor:	NTC 10K Ohm @ 25˚C
External sensor length:	1950mm ± 80mm
Temperature indication:	˚C
Switching differential:	Adjustable 0.0 … 10˚C

Note: Good quality batteries are essential to ensure the correct operation of this product. EPH recommend using Duracell or Energiser batteries.

How a RFC^{V2} Cylinder Thermostat works

When a RFC^{V2} thermostat is calling for heat, it will operate according to the target temperature selected by the user.

The target temperature is defined by turning the dial clockwise for a higher target temperature or anti-clockwise for a lower target temperature.

If the cylinder temperature is lower than the target temperature then the thermostat will activate the demand for heat.

This will be indicated with a flame symbol on the screen.

Once the desired target temperature has been achieved, the thermostat will stop demanding heat, and the flame symbol will disappear from the screen.

The screen will always display the current cylinder temperature.

Mounting & Installation

Caution!

- Installation and connection should only be carried out by a qualified person.

- Only qualified electricians or authorised service staff are permitted to open the programmer.

- If the thermostat or programmer are used in a way not specified by the manufacturer, their safety may be impaired.

- Prior to setting the thermostat, it is necessary to complete all required settings described in this section.

This thermostat should be mounted directly on a wall.

Mounting & Installation Continued

1) Remove the thermostat from its packaging.

2) Choose a mounting location so that the thermostat can measure the temperature as accurately as possible.

   - Choose a mounting location for the temperature probe as per the instructions on Page 8.
   - Prevent direct exposure to sunlight or other heating / cooling sources.

3) Press and hold the release button on the bottom of the thermostat to detach the front housing from the base plate.

4) Insert the 2 x AAA batteries provided and the thermostat will turn on.

5) Fix the base plate directly to the wall with the screws provided. Attached the front housing to the base plate.

1

Type
1C
EN60730

IP20
EN60529

-50 22 °C
0 31

5-95%RH

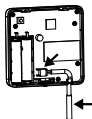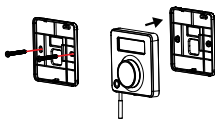**2**

1950±40mm
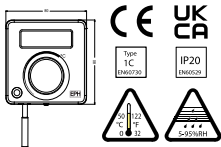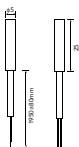
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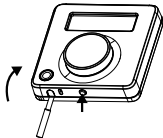
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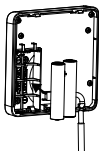
5 Temperature Sensor

6 Wall mounted

Mounting of Temperature Sensor

1. Cylinder

Surface

The temperature sensor should be fitted on the bottom 1/3 of the cylinder.

Remove a section of insulation on the cylinder to reveal the copper surface.

Attach the temperature sensor to the surface of the cylinder using the foil tape provided.

Cylinder Pocket

Insert the temperature sensor into the appropriate pocket on the cylinder. Secure the temperature sensor to the pocket using the foil tape provided.

2. Pipe

Remove any insulation on the pipework to reveal the pipe.
Attach the temperature sensor to the surface of the pipe using the foil tape provided.

RFCᵛ² Cylinder Thermostat
Operating Instructions

LCD Symbol Description

Cylinder temperature
Battery low symbol
Installer Menu
Wireless symbol
Keypad lock symbol
Limit
Heating ON symbol

Button Description

Set point handwheel

Boost button
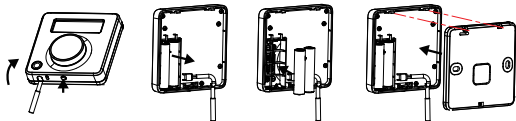
External probe

Release button
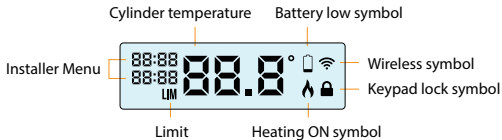
RF button

Reset button
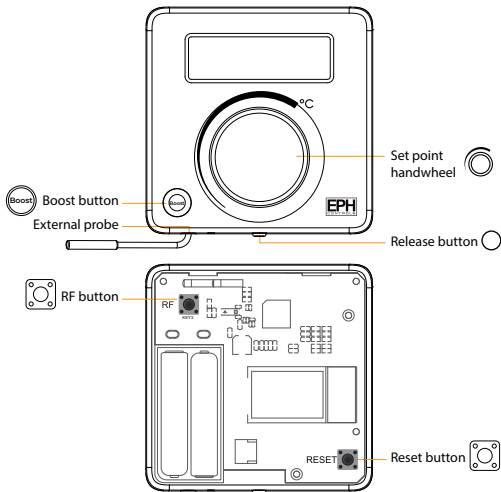
Replacing the Batteries

Press and hold ⭕ on the bottom of the thermostat, while holding ⭕ pull from the bottom to detach the front housing from the baseplate.

Insert the 2 x AAA batteries and the thermostat will turn on.

Reattach front housing to baseplate.

Battery Low Warning

When the batteries are almost empty, the 🔋 symbol will appear on the screen. The batteries must now be replaced or the unit will shut down.

Boost Function

The thermostat can be boosted for 30 minutes, 1, 2 or 3 hours.

Press ⬤ 1, 2, 3 or 4 times, to apply the desired boost period.

To cancel a boost, press ⬤ again.

Locking the Keypad

To lock the thermostat, press and hold ◎ for 10 seconds.

🔒 will appear on the screen. The buttons are now disabled.

To unlock the thermostat, press and hold ◎ for 10 seconds.

🔒 will disappear from the screen. The buttons are now enabled.

Adjusting the Target Temperature

Rotate ◎ clockwise to increase the target temperature.

Press ◎ or wait 5 seconds. The target temperature is now saved.

Rotate ◎ anti-clockwise to decrease the target temperature.

Press ◎ or wait 5 seconds. The target temperature is now saved.

To connect a RFC^{V2} to a R_7-RF^{V2}

1. On the R_7-RF^{V2}:

Press MENU , **'P01 rF COn'** will appear on the screen.

Press OK , **'RF CONNECT'** will appear solid on the screen.

2. On the RFC^{V2}:

Remove the back cover & press the RF button ⬡ on the PCB.

3. On the R_7-RF^{V2}:

Once **'ZONE'** flashes, press Select on the desired zone.

4. On the RFC^{V2}:

When **'r01'** appears, press the ◎ to confirm the thermostat is connected.

5. On the R_7-RF^{V2}:

Put the next thermostat into pairing mode or press OK to return to the main screen.

Note: When pairing additional zones to a R_7-RF^{V2}, **'r02'** , **'r03'**, **'r04'** can appear on the thermostat screen.

To connect a RFC^{v2} to a UFH10-RF

1. On the UFH10-RF:

Press ⬛MENU , **'P01 rF COn'** will appear on the screen.

Press ◎, **'RF CONNECT'** will appear solid on the screen.

Rotate ◎ to choose the zone you would like to connect to.

Press ◎ to confirm. The zone will stop flashing and appear solid.

2. On the RFC^{v2}:

Remove the back cover & press the RF button 🔲 on the PCB.

When **'r01'** appears, press the ◎ to confirm the thermostat is connected.

3. On the UFH10-RF:

Rotate ◎ to choose another zone you would like to connect to or press ⬛MENU ' to return to the menu.

Note: When pairing additional zones to a UFH10-RF, **'r02'** , **'r03'**, **'r04' ...'r10'** can appear on the thermostat screen.

To disconnect a RFC^{V2} from both R_7-RF^{V2} or UFH10-RF

On the RFC^{V2}:

1. Detach the front housing of the thermostat from the baseplate by pressing the ◯ on the bottom of the thermostat and pull the front housing away from the baseplate.

2. Press the RF button 🔲 once on the PCB.

'nOE' will appear on the screen followed by **'- - -'**.

3. Press and hold the RF button 🔲 again for 10 seconds until **'Adr'** appears on the screen.

4. Press the ◎ twice to confirm.

The thermostat is now disconnected from the.

Note: The thermostats can also be disconnected at the R_7-RF^{V2} or UFH10-RF. Please see R_7-RF^{V2} or UFH10-RF operation guide for details.

Menu Function

This menu allows the user to adjust additional functions.

- **P0 2:** Setting High and Low limits
- **P0 3:** Hysteresis HOn & HOFF
- **P0 4:** Calibration
- **P0 7:** Resetting the Thermostat

P0 2 Setting High & Low limits 🔒 Hi 90°C Lo 10°C

This menu allows the installer to change the minimum and

maximum temperatures that the thermostat can operate between.

To access this setting press and hold ◎ and (Boost) together for 5 seconds.

'P02 + HILO' will appear on the screen. Press ◎ to select.

'LIM + OFF' will appear on the screen.

Rotate ◎ to select **'ON'**, press ◎ to confirm.

P0 2 Setting High & Low limits Continued

'HI + LIM' will appear on the screen and the temperature will begin to flash. Rotate ◎ to set the high limit for the thermostat.

Press ◎ to confirm.

'LO + LIM' will appear on the screen and the temperature will begin to flash.

Rotate ◎ to set the low limit for the thermostat.

Press ◎ to confirm.

The settings will be saved and the user will be returned to the previous screen.

Press (Boost) to return to normal operation. When limits are set on the thermostat the word **'LIM'** will be displayed on the screen permanently.

P0 3 Hysteresis 🔒 HOn 5°C HOFF 0.0°C

This menu allows the installer to change the hysteresis of the thermostat when the temperature is rising and falling.

If HOn is set to 5˚C, this will allow a temperature drop of 5˚C below the target temperature, before the thermostat turns on again.

If HOFF is set to 0.0˚C, this will allow the temperature to rise 0˚C above the target temperature before the thermostat turns off.

To access this setting press and hold ⚪ & (Boost) together for 5 seconds. **'P02'** will appear on the screen.

Rotate ⚪ clockwise until **'P03 & HOn'** appears on the screen.

Press ⚪ to select. Use ⚪ to select the **'HOn'** temperature,

Press ⚪ to confirm. **'HOFF'** appears on the screen. Use ⚪ to select the **'HOFF'** temperature, press ⚪ to confirm. The settings will be saved and the user will be returned to the previous screen.

Press (Boost) to return to normal operation.

P0 4 Calibration

This menu allows the installer to calibrate the temperature of the thermostat.

To access this setting press and hold ⓒ and (Boost) together for 5 seconds.

'P02' will appear on the screen.

Rotate ⓒ clockwise until **'P04 & CAL'** appears on the screen.

Press ⓒ to select.

Current actual temperature will appear on the screen.

Rotate ⓒ clockwise or anti clockwise to calibrate the temperature.

Press ⓒ to confirm the temperature.

The current temperature will be saved and the user will be returned to the previous screen.

Press (Boost) to return to normal operation.

P0 7 – Resetting the Thermostat

This menu allows the user to reset the thermostat to factory settings. To access this setting, press and hold ⊚ and (Boost) together for 5 seconds.

'P02' will appear on the screen

Rotate ⊚ until **'P07 & rSt'** appears on the screen.

Press ⊚ to confirm.

'rSt' will appear on the screen an **'nO'** will flash.

Rotate ⊚ clockwise.

'rSt' will remain and **'YES'** will flash on the screen.

Press ⊚ to confirm.

The thermostat will restart and revert to its factory defined settings.

Note:

The thermostat may also be master reset by using the reset button ⊡ located on the PCB inside of the thermostat. Press ⊡ and follow the instructions above.

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