RFC V2

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 can be mounted in the following ways:

1) To a recessed conduit box

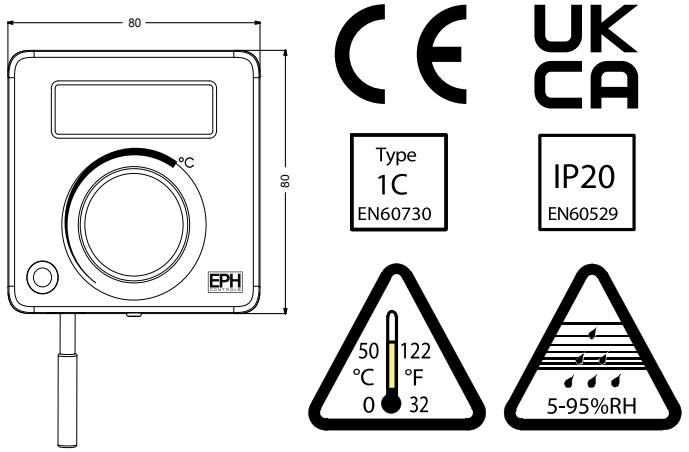
2) To a surface mounted box

3) Directly mounted 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



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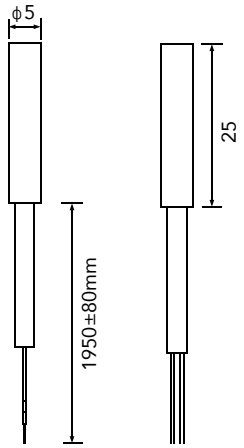
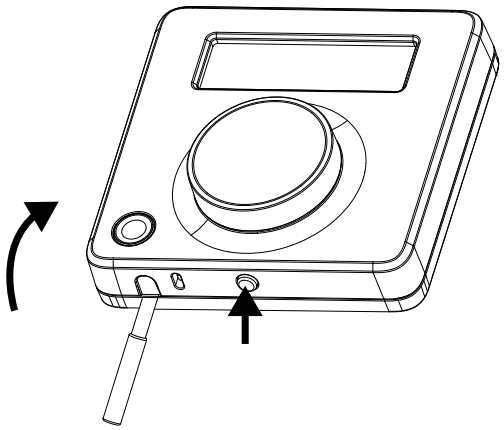


3



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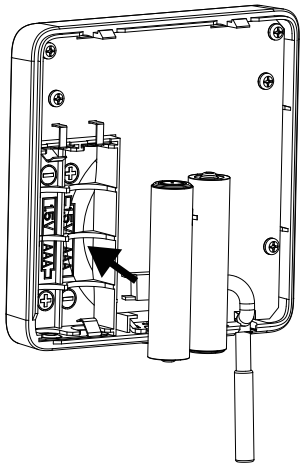
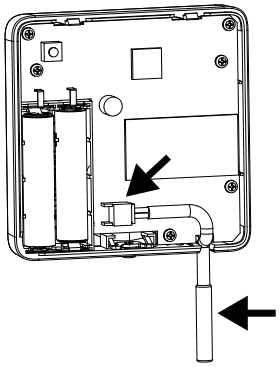
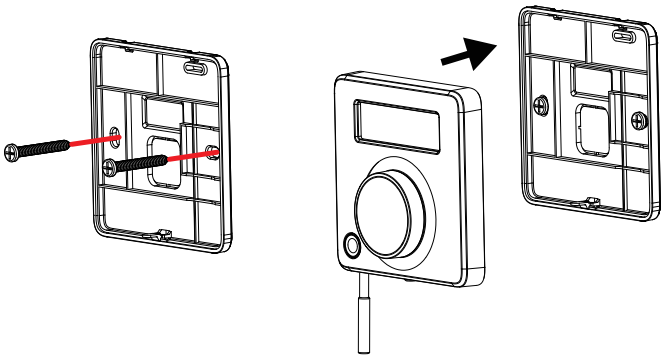


5 Temperature Sensor



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.

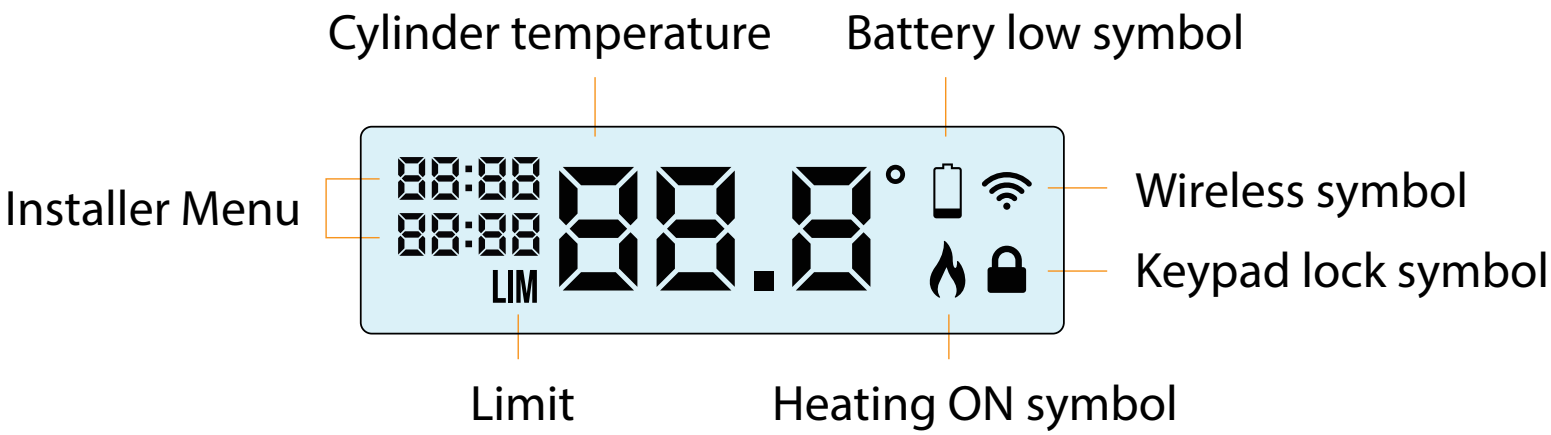
2. Pipe

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.

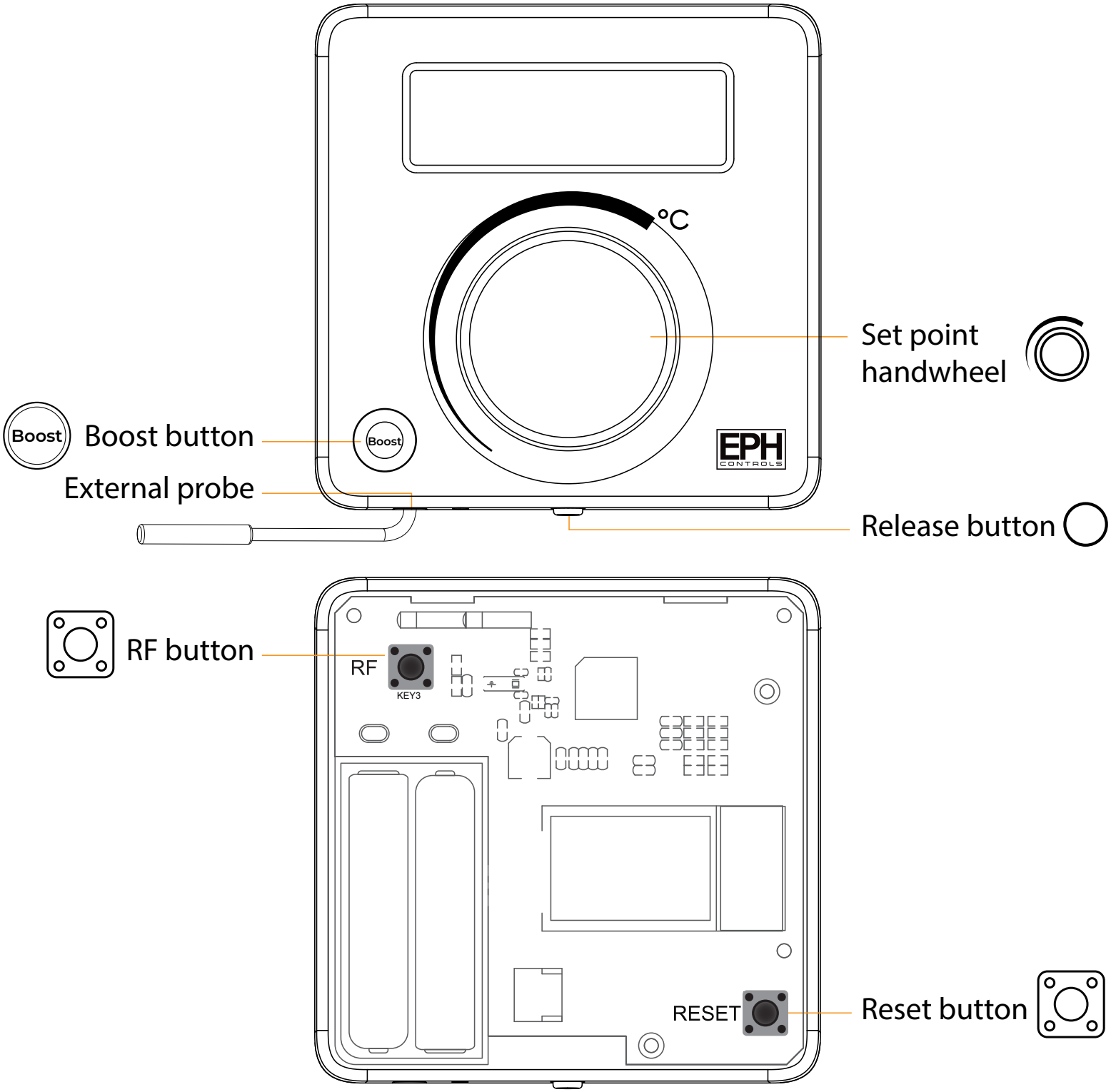
RFC^{V2} Cylinder Thermostat

Operating Instructions

LCD Symbol Description



Button Description

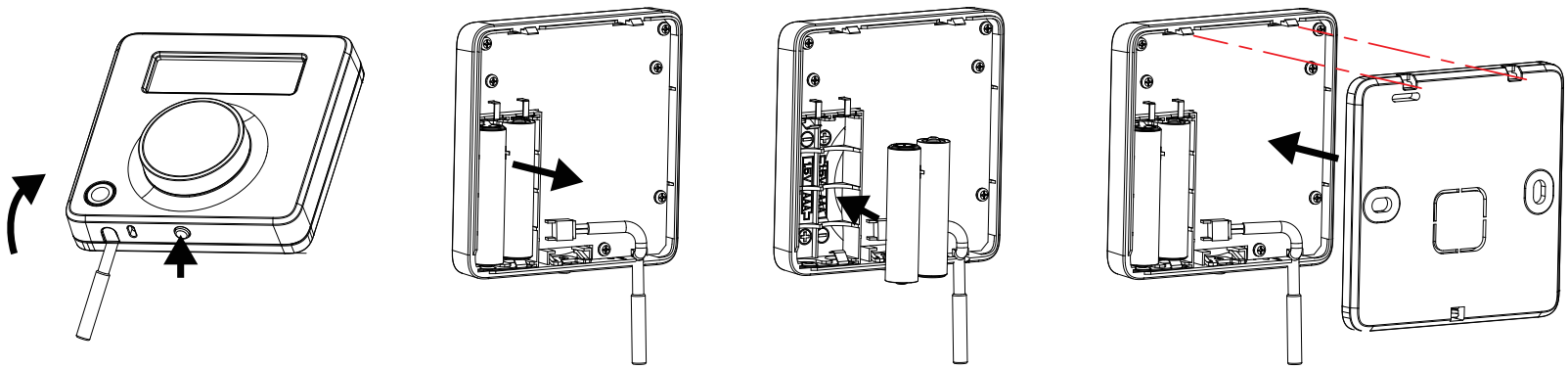


Replacing the Batteries

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

To cancel a boost, press Boost 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

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

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

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

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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