EDBS



Electronic Cylinder Thermostat with High Limit

Installation and Operation Guide

EPH CONTROLS

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Installation Instructions

Factory Default Settings

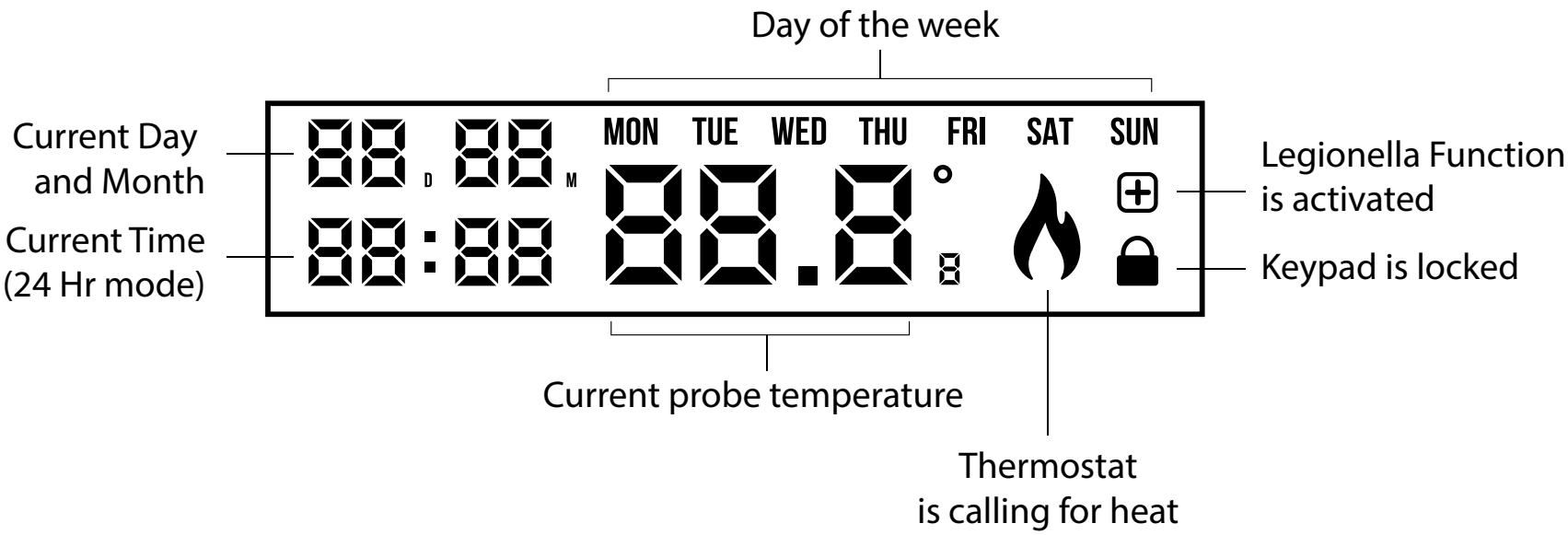
Temperature indicator:	˚C
Clock:	24 hours
Day light saving:	On
Legionella function:	Off
Legionella set temperature:	65˚C
Auto lock:	Off
Backlight:	Auto
Maximum temperature setting:	80°C
Minimum temperature setting:	10°C
Hysteresis On:	5°C
Hysteresis Off:	0°C
High Limit Cut Out:	85˚C - Not adjustable

Specifications

Power supply:	230Vac 50-60Hz
Power consumption:	1.8W
Temperature control range:	10…80°C
Ambient temperature:	0…45°C
Admissible ambient humidity:	5-95%RH
Dimensions:	100 x 105 x 42.5 mm
Contact rating:	10A
Battery:	LIR 2032
Backlight:	Blue
IP rating:	IP20
Pollution degree:	Pollution Degree 2
Rated impulse voltage:	4kV
Automatic action:	1C
Temperature sensor:	NTC 10K @ 25˚C
Temperature indication:	˚C

LCD Symbol / Button Description

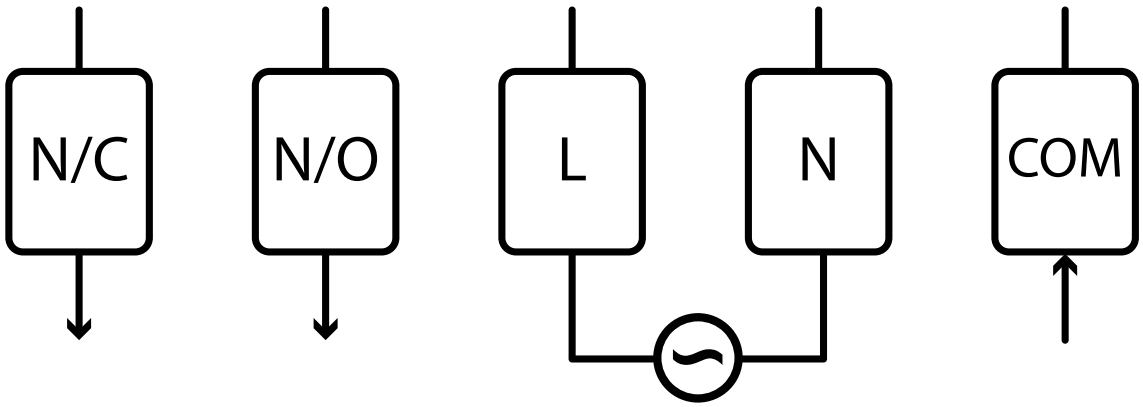
LCD Display



Button



Wiring



Heat OFF

Heat ON

200-240Vac 50Hz-60Hz

Switch Live from Programmer

Caution!

- *Mains voltage output only*

Terminal Connections

N/C	Heat OFF
N/O	Heat ON
L	Live in from Mains Supply
N	Neutral in from Mains Supply
COM	Switch Live

Mounting & Installation

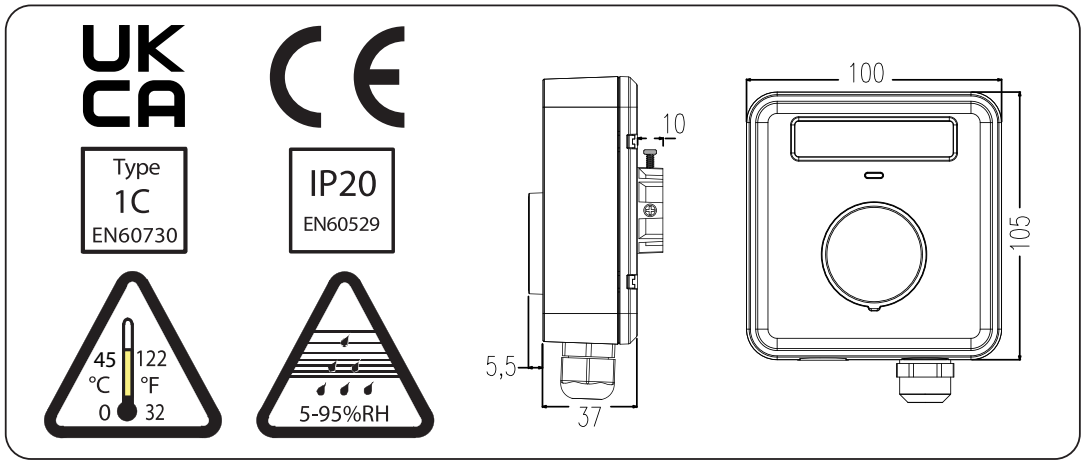
Caution!

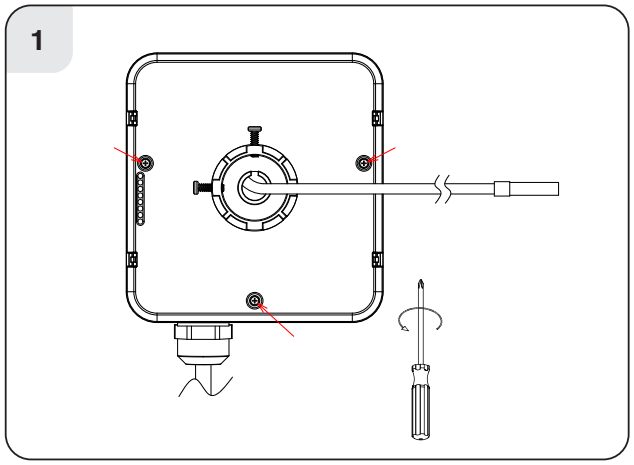
- *Installation and connection should only be carried out by a qualified person.*
- *Only qualified electricians or authorised service staff are permitted to open the thermostat.*
- *If the thermostat is used in a way not specified by the manufacturer, its safety may be impaired.*
- *Prior to setting the thermostat, it is necessary to complete all required settings described in the section.*

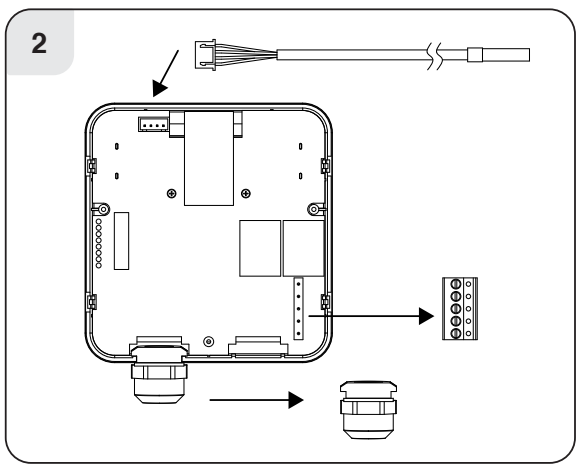
The EDBS is designed to fit directly onto a hot water cylinder pocket.

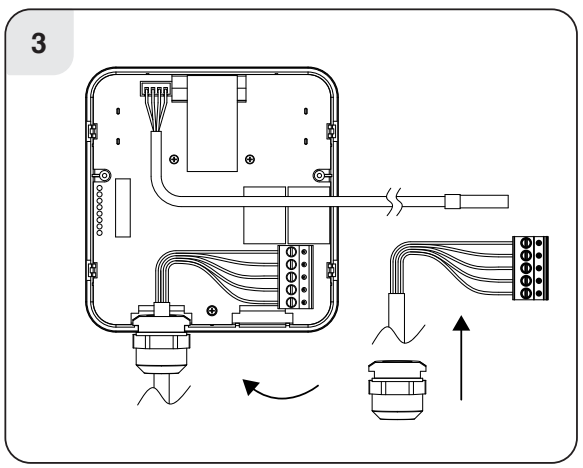
1) Loosen the 3 screws on the back housing of the thermostat.
2) Remove the back housing.
3) Wire the thermostat according to the Wiring Diagram on page 5.
4) Replace the back housing and tighten the 3 screws.
5) Insert both cable sensors into the pocket.
6) Tighten the 3 fixing screws to ensure the thermostat is secured on the pocket.

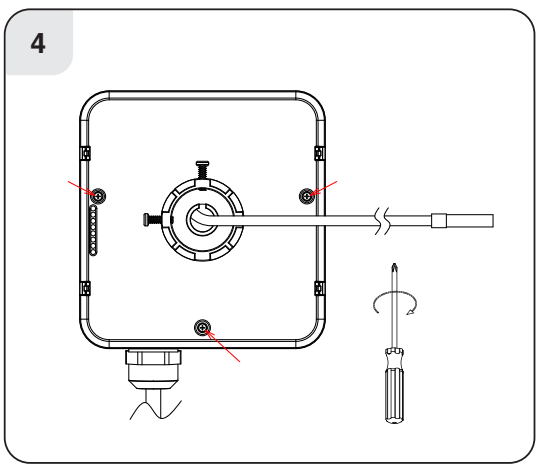
Installation Drawing

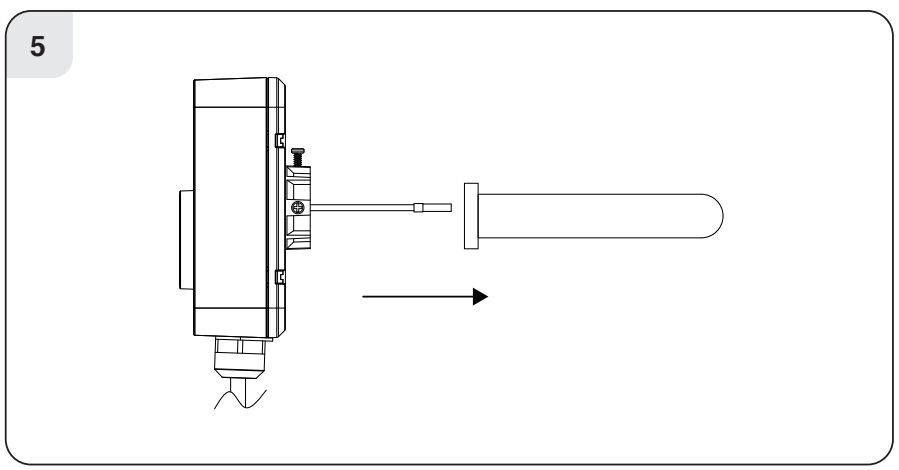


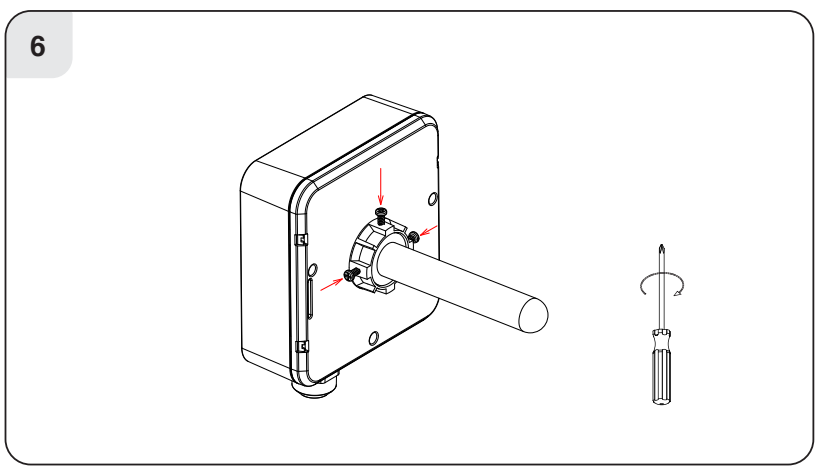














Operating Instructions

Resetting the High Limit Thermostat

This thermostat consists of a control thermostat and a high limit thermostat. The high limit thermostat has a maximum permissible temperature of 85°C.

If the high limit temperature is exceeded, the temperature will continuously flash on the screen to alert you that a manual reset is required.

Manual reset is only possible after the temperature drops below 85˚C.

To Reset the high limit thermostat

1) Remove the handwheel from the thermostat.

2) Note the location of the reset button underneath the handwheel.

3) Reset the thermostat by pressing the reset button.

Adjusting the Temperature Setpoint

Rotate ◯ to adjust the temperature setpoint.

Press ◯ to confirm.

Setting the Date & Time

Double press the handwheel ◯ to enter the menu.



will appear.

Press ◯ once.

Rotate ◯ to select the year. Press ◯ to confirm.

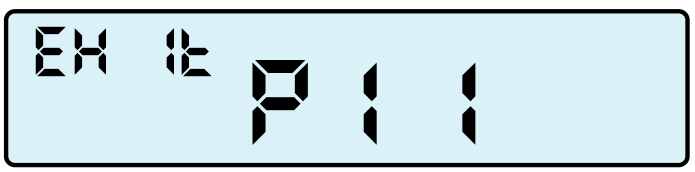
Rotate ◯ to select the month. Press ◯ to confirm.

Rotate ◯ to select the day. Press ◯ to confirm.

Rotate ◯ to select the hour. Press ◯ to confirm.

Rotate ◯ to select the minute. Press ◯ to confirm.

Rotate ◯ to select daylight saving. Press ◯ to confirm and to return to the menu.

Rotate ◯ to exit the menu 

.

Press ◯ to confirm.

Alternatively, the menu will be exited after 20 seconds.

Legionella Function

Legionella bacteria can thrive in hot water cylinders that have a water temperature of between 20°C and 50°C.

The purpose of the Legionella function on this thermostat is to remove any threat of Legionella bacteria surviving by raising the temperature of the hot water in the cylinder above 60°C for a specific period of 1 hour.

The legionella function on this thermostat will call to heat the hot water to a user selected temperature of between 60°C & 70°C.

Default is set at 65˚C.

The Legionella function on this thermostat offers the user the following:

1) Operation a maximum of once per day at a time chosen by the user.
2) Operation from one to seven days a week.
3) Temperature selection of between 60°C to 70°C.
4) Temperature must reach the temperature required for a period of one hour.

It is best practice to activate the legionella function at a time of low or no demand on the hot water. For example: 3 a.m.

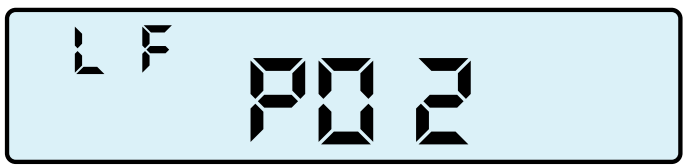
When the legionella function is active the  symbol will appear.

Legionella Function (Continued)

Setting the legionella function Off

Double press the handwheel to enter the menu.

Rotate to select the Legionella function. (Menu P02)



will appear.

Press once. "Off" will appear on the screen.

Rotate to turn the Legionella function "On".

Press once to confirm. 65˚C will flash on the screen.

Rotate to select the desired temperature of between 60°C & 70°C.

Press once to confirm. "03:00" will flash on the screen.

Rotate to select the start time.

Press once to confirm.

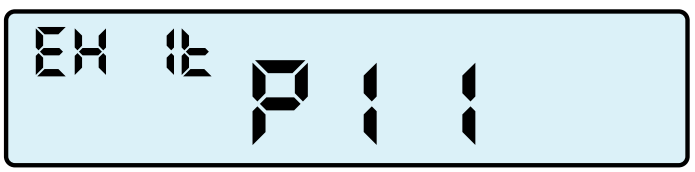
“MON” will flash. To select “MON”, rotate ◯ clockwise once.

Rotate ◯ anti-clockwise once to skip “MON”.

You can then choose to select or skip the other days of the week.

Turn ◯ clockwise to Select or anti-clockwise to Skip.

Press ◯ once to confirm and to return to the menu.

Rotate ◯ to exit the menu 

.

Press ◯ to confirm.

Alternatively, the menu will be exited after 20 seconds.

Auto Lock Function

The Auto Lock function allows you to set an automatic handwheel  lock for the thermostat.

When activated, the thermostat will automatically lock if is not rotated or pressed for 5 minutes.

You can lock or unlock the thermostat by pressing  for 10 seconds.

Setting the Auto Lock Function

Off

Double press the handwheel ◯ to enter the menu.

Rotate ◯ to select the Auto lock function. (Menu P03)

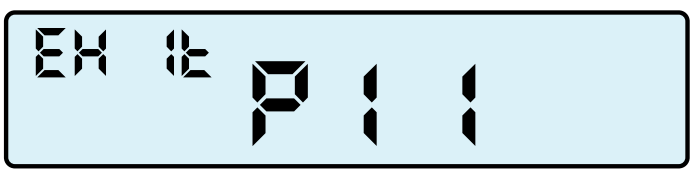


will appear.

Press ◯ once. “Off” will appear on the screen.

Rotate ◯ to select “On”.

Press ◯ once to confirm and to return to the menu.

Rotate ◯ to exit the menu 

.

Press ◯ to confirm.

Alternatively, the menu will be exited after 20 seconds.

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

If Auto Lock function is not selected, it is still possible to lock or unlock the thermostat by pressing and holding ◯ for 10 seconds.

Backlight Mode Selection

There are 3 backlight settings available for selection:

AUTO: Backlight stays on for 10 seconds after  is pressed or rotated.

ON: Backlight is permanently On

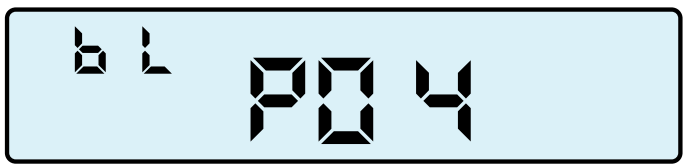
OFF: Backlight is permanently Off

Setting the backlight:

AUTO

Double press the handwheel to enter the menu.

Rotate to select the Backlight function. (Menu P04)



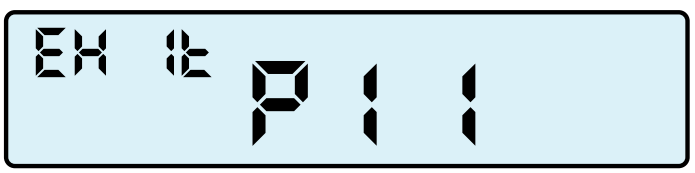
will appear.

Press once. “Auto” will appear on the screen.

Rotate to select “On” or “Off”.

Press once to confirm and to return to the menu.

Rotate to exit the menu



.

Press to confirm.

Alternatively, the menu will be exited after 20 seconds.

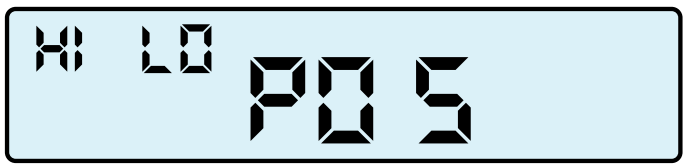
High & Low Temperature Limits

This function allows you to set the maximum and minimum temperatures for the thermostat.

Setting the Hi Lo function:  High 80°C Low: 10°C

Double press the handwheel ◯ to enter the menu.

Rotate ◯ to select the Hi Lo function. (Menu P05)



will appear.

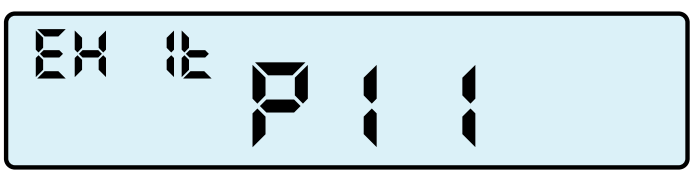
Press ◯ once. “Hi” will appear on the screen.

Rotate ◯ to select the maximum temperature.

Press ◯ once to confirm. “Lo” will appear on the screen.

Rotate ◯ to select the minimum temperature.

Press ◯ once to confirm and to return to the menu.

Rotate ◯ to exit the menu 

.

Press ◯ to confirm.

Alternatively, the menu will be exited after 20 seconds.

Hysteresis Function

The Hysteresis function allows you to set the switching differential of the thermostat when the temperature is both rising and falling.

“HYS On” of 5°C means the thermostat will switch on if the temperature drops 5°C below the setpoint.

“HYS Off” of 1°C means the thermostat will switch off if the temperature rises 1°C above the setpoint.

Both Hysteresis On and Hysteresis Off can be adjusted from 0°C to 20°C.

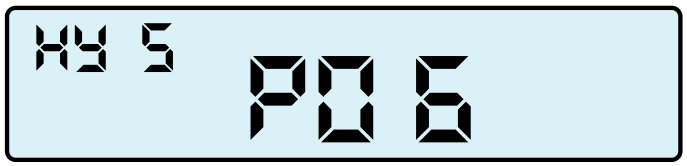
Hysteresis Function

Setting the Hysteresis function:

HYS On: 5°C & HYS Off: 0°C

Double press the handwheel to enter the menu.

Rotate to select the Hysteresis function. (Menu P06)



will appear.

Press once. “HYS ON” will appear on the screen.

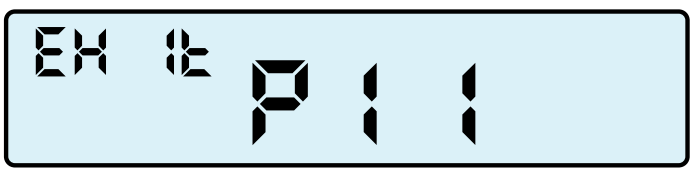
Rotate to select the HYS ON temperature.

Press once to confirm. “HYS OFF” will appear on the screen.

Rotate to select the HYS OFF temperature.

Press once to confirm and to return to the menu.

Rotate to exit the menu



.

Press to confirm.

Alternatively, the menu will be exited after 20 seconds.

Calibrating the Thermostat

The calibration function allows you to calibrate the thermostat.

Setting the Calibration function:

Double press the handwheel ◯ to enter the menu.

Rotate ◯ to select the Calibration function. (Menu P07)

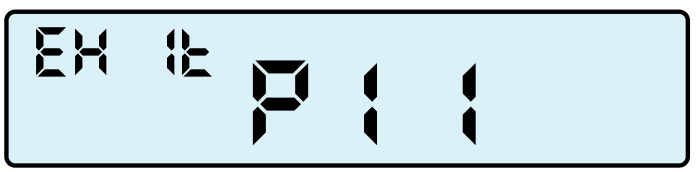


will appear.

Press ◯ once. The current temperature is displayed.

Rotate ◯ to select the required temperature.

Press ◯ once to confirm and to return to the menu.

Rotate ◯ to exit the menu 

.

Press ◯ to confirm.

Alternatively, the menu will be exited after 20 seconds.

Legionella Check Function

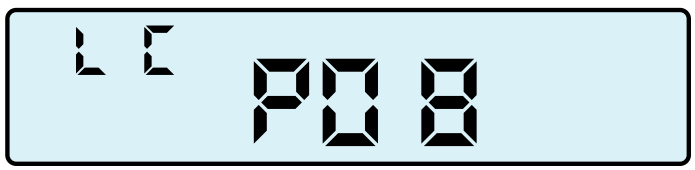
This function allows you to check the last three times that the legionella function operated successfully.

It is possible to check the date, time and the set legionella temperature for these three times.

Checking the legionella record

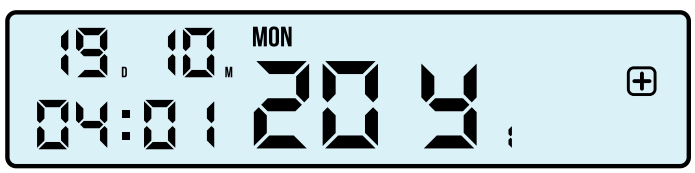
Double press the handwheel ◯ to enter the menu.

Rotate ◯ to select the Legionella Check function. (Menu P08)



will appear.

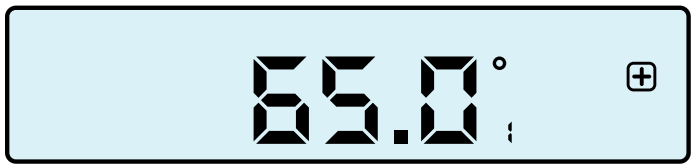
Press ◯ once.



will appear.

This is the date and time of the last successful legionella operation.

Rotate ◯ clockwise.



will appear.

This is the temperature of the last successful legionella operation.

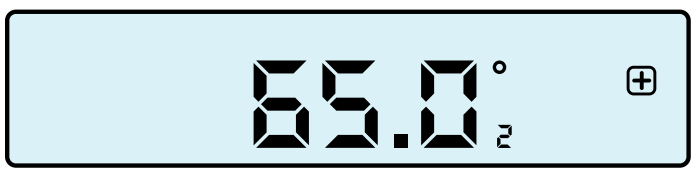
Rotate ◯ clockwise.



will appear.

This is the date and time of the second last successful legionella operation.

Rotate ◯ clockwise.

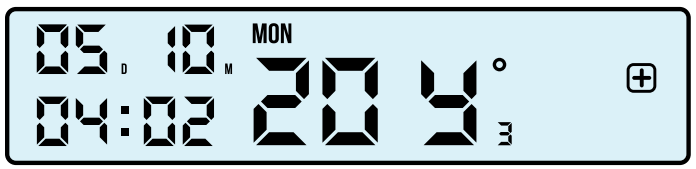


will appear.

This is the temperature of the second last successful legionella operation.

Rotate ◯ clockwise.

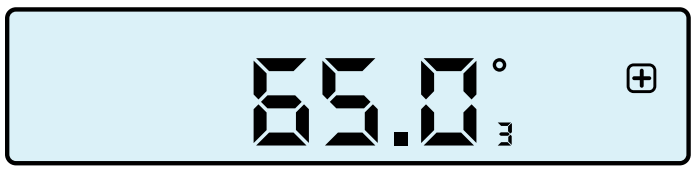
Legionella Check Function (Continued)



will appear.

This is the date and time of the third last successful legionella operation.

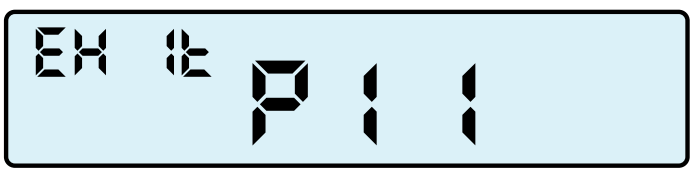
Rotate the handwheel ◯ clockwise.



will appear.

This is the temperature of the third last successful legionella operation.

Press ◯ once.

Rotate ◯ to exit the menu 

.

Press ◯ to confirm.

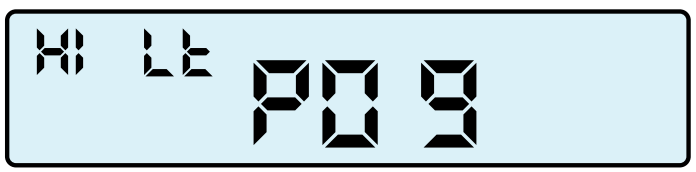
Alternatively, the menu will be exited after 20 seconds.

High Limit Cut Out Temperature

This function allows you to view the high limit cut out temperatures in the thermostat.

Double press the handwheel ◯ to enter the menu.

Rotate ◯ to select the Factory default function. (Menu P09)



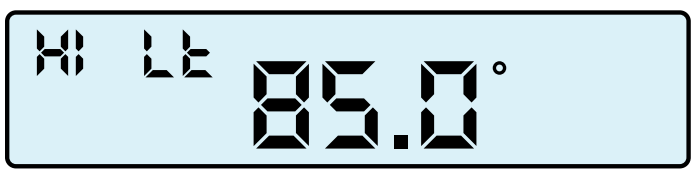
will appear.

Press ◯ once.

“NO” will appear on the screen.

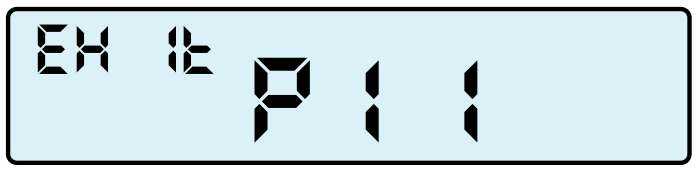
The high limit cut out temperature will appear on the screen.

This is the factory default setting and is not adjustable.



High Limit Cut Out Temperature (Continued)

Press ◯ once to confirm and to return to the menu.

Rotate ◯ to exit the menu 

.

Press ◯ to confirm.

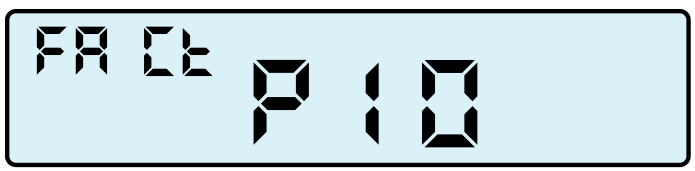
Alternatively, the menu will be exited after 20 seconds.

Factory Reset Function

This function allows you to restore the factory default settings in the thermostat.

Double press the handwheel ◯ to enter the menu.

Rotate ◯ to select the Factory default function. (Menu P09)



will appear.

Press ◯ once.

“NO” will appear on the screen.

Rotate ◯ to select “YES”.

Press ◯ once to confirm.

The thermostat will now reboot with the factory default settings.

Also available

Electro - Mechanical Thermostats



CM2



CM3



CMT



CM2S



CM3S

Programmable Digital Thermostats



CDTP2



CRTP2



RDTP



CP4B



CP4M

Non Programmable Digital Thermostats



CDT2



CRT2



RDT



HDT



HRT

Cylinder Thermostats



EDBS



WRP



WRP-TP



WRP-IM



WRP-IM-TP

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2026-02-23_EDBS_DS_PK