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EPH CONTROLS R27V2 2 Zone Programmer

EPH CONTROLS R27V2 2 Zone Programmer User Guide

Contents

EPH CONTROLS R27V2 2 Zone Programmer

Product Information

Specifications:

- **Power Supply:** 230VAC
- **Ambient Temperature:** Auto Off
- **Dimensions:** British System Standard 2
- **Contact Rating:** Resistance to voltage surge 2000V; as per EN60730
- **Program Memory Temperature Sensor:** Class A
- **Backlight:** Off
- **IP Rating:** HOT WATER HEATING
- **Battery:** Class A
- **Backplate:** Pollution degree
- **Software Class:** EPH Controls Ltd.

Product Usage Instructions

Installation Instructions:
Installation and connection should only be carried out by a qualified person. Before starting the installation, disconnect the programmer from the mains. The programmer can be surface-mounted or mounted to a recessed conduit box. Follow the manufacturer's guidelines for correct installation.

Operating Instructions:

- Quick Introduction to your R27V2 programmer: This section provides an overview of the key features and functions of the programmer.
- Mode Selection: Learn how to navigate and select different modes on the programmer for various settings.
- Programming Modes: Understand the different programming modes available and how to set them according to your preferences.
- Factory Program Settings: Get familiar with the default settings of the programmer and how to adjust them if needed.
- Adjust the Program Setting in 5/2 Day Mode: Step-by-step guide on how to modify program settings in the 5/2 day mode.

- Reviewing the Program Settings: Learn how to review and verify the programmed settings on the display.
- Boost Function: Understand how to use the boost function effectively for quick heating or cooling needs.
- Advance Function: Explore the advanced functions of the programmer for more customized settings.

Menu:
P01 Setting the Date, Time, and Programming Mode: Detailed instructions on how to set the date, time, and programming mode on the programmer.

FAQ:

- **Q: Can I install the programmer myself?**

  A: Installation and connection should only be carried out by a qualified person. It is recommended to seek help from a qualified electrician or authorized service staff for installation.
- **Q: How do I reset the programmer?**

  A: To reset the programmer, follow the instructions provided in the user manual. You can perform a master reset or reset specific settings as needed.

Factory Default Settings

- **Contacts:** 230VAC
- **Program:** 5/2D
- **Backlight:** On
- **Keypad Lock:** Off
- **Frost Protection:** Off
- **Operating Mode:** Auto
- **Pin Lock:** Off
- **Service Interval:** Off
- **Zone Title:** HOT WATER HEATING

Specifications

- **Power Supply:** 230VAC
- **Ambient Temperature:** 0 … 50°C
- **Dimensions:** 161 x 100 x 31 mm
- **Contact Rating:** 3(1)A
- Program Memory 5 Years
- **Temperature Sensor:** NTC 100K
- **Backlight:** White
- **IP Rating:** IP20
- **Battery:** 3VDC Lithium LIR2032 & CR2032
- **Backplate:** British System Standard
- **Pollution degree:** 2 (Resistance to voltage surge 2000V; as per EN60730)
- **Software Class:** Class A
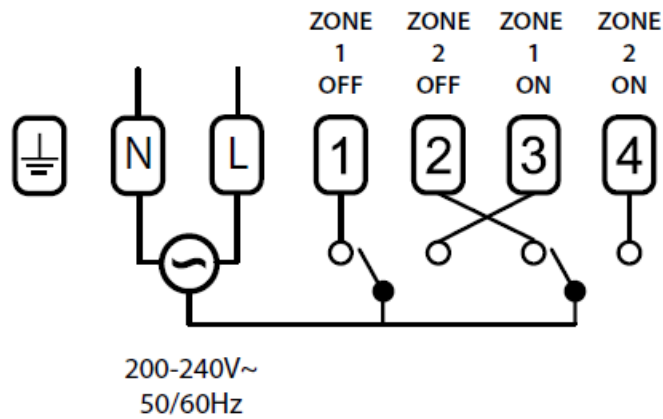
LCD Display

1. Displays current time.
2. Displays the current day of the week.
3. Displays when frost protection is activated.
4. Displays when the keypad is locked.
5. Displays current date.
6. Displays zone title.
7. Displays current mode.
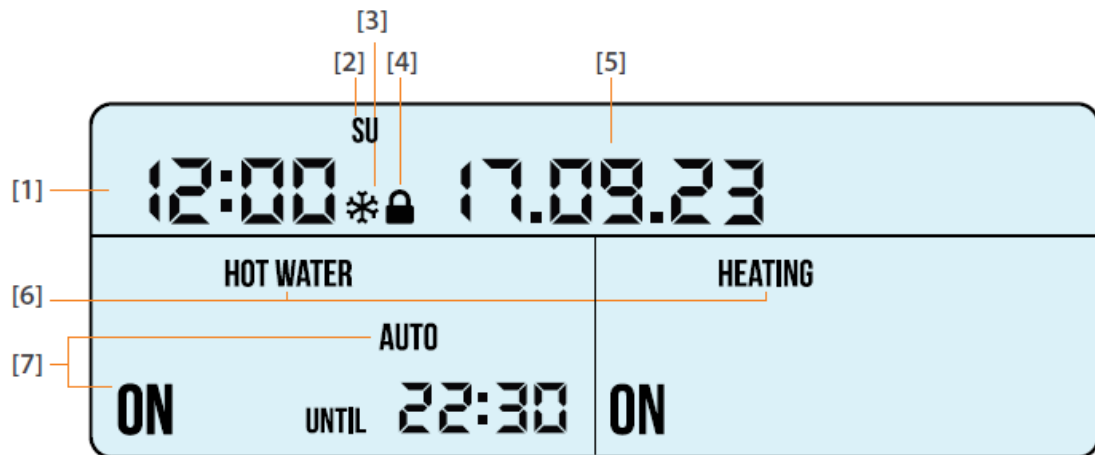
Button Description

Wiring Diagram

ZONE 1 OFF | ZONE 2 OFF | ZONE 1 ON | ZONE 2 ON

200-240V~
50/60Hz
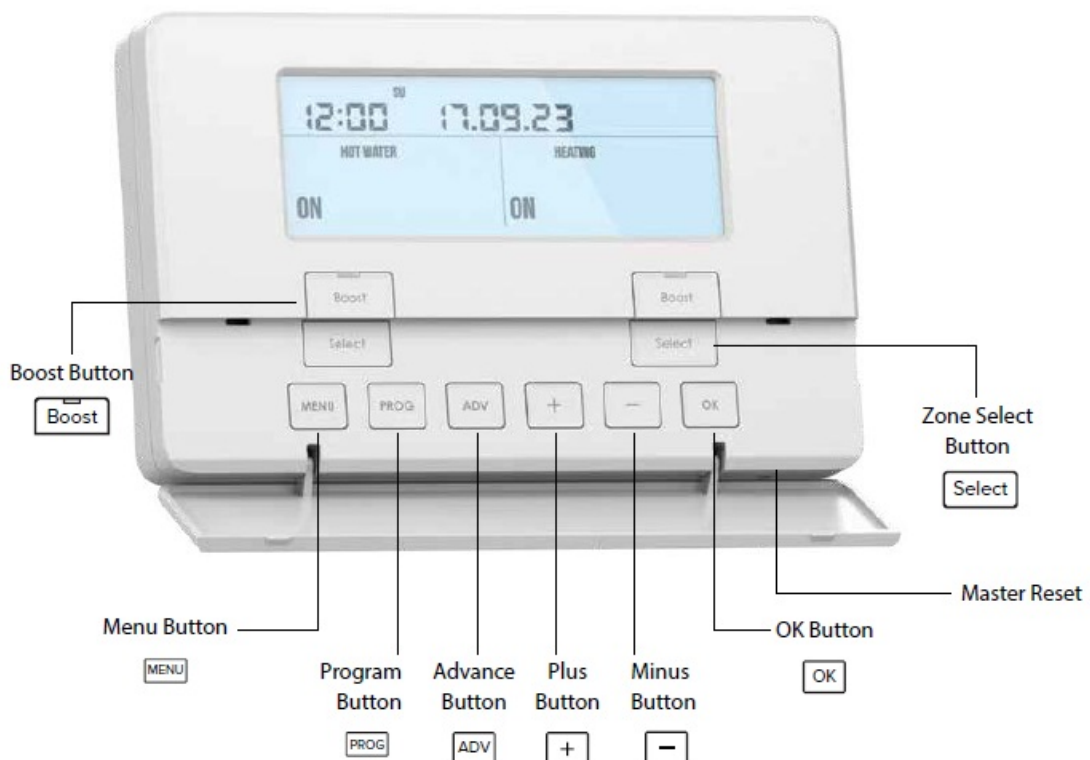
Terminal Connections

- ⏚ Earth
- N Neutral
- L Live
- 1 Zone 1 OFF – N/C Normally closed connection
- 2 Zone 2 OFF – N/C Normally closed connection
- 3 Zone 1 ON – N/O Normally open connection
- 4 Zone 2 ON – N/O Normally open connection

Mounting & Installation
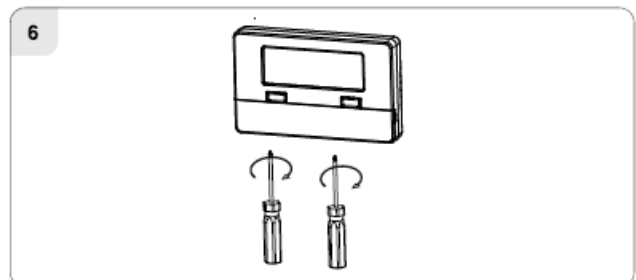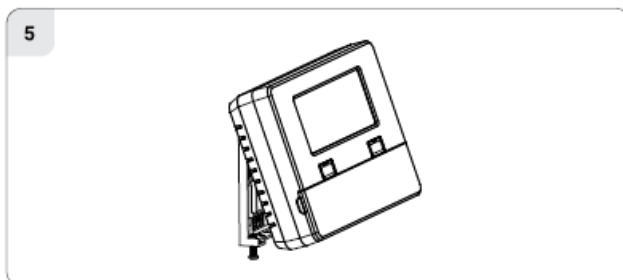
Caution!

- Installation and connection should only be carried out by a qualified person.
- Only qualified electricians or authorised service staff are permitted to open the program.
- If the programmer is used in a way not specified by the manufacturer, its safety may be impaired.
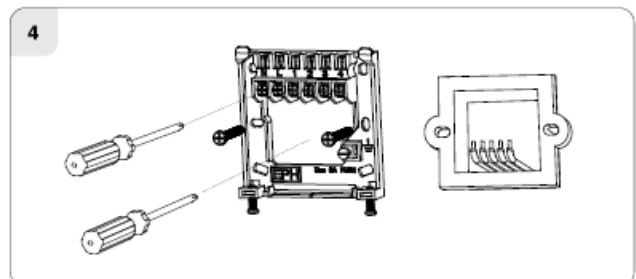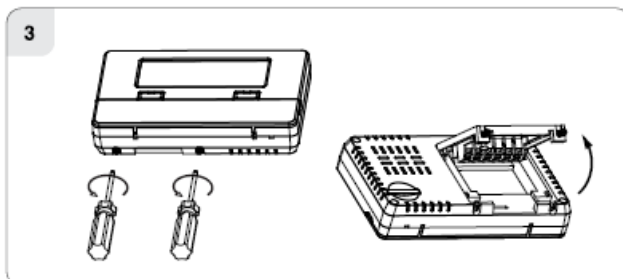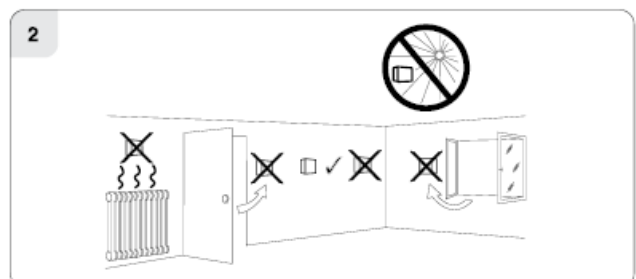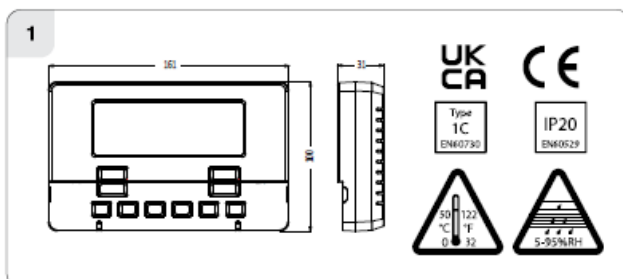- Before setting the programmer, it is necessary to complete all required settings described in this section.
- Before commencing installation, the programmer must be first disconnected from the mains.

This programmer can be surface-mounted or mounted to a recessed conduit box.

1. Remove the programmer from its packaging.
2. Choose a mounting location for the programmer:
   - Mount the programmer 1.5 metres above the floor level.
   - Prevent direct exposure to sunlight or other heating/cooling sources.
3. Use a Philips screwdriver to loosen the screws of the backplate on the bottom of the programmer. The programmer is lifted upwards from the bottom and removed from the backplate.
4. Screw the backplate onto a recessed conduit box or directly to the surface.
5. Wire the backplate as per the wiring diagram.
6. Sit the programmer onto the backplate making sure the programmer pins and the backplate contacts are making a sound connection, push the programmer flush to the surface and tighten the screws of the backplate from the bottom.

Operating Instructions

Programmer

A quick introduction to your R27V2 programmer:

- The R27V2 programmer will be used to control two separate zones in your central heating system.
- Each zone can be independently operated and programmed to suit your needs. Each zone has up to three daily heating programs called P1, P2 and P3. See Page 13 for instructions on how to adjust the program settings.
- On the LCD screen of your programmer you will see two separate sections, one to represent each zone.
- Within these sections, you can see what mode the zone is currently in.
- When in the AUTO mode, it will show when the zone is next programmed to be switched ON or OFF.
- For 'Mode Selection' please see page 11 for further explanation.
- When the zone is ON, you will see the red LED for that zone light up. This indicates that power is being sent from the programmer in this zone.

Mode Selection **AUTO**

There are four modes available for selection.

- AUTO The zone operates up to three 'ON/OFF' periods per day (P1, P2, P3).
- ALL DAY The zone operates one 'ON/OFF' period per day. This operates from the first 'ON' time to the third 'OFF' time.
- ON The zone is permanently ON.
- OFF The zone is permanently OFF.

- Press Select to change between AUTO, ALL DAY, ON & OFF.
- The current mode will be shown on the screen under the specific zone.
- The Select are found under the front cover. Each zone has its own Select.

Programming Modes

This programmer has the following programming modes.

- 5/2 Day mode Programming Monday to Friday as one block and Saturday and Sunday as a 2nd block.
- 7-Day mode Programming all 7 days individually.
- 24-hour mode Programming all 7 days as one block.

Factory Program Settings 5/2d

5/2 Day						
	P1 ON	P1 OFF	P2 ON	P2 OFF	P3 ON	P3 OFF
Mon-Fri	06:30	08:30	12:00	12:00	16:30	22:30
Sat-Sun	07:30	10:00	12:00	12:00	17:00	23:00

7 Day						
	P1 ON	P1 OFF	P2 ON	P2 OFF	P3 ON	P3 OFF
All 7 days	06:30	08:30	12:00	12:00	16:30	22:30

24 Hour						
	P1 ON	P1 OFF	P2 ON	P2 OFF	P3 ON	P3 OFF
Everyday	06:30	08:30	12:00	12:00	16:30	22:30

Adjust the Program Setting in 5/2 Day Mode

Press **PROG.**

Programming for Monday to Friday for Zone 1 is now selected.

- To change programming for Zone 2, press the appropriate Select.
- Press + and – to adjust the P1 ON time. Press OK.
- Press + and – to adjust the P1 OFF time. Press OK.
- Repeat this process to adjust P2 and P3 times.

Programming for Saturday to Sunday is now selected.

- Press + and – to adjust the P1 ON time. Press OK.
- Press + and – to adjust the P1 OFF time. Press OK.
- Repeat this process to adjust P2 and P3 times.
- Press MENU to return to normal operation.
- While in programming mode, pressing Select will jump to the next day (block of days) without changing the program.

Note:

1. To change from 5/2d to 7D or 24H programming, refer to page 16, Menu P01.
2. If you don't wish to use one or more of the daily programs then simply set the start time and end time to be identical. For example, if P2 is set to start at 1noon and end at 1noont programmer will simply ignore this program and proceed to the next switching time.

Reviewing the Program Settings

- Press PROG.
- Press OK to scroll through the periods for the individual day (block of days).
- Press Select to jump to the next day (block of days).
- Press MENU to return to normal operation.
- You must press the specific Select to review the schedule for that zone.

Boost Function
Each zone can be boosted for 30 minutes, 1, 2 or 3 hours while the zone is in the AUTO, ALL DAY & OFF mode.

- Press Boost 1, 2, 3 or 4 times, to apply the desired BOOST period to the Zone.
- When a Boost is pressed there is a 5-second delay before activation where 'BOOST' will flash on the screen, this gives the user the time to select the desired BOOST period.
- To cancel a BOOST, press the respective Boost again.
- When a BOOST period has ended or has been cancelled, the Zone will return to the mode that was previously active before the BOOST.

Note: A BOOST cannot be applied while in the ON or Holiday Mode.

Advance Function

When a zone is in the AUTO or ALLDAY mode, the Advance function allows the user to bring the zone or zone forward to the next switching time.

If the zone is currently timed to be OFF and ADV is pressed, the zone will be switched ON until the end of the next switching time. If the zone is currently timed to be ON and ADV is pressed, the zone will be switched OFF until the start of the next switching time.

- Press ADV.
- Zone 1 and Zone 2 will begin to flash.
- Press the appropriate Select.
- The zone will display 'ADVANCE ON' or 'ADVANCE OFF' until the end of the next switching time.
- Zone 1 will stop flashing and enter Advance mode.
- Zone 2 will remain flashing.
- Repeat this process with Zone 2 if required.
- Press OK.
- To cancel an ADVANCE, press the appropriate Select.

When an ADVANCE period has ended or has been cancelled, the zone will return to the mode that was previously active before the ADVANCE.

Menu

- This menu allows the user to adjust additional functions.
- To access the menu, press MENU .

P01 Setting the Date, Time and the Programming Mode DST ON

- Press MENU, 'P01 tInE' will appear on the screen.
- Press OK, and the year will begin to flash.
- Press + and – to adjust the year. Press OK.
- Press + and – to adjust the month. Press OK.
- Press + and – to adjust the day. Press OK.
- Press + and – to adjust the hour. Press OK.
- Press + and – to adjust the minute. Press OK.
- Press + and – to adjust from 5/2d to 7d or 24h mode. Press OK.
- Press + and – to turn DST (Day Light Saving Time) On or Off.
- Press MENU and the programmer will return to normal operation.

Note:
Please see page 12 for descriptions of Programming Modes.

P02 Holiday Mode
This menu allows the user to switch off their heating system by defining a start and end date.

- Press MENU, 'P01' will appear on the screen.
- Press + until 'P02 HOL' will appear on the screen.
- Press OK, 'HOLIDAY FROM', and the date and time will appear on the screen. The year will begin to ash.
- Press + and – to adjust the year. Press OK.
- Press + and – to adjust the month. Press OK.
- Press + and – to adjust the day. Press OK.
- Press + and – to adjust the hour. Press OK.
  '**HOLIDAY TO**' and the date and time will appear on the screen. The year will begin to ash.
- Press + and – to adjust the year. Press OK.
- Press + and – to adjust the month. Press OK.
- Press + and – to adjust the day. Press OK.
- Press + and – to adjust the hour. Press OK.
- The programmer will now be switched off during this selected period.
- To cancel the HOLIDAY, press OK.

The programmer will return to normal operation when a holiday has finished or been cancelled.

P03 Frost Protection OFF

This menu allows the user to activate the frost protection between a range of 5°C and 20°C.

- Frost protection is default set to OFF.
- Press MENU, 'P01' will appear on the screen.
- Press + until 'P03 FrOST' appears on the screen.
- Press OK, and 'OFF' will appear on the screen.
- Press + to select 'ON'. Press OK.
- '5°C' will flash on the screen.
- Press + and – to select your desired frost protection temperature. Press OK.
- Press MENU and the programmer will return to normal operation.

The Frost symbol will display on the screen if the user activates it in the menu.

If the ambient room temperature drops below the desired frost protection temperature, all zones of the programmer will activate and the frost symbol will flash until the frost protection temperature has been achieved.

P04 Zone Title

This menu allows the user to select different titles for each zone.

The options are:

DEFAULT OPTIONS	RENAME OPTIONS
HOT WATER	ZONE 1
HEATING	ZONE 2

- Press MENU, 'P01' will appear on the screen.
- Press + until 'P04' appears on the screen.
- Press OK, 'HOT WATER' will flash on the screen.
- Press + to change from 'HOT WATER' to 'ZONE 1'. Press OK. 'HEATING' will flash on the screen.
- Press + to change from 'HEATING' to 'ZONE 2'.
- Press MENU and the programmer will return to normal operation.

P05 PIN

- This menu allows the user to put a PIN lock on the programmer.
- The PIN lock will reduce the functionality of the programmer.

Set up the PIN

- Press MENU, 'P01' will appear on the screen.
- Press until 'P05 PIn' appears on the screen.
- Press OK, and 'OFF' will appear on the screen.
- Press to change from OFF to ON. Press OK. '0000' will flash on the screen.

- Press and to set the value from 0 to 9 for the first digit. Press OK to move to the next PIN digit.
- When the last digit of the PIN is set, press OK. Verify is displayed with '0000'.
- Press and to set the value from 0 to 9 for the first digit. Press OK to move to the next PIN digit.
- When the last digit of the PIN is set, press OK. The PIN is now verified, and the PIN lock is activated.
- If the verification PIN is entered incorrectly the user is brought back to the menu.
- When the PIN lock is active the Lock symbol will flash every second on the screen.
- When the programmer is PIN-locked, pressing the menu will take the user to the PIN unlock screen.

Note:

- When the PIN lock is enabled, BOOST periods are reduced to 30-minute and 1-hour periods.
- When the PIN lock is enabled, Mode Selections are reduced to Auto and OFF.

To Unlock the PIN

- Press MENU, 'UNLOCK' will appear on the screen. '0000' will flash on the screen.
- Press + and – to set the value from 0 to 9 for the first digit.
- Press OK to move to the next PIN digit.
- When the last digit of the PIN is set. Press OK.
- The PIN is now unlocked.

If a PIN has been unlocked on the programmer, it will automatically reactivate if there is no button pressed for 2 minutes.

To Deactivate the PIN
When the PIN is unlocked (see above instructions)

- Press MENU, 'P01' will appear on the screen.
- Press until 'P05 PIn' appears on the screen.
- Press OK, 'ON' will appear on the screen.
- Press or to select 'OFF'. Press OK.
- '0000' will flash on the screen. Enter the PIN. Press OK.
- The PIN is now disabled.

Press MENU to return to normal operation or it will automatically exit after 20 seconds.

Copy Function

The copy function can only be used when the 7D mode is selected. (See page 16 to select 7d mode) Press PROG to program the ON and OFF periods for the day for the week you want to copy.

Do not press OK on the P3 OFF time, leave this period flashing.

- Press ADV, and 'COPY' will appear on the screen, with the next day of the week flashing.
- To add the desired schedule to this day press +.
- To skip this day press -.

- Press OK when the schedule has been applied to the desired days.
- Ensure the zone is in Auto mode for this schedule to operate accordingly.
- Repeat this process for Zone 2 if required.

Note:
You cannot copy schedules from one zone to another, E.g. Copying the Zone 1 schedule to Zone 2 is not possible.

Backlight Mode Selection **ON**
There are 3 backlight settings available for selection:

- AUTO Backlight stays on for 10 seconds when any button is pressed.
- ON Backlight is permanently On.
- The backlight is permanently Off.
- To adjust the backlight press and hold OK for 10 seconds.
- 'Auto' appears on the screen.
- Press + or – to change the mode between Auto, On and Off.
- Press OK to confirm selection and to return to normal operation.

Locking the Keypad

- To lock the programmer, press and hold + and – together for 10 seconds.
- will appear on the screen. The buttons are now disabled.
- To unlock the programmer, press and hold + and – for 10 seconds.
- will disappear from the screen. The buttons are now enabled.

Resetting the Programmer

To reset the programmer to factory settings:

- Press MENU.
- 'P01' will appear on the screen.
- Press + until 'P06 rESEt' appears on the screen.
- Press OK to select.
- 'No' will begin to flash.
- Press +, to change from 'nO' to 'YES'.
- Press OK to confirm.
- The programmer will restart and revert to its factory-defined settings.
- The time and date will not be reset.

Master Reset

- To master reset the programmer to factory settings, locate the master reset button on the right-hand side underneath the programmer.
- Press the Master Reset button and release it.

- The screen will go blank and reboot.
- The programmer will restart and revert to its factory-defined settings.

Service Interval

Service Interval ⚙ **OFF**

The service interval gives the installer the ability to put an annual countdown timer on the programmer. When the Service Interval is activated 'SErv' will appear on the screen which will alert the user that their annual boiler service is due.

For details on how to enable or disable the Service Interval, please contact customer service.

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Documents / Resources

EPH CONTROLS R27V2 2 Zone Programmer [pdf] User Guide
R27V2 2 Zone Programmer, R27V2 2, Zone Programmer, Programmer

References

-

- EPH **Contact Us - EPH Controls**

- **User Manual**