R17-RF V2

1 Zone RF Timeswitch

Installation and Operating Guide

EPH CONTROLS

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1 Zone RF Timeswitch

Installation Instructions

Factory Default Settings

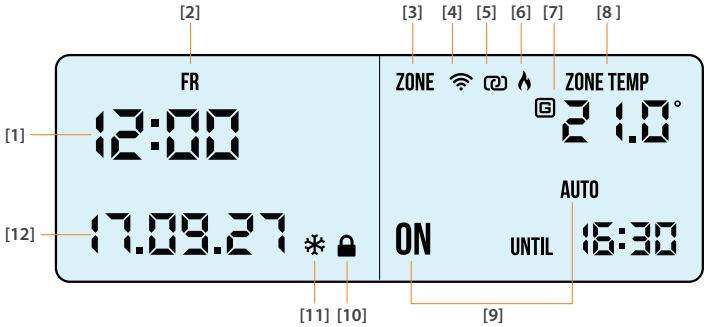
Program:	5/2D	Operating Mode:	Auto
Backlight:	On	Pin Lock:	Off
Keypad Lock:	Off	Service Interval:	Off
Frost Protection:	Off		

Specifications

Switch Output:	SPDT Volt Free	Backplate:	British System Standard
Power Supply:	230Vac	Pollution degree:	2 (Resistance to voltage surge 2000V; as per EN60730)
Ambient Temperature:	0 … 50˚C		
Dimensions:	161 x 100 x 31 mm		
Contact Rating:	3(1)A 230Vac	Software Class:	Class A
Program Memory	5 Years	Frequency:	868.35 MHz
Temperature Sensor:	NTC 100K		
Backlight:	White		
IP Rating:	IP20		
Battery:	3VDC Lithium LIR2032 & CR2032		

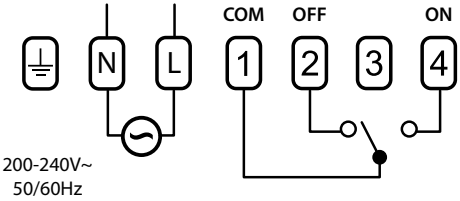
LCD Display

[1] Displays current time.
[2] Displays current day of the week.
[3] Displays zone title.
[4] Displays RF transmission.
[5] Displays RF thermostat connection.
[6] Displays when calling for heat.
[7] Displays when Gateway is connected.
[8] Displays zone temperature.
[9] Displays current mode.
[10] Displays when keypad is locked.
[11] Displays when frost protection is activated.
[12] Displays current date.



Button Description

Wiring Diagram



Terminal Connections

⏚	Earth	
N	Neutral	
L	Live	
1	COM	- Common Connection
2	OFF	- N/C Normally Closed Connection
4	ON	- N/O Normally Open Connection

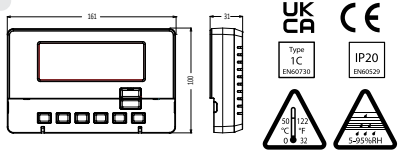
Switching Options

Mains Switching
- Link L to 1.

Low Voltage Switching
- Remove the external controls link from the boiler PCB.
- Connect 1 and 4 to these terminals.

Mounting & Installation

1



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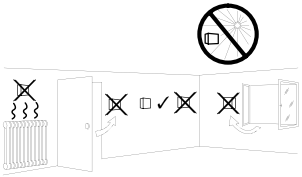

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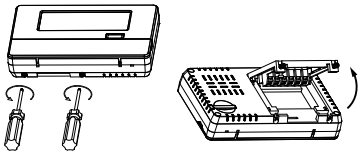

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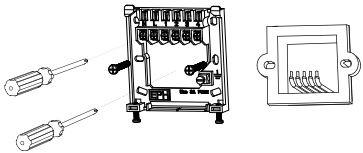

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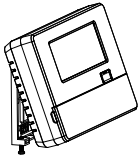

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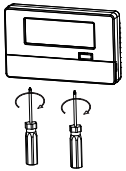

Caution!

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

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

1) Remove the timeswitch from its packaging.
2) Choose a mounting location for the timeswitch:
   - Mount the timeswitch 1.5 metres above the floor level.
   - Prevent direct exposure to sunlight or other heating / cooling sources.
3) Use a phillips screwdriver to loosen the screws of the backplate on the bottom of the timeswitch. The timeswitch is lifted upwards from the bottom and removed from the backplate.
   (See Diagram 3 on Page 7)
4) Screw the backplate onto a recessed conduit box or directly to the surface.
5) Wire the backplate as per the wiring diagram on page 6.
6) Sit the timeswitch onto the backplate making sure the timeswitch pins and the backplate contacts are making a sound connection, push the timeswitch flush to the surface and tighten the screws of the backplate from the bottom. (See Diagram 6 on Page 7)

1 Zone RF Timeswitch

Operating Instructions

Quick introduction to your R17-RF^{V2} Timeswitch:

This RF timeswitch is designed to control a single heating zone in your home. It is compatible with the EPH range of room and cylinder thermostats.

The screen will display which mode the timeswitch is currently in, AUTO, ON, OFF or ALL DAY. For 'Mode Selection' please see page 11 for further explanation.

The timeswitch has up to three daily heating programs called P1, P2 and P3. See Page 13 for instructions on how to adjust the program settings.

When in the AUTO mode, it will show when the timeswitch is next programmed to be switched ON or OFF.

When the timeswitch is calling for heat you will see the red LED light up, this indicates that power is being sent from the timeswitch.

When the wireless thermostat is satisfied and not calling for heat, it will stop the timeswitch from activating. The red light for that zone will not turn on.

In the event your wireless cylinder thermostat loses connection it will prevent the zone from activating. The red light will not turn on. The batteries should be checked/replaced.

Low power or discount store battery brands should not be used. When the battery is low, a battery low notification will appear on the thermostat and on the EMBER app. The batteries should be changed immediately.

Mode Selection AUTO

There are four modes available for selection.

AUTO The timeswitch operates up to three 'ON/OFF' periods per day (P1, P2, P3).

ALL DAY The timeswitch operates one 'ON/OFF' period per day. This operates from the first 'ON' time to the third 'OFF' time.

ON The timeswitch is permanently ON.

OFF The timeswitch is permanently OFF.

Press Select to change between AUTO, ALL DAY, ON & OFF.

The current mode will be shown on the screen.

The Select is found under the front cover.

Programming Modes

This timeswitch 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 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.

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 18, Menu P03.
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 12:00 and end at 12:00 the timeswitch 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.

Boost Function

The timeswitch can be boosted for 30 minutes, 1, 2 or 3 hours while it is in the AUTO, ALL DAY & OFF mode.

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

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 Boost again.

When a BOOST period has ended or has been cancelled, the timeswitch will return to the mode that was previously active prior to the BOOST.

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

Advance Function

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

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

Press [ADV].

The timeswitch will display '**ADVANCE ON**' or '**ADVANCE OFF**' until the end of the next switching time.

To cancel an ADVANCE, press [ADV] again.

When an ADVANCE period has ended or has been canceled, the timeswitch will return to the mode that was previously active prior to the ADVANCE.

Menu

This menu allows the user to adjust additional functions.

To access the menu, press MENU.

P01 RF Thermostat Pairing

This function allows the user to connect an RF thermostat to the R17-RF^{V2} timeswitch.

To connect an RFR^{V2}, RFRB^{V2} or RFC^{V2} to an R17-RF^{V2} timeswitch

1. On the R17-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 thermostat:

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

RFR^{V2}

RFRB^{V2}

RFC^{V2}

3. On the R17-RF^{V2}:

Once **'ZONE'** flashes press Select.

4. On the thermostat:

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

5. On the R17-RF^{V2}:

Press OK to return to the main screen.

P01 RF Thermostat Pairing continued

CDT2-RF

To connect a CDT2-RF to an R17-RF^{V2} timeswitch

1. On the R17-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 thermostat:

Press the RF button ▭ on the left side of the thermostat housing.

3. On the R17-RF^{V2}:

Once **'ZONE'** flashes press [Select].

4. On the thermostat:

When **'r01'** appears, press [OK] to confirm the thermostat is connected.

5. On the R17-RF^{V2}:

Press [OK] to return to the main screen.

RDT-RF

To connect an RDT-RF to an R17-RF^{V2} timeswitch

1. On the R17-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 thermostat:

Press and hold [⏻] and [OK] together for 5 seconds.

'PO1' will appear on the screen, press [OK].

3. On the R17-RF^{V2}:

Once **'ZONE'** flashes press [Select].

4. On the thermostat:

When **'r01'** appears solid on the screen, press [OK] to confirm the thermostat is connected.

5. On the R17-RF^{V2}:

Press [OK] to return to the main screen.

HDT-RF

To connect a HDT-RF to an R17-RF^{V2} timeswitch

1. On the R17-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 thermostat:

Press and hold ⏻ and ◎ together for 5 seconds.

'PO1' will appear on the screen, press ◎.

3. On the R17-RF^{V2}:

Once **'ZONE'** flashes press [Select].

4. On the thermostat:

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

5. On the R17-RF^{V2}:

Press [OK] to return to the main screen.

P02 GW04 Gateway Pairing

GW04 Gateway

This function allows the user to connect the GW04 Gateway to the R17-RF^{V2} timeswitch.

1. On the R17-RF^{V2}:

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

Press [+] until '**P02 gAtE**' will appears on the screen.

Press [OK]. **'CONNECT'** will flash on the screen.

2. On the GW04 Gateway:

Press and hold the RF connect button until the white RF LED begins to flash.

3. On the R17-RF^{V2}:

When successful '**r1**' and '**CONNECTED'** will appear on the screen.

Press [OK].

Press [MENU] and the timeswitch will return to normal operation.

Notes:

If multiple R17-RF^{V2} timeswitches are paired to the same gateway **r2**, **r3** or **r4** may appear on the screen.

When in the gateway pairing screen the wireless channel **(CH)** will be displayed on the top right of the screen.

P03 Setting the Date, Time and the Programming Mode

DST ON

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

Press [+] until **'P03 tInE'** appears on the screen.

Press [OK], 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 timeswitch will return to normal operation.

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

P04 Holiday Mode

This function allows the user to switch off their heating system by defining a start and end date.

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

Press [+] until '**P04 HOL**' will appears on the screen.

Press [OK], '**HOLIDAY FROM**', the date and time will appear on the screen. 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].

'**HOLIDAY TO**' and the date and time will appear on the screen. 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].

The timeswitch will now be switched off during this selected period.

To cancel the HOLIDAY, press [OK].

The timeswitch will return to normal operation when the holiday has finished or has been canceled.

P05 Frost Protection OFF

This function 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 rF COn**' will appear on the screen.

Press [+] until '**P05 FrOST**' appears on the screen.

Press [OK], '**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 timeswitch will return to normal operation.

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

If the room temperature drops below the desired frost protection temperature, the timeswitch will activate and the frost symbol will flash until the frost protection temperature has been achieved.

P06 PIN

This function allows the user to put a PIN lock on the timeswitch. The PIN lock will reduce the functionality of the timeswitch.

The user will have two options to choose from:

01: All buttons will be disabled.

02: Functionality will be reduced to a 30 minute and 1 hour boost. The only modes available are the AUTO & OFF.

Set up the PIN

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

Press [+] until '**P06 PIn**' appears on the screen. Press [OK], '**OFF**' will appear on the screen.

Press [+] to change from **OFF** to **ON**. Press [OK]. '**01**' will be appear on the screen.

Press [+] and [−] to choose between options 01 and 02.

Press [OK] button. '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 timeswitch is PIN locked, Pressing [MENU] will take the user to the PIN unlock screen.

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 timeswitch, 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 rF COn**' will appear on the screen.

Press [+] until '**P06 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.

P07 RF Thermostat UnPairing

This function allows the user to disconnect an RF thermostat from an R17-RF^{V2} timeswitch.

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

Press [+] until '**P07 dISCOn**' appears on the screen.

Press [OK].

'Zone' will flash on the screen.

Press [Select] and '**ZONE'** will disappear on the screen.

Press [OK].

Your RF thermostat is now disconnected.

Press [MENU] and the timeswitch will return to normal operation.

Copy Function

Copy function can only be used when the 7d mode is selected. (See page 18 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, '**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 timeswitch is in the 'Auto' mode for this schedule to operate accordingly.

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.

OFF 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 timeswitch, press and hold [+] and [−] together for 10 seconds.

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

To unlock the timeswitch, press and hold [+] and [−] for 10 seconds.

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

Resetting the Timeswitch

To reset the timeswitch to factory settings:

Press [MENU].

'**P01 rF COn**' will appear on the screen.

Press [+] until '**P08 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 timeswitch will restart and revert to its factory defined settings.

The time and date will not be reset.

Master Reset

To master reset the timeswitch to factory settings, locate the master reset button on the right-hand side underneath the timeswitch. *(see page 5)*

Press the Master Reset button and release it.

The screen will go blank and reboot.

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

The time and date will need to be set.

Service Interval OFF

The service interval gives the installer the ability to put an annual countdown timer on the timeswitch. When the Service Interval is activated '**SEruCE**' 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.

Notes

Notes

Notes

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