TR1 TR2 RF Transceiver Pack

Installation & Operating Instructions

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Important: Keep this document

Prior to operation, it is neccessary to complete all required settings described in this section.

CAUTION!

Before commencing any work on the electrical connections, you must first disconnect the device from the mains. None of the 230V connections must be live until the installation has been completed and the housing is closed. Only qualified electricians or authorised service staff are permitted to open the terminal box.

There are parts that carry mains voltage behind the cover. The terminal box must not be left unsupervised when open. (Prevent non specialists and especially children from gaining access to it.)

Ensure that this wireless enabled receiver is installed 1 metre from any metalic object, television, radio or wireless internet transmitter.

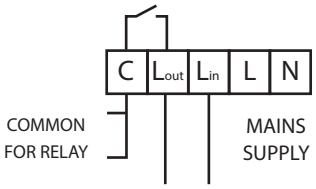
The TR1 and TR2 RF Transceiver Pack is used to establish a wireless link between 2 locations. It can wirelessly send a signal from the TR1 to the TR2 and from the TR2 back to the TR1 if required.

1. Specifications & wiring

Power Supply: 230 Vac 50Hz
Contact Rating: 230 Vac 10(3)A
Ambient Temp: 0 ... 50°C

Class II appliance ⧈
Pollution degree 2: Resistance to voltage surge 2500V; as per EN 60730

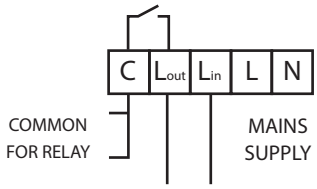
Internal wiring diagram TR1



Switch out from TR1 when the TR2 gets 230V to it's Lin

Live in from timeclock to TR1 to send activation signal to the TR2

Internal wiring diagram TR2



Switch out from TR2 when the TR1 gets 230V to it's Lin

Live in from motorised valve Aux - 230V, to send activation signal to the TR1

2. Mounting

The TR1/ TR2 Transceiver should be wall mounted in an area within 20 metres distance of the wireless thermostat.

It is important that the receiver is mounted more than 1 metre away from metal objects as this will affect communication with the thermostat.

The receiver should also be installed at least 1metre from any electronic devices such as radio, TV, microwave or wireless network adaptor.

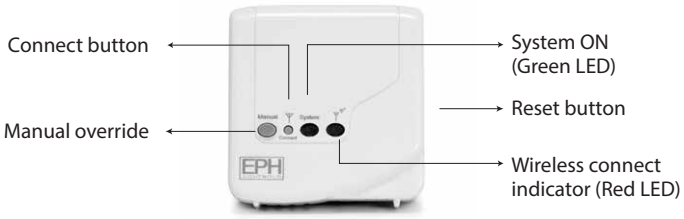
The unit can be fitted to:
1. Recessed conduit boxes
2. Surface mounting boxes

3. Installation

Slacken the fastening screw on the bottom of the receiver with a philips screwdriver.

The receiver is hinged and can be opened 180 degrees. Mount the unit as described in section 2. Wire the unit as described in section 1. Close the receiver and tighten the fastening screw.

4. Button / symbol description



Wireless connect: Pressed to initialise the pairing process with the other receiver.

Manual override: This button will manually override the system. (Only when disconnected)

Wireless connect indicator: This LED will flash on receiving wireless signals. If it is constantly blinking, the TR1 transceiver has been disconnected from the TR2.

5. To connect the TR1 to a TR2

Press the connect **'Connect'** button on TR1 and TR2, the green light on TR1 and TR2 will begin to flash.

After connecting successfully, the red LED will be constantly **'ON'** for the TR2.

The red LED will be constantly ON and green LED will flash on the TR1.

Now press the **'Manual'** button on the TR1 to exit to main interface.

6. To disconnect TR1 and TR2

The disconnection procedure is done on the TR1.

Press the connect **'Connect'** button on TR1, the green LED will flash.

Then press the **'Connect'** button on TR1 for 2 seconds, the red LED will flash and green LED will be off.

Press the **'Manual'** button on TR1 within 5 seconds followed by the **'Reset'** button, the TR1 and TR2 are now disconnected.

To manually operate the TR2

Press the **'Reset'** button located on the side of TR2.

The TR2 **'Manual'** button is now active.

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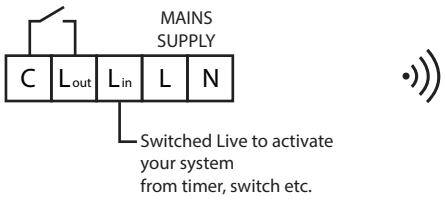
7. Wiring examples

TR1

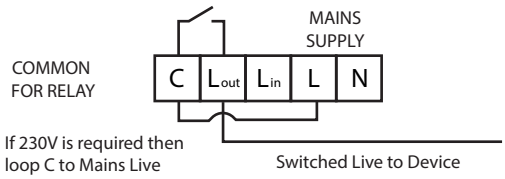
TR2

EXAMPLE 1 **Wirelessly completing a 230V connection**

a.) On TR1 When Lin receives 230V, TR1 sends a wireless signal to TR2.

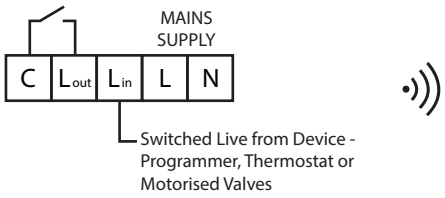


b.) On TR2 N/O contact will close and can switch any device with a 230V switched live.

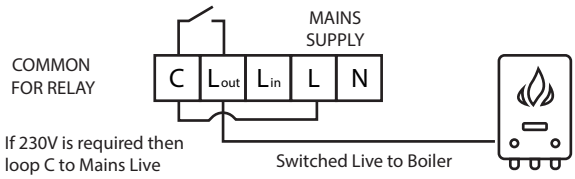


EXAMPLE 2 **Single Wireless Switch - TR1 to TR2 only - 230V out to boiler**

a.) On TR1 When Lin receives 230V, TR1 sends a wireless signal to TR2.

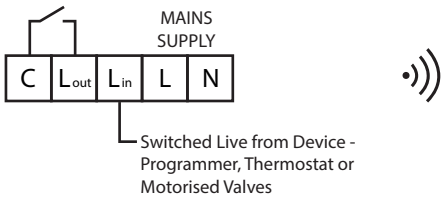


b.) On TR2 N/O contact will close and switches on the boiler with a 230V switched live.

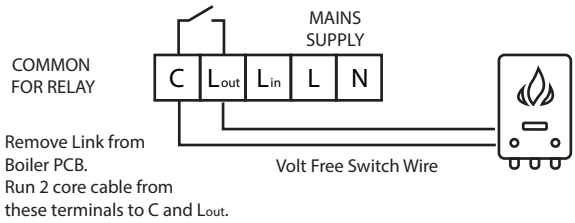


EXAMPLE 3 **Single Wireless Switch - TR1 to TR2 only - Volt Free Switch to Boiler**

a.) On TR1 When Lin receives 230V, TR1 sends a wireless signal to TR2.



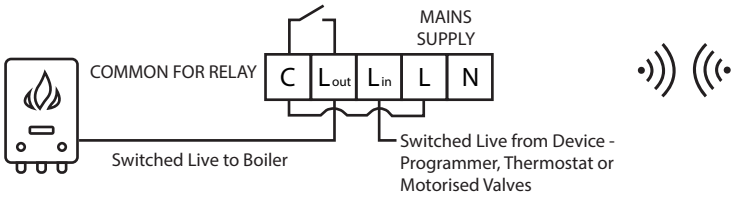
b.) On TR2 N/O contact will close and switches on the boiler with a volt free switch.



EXAMPLE 4 **Double Wireless Switch - TR1 to TR2 and TR2 back to TR1 - 230V**

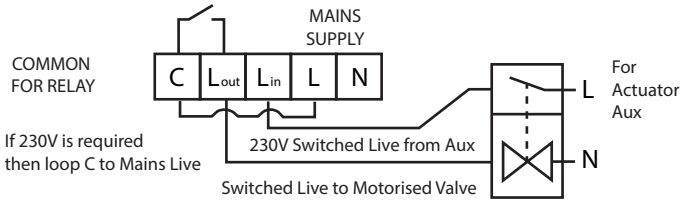
a.) On TR1 When Lin receives 230V, TR1 sends a wireless signal to TR2.

c.) On TR1 N/O contact on TR1 will close and switches the boiler with a 230V switched live.



b.) On TR2 N/O contact will close. Motorised valve will open.

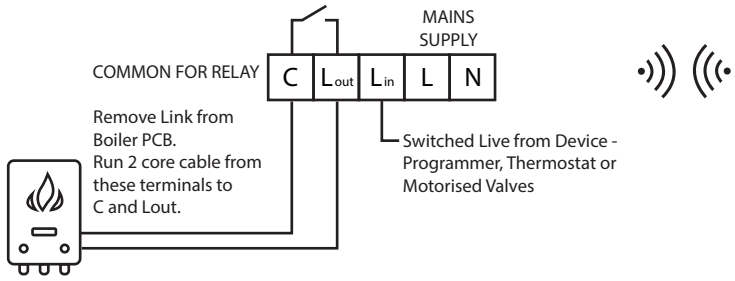
Auxiliary switch on motorised valve will close and send 230V to Lin on TR2. TR2 will send a wireless signal back to TR1.

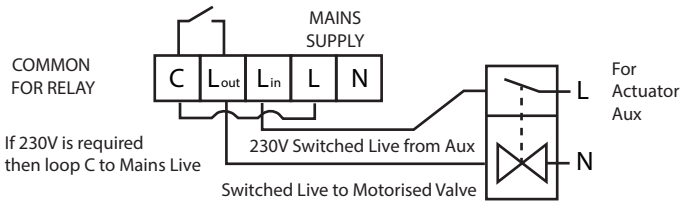


EXAMPLE 5 **Double Wireless Switch - TR1 to TR2 and TR2 back to TR1 - Volt Free**

a.) On TR1 When Lin receives 230V, TR1 sends a wireless signal to TR2.

c.) On TR1 N/O contact on TR1 will close and switches the boiler with a Volt free switch.



b.) On TR2 N/O contact will close. Motorised valve will open.

Auxiliary switch on motorised valve will close and send 230V to Lin on TR2. TR2 will send a wireless signal back to TR1.