

RF1B



RF Receiver

Installation and Operation Guide

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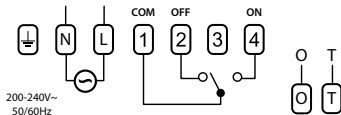


RF1B Receiver **Installation Instructions**

Specifications & Wiring

Power supply:	200 - 240Vac 50-60Hz
Contact rating:	230 Vac 3A
Switch output:	SPDT Volt Free
Ambient temperature:	0 ... 45°C
Automatic action:	Type 1.C.Q
Appliance classes:	Class II appliance 
Pollution degree:	Pollution degree 2
IP Rating:	IP20 Rated Impulse Voltage:Resistance to voltage surge 2500V as per EN 60730

Internal wiring diagram for RF1B



Switching Options

Mains Switching

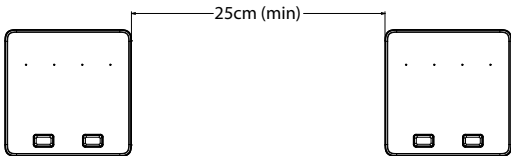
- Link L to 1.

Low Voltage Switching

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

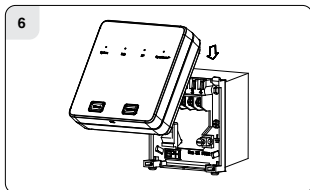
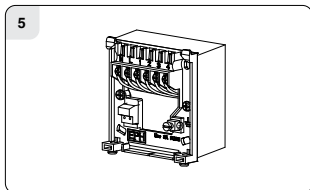
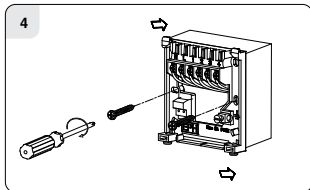
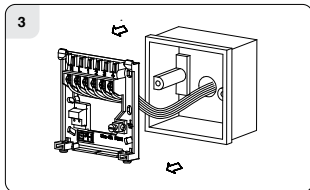
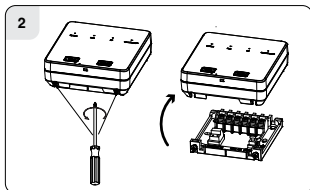
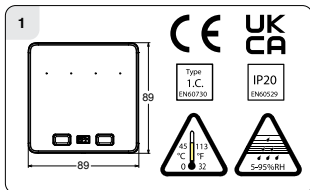
Important Notes

- Each receiver should have a minimum 25cm distance from any metal object such as a pipe or a minimum 25cm from any electrical device such as a spur or socket. It should be fitted 1metre away from wireless devices such as a router or Wi-fi booster. This is to ensure the best possible wireless connection and operating range.
- When installing multiple receivers, it is important to ensure that there is a minimum 25cm between each receiver. If they are too close, they will not be able to pair with each other.
- Where possible, keep the receivers in the same area of the premises to allow for stable communication.



Mounting & Installation

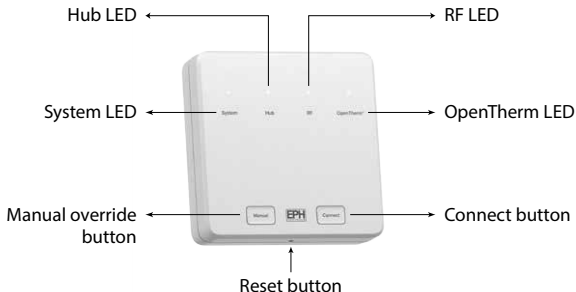
- 1) The RF1B receiver should be wall mounted in an area within 20 metres distance of the wireless thermostat. It is important that the receiver has over 25cm clearance from metal objects as this will affect communication with the thermostat. The receiver should be installed at least 1 metre from any electronic devices such as radio, TV, microwave or wireless network adapter.
- 2) Use a Phillips screwdriver to loosen the screws of the backplate on the bottom of the RF1B. The receiver is lifted upwards from the bottom and removed from the backplate. (see page 7)
- 3) Screw the backplate to the wall with the screws provided.
- 4) Wire the backplate as per the wiring diagram on page 4.
- 5) Mount the receiver on the backplate making sure the pins and the backplate contacts are making a sound connection. Push the receiver flush to the surface and tighten the screws of the backplate from the bottom. (See page 7)
- 6) If installing more than one RF1B receiver ensure they are 25cm apart.





RF1B Receiver **Operating Instructions**

Button / LED Description



Manual	Manual	Press to activate or deactivate the system.
Connect	Connect	Hold for 3 seconds to initialise the pairing process. The RF light will flash.
	Reset	Press to reset the receiver.

Note: Please refer to Page 4 for wiring information.

LED Description

LED	Colour	Description
System	Red	The system is OFF.
	Green	The system is ON.
Hub	White	Indicating that the receiver is a HUB.
RF	White	Indicating that the thermostat is connected.
		The RF light will double flash every second when the thermostat is disconnected. Check thermostat pairing.
		Note: The RF light will blink intermittently when the system is sending and receiving a signal for communication.
		Note: The RF light will blink once every second when in RF pairing by holding Connect. Press Manual to exit from this state.
Opentherm®	White	Indicating that Opentherm® is connected.
		The Opentherm® LED will blink when there is an Opentherm® communication error.

Pairing your RF1B Receiver to your GW04 Gateway

Ensure that your RF thermostat is paired to your RF1B receiver.

Ensure that the RF1B is set up as a Hub receiver.

To make your RF1B a HUB:

On the RF1B receiver:

Hold  &  for 5 seconds.

The Hub LED will illuminate. The receiver is now a HUB.

Pairing your RF1B receiver to your GW04 Gateway:

1. On the RF1B receiver:

Hold  on the RF1B until RF LED flashes.

2. On the GW04 Gateway:

Hold the RF Connect button  until RF LED flashes.

The gateway & receiver will stop flashing. Pairing is now complete.

The white RF light on the GW04 will stay illuminated.

Note: When connecting multiple receivers to a GW04 Gateway, ensure that all branch receivers are connected to the hub receiver. There can only be 1 hub receiver in a system. Allow 5 minutes for all receivers to synchronise with the hub receiver before connecting the gateway to the EMBER App.

Pairing your RF Thermostat to a RF1B receiver

1. On the RF1B receiver:

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

2. On the Thermostat:

Put the thermostat into pairing mode,

See thermostat instructions for a detailed description.

3. On the RF1B receiver:

The white RF LED will appear solid.

Note: See compatible RF Thermostats on Page 16.

Pairing your RFRP-TW Thermostat to a RF1B receiver

1. On the RF1B receiver:

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

2. On the RFRP-TW:

Press and hold  for 5 seconds.

'P01 & Prog' will appear on the screen.

Press  until 'P03 & rF' appears on the screen.

Press  to select.

Wait for 'r01' to appear solid.

Press  to confirm. The thermostat is connected.

3. On the RF1B:

The white RF LED will appear solid.

Pairing your RF1B Receiver to your UFH10-RF-OT

This will allow the installer to send a wireless signal from the UFH10-RF-OT to the RF1B in a separate location when running a Heat Enable or OpenTherm® cable is not possible.

1. On the UFH10-RF-OT:

Press  'P01' & rF COn' will appear on the screen.

Rotate  until 'P12' & rECu' appears on the screen.

Press  to confirm.

2. On the RF1B receiver:

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

3. On the UFH10-RF-OT:

Wait for 'r01' to appear solid on the screen.

Press  to confirm.

4. On the RF1B receiver:

The white RF LED will appear solid.

Note: When the Heat Enable or OpenTherm® calls on the UFH10-RF-OT, a wireless signal will then be sent to the RF1B closing the relay and calling the boiler/heat pump.

Pairing your RF1B Receiver to a RF1B Receiver

This allows pairing of an RF1B hub receiver with an RF1B branch receiver providing additional zone control.

Important notes:

- Only one receiver can be a Hub receiver.
- To change a Hub receiver to a Branch receiver, repeat the Hub setup steps.
- When the Hub light is illuminated, the receiver is a Hub.
- When the Hub light is not illuminated, the receiver is a Branch.
- The system allows control of up to 6 zones, supporting a maximum of 6 RF1B receivers.

To make your RF1B a HUB:

On the RF1B receiver:

Hold & for 5 seconds.

The Hub LED will illuminate. The receiver is now a HUB.

Pairing your RF1B Hub receiver to a RF1B Branch receiver:

1. On the RF1B Hub receiver:

Hold until the RF1B until RF LED flashes.

2. On the RF1B Branch Receiver:

Hold until the RF1B until RF LED flashes.

When pairing is successful, the RF light will appear solid.

3. On the RF1B Hub receiver:

Press to return to normal operation.

Pairing your RF1B Receiver to a RF2B Receiver

This allows pairing of an RF1B receiver with an RF2B receiver providing additional zone control.

Important notes:

- Only one receiver can be a Hub receiver.
- To change a Hub receiver to a Branch receiver, repeat the Hub setup steps.
- When the Hub light is illuminated, the receiver is a Hub.
- When the Hub light is not illuminated, the receiver is a Branch.
- The system allows up to 6 zones using a combination of RF1B and RF2B receivers.

Ensure that the RF1B is set up as a Hub receiver.

To make your RF1B a HUB:

On the RF1B receiver:

Hold  &  for 5 seconds.

The Hub LED will illuminate. The RF1B is now a HUB.

Pairing your RF1B Hub receiver to a RF1B Branch receiver:

1. On the RF1B Hub receiver:

Hold  until the RF1B until RF LED flashes.

2. On the RF2B Receiver:

Hold  on the RF2B until RF1 LED flashes.

When pairing is successful, the RF1 & RF2 LED will appear solid.

3. On the RF1B receiver:

Press  to return to normal operation.

To disconnect the RF1B receiver

Hold for 3 seconds to enter pairing mode,

Hold for 10 seconds and System LED will turn on,

Press to exit, the thermostat is now disconnected.

Compatible Thermostats



RFRP-TW

Individually sold



RFRP^{v2}

Included with CP4^{v2}



RFRPD

Included with CP4D



RFRP-OT

Included with CP4



RFRP-HW-OT

Included with CP4-HW-OT

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