



## ET3

### RF Thermostat

TFC Group LLP, Tower House,  
Vale Rise, Tonbridge, Kent TN9 1TB

<http://www.tfc-group.co.uk>

## INSTRUCTION MANUAL

TABLE OF CONTENTS	Page
A. Installation and mounting-----	3
1, Installation-----	3
2, Wiring-----	4
3, Mounting-----	4
B, Start/Reset-----	6
C, Normal Operation-----	6
D, Setting Temperature-----	7
E, Jumper Selection-----	7
F, Jumper location-----	8/9
G, Comms Address Setting-----	10
H, Specification-----	11
I, Terminal Connecting Block Label-----	12

1

2

#### ET3 RF Thermostat

- 1, The system includes one wireless thermostat controller (Tx) plus one RF receiver (Rx).
- 2, Transmits up to 20 meters indoors.
- 3, Communicates at 433.92MHz(USA/European Standard) and is designed for unlicensed operation under FCC Part 15.

#### Warning:

- 1, There may be a dead zone in the RF communication. That means the receiver may not be able to receive the message from the transmitter. Before the installation, check the communication first. If the communication fails, relocate the wireless thermostat.
- 2, If there is interference in communication, Follow the set-up procedure to change the coding between the RF thermostat and receiver.
- 3, It is recommended that the RF thermostat and Receiver are mounted at least 2 meters from electrical devices such as, radio, TV, PC etc. Do not mount the RF thermostat or receiver on metal wall boxes as this will interfere with the RF signal and reduce the range.

#### A, Installation & Mounting:

##### Caution:

Turn off the ET3 and any electrical devices that are to be connected after installation. The installation must be carried out by a qualified electrician and conform to current IEE regulations.

##### 1, Installation Location:

The thermostat (Transmitter) should be mounted on an inner wall 1.5m above the floor in a position where it is readily affected by changes in the ambient room temperature. Prevent direct exposure sunlight and moisture. Do not place this unit where air circulation is low, or where it is susceptible to rapid temperature changes (e.g. near a door or window). Do not position near heating/cooling appliances.

3

##### 2, Wiring:

There are four terminals on the receiver. L, N, 1 & 2.

##### Volt free connection:

If connecting to a volt free system 220-240 VAC should be connected to L & N and the switched pair into terminals 1 & 2. If the circuit has a send and return, the send should be connected to terminal 2 and the return to terminal 1.

##### Mains switching:

Connect 220-240 VAC to L & N, Link Live (L) to terminal 2. Terminal 1 gives a 230V AC switched live output when heating is in demand.

- Refer to the circuit diagram printed on rating label on the back of the product.
- Push all wiring into wall prior to mounting to avoid trapping wires. The thermostat should be protected by a fuse with a current rating no larger than 10A.

##### 3, Mounting:

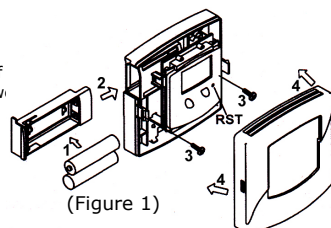
Mount the ET3 Thermostat using the screw accessories provided through slots/holes on rear face of the unit. Mount the receiver into back-box provided.

4

#### Transmitter Battery Installation / Replacement:

Caution: Turn off electrical devices and disconnect the supply to any connected appliances before installing or replacing batteries. Replace only with the same (AAA Alkaline) or equivalent batteries. Do not dispose of used batteries with household waste. Refer to your local area for correct disposal method.

- 1, Pull out the battery draw.
- 2, Place new batteries taking note of orientation of +/- on battery draw
- 3, Dispose old batteries properly.
- 4, Slide battery draw into position.
- 5, Check operation and press reset (RST) if not functioning correctly.



5

#### B, Start/Reset:

- 1, After wiring and mounting, switch off all connected devices. Place 2 new AAA 1.5V alkaline batteries ensuring correct orientation of battery polarity. LCD display will show.
- 2, Press 'RST' to reset. The ET3 is now ready to control the heater/cooler.
- 3, Switch on the heater/cooler. The heater/cooler will remain off until the ET3 activates the output

#### C, Normal Operation:

- 1, Temperature detection starts and LCD displays the room temperature. The temperature indicator will flash when heating is in demand and will stop flashing once the set-point has been achieved.
- 2, If the battery is low, will be flashing. If has been flashing for 48 hours and the batteries have not been replaced, the ET3 will stop measuring the room temperature and the LCD will go blank. The ET3 will turn off the output and the heater/cooler will cease to operate. The system will only function once the discharged batteries are removed and new batteries are fitted.

6

**D, Setting Temperature:**

- Adjust the temperature to your chosen set-point using the <▲> or <▼> buttons.
- Ambient room temperature display will resume after 8 seconds and the <🔊> icon will disappear.

**E, Jumper Selection:**

Delay / No Delay Jumper:

	Heater	Cooler
No Delay	10sec	4mins
Delay	4mins	4mins

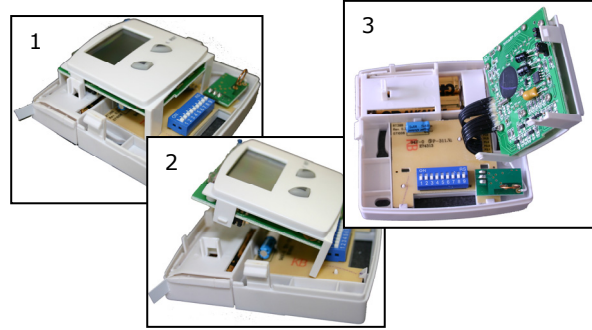
Choose the delay option if compressor heat is connected.

**Heater/Cooler Jumper:**

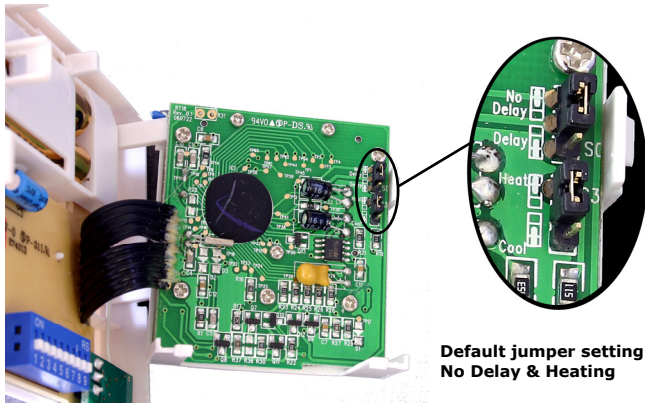
Select the heater option (default) when a heater is connected to the receiver. Select the Cooler option when using the ET3 for a cooling application, fan cooling etc. Press "reset" (RST) after modifying jumper selections.

7

**F, Jumper Locations:**



8

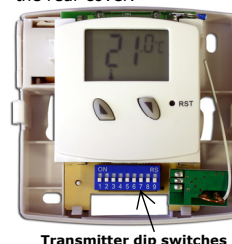


**Default jumper setting:  
No Delay & Heating**

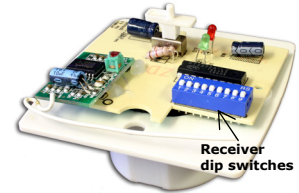
9

**G, Comms Address Setting:**

Inside the transmitter and receiver there is a bank of 9 dip switches for setting a unique address (pairing). The receiver will ignore communications from transmitters set to a different address. To access the dip switches it is necessary to open the thermostat and remove the front cover from the receiver by removing the two crosshead screws on the rear cover.



**Transmitter dip switches**



**Receiver dip switches**

*The dip switches on both units must be set identically to communicate.*

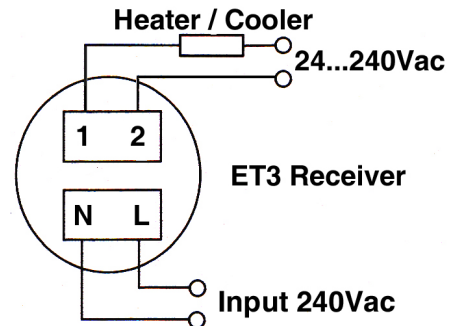
10

**H, Specification:**

1, Temperature Measurement:	0°C - 4°C (0.1°C/step)
2, Accuracy:	± 0.5°C
3, Temperature Control Range:	5°C - 35°C (0.5°C/step)
4, Terminals:	2.5mm <sup>2</sup> Cable
5, Electronic Control:	Type 2.B action
6, Transmitter Batteries:	2 x 1.5V AAA Alkaline batteries
7, Receiver Input Voltage:	240V AC
8, Receiver Output Voltage:	24..240V AC 50/60Hz 10(3)A Max
9, Operating Temperature:	0°C - 50°C
10, Storage Temperature:	0°C - 60°C
11, Sensing Element:	NTC Thermistor

11

**I, Terminal Connecting Block Label:**



12