ET4

RF Thermostat

INSTRUCTION MANUAL

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ET4 RF Programmable 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 ET4 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.

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:

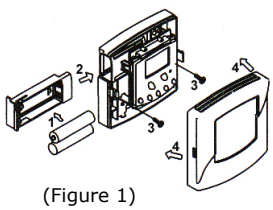
Mount the ET4 Thermostat using the screw accessories provided through slots/holes on rear face of the unit. Mount the receiver into back-box provided.

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.

ET4 Installation

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.



(Figure 1)

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 ET4 is now ready to control the heater/cooler.
3, Switch on the heater/cooler. The heater/cooler will remain off until the ET4 activates the output, with 🔥 or ⚙ displayed depending on configuration for a heating or cooling application.

C, Normal Time Mode:

1, Temperature detection starts and LCD displays the room temperature.
2, If the battery is low, 🔋 will be flashing. If 🔋 has been flashing for 48 hours and the batteries have not been replaced, the ET4 will stop measuring the room temperature and the LCD will go blank. The ET4 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.

3, In heating mode frost protection is activated automatically if the ambient temperature falls below 5^{0}C. ❄ Will show in the display and the output will be forced ON for heating or OFF if the ET4 is configured for cooling.
4, If the ambient temperature is below 0^{0}C, "LO" will show in the display.
5, Above 40^{0}C, "HI" will show in the display.

D. Setting the real-time clock:
1, Press <🕒>, the day of week (1-7) will flash 1=Monday. Press <▲>, <▼> To select the current day of the week.
2, Press <🕒>, the hour will flash, press <▲>, <▼> to set the hour.
3, Press <🕒>, the minute will flash, press <▲>, <▼> to set the minute.
4, Pressing <🕒> will return back to step 1 (day setting).
5, Press <↵> to confirm settings and return to the default screen.

Note: If no buttons are pressed within 10 seconds the ET4 will return to the default screen

E, Factory Defined Programs:
The heater/cooler turns on according to the activated program and the control temperature setting. When the heater/cooler is ON, the program number and 🔥 or ⚙ will appear in the display.

The pre-defined programs are as below:

Cooler mode:

	Mon ~ Fri	Sat	Sun
P1	06:00 (24°C)	08:00 (24°C)	08:00 (24°C)
P2	08:00 (29.5°C)	10:00 (29.5°C)	10:00 (29.5°C)
P3	12:00 (24°C)	12:00 (24°C)	12:00 (24°C)
P4	15:00 (29.5°C)	15:00 (29.5°C)	15:00 (29.5°C)
P5	18:00 (24°C)	18:00 (24°C)	18:00 (24°C)
P6	22:00 (26°C)	23:00 (26°C)	23:00 (26°C)

Heater mode:

	Mon ~ Fri	Sat	Sun
P1	06:00 (21°C)	08:00 (21°C)	08:00 (21°C)
P2	08:00 (16°C)	10:00 (16°C)	10:00 (16°C)
P3	12:00 (21°C)	12:00 (21°C)	12:00 (21°C)
P4	15:00 (16°C)	15:00 (16°C)	15:00 (16°C)
P5	18:00 (21°C)	18:00 (21°C)	18:00 (21°C)
P6	22:00 (16°C)	23:00 (16°C)	23:00 (16°C)

F, Setting Your Own Program:
Mon to Fri, Sat and Sun are divided into six periods P1 to P6. The time set for each period is the start time for that period. To set your own program you should set the period start time and the temperature to be achieved during that period.

e.g. In the table above P1 starts at 6am Monday and will hold the temperature at 21^{0}C until period 2 (P2) starts at 8am, when the temperature will be lowered to 16^{0}C until period 3 (P3) & the temperature

will raise to 21^{0}C until period 4 (P4). P4 will hold the temperature at 16^{0}C and so on. You can edit the preset times/temperature values by following the steps below.

1, Press **<PRG>**, the hour will flash, Press <▲>, <▼> to change the hour setting.
2, Press **<PRG>**, the minute will flash, Press <▲>, <▼> to change the minute setting.
3, Press **<PRG>**, the temperature will flash, Press <▲>, <▼> to change the temperature set-point.
Repeat this sequence for P2, P3, P4, P5 & P6 (Mon-Fri)

4, Press **<PRG>**, the hour will flash for P1 day 6 (Saturday), Press <▲>, <▼> to change the hour setting.
5, Press **<PRG>**, the minute will flash, Press <▲>, <▼> to change the minute setting.
6, Press **<PRG>**, the temperature will flash, Press <▲>, <▼> to change the temperature set-point.
Repeat this sequence for P2, P3, P4, P5 & P6 (Saturday)

7, Press **<PRG>**, the hour will flash for P1 day 7 (Sunday), Press <▲>, <▼> to change the hour setting.
8, Press **<PRG>**, the minute will flash, Press <▲>, <▼> to change the minute setting.
9, Press **<PRG>**, the temperature will flash, Press <▲>, <▼> to change the temperature set-point.
Repeat this sequence for P2, P3, P4, P5 & P6 (Sunday)

10, Press <↵> to confirm changes and return to default screen.

Selecting Temporary Ⓣ or Permanent Ⓟ Override Mode:
1, Press <✋> to change the mode from normal to Temporary Override. The Ⓣ icon will be displayed.
2, Press <✋> again and the mode changes from Temporary to Permanent Override mode. Ⓟ Icon will be displayed.
3, Press <✋> once more and the mode changes from Permanent Override back to normal timed operation.

Review and adjust the Override temperature:
1, With the ET4 in Temporary Ⓣ or Permanent Ⓟ override, press <▲> or <▼> to display the Override temperature.
2, Press <▲> or <▼> for 2 seconds, the Override temperature will flash.
3, Release <▲> or <▼> and then use <▲> or <▼> to adjust the Override temperature .
4, Press <↵> to exit Override temperature setting.
The ET4 will return to the default screen if no buttons are pressed after 10 seconds.

G, Temporary Override mode:
The Temporary Override mode is maintained until the start of the next timed period.

Permanent Override mode:
The room temperature will be maintained at the Override temperature set-point until the Override mode is released.

Releasing Override mode:
1, When the ET4 is in Temporary Override Ⓣ Press <✋> twice to return to normal timed operation.
2, When the ET4 is in Permanent Override Ⓟ Press <✋> once to return to normal timed operation.

H, Control Off / Sleep Mode:
1, Press <⏻> to select the sleep mode and control off mode. The sequence is as below:
Normal mode ⇒ Sleep mode ⇒ Control Off mode ⇒ Normal mode ⇒ ….
2, Press any other button to exit the Control Off / Sleep mode and return to normal operation.

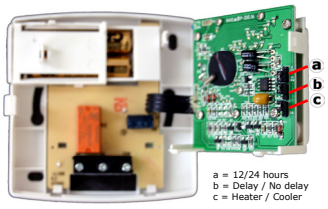
Sleep Mode:
When the ET4 is in sleep mode the <🚫> icon is displayed. The ET4 stops measuring and controlling the temperature. The heater/cooler is turned off, irrespective of the current setting temperature.

Control Off mode:
When the ET4 is in Sleep mode and <🚫> icon is displayed, pressing <⏻> will put the ET4 into Control Off mode. The LCD display and the heater / cooler are turned off, irrespective of the current control temperature setting.

I, Jumper Selection:
Delay / No Delay Jumper

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

Choose the Delay option if compressor heat is connected.



12-hour / 24-hour mode jumper:
When the 12-hour option is selected, the time is shown in 12 hour mode. Otherwise the time is displayed in-24 hour mode.

Heater / Cooler Jumper:
The ET4 can be set for a heating or cooling configuration via internal jumper.

J, Jumper Selection:

Delay / No Delay Jumper:

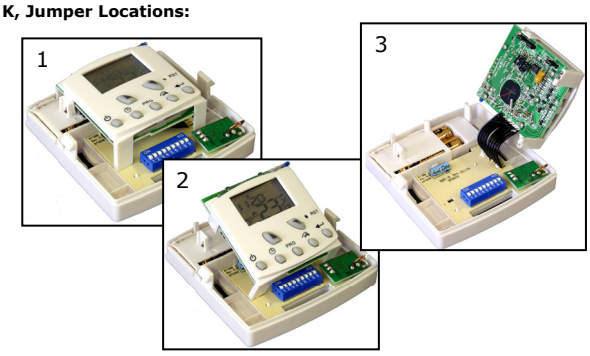
	Heater	Cooler
No Delay	10sec	4mins
Delay	4mins	4mins

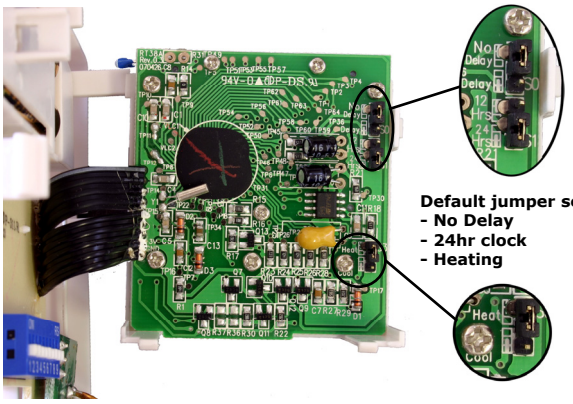
Choose the delay option if compressor heat is connected.

Heater/Cooler Jumper:

Select the heater option (default) when a heater is connected to the receiver. Select the Cooler option when using the ET4 for a cooling application, fan cooling etc. Press "reset" (RST) after modifying jumper selections.

K, Jumper Locations:



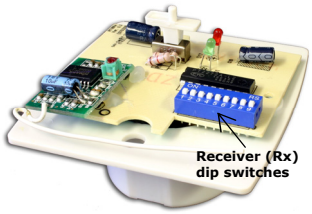


Default jumper settings:
- No Delay
- 24hr clock
- Heating

L, 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 (Tx) dip



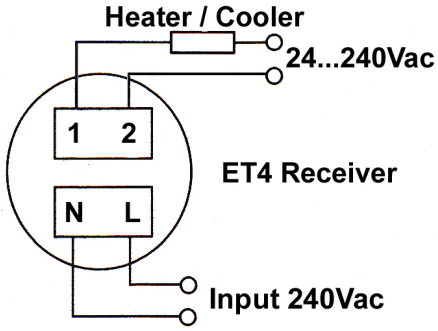
Receiver (Rx) dip switches

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

M, Specification:

1, Temperature Measurement:	0^0C - 4^0C (0.1^0C/step)
2, Accuracy:	± 0.5^0C
3, Temperature Control Range:	5^0C - 35^0C (0.5^0C/step)
4, Terminals:	2.5mm² 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:	0^0C - 50^0C
10, Storage Temperature:	0^0C - 60^0C
11, Sensing Element:	NTC Thermistor

N, Terminal Connecting Block Label:



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