

# Operating Instructions

Model: DT-E / DT-EN

Version 3

This thermostat allows you to select between 5 sensor modes.

- Built in Air Sensor
- Remote Air Sensor
- Floor Sensor
- Floor Sensor & Built in Air Sensor
- Floor Sensor & Remote Air Sensor

**To select the correct mode for your system,  
please go to page 13**

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## Display Symbols Explained

Symbol	Description
	<b>Heat On Icon</b> <i>Shown when the heating is On</i>
	<b>Frost On Icon (Heating Off)</b> <i>Shown when the heating is switched off and is protecting against frost only</i>
	<b>Keylock Icon</b> <i>Shown when the keypad is locked</i>
	<b>Floor Temperature Reached</b> <i>Shown when the floor temperature is reached (Floor and Air Sensor Mode Only)</i>

## **What is a room thermostat?**

A room thermostat simply switches the heating system on and off as necessary. It works by sensing the air temperature, switching on the heating when the air temperature falls below the thermostat setting, and switching it off once this set temperature has been reached.

Turning a room thermostat to a higher setting will not make the room heat up any faster. How quickly the room heats up depends on the design of the heating system, for example, the size of the boiler and radiators.

Neither does the setting affect how quickly the room cools down. Turning a room thermostat to a lower setting will result in the room being controlled at a lower temperature, and saves energy. The heating system will not work if a time switch or programmer has switched it off.

The way to set and use your room thermostat is to find the lowest temperature setting that you are comfortable with, and then leave it alone to do its job. The best way to do this

is to set the room thermostat to a low temperature - say 18°C - and then turn it up by 1°C each day until you are comfortable with the temperature. You won't have to adjust the thermostat further. Any adjustment above this setting will waste energy and cost you more money.

If your heating system is a boiler with radiators, there will usually be only one room thermostat to control the whole house. You can have different temperatures in individual rooms by installing thermostatic radiator valves (TRVs) on individual radiators. If you don't have TRVs, you should choose a temperature that is reasonable for the whole house. If you do have TRVs, you can choose a slightly higher setting to make sure that even the coldest room is comfortable, then prevent any overheating in other rooms by adjusting the TRVs.

Room thermostats need a free flow of air to sense the temperature, so they must not be covered by curtains or blocked by furniture. Nearby electric fires, televisions, wall or table lamps may prevent the thermostat from working properly.

## Installation Procedure

### **DO's**

1. Do mount the thermostat at eye level.
2. Do read the instructions fully so that you get the best from our product.

### **DON'Ts**

1. Do not install near a direct heat source as this will affect the workings of the thermostat.
2. Do not push hard on the LCD otherwise you will damage the liquid crystal display and this is not repairable.

## Installation

The thermostat is designed to be flush mount, a back box of 35mm should have been sunk in the wall prior to installation.

### Step 1

Carefully separate the front half of the thermostat from the back plate by placing a small flat head terminal driver in to the slots on the bottom face of the thermostat.

### Step 2

Place the thermostat front half somewhere safe. Terminate the thermostat as shown in the diagrams at the back of this booklet.

Screw the thermostat back plate on to the back box.

### Step 3

Clip the front of the thermostat to the back plate.

## **Temperature Display**

This thermostat can be setup to use an air sensor, floor sensor or both. On the display it will clearly show which sensor is being displayed by showing either “Room Temp” or “Floor Temp” before the temperature.

When the thermostat is set to use both sensors, the room temperature will normally be shown. To view the floor temperature, press and hold the A key until the Floor Temperature is shown.

## Setting the Temperature

Using the   keys allows you to adjust the set temperature. When you press either of these keys, you will see the word SET and the desired temperature.

Press A to accept.

## Locking the Keypad

The thermostat has a key-lock facility. To enable follow these steps

- Press and hold the A and Down Key for 10 seconds
- You will see the lock symbol appear
- To unlock, repeat the steps above

## Heat On / Off

**Frost Protect Mode:** Pressing the power button once will place the thermostat in frost protect mode. In this mode,

the thermostat will display the frost icon and will only turn the heating on should the room temperature drop below the set frost temperature (see pages 11-16). Should the heating be turned on whilst in frost mode, the flame symbol will be displayed. To cancel the frost protect mode, press the power button.

**Thermostat Off:** To turn the thermostat off completely, press and hold the power button. The display and heating output will be turned off. To turn the thermostat back on, press the power button.

## Factory Reset

The thermostat has a factory reset function. This will reset all settings back to their factory default. To perform a factory reset, follow these steps:

- Turn the thermostat off (See above)
- Press and hold the Power and Up arrow key until the LCD powers up. All of the icons will be displayed. When they have disappeared, the thermostat has been reset.

## **THE FOLLOWING SETTINGS ARE OPTIONAL AND IN MOST CASES NEED NOT BE ADJUSTED**

### **Optional Features Explained**

**Feature 01 – Temperature Format:** This function allows you to select between °C or °F.

**Feature 02 - Switching Differential:** This function allows you to increase the switching differential of the thermostat. The default is 1°C which means the thermostat will switch the heating on 0.5°C below the set temperature and will turn it off 0.5°C above the set temperature. With a 2°C differential, the heating will switch on 1.5°C below the set temperature and will switch off 0.5°C above the set temperature.

**Feature 03 - Frost Protect:** You can set whether the thermostat will maintain the frost temperature when the thermostat display is turned off. As a default, this is enabled.

**Feature 04 – Frost Protect Temperature:** This is the temperature maintained when the thermostat is in frost mode. The range is 07-17°C. The default is 12°C and is suitable for almost all applications.

**Feature 05 – Output Delay:** To prevent rapid switching, an output delay can be entered. This can be set from 00-15 minutes. The default is 00 which means there is no delay.

**Feature 06 – Communication Address:** This setting is used when you have connected your thermostat to a network system. Each thermostat on the network must have a unique communication address. This can be set from 01-32.

**Feature 07 – Temperature Up/Down Limit:** This function allows you to limit the use of the up and down temperature arrow keys. This limit is also applicable when the thermostat is locked and so allows you to give others limited control over the heating system.

**Feature 08 – Sensor Selection:** This thermostat offers 5 sensor modes:

**00** = Built in air sensor. In this mode, the thermostat will maintain the set temperature by monitoring the built in air sensor.

**01** = Remote air sensor. In this mode, the thermostat will maintain the set temperature by monitoring the remote air sensor.

**02** = Floor sensor. In this mode, the thermostat will maintain the set temperature by monitoring the remote floor temperature.

**03** = Floor sensor and built in air sensor. In this mode, the thermostat will maintain the set temperature by monitoring the built in air sensor and will also ensure the floor surface doesn't overheat by monitoring the remote floor sensor.

**04** = Floor sensor and remote air sensor. In this mode, the thermostat will maintain the set temperature by monitoring the remote air sensor and will also ensure the floor surface doesn't overheat by monitoring the remote floor sensor.

**Feature 09 – Floor Limit Temperature:** This function allows you to set a maximum floor temperature in order to protect the floor surface from overheating. This function works for Sensor Modes 03 & 04 (see above). The default setting is 28°C but this can be adjusted from 20-45°C.

## **Adjusting the Optional Settings**

1. To access the configuration menu, turn off the thermostat by pressing and holding down the Power Button. Then, press and hold the Clock button until the display lights up.
2. The small number is the feature number, the large number is the setting value.
3. Use the clock button to cycle through the features
4. Use the Up/Down keys to change the setting
5. Press A to accept and store

## Feature Table

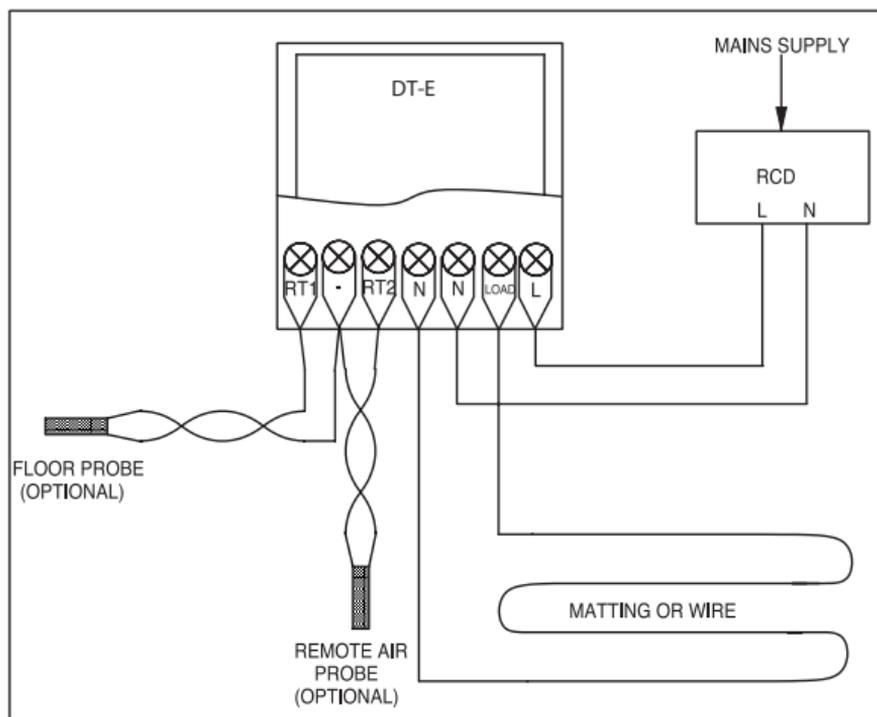
Feature	Description	Setting
01	°C / °F	Temperature Format
02	Switching Differential	01=1°C 02=2°C 3=3°C 1°C = Default
03	Frost Protect	00 = Disabled 01=Enabled (01=Default)
04	Frost Temp	07-17°C (12=Default)
05	Output Delay	Enter value 00-15 minutes (00=Default)
06	Comms #	Enter number 01-32
07	Temp Limit	00 - 10°C
08	Sensor Selection	00 = Built in air sensor 01 = Remote air sensor 02 = Floor sensor 03 = Floor sensor and built in air sensor 04 = Floor sensor and remote air sensor
09	Floor Limit	20-45°C (28°C Default)

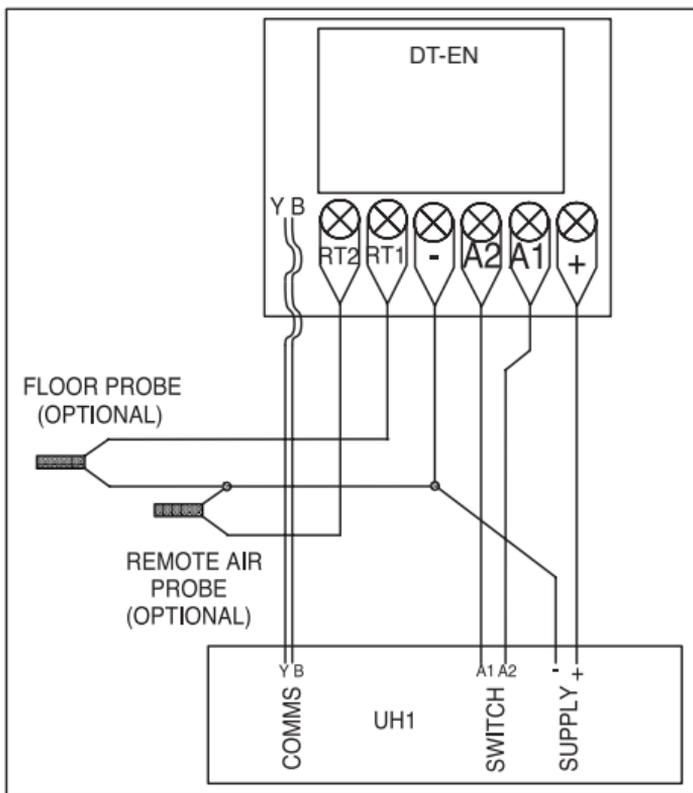
## Error Codes

**E0** = The internal sensor has developed a fault. You should contact your thermostat retailer for assistance.

**E1** = The remote floor probe has not been connected, has been wired incorrectly or the probe is faulty.

**E2** = The remote air probe has not been connected, has been wired incorrectly or the probe is faulty.





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