

# Underfloor Heating Thermostat - Part Number: RFSTAT-W16

## Operating Instructions



This product should be installed by a qualified electrician

These instructions should be read in conjunction with the enclosed AE-Y309 Room Thermostat data sheet. Button numbers referred to in these instructions can be found in the AE-Y309 data sheet.

Wiring details: Please refer to the wiring diagram in the enclosed AE-Y309 data sheet. The floor sensor must be firmly connected to terminals 1 & 2. The 230V electrical supply connects to terminals 3 (Live) & 4 (Neutral). The heating mat(s) connects to terminals 6 (Live) & 5 ( Neutral). Earth connections are made with the back box.

When the thermostat is switched on you will see a screen filled with numbers and characters.

At the top of the screen it shows the time of day and the next step is to set the correct time of day

### **1) Setting the time and day of the week**

With the thermostat switched on press the clock button (button number 3) once. The time will start to flash. Use the up & down arrow buttons (buttons 5 & 6) to adjust the time. Repeated presses will move the time up or down in 1 minute increments. Holding the button will move the time up or down in 15 minute increments.

Press the clock button once to accept the time.

Below the time the screen shows the day of the week e.g. MO, TU, WE etc. Press the down arrow button to set the day of the week.

The thermostat has a battery back up. If the electrical supply to the thermostat is turned off the time and date settings will be saved for the next time the thermostat is switched on.

### **2) AF mode setting (default setting as supplied from the factory)**

The RFSTAT-W16 has three different modes but its default setting as supplied from the factory is the AF mode. AF mode allows the thermostat to function as a combined floor and air temperature controller. To make changes to the mode please refer to the AE-Y309 data sheet and the section on Mode Selection.

When the thermostat is in the combined floor & air setting (AF Mode) the screen will display the room temperature. This is the large number in the centre of the screen with the small digits RT to the left of the number.

To check the floor temperature in AF Mode hold down the up arrow button for 5 seconds.

#### **F mode setting (Floor only)**

When the thermostat is in the floor only setting (F Mode) the screen will display the floor temperature. This is the large number in the centre of the screen with the small digits FT to the left of the number

### **3) Setting the floor temperature limit (in AF Mode only)**

Press and hold button number 4 (fan symbol button) until you see a large number flashing (floor temperature limit). Using the up & down arrow buttons adjust this setting up to a maximum of 40°C. Recommended settings: Tiled floors set at 35 to 40°C. Laminate/wood floors set at 28°C. These settings can be adjusted at any time according to system performance, which depends on the insulating properties of the installation. Press the fan button again to accept and exit.

#### 4) Setting the four comfort levels - TEMPERATURE

The enclosed AE-Y309 data sheet shows the default factory settings for each comfort level. 21°C when you require heat for comfort and 16°C when you are out of the building or in bed. The thermostat does not turn off during each 24 hour day, so when you require the most economical operation e.g when the building is not occupied or you are in bed, or a higher level when you actually need heat, the temperature setting can be adjusted to any level you want.

**Comfort level settings are ONLY made in the AUTO setting.** To change between AUTO and MANUAL setting press the fan symbol button (button number 4) once.

Each time you press the °C button (button 2) you will see different symbols on the right of the screen (sun, moon and suitcase).

##### Example

Comfort Level No. 1 - Wake - sun  
Comfort Level No. 2 - Leave - moon  
Comfort Level No. 3 - Return - sun  
Comfort Level No. 4 - Sleep - moon

The suitcase symbol represents holiday mode and so the setting should be as low as 10 or even 5°C.

Press the °C button one press at a time until the moon is on the right. The temperature will be flashing in the centre of the screen. Use the up & down buttons to set the required temperature to say 15°C. Press the °C button again and the suitcase symbol will appear. Set the temperature in the same manner to say 5°C. Press the °C button again and the sun symbol will appear. Set the temperature in the same manner to say 25°C.

Now leave your last setting (sun) flashing for 5 seconds and the thermostat will save the settings and revert back to standard mode. If this happens before completing the temperature setup start from the beginning again.

#### 5) Setting the four comfort levels - TIME

Press the start button (button number 1) to select the programme level. Each programme level is depicted by a house symbol with a number inside and these are found on the left of the screen. Press the start button until a house with a 1 inside it appears.

If you hold the down button for 10 seconds it will activate all days of the week and this allows you to set time for the complete week in a single process. The days of the week can be seen above the large number on the screen. If you want different times on each day press the down button to run through the days of the week and set each day individually.

Now press the time button (number 3) and the time will flash. This is the time you want the heating to operate in the morning and the time is set by using the up & down buttons. Press the time button to confirm.

Press the start button again. House with a 2 inside it appears. Set the time you **leave** or want Level 1 to finish by pressing the time button and repeating the above procedure.

Press the start button again. House with a 3 inside it appears. Set the time you **return** or want Level 2 to finish by pressing the time button and repeating the above procedure.

Press the start button again. House with a 4 inside it appears. Set the time you go to **bed** or want Level 3 to finish by pressing the time button and repeating the above procedure.

##### Manual Setting

This allows you to over-ride the temperature setting in any level at any time. For example, you arrive home early and want the heat on. Press the fan symbol button (button number 4) to enter the manual mode.

Assume you have set the temperature for this Level at 15°C and the room temperature reading in the centre of the screen is 18°C. The heating will not be energised in this setting.

Press the °C button and the temperature will flash. Use the up & down buttons to set a new temperature above 18°C, as in this example. Lets say 22°C, and then leave flashing for 10 seconds and the thermostat will re-set and the heating bar will appear at the bottom of the screen. The thermostat will automatically return to your original setting when it reaches the next comfort level setting.

