

# Operating Instructions

**Model : PRT/HW  
PRT/HW-N**



This product should be installed by a qualified electrician.  
Improper installation may result in injury, death or property damage.

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

A programmable room thermostat is both a programmer and a room thermostat. A programmer allows you to set On and "Off time periods to suit your own lifestyle. A room thermostat 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.

So, a programmable room thermostat lets you choose what times you want the heating to be on, and what temperature it should reach while it is on. It will allow you to select different temperatures in your home at different times of the day (and days of the week) to meet your particular needs.

Turning a programmable 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 effect how quickly the room cools down. Turning a programmable room thermostat to a lower setting will result in the room being controlled at a lower temperature, and saves energy.

The way to set and use your programmable room thermostat is to find the lowest temperature settings that you are comfortable with and the different times you have chosen and then leave it alone to do its job.

The best way to do this is to set low temperatures first, say 18°C, and then turn them up by one degree each day until you are comfortable with the temperatures. You won't have to adjust the thermostat further. Any adjustment above these settings will waste energy and cost you more money.

If your heating system is a boiler with radiators, there will usually be only one programmable room thermostat to control the whole house. But 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.

The time on the programmer must be correct. Some types have to be adjusted in spring and Autumn at the change between Greenwich Mean Time and British Summer Time.

You may be able to temporarily adjust the heating programme, for example "Override", "Advance" or "Boost" These are explained in the manufacturers instructions.

Programmable 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'T's**

1. Do not install near a direct heat source as this will effect 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

Carefully unplug the ribbon connector which is plugged in to the front half of the thermostat.

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

Re-connect the thermostat ribbon cable and clip the two halves together.

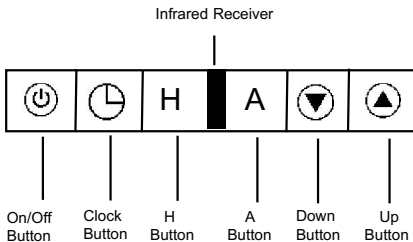
### Step 4

Turn on the power to the thermostat and program according to the following instructions.

	<b>LCD Symbols</b>
	Clock Indicator
	Heat Active Indicator
	Frost Mode On
	Keylock On



## Button Layout



## **Explaining the terminology**

### Set Temperature

This is the temperature the thermostat is currently controlling to. At any time, you can press the Up/Down arrow key and the display will show the Set Temperature for 30 seconds.

### RT (Room Temperature)

This is the actual room temperature.

### Frost Protection ( By pressing "H")

To protect the fabric of the building, the thermostat has a "frost protection" facility. Should the temperature drop below this temperature the heating will be switched on. This setting can be adjusted from 07-17°C by pressing the Clock and A button for 5 seconds with the power off.

### Temperature Calibrating

The thermostat is calibrated from the factory, but there is a facility to enter an offset setting to adjust the temperature reading.

### Clock

This model has a built in clock which is displayed in 24 hr format.

### Frost Protection (Thermostat Off)

The thermostat can be made to offer frost protection even when the thermostat display has been turned off by the On/Off button. In order for this to work, this function must be enabled.

### Comfort Levels

The programmable thermostats have 4 comfort levels per Weekday/weekend.

The new method of control is not to have on / off times but to allow the occupant to set varying temperature levels throughout the day.

For example you can see here that a lower temperature can be maintained whilst you are working and sleeping.


08.00 - 21°C (Wake) 09.30 - 16°C (Go to Work)  
16.30 - 22°C (Return home) 23.00 - 17°C (Sleep)

As the programmable thermostats incorporate a 5/2 day clock, 4 levels can be programmed for the weekday and 4 different levels can be programmed for the weekend.

## **Frost Protection (Thermostat Off)**

To enable this operation for the steps below.

Turn the thermostat off by pressing .

Press  for 3 seconds.

Select 01 to enable


Select 00 to disable

See page 8 for information on this function.

## **Temperature Calibration**

The thermostat is calibrated from the factory, but you can use the temperature calibrate function to offset the temperature reading.

Turn off the thermostat by pressing

Press  and H for 3 seconds.

The display will show the actual temperature.  
Use the Up/Down arrow keys to adjust the temperature to the correct value.

Press  to turn off the thermostat and to store the new setting.

### **Setting the Clock**

With the thermostat turned on, press  three times

 will be displayed.

Use the Up/Down arrow keys to set the minutes

Press H to accept the minutes

Use the Up/Down arrow keys to set the hours

Press H to accept the hours

Use the Up/Down arrow keys to set the week day.

To store the new setting, press A

## Heating Manual OFF Mode

If you are going away on holiday, you can use this function to put the thermostat in to frost protection mode.

Press H. A frost symbol ❄️ will appear on the screen. The frost temperature (05°C) will be maintained whilst in this mode.

To cancel the frost protection mode, press H again. The frost symbol will be removed.

## Heating Override

You can use the Up/Down arrow keys to temporarily change the SET temperature, ideal if you have returned home early. This temperature will be maintained until the next programmed comfort level when it will revert back to the programmed temperature.

## Setting the Comfort Levels

To begin programming the comfort levels, press  is displayed as well as the number 1 and

Mo, Tu, We, Th, Fr,

You are now able to program the first comfort level for the weekday. You first program a time, followed by the desired temperature.

Enter the first comfort level time. (eg - 07.00)

Press H to accept this time setting.

Then enter the desired temperature. (eg - 21°)

Press H to accept this temperature setting.

You should now repeat this operation for comfort levels 2,3,4. program these in the same way. You will notice that whilst programming the weekend levels, Sa, Su is highlighted on the display.

As described earlier, you should think of these temperatures as “wake, leave, return and sleep” For any unused levels, set the time and temperature to --.--

After you have programmed the week day comfort levels you are prompted to program the weekend levels.

You should program these in the same way.

## **Setting the Hot Water Timings**

To begin programming the HW timings, press **⏻** twice, TIMER ON is displayed as well as the number 1 and Mo, Tu, We, Th, Fr,

You are now prompted to enter the start time for HW timing 1 (Weekday) Eg: 08.00

Press H to accept the start time.  
Enter the End time for switching time 1.

You should repeat this for the other 3 switching times for the weekday, and again for the weekend.

For any unused switching times, leave the times set to --.--



## **HW Override**

Pressing the A button changes the current state of the HW. For example, if the HW is currently timed to be off pressing A will turn on the hot water. TIMER ON will flash to indicate the hot water has been overridden and it will remain in this state until the A button is pressed again.

## **Key Lock Function**

The thermostat has a keylock function which is used to prevent unauthorised tampering of the thermostat. To enable this function turn off the thermostat and Press A and DOWN for 10 seconds.

To activate the keylock, press A and DOWN with the thermostat powered up. You will see the keylock symbol. Repeat to disable

## **Setting the Communication Number**

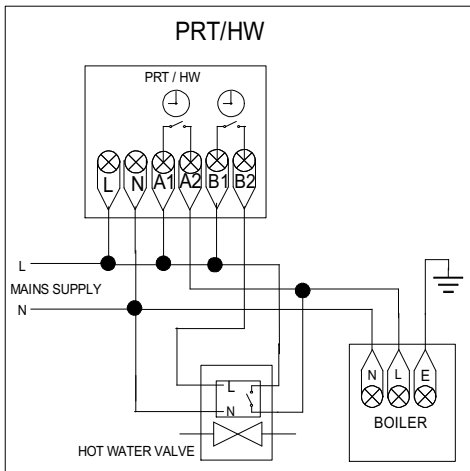
The PRTHW-N can be used as part of a network system. You should enter a unique number for each thermostat.

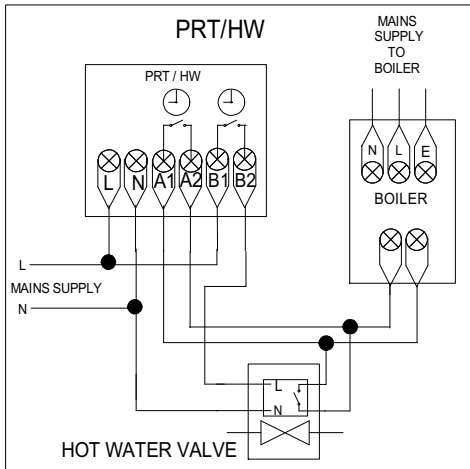
Turn off the thermostat

Press the clock and H button for 3 seconds

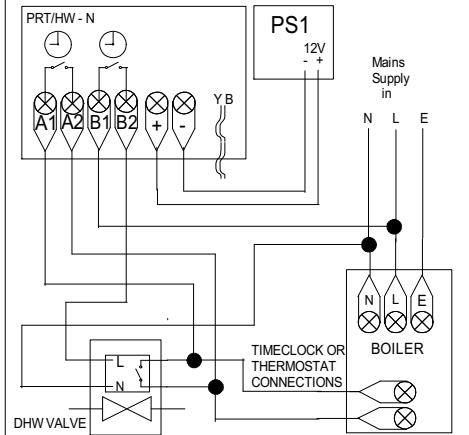
Press the A button

Use the up / down arrows to enter a unique address.

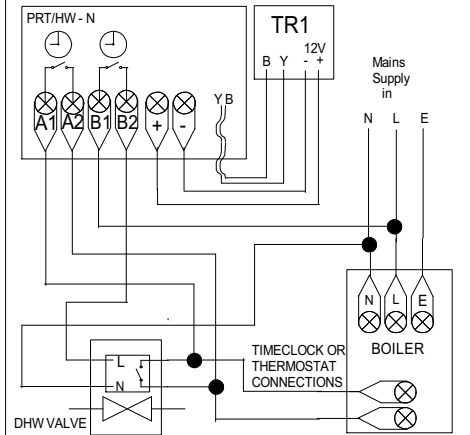




# PRT/HW - N VOLTFREE SWITCHING



# PRT/HW - N VOLTFREE SWITCHING





Certification mark

Support Tel: 01254 776343

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