

Programa*stat*
**Battery Powered
Electronic Room
Thermostat**
Cat. No. TRT033



A **theben** Group Company

What is a room thermostat?

... an explanation for householders

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 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 one degree 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. 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.

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.



Certification mark

1. Introduction

TRT products are a cost effective comprehensive range of thermostats and timers designed for internal use only.

The TRT033 is a battery powered electronic room thermostat, with night set back and frost mode. It has optional PID control (which can help to minimise temperature overshoot), and adjustable swing (difference between on and off switching temperatures), from 1°C to 0.5°C.

It is designed to be surface mounted on the wall plate supplied.

The electrical supply **must** be isolated before removing the thermostat from the wall plate.

TRT033 Electronic Room Thermostat

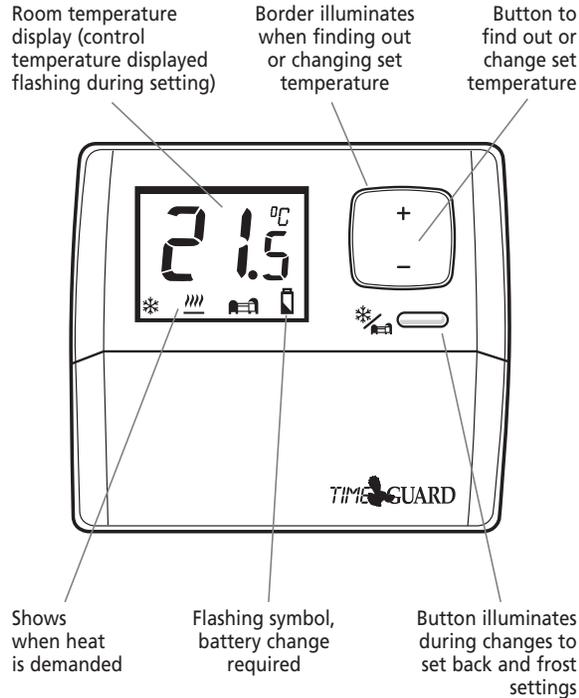


Fig. 1

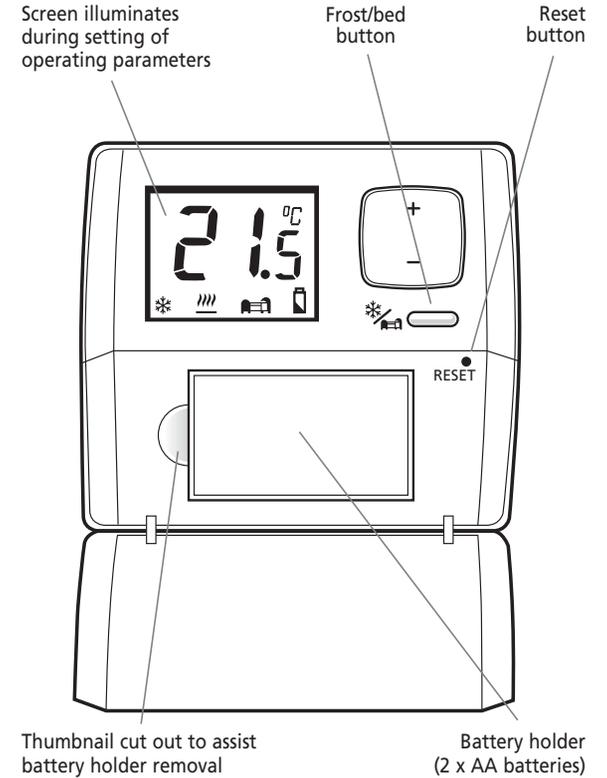


Fig. 1a

Rear View of TRT033

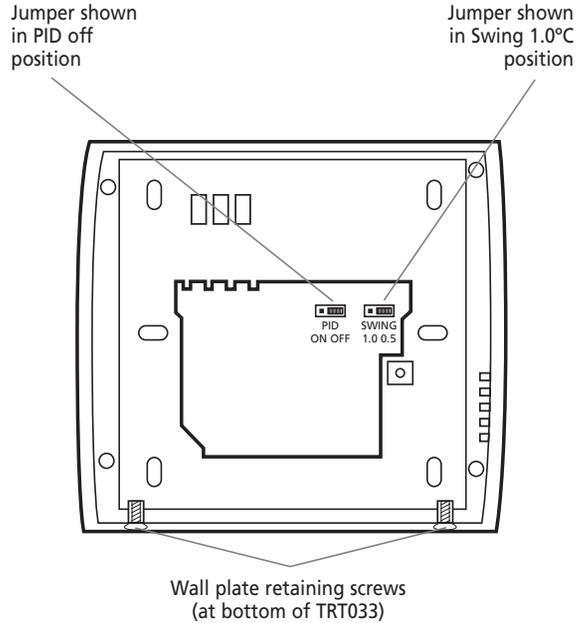


Fig. 2

Back Plate Removed

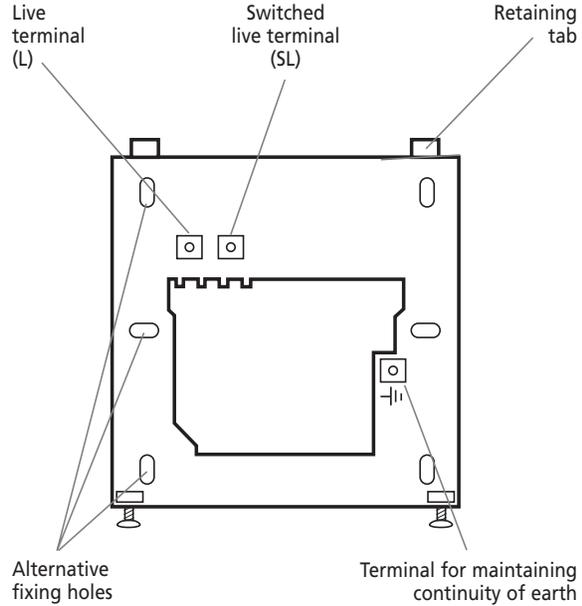


Fig. 3

Contents

TRT033 thermostat	2 x wall plugs
TRT033 wall plate	2 x screws
TRT033 instruction leaflet	2 x AA batteries

2. Siting

The TRT033 must be sited where it will not be influenced by heat sources, for example above a radiator or a television or a refrigerator/freezer, or in direct sunlight or subjected to draughts.

The product requires air circulation, so do not position above or below shelving or other wall mounted obstacles.

It should be mounted approximately 1.5m above floor level.

3. Installation

This product must be installed in accordance with the appropriate building and wiring regulations.

In all cases if there is a doubt as to how to proceed with an installation consult a qualified electrician, your local authority's building control department or the Timeguard helpline (020 8450 0515).

The TRT033 is designed to be surface mounted on the supplied wall plate.

Always isolate the mains supply before removing the unit from its wall plate.

To insert battery, first lower hinged front cover and lever battery holder out using the thumbnail cut out shown in Fig. 1a.

Insert the 2 x AA alkaline batteries supplied into the battery holder maintaining the correct polarity as shown in the base of the battery holder.

Insert battery holder connector blades fully into their respective slots on the TRT033 and snap battery holder into place.

Isolate 230VAC mains supply.

Incoming and outgoing wires should be 1.5mm sq.

Remove wall plate from unit, by undoing retaining screws (see Fig. 2), and pivoting the bottom of the unit outwards. The TRT033 can then be lifted off.

Pass the incoming wires through the opening in the wall plate, and fix wall plate securely to the wall, using screws (and wall plugs if necessary) provided. The screws which secure the TRT033 to the wall plate should be at the bottom.

Allow sufficient excess cable to wire up the unit, but not too much to make it difficult to close the unit onto the wall plate.

Connect the conductors to the relevant terminals, according to the wiring diagram below. Ensure that the curved brass washers grip the conductors.

Wiring Diagram

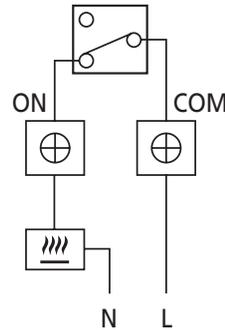


Fig. 4

This unit is double insulated, and hence does not need connection to earth. If earth continuity is required, please use earth terminal on wall plate.

To reinstall the unit on the wall plate first ensure the wall plate retaining screws are loosened enough to clear the TRT033 body then engage the top of the TRT033 onto the wall plate retaining tabs (see Fig. 3), and push firmly downwards and then inwards. There will be some resistance from the terminals. Once in place, secure with the retaining screws.

Restore mains to the unit after checking all system wiring is complete.

4. Operation

Open battery access flap and press reset.

Normally current room temperature is displayed on the screen.

To find out or adjust the set temperature, press the + or - button once. The screen and button border will illuminate blue as soon as the button is pressed until 5 seconds after the button is released. The set temperature will flash to show it can be adjusted. If the set temperature is ok do nothing and the display will return to room temperature 5 seconds later. Otherwise use the + and - buttons to get to the required set temperature in 0.5°C steps. If the + or - button is held down, the display will advance rapidly.

Once the desired temperature is set, the unit will revert to displaying the current room temperature 5 seconds after the last button press. The illumination will also turn off after 5 seconds.

A burner symbol  is displayed when the room temperature is below the set temperature indicating that the thermostat is calling for heat from the boiler.

The night set back function reduces the set temperature by about 4°C for a given number of hours set by the user. It is activated when the bed symbol is flashing on the display and the hours of set back remaining are shown on the main display alternatively with the room temperature.

To activate night set back press the frost/bed button (❄️/🛏️) and adjust the number of hours with the +/- button. To exit night set back, wait for 5 seconds after any button push (there is no blue illumination showing), and press the frost/bed button once.

The frost function reduces the set temperature to 5°C. The frost function is activated by holding down the frost / bed button for 3 seconds. The frost function is terminated by holding down this same button for 3 seconds. When in frost mode, the frost symbol (❄️) will flash on the display. The set temperature buttons remain non-functional during frost mode.

The temperature swing can be adjusted between 1°C and 0.5°C using a jumper found on the rear of the unit. If the jumper is moved, please press reset under battery access flap and adjust set temperature. Temperature swing - difference between on and off switching temperatures.

PID control can also be turned on or off using a jumper on the rear of the unit. PID can minimise the temperature overshoot.

If the jumper is moved, please press reset under battery access flap and adjust the set temperature.

When the batteries need replacing, a battery symbol 🔋 will flash on the display.

To clean use a dry cloth only. Do not use any liquid cleaners.

5. Specifications

Current rating:	3 (1) A
Voltage:	230V, 50Hz
Switch type:	Single pole, single throw (SPST)
Operating temperature range:	0°C to 50°C
Set temperature range:	10°C to 30°C adjustable in 0.5°C steps
Complies with:	BS EN 60730
Conforms to directives:	73-23-EEC, 89-336-EEC
Temperature swing:	1°C or 0.5°C
Micro disconnection:	Type 1.B control action
Batteries:	2 x AA alkaline

For assistance with the product please contact:-

HELPLINE

020-8450-0515

or email helpline@timeguard.com



3 Year Guarantee

In the unlikely event of this product becoming faulty due to defective material or manufacture within 3 years of the date of purchase, please return it to your supplier in the first year with proof of purchase and it will be replaced free of charge. For years 2 and 3 or any difficulty in the first year telephone the helpline on **020 8450 0515**.

For a product brochure please contact:

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