

# UNDERFLOOR HEATING CONTROLLER

**Cat. No TPT1**

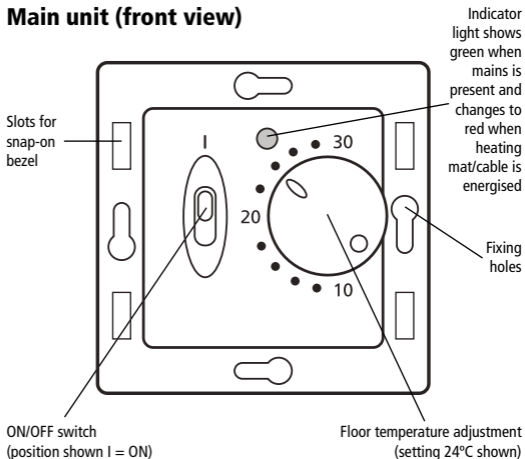


Installation & Operating  
Instructions



**INSTALLATION & OPERATING INSTRUCTIONS**

## Main unit (front view)



## Snap-on bezel (rear view)

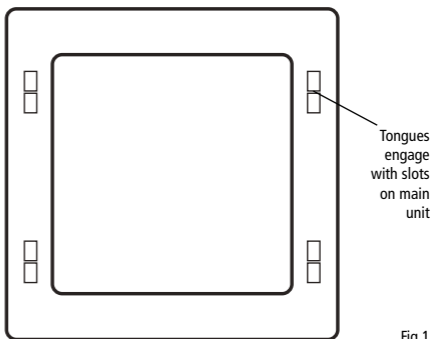


Fig 1

## Introduction

The TPT1 is a temperature controller for underfloor heating. It is rated at 16A (3.68kW). The unit controls to a continuous adjustable underfloor temperature between 10°C and 30°C. It does this by using the signal from an underfloor probe (included). Instructions of how to locate this are given in the Thermolay Cable and Mat instruction leaflet.

The TPT1 also incorporates a switch for turning the supply to the heating element OFF when not required and a warning light showing green when mains is present and red when the heating element is energised.

The TPT1 must be used with the temperature probe provided (other controllers in our range have different temperature probes which are not compatible with the TPT1).

Connections are made to the unit according to the following diagram, be sure to check that the external link between terminals 1 and 3 is in place.

# Connections

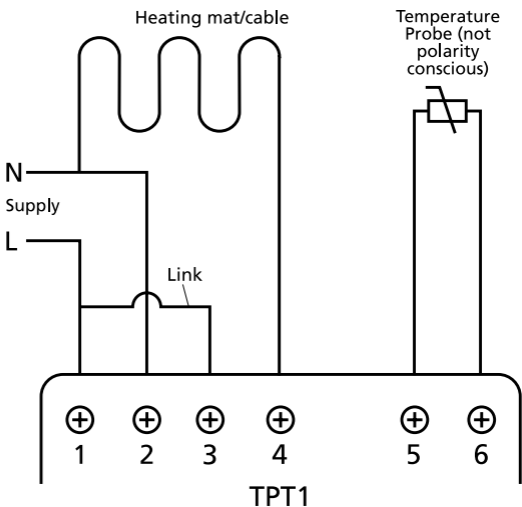


Fig 2

The external link shown between terminals 1 and 3 is crucial to the operation of the TPT1. This link is now installed at the factory prior to dispatch

## Siting

The TPT1 should **not** be installed in a bathroom (or any other area where condensation may be present) to avoid an electrical safety hazard. Further instructions are given in the Thermolay Cable and Mat instruction leaflet.

## Installation

The installation should be carried out by a competent person following the latest IEE wiring and local authority regulations in the UK or the relevant wiring and local authority regulations in other countries.

The TPT1 underfloor heating controller is designed to fit onto either a BS4662 recessed single box or a BS5733 surface mount single box with earth terminal. The minimum box depth required is 32mm. The ideal mounting is at eye level for the shortest person who is likely to need to programme the unit. For details of the installation of the temperature probe and heating cable or mat see the Thermolay instruction leaflet.

Switch OFF the mains to the controller. Remove the thermostat bezel by pulling forward on the bezel. Use a small screwdriver as a lever to remove the bezel when the thermostat is fixed to the wall.

Cut the cable tails of the temperature probe and heating mat or cables to length and strip sleeving and insulation as required. Identify the wires and locate according to figure 2. Supply cable with a minimum of 2.5mm<sup>2</sup> conductor size must be used and must be earthed to the box earth.

Tighten the screw terminals onto the wires and form the cables. Offer the unit up to the wall box forming the cables as required finally locating and tightening up the fixing screws supplied.

Snap the bezel into place ensuring the tongues on the bezel line up with the slots on the main unit.

## Earthing

The TPT1 itself does not need to be earthed. The screen around the flying lead (cold cable) from the Thermolay mat **MUST** be earthed to the box earth terminal.

This also applies to the screen at each end of the Thermolay cable, both of which must be earthed in the same way.

## Commissioning

Turn the ON/OFF switch ON (I) and the setting dial to 30°C and check that the heating ON light shows red. After around 1 hour with an insulated wood sub floor and up to 5 hours with an uninsulated concrete sub floor there will be a noticeable change in floor surface temperature.

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## Operation

Set the floor temperature adjustment to a level giving the required comfort level at the floor surface. Use the ON/OFF switch as required to start and finish periods of heating.

## Specifications

Operating temp	-10°C to 40°C
Operating voltage	230V 50Hz
Switching capability	16A resistive 3A inductive
Temp probe flying lead	4m length
Temp probe resistance	10K $\Omega$ approx. at 20°C
Temp control range	10°C to 30°C
Temp accuracy	$\pm 1^\circ\text{C}$ (at 20°C)
Control type	Normally open, voltage free
Environmental protection	IP20
EC directives	Conforms to 73/23/EEC and 89/336/EEC
Dimensions (mm)	84 x 84 x 49 (H x W x D)



## 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 the second and third years or any difficulty in the first year telephone the helpline on **020 8450 0515**.

For assistance with the product please contact:

**HELPLINE**

**020-8450-0515**

or email [helpline@timeguard.com](mailto:helpline@timeguard.com)



For a product brochure please contact:

**Timeguard Ltd.**

Victory Park, 400 Edgware Road,  
London NW2 6ND

**020-8452-1112**

or email [csc@timeguard.com](mailto:csc@timeguard.com)

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