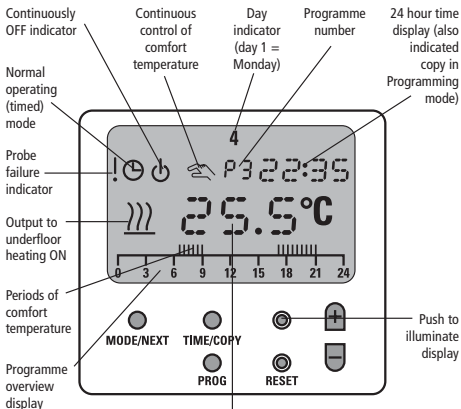


UNDERFLOOR HEATING CONTROLLER

Cat. No TPT88



INSTALLATION & OPERATING INSTRUCTIONS



Temperature display - shows under-floor temperature (except when Comfort and Economy temperatures are being set)

Fig. 1

Introduction

The TPT88 is a combined temperature and time controller for electric underfloor heating. It is rated at 16A (3.68kW). The unit controls to a fully adjustable comfort temperature during programmed ON times and to a fully adjustable economy temperature during OFF times. It does this by using the signal from an underfloor probe (included). Both the economy and comfort temperatures can be set to a minimum of 7°C to give frost protection.

The large LCD display can be back lit if required at the press of a button. The display reverts to normal 15 seconds after the button is first pressed.

Connections

The TPT88 must be used with the temperature probe provided. Connections are made to the unit according to the following diagram.

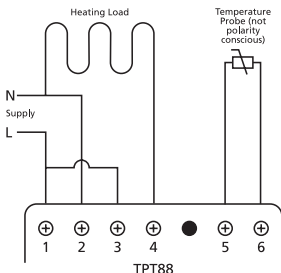


Fig. 2

2

Siting

The TPT88 should not be installed in a wet area such as a bathroom or shower area. 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 I.E.E. wiring and local authority regulations in the UK or the relevant wiring and local authority regulations in other countries.

The TPT88 underfloor heating controller is designed to fit onto either a BS4662 recessed single box or a BS5733 surface mount single box. The minimum box depth required is 32mm. The ideal mounting height 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.

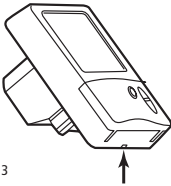


Fig. 3

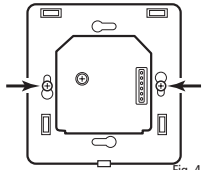


Fig. 4

Switch OFF the mains to the controller. Remove the front of the thermostat by using a small screwdriver in the slot as shown in Figure 3.

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 2.5mm² must be used. Tighten the screw terminals onto the wires and form the cables.

Offer the back plate up to the wall box forming the cables as required, finally locating and tightening up the fixing screws supplied as shown in Figure 4.

Snap the front of the thermostat back into position on the back plate.

To test the unit is operating set the temperature to 30°C as described in the section "Timed override for Two Hours". After a few seconds the Heating ON indicator will show.

Wait for a one hour for a wood underfloor or up to 5 hours for an uninsulated concrete floor (the warm-up time for uninsulated concrete will be substantially reduced when the moisture has been driven out of the concrete during the first few heating cycles) and feel if the floor starts to warm. If it does not, check the connections and carry out the checks on the mat or cable installation instructions.

Earthing

The TPT88 itself does not require to be earthed. The screen around the flying lead (cold cable) from the Thermolay mat must be earthed to the box terminal. This also applies to the screen at each end of the Thermolay cable, both of which must be earthed in the same way.

Programming

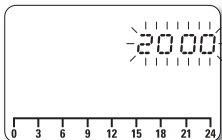
Reset

We recommend that after installation the TPT88 is reset prior to programming.

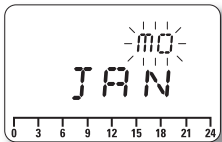
Press and hold the PROG button, then press the RESET (pen or pencil required) once. Finally release the PROG button after 2 seconds.

Setting Time of Day and Date

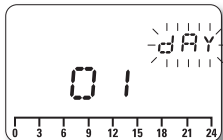
- 4
- a. Press TIME/COPY button and release. Year flashes – use + button to increase or – button to decrease until year is correct.



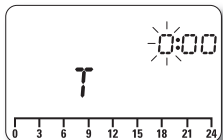
- b. Press TIME/COPY button and release. MO (month) is displayed flashing along with current month (e.g. JAN) displayed static. Use + or – button (as before) to get to correct month.



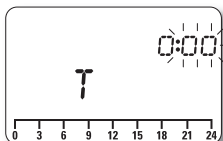
- c. Press TIME/COPY button and release. DAY is displayed flashing along with current day of month displayed static. Use + or – button to get correct day of month.



- d. Press TIME/COPY button and release. T (time) is displayed static along with current hour displayed flashing. Use + or – button to get correct hour of day.



- e. Press TIME/COPY button and release. T (time) is displayed static along with current minutes displayed flashing. Use + or – button to get to correct minute.

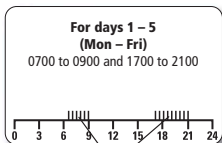


- f. Continue to press and release the TIME/COPY button to review the above settings and make changes if necessary before pressing PROG button to return to normal operating mode.

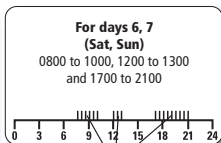
Setting Programmes

Overview

The TPT88 has three independent programmes for each day of the week. During the ON-OFF times set the unit will maintain the floor temperature at the comfort temperature and outside these times will maintain the floor at the economy temperature. Both of these temperatures are user settable in the range 7-30°C. After a reset a default programme becomes operational for the following times/days.



Comfort temperature periods



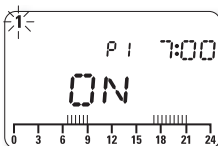
Comfort temperature periods

For days 1-5 only two programmes P1 and P3 are active. This is done by making the ON and OFF times for programme P2 the same.

The user can use this programme as it stands if appropriate or modify it to his/her exact requirement. It is usually considerably quicker to modify a default programme than it is to programme from a blank sheet.

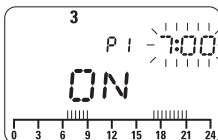
Setting Procedure

- i. Press PROG button and release, day indicator flashes. Press + or – button to set the day to be programmed.

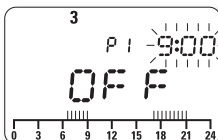


- ii. Press PROG button and release, P1 (programme 1) ON time displayed flashing.

Use the + or – buttons to adjust this time on a minute by minute basis (for fast change hold the + or – button down).



- iii. Press PROG button and release, P1 OFF time displayed flashing. As before adjust this time using the + or – button.



- iv. Press PROG button and release, P2 (programme 2) ON time display flashing. Adjust as before. Repeat this procedure until P3 (programme 3) OFF time is set.

Repeating a Programme Over One or More Days

A common requirement is to have the same programme operating over a number of days. Having set the first days programmes continue pressing the PROG button until the day is flashing. Now press the TIME/COPY button and release, COPY will be displayed flashing. Use the + or – button to select the day to be copied to and press and release the TIME/COPY button again. COPY is now displayed statically. Select another day using the + or – button and press TIME/COPY again, repeat until all days to be copied have been covered. Finally press MODE/NEXT to return to normal operating mode.

8 Reducing the Number of Programmes in Operation

- Reducing three programmes to two. Adjust the OFF time for programme 2 (P2) to be the same as its ON time.
- Reducing three programmes to one. Adjust the OFF time for programme 1 (P1) to one minute before the ON time for programme 2 (P2), and adjust the OFF time for programme 2 to one minute before the ON time for programme 3 (P3).
- Reducing two programmes to one. The technique described in (b) can be used where there are only two programmes operate with the ON and OFF times for programme 2 the same.
- Cancelling all programmes. To cancel all three programmes make the ON and OFF for each programme the same.




Setting Temperatures

Press and hold PROG button, then press and release MODE/NEXT, finally release PROG button. The display shows COM (comfort temperature with its current value flashing. Use the + or – button to increase or decrease the value in 0.5°C steps as required.

Press MODE/NEXT and release. The display now shows ECO (economy temperature) with its current value flashing. Use the + or – button to increase or decrease the value as required.

Mode Key

The TPT88 has three operating modes:-

-  Normal (or timed) operating mode.
-  Continuously OFF (no heating at all).
-  Continually controlling the comfort temperature.

It is possible to move between these modes by pressing and releasing the MODE/NEXT button.

Timed Override for Two Hours

The unit must be in normal (or timed) mode. Press and release the + or – buttons and the temperature display will show the current control temperature (comfort during ON periods, economy during OFF periods).

Adjust the temperature to be maintained for the two hour period (starting immediately) by using the + or – buttons. The programme indicator will flash indicating a timed override.

To cancel press the PROG button and release.

Temperature adjustment setting

If the TIME/COPY key is pressed and then MODE/NEXT key is pressed then SU:0 or Ad:0 will display. Press the PROG button to return to normal operation.

It is recommended that this function is not used without consulting the Help Line.

Probe & mains Supply Check

The unit checks that the temperature probe is connected and is not short circuit. If this is not the case then the '!' symbol shows on the display, the installer should then check the connections. The '!' symbol also indicates loss of mains supply.

Specifications

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Operating temp:	-10°C to 40°C
Operating voltage:	220 – 240V AC 50Hz
Switching capability:	16A resistive 3A inductive
Temp probe flying lead:	4m length
Temp control range:	6°C to 30°C
Temperature accuracy:	±1°C (at 20°C)
Control type:	Normally open, voltage free
EC directives:	Conforms to 73/23/EEC and 89/336/EEC
Dimensions (mm):	84 (H) x 84 (W) x 27 (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**.

HELPLINE
020-8450-0515



For a product brochure please contact:

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Victory Park, 400 Edgware Road,
London NW2 6ND

020-8452-1112

or email csc@timeguard.com