

# GRÄSSLIN

## Immersion heater timer

IHT/T (GPT/T)  
IHT/W (GPT/W)

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### Installation - General Notes

1. Installation should be carried out in accordance with the current edition of the I.E.E. Wiring Regulations. It is recommended that installation is undertaken only by a qualified electrician.
2. The timer should not be mounted on an unearthed metal or metallised surface.
3. If the timer is to be connected to an appliance that is required to be earthed the supply earthing conductor and the appliance earthing conductor should be terminated together in the earth terminal provided within the timer.
4. It must be ensured that the brass inter-connecting link is correctly positioned and retained in the terminals during connection of the supply conductors (applicable to types IHT/T and IHT/W).
5. When cutting out the required apertures in the cover to accommodate the input and output cables/cords it should be ensured that no sharp edges remain.
6. All terminals are suitable for fixed cables, and for flexible cables or cords.
7. For stranded wires use ferrules supplied.

### Installation Procedure

1. Switch the supply off at the mains. Means of disconnection from the supply having at least 3mm contact separation in all poles must be incorporated in the fixed wiring mains supply.

2. Loosen screws (a) and separate housing from timer base. Pull timeswitch module off backplate. Offer backplate to mounting location and mark fixing points b, c and d. Drill wall for screw fixings. Fix backplate to wall. Push timeswitch module onto backplate, ensuring good engagement of tab terminals with receptacles.
3. Bare wires for 6mm (1/4 inch) maximum; insert into terminals and secure with the screws, in accordance with circuit diagram label beneath terminals.
4. Secure cables/cords with clamp provided and check all wiring (see figure 4). Note: Mains supply using fixed wiring does not need to pass through clamp.
5. Cut out cable entries on underside of housing as necessary to accommodate cables/cords. Please refer to 5. above.
6. Refit housing to timer base.
7. Switch on mains.

### Installation as general purpose timer

If you are not controlling an immersion heater, but you are still controlling a mains-fed load, please wire in accordance with "Immersion Heater Connections" diagram shown in this instruction. If the timer is supplied by the mains, but you wish to control a circuit which must be kept electrically separate to the incoming mains supply, please follow the instructions below. Removal of the "bridge wire" between terminals 2 and

3 enables the timer to be used as a general purpose timer, since the switch is then electrically separate from the mains input to the motor. The switch can then be used to control a separate circuit. When installing as a general purpose timer, follow instructions 1. and 2. above, then slacken screws to terminals 2 and 3 and remove bridge wire; affix general purpose timer wiring diagram provided over existing IHT wiring label; wire in accordance with general purpose diagram, then follow instructions 4. to 7. above.

### Setting up

Rotate minute hand until arrowhead on clock face, aligns with correct time on outer dial. i. e. 8=8.00 a.m., 18=6.00 p.m. (see figure 1). When setting up seven day version (IHT/W, GPT/W), align correct time on outer dial, within current day sector of dial. Note: Weekdays are printed on dial in abbreviations of three languages.

Twenty-four hour (IHT/T, GPT/T) minimum switching time: 15 minutes.

Seven day (IHT/W, GPT/W) minimum switching time: 2 hours.

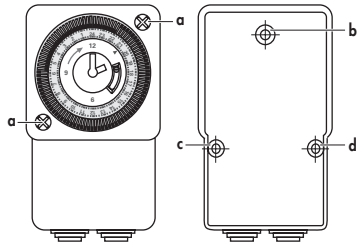
To set ON/OFF times, move all tappets between ON and OFF times required to outer position i.e. to set ON at 8.00 a.m. and OFF at 11.00 a.m. move all tappets to outer position (see figure 2): Set any other ON/OFF times in a similar manner.

### Manual switch - Immersion Heater Timer (IHT/T&IHT/W) only.

The manual switch can be moved to override the timed selection:

- In position 1 the timeswitch is permanently ON irrespective of tappet positions.
- In position 2 the timeswitch is operating on timed control and will switch ON and OFF as determined by tappet positions.
- In position 3 the timeswitch is permanently OFF irrespective of tappet positions.
- The manual switch must be returned to position 2 to restore the timed function.
- See figure 3 for diagram of switch selections.

Fig. 1



### Manual switch - General Purpose Timer (GPT/T and GPT/W)

The timer incorporates a changeover switch. Therefore, when in use as a general purpose timer, the manual switch functions as follows:

- In position 1, the timeswitch will give permanent output on terminal 4.
- In position 2, the output will switch between terminals 4&5, as determined by tappet positions.
- In position 3, the timeswitch will give permanent output on terminal 5.
- The manual switch must be returned to position 2 to restore the timed function.

Fig. 2

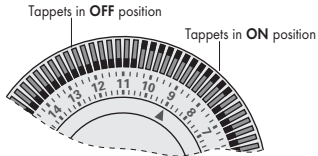


Fig. 3

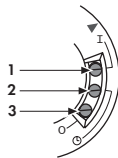
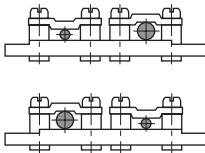
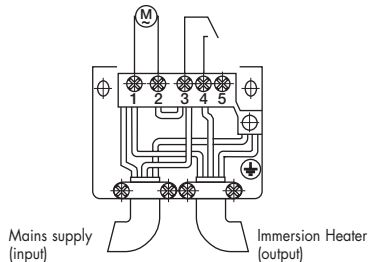


Fig. 4



**NOTE:** Do not connect unprepared stranded wires to device. Use ferrules supplied to crimp stranded wire terminations.

### Wiring Example: Immersion Heater Connections.



Connections:	
Mains supply	Immersion Heater
1 Neutral	1 Neutral
2 Link	4 Live
3 Link + Live	
Earth	Earth
Link 2 to 3 provided	