

**INSTALLATION/OPERATING
INSTRUCTIONS FOR T23H
7 DAY ELECTRONIC
IMMERSION HEATER TIMER**

MODEL NUMBER. T23H



- A = Reset
- B = Programme setting
- C = Current time setting
- D = Day selector
- E = Minute button
- F = Hour button
- G = Summer/Winter setting
- H = Override switch

IMPORTANT

**BEFORE YOU FOLLOW THE
PROGRAMMING INSTRUCTIONS
BELOW, YOUR GREENBROOK
ELECTRONIC IMMERSION
HEATER TIMER MUST BE
INSTALLED BY A
QUALIFIED ELECTRICIAN,**

**PREPARING FOR
OPERATION**

Once the timer has been installed, press the small "reset" button (A) before you start programming (a ball-point pen or similar should be used to press the button). The reset button should be used only when you want to reset the timer or want to erase all previously set programmes.

**SETTING THE PRESENT TIME
AND DAY OF THE WEEK**

Press and **hold down** (C) button **continuously**. Enter the **current day** using 1-7 (D) button.
1 = Monday, 2 = Tuesday, ...
7 = Sunday.
Enter the hour and minutes using the (F) then the (E) buttons. (useful hint: if you keep the hour or minute keys pressed down for more than 2 seconds, the display will enter fast forward mode).
Release the (C) button. .
The colon will blink once a second.



e.g. current time is 8:10am on friday.

**ENTERING THE ON/OFF
TIMES**

You have 20 memory locations available. (10 "on" and 10 "off"). Each on/off time can be used individually on any day(s) throughout the week, or can be set to repeat on one of the following combination of days: (1 = Monday, 7 = Sunday).

- 1,2,3,4,5,6,7 (all days of the week)
- 1,2,3,4,5,6 (Monday to Saturday)
- 1,2,3,4,5 (Weekdays only)
- 6,7 (Weekends only)

Important - do not overlap switching times, it is advisable to plan beforehand. Use the programme planner table.

This timer needs to differentiate between an "on" and "off" programme settings on each occasion, prior to entering the "on"/"off" times. This is achieved by pressing (H) button on the top until the following is displayed:

- = Time setting that follows is for the "on" period.
- = Time setting that follows is for the "off" period.

EXAMPLE

You require the timer to switch on at 18:10 (6:10p.m.) and off at 23:30 hours (11:30p.m.) every weekday

1. Press programme button (B) once and release. Press (H) button until appears to indicate the setting that follows is the "on" period.

Display shows:



2. Press **1-7** (D) button until only **1,2,3,4,5** days are displayed to represent weekdays.
3. Press the (F) hours and (E) minutes buttons so that the time shows 18:10.



**PLEASE KEEP THESE OPERATING INSTRUCTIONS
SAFELY FOR FUTURE REFERENCE.**

- Press prog button (B) to enter next switch setting. Press (H) until (H) appears (to indicate what follows is the "off" setting).
- Press 1-7 button (D) until 1,2,3,4,5 days appear on the top.
- Press the (F) hour and (E) minute buttons until display shows:



- If you have not entered all the required relevant information, the timer will flash the segments not yet programmed.
- If you wish to enter additional settings press prog button (B) and repeat above steps or if programming is completed, press button (C) so that timer will operate to the next set programme(s). (Important, if the override switch is set to permanently "on" or permanently "off" the timer will not work to set programmes, see section on manual override).

ADDITIONAL FUNCTIONS

SWITCHING FROM WINTERTIME TO SUMMERTIME

- When the clocks go forward, press (G) button **once**, which will change the current time. To change the clock back by an hour, press (G) button **once**.
- Please note, if you initially programmed the timer in summer then you will not be able to take advantage of this feature immediately. Instead adjust the time by pressing and holding down (C) and then use the (F) hour button to reduce the time by an hour. The (G) feature can then be used next time the clocks go forward. Pre-set programme times will remain unaffected.

MANUAL OVERRIDE SWITCH

During those occasions when you are at home early and you do not want your timer to be turned on or you want to make temporary changes to the programme setting, pressing button (H) will perform the following role depending on what is displayed on the screen display, e.g.

- Temporarily on, will stay on until next off setting.
- Permanently on, ignores all programmed settings.
- Permanently off, ignores all programmed settings.
- Temporarily off, will stay off until next on setting.

REVIEWING AND ALTERING SET PROGRAMMES

- Pressing prog button (B) will allow you to step through each of the settings, changes can be made at any stage by pressing the appropriate (F) hour and (E) minute buttons.
- It is important to ensure the "on" days correspond with the "off" days and that they do not overlap.
- If prog button (B) is pressed repeatedly, the next available blank setting is shown, after this, the number of free setting (out of 20) available is displayed.

Fr 18 e.g. there are 18 on/off settings remaining.

DELETING INDIVIDUAL SWITCHING TIMES

- Press the prog (B) button repeatedly until the time you wish to delete is shown in the display.
- Then set to "--" using the (F) hour and (E) minute buttons and keep the (C) button pressed down for around 3 seconds.
- "---" will flash for 10-15 seconds. The switching time is now erased and the current time displayed.

AM/PM TIME DISPLAY

If you press (G) and (F) button together, the time display switches all settings to am/pm mode. To reverse back to 24-hour mode repeat the above.

TROUBLESHOOTING

PROBLEM:

Immersion Heater fails to operate.

CAUSES:

- Switch (H) is set to off.
- The mains are turned off.
- A fuse is faulty.
- Incorrect circuit wiring.
- No times set.

PROBLEM:

Immersion Heater stays on permanently.

CAUSES:

- Switch (H) is set on.

PROGRAMME PLANNER

In order to ensure that the set programmes do not overlap, it is advisable to plan beforehand, using the table below.
e.g. Timer required to switch on at 18.10 and off at 23.30 hours every week day.

	On 	Off 	Days 1,2,3,4,5,6,7
Eg Prog 1	18.10	23.30	x x x x x
Prog 1			
Prog 2			
Prog 3			
Prog 4			
Prog 5			
Prog 6			
Prog 7			
Prog 8			
Prog 9			
Prog 10			

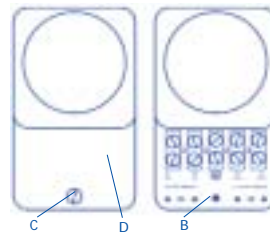
WIRING INSTRUCTIONS

Installation should be made by a qualified electrician in accordance with current regulations.

THIS TIMER SHOULD NOT BE FITTED ONTO A CONDUCTIVE SURFACE (I.E METAL)

FIXING THE TIMER TO THE WALL

- Drill two 6mm holes 97mm vertically apart in the wall.
- Insert plastic anchor (supplied) into holes and fit one No.6 screw to top hole leaving a gap under the screw head of approximately 4.75mm.
- Place the keyhole slot over the screw and slide the timer down; if the timer is loose remove it, tighten the screw and refit the timer.
- Continue to do this until the timer fits securely against the wall.
- Remove terminal cover (D) by undoing screw (C). Insert the second No.6 screw into slot (B) and tighten.
- Your timer is now ready for wiring.



WIRING THE TIMER

- Your GreenBrook Electronic Immersion Heater Timer should be wired from a fused spur. We recommend a PowerBreaker H92 model.

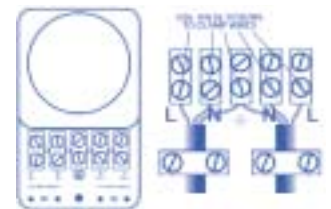
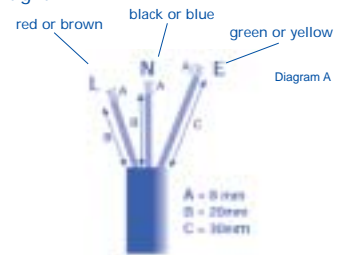
- Switch off the mains and isolate the supply by removing the appropriate fuse before starting the installation.

- Prepare cables for connection to the timer, (see diagram A).

NOTE

The maximum size cable that can be used with this timer is 2.5mm. If flat twin and earth cable is used, the bare earth cable must be fitted with green/yellow sleeving before fitting the earth terminal.

- Fit the bare ends into the correct terminals (see diagram 10). You must ensure that there are no loose strands left out of the terminals. Firmly tighten all the screws.
 - Using the cable clamps and screws provided and ensuring the cable clamp is fitted the correct way round, tightly secure the cable into position.
 - Ensure the correct cable cut outs have been removed in terminal cover (D) and refit terminal cover (D) and tighten screw (C).
- N.B Ensure all terminal screws are tight.



L = red or brown
N = black or blue
E = green or yellow

PLEASE KEEP THESE INSTRUCTIONS SAFE FOR FUTURE REFERENCE

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