

INSTALLATION/OPERATING INSTRUCTIONS FOR T68 ELECTRONIC TIMER

MODEL NUMBER: T68.

Please read the instructions fully before attempting installation.

Electrical units may only be installed and assembled by a skilled electrician.

This unit contains well-designed electronic components which are largely protected against external interference. However, it must be remembered that extremely high interference voltage peaks can be superimposed on the mains voltage, depending on the installation site.

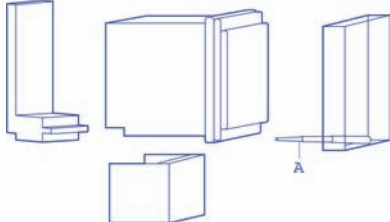
Interference which, despite all internal protective measures, can also affect an electronic unit also arises when contactors are switched. In order to guarantee the greatest possible operational reliability, the following details must be observed:

- In the case of larger systems, a suitable varistor or RC element must be used to provide interference suppression for contactor coils directly switched by the time switch.
- If inductive direct current loads are switched, a suppressor diode must be installed.
- Inductive loads and particularly fluorescent lamps place particular demands on the output contacts. In each individual case, check whether it is appropriate to install an isolating relay or contactor.

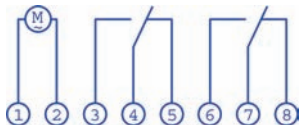
INSTALLATION

- Secure the backplate using the two round fixing holes after first unscrewing timer module.

Diag. 1.



Diag. 2.



WIRING

- Switch off the mains and isolate the supply before commencing work.
- Unit has 8 terminals, numbered 1 to 8. Numbers 1 and 2 are the mains input to the clock, Neutral on 1 and Live on 2.
- These units have no-volt switching.
- Terminals 3,4 and 5 are channel 1 and 6,7 and 8 are channel 2. To switch the mains voltage, a link of 2.5mm² insulated wire should be used between:-

Channel 1, terminal 2 to 4
Channel 2, terminal 2 to 4

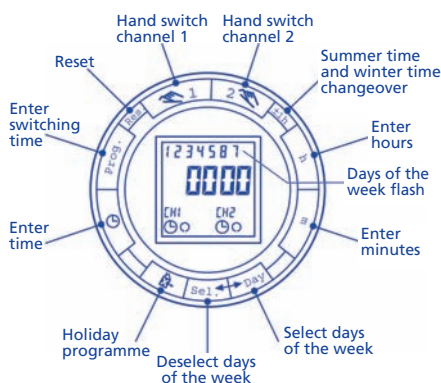
- The load is connected across terminal:
Channel 1, terminal 1 to 3
Channel 2, terminal 1 to 6
- Remove required cut outs in lower cover to accept the cable size required and re-assemble the timer.

SETTING THE CLOCK

- Activate the "Reset" key to reset the time switch to its default settings (activate using a pencil or similar pointed instrument)
- Do this
-Every time you wish to "reset" the time switch
-To erase all switching times and the current time of day

Diag.3.

The following appears after approximately 2 seconds:



- During the summer time period, press the "±1h" key once
- Keep the ⌚ key pressed down
- Enter the hour using the "h" key
- Enter the minutes using the "m" key
- Enter the day using the "Day" key
1= "Monday"7 = "Sunday"
- Release the ⌚ key

The colon now blinks once a second.

NOTE:

If you keep the "h" and "m" keys pressed down for more than 2 seconds, the display will enter fast-forward scroll mode.

If you press the "±1h" and "h" keys at the same time, the time display switches into the AM/PM mode.

SETTING THE PROGRAMME

There are 42 memory locations available. Each switching time takes up one memory location.

- Keep pressing the "Prog" key until a free memory location "---" is shown in the display.
- Select the switching functions (ON) ● or (OFF) with the ⌚ key for channel 1 or 2 (depending on the version).
- Using the "h" key enter the hours
- Using the "m" key enter the minutes
- If a switching command is to be executed every day, save with the "Prog" key.
- If a switching command is to be executed only on one day or on certain days, with the "Day" key select a day on which the switching

command is not to be carried out (cursor flashes)

- Confirm this day with the "Sel" key (day of the week and cursor will flash)
- Press the "Day" key (day is deselected). Repeat this process for every day that is to be deselected
- Save with the "Prog" key (the next free memory or location is displayed)

Or

- Save with the ⌚ key
- The time switch goes over to automatic mode and displays the current time. Begin every additional switching time and the associated switching state ● = ON or ○ = OFF again with this section

NOTE:

If an input is incomplete, the segments still not selected are displayed flashing. If you have deselected a day on which the switching command should be carried out.

- Reselect the deselected day with the "Day" key (day of the week and cursor flash)
- Confirm this day with "Sel" key (cursor flashes)
- Press the "Day" key (day is reselected)
- Save with the "Prog" key (the next free memory location is displayed) or
- Save with the ⌚ key

FREE CHANNEL BLOCK FORMATION

- The channels 1 and 2 or 1 or 2 can be assigned as required to every switching command ● or ○

NOTE:

Note what position the switch is in, ON ● or OFF ○

Depending on the switching programme and the time of day, select the desired switch position with the key. (for channel 1 and/or 2) e.g. ● ●

ADDITIONAL FUNCTIONS

- To switch from summer to wintertime and vice versa, press the "±1h" key once
- Automatic summer time/winter time changeover. The following 3 changeover variants are available.
AU (Automatic) = Fixed changeover

The S/W time changeover is performed on the basis of a predefined calendar programme which is permanently programmed up until the year 2079 and cannot be changed. (Statutory summer time ruling of the European Union and Switzerland). Start of summer time: Always the last Saturday in March. The hour is advanced by one hour. The end of summer time is always the last Saturday in October. The hour is moved back by one hour.

cHA (calculated semi-automatic) = freely selectable changeover with weekday reference.

Enter the valid summer time starting

date for your country (e.g. date of the last Friday in April of the current calendar year) and also the date on which summer time ends (e.g. date of the first Tuesday in October of the current calendar year). The programme automatically assigns to this date the correct day of the week (in this case Friday and Tuesday). In the subsequent years, the time changeover always takes place on the calculated day of the week, irrespective of the date (in this case the last Friday in April and the last Tuesday in October).

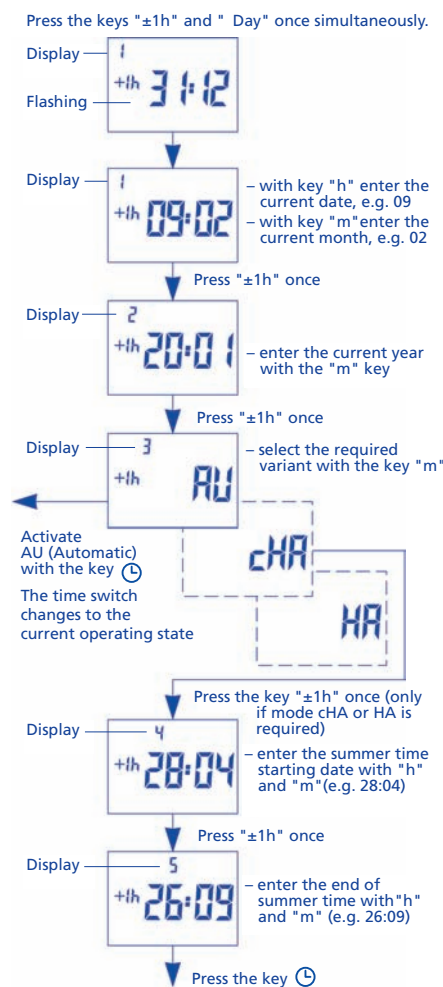
HA (semi-automatic) = Freely selectable changeover with date reference

Enter the valid summer time starting and end dates for your country. In the subsequent years, the time changeover always takes place on the same date.

Activation of the automatic summer time/ winter time changeover function.

A requirement for the automatic S/W time changeover is that the current date is entered. If the time switch is set to AM/PM, the month is set with the key "h" and the date is set with the key "m".


ENTERING THE CURRENT DATE Diag.4.



The time switch changes to the current operating state

READING THE ENTERED DATA


- Press the keys "±1h" and "Day" once simultaneously
- Pressing the key "±1h" several times allows all entered data to be read in turn

- The  key allows you to return to the current operating state at any time


CHANGING THE ENTERED DATA

- Changes can only be carried out in the variants cHA and HA
- Press the keys "±1h" and "Day" once simultaneously
- Press the key "±1h" twice
- Select the variant cHA or HA with the key "m"
- Alter the changeover times as previously described







DEACTIVATING THE AUTOMATIC S/W CHANGEOVER FUNCTION

- Press the keys "±1h" and "Day" key once simultaneously
- Press the key "h" until "- -" appears (after the last day in the relevant month)
- Press the  key. The clock changes to the current operating state
- The S/W time changeover can then be performed either manually by pressing the key "±1h" once or new data can be entered as shown previously


MANUAL SWITCH

- The current switching state can be changed at any time with the  key for channel 1 or 2 (depending on the version). Use of this manual override facility does not alter any of the programmed information

Diag.5.

Automatic Mode 	Manual Mode 	Continuous [] Operation
 = ON	 = OFF	[] = Continuously ON
 = OFF	 = ON	[] = Continuously OFF
The switching times correspond to the entered programme.	If the current switching state is changed manually, the next switching command is again executed automatically according to the entered switching programme.	You can only return to automatic mode from the continuously-ON [] and continuously-OFF [] switching modes by pressing the key.

READING THE PROGRAMMED SWITCHING TIMES


- Press the "Prog" key several times
- Displays all entered switching times starting with the first memory location
- The first free memory location "--:--" is then displayed
- The number of memory locations still free is then displayed
- If the memory locations are occupied, the following appears in the display "FR00"
- Press the  key
- The time switch changes to automatic mode and displays the current time

CHANGING THE PROGRAMMED SWITCHING TIMES


- Keep pressing the "Prog" key until the switching time to be changed is displayed

- The new data can then be entered as described under "Setting the Programme" section

NOTE:

To save switching times, if programming is not completed with the  key after the switching time is entered, the complete switching command is still automatically saved after approximately 90 seconds. The time switch then changes to automatic mode and shows the current time again.





DELETING INDIVIDUAL SWITCHING TIMES

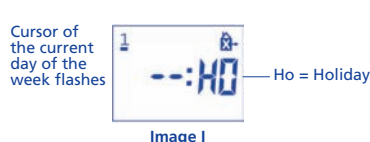
- Keep pressing the "Prog" key until the switching time to be deleted is displayed
- Set to "--:--" with the "h" or "m" key and then press the  key for about three seconds

HOLIDAY PROGRAMME


NOTE:

The holiday programme has priority over the standard week programme. The holiday programme can only be entered if all seven days of the week (1234567) are selected.

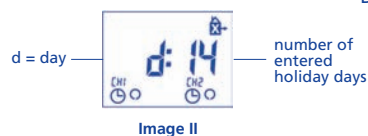
- Enter switching times for the holiday period as shown in "Setting the Programme" section. Whilst programming, the  key must be pressed to denote a holiday instruction
- The  key must be pressed for each switching time
- Save the holiday switching times with the "Prog" or  key
- After entering the switching times for the holiday programme, press the  key once, the following image appears:







Diag.6.

- If the holiday programme is to start on a different day to the current one – maximum of 6 days ahead – use the "Day" key to select the day on which the holiday programme is to commence
- If the holiday programme is to be executed for up to maximum 99 days, enter the required number of holiday days with the "Sel" key. (1 to maximum of 99 days). This does not need to be done if the holiday programme is to be executed for an unlimited period
- Press the  key to save the entries
- If the current day of the week was entered as the holiday programme start, the following appears:



Diag.7.



- Image II remains until the holiday days have passed, for example d:10, d:09, d:09.....etc.

- Pressing the  key again and holding it down now allows the day of the week, the time and the current switching state –  = ON or  = OFF – to be checked
- If a day of the week other than the current day was entered as the holiday programme start, the current time is displayed after the  key is pressed. The holiday programme is then started at midnight at the start of the selected day of the week and its duration is displayed.
- After the programmed holiday days have expired, the current time appears in the display.

ABORTING THE HOLIDAY PROGRAMME PREMATURELY

- If the holiday programme has already started, press the  key once.
- If the holiday programme has not yet started, press the  key twice.

TECHNICAL DATA

Rated Voltage:	230V, AC ~ 50Hz
Switch Rating:	16A Resistive 2.5A Inductive 3600W
Operating Temperature:	0°C to 40°C
Back up Battery:	150 hours

GUARANTEE

Your GreenBrook Electronic Timer is guaranteed for 12 months from date of purchase. This is in addition to your statutory rights.

PLEASE KEEP THESE INSTRUCTIONS SAFE FOR FUTURE REFERENCE

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