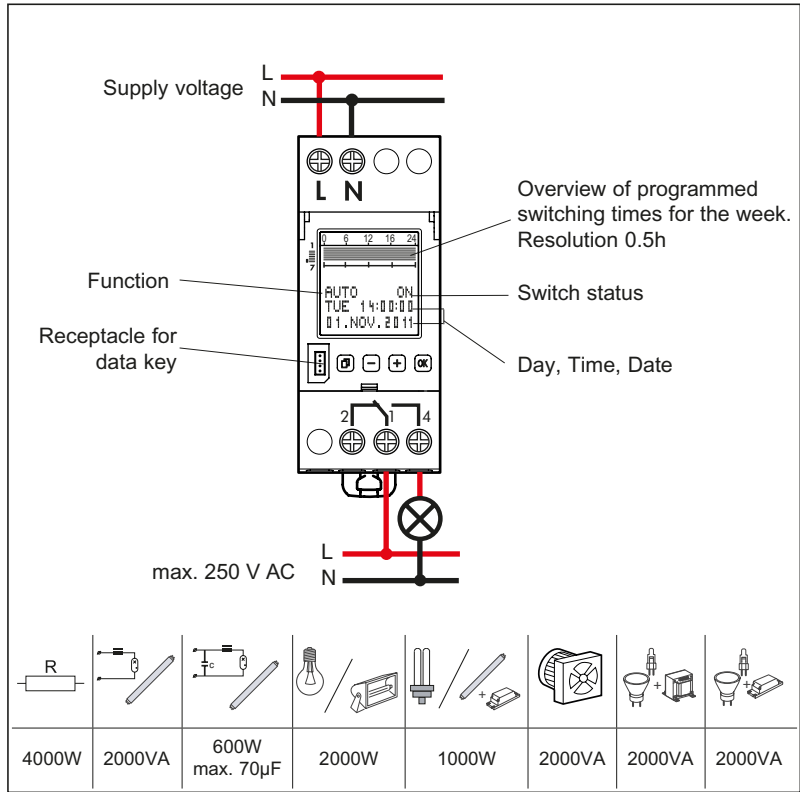


**⚠ Safety notes**



This product should preferably be installed by a qualified electrician. Non-compliance may result in a fire hazard or electric shocks. Before installation, read the operating instructions and observe the product-specific requirements for the installation location. Use only original spare parts for repair and maintenance. All products may be opened and repaired only by specially trained personnel. Unauthorised opening and repair by other persons will invalidate all claims for liability, replacement or warranty services. The device contains a LiMnO<sub>2</sub> primary cell. When the product reaches the end of its life, this cell must be correctly removed and disposed of in accordance with national legislation and the requirements of environmental protection.

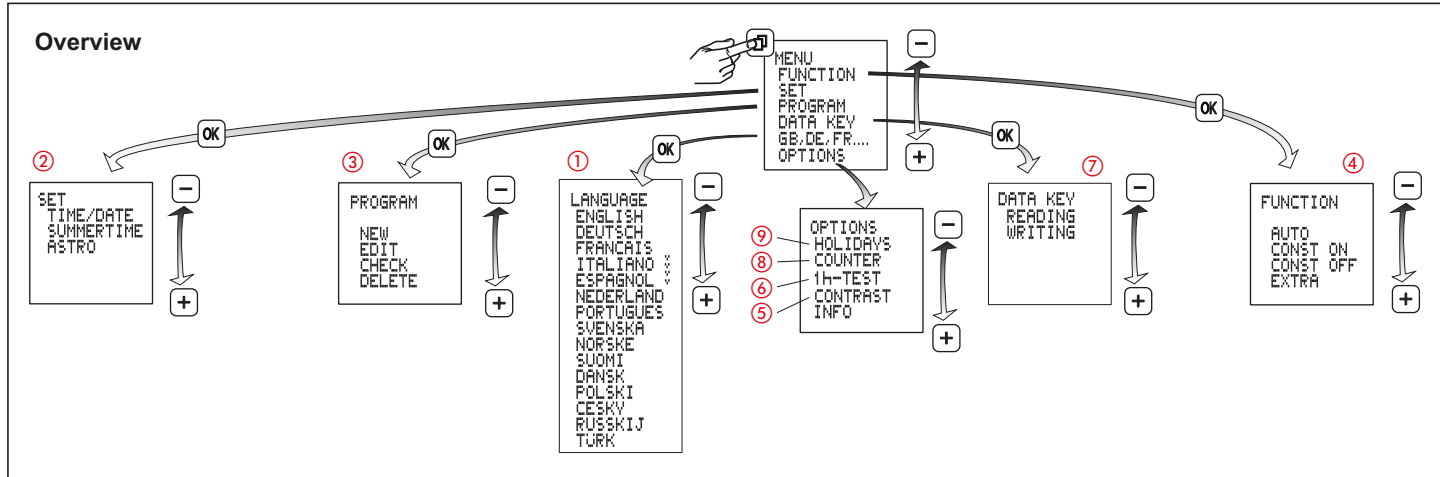


Operating principle: Type 1.B. S. T.  
IEC/EN 60730-1, IEC/EN 60730-2-7  
Montage: in distribution panel,  
Degree of contamination: 2  
Switch output, potential-free  
Rated impulse voltage: 4 kV

**General information**

- Start-up: after applying the supply voltage, the time switch starts automatically with the last selected function. The relay position is set by the current program.
- Battery backup
  - Backlighting not active
  - Data key READ/WRITE only via the menu

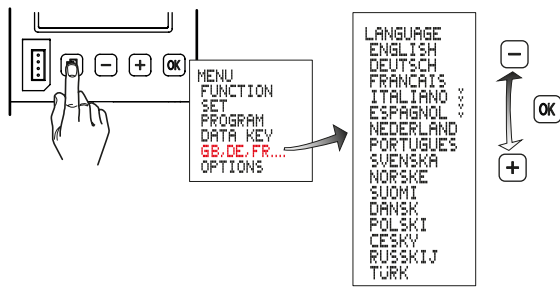
- Select menu, back to main menu, Hold down > 1s = operating display
- Confirm selection or load parameters
- Select menu options or set parameters



**Technical data**

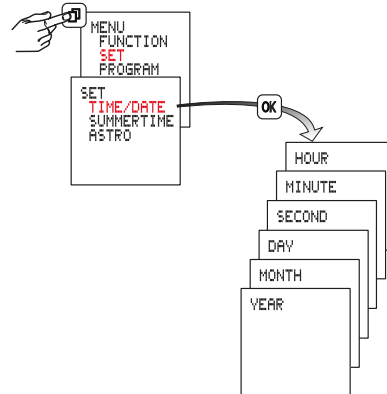
|                      |                                                   |                        |                   |
|----------------------|---------------------------------------------------|------------------------|-------------------|
| Supply voltage:      | 230 V 50/60 Hz                                    | Local coordinates:     | Resolution 1°     |
| Power consumption:   | 1 W                                               | Battery reserve:       | 5 years           |
| Relay outputs:       | 1 changeover contact 16A 250 V~µ cos φ = 1        | Storage temperature:   | - 20 °C to +60 °C |
| Accuracy:            | ~ 0,3 s/day                                       | Operating temperature: | -20 °C to +55 °C  |
| Wire cross-sections: | single-strand multi-strand                        |                        |                   |
|                      | 1,5...4 mm <sup>2</sup> 1,5...2,5 mm <sup>2</sup> |                        |                   |
| Programs             | 56 programs                                       |                        |                   |

## 1 Set language

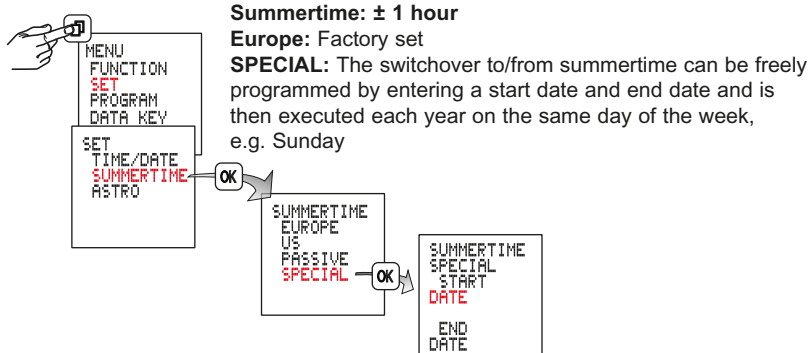


## 2 Set

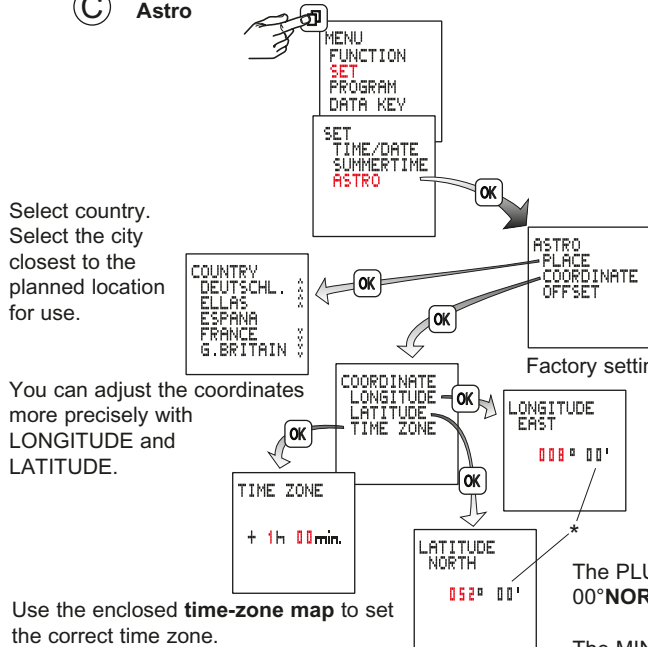
### A Set time/date



### B Summertime



### C Astro



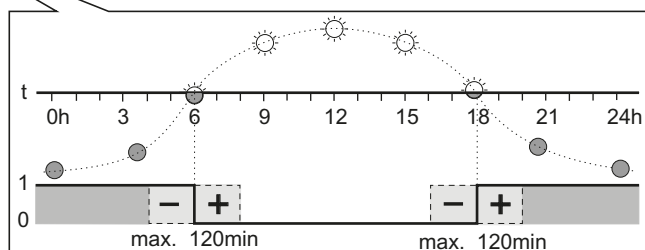
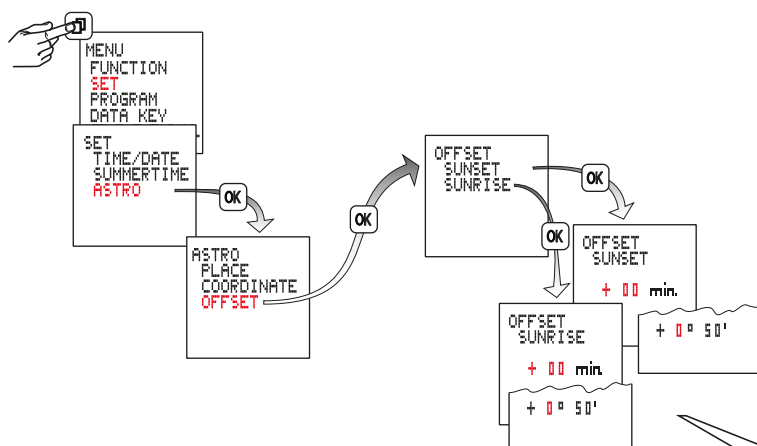
The MINUS key is used to adjust the westward longitude value in the range from 000°EAST/WEST to 180°WEST.

The PLUS key is used to adjust the eastward longitude value in the range from 000°EAST/WEST to 180°EAST.

The PLUS key is used to adjust the northward latitude value in the range from 00°NORTH/SOUTH to 90°NORTH.

The MINUS key is used to adjust the southward latitude value in the range from 00°NORTH/SOUTH to 90°SOUTH.

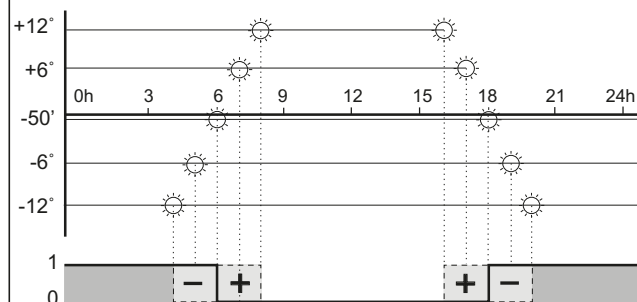
## D Offset



The time switch switches on at the calculated sunset time and off at the calculated sunrise time.

By setting an offset, you can shift the switching times by up to  $\pm 120$  minutes with respect to the calculated sunrise and sunset times.

**Example:** If you set the offset to +30 minutes, the time switch will switch 30 minutes after sunrise and 30 minutes after sunset. If you set the offset to -30 minutes, the time switch will switch 30 minutes before sunrise and 30 minutes before sunset.



If the offset setting is in degrees the time switch switches on and off at times of equal brightness, despite the differences in twilight time lengths over the course of the year.

Sunrise and sunset correspond to -50' for the centre of the sun (the edge of the sun is visible on the horizon).

### 3

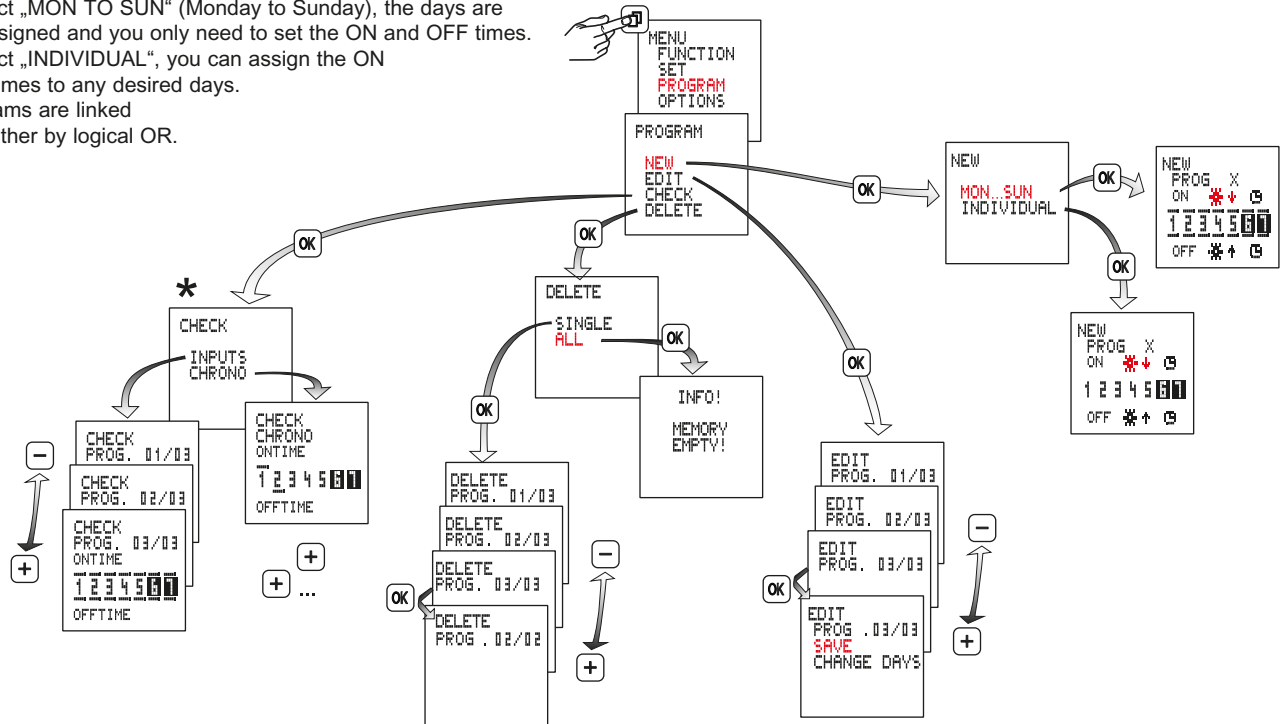
## Programming

A program consists of an ON time, an OFF time and the associated ON and OFF days.

If you select „MON TO SUN“ (Monday to Sunday), the days are already assigned and you only need to set the ON and OFF times.

If you select „INDIVIDUAL“, you can assign the ON and OFF times to any desired days.

The programs are linked to one another by logical OR.

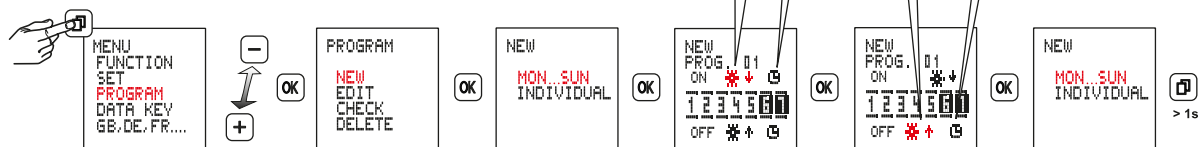


\*

CHRONO = the switching times are indicated in chronological order during the week.  
INPUTS = programs are indicated in the order in which they are entered.

### Programming examples

- ① The timer is to switch on at sunset on each day of the week and switch off at sunrise.



Select the appropriate symbol with the PLUS and MINUS keys:

\*+ ON at sunset

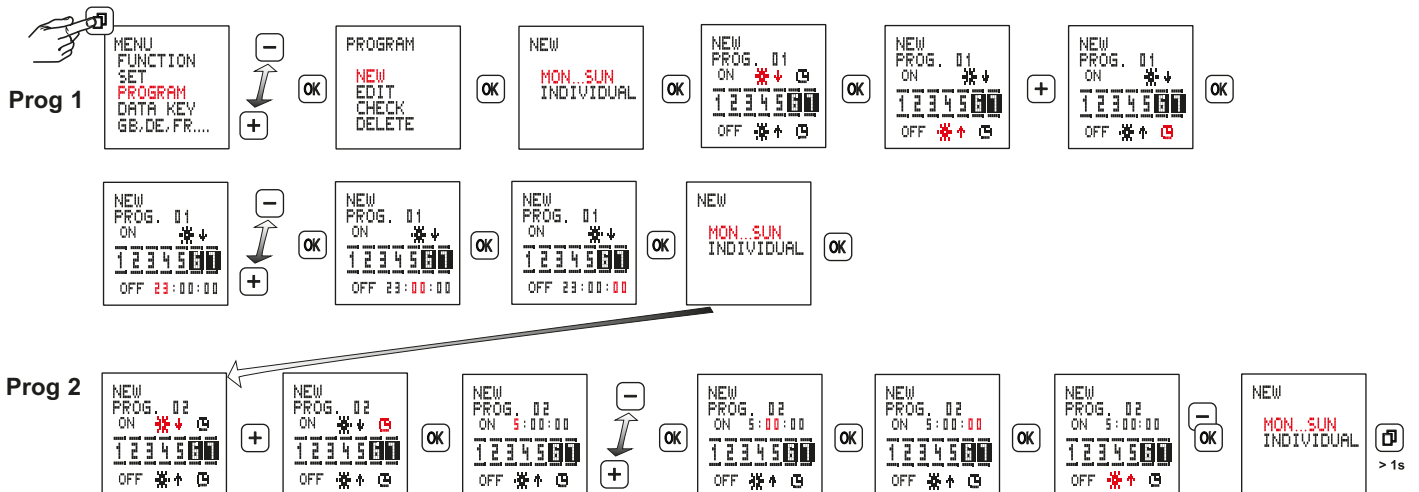
\*+ OFF at sunrise

☐ ON/OFF at programmed time

- ② The timer is to switch on at sunset on each day of the week and switch off at sunrise. In addition, it is to be switched off each night between 23:00h and 5:00h. This requires the use of two programs.

Program 1: ON at sunset and OFF at 23:00h

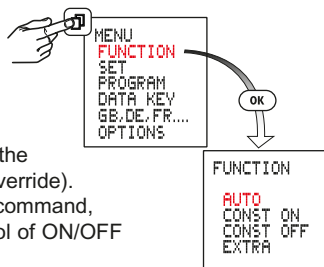
Program 2: ON at 5:00h and OFF at sunrise.



## 4 Modes

- **Auto** - Automatic operation
- **Constant ON**
- **Constant OFF**
- **Extra**

The switch status imposed by the program is inverted (manual override). With the next effective switch command, the time switch resumes control of ON/OFF switching.



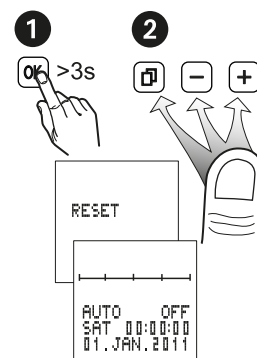
## Reset

### Warning!

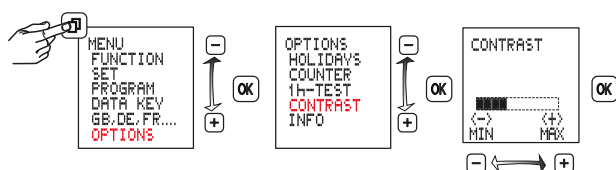
The memory will be cleared, and all set data will be lost.

Hold down **OK** for more than 3 seconds and at the same time press and release **□** **-** **+**.

The language, time, date, summertime/wintertime and switching times will have to be reentered.

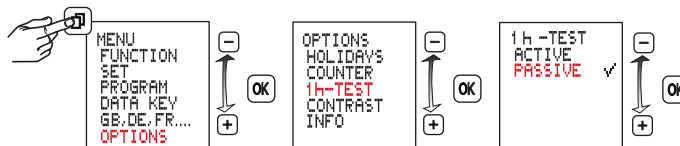


## 5 Contrast adjustment



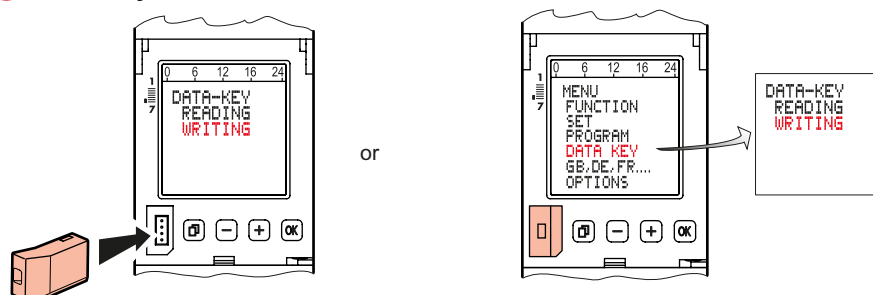
## 6 1 h-Test

When this function is activated, the output is switched ON for one hour.



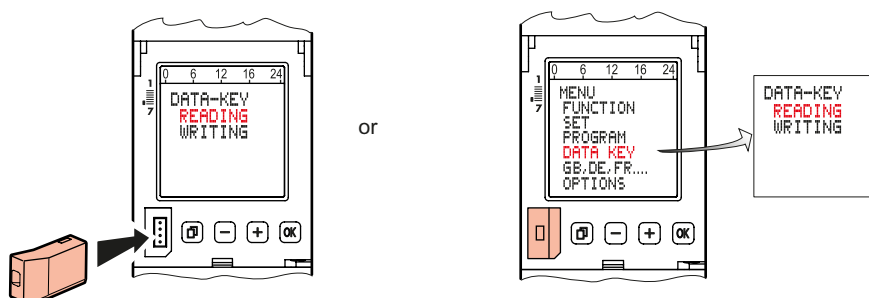
After one hour, the time switch returns automatically to the programmed mode.

## 7 Data key



**Load the programs of the time switch on to a data key (WRITE KEY)**

**Warning!** all programs stored on the data key will be overwritten.

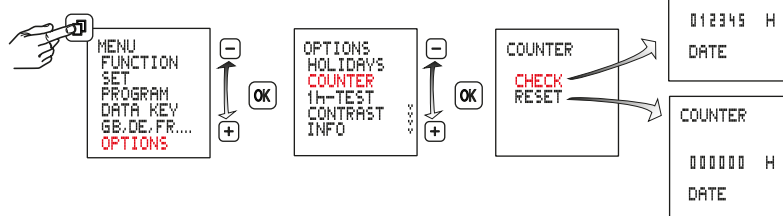


**Load the programs from the data key to the time switch (READ KEY)**

**Warning!** all programs stored in the time switch will be overwritten.

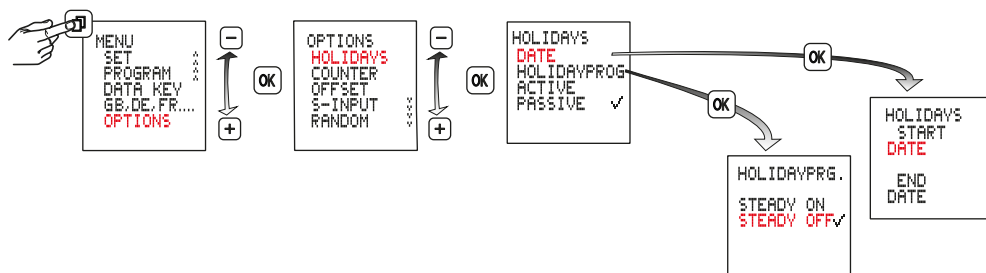
## 8 Hour counter

Displays the total relay ON time (0 to 65535 h) and the date of the last reset.

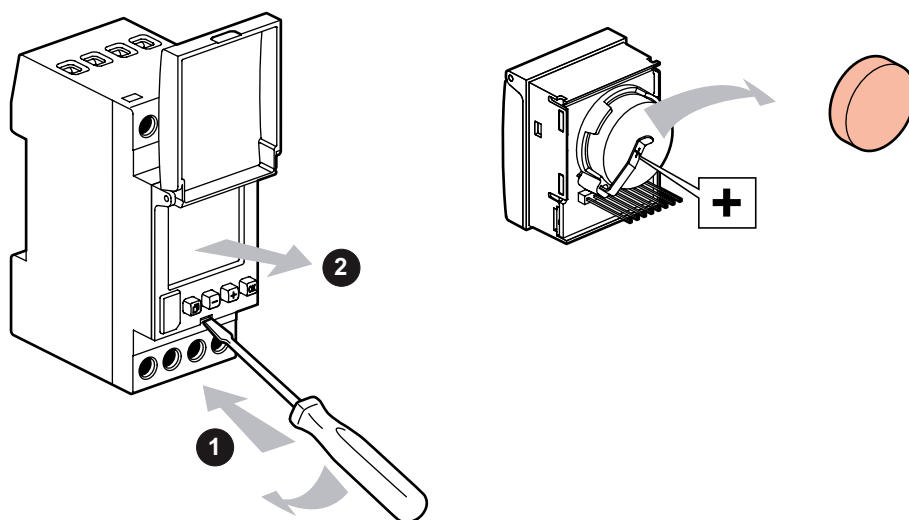


## 9 Holidays

After activation the holiday program is executed between 0:00h on the start date and 24:00h on the end date (Constant ON/OFF).  
After the holiday program has run once, it must be reactivated.



**Warning:** Electrical shock - Disconnect all power from the device before dismantling the module and replacing the battery.  
Always use a Li cell type battery (LiMnO<sub>2</sub>) CR2477, 3V high temperature type min +85 °C



- Zeitzonenkarte
- Time-of-day map

