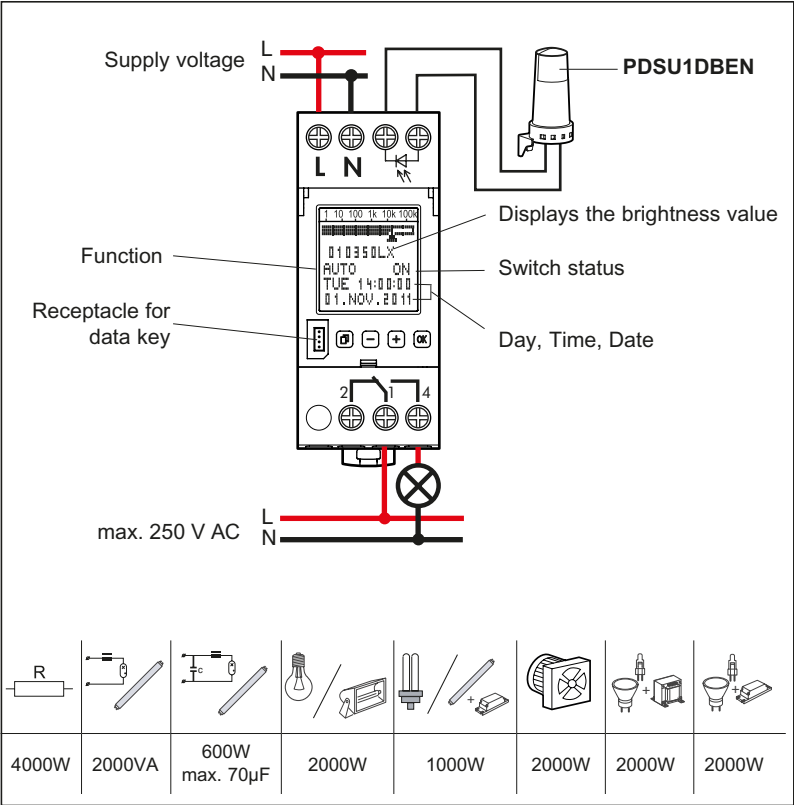


Safety notes

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.

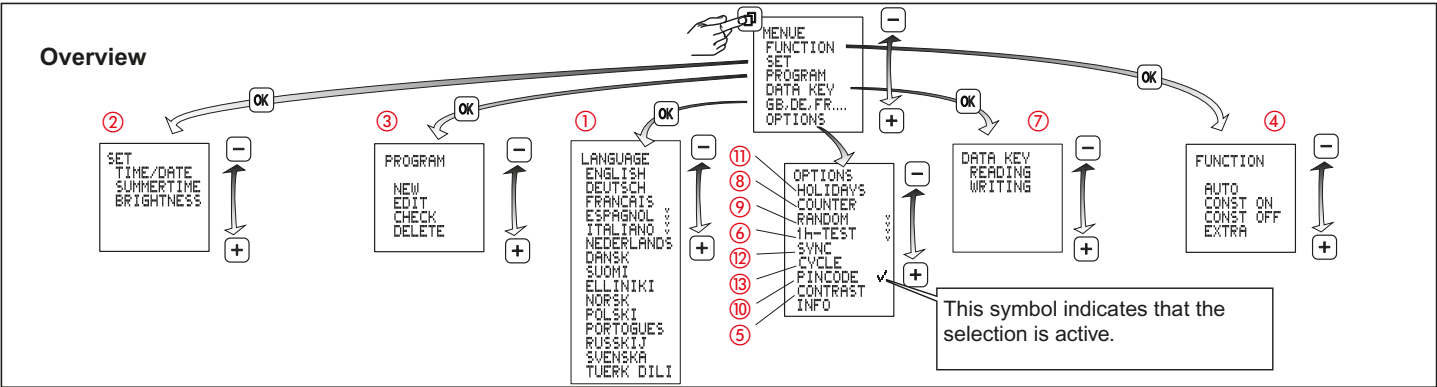


Operating principle: Typ 1.B. S. T.  
IEC/EN 60730-1, IEC/EN 60730-2-7  
Montage: in distribution panel,  
Degree of contamination: 2  
Switch output, potential-free  
Rated impulse voltage: 4 kV

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

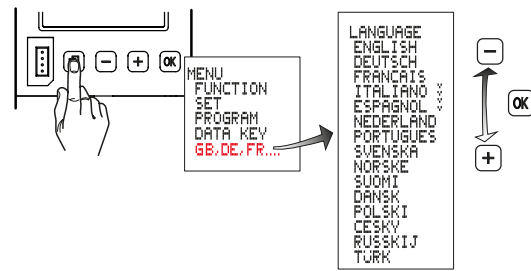
- ☐ Select menu, back to main menu, Hold down > 1s = operating display
- OK Confirm selection or load parameters
- Select menu options or set parameters For operating indicator: Display of lux value.
- + Select menu options or set parameters. For operating indicator: Display of next switch time



Technical data

Supply voltage:	230V 50/60Hz
Effective power consumption:	Approx. 1 W
Contact rating:	1 changeover contact 16A 250V~µ cos φ = 1
Parallel compensation:	600W max. 70µF
Accuracy:	~ 0,1 s / day
Terminal capacity:	single strand 1,5...4 mm <sup>2</sup> multi strand 1,5...2,5 mm <sup>2</sup>
Programmes :	56
Battery reserve:	5 years
Control line length:	max 50m
Delay:	30 ... 300s
Switching threshold:	1 lx ... 100 klx
Storage ambient:	-20°C ... +60°C
Working ambient:	-20°C ... +55°C
IP:	20

1 Set language



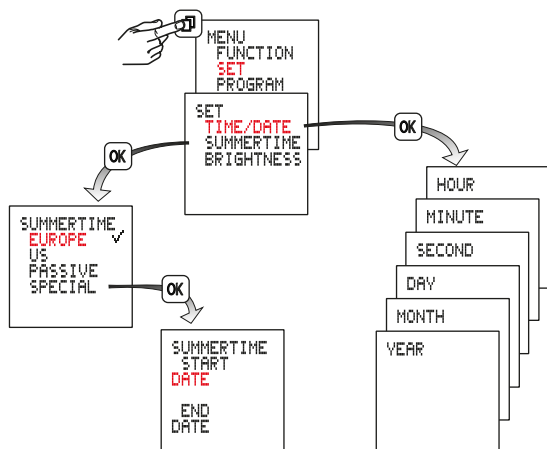
## Set time/date, summertime/wintertime

**Summertime:  $\pm 1$  hour**

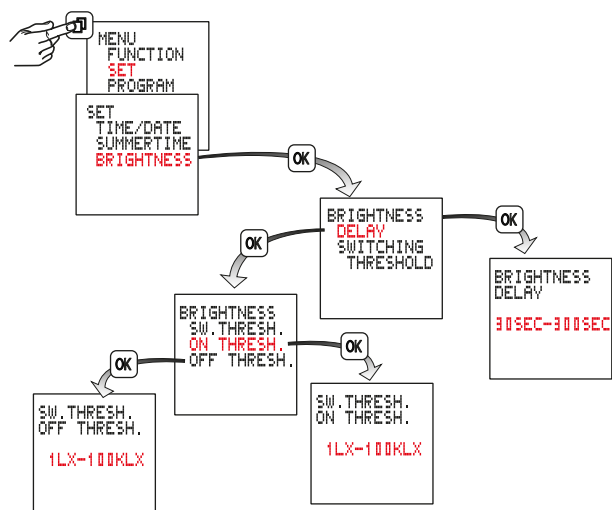
**Europe:** Factory set

**SPECIAL:** The switchover to/from

summertime can be freely programmed by entering a start date and end date and is then executed each year on the same day of the week, e.g. Sunday



## Settings for brightness-dependent switching



The delay time prevents switching back and forth when brightness and darkness change quickly (e.g. clouds passing by).  
The default setting is 90 seconds. The setting range is from 30 to 300 seconds.

The time switch compares the brightness value measured at regular intervals to the set switch-on and switch-off threshold.  
If the set brightness value drops below the set switching threshold, the time switch switches on the connected light sources.  
If the set brightness value exceeds the set switching threshold, the time switch switches off the connected light sources.  
The switching thresholds can be set separately between 1 lx and 100 klx.

### 3 Programming

 A program must be set in order for the device to function.

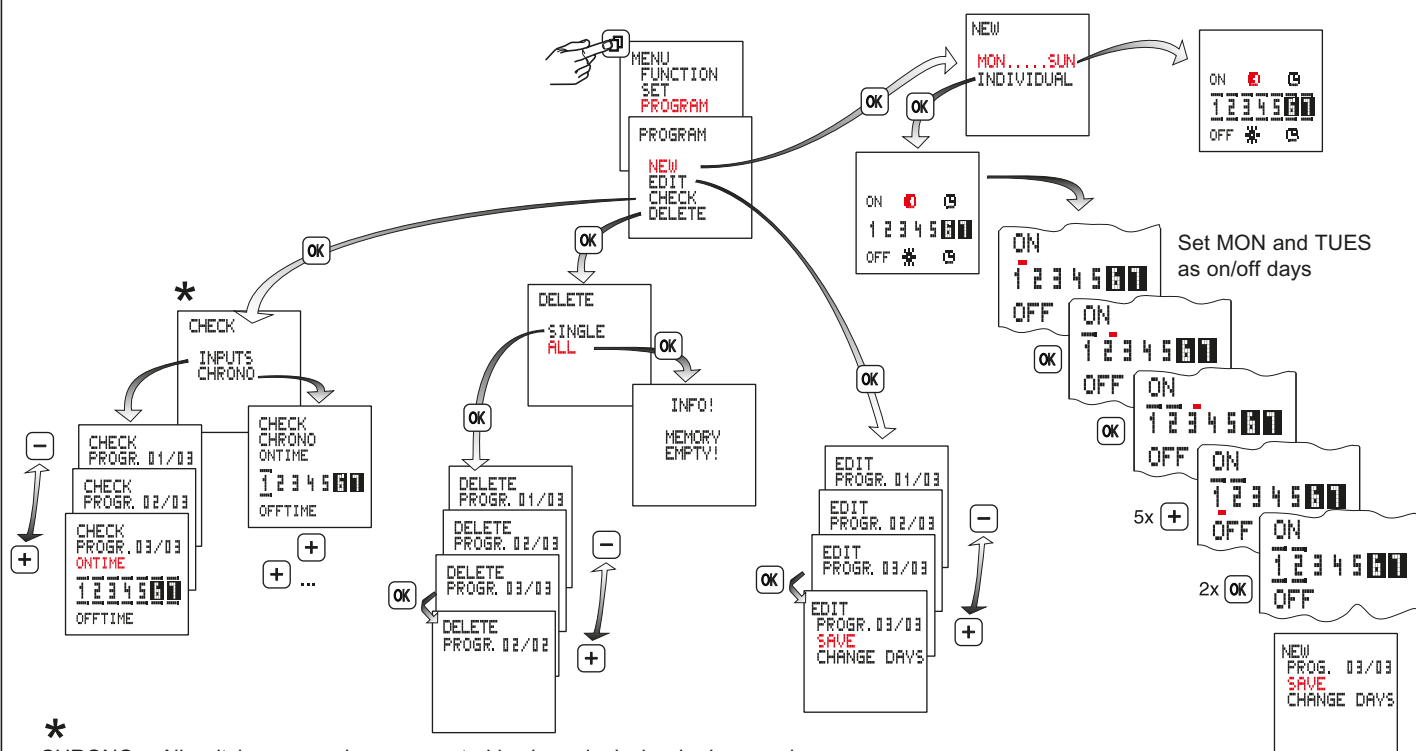
	Switching on	Switching off
1	Time 19	Time 19
2	Brightness 0	Brightness *
3	Brightness + Time 0 + 19	Brightness + Time * + 19
4	Brightness 0	Time 19
5	Time 19	Brightness *

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

Programs with predefined on/off days Mon to Sun. For this program, you only need to set the switching times.

With the „INDIVIDUAL“ option, you can allocate switching times to specific days of your choice.

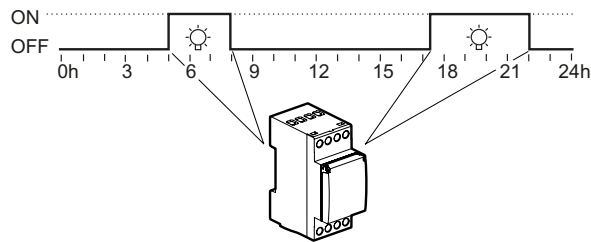
The programs of a channel are combined with a logical OR.



\*  
CHRONO = All switch commands are executed in chronological order in a week  
INPUT = Programs are executed in the order in which they are entered

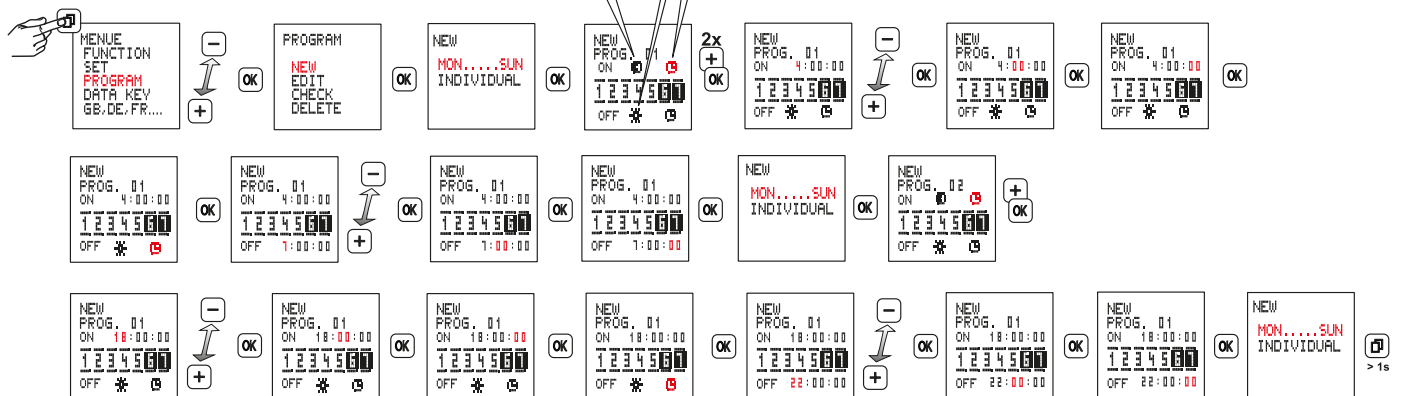
## Programming examples

### Switching on and off exclusively time-controlled

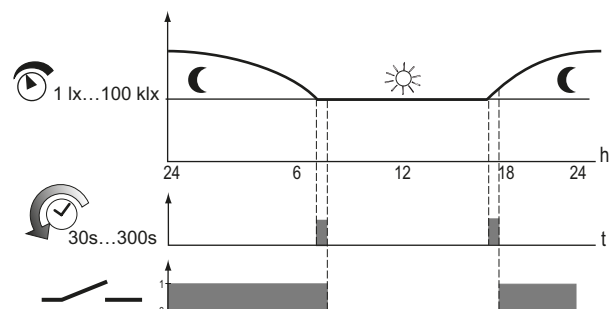
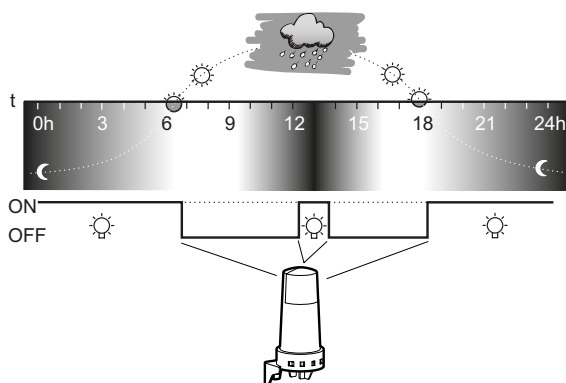


Select the appropriate symbol with the PLUS and MINUS keys:

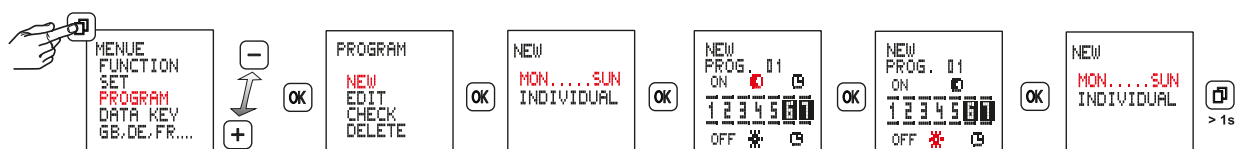
- Switching on in acc. with preset switch-on threshold
- Switching off in acc. with preset switch-off threshold
- ON/OFF at programmed time
- + Switching on / off in acc. with switch-on/off threshold in specified period



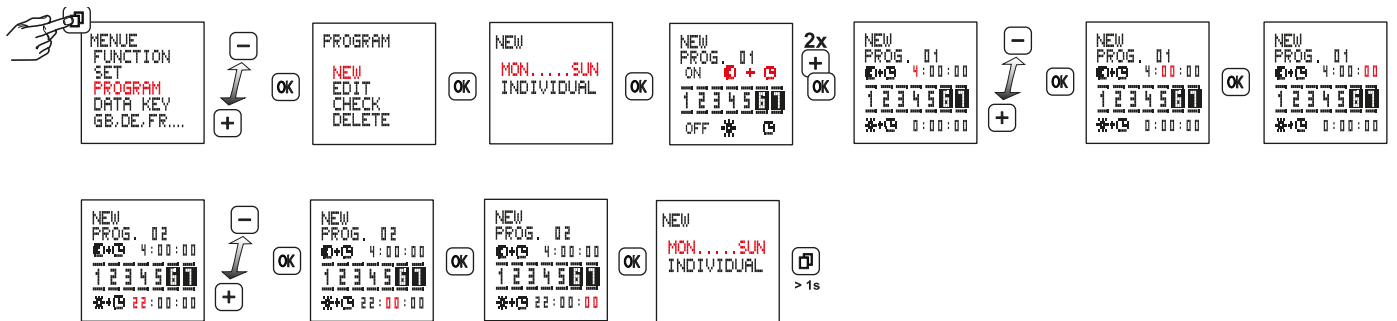
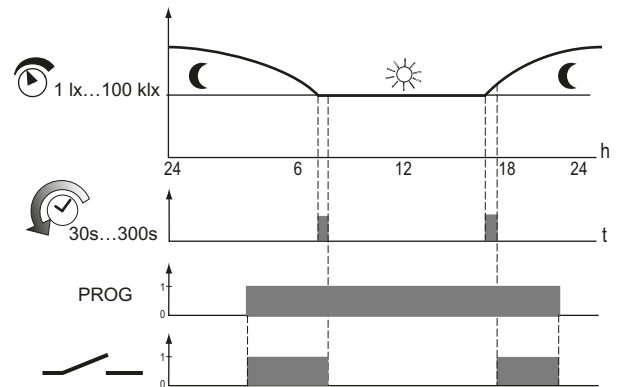
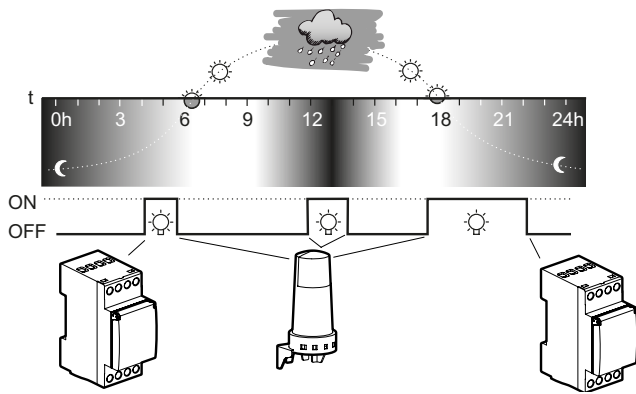
### Switching on and off exclusively dependent on brightness



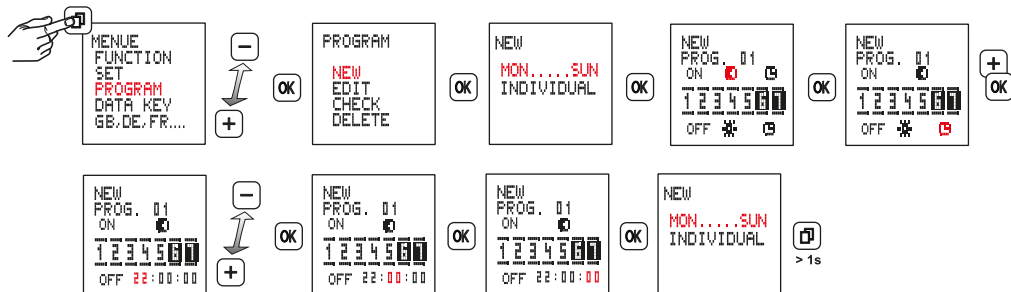
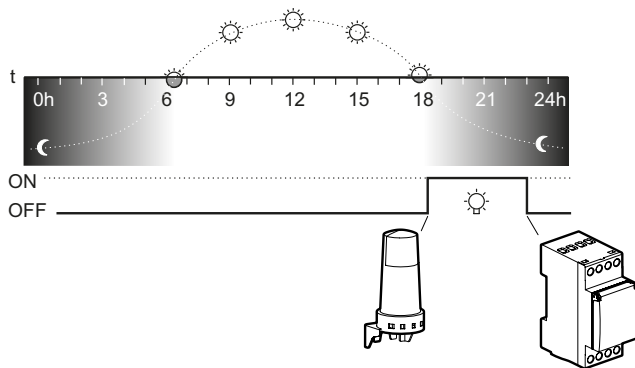
The time switch compares the brightness value measured at regular intervals to the set switch-on and switch-off threshold. If the set brightness value drops below the set switching threshold, the time switch switches on the connected light sources. If the set brightness value exceeds the set switching threshold, the time switch switches off the connected light sources. The switching thresholds can be set separately between 1 lx and 100 lx.



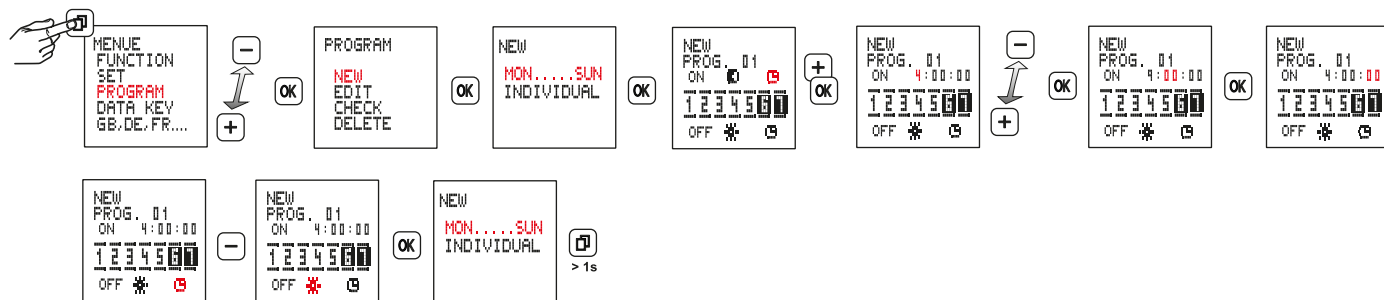
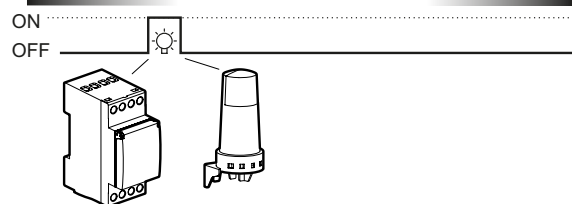
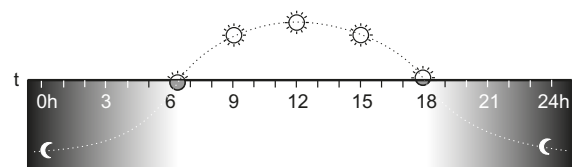
Within a specified switch-on/off time, the brightness determines the switching times



Switching on brightness-dependent, switching off time-controlled



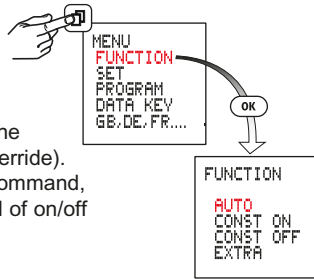
### Switching on time-controlled, switching off brightness-dependent



#### 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.



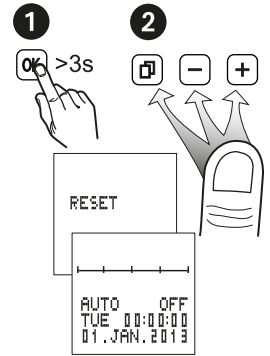
#### Reset

##### Warning!

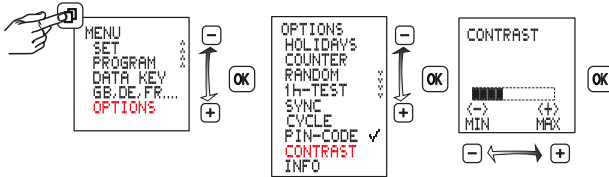
The memory will be cleared, and all set data will be lost.

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

The language, time, date, summertime/winter-time, delay time, switching thresholds and switching times will have to be re-entered.

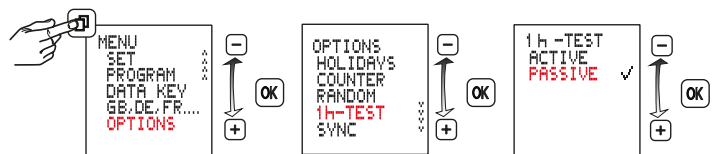


#### 5 Contrast adjustment



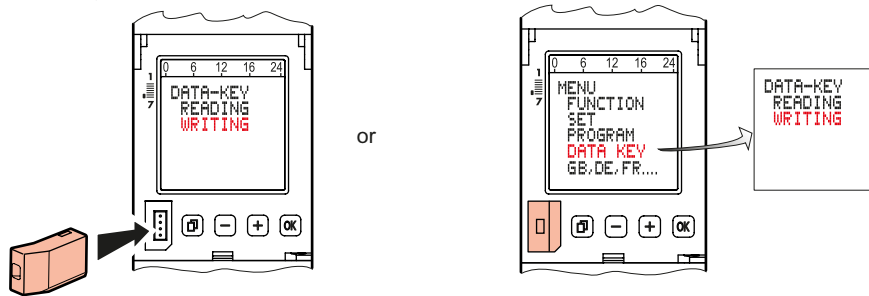
#### 6 1 h-Test

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



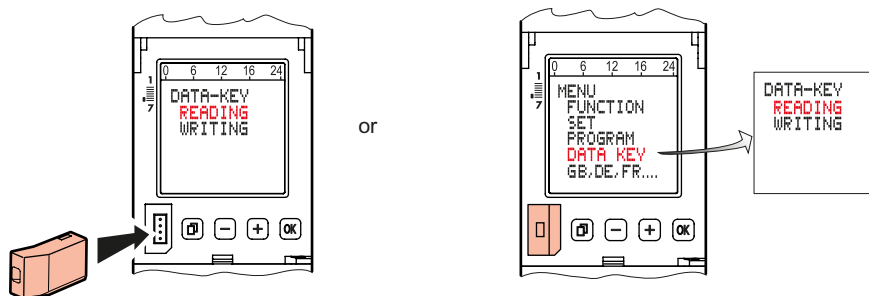
After one hour, the time switch returns automatically to the programmed mode.

#### 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.

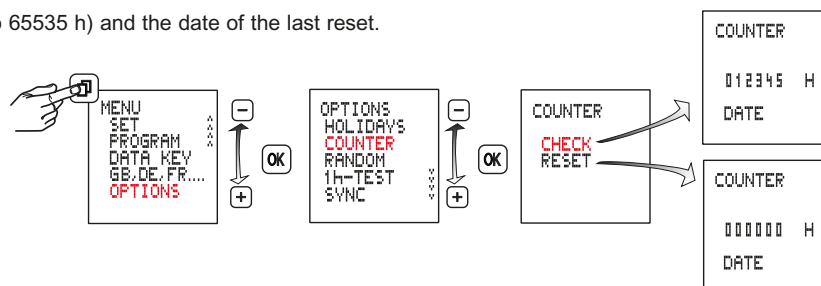


**Load the programs from the data key to the time switch (READ KEY)**

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

#### 8 Hour counter

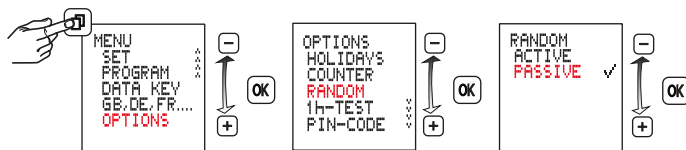
Displays the total relay ON time, (0 to 65535 h) and the date of the last reset.



9

Function to simulate presence.

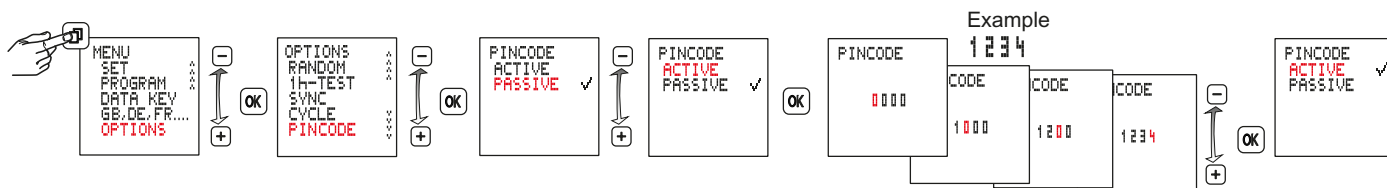
Function active: the programmed switching cycles are shifted at random within the range of  $\pm 15$  minutes.



10

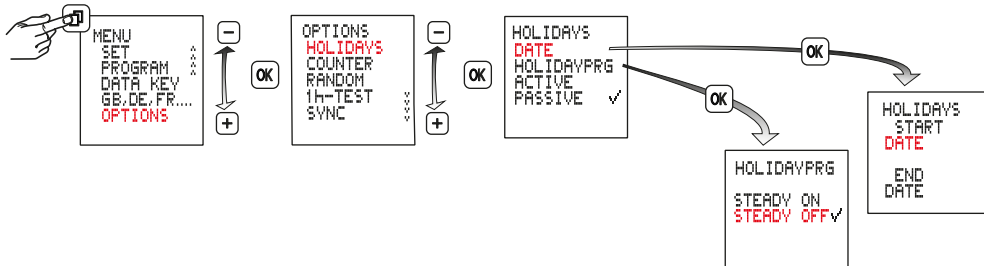
PIN CODE active: The menus of the time switch will not be accessible unless the PIN CODE has been entered. When the pin code is active, access to the button and key functions is disabled 1 minute after the last button press.

PIN free access can be re-enabled by selecting **PASSIVE** or by resetting the device.



11

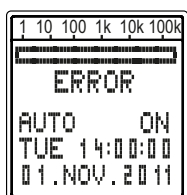
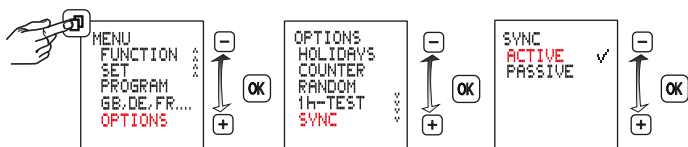
After activation the holiday program is executed between 0:00h on the start date and 24:00h on the end date (Constant ON/OFF). After the holiday program has run once, it must be reactivated.



12

Only available in EXPERT mode.

The default setting is PASSIVE. In order to improve the long-term accuracy, it is advisable to activate synchronisation if the time switch is supplied from a on 50/60 Hz grid with frequency adjustment.



No sensor connected, cable break or short circuit

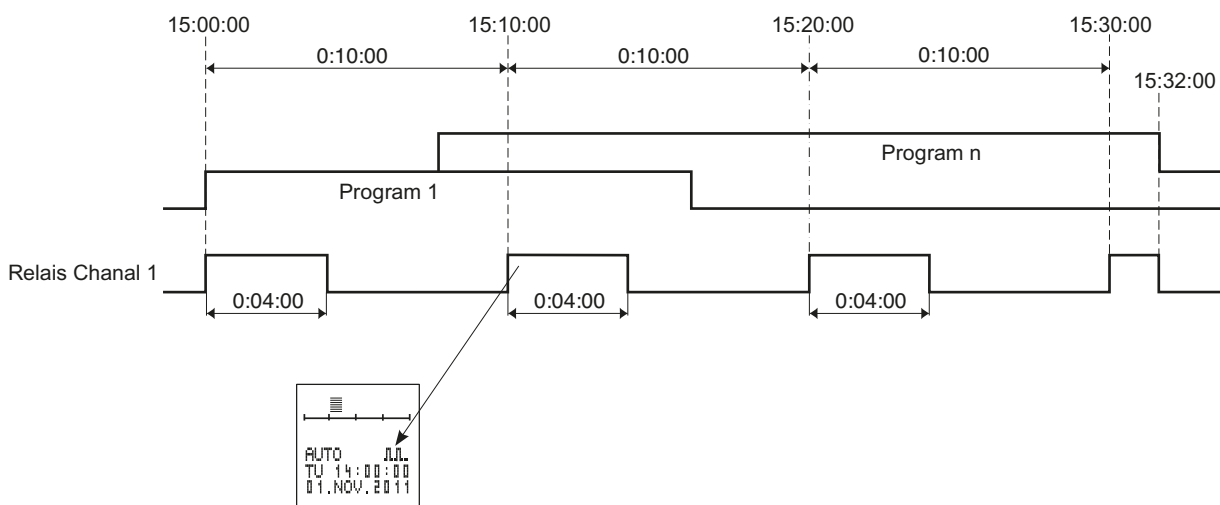
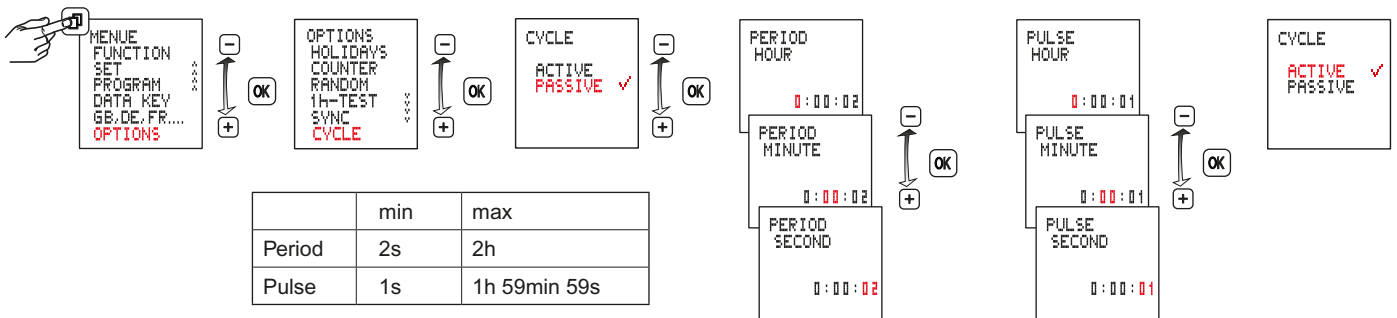


### 13 Cycle function

Only available in EXPERT mode

For cyclical switch commands the switching on time is set by logical "OR" of programs of all types. A fixed cycle of ON and OFF time then operates within those limits. The cycle always starts with the ON time.

The cycle duration and the ON time within the cycle are the same length for all switching times. The cycle duration and the ON time can be set independently in one-second increments. If the switching time is shorter than the cycle duration, the cycle will be shortened accordingly. The ON time will remain unchanged. If the switching time is actually shorter than the ON time, the ON time will be shortened accordingly.



**Warning:** Elektrical 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

