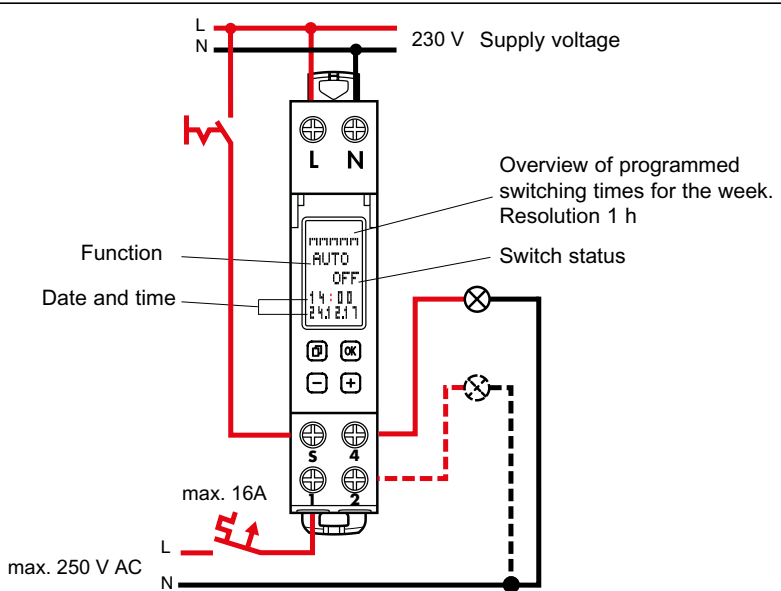


⚠ Safety notes

This product should be installed in line with installation rules, preferably by a qualified electrician. Incorrect installation and use can lead to risk of electric shock or fire. Before carrying out the installation read the instructions and take account of the product's specific mounting location. Do not open up, dismantle, alter or modify the device except where specifically required to do so by the instructions. All Legrand products must be opened and repaired exclusively by personnel trained and approved by Legrand. Any unauthorised opening or repair completely cancels all liabilities and the rights to replacement and guarantees. Use only Legrand brand accessories.
The device contains a LiMnO₂ 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
Operation in a normal environment
Montage: in distribution panel, Degree of contamination: 2
Switch output, potential-free
Rated impulse voltage: 4 kV

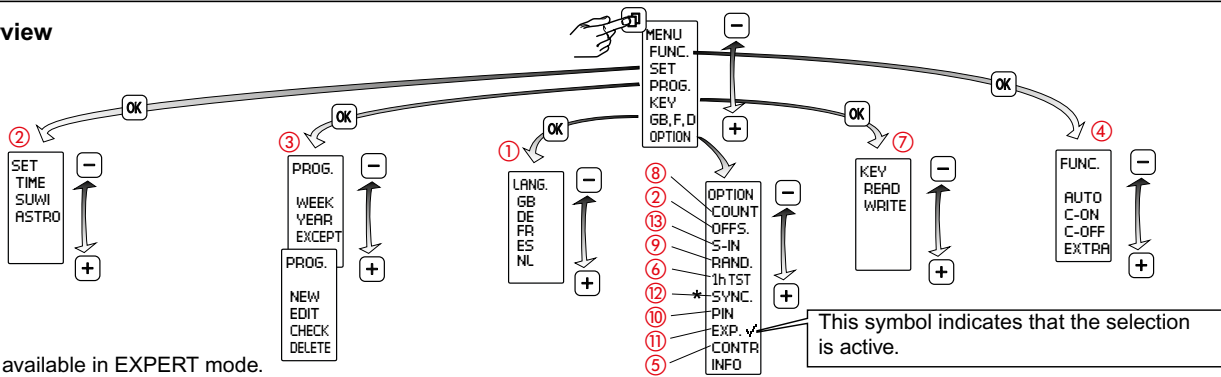
General information

• **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.

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

4000 W	2000 VA	600 W 70µF	2000 W
1800 W	2000 W	2000 W	1000 W

Overview

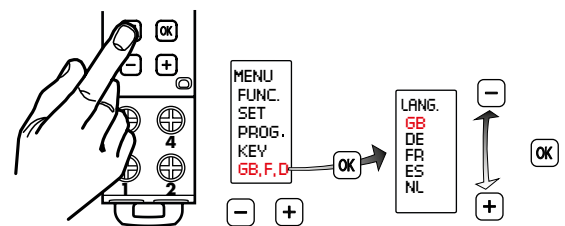


* Only available in EXPERT mode.

Technical data

Supply voltage:	230 V 50/60 Hz
Effective power consumption:	0,25 W
Contact rating:	1 changeover contact 16 A 250 V-μ cos φ = 1
Parallel compensation:	600 W max. 70 µF
Accuracy:	~ 0,1 s / day
Terminal capacity:	single strand 1,5...4 mm ² multi strand 1,5...2,5 mm ² max. 1,4 Nm
Programmes :	3 program types x 28 programs
Control signal:	230V AC
Control impuls:	100...200ms
Control line length:	max. 50m
Delay time:	0 min ... 23h 59min
Battery reserve:	5 years
Storage ambient:	-20 °C to +60 °C
Working ambient:	-20 °C to +55 °C
IP:	IP 20

1 Set language

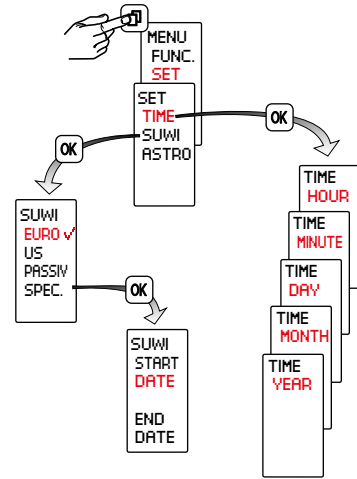


2 Set time/date, summertime

Summertime: ± 1 hour

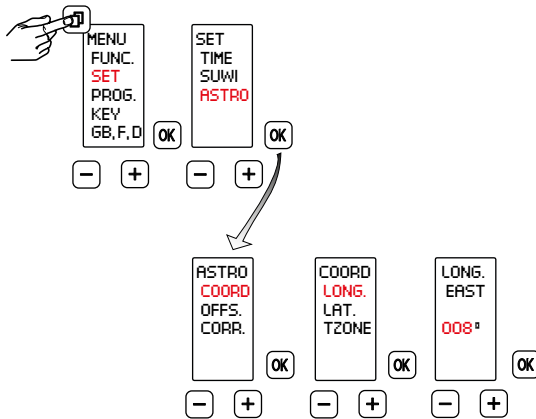
Europe: Factory set

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



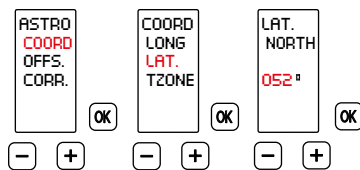
2 Setting LONGITUDE and LATITUDE

You can adjust the coordinates with LONGITUDE and LATITUDE. Factory setting: 8°E 52°N



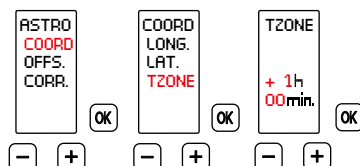
The MINUS key is used to adjust the westward longitude value in the range from 000°**EAST/WEST** to 180°**WEST**.

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**.

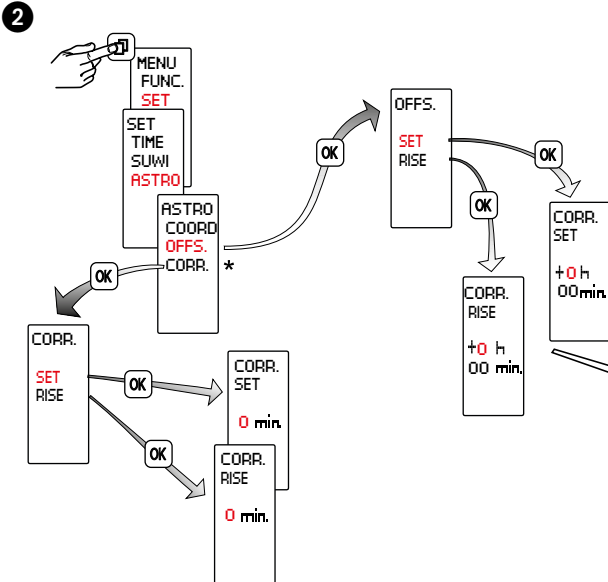
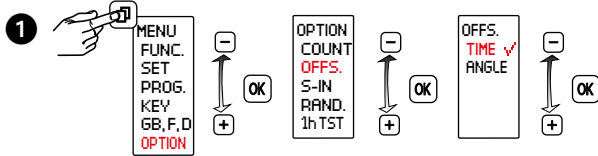
The MINUS key is used to adjust the southward latitude value in the range from 00°**NORTH/SOUTH** to 90°**SOUTH**.



Use the enclosed **time-zone map** to set the correct time zone.

From this map, determine the difference between local time and UTC (**U**niversal **T**ime **C**oordinated) and set this value.

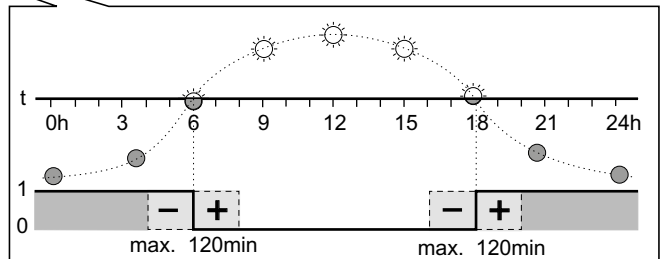
2 Offset



* This function is available in Expert mode.

Setting the correction value (1...30 min.) extends the daily ON period in the middle of the winter season by up to 60 minutes (OFF up to 30 min. later in the morning, ON up to 30 min. earlier in the evening).

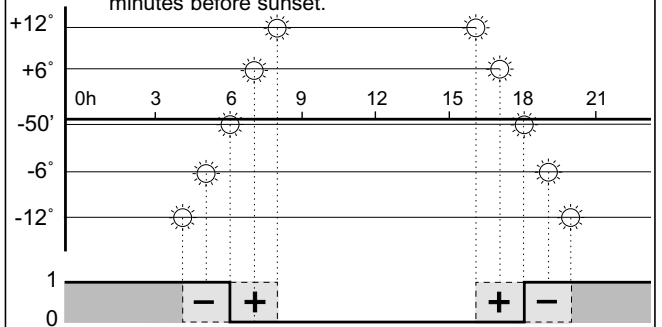
In the middle of the summer season, the correction setting reduces the daily ON period by up to 60 minutes (OFF up to 30 min. earlier in the morning, ON up to 30 min. later in the evening).



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

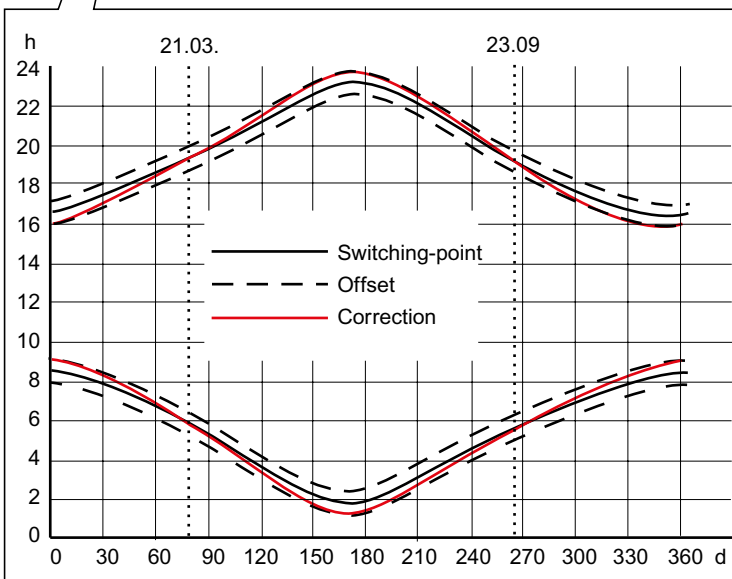
By setting an offset, you can shift the switching times by up to ± 120 minutes with respect to the calculated sunrise and sunset times.

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).



3A PROGRAM / WEEK

This menu item is provided for the simple input of programs which are to be repeated weekly (such as switching of lights and boilers). A weekly program consists of an ON time, an OFF time and the associated ON and OFF days.

• MON TO SUN: the days of the week are already assigned and you only need to set the ON and OFF times.

This is used where the same program is to be executed on every day of the week.

• INDIVIDUAL: you can assign the ON and OFF times to any desired days. This is used where the same program is to be executed only on certain days of the week or different programs are to be executed on the various days.

OR function

The programs defined for each channel are ORed together. In other words, the output will be active if this is defined in any of the programs.

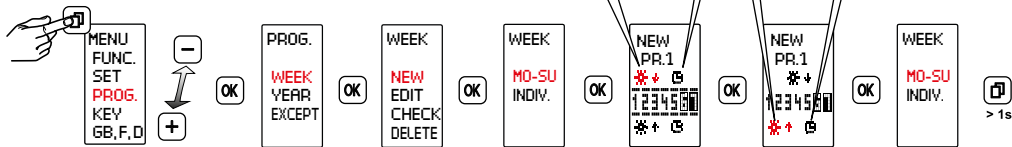


Sample WEEK program

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



3B PROGRAM / YEAR

This menu item permits the input of (additional) annual programs which are to be executed only during a specified period. These programs and the weekly programs of the same channel are ORed together as described above.

The period during which a program is to be executed is defined by entering a start date and an end date.

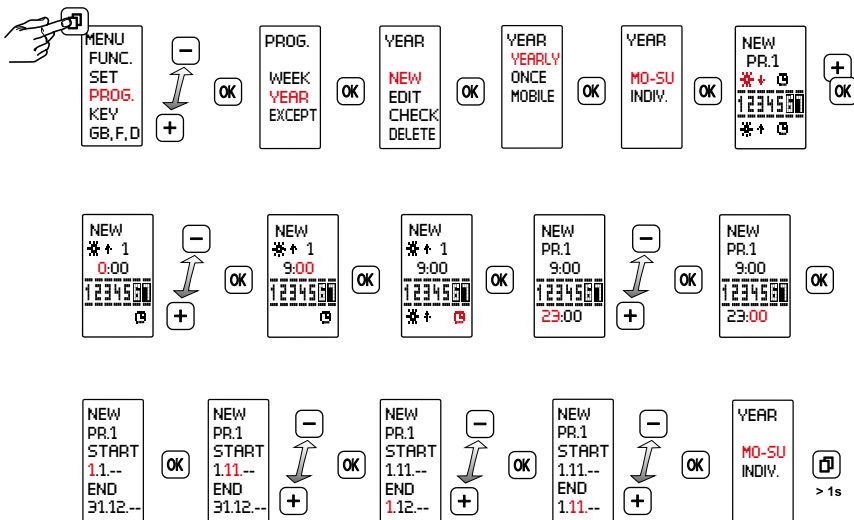
• The option YEARLY should be selected if the additional program is to be executed during the same period of each year (e.g. Christmas, national holidays, birthdays, etc.).

• The option ONCE should be selected if the additional program is to be executed only during a single period (e.g. vacation period), but the start and end dates of this period are different in each year.

• The option MOBILE should be selected if additional switching times are to be performed on movable public holidays/special days (e.g. Easter, Whitsun, etc.). Entry is always for the current year. In the years that follow, the switch always takes place on the selected movable public holidays/special days. Default is Easter Sunday of the current year. → 3D

Sample YEAR program

Activate each year on at 09:00 hours on 01.11. and deactivate at 23:00 hours.



3C

PROGRAM / EXCEPTION

The weekly and annual programs defined are not executed as long as an extra program is active.

However, other exception programs will be executed while an exception program is active.

The various exception programs are ORed together as described above. (see OR function 3a)

- The option YEARLY should be selected if the exception program is to be activated for the same period in each year (e.g. Christmas, national holidays, birthdays, etc.).
- The option ONCE should be selected if the exception program is to be activated only during a single period (e.g. vacation period), but the start and end dates of this period are different in each year.

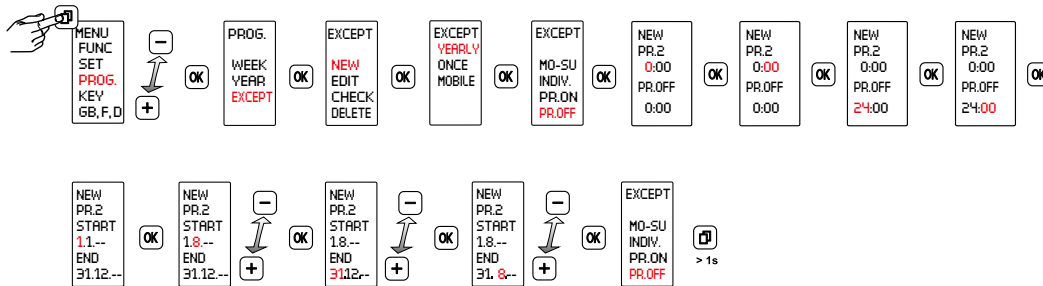
The option MOBILE should be selected if additional switching times are to be performed on movable public holidays/special days.

(e.g. Easter, Whitsun, etc.). Entry is always for the current year. In the years that follow, the switch always takes place on the selected movable public holidays/special days. Default is Easter Sunday of the current year. → **3D**

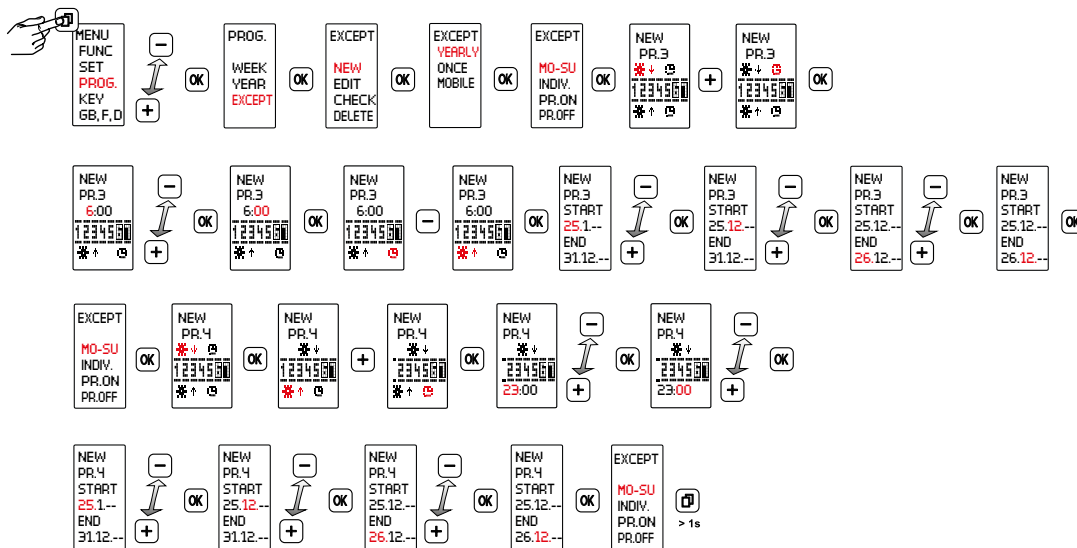
- Option MON TO SUN: the exception program is active from 00:00 hours on the start date to 24:00 hours on the end date. During this period, the time switch switches only as defined in the exception program.
- Option INDIVIDUAL: the exception program is active from 00:00 hours on the start date to 24:00 hours on the end date. During this period, the switching is only as only as defined in the exception program.
- Option PROG ON: the exception program is active from the ON time on the start date to OFF time on the end date. During this period, the output is permanently on.
- Option PROG OFF: the exception program is active from the ON time on the start date to OFF time on the end date. During this period, the output is permanently off.

Sample EXCEPTION programs

- ① The output is to be switched off each year for the entire period 01.08. to 31.08.



- ② Each year from 25.12. to 26.12., the output is to be switched on at 6:00 hours, switched off at sunrise, switched on at sunset and switched off at 23:00 hours. For this, two programs are needed:
 Program 1: ON at 6:00 and OFF at sunrise
 Program 2: ON at sunset and OFF at 23:00



3D

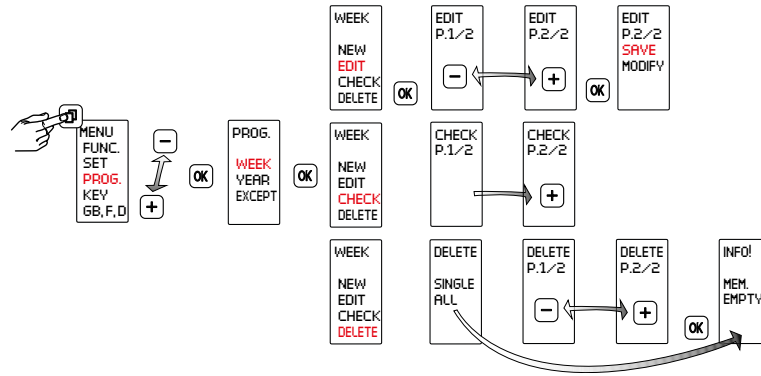
Movable public holidays/special days

The clock calculates movable public holidays which are dependent on the liturgical* Easter date according to the rule of Gauß, and therefore takes into account the annual shift of the Easter date. The movable public holidays align with the shift; they are always realised with a certain number of differential days to Easter.

* Note: In some years, there is a difference between the liturgical and orthodox Easter date.

Name of public holiday	Time to Easter Sunday
Maundy Thursday	- 3 days
Good Friday	- 2 days
Easter Sunday	0
Easter Monday	+1 day
Ascension Day	+ 39 days
Whit Sunday	+ 49 days
Whit Monday	+ 50 days
Corpus Christi	+ 60 days

3E Edit/Check/Delete



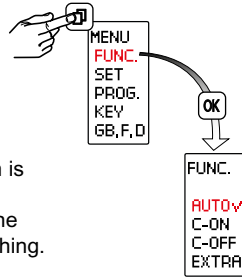
4 Modes

- Auto - Automatic operation
- Constant ON
- Constant OFF

Note: The output is switched on if a control input signal is present.

- 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

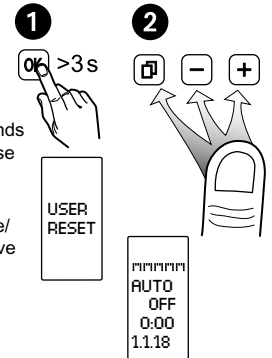
Warning!

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

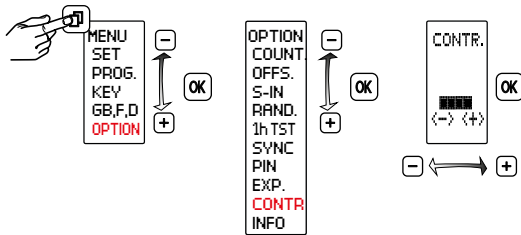
Hold down **OK** for more than 3 seconds and at the same time press and release



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

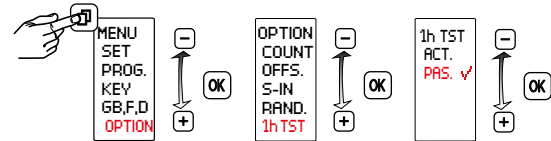


5 Contrast adjustment



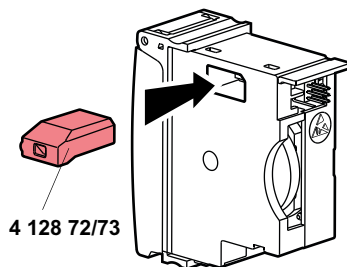
6 1 h-Test

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



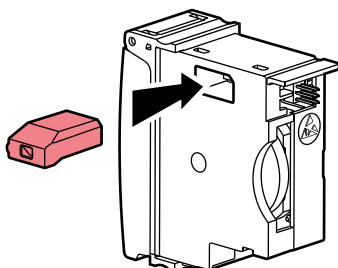
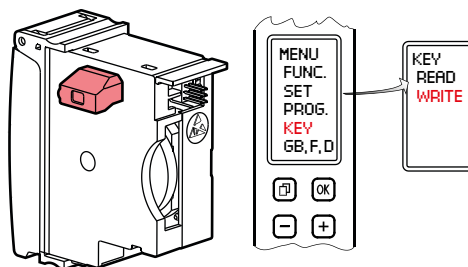
After one hour, the time switch returns automatically to the programmed mode.

7 Data key



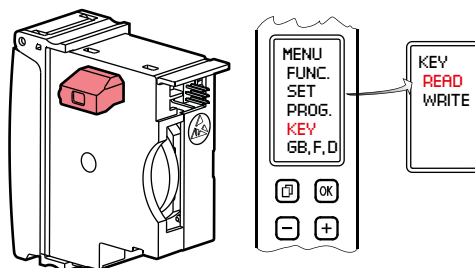
Load the programs of the time switch on to a data key (WRITE)

Warning! all programs already existing on the data key will be overwritten.



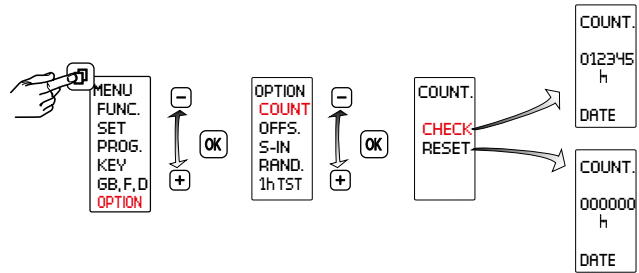
Load the programs from the data key to the time switch (READ)

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



8 Hour counter

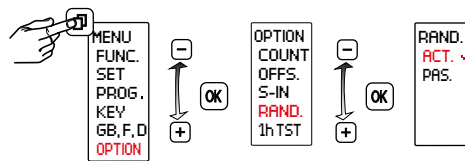
Displays the total relay ON time, from 0 to 65535 h, and the date of the last reset.



9 Random function

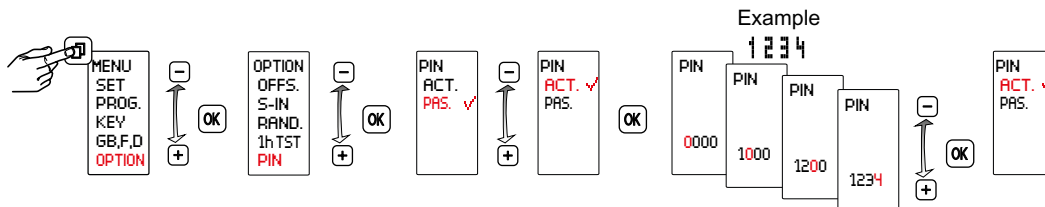
Function to simulate presence.

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



10 Pincode

PIN CODE active: When the pin code is active, access to the button and key functions is disabled 5 minutes after the last button press. Access can be re-enabled by entering the pin, selecting PASSIVE or by resetting the device.

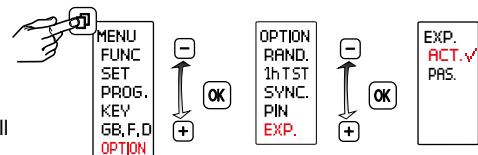


11 Expert mode

Some additional functions are available in Expert mode:

- Power grid synchronisation to improve the accuracy
- Astro correction

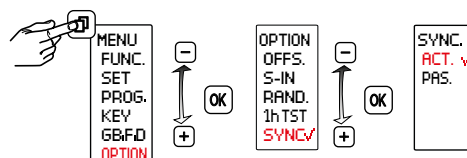
Note: Upon switching from ACTIVE to PASSIVE the additional menu items are hidden again and all the Expert mode settings are cancelled. After re-activating, Expert mode will operate again with the basic settings.



12 Activating and deactivating grid synchronisation

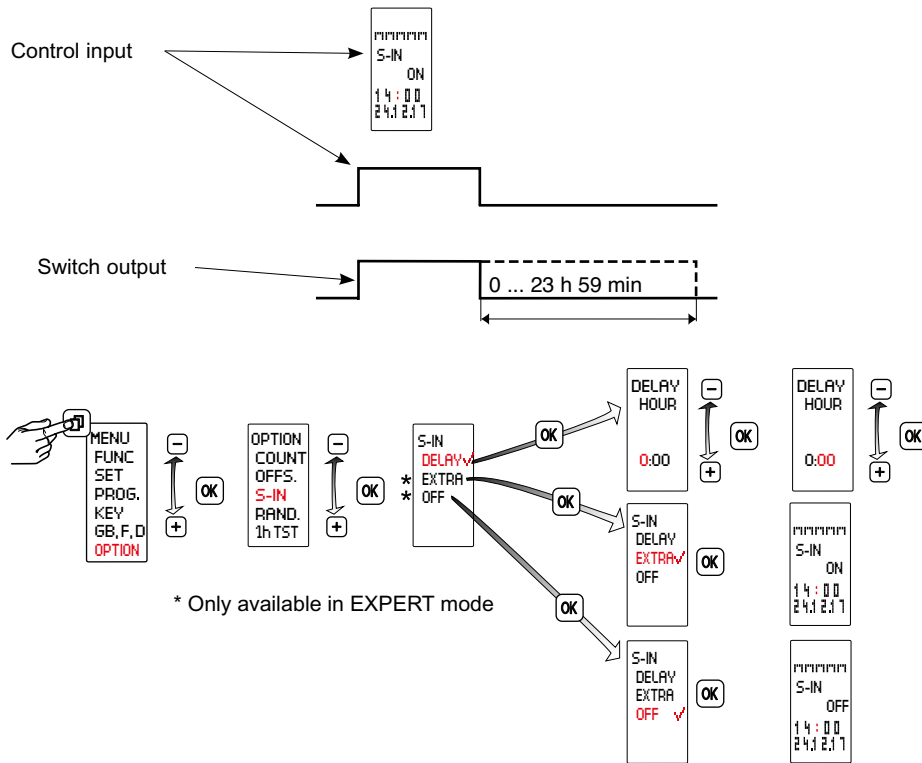
Only available in EXPERT mode.

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.



13 Control input with delay time

A control signal is superimposed on all program commands (OR circuit). While this control signal is applied, the output is switched ON. When the control signal is switched off, the output is switched OFF after a delay time, unless an ON command is applied by a program.



DELAY

The output switches on when the control input is activated and remains switched on for the duration of the set delay time after the control input has been deactivated. Delay time setting range 0 h 00 min ... 23 h 59 min. The control input can be subsequently triggered within the delay time.

EXTRA

The control input signal inverts the switching state specified by the program.
At the next valid switching command the time switch resumes switching On and Off.

OFF

The control input signal sets the switching state to OFF if the program specifies ON.

- Zeitzonenkarte
- Carte des fuseaux horaires
- Time-of-day map
- Tidszone kaart
- Carta dei fusi allegata
- Carta de husos horarios
- Time-of-day oversigt
- Aikavyöhykekarttaa
- Tidssonkortet
- Laika zonu karte
- Carta de fusos horários
- ηώρα υαίαΩμυ αρώηξητυμ
- Ajavõndite kaart
- Laika zonu karte
- Laiko juusty žemėlapis
- Mapa stref czasowych
- Mapas ss časovými pásmami
- Karta časovnih pasov
- Mapa časových pásem
- Időzóna térkép
- Zaman dilimleri kartı
- 时区图
- خريطة مناطق التوقيت

