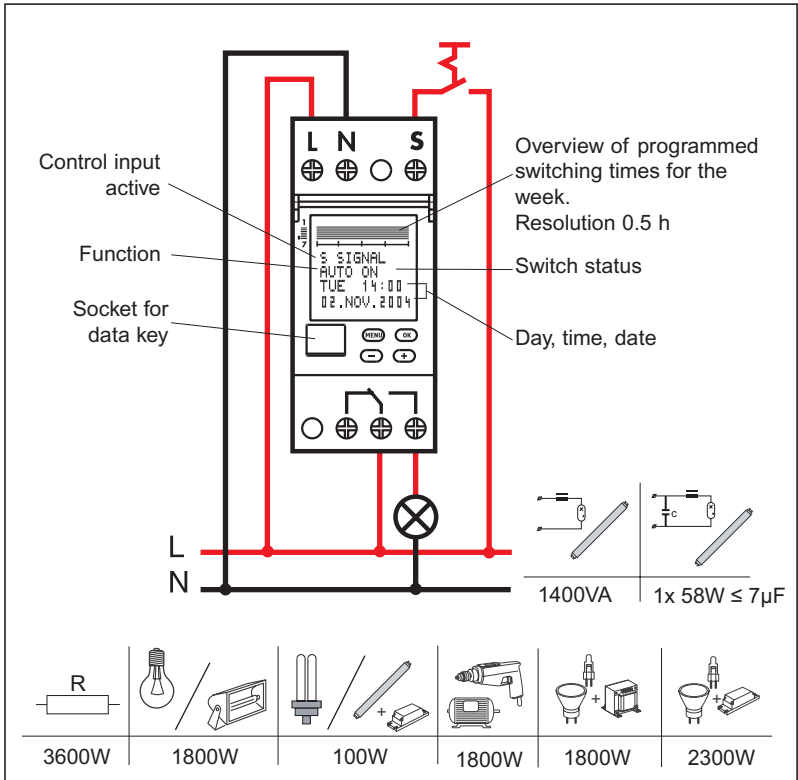


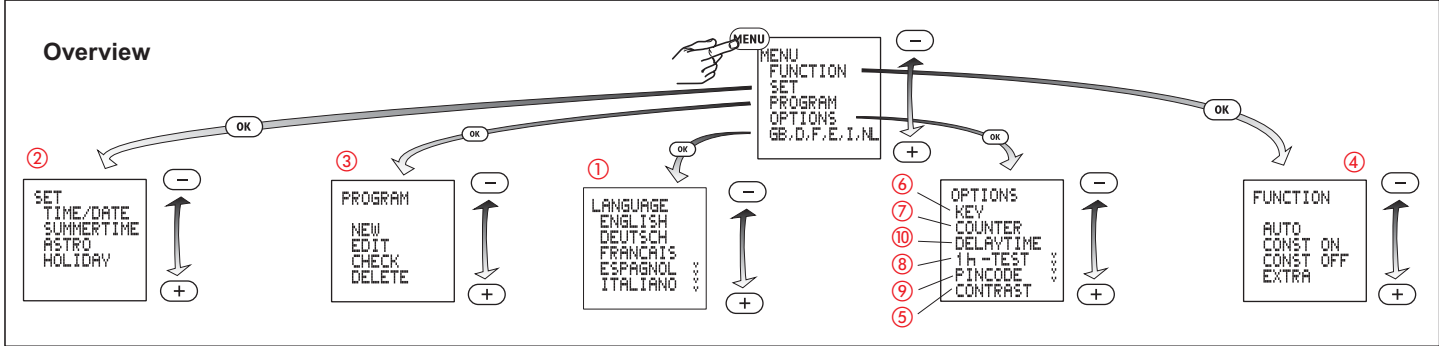


Safety notes!
This product may be installed only by a qualified electrician. Non-compliance may result in a fire hazard or electric shocks. Before installation, read the operating instructions and observe the product-specific requirements for the installation location. Use only original spare parts for repair and maintenance. Unauthorised opening and repair by other persons will invalidate all claims for liability, replacement or warranty services.

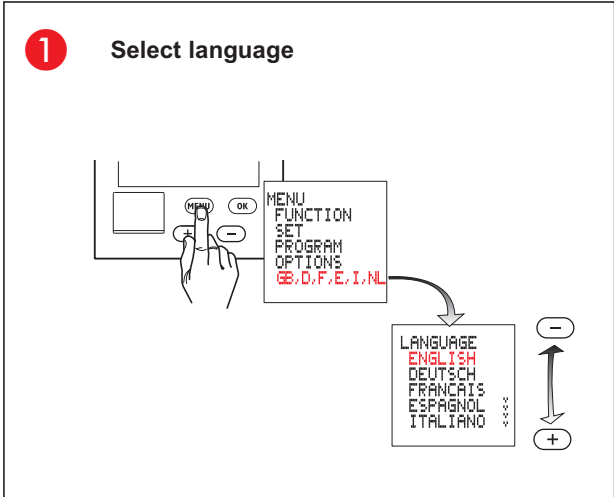


General information
• **Starting:** After connection of the supply voltage, the clock starts to run with last selected function. The relay position is determined by the currently active program.
• **Backup battery**
- background lighting switched off.
- data key READ/WRITE only via the menu.

MENU Menu selection, back in menu, Actuation >1s = operating display
OK Confirm a selection or accept a parameter setting
- + Selection of menu item or set a parameter.



Technical data	
7LF4 4310	
Supply voltage:	230V 50/60Hz
Power consumption:	ca. 1 W
Relay output:	1 changeover contact 16A 250V~μ cos φ = 1
Parallel compensation:	60VA max. 7μF
Accuracy:	± 0,2 s / day under typical installation conditions
Wire cross-sections:	1,5...4 mm²
Programs:	28
Geographical coordinates:	Resolution 1°
Control-cable length:	max. 20m
Control signal:	230V AC/ca. 2mA 120V AC/ca. 2mA 24V AC/ca. 2mA
Control-pulse duration:	> 100ms
Delaytime:	0 min ... 23h 59min
Battery reserve:	6 years
Storage temperature:	-20°C to +60°C
Operating temperature:	-20°C to +55°C



2 Set

A Time/date

B Summertime (Daylight saving time)

C Astro

D Offset

E Holiday period

The timer 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.

Summer time ±1h
Europe: factory setting.
Special: The dates for switching to and from summer time can be set as desired by entering a start date and end date. In the following years, switching will be carried out on the corresponding day of the week (e.g. Sunday).

After activation, the holiday program (permanently ON or OFF) will be executed between 0:00h on the start date and 24:00h on the end date. Once it has been executed, the holiday program must be activated again before it can be used.

Select country. Select the city closest to the planned location for use.

You can adjust the coordinates with LONGITUDE LATITUDE

Use the enclosed **time-zone map** to set the correct time zone. From this map, determine the difference between your location and UTC (Universal Time Coordinated) and set this value.

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.

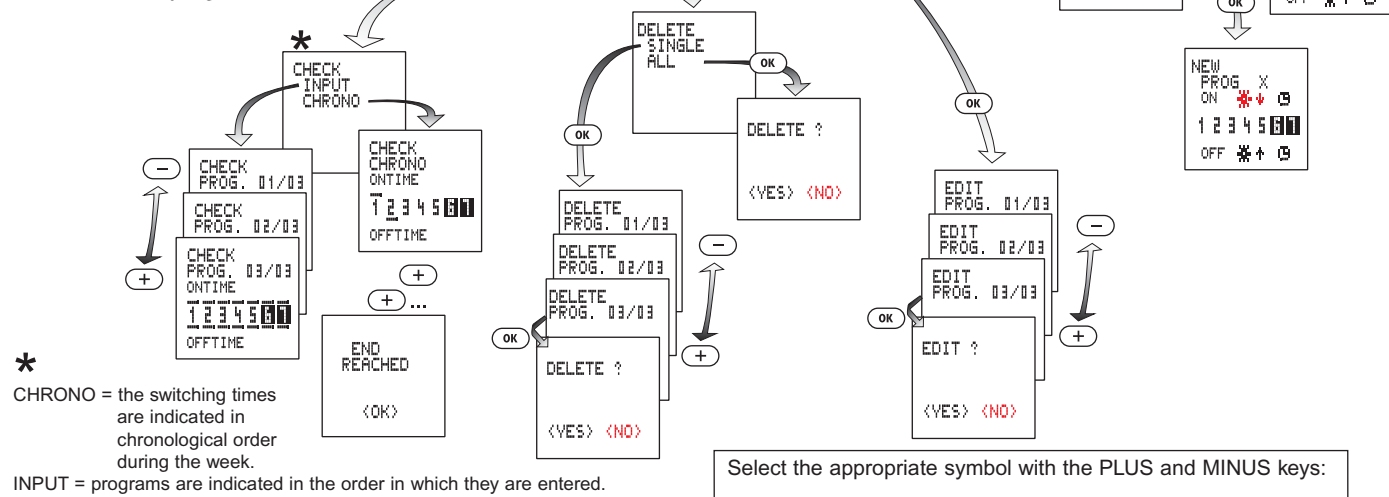
The MINUS key is used to adjust the southward latitude value in the range from 00°NORTH / SOUTH to 90°SOUTH.

3 Programming

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

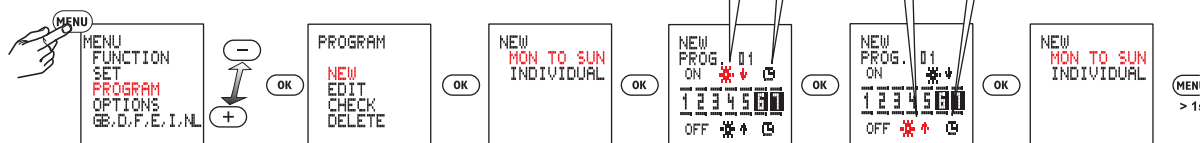
If you select "MON TO SUN" (Monday to Sunday), the days are already assigned and you only need to set the ON and OFF times. If you select "INDIVIDUAL", you can assign the ON and OFF times to any desired days.

The programs are linked to one another by logical OR.



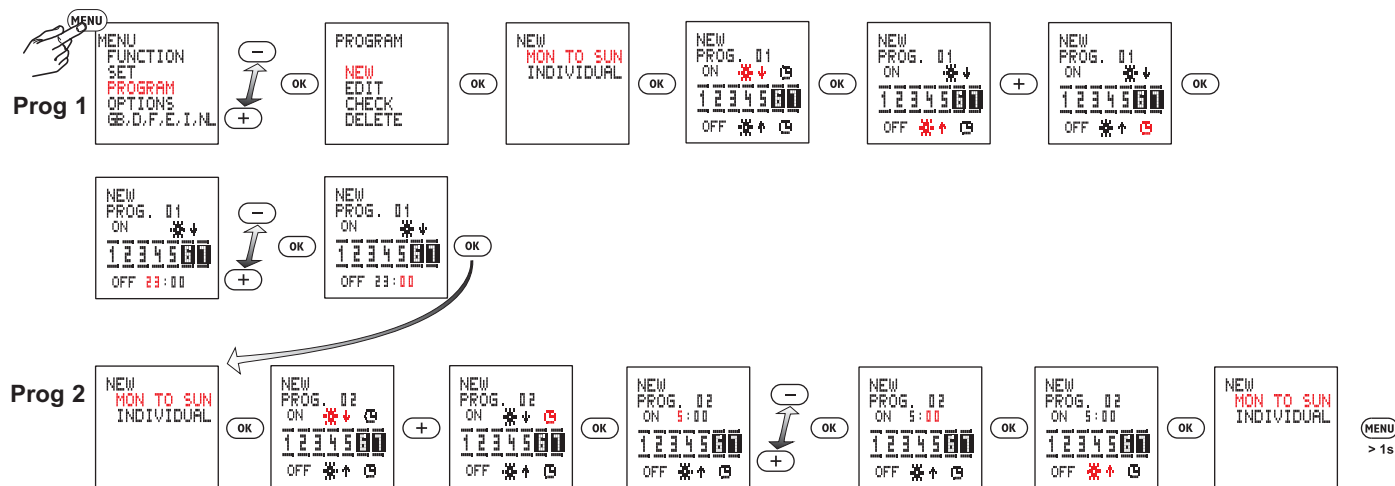
Programming examples

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



- 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.

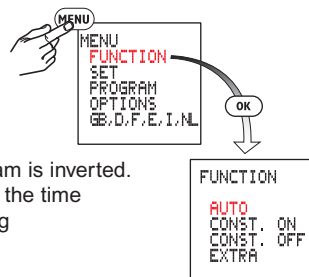
Program 1: ON at sunset and OFF at 23:00h
Program 2: ON at 5:00h and OFF at sunrise.



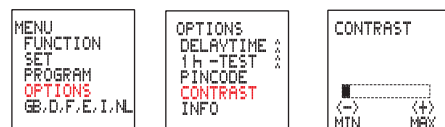
4 Operating modes

- Auto – automatic mode
- Permanently ON
- Permanently OFF
- Extra

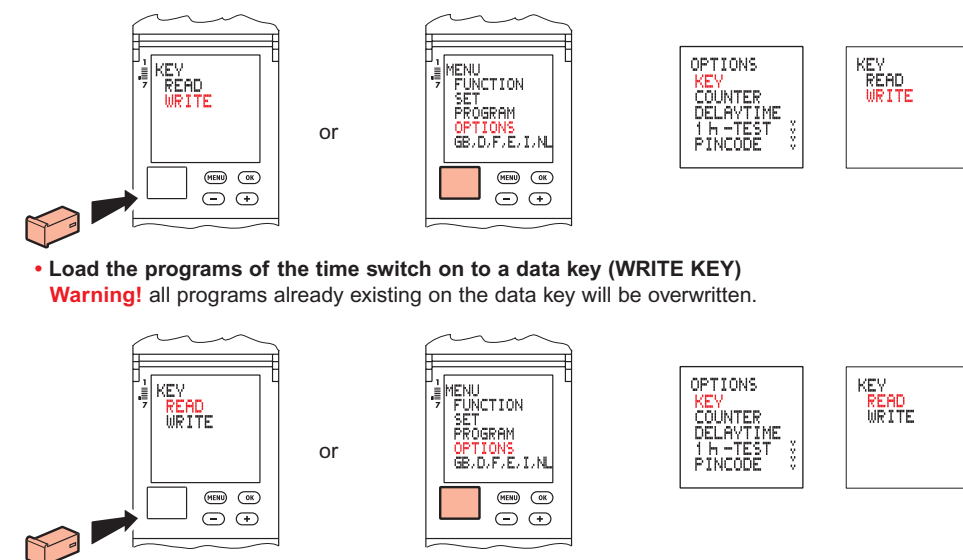
The switching state defined by the program is inverted. At the next effective switching command, the time switch again takes control of the switching operations.



5 Contrast adjustment



6 Data key

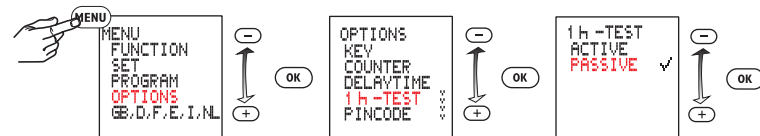


- Load the programs of the time switch on to a data key (WRITE KEY)
Warning! all programs already existing on the data key will be overwritten.

- Load the programs from the data key to the time switch (READ KEY)
Warning! all programs already programmed in the time switch will be overwritten.

8 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.

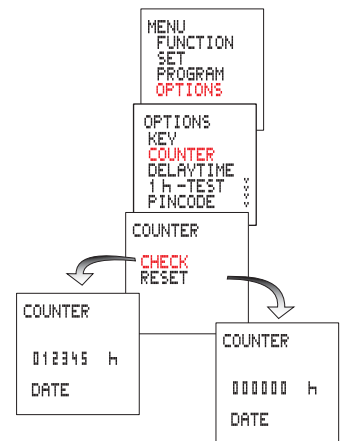
Reset

Note!

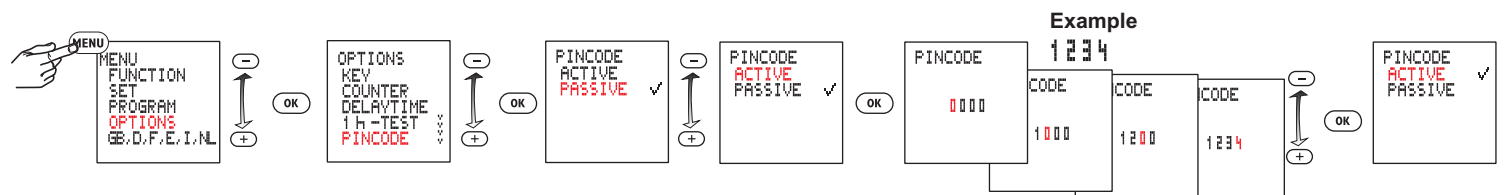
A reset clears the entire memory, which means that all previously set data will be lost. Press and hold all four keys together for about 2 seconds, then release them. After a reset, the language, time and date, summertime, coordinates, time zone, switching times and pin code must be set again.

7 Operating-hours counter

This displays the total duration of the ON times, from 0 to 65535 hours, and the date on which this counter was last reset.



9 Pincode (access protection)

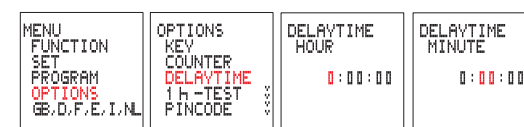


A reset cancels any existing access protection.

10 Control input with delaytime

A control signal overrides all program settings (OR function). The output is switched on as long as the control signal is present. When the control signal is switched off, the output is switched off after the programmed delaytime has elapsed, unless it is switched on by any program. The control signal must be present at the control input for >100ms to initiate a switching command.

Setting the delaytime



0min ... 23h 59min

