

1. Safety instructions

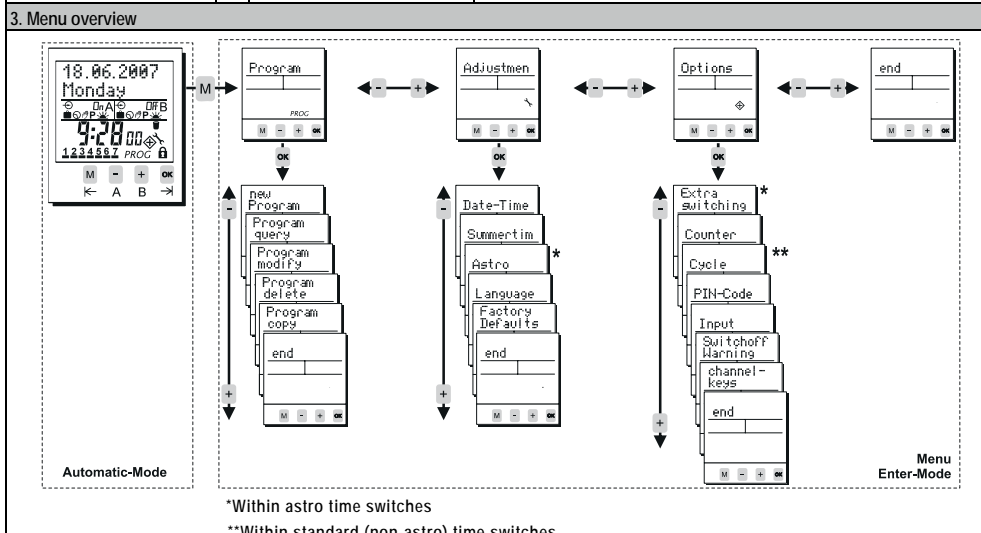
- ⚠ The installation and assembly of electrical equipment must be only carried out only by a skilled Person! Otherwise fire danger or danger of an electric shock exists!
- ⚠ Connect the supply voltage/frequency as stated on the product label!
- ⚠ Warranty void if housing opened by unauthorised person!
- ⚠ The electronic circuit is protected against a wide range of external influences. Incorrect operating may occur if external influences exceed certain limits!

2. Initial operation

- The time switch is delivered in sleep-mode, the display is switched off.
- Press **OK**-button for 1 second.
- The current date and time is already programmed and European daylight savings time is activated.
- Select the desired language by pressing **[L]**-buttons and confirm it by pressing **OK**. (Remark: By pressing **[M]** you move one step backwards from the current position)
- If required, date, time and daylight savings time mode can be adjusted also by pressing **[L]**-buttons and a subsequent confirmation with **OK**.

Further adjustments when operating an astro time switch:

- When using the astro function it is obligatory to enter the geographical position of the place of the installation of the device. Choose with **[L]**-buttons between „location“ (pre-defined cities) and „position“ (longitude and latitude). Confirm your choice again with **OK**. (The easiest way is choosing a pre-defined city within the „locations“-menu.)
- Enter the nearest city or the geographical coordinates with **[L]**-buttons and confirm with **OK**



4. Symbol legend

	Power plug symbol (flashing): While the power supply is disconnected, the display shows a power plug symbol (flashing). The time switch is then operated in the reserve mode. Press OK-button for 1 sec. to "wake up" the time switch.
On / Off	Channel is switched ON / Channel is switched OFF
	For the current date the "holiday program" / "permanent by date" is activated
	Standard programming step
	Current state is based on a manual over-ride. The state will be cancelled with the next programming step.
1234567	Days of the week Monday, Tuesday, ... Sunday; The underscores indicate if the program is active for the days above.
	Element within sub-menu "program delete"
	*Astro function: Current state is based on a sunrise or sunset taking into account an optionally adjusted Offset.
	**Current state is based on a switching time with pulse function
	**Current state is based on a switching time with cycle function
	***Is displayed if the corresponding channel is activated by the external input.
	The time switch is locked; to unlock the device the PIN has to be entered.

Menu Program

New program	See point 10 (New program)
Program query	To query the programming steps and remaining memory locations
Program modify	Within Program modify each single switching time can be modified.
Program delete	Deletion of switching time(s). The program for all channels, single channels and single programming steps within on channel can be deleted.
Program copy	Copy from one channel to another.

Menu Adjustment

Date-Time	Adjustment of date and time
Summertime	Adjustment of the daylight saving time mode
Astro	Adjust your geographical position with pre-defined choice of regions/countries and cities or with longitude, latitude and time zone.
Language	Choice of languages
Factory Defaults	Reset to the state of delivery. Date, time and switching program will be lost!

Menu Options

Extra switching time*	See point 10
Counter	Displays the hour counter and pulse counter for each channel and the time switch itself.
Cycle**	See point 11
PIN-Code	The time switch can be locked with a 4-digit PIN-Code. The code can be adjusted, activated and deactivated. If you have forgotten the Code please call customer service.
Input	See point 8
Switchoff Warning	The function is activated and the switch off is signalled in advance (For illumination purposes the warning is signalled by the flashing of the light according DIN 18015-2 = warning to avoid sudden darkness).
Channel-keys	See point 9

5. Reset-Function
Press all front keys for 2 seconds. The time switch is reset. The values for date and time will be deleted and have to be re-entered. The switching program has not been deleted!

6. Key function

Automatic-Mode	Menu / Enter-Mode
[M] To access the Enter-mode (program, adjustments, options) from the automatic-mode	[←] To revert to the beginning of the current (sub-) menu
[A/B] To switch the channel ON or OFF until the next programming step occurs.	[+/-] To adjust the flashing digit. To scroll through a choice
[OK] To activate the time switch when operated without power supply.	[→] To confirm the selection or the entered data.

7. Channel ON OFF / Permanent P

Channel ON OFF
By pushing **[A/B]**-buttons (**[+/-]**-buttons) a manual switch of the channels take place. The resulting switching status is marked with the hand-symbol and remains until the next programming step occurs. (temporary over-ride)

Permanent switching status P
By pressing the corresponding channel button **[A/B]** for more than 3 sec. the channel is permanently switched ON or OFF. The status remains until the next manual switching occurs (> 3 sec.). (permanent over-ride)

8. External Input ***

Options -> **Input** -> **[L]**

The external input can be connected to a switched contact such as a push-button or light switch. Therefore you can activate and de-activate functions from a remote location or automatically from a control system

- ⓘ For 35mm-devices: The external input is only featured on the one channel version.
- ⓘ To connect an external switch or push-button: **Phase L 230V**
- ⓘ The resulting operation of the output channel, depending on the status of the external input is defined within menu **Options** and submenu **Channel-keys**

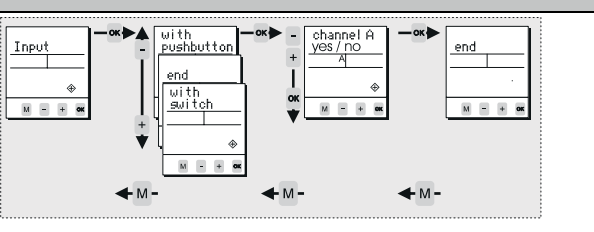
Functional options of the „external input“:

Within menu **Options** and submenu **Input** you have to define if a switch or a push-button-signal will be applied to the external input. Furthermore you can choose the channel(s) which react to the external signal:

- Using the **[+/-]**-buttons select if you are connecting a **pushbutton** or a **switch** and confirm by pressing **OK**
- Select the channel(s) which will be controlled by the external signal with the **[L]** buttons (**channel ... yes**) and confirm by pressing **OK**. Channels which should not be controlled by the external signal remain deactivated, confirm **channel ... no** then press **OK** to confirm

ⓘ Define a response function within menu **Options** and submenu **Channel-keys** (point 17). This function will be performed by the output channel when the external input is activated!

The pre-defined (default) setting is the standard **'Change function'** which changes the switching status from **ON** to **OFF** and vice versa.



9. Channel keys

Options -> **channel-keys** -> **[L]**

Within the **Options** menu you will find submenu **channel-keys**. Here you have the opportunity to assign different response functions to the output channels.

These response functions will only be carried out when using the channel-keys **[A/B]** of the time switch (manual over-ride) or optionally when activating the channel with the external input. Thus, a programmed switching time will be executed as usual, independent of the settings within this channel-key-menu.

The correlation between the channel-keys and the channels is as follows:

- channel A => channel key A (push-button "A" of the device)
- channel B => channel key B (push-button "B" of the device)
- ...

Overview „channel-keys“ functions:

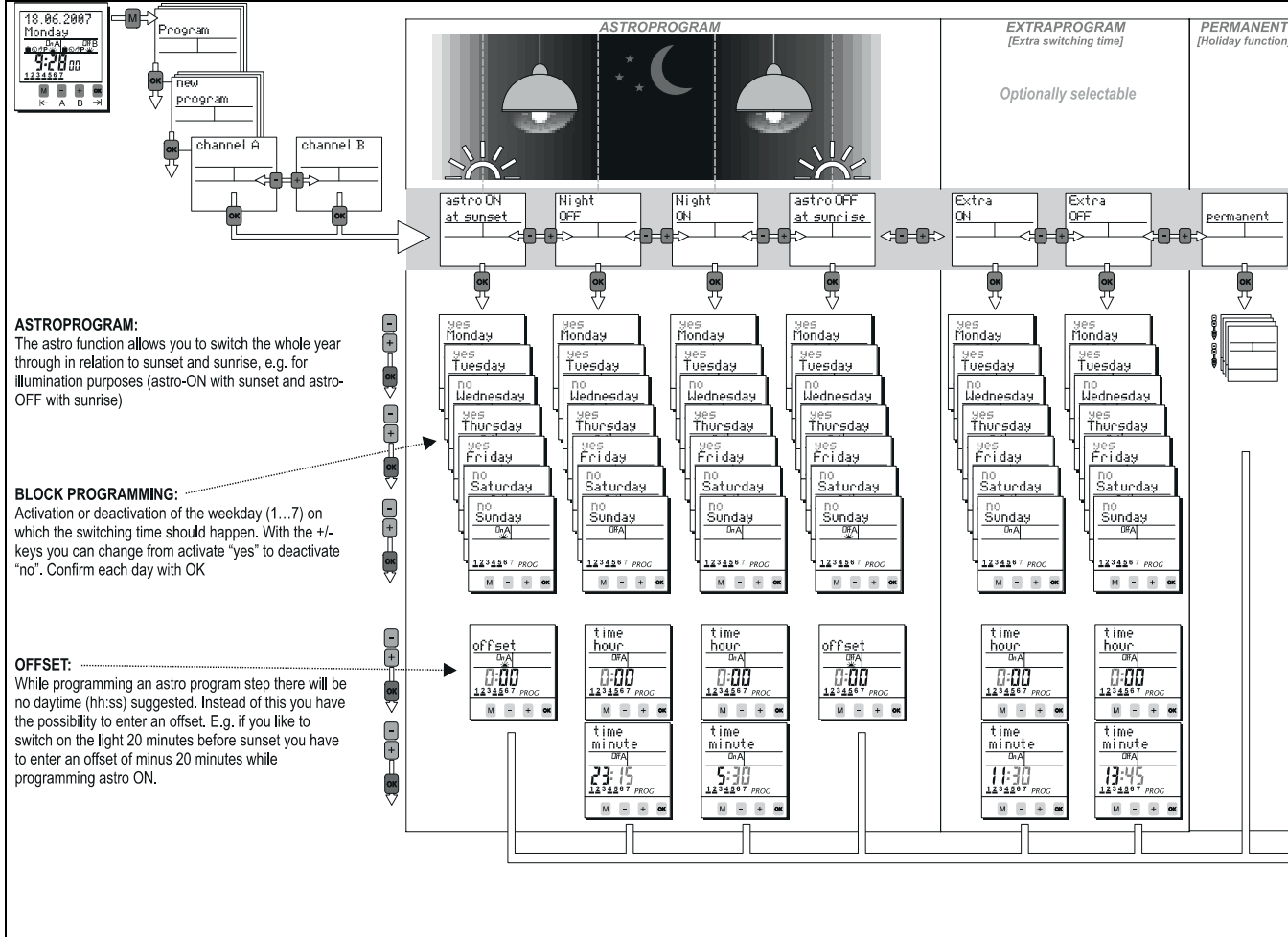
If you have assigned a specific response function to a channel, this switching function will occur if you push the channel-button on the front plate of the time switch (or if the external input for this channel is activated and a signal is applied to the input, as explained under point 16). For each channel one out of the following functions can be defined:

- **Change function** (default setting): By pressing the channel key (or optionally using the external input) the switching status changes from **ON** to **OFF** or **OFF** to **ON**. This corresponds to a standard manual over-ride of the channel.
- **Timer function**: By pressing the channel key (or optionally using the external input) the Timer starts and the corresponding channel switches **ON**. After the expiry of the Timer-time the channel switches **OFF**. If the channel receives another signal before the expiry of time the time switch reacts as follows:
 - After pressing the channel-button = Timer stops and the channel switches **OFF**.
 - Signal on the external input = Timer restarts/ Staircase lighting timer -> Resettable.
- **Cycle 1 - 4**: By pressing the channel key (or optionally using the external input) the cycle function starts. **Attention**: This function is only available if the cycle is activated and defined in advance within menu **Options** and submenu **Cycle**. **Astro time-switches do not have the cycle feature!!!**
- **Perm on**: By pressing the channel key (or optionally using the external input) the channel switches permanently **ON**. This status remains active until the channel key of the device is pressed again.
- **Perm off**: By pressing the channel key (or optionally using the external input) the channel switches permanently **OFF**. This status remains active until the channel key of the device is pressed again.

The Change function, Timer function and Cycle functions will be overridden by the regular switching program or by a manual over-ride!!!

*Within astro time switches
**Within standard (non-astro) time switches
***One-channel version

10. New program / Astro time switches



ASTROPROGRAM:
The astro function allows you to switch the whole year through in relation to sunset and sunrise, e.g. for illumination purposes (astro-ON with sunset and astro-OFF with sunrise)

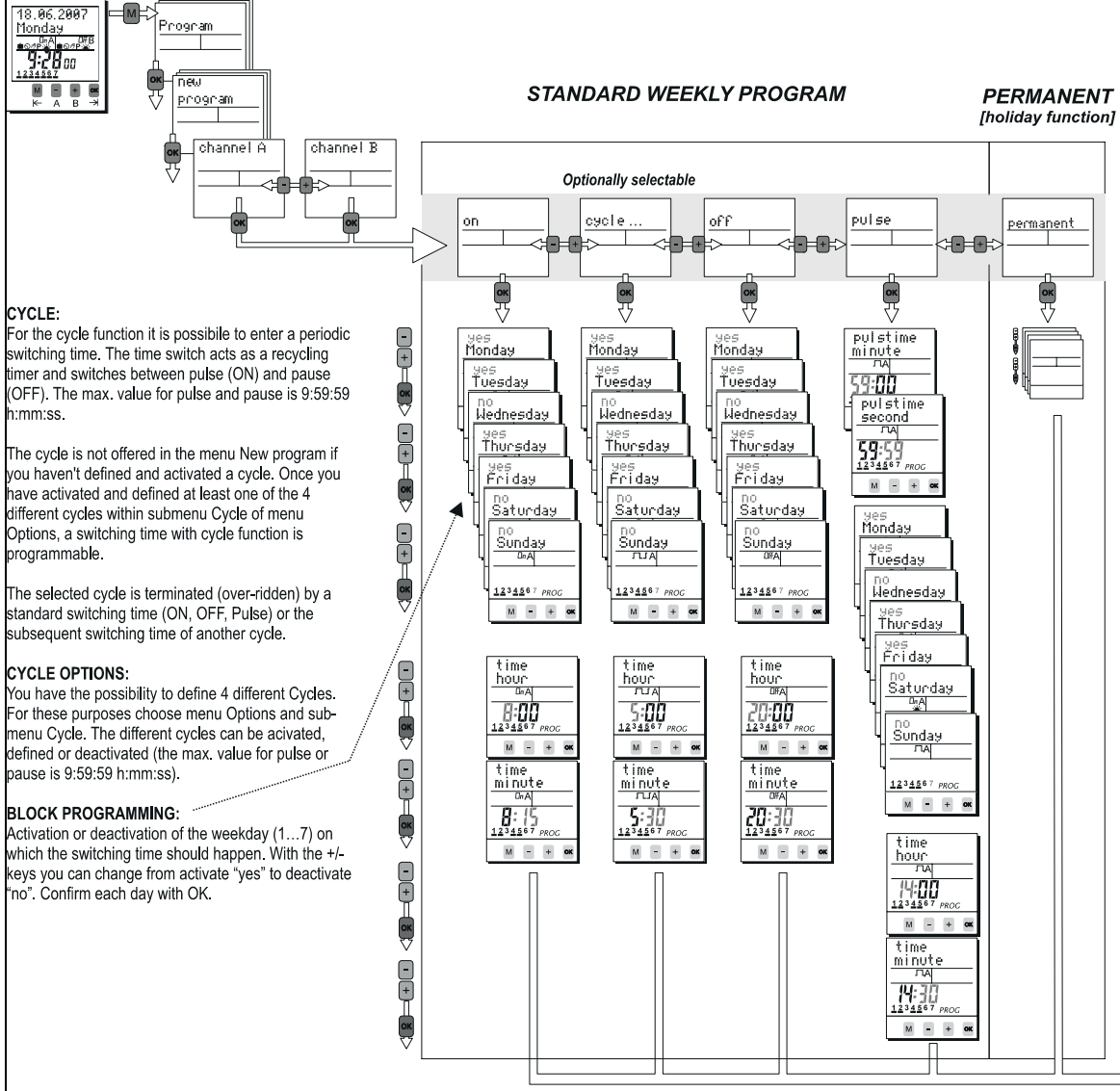
BLOCK PROGRAMMING:
Activation or deactivation of the weekday (1...7) on which the switching time should happen. With the +/- keys you can change from activate "yes" to deactivate "no". Confirm each day with OK

OFFSET:
While programming an astro program step there will be no daytime (hh:ss) suggested. Instead of this you have the possibility to enter an offset. E.g. if you like to switch on the light 20 minutes before sunset you have to enter an offset of minus 20 minutes while programming astro ON.

EXTRA SWITCHING TIME / EXTRAPROGRAM:
You can program further "extra" switching times e.g. if you like to use a channel of the time switch for a non-"Astro lighting-application". You have to activate the "extra switching times" within the menu Options. The "extra switching times" works like a standard weekly program (ON / OFF). After activating the "extra switching time" it will be offered within the programming menu "new program".

PERMANENT:
One permanent by date programming step (holiday function) for each channel is possible. During the desired period (The function is valid for the whole days) the channel can be switched off (permanent off) or on (permanent on). The choice permanent will not be offered anymore within the menu new program when already in use. The switching time can be modified and deleted within Program modify and Program delete respectively.

11. New program // Standard (non-astro) time switches with weekly program



CYCLE:
For the cycle function it is possible to enter a periodic switching time. The time switch acts as a recycling timer and switches between pulse (ON) and pause (OFF). The max. value for pulse and pause is 9:59:59 h:mm:ss.

The cycle is not offered in the menu New program if you haven't defined and activated a cycle. Once you have activated and defined at least one of the 4 different cycles within submenu Cycle of menu Options, a switching time with cycle function is programmable.

The selected cycle is terminated (over-riden) by a standard switching time (ON, OFF, Pulse) or the subsequent switching time of another cycle.

CYCLE OPTIONS:
You have the possibility to define 4 different Cycles. For these purposes choose menu Options and submenu Cycle. The different cycles can be activated, defined or deactivated (the max. value for pulse or pause is 9:59:59 h:mm:ss).

BLOCK PROGRAMMING:
Activation or deactivation of the weekday (1...7) on which the switching time should happen. With the +/- keys you can change from activate "yes" to deactivate "no". Confirm each day with OK.

PULSE:
The pulse function provides you the opportunity of programming a switching time with a defined duration. As soon as the pulse-duration has expired the time switch switches OFF automatically (the duration of the pulse is up to 59:59 mm:ss).

PERMANENT:
One permanent by date programming step (holiday function) for each channel is possible. During the desired period (The function is valid for the whole days) the channel can be switched off (permanent off) or on (permanent on). The choice permanent will not be offered anymore within the menu new program when already in use. The switching time can be modified and deleted within Program modify and Program delete respectively.

Data-key
With a Data-key following activities are possible:

- **Save data:** Writes the data from the time switch into the memory of the Data-key.
- **Program timeswitch:** Writes the data located inside the Key into the memory.
- **Key function:** The time switch will solely apply programming steps from the Data-key. The switching program of the time switch is suppressed.
- **Key readout:** To query the switching program of the Data-key.

