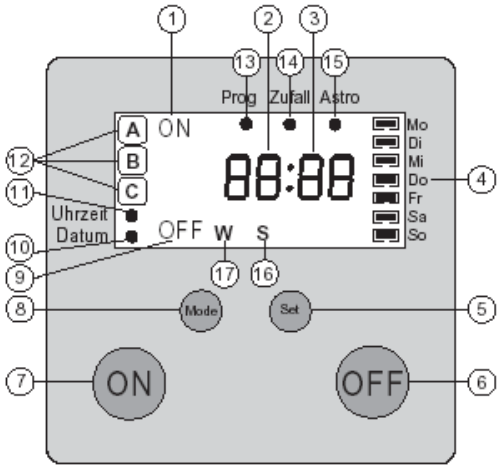
Electronic timer

Order no.: 0385 ..

Attachment



① Anzeige EIN
ON
② Anzeige Stunde
Hour
③ Anzeige Minute
Minute
④ Anzeige Wochentag
Set Day
⑤ Taste Set
Set
⑥ Taste AUS
OFF
⑦ Taste EIN
ON
⑧ Taste Mode
Mode
⑨ Anzeige AUS
OFF
⑩ Anzeige Datum einstellen
Set Date
⑪ Anzeige Uhrzeit einstellen
Set Time
⑫ Anzeige Programmspeicher
Program Memory
⑬ Anzeige Programmieren
Program
⑭ Anzeige Zufall
Random
⑮ Anzeige Astro
Astro
⑯ Anzeige Sommerzeit
Summer Time
⑰ Anzeige Winterzeit
Winter Time

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1. Warning

Caution: The installation and assembly of electrical equipment may only be performed by a skilled electrician.

This electronic timer has been designed for switching lamps. For the lamp load ratings, please refer to the Specifications of the flush-mounted insert. Do not switch any other loads.

2. Function

This attachment is installed into a 60 mm flush box (recommendation: deep box) in conjunction with the insert.

The device facilitates the programmed, time-controlled switching of various lighting fittings (please refer to Specifications) up to a maximum of 1000 W.

Product features:

- Simple operation through a four-key field.
- Two independent program memories for a total of up to 18 switching time events (e. g. nine ON and nine OFF times).
- Time switch function.
- Random function.
- Astro function.
- Summer/winter time change-over.
- Individual astro function by astro time shift.
- Driving via extensions (insert).
- Reset facilitates resetting to factory adjustment.
- Up to 24-hour power reserve (maintenance-free, without batteries).

3. Installation Instructions

The attachment can only be placed into service in conjunction with the Electronic timer insert.

Electronic timer insert ① should be installed in a 60 mm flush box (recommendation: deep box).

The connecting terminals of the insert must be down.

Plug attachment ② onto the insert together with frame ③.

Electrical contacting is established through plug ④.

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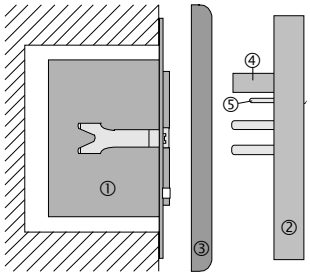


4. Programming

Note:
If no operation is made for longer than 2 minutes during programming, the electronic timer will automaticliy return to displaying the current data.

Programming can be cancelled any time by pressing the **SET** key for about 3 seconds.

Use key **ON** or **OFF** to select the following settings (please refer to the diagramm):

Time, Date ● :	Set current data
A:	Programming memory A
B:	Programming memory B
Astro ● :	Shift astro times

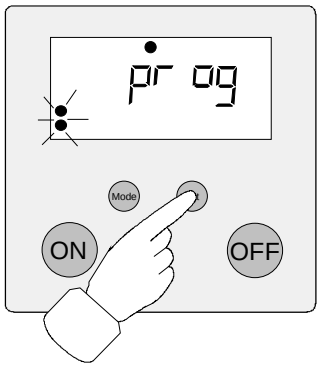
4.1. Setting Current Data

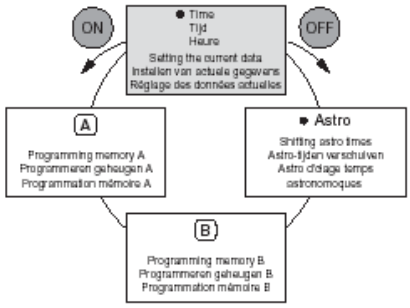
Prior to entering your data please make a reset to bring back the device to factory default setting:

Depress the **MODE** and **SET** keys at the same time until all display segments light up for a short time (approx. 7 sec.). This completes the reset.

To enable the Electronic Time Switch to start its operation, please enter the current data:

Hold the **SET** key depressed until the display reads **prog**.



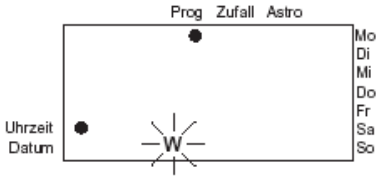


Accept the Time, Date symbol by shortly depressing the **SET** key.

The Electronic Time Switch is now in the current data setting mode.

① Setting summer/winter time:

Use key **ON** or **OFF** to set summer time (S) or winter time (W).
Accept by shortly depressing the **SET** key.



② Setting the current month:

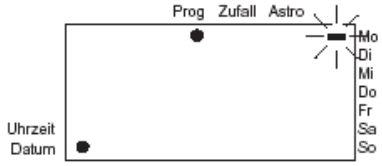
Use key **ON** or **OFF** to set the month (01..12).
Accept by shortly depressing the **SET** key.

③ Setting the current date:

Use key **ON** or **OFF** to set the day (01..31) .
Accept by shortly depressing the **SET** key.

④ Setting the current day

Use key **ON** or **OFF** to set the day (MO..SU).
Accept by shortly depressing the **SET** key.



⑤ Setting the current hour

Use key **ON** or **OFF** to set the hours (00..23).
Accept by shortly depressing the **SET** key.

⑥ Setting the current minute

Use key **ON** or **OFF** to set the minutes (00..59).
Accept by shortly depressing the **SET** key.

The electronic timer has taken over the current data and changed over to its normal operating mode.

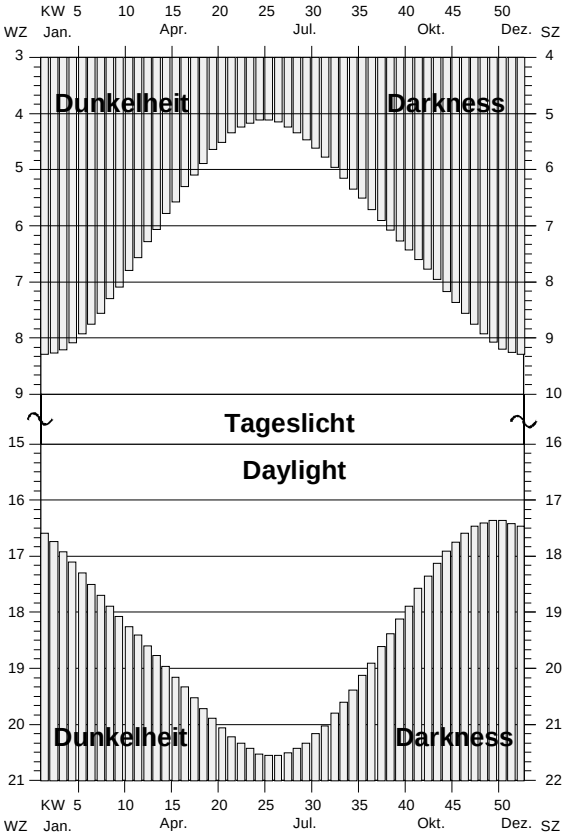
4.2. Astro Function

If the light is to be turned on at sunset or to be turned off at sunrise, switching time events once programmed must be continuously adapted to the changing astronomical calendar in automatic mode (please refer to the illustration).

For this purpose, the Electronic Time Switch calculates the time of sunrise and sunset for each day of the year (for the approximate location of Würzburg).

By adding the astro program, programmed OFF switching time events are executed at the time of sunrise already. Programmed ON switching time events are only executed at the time of sunset. OFF switching time events that are **in the darkness in the morning** and ON events **in the evening darkness** are not shifted.

To adapt the pre-programmed astro times to the local conditions, the astro times can be shifted by a maximum of +/- 1 hour and 59 minutes.



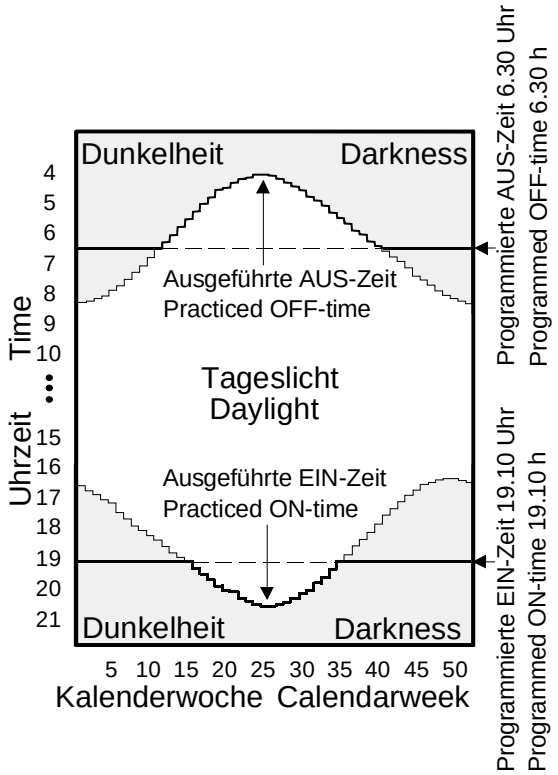
Programming examples:

If light is to be turned on daily at sunset and to be turned off at sunrise, the following programming and activated astro function can be used to effect this:

Event 1: MO-SU at 16:00 hrs. ON.
Event 2: MO-SU at 22:00 hrs. OFF.

To turn off at 6:30 hrs. in the morning, at the latest and to turn it on 19:10 hrs. in the evening at the earliest, use the following program with activated astro function (please refer to the illustration):

Event 1: MO-SU at 6:30 hrs. OFF.
Event 2: MO-SU 19:10 hrs. ON.



4.3. Random Function

If the random function is activated for a certain switching time event, this switching time is varied by +/- 15 minutes. The random time shift is used for all switching time events and changed daily.

If the astro function is additionally activated for this switching time event, this switching time event will be adapted to the respective time of sunrise or sunset and varied by a random time of +/- 15 minutes.

4.4. Factory Setting and Reset

Manual operation has, in all cases, priority over automatic mode.

In the two program memories **A** and **B**, independent programs can be stored (e.g. for everyday use, weekend, vacations etc.). A maximum of 18 different switching time events can be used in the two program memories altogether (e.g. nine time events per memory).

Program memories are factory-preset but can be overwritten by your own programming (in such case, erase switching times not required).

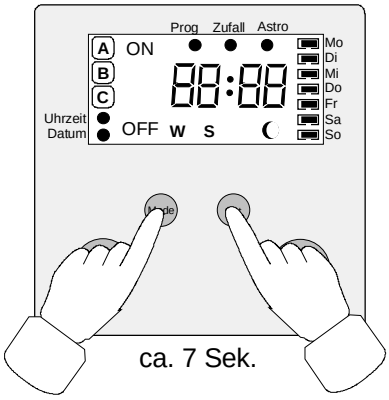
Memory A:
Event 1: OFF 07:00 hrs, MO-FR, astro function active
Event 2: OFF 09:00 hrs, SA-SU, astro function active
Event 3: ON 20:00 hrs, MO-FR, astro function active
Event 4: ON 21:00 hrs, SA-SU, SA-SO, astro function active

Memory B:
Event 1: OFF 07:00 hrs, MO-FR.
Event 2: OFF 09:00 hrs, SA-SU
Event 3: ON 20:00 hrs, MO-FR
Event 4: ON 21:00 hrs, SA-SU

Timer function C:
The timer has been factory-preset to 15 minutes. For individual settings, please refer to Chapter 7.

By RESETTING the Electronic Time Switch, programming can be reset to factory defaults. In this case the current data and your own programming will be deleted.

To RESET:
Depress the **MODE** and **SET** keys at the same time until all display segments light up for a short time (approx. 7 seconds). This completes the reset.

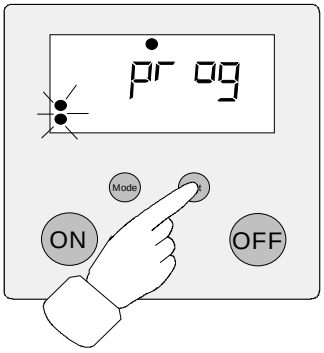


4.5. Programming Individual Switching Time Events

Note: If switching time events overlap (identical time and day for ON and OFF), the OFF event will be executed.

Example: MO ON 8:15 hrs. not executed.
MO OFF 8:15 hrs. executed.

Depress the **SET** key until the display reads prog.

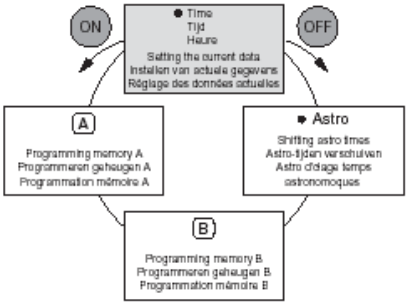


Selecting the program memory

Use key **ON** or **OFF** to select program memory **A** or **B**. Select that programm memory where your new switching time events are to be stored.

Accept your selection by shortly depressing the **SET** key.

The electronic timer is now in the mode for programming new switching time events.



① Selecting a memory location

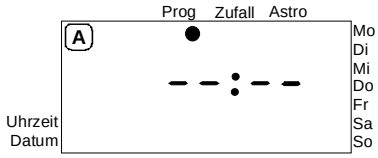
Key **ON** or **OFF** indicates the switching time events which a re already stored in the program memory.

With the **ON** key, you can scroll towards earlier events, while the **OFF** key brings you to later events. New switching time events are automatically sorted into this list.

Note: A maximum of 18 different switching time events can be stored. These events can be distributed over two program memories (**A, B**). If all these 18 switching time events have been programmed (e. g. nine ON and nine OFF times), the display reads **'FULL'** at the end of the table of events.

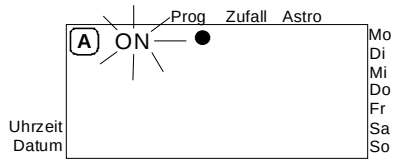
Select your desired memory location where the new switching time event is to be stored. Any switching time event existing at this memory location will be overwritten.

Empty memory locations are indicated by a "——:——" symbol.
Accept your selection by shortly depressing the **SET** key.



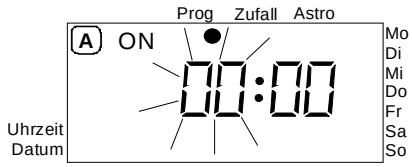
② Programming ON or OFF

Use key **ON** or **OFF** to select the direction of the louver the new switching time event is to be executed for.
The associated symbol will flash in the display.
Accept your selection by shortly depressing the **SET** key.



③ Programming the hour

Use key **ON** or **OFF** to select the hour (00..23) where the switching time event to be programmed is to be executed.
Accept your selection by shortly depressing the **SET** key.



④ Programming the minute

Use key **ON** or **OFF** to select the minute (00..59) where the switching time event to be programmed is to be executed.
Accept your selection by shortly depressing the **SET** key.

⑤ Programming the days

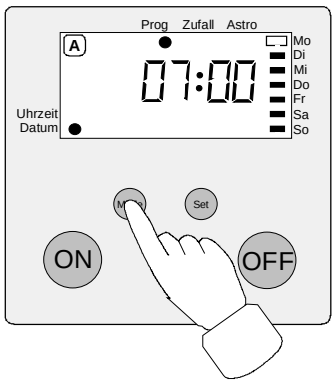
Key **ON** or **OFF** change between the days where the event is to be executed. The current day is shown in a frame.

The **MODE** key can be used for cancelling or selecting the day.

If the day has been selected for an event, a bar is shown within the frame. An empty frame indicates that the event is not executed at this day.

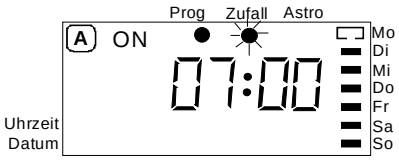
Use key **ON** or **OFF** to change to the next day and select or cancel with the **MODE** key.
This is the way how to select those days on which the event is to be executed.

After selecting your desired days:
Accept by shortly depressing the **SET** key.



⑥ Programming the random function

Use key **ON** or **OFF** to activate or deactivate the random function for the programmed switching time event.
If the random symbol flashes the random function is deactivated for this switching time event.
Accept the random function by shortly depressing the **SET** key.



⑦ Programming the astro function

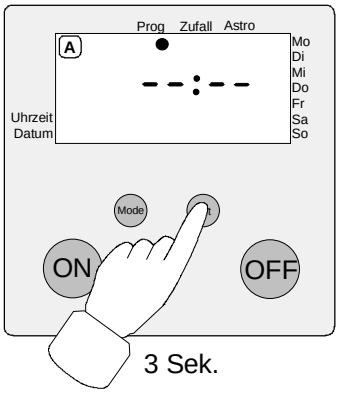
Use key **ON** or **OFF** to activate or deactivate the astro function for the programmed switching time event. If the astro symbol flashes the astro function is deactivated for this switching time event.

By shortly depressing the **SET** key, the time, day, running direction, astro function and random function data is now stored in the program memory.

The Electronic Time Switch is ready for the programming of the next switching time event.

⑧ End of programming

Having stored all desired switching time events in the program memory, exit the programming mode by depressing the **SET** key for at least 3 seconds. Programming can thereby be cancelled any time.



4.6. Deleting Switching Time Events

Depress the **SET** key until the display reads **prog**.

Selecting the program memory

Use key **ON** or **OFF** to select program memory **A** or **B**. Select that program memory where the switching time events are to be deleted.

Accept your selection by shortly depressing the **SET** key.

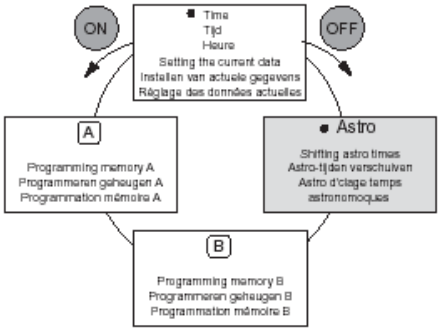
Use key **ON** or **OFF** to select the switching time event to be deleted.

There are two different ways to delete the switching time events:

1. By depressing the **MODE** key for at least 3 seconds.
2. By cancelling all the days associated with the switching time event.

An empty memory location is indicated by a "——:——" symbol.

Having deleted the switching time events, exit the programming mode by depressing the **SET** key for at least 3 seconds.



4.7. Programming an Astro Time Shift

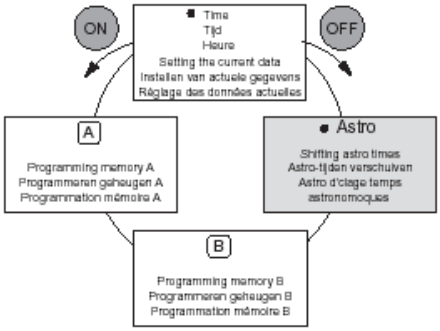
The astro shift function facilitates the individual adaptation of the factory-pre-calculated sunrise and sunset times to your local conditions. This shift is executed for all days throughout the year.

Depress the **SET** key until the display reads **prog**.

Use key **ON** or **OFF** to select the astro ● symbol.

Accept by shortly depressing the **SET** key.

The maximum astro time shift for the sunrise and sunset times is 1 hour and 59 minutes, in each case.

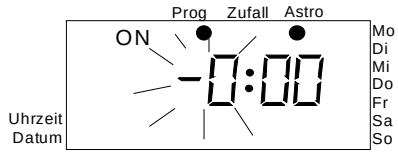


① Sunset hour astro time shift

Use key **ON** or **OFF** to set the hour (-1, -0, 0, 1) by which the astro curve is to be shifted.

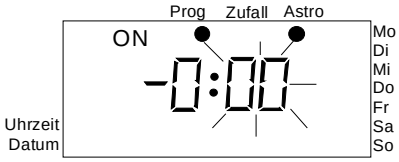
-1: Shifting the astro curve 1 hour towards earlier times.
1: Shifting the astro curve 1 hour towards later times.
-0, 0: No shifting within the hour range, sign for shifts within the minute range (please refer to the next programming step).

Accept by shortly depressing the **SET** key.



② Sunset minute astro time shift

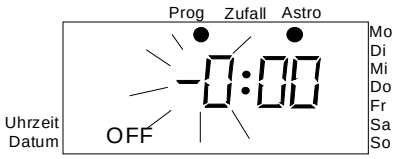
Use key **ON** or **OFF** to set the minute (00..59) by which the astro curve is to be shifted.
Accept by shortly depressing the **SET** key.



③ Sunrise hour astro time shift

Use key **ON** or **OFF** to set the hour (-1, -0, 0, 1) by which the astro curve is to be shifted.

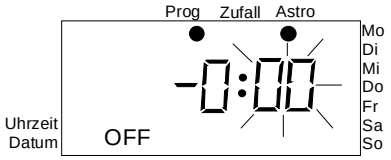
-1: Shifting the astro curve 1 hour towards earlier times.
1: Shifting the astro curve 1 hour towards later times.
-0, 0: No shifting within the hour range, sign for shifts within the minute range (please refer to the next programming step).



④ Sunrise minute astro time shift

Use key **ON** or **OFF** to set the minute (00..59) by which the astro curve is to be shifted.

By shortly depressing the **SET** key, the new astro times are stored in the memory.



5. Mode Selection

5.1. Selecting the Program Memory

As described in chapter 4.4, two separate program memories with up to 18 switching time events can be occupied.

Thus, two individual switching time programs can be made up and one of them, in each case, activated by selecting the corresponding program memory.

Shortly depressing the **MODE** key selects the program memory (**A** or **B**), whose switching time events are to be executed.

Note:
Memory **C** contains the timer function (refer to Chapter 5.2.) and cannot be occupied by switching time events.

The display shows the program memory selected. Only the switching time events programmed in this selected program memory are executed.

If neither programm memory and no timer function **C** has been selected, the Electronic Time Switch is in manual operation. Programmed switching time events and the twillight function will then not be executed.

5.2. Selecting the Timer Function

When the timer function is activated the light is turned on for a preset time between 1 minute and up to 23 hours and 59 minutes.

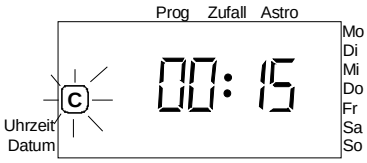
Choosing the timer function

Select memory **C** by shortly depressing the **MODE** key (**C** flashes in the display). This memory contains the timer function.

Note:

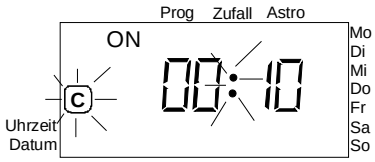
Programm memories **A** and **B** are occupied by switching time events and must not be selected for activating the timer function.

The timer function is factory-preset to a period of 15 minutes.



By shortly tipping (1.5 sec. max.) the **ON** key, you can start the timer function. This turns on the consumer. The display counts down.

The colon between the hours and minutes flashes. The light can be turned off any time by shortly tipping (1.5 sec. max.) the **OFF** key.

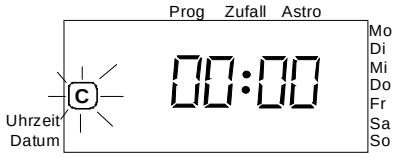


When the counter reads '0' the light is turned off. The display then reads the preset time (factory setting is 15 min.).

By depressing the **ON** key, the preset time can be re-started, even during the 'time lapse'.

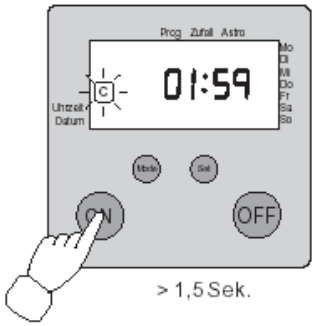
Individual timer period setting

To increase the timer period, depress the **ON** key for more than 1.5 sec. To decrease, depress the **OFF** key for more than 1.5 sec.



Setting range:
1 minute minimum.
23 hours, 59 minutes maximum.

Setting an individual timer period does not trigger any switching event.



5.3. Manual Operation

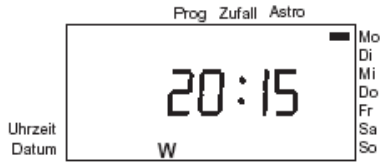
Using the **ON** key turns ON the consumer, whereas the **OFF** key turns it OFF.

For this purpose the key must be held depressed for at least 1 second.

5.4. Winter-/Summer Time Selection

By shortly depressing the **SET** key, you can change between:

- Winter time and



- summer time

6. What to Do in Case of Mains Failure

In the event of mains failure, the display shows the "——:——" symbol for some time before it goes off. The switching time events programmed by the user and the current data are kept. The Electronic Time Switch has a power reserve of approx. 24 hours.

When the mains voltage has reappeared, the last switching time event in the program memory is executed. This moves the lights to the current position as determined by the program. The programmed data is kept and the Electronic Time Switch is ready for service again.

Example:
Light ON time: 20:15 hrs.
Mains failure at 20:10 hrs.
Mains voltage reappearing at 20:20 hrs.
The last 20:15 hrs. ON switching command is executed. The lights go on, the current position is reached.

For mains failures of longer than 24 hours, the programmed switching time events are kept.
The current data (time, date) will get lost and must be re-entered. The display will read 12:00 hrs. and flash.

7. Specifications

Rated input voltage (insert):	230 V, 50 Hz, neutral conductor required
Switching capacity:	refrer to 'Insert' Operating Instructions manual
Accuracy:	+/- 1 minute per month
Power reserve:	Approx. 24 hrs. (no battery required)
Switching time events:	18 max. (in 2 program memories)
Timer Function:	1 min. up to 23 hrs. 59 min.
Random generator:	+/- 15 minutes
Astro program:	Shifting by +/- 1 hour 59 min.
Interval between two switching events:	1 minute min.
Connection:	To be plugged onto Electronic Time Switch insert
Ambient temperature:	0 °C .... 45 °C
Storage temperature:	-10 °C .... +60 °C

8. What happens if...

... the astro times do not seem to be executed correctly or show highdeviations from sunrise and sunset, respectively?

Check the settings of the date and of the astro time shifts.

... the operating voltage had failed?

The display shows the --:-- symbol, the 24 hour power reserve is activated. If the voltage failure is less than 24 hours, the unit resumes the set functions without any maintenance. After longer voltage failure, the current data (time, date) must be re-entered.

... the programmed time events are executed at a difference of one hour?

Check the summer/winter time setting and correct, if necessary.

... the unit is to be reset to factory setting?

Make a RESET. Press the **SET** and **MODE** keys simultaneously for approx. 7 seconds.

...the lighting goes out after some time after having been switched on manually?

An automatic switching time event was executed, or the time switch function (memory **C**) has lapsed.

Warranty

The warranty is provided in accordance with statutory requirements via the specialist trade.

Please submit or send faulty devices postage paid together with an error description to your responsible salesperson (specialist trade/installation company/electrical specialist trade).

They will forward the devices to the Gira Service Center.

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Electronic timer

Insert

Order no.: 0385 ..

Contents

1. Warning
2. Function
3. Installation Instructions
4. Connection
5. Specifications
6. Acceptance of guarantee

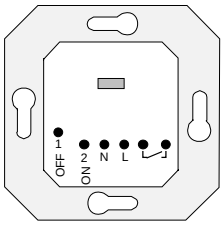
1. Warning

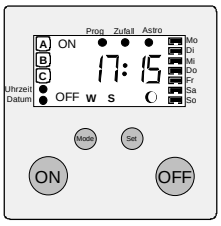
Caution! The installation and assembly of electrical equipment may only be performed by a skilled electrician.
Not suitable for disconnecting.
This timer has been designed for the automatic switching of lights. If they are used for any other purposes which may entail hazards (e. g. switching heaters) such hazards will have to be eliminated by the user by taking additional suitable safety measures.

2. Function

This electronic timer insert is to be installed into a 60 mm flush box (recommendation: deep box) in conjunction with the attachment.

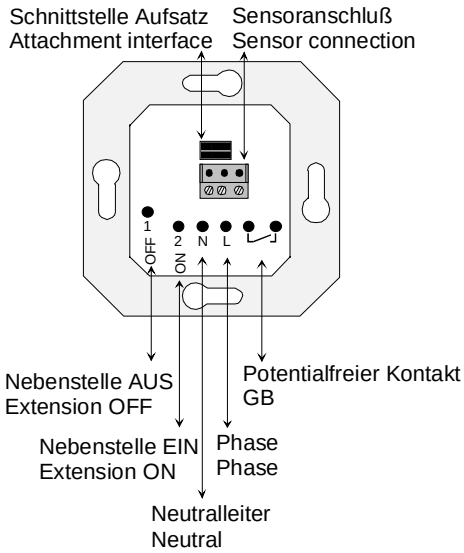
The device facilitates the programmed, time-controlled switching of various lighting fittings (please refer to Specifications). Due to the use of an efficient relay with potential-free contacts, consumers of up to a maximum of 1000 W can be switched.





Via two separate extension inputs, the consumer can be switched by a mechanical push-button (two-key principle, 2x n. o. contacts).

The electronic timer insert has six connecting terminals and one plug connector for contact with the attachment.



3. Installation Instructions

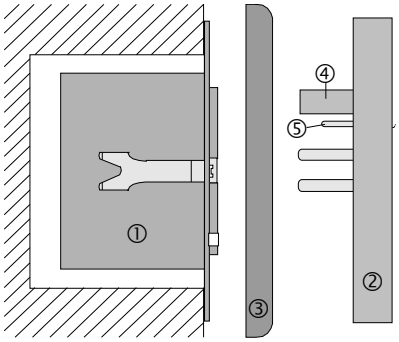
The electronic timer insert can only be used in conjunction with the attachment.

Electronic timer insert ① is provided for installation in a 60 mm flush box (recommendation: deep box).
The connecting terminals of the insert must be down.

Plug attachment ② onto the insert together with frame ③.

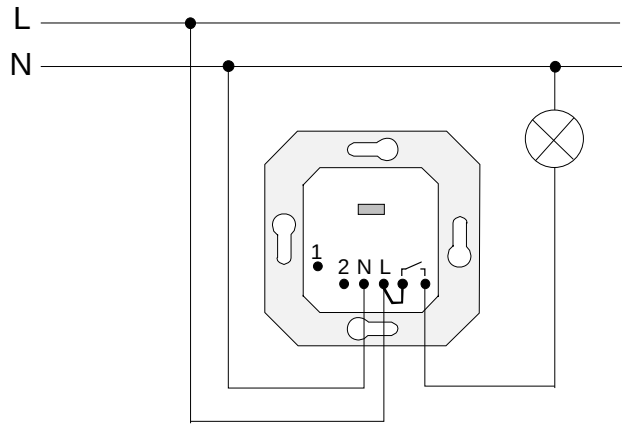
Electrical contacting is established through plug ④.

(For the description, installation and connection of the attachment, please refer to separate instructions.)

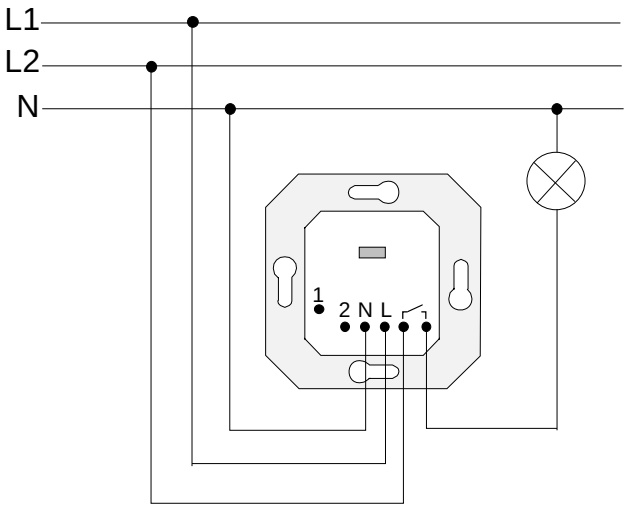


4. Timer insert Connection

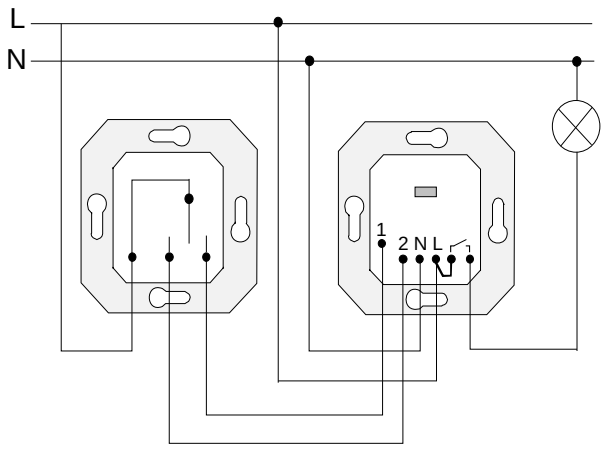
Connect phase L with the relay input (‘jumper’).



Two-phase connection
The timer insert is provided with potential-free contacts.



Connection with mechanical extension
Connect phase L with the relay input (‘jumper’).



5. Specifications

Rated voltage:	230 V AC, 50 Hz (neutral conductor required)
Switching Capacity	
Incandescent lamps:	1000 W
Halogen HV lamps:	1000 W
Halogen LV lamps with	
TRONIC transformers:	750 W
Convent. transformers:	750 VA
Conv. transformer with at least 85 % rated load.	
Fluorescent lamps	
Uncompensated:	500 VA
Shunt-compensated (47µF):	400 VA
Twin-lamp circuit:	1000 VA

Energy-saving lamps:
When using energy-saving lamps, mind high surge peak currents.
Check lamps for suitability prior to use.

Relay output:	1 potential-free n. o. contact **Not suitable for disconnecting.**
Switching time interval:	1 minute min.
Connecting terminals:	Screw terminals for 2.5 mm² max. or 2 x 1.5 mm²
Automatic cut-out:	16 A max.

Warranty

The warranty is provided in accordance with statutory requirements via the specialist trade.

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