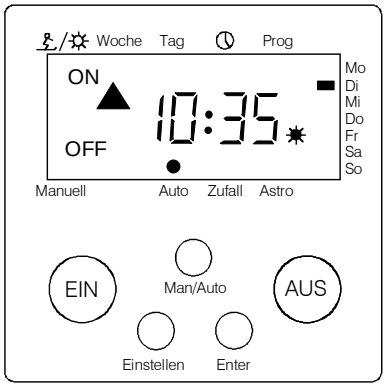
Electronic Timer

Order No.: 0385 ..



1. Description of Functions

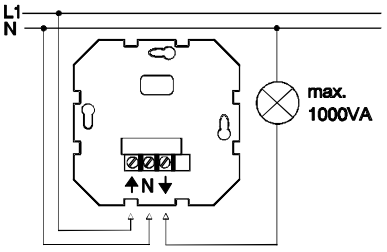
The Electronic Timer supported by a Microprocessor is placed into a 58 mm recessed box and free of maintenance.
A reted load of max. 1000 VA can be controlled. The Timer is equipped with 9 memory registers free programmable for one Switch-on respectively one Switch-off Time each. These times can be coordinated to any combination of weekdays.

The Timer is equipped with 4 types of operation:
1.) Manual Mode (see chap. 4.1)
Connected loads can be switched by means of keys.
2.) Automatic Mode (see chap. 4.2)
Programmed Switch Times are being realized.
3.) Operation with Random Generator (see chap. 4.3)
Programmed Switch Times will be varied up to ± 15 min. to simulate presence of persons.
4.) Operation with Astro Mode (see chap. 4.4)
Programmed Switch Times will be adjusted to times of sunrise and sunset.
Combinations of various modes are possibles.

Programmed Switch Times will not be activated during manual operation.
Manual operation is superior to automatic types of operation.

Power failure clears the display. In case of power failure of up to 2 hours all programmed data remain. Should failure last longer than 2 hours, controller switch to manual operation after return of power, display flashes until pushing any optionalkey. Following a re-setting of the actual time, calendar week and weehday is essential (see chap. 3.1 - 3.5).

Should the Timer not react on pushing keys (due to false operation), pull off the plugged-on controller unit for at least 20 minutes. By doing so a reset for the internal microprocessor is garanteed. Programmed data remain uneffected.



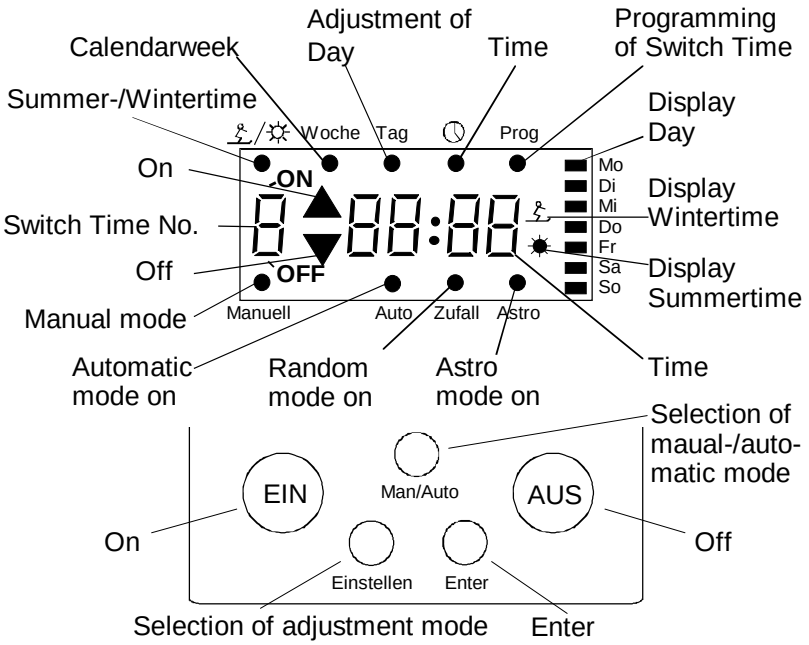
2. Installation and Starting

2.1 Wiring Diagram

Caution: The installation and assembly of electrical equipment may be carried out only by a skilled person.

Neutral conductor required!

Attention, warning of danger:
The electronic timer was developed for automatic switching of lighting fixtures. In case that they are used for other purposes which might cause risks (e.g. switching of heaters), the user should prevent such risks by applying additional appropriate safetly measures.



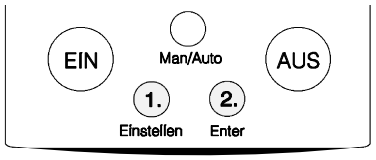
2.2 Original Setting

After switching on to mains for the very first time, the activation of the LCD-display may take up to 60 s, showing:
Monday 00:00, Wintertime, Calendarweek 1, Manual Mode

2.3 Programmed Switch Times ex work

Switch Times 1 and 2 are pre-programmed and individually variable:
Switch Time 1: mon - fri 7.00 Uhr On 22.00 Uhr Off
Switch Time 2: sat - sun 8.30 Uhr On 22.00 Uhr Off

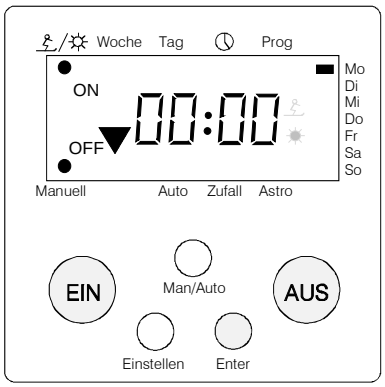
Flashing displays and all keys required for activating the respectivefunctions appear in red.



3.1 Transition to Setting Mode

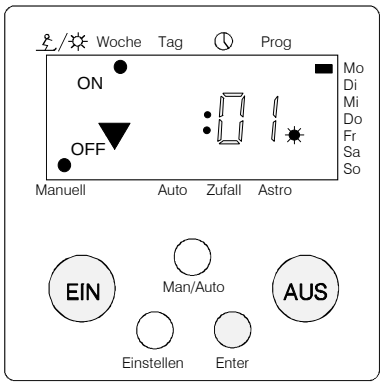
Touch key *Einstellen* (Adjustment), then touch key *Enter* within 2 s.
Should there be no key activities for 5 minutes, the setting mode will automatically be left. Key *Einstellen* (Adjustment) interrupts setting mode any time.
All dates confirmed with *Enter* remain.

Basically all dates can be changed via keys *EIN (ON)* or *AUS (OFF)*. Dates are being transferred to the Timer with with key *Enter*, followed by next point of menu.



3.2 Setting of Summertime/Wintertime

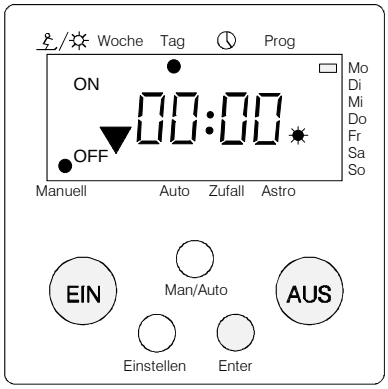
Symbol is marked (dot under), adjusted symbol flashes.
Set Summertime/Wintertime via key *EIN* or *AUS*.
Confirm with *Enter*.



3.3 Calendarweek

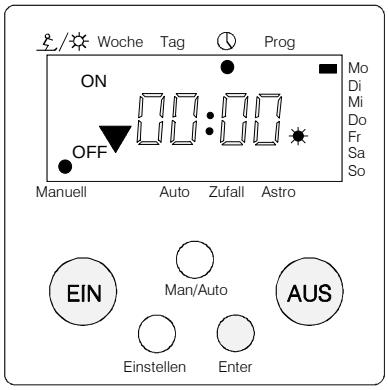
Dot is forwarded to „Woche“ (week), adjusted calendarweek flashes. Set with key *EIN* or *AUS*.
For rapid motion press key for approx. 3 s. Confirm with *Enter*.

Please see calendar for actual calendarweek (KW), as this date may vary from year by few days. For further explanations please see fig. 1 and 2 of chapter 4.



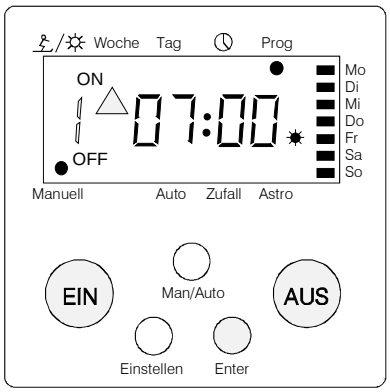
3.4 Present day

Dot is forward to „Tag“ (day), mark is flashing for indicating day of week.
Set with key *EIN* or *AUS*.
Confirm with *Enter*.
Mo = Monday
Di = Tuesday
Mi = Wednesday
Do = Thursday
Fr = Friday
Sa = Saturday
So = Sunday



3.5 Present time

Dot is forward to "", time is flashing.
Set with key *EIN* or *AUS*.
For rapid motion press key for approx. 3 s.
Confirm with *Enter*.

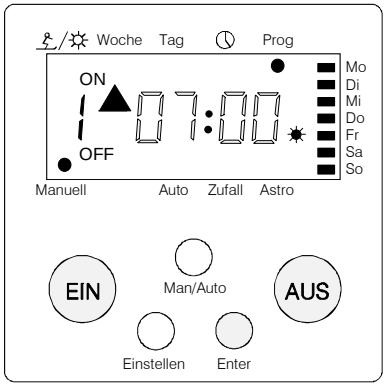


3.6 Programming of Switch Times
3.6.1 Setting of Switch Time Number

Dot is forward to „Prog“, symbol for Switch-on Time 1 flashes. For further Switch Time Numbers please touch keys *EIN* or AUS.
For changing Switch-on or Switch-off Times of a Switch Time Number press *Enter*.

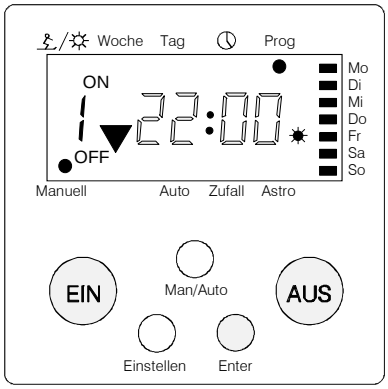
All Switch Times of Switch Time Numbers programmed prior to that point remain uneffected when setting or altering Switch Time.

Please note a minimum of **one** minute between **all** programmed switching operations!



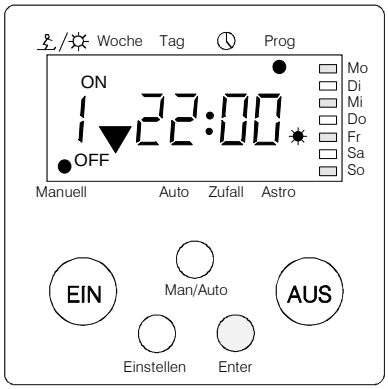
3.6.2 Programming of Switch-on Time

Switch-on time of a Switch Time Number flashes and can be changed ba pressing *EIN* or *AUS*.
For rapid moition press key approx. 3 s.
Confirm Switch-on Time with *Enter*.



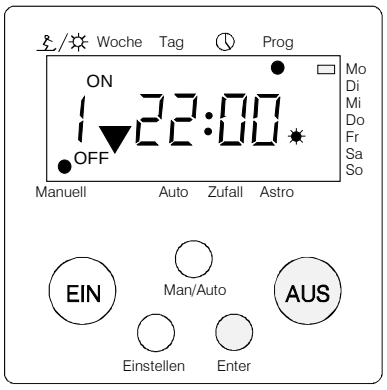
3.6.3 Programming of Switch-off Time

Switch-off Time of a Switch Time Number flashes and can be changed by pressing *EIN* or *AUS*.
For rapid moition press key approx. 3 s.
Confirm with *Enter*.



3.6.4 Programming of Weekdays

Should there be no day programmed, Mo (Monday), Mi (Wednesday), Fr (Friday), So (Sunday) flash **in exchange** with Di (Tuesday), Do (Thursday), Sa (Saturday) Programmed days flash **continuously.**
Confirm with *Enter*.



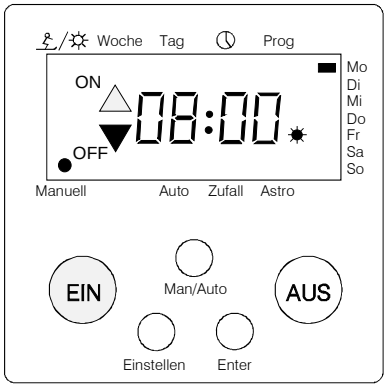
Alterations of setting realize with key *AUS*. Flashing mark is forward to Mo (Monday). Enter programms day, *AUS* leaves a day out. A programmed day is indicated permanently, the flashing mark moves a day further. In case So (Sunday) is programmed or left out, the next Switch Time can be programmed (see chap. 3.6). In case of programming errors of previous Switch times, re-call with key *AUS*.
For no further programming of Switch Times interrupt with key *Einstellen* (Adjustment). Automatic interruption occurs after Switch Time 9. Time appears after interruption.

3.6.5 Checking of set Dates

Touche *Einstellen* (Adjustment), then touch key *Enter* within 2 s. A further touching of key *Enter* shows all dates without altering them. By reaching the first Switch Time Number, a quick check of Switch times is possible by pressing key *EIN* or *AUS*.
An interruption is permanently possible by pressing key *Einstellen* (Adjustment) or automatically after 5 minutes, display showing present time.

3.6.6 Clearing of Switch Times

Two alternativ ways of clearing Switch times exist:
1. Clearing of programmed weekdays.
   Leave all days out by touching key *AUS* (see chap. 3.6.4). Switch-on and Switch-off Times remein.
2. Programm Switch-on and Switch-off Time equal hours (see chap 3.6.2 and 3.6.3). Programmed weekdays remain uneffected.

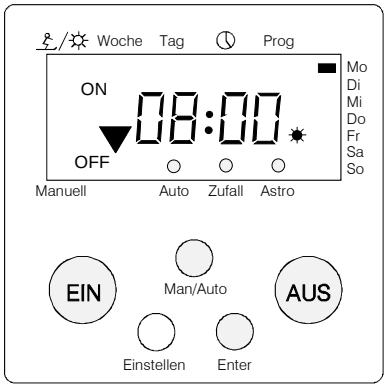


4. Types of Operation

4.1 Manual Mode

Dot indicates „Manuell“ (Manual). Connected load can be activated or deactivated by touching key *EIN* or *AUS*. Relevant symbol appears in display.

By using this type of operation, preprogrammed Switch Times will not be carried out (see chap. 1).



4.2 Automatic Mode

Change from manual to last set automatic mode with key *Man/Auto*.
By pushing key Enter after *Man/Auto* die within 2 s, the random generator and/or astro mode can be selected by *EIN* or *AUS*. Confirm with *Enter*.
Selected mode is activated and Switch Times are being realized according to programming.

4.3 Random Generator

Programmed Switch Times will vary up to ± 15 minutes when Random Generator is being switched to Automatic Mode. All Switch Times of a day will be changed to the same random time to avoid overlapping of switching operations.

Bild 1: Times of sunrise

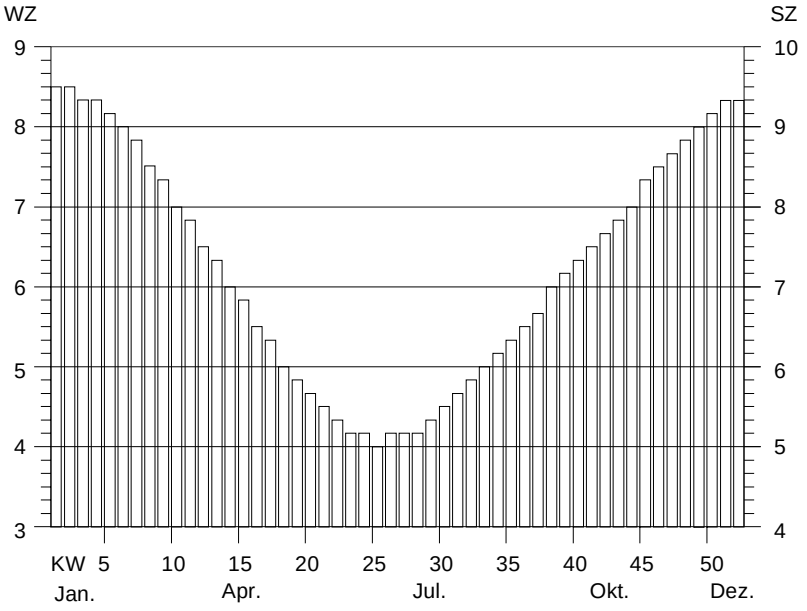
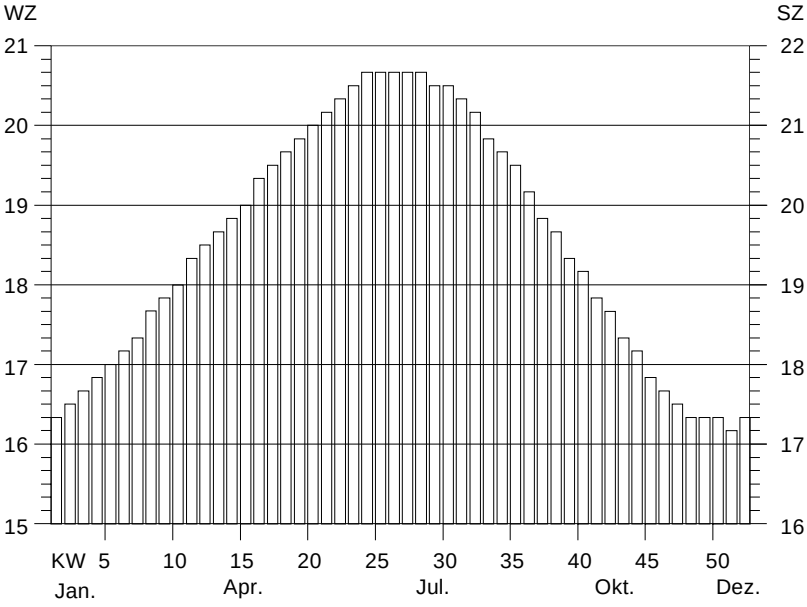


Bild 2: Times of sunset



4.4 Astro Mode

If lighting is requested to be switched off at sunrise (SA) and of at sunset (SU), programmed Switch Times have to be made conform to the changing astronomical calendar constantly. By activating the Astro Mode Switch Times programmed between sunrise (SA) and 12.00 hours are already being carried out at sunrise (SA). Switch programmed between 12.00 hours and sunset (SU) are carried out no until sunset (SU). This is why all times of sunrise and sunset are being stored permanently (see fig. 1 and 2). Switch Times programmed to be carried out within darkness of a day remain unchanged from the Astro Mode.
Note: Do not programme more than max. one paire of Switch Times (e.g. 1 ON, 1 OFF) per half day (morning/afternoon) when Astro Mode is activated.

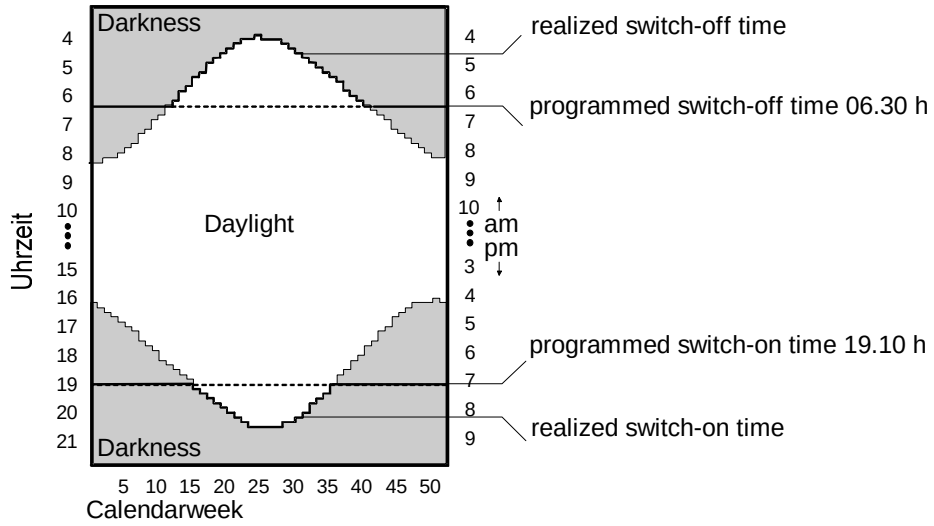
If it is required to switch on lighting at sunset (SU) and off at 22.00 hours, following programming may be used (consider **Astro Mode** needs to be **activated**):
Switch Time 1: Mon-Sun
16.00 h ON;
22.00 h OFF.

WZ = Wintertime,
SZ = Summertime

If it is required to switch on lighting at 03.00 hours in the morning and off at sunrise (SA), use following programming:
Activate Astro Mode, Switch Time 1: Mon-Sun 03.00 h ON; 10.00 h OFF.

If it is required to switch on lighting always at sunset (SU) and off at sunrise (SA), use following programming:
Activate Astro Mode, Switch Time 1: Mon-Sun: 16.00 h ON; 08.30 h OFF.

Fig. 3: Example - Astro mode achtivated



4.5 Combination of Random and Astro Mode

If Astro and Random Mode are activated, Switch Times are being made conform to times of sunrise and sunset (see chap. 4.4) and additionally varied with a random time of up to ± 15 minutes. (see chap. 4.3)

5. Technical Data

Rated Voltage:	230 V, 50Hz Neutral conductor required
Rated Load:	max. 1000 VA
Not suitable for switching free of mains	
Time-keeping quality:	± 1 min./month
Operation reserve:	2 hours
Switch times:	9 Switch-on and Switch-off times each
Shortest period between switches:	1 minute between 2 switching operations
Random Generator:	max. ± 15 min.
Astro Mode:	internal stored times of sunrise and sunset
Relay Output:	1 NOC
Connexion:	srew clamps for max. 2,5 mm²
Self-consumption:	< 2W
Fuse:	T 6,3A / 250 D
Ambient Temperature:	-10°C to + 40°C

6. Planning Aid

Following table may be used for clarifying programmed dates.

Switch Time No. (SN)	ON	OFF	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Example (SN) No. 2	08.30	22.00						X	X
1									
2									
3									
4									
5									
6									
7									
8									
9									

Acceptance of guarantee

We accept the guarantee in accordance with the corresponding legal provisions.

Please return the unit postage paid to our central service department giving a brief description of the fault:

Gira
Giersiepen GmbH & Co. KG
Service Center
Dahlienstrasse 12
D-42477 Radevormwald

CE The CE sign is a free trade sign addressed exclusively to the authorities and does not include any warranty of any properties.

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