

1 Safety instructions



Electrical devices may only be mounted and connected by electrically skilled persons.

Serious injuries, fire or property damage possible. Please read and follow manual fully.

Danger of electric shock. Always disconnect before carrying out work on the device or load. In so doing, take all the circuit breakers into account, which support dangerous voltages to the device and or load.

These instructions are an integral part of the product, and must remain with the end customer.

2 Device components



Figure 1: Display and operating area

- (1) active functions
- (2) Time of the next action or current time of day
- (3) Type of the next action
- (4) Operating area




Icons in the display

The icons in the display are adjusted depending on the type of insert.

AUTO	Automatic operation is active, next switching time is displayed for 2 minutes
ASTRO	Astro function is active
LOCK	Disabling function is active
^ / v	Displays the direction of the next travelling time. Flashes when controlling the insert
OFF / ON	Displays the type of the next switching operation
<u>OFF</u> / <u>ON</u>	Displays the current switching state

Icons of the operating area (4)

↶	Step back
✓	Confirm inputs

AUTO	Switch between manual operation and automatic operation
 / 	Operation of the insert and navigation in the menu
	Call up and terminate the programming menu

3 Function

Intended use

- Manual and time-controlled operation of Venetian blinds, shutters, awnings or lighting
- Operation of switching, dimming or Venetian blind insert or 3-wire extension from LB management

Product characteristics

- Current time can be saved as switching time, quick programming
- Automatic summer/winter time changeover, can be switched off
- Switching at sunrise and/or before sunset (Astro function) adjustable for 18 countries
- Astro time shift for sunrise and sunset
- Disabling function
- Display switches off after 2 minutes, Permanent indication of the current time possible

Depending on the insert used

- Activation of blind/shutters
- Programming of one up time and one down time each for the parts of the week Mo-Fr and Sa+Su
- Ventilation position of the blind/shutter can be saved
- Switching and dimming of lighting
- Programming of two memory areas with one switch-on and one switch-off time each for the parts of the week Mo-Fr and Sa+Su
- Switch-on brightness of lighting can be saved, with dimming insert

Behaviour after a mains voltage failure





Voltage failure less than 4 hours

- All data and settings are preserved
- Missed switching times are not performed later

Voltage failure greater than 4 hours

- Year flashes and no switching operations are executed
- Date and time must be set again
- All switching times are preserved

Default setting











- Switching times on a Venetian blind insert:
 -  07:00, Mo - Fr
 -  21:00, Mo - Fr
 -  09:00, Sa - Su
 -  21:00, Sa - Su
- Switching times on a switching or dimming insert, memory area **T1**:
 - on** 16:00, Mo - Fr
 - off** 09:00, Mo - Fr
 - on** 16:00, Sa - Su
 - off** 09:00, Sa - Su
- No switching times are stored in the second memory area **T2**
- Astro function is active with times for Germany (+49)
- Automatic mode is active
- Automatic summer/winter time changeover is active

4 Commissioning

Set date and time

During the initial commissioning, a reset or a voltage failure of more than 4 hours, the year flashes in the display and the following data must be set.

The times are changed in steps of 5 by pressing  or  for a longer time.

- Change the year with  or  and confirm with .
After that, month, day, hour and minute flash successively.
- Change the data with  or  and confirm with .
+ 49 flashes in the display, the country code of Germany.
- Confirm with  or select another country code with  or  and confirm with .

The Astro times of 18 countries can be loaded via the country code.

YES flashes in the display for the automatic summer/winter time changeover (ST / WT).

- Confirm with .

 Changing to No deactivates the automatic summer/winter time changeover.

The setting is completed. The device is in automatic mode.



Country code

Astro calendars for 18 countries are stored in the cover. Each adjustable country has an underlying reference location that the Astro times refer to. If your own location is far away from the reference location, it may be useful to enter an Astro shift or neighbouring country.


Country code	Country (reference location)	Country code	Country (reference location)
+49	Germany (Kassel)	+48	Poland (Lodz)
+31	Netherlands (Utrecht)	+7	Russia (Moscow)
+43	Austria (Liezen)	+380	Ukraine (Kiev)
+32	Belgium (Brussels)	+420	Czech Republic (Brno)
+34	Spain (Madrid)	+39	Italy (Rome)
+47	Norway (Oslo)	+33	France (Bourges)
+46	Sweden (Stockholm)	+352	Luxemburg (Luxemburg)
+358	Finland (Helsinki)	+86	China (Shanghai)
+44	United Kingdom (Manchester)	+65	Singapore

5 Operation of Venetian blind and shutters

Moving the blind/shutter

- Press  or  for longer than one second.
The blind/shutter moves in the desired direction to the end position or stops when the button is pressed again.

An arrow flashes in the display in the direction of travel.




If a ventilation position has been saved, the blind stops in the ventilation position when moving down from the top end position (see Saving the ventilation position). Press  again to move the blind/shutter to the lower end position.

Adjusting the slats

- Press  or  for less than one second.



Saving the ventilation position

To save and execute the ventilation position, the Venetian blind/shutter must be moved to the upper end position until the flashing arrow switches off automatically.

- From the top end position press and hold down . The blind/shutter moves in the lower end position direction.
 - Additionally press  and hold it down. The blind/shutter remains stopped, but continues to move after 4 seconds.
 - As soon as the desired ventilation position has been reached, release both sensor buttons and press the  button within the next 4 seconds. The ventilation position is saved. The blind/shutter moves back to the upper end position.
- i** If the ventilation position is saved again, the old value is overwritten.

6 Operation of lighting

Switch light

- Press button  or  for less than 0.4 seconds.
- i** With a dimming insert, the light switches to the brightness that was last set or a saved brightness.



Switch light on with minimum brightness

- Press  for longer than 0.4 seconds.





Adjust the brightness

- Press  or  for longer than 0.4 seconds.

Save switch-on brightness

- Adjust the brightness
- Press  and  for longer than 4 seconds. Switch-on brightness is saved. For confirmation, the light is switched off briefly and switched on again.

Delete switch-on brightness

- Press  or  briefly: light switches on at the saved switch-on brightness.
- Press  and  for longer than 4 seconds. The switch-on brightness has been deleted. Switching on takes place at the last brightness value set. For confirmation, the light is switched off briefly and switched on again.

7 Activate functions

Automatic operation/manual operation

Pressing **AUTO** toggles between automatic operation and manual operation.

- i** If all switching times are deactivated, the cover switches automatically to manual operation. Automatic mode cannot be activated.



Figure 2: Automatic mode with Venetian blind or switching/dimming insert

In automatic operation, **AUTO** appears in the display and the time and type of the next action is displayed. If the Astro function is activated, **ASTRO** also appears in the display.

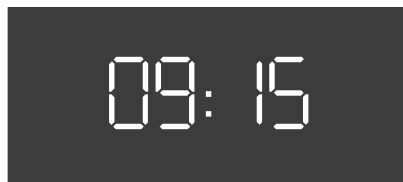


Figure 3: Manual operation

In manual operation, the current time is displayed.

For switching/dimming inserts, the current switching state is additionally indicated. No switching state is indicated on a 3-wire extension.

Programming menu overview

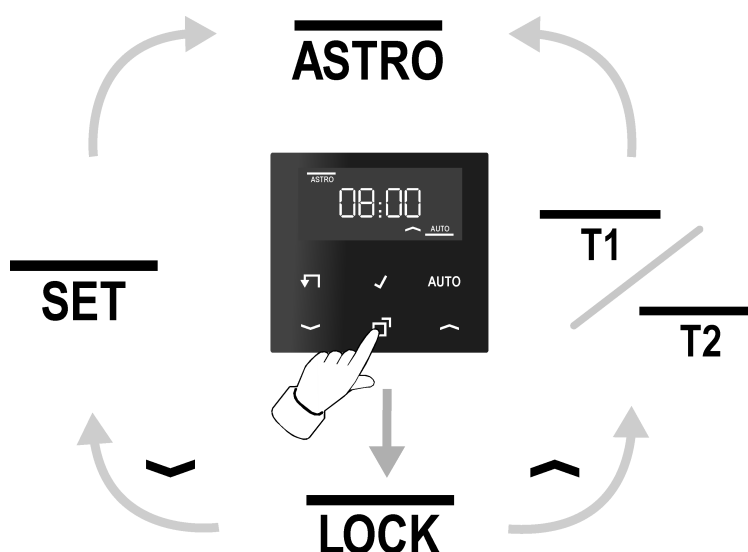







Figure 4: Programming menu



Press  to call up or exit the programming menu.





Navigate through the menu with  or  and confirm the selection with .

LOCK	Activating/deactivating the disabling function
T1	Changing switching times (for switching and dimming inserts also T2)
ASTRO	Activating/deactivating the Astro function and setting the Astro time shift
SET	Setting date, time, country code () and automatic summer/winter time changeover (ST / WT).






Activating / deactivating the disabling function




The disabling function disables extension operation (for Venetian blind inserts only in direction "AB") and deactivates automatic operation. This can be used, for example, as lock-out protection of French windows. Manual operation  is still possible. The operation of  deactivates the disabling function.

-  press.
The line above **LOCK** flashes in the display.
-  press.
Yes flashes in the display.

- Changing to **No** with  or  deactivates the disabling function.
 - Confirm with .
- The disabling function is active and the icon **LOCK** appears in the display.
- Pressing  for more than 4 seconds also activates the disabling function in case of operation on a Venetian blind insert.

Saving switching times

-  press.
 - Select **T1** (an additional second memory area **T2** is available for switching and dimming inserts).
 - Confirm with . With switching and dimming inserts, it is possible to deactivate one or both of the memory areas.
Yes or **No** flashes in the display.
 - Change selection with  or  and confirm with .
- The first switching time appears in the display.

The flashing switching time can be changed with  or  and saved with . The up and down time (on and off times with switching and dimming inserts) for Mo-Fr and Sa-So can be changed successively. The menu is exited upon saving the last switching time.



To deactivate a switching time, set the clock -:- - (between 23:59 and 00:00).



 After one minute without any operation the menu is exited automatically without saving.










Activating/deactivating Astro function, Astro time shift

Astro times represent the sunrise and sunset times in the course of a calendar year. If you want the switching to be executed early at the start of twilight or when it is first dark/light, this can take place with the Astro time shift. The Astro time shift can be entered separately for sunrise and sunset ranging from - 2 hours to + 2 hours.

The active Astro function only affects memory area **T1**. The times in memory area **T2** are always executed at the programmed time.

-  press.
 - Setting the **ASTRO**
 - Confirm with .
- Yes** flashes in the display.

Changing to **No** with  or  deactivates the Astro function. The menu is exited. All saved times are executed at the programmed time.

- Confirm with .
- The time shift for the sunrise  flashes in the display.
- Change the value with  or  and confirm with .
- The time shift for the sunset  flashes in the display.
- Change the value with  or  and confirm with .
- The menu is exited. The Astro function is active and the Astro time shift is taken into consideration during the calculation of the next switching time.

Information on programming the Astro function for blinds/shutters

The Astro function enables automatic opening of a blind/shutter when it gets light and automatic closing when it gets dark. The programmed travelling times limit the travelling time of the blind/shutter (figure 5). The programmed switching time in the morning is the earliest up time of the blind/shutter and the switching time in the evening is the latest down time of the blind/shutter.

The Astro time is calculated once a week.

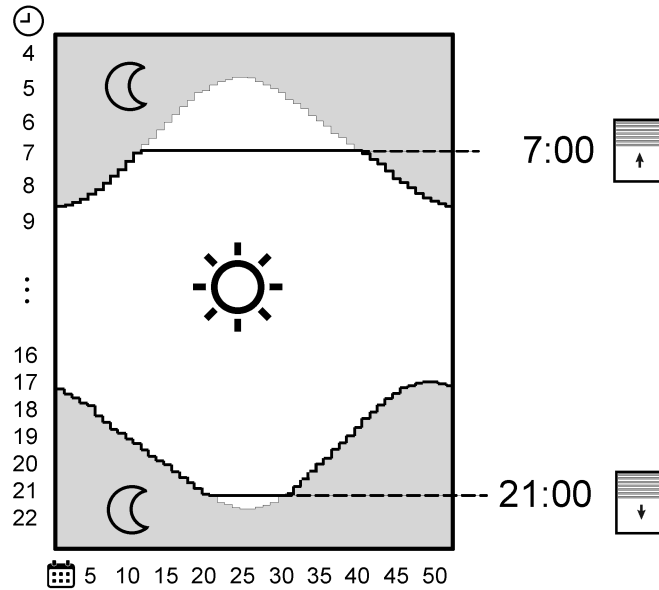


Figure 5: Default setting: Astro function for Venetian blind inserts

The Astro times for Germany are shown in (Figure 5). The blind/shutter is raised at sunrise, but not before 7:00. In the evening at sunset, the blind/shutter is lowered, but not after 21:00.

- i** When using the Astro function, the blind/shutter can be raised in the morning and lowered in the evening. Lowering the blind/shutter in the morning and raising the blind/shutter in the evening is not possible in conjunction with Astro.
- i** If the blind/shutter is to be moved manually in the morning or evening, the time -:- must be set.

Information on programming the Astro function for lighting

The Astro function enables automatic switch-on of lighting when it gets dark and automatic switch-off when it gets light. During the course of a year, the switching times are adjusted to the changing sunrise and sunset times.

The Astro time is calculated once a week.

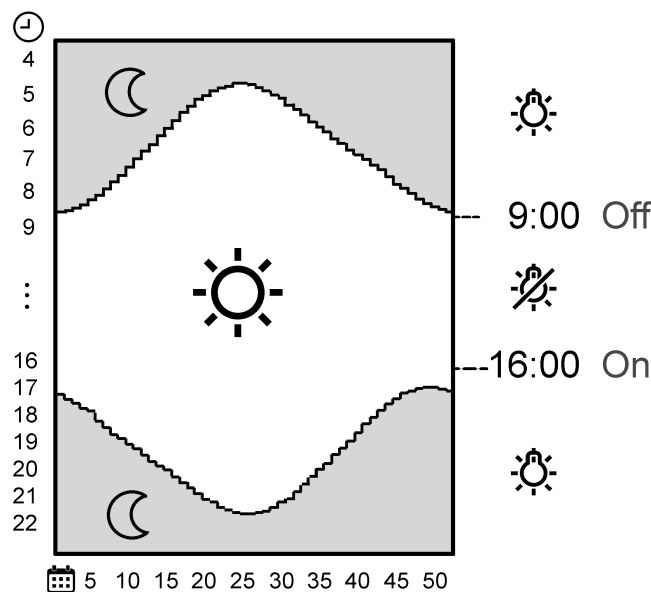


Figure 6: Default setting: Astro function for switching and dimming inserts

The Astro times for Germany are shown in figure (Figure 6). As default setting for mid-week and the weekend, the lighting switches off in the morning at sunrise and switches on in the evening at sunset. The programmed switch-off time in the morning is the latest switch-off time of the lighting and the programmed switching time in the evening is the earliest switch-on time of the lighting.

When using the Astro function, the lighting can be switched off in the morning and switched on in the evening. Switching on in the morning and switching off in the evening is not possible in conjunction with Astro. Memory area **T2** is suitable for this.

If the lighting is to be switched manually in the morning or evening, the time - - - - must be set.

Example for using memory area T2

If the Astro function is activated, the switch-on times from memory area **T1** are moved to sunset and the switch-off times to sunrise. The switching times in memory area **T2** are not linked to the Astro function. Additional switching operations can thus be carried out using memory area **T2**.

In the following example, external lighting should be switched on in the evening at sunset and switched off in the morning at sunrise. However, the lighting should not be switched on the entire night but instead be switched off between 23:00 and 4:30. Memory area **T2** is required for the additional switching operations in the night.

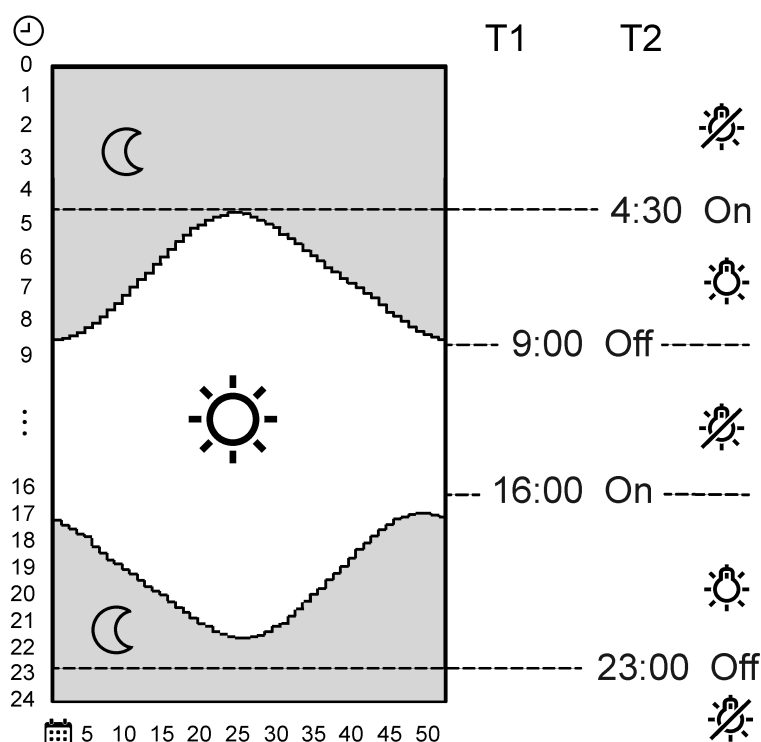




Figure 7: Application example for memory areas T1 and T2




Set date and time

-  press.
- Setting the **SET**
- Confirm with .
- The year flashes in the display.
- The setting of date, time, country code and automatic summer/winter time changeover can be changed (see chapter Commissioning).

Saving current time as switching time, quick programming



Switching times can also be saved without calling up the programming menu. The current time is saved as the switching time for **Mo-Fr** and **Sa-So**.

The quick programming overwrites the existing up or down times for Venetian blind inserts. For switching and dimming inserts, the on and off times of the memory area T1 are overwritten. Memory area T2 is deactivated.



- Press the required direction arrow  for the up time/switch-on time or  for the down time/switch-off time simultaneously with  for longer than 1 second.
SAVE flashes in the display. The current time is saved as a new switching time.

Displaying current time permanently


The display switches off after 2 minutes without any operation. Alternatively, the indication of the current time can also be activated.

- Press  and  buttons simultaneously for longer than 10 seconds until the current time appears.
The device has switched over to permanent indication of the current time

 The time indication is deactivated again with the same operating step.

The current time is displayed briefly by pressing  or  for longer than 1 second.

Resetting the cover to the default setting

- Press  and **AUTO** simultaneously for 10 seconds.
A countdown runs in the display. The reset is performed with "0".
The default setting is restored. The year flashes in the display and the date and time must be re-entered.

8 Information for electrically skilled persons



DANGER!



Mortal danger of electric shock

Disconnect the device. Cover up live parts.

Fitting the device

Switching, dimming or Venetian blind insert or 3-wire extension are mounted and connected properly (see instructions of the relevant inserts).

- Fit the cover with frame on the insert.
- Switch on mains voltage.
The year flashes in the display. Date and time must be set (commissioning).

If **Err** appears in the display, the cover was previously connected to an insert of another unit. To enable operation again, either place the cover onto the correct insert or press  and  for longer than 4 seconds.

If the unit is changed, all switching times are set to the default setting.



This device includes an integrated battery. At the end of its useful life, dispose of the device together with the battery in accordance with the environmental regulations. Do not throw device into household waste. Consult your local authorities about environmentally friendly disposal. According to statutory provisions, the end consumer is obligated to return the device.

9 Technical data

Ambient temperature	-5 ... +45 °C
Storage/transport temperature	-20 ... +70 °C
Accuracy per month	± 10 s
Power reserve	approx. 4 h

Data according to EN 60730-1

Action

1.B.S.T

Degree of soiling

2

Measured surge voltage

4000 V

10 Warranty

The warranty follows about the specialty store in between the legal framework as provided for by law

ALBRECHT JUNG GMBH & CO. KG

Volmestraße 1

58579 Schalksmühle

GERMANY

Telefon: +49.23 55.8 06-0

Telefax: +49.23 55.8 06-2 04

kundencenter@jung.de

www.jung.de