

Figure 1: Design of the device

- (1) Insert (see Accessories, not in scope of delivery)
- (2) Frame (not in scope of delivery)
- (3) Application module
- (4) Display
- (5) Design cover
- (6) Screw for dismantling protection
- (7) Operation buttons

Function

Correct use

- Application module for shutter inserts
- Manual, time-controlled and automatic operation of blind/shutter motors connected to insert
- Unsuitable for lighting control
- Only suitable for use in indoor areas, no drip or spray water

Product characteristics

- Two preset standard time programmes
- Individual adjustment of the time programmes possible
- Astro programme for automatic operation at dawn/dusk

- Astro time shift to adjust the operation times
- Holiday programme for random operation times in automatic mode
- Keylock
- Automatic switching to standard/daylight saving time

Performance after mains breakdown/return of mains supply

- Mains breakdown:
Saving of the current configuration and programming in the non-volatile memory. The device then switches to economy mode. Only the internal clock continues to run to keep the time up-to-date. The use of a buffer memory ensures that the time stays up-to-date for up to 24 hours.
- Return of mains supply:
The application module executes an initialisation operation¹⁾, the basic display is restored. The saved programming is loaded from the memory. Any operations pending during the power outage will not be executed after return of mains supply.

¹⁾ If the buffer memory is full, date and time must be entered again.

Operation

Operating concept and display elements

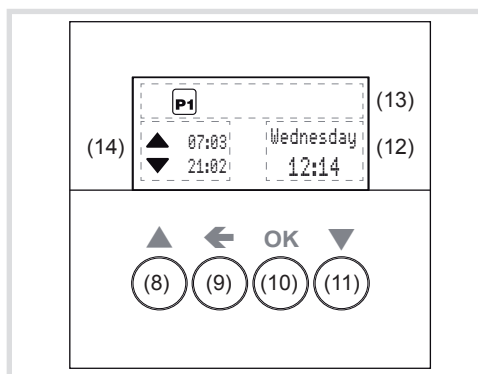


Figure 2: Display and operating elements

- (8) UP button ▲
 - (9) Back button ◀
 - (10) OK button
 - (11) DOWN button ▼
 - (12) Display area for weekday and time
 - (13) Display area for active functions/programming
 - (14) Display area for the next operation times
- When controlling the shutter, the buttons (Fig. 2) distinguish between a short press and a long press of > 0.5 seconds on the button.

Pressing the button for > 2 seconds can trigger various functions within the menu operation.

The current clock status is displayed. Active functions are displayed by using symbols (Table 1). Display illumination is activated for as soon as a button is pressed.

Symbol	Function
	Shutter timer disabled, button operation is not possible
	Manual operation, no automatic operation times
	Preset programme P1 (week programme) or P2 (week/weekend programme) is active
	Astro programme is active, UP and DOWN operation times are controlled depending on dawn/dusk times
	Party programme is active Only manual mode - programs, extension units and radio commands are not executed
	Holiday programme Random variation of operation times, only possible in combination with

Table 1: Displays in the function/programme line of the screen

Operate shutter - operation from the basic display

Manual shutter operation is possible at any time from the basic display, even if automatic programmes are active.

- Press the ▲ or ▼ button.
Short press on button: Adjustment of the slat position.
Long press on button (> 0.5 s): Lock, shutter moves to final position.

I The max. operation time upon a long press on the button is 2 minutes.

- Short press on ▲ or ▼ button during the shutter movement.
The shutter stops at the position reached.

Locking/unlocking operation

The operation buttons of the shutter timer can be locked, in order to prevent unintentional operation, e.g. by children.

The shutter timer shows the basic display.

- Press the ◀ button for more than 5 seconds.
 is displayed. The operation buttons are locked.

- Press the ◀ button again for more than 5 seconds.
 The lock icon disappears in the display. The operation buttons are enabled.

Opening the menu and navigating

The shutter timer is set and programmed via the menu.

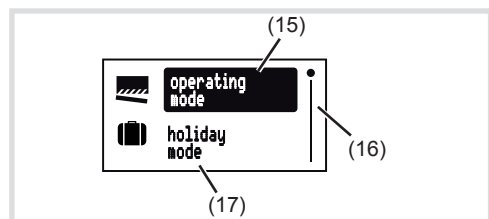


Fig. 3: Main menu

- (15) Selected menu item
- (16) Position display of the selected menu item in the list of options
- (17) Next option in the list

- Short press on any button.
Operation is activated. The display is illuminated.
- Long press on OK button.
The main menu is displayed. The first menu item **operating mode** (Fig. 3, 15) is highlighted dark.
- Press the ▲ or ▼ button to navigate through the menu.
The selected menu item is highlighted dark.
- Confirm the selected option by pressing OK.
The submenu opens.

i Navigation through the menus can continue as described above.

- Press the ◀ button.
The display switches to the previous contents. To return to the basic display, press the á button multiple times as necessary.

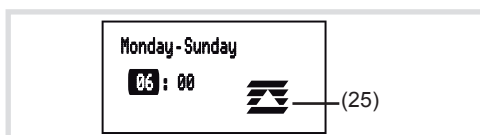
i If no button is pressed for a period of two minutes, the display returns to the basic display. The following diagram (Figure 4) shows an overview of the functions of the menus/submenus: A.. refers to sections with additional information. Values in brackets are visible depending on the timer programming status.

Setting the values

Values, such as time or date, have to be set first for the programming of some functions.

The value to be set is selected and is highlighted dark.

- Press the ▲ or ▼ button.
Short press on button: Change the value by one step.
Keep button pressed: Scroll through values. Scrolling stops when the button is released.



i If operation times are set, then a symbol (25) shows whether it is an UP or DOWN operation time.

- Press the OK button.
The set value is applied.
- Press the ◀ button.
The display switches to the previous value. The setting is not applied.

Submenu A1 - Select programme

One can choose between the following programmes:

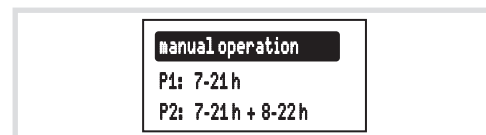
- **Manual operation:**
Operation takes place solely using the buttons (see Operate shutter - operation from the basic display).
- Time programmes **P1: 7 - 21 h** and **P2: 7 - 21 h + 8 - 22 h** :
These programmes are factory preset but can be changed individually.
P1 is a week programme with identical operation times for each day, **P2** is a week/weekend programme with different operation times for Mon. - Fri. and Sat. - Sun.
- **Astro mode:**
Programme for dawn/dusk-dependent control of the shutters (see submenu A7 - Setup Astro programme).

i The **astro mode** is only displayed if it has been set up.

- **Party mode:**
The party mode prevents unintentional operation of the controlled blinds/shutters by programmed operation time or extension unit operation, e.g. to prevent people from being shut out by the shutter going down.

i When the party mode is active, a blind/shutter can only be operated manually using the buttons on the time switch. Control of the shutter by higher-level control-sections and sensors as well as by extension units, radio and forced control commands is deactivated.

The shutter timer shows the Programme selection submenu (Fig. 4, 19). The most recently selected programme is highlighted dark.



- Press the ▲ or ▼ button to select the desired programme.
- Press the OK button.

The screen switches to the basic display. The selected programme is run, the corresponding symbol (Table 1) is shown in the display (Fig. 2, 13).

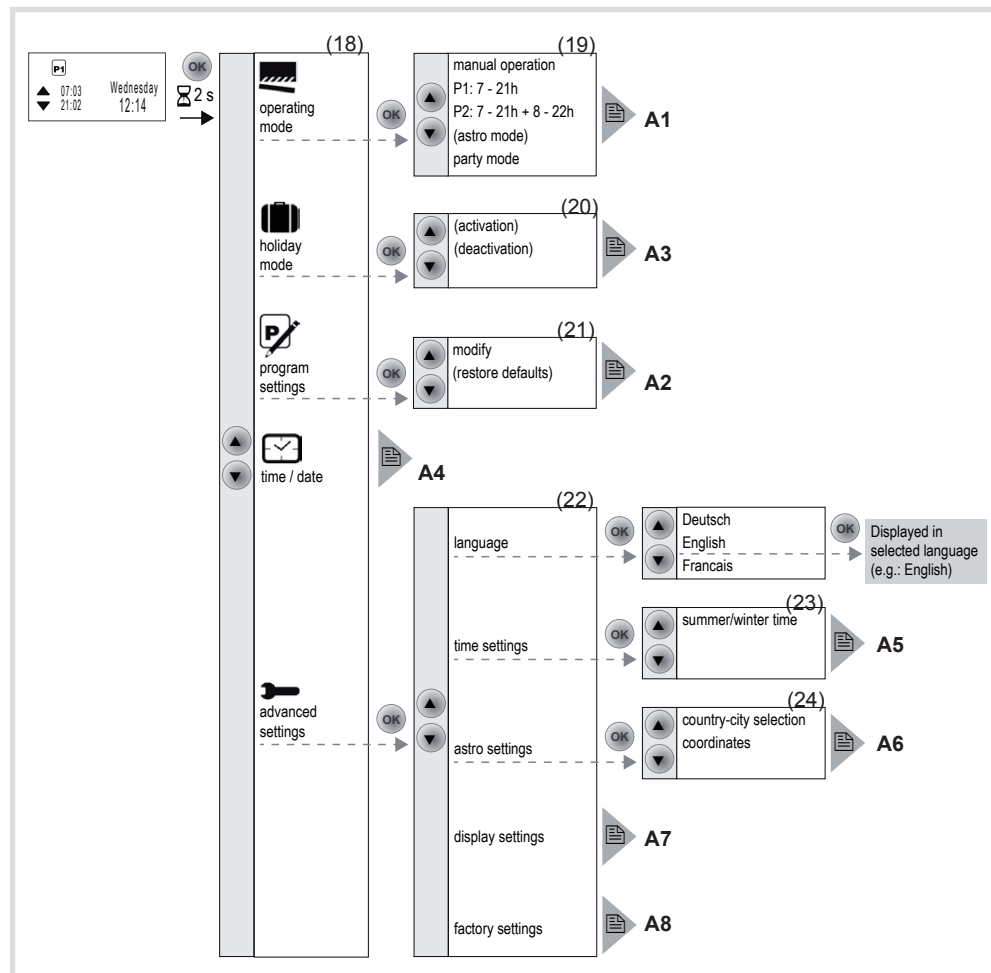


Figure 4: Menu overview

Submenu A2 - Modify, delete or add to programmes

The options **modify** and **restore defaults** (Figure 4, 21) can be used for the preset factory programmes:

- **Modify** to adapt, add to or delete operation times. A maximum of 20 operation times per day are possible.
- **Restore defaults** to reset a modified programme to the factory default programming.

Switching times can only be edited individually under **modify**. It is not possible to edit programme blocks (e.g. Mon. - Fri.).

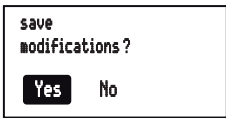
- Press the ▲ or ▼ button to select options or to change the values.
- Press the OK button.

Short press on button: Confirmation of the current selection or the set value.

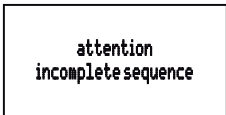
Long press on button (> 2 s) in programme editing: Adding an extra switching time or deletion of an existing switching time.



- Press the ← button.
Short press on button: The display switches to the last content.
Long press on button (> 2 s): Programming is completed, the switching times are skipped. Changes can be saved or rejected.





Should no DOWN operation time follow an UP operation time, or vice-versa, then the user is informed on the display before saving, that switching times are missing. Saving is nevertheless possible.



Submenu A3 - Activating/deactivating Holiday programme

The Holiday programme is a simple form of the presence simulation. The operation times of an existing programme (P1, P2, Astro) are varied, randomly, by ± 15 minutes. If operation times are too close together (difference < 15 minutes), then they are not varied.

The shutter timer can be found in the submenu **Holiday mode** (Fig. 4, 20).

- Confirm **activation** with OK.
The screen goes to the basic display and the symbol  for **holiday mode** is displayed (Fig. 2, 13).
- or:
- Confirm **deactivation** with OK.
The screen switches to the basic display and the symbol  for **holiday mode** is hidden in the display.

Submenu A4 - Set time/date

In the main menu (Fig. 4, 18), **time/date** is highlighted dark.

- Short press on OK button.

The hour display as an active element is highlighted dark.

- Set the date and time (see Setting values).
When all the setting options have been run through, the screen returns to the basic display.

Submenu A5 - Set time options

The automatic switching to standard/daylight saving time can be activated or deactivated for the shutter timer.

The submenu **time settings** is displayed (Fig. 4, 23).

- Press the buttons ▲ or ▼ to select the option Summer/winter time and confirm by pressing OK.



- Press the buttons ▲ or ▼ to select the required setting and confirm by pressing OK.
The device applies the setting and returns to the submenu **time settings**.

Submenu A6 - Setup Astro programme

The Astro programme leads to a dusk/dawn dependent control of shutters, meaning that automatic operation time adjustment occurs according to the season. As these operation times can be very early or very late, the Astro programme offers enhanced options in order to adapt the operation time.

- Deviation from dawn time by ± 120 minutes
- Deviation from dusk time by ± 120 minutes
- Earliest UP operation time (**earliest up time**)
No operation times are executed before the earliest UP time, as defined by dawn. The shutter moves UP at the time set here. Astro operation times after the set time are executed normally.

Example:

Set time	Sunrise	Executed operation time
earliest up time		
06:15	07:32	07:32
	05:23	06:15

- Latest DOWN operation time (**latest down time**)
No operation times are executed after the latest DOWN operation time, as defined by dusk. The shutter moves DOWN at the time set here. Astro operation times before the set time are executed normally.

Example:

Set time	Sundown	Executed operation time
latest down time		
20:00	17:42	17:42
	21:12	20:00

The installation location must be set to determine the correct Astro operation times.

- Country/city selection:
Simple setting option by selecting a country and a city near the location from a comprehensive list of European cities.
- The setting is made by entering the geographic co-ordinates and time zone of the location.

If the location is outside Europe or a high level of accuracy is required for the Astro operation times, then the setting should be made using the co-ordinates.

The submenu **astro settings** is displayed (Fig. 4, 24).

- Press the buttons ▲ or ▼ to select the setting type and confirm by pressing OK.


The country/city selection and the co-ordinate settings are displayed.

- Set the location and times (see Setting values). Run through all the setting options.

Having confirmed the **latest down time**, a query is displayed.



- Press the buttons ▲ or ▼ to select the required option and confirm by pressing OK.

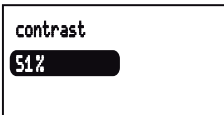
Yes: The screen switches to the basic display. The Astro programme is run and the symbol  is displayed (Figure 2, 13). The Astro settings are saved and **astro mode** is added to the programme selection (Fig. 4, 19).

No: The screen switches to the basic display. The Astro settings are saved and **astro mode** is added to the programme selection (Fig. 4, 19), but it is not executed.

Submenu A7 - Set display contrast

In the submenu Basic setting (Fig. 4, 22), **display settings** is highlighted dark.

- Short press on OK button.
The current contrast value as an active element is highlighted dark.




- Set the contrast (see Setting values).
Having made the setting, the display returns to the Basic setting submenu.

Submenu A8 - Resetting the device to the factory settings

In the factory settings, both the user's settings, such as programmes or Astro settings, are reset.

In the submenu advanced settings (Fig. 4, 22), **factory settings** is highlighted dark.

- Press the OK button for more than 10 seconds.
During initialisation, the display shows  and then switches to Start-up mode. Language, time and date must be reset.

Information for electricians

Installation and electrical connection

Assembly of the device (Figure 1)

The insert is installed (see operating instructions for the insert).

- Attach the application module (3) together with frame (2) to a suitable insert (1) so that the contact pins are inserted into the available jack.

As soon as voltage is supplied to the application module, the display indicates whether the application module and the insert are compatible with each other:

Display text	Meaning
(Operating mode indicator)	Compatible
Invalid Power Module	Not compatible
Invalid or defective Power Module!	Incompatible or missing supply voltage. Check the insert and replace as necessary.

Table 2: Compatibility of insert and application module

- If available, fix dismantling protection with screw (6).
- Click the design cover (5) into place on application module (3).

Start-up

First start-up

The device initialises itself when the mains voltage is switched on for the first time. Insert detection is carried out and, if an incompatible device is found, a message is displayed (see Table 2). Then an hourglass and the manufacturer's logo are displayed.

The language selection is displayed, the first language is highlighted dark.



- Set language, time and date (see Setting the values).
- The device switches to the basic display.



Appendix

Technical data

Connection	Mounting on suitable inserts (see Accessories)
Power supply	via insert
Power reserve via internal storage battery	24 h
Programmable operation times day/140 in total	max. 20 per
Change-over time	min. 600 ms
Shutter operating time	2 min
Slat angle adjustment time	150 ms
Relative humidity (no condensation)	0 ... 65 %
Ambient temperature	-5 ... +45 °C
Storage/transport temperature	-20 ... +60 °C

Accessories

Shutter insert comfort	WUJ42
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Web

Websites to determine the location's latitude/longitude:

- <http://www.active-value.de/geocoder/>
- <http://itouchmap.com/latlong.html>