

## 11. Functionality of the glass break detector (only activated in the automatic mode)

The detection of broken window panes requires the installation of a glass break detector. The roller shutter moves down without delay, if a strong impact or broken glass occurs within the sensing range (app. 1 m) of the glass break detector. The display will indicate the broken glass symbol (▲). At the next programmed up time, the roller shutter will not move up for safety purposes. Simply touch the up button to resume normal operation. The broken glass symbol will disappear and the roller shutter will move up and down at the programmed times.

## 12. Installation of the glass break detector

1. Make sure to attach the glass break detector only on a clean and grease-free window pane using the provided two-component adhesive.
2. Prepare binding and curing agents of the two-component adhesive according to the manufacturer's instructions on the packaging label.
3. Apply the adhesive onto the side of the glass break detector that is marked with a black bar.
4. Place the glass break detector carefully onto the window pane, minimum 5 cm away from the window frame and secure it with adhesive tape.  
Please make sure the glass break detector is mounted perpendicularly with the cable on the bottom.
5. Lay the connection cable all the way to the flush-mounted box or surface-mount housing and connect it to terminals 3 and 4.
6. Reinsert the frame and carefully push the display into the cover frame.

## 13. Description, maintenance and cleaning of the touchscreen display

Please note, that the touchscreen display is a sensitive electronic device. The slightest touch on its surface will initiate a switching operation. Excessive pressing, scratching or operation with a sharp-edged object can cause irreparable damage or even destroy the display. Therefore, you should absolutely avoid touching the display surface with a pointed or sharp-edged object. Use a lens cleaning cloth to clean the touchscreen.

## 14. Technical data

Power supply:	230 V~, 50 Hz
Impulse voltage withstand level:	2.5 kV
Rated power:	approx. 2 W
Output (up/down):	230 V~, 50 Hz
Maximum load:	250 V~, 50 Hz, 3 A, $\cos \varphi \approx 0.8$ ind.
Switching times down:	3 – 120 seconds
Reverse time:	0 – 30 seconds
Software class:	A
Operating temperature:	0 – 40°C
IP class:	IP 40
Degree of contamination:	2
Battery:	CR 2032

CE The CE mark is a free market mark, which exclusively refers to the authority but does not guarantee any properties. For the comprehensive declaration of conformity for this product, please refer to our Internet homepage: <http://www.vestamatic.de>

All technical data is subject to change!

## 16. Accessories

### Sun/twilight sensors:

Sun/twilight sensor, cable length 1 m:	Article-no. 01130130
Sun/twilight sensor, cable length 2 m:	Article-no. 01130230
Sun/twilight sensor, cable length 3 m:	Article-no. 01130330
Sun/twilight sensor, cable length 5 m:	Article-no. 01130530

### Glass break detector:

Glass break detector, cable length 1 m:	Article-no. 01200130
Glass break detector, cable length 2 m:	Article-no. 01200230
Glass break detector, cable length 3 m:	Article-no. 01200330
Glass break detector, cable length 5 m:	Article-no. 01200530

### Intermediate frame for flush-mounting:

Quattro intermediate frame for Berker Modul 2, alpine white:	Article-no. 01400600
Quattro intermediate frame for Busch-Jaeger, Reflex SI, alpine white:	Article-no. 01400570
Quattro intermediate frame for Gira System 55, pure white:	Article-no. 01400580
Quattro intermediate frame for Jung "CD 500", alpine white:	Article-no. 01400120
Quattro intermediate frame for Merten System M, polar white:	Article-no. 01400590

### Surface-mount housing:

Surface-mount housing for Quattro S50 timer:	Article-no. 01400250
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## 17. Warranty terms

For new devices, the Vestamatic GmbH issues a warranty period of 24 months, starting from the date of purchase, provided the device was mounted in accordance with the installation instructions. The warranty extent applies to all design, material and manufacturing defects.

Not included in the warranty extent are faults and defects due to:

- faulty mounting or installation,
- non-observance of the installation and operating instructions,
- inappropriate operation and strain,
- detrimental effects such as impacts, blows or weather,
- non-authorized repairs or modifications,
- use of inappropriate accessories.

Product deficiencies occurring within the warranty period will be remedied free-of-charge by Vestamatic, either by means of repair or by exchange of the device. A replacement delivery due to warranty claims does not prolong the original warranty period. The buyer bears all costs for mounting and installation.

## Personal notes

# Quattro S50 / S50 ZE

## Installation and Operating Instructions

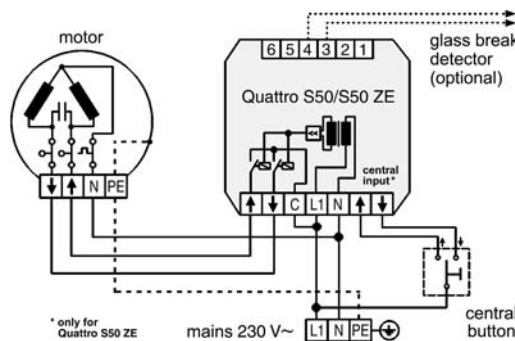


Quattro S50 / S50 ZE including frame

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## 3. Electrical connection



### \* Note concerning the central input:

Connection to a central input is **only** provided for *Quattro S50 ZE*. While an up/down command is applied at the central button, the timer cannot issue any stop and/or opposite commands via the *Quattro S50 ZE* timer. Only a tripped broken glass alarm can override the central command. The central input can be operated both in the manual and automatic mode.

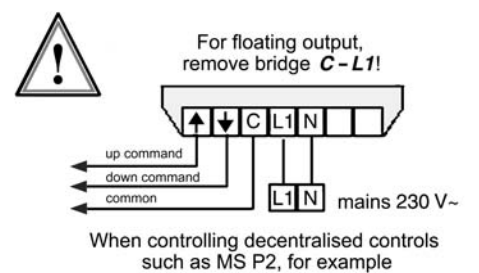
## 1. General

The **Vestamatic Quattro S50** timer is used for the manual and automatic control of electrically driven roller shutters. It features a large number of useful programming options and is manufactured according to the highest quality standards. Please take the time to read these operating instructions carefully prior to initial start-up.

Slightly touching the display turns on its illumination, which will turn off automatically 20 seconds after the last operation. Every function key operation is confirmed by a short acknowledgment beep. In case of power failure, all programmed settings and times remain stored in the memory for up to 4 years. After a power failure, the display will flash the first 10 minutes, then the display will not indicate for the duration of the power failure. After recovery of the operating voltage, the timer will automatically display the current time. After automatic voltage recovery, any up and/or down commands applied during the power failure will be executed.

## 2. Safety precautions

- The installation of the **Vestamatic Quattro S50** timer may only be carried out by a qualified professional electrician.
- Prior to work on windows or roller shutters controlled by the timer, the operating voltage must be turned off.
- The timer was designed for correct use as described in the operating instructions. Any changes or modifications thereof are not permissible and will result in loss of all warranty claims.
- Check the timer for signs of mechanical damage immediately after unpacking. Do not start up the device in case there is any damage.
- If safe operation of timer or sunshade cannot be guaranteed, the timer must be turned off immediately and protected against unintentional operation.
- This device contains a pollutant battery. The end user is legally obligated to properly recycle or return used/dead batteries according to Regulation 91/157 EWG. Disposal through domestic waste is not permissible.



### Important: The installation regulations in compliance with VDE 0100 must be observed!

When controlling multiple drives, isolating relays or suitable control units must be used. For drives with electronic limit stop, such as jolly EL.AX, please inquire.

## 4. Initial start-up and manufacturer's default settings

After installing the **Vestamatic Quattro S50** and turning on the supply voltage, the timer is in the manual mode and ready for operation. All automatic functions are still disabled but the roller shutter can be operated manually with the up/down button. The *Quattro S50 ZE* can also be operated via the central input. The current time, the date, the standard daily up/down times and additional default settings are programmed by the manufacturer (see tables 1 and 2) and only need to be adjusted to your personal requirements. Please touch the manual/automatic button (top left) in order to change from the manual to the automatic operation mode. The hand symbol will disappear and the button will indicate "Auto". The roller shutter will now automatically move up and down at the programmed times. Touching the "Auto" button again will change back to the manual mode. Even in the automatic mode, roller shutters can always be operated with the ▲ or ▼ buttons. In order to stop moving roller shutters, simply touch the opposite direction button.

Table 1

Default settings main menu:	
1st Up time:	daily at 06:00 h
1st Down time:	daily at 20:00 h
Random time:	OFF
random change of the up/down-time by +/- 15 minutes	
Astro function:	OFF
up/down times after sunrise and sunset	
Astro table:	Code 3
also required for the twilight function (North Rhine-Westphalia)	
Twilight function:	OFF
roller shutter closes at twilight	
Sun function:	OFF
when sunny, roller shutter moves down to the sensor	
1st Motor run time:	120 seconds
1st Reverse function/reverse time:	0.0 seconds
Time:	current time

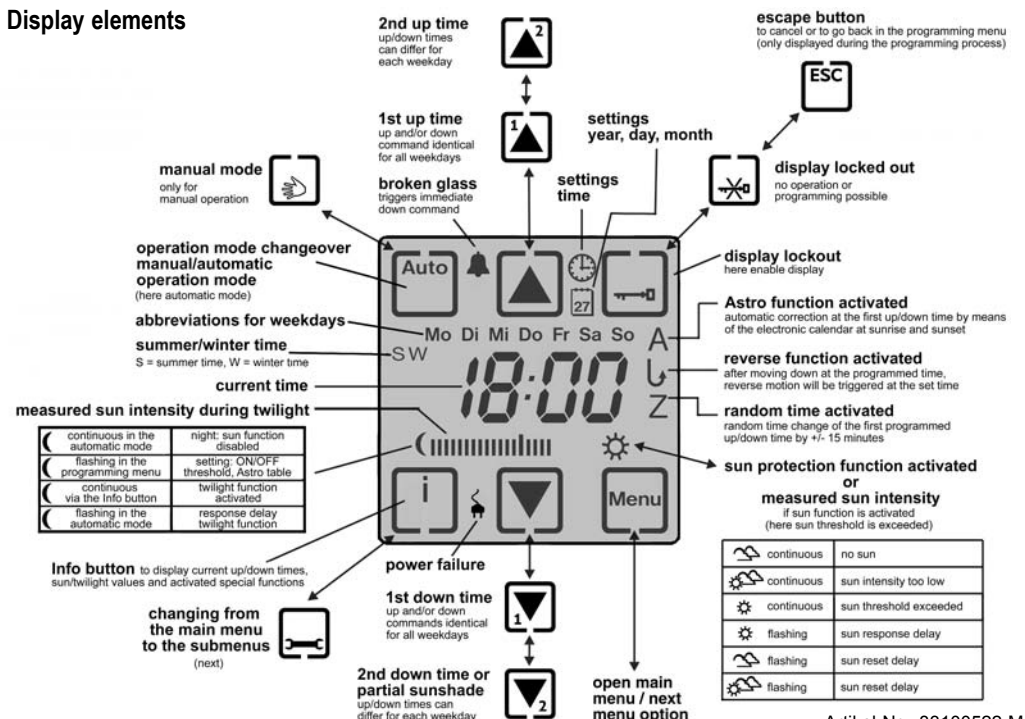
Table 2

Default settings submenu:	
2nd Up time (Mon, Tue, Wed, Thu, Fri, Sat, Sun):	OFF - - - -
2nd Down time (Mon, Tue, Wed, Thu, Fri, Sat, Sun):	OFF - - - -
2nd Motor run time:	120 seconds
2nd Reverse function/reverse time:	0.0 seconds
Astro time correction UP:	0 minutes
Astro time correction DOWN:	0 minutes
Twilight threshold:	0
Sun threshold:	0
Sun response delay:	1 minute
Sun reset delay:	16 minutes
Summer/winter time changeover:	automatically










### Info button

Touching the Info button [i] – only in automatic mode – will display the actual up/down times of each day, as well as all the activated special functions, such as random, Astro, reverse, sun protection and twilight function. The display indicates these functions with the corresponding symbols (Z, A, U, ✱, ☼). If either the sun or the twilight function is activated, the currently measured light intensity is displayed by means of a bar graph indicator.

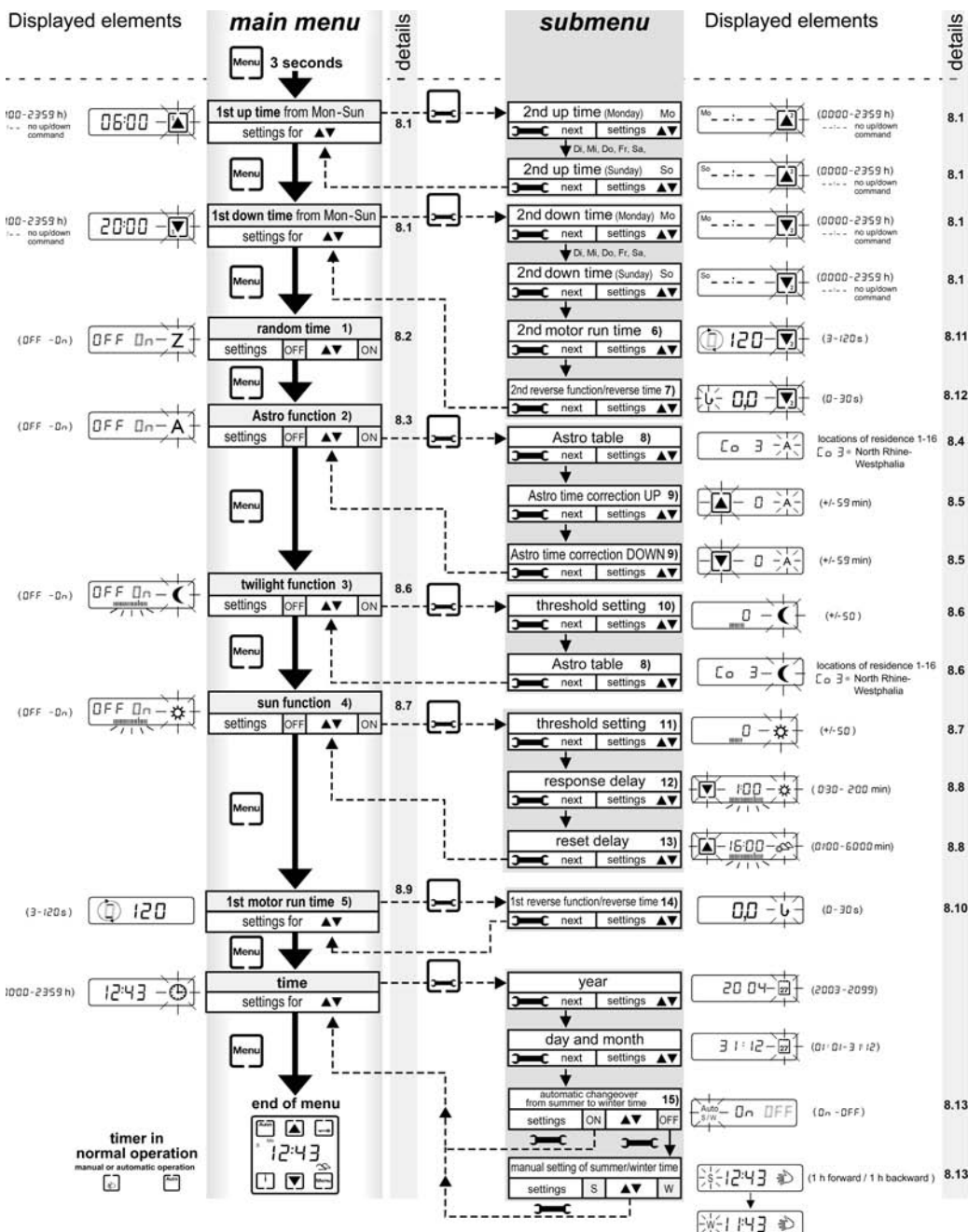
## 5. Display elements



## 6. Structure and description of the programming menu

The **Vestamatic Quattro S50** timer features a large number of functions, which can be set according to your individual preferences. Touch the menu button  for three seconds in order to access the main menu. In order to access the next menu option, touch the menu button  again. To access a sub-menu option, please touch the sub-menu button . By touching the escape button  you can go back one step in the main and/or sub-menu. Touching the escape button  for an extended time will quit the programming mode and automatically save all your changes. The values in each individual menu can be either set step by step by shortly tapping the  and  buttons or fast forward and reverse by tapping the  and  buttons for  $\approx 2$  seconds.

## 7. Programming menu






- 1) Random change of the up/down time by +/- 15 minutes
- 2) Up/down-times according to sunrise and sunset times
- 3) Closing the roller shutter by means of the twilight sensor
- 4) At sunshine, the roller shutter moves down to the sun sensor
- 5) Time, the roller shutter is triggered (120 sec = complete up or down motion, 3 sec = for DZ Plus control units)
- 6) Time, the roller shutter motor is triggered (120 sec = complete up or down motion, 15 sec e.g. for partial sunshade)
- 7) After the execution of the second up commands, the roller shutter shortly (0 – 30 sec) moves up, e.g. for air ventilation purposes

- 8) Input of the residence as basis for Astro and twilight function
- 9) Change of the Astro times by +/-59 minutes
- 10) Setting the light intensity for the twilight function
- 11) Setting the light intensity for the sun function
- 12) Waiting time, when roller shutter moves down after the sun threshold has been exceeded (required for changing lighting condition, e.g. due to clouds)
- 13) Waiting time, when roller shutter moves up after the sun threshold has been undershot (prevents immediate up motion due to short obscurity by a cloud)
- 14) see 7) but only for the first down commands
- 15) Automatic summer/winter time changeover

## 8. Programming details

### 8.1 Up/down times

The **Vestamatic Quattro S50 / S50 ZE** timer offers you three options to set the daily up/down times.

Day program: 	Week program: 	Combination of day and week program:  4 up/down commands
On each day of the week (Mon – Sun) the up/down times are identical.	Here different up/down times can be set for each day of the week.	1. On each day of the week the up/down times are identical. 2. Up/down times differ each day. The second up/down times can be set <b>for partial sunshade</b> without sensor.
<b>Programming in the main menu</b> 1st up and 1st down time	<b>Programming in the submenu</b> 2nd up and 2nd down time (Mon – Sun)	<b>Programming in main menu and submenu</b> 1st up/down time and 2nd up/down times
Make sure, that the 2nd up and 2nd down time is disabled (default setting). Disabling occurs between 23:59 h and 00:00 h and is indicated as -:- in the display.	Delete the 1st up and 1st down time in the main menu. Disabling occurs between 23:59 h and 00:00 h and is indicated as -:- in the display.	Please be sure, the 1st up and 1st down time as well as all 2nd up and 2nd down times are programmed. In order to use the 2nd down time as partial sunshade, the <b>motor run time</b> is adjusted in such a way, that the roller shutter only partially moves down.
	A combination of Astro, random and twilight function is not possible. Up/down commands will be accurately executed at the programmed time.	

### 8.2 Random time (can only be used for the 1st up/down time)


The random time function changes the first programmed up/down time by +/- 15 minutes and thus gives the impression of an inhabited house.

### 8.3 Astro function (can only be used for the 1st up/down time)

In principle, the Astro function is an electronic calendar. Depending on the programmed sunrise and sunset times, the up/down times are automatically adjusted under consideration of the geographic location of your residence (see Astro table). These will be compared to the set up/down times.

Please note:

1st programmed up time	before	the morning Astro time	roller shutter moves up <b>at Astro time</b>	thus always at the <b>later</b> time
1st programmed up time	after	the morning Astro time	roller shutter moves up <b>at programmed Astro time</b>	
1st programmed down time	after	the evening Astro time	roller shutter moves down <b>at Astro time</b>	thus always at the <b>earlier</b> time
1st programmed down time	before	the evening Astro time	roller shutter moves down <b>at programmed Astro time</b>	

By touching the Info button , you can always check the resulting actual up/down times of the respective day.

## 8.4 Astro table

A correctly working Astro function requires the input of the location of your residence due to different sunrise/sunset times throughout Europe. This input can also be used for the start of the twilight function.

Code	Area	Code	Area	Code	Area	Code	Area
1	Schleswig-Holstein, northern Lower Saxony	5	Rhineland-Palatinate, Saarland, Hesse	9	Scandinavia	13	Southern France
2	Mecklenburg-Western Pomerania	6	Saxony, Thuringia	10	Great Britain	14	Switzerland, Austria, northern Italy
3	North Rhine-Westphalia, southern Lower Saxony	7	Baden-Wuerttemberg	11	Northern France, Belgium, The Netherlands, Luxembourg	15	Spain
4	Brandenburg, Saxony-Anhalt	8	Bavaria	12	Germany	16	Southern Italy, Sicily, Corsica, Sardinia

## 8.5 Astro time correction UP and DOWN

If you are not content with the up/down times according to the calendar's sunrise and sunset times but still want to use this function, you can separately correct these times for the up/down command in a range of +/- 59 minutes.

## 8.6 Twilight function (when sun twilight sensor is mounted)

When the twilight function is activated (ON), the roller shutter will automatically move down as soon the individually adjustable twilight threshold and/or the preset light intensity has been undershot for five minutes. Since the twilight function, whose purpose it is to prevent the roller shutter from moving down too early, is activated *only one hour prior to the Astro time*, input of your residence's geographic region is required (see 8.4).

**Comment:** Whether a roller shutter moves down during twilight, largely depends on the programmed 1st down time.



time of twilight	before	programmed 1st down time	roller shutter moves down <b>at twilight</b>	thus always at the <b>earlier</b> time
time of twilight	after	programmed 1st down time	roller shutter moves down <b>at programmed down time</b>	

In order to prevent the programmed down times and the twilight down times from overlapping over the course of the year, we recommend to set the **1st down time at 23:00 h**. This will ensure, that the roller shutter always moves down at twilight.

**Comment:** If the set twilight threshold has not been undershot even one hour after the calendar's sunset (Astro time), e.g. because of too bright interior lighting, the roller shutter will automatically move down.

## Threshold setting

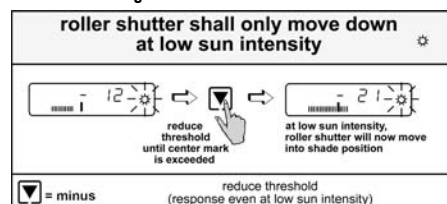
The default twilight threshold is preset to "0" by the manufacturer and can be set in a range between -50 and +50.

Desired change	Procedure
Roller shutter shall move down at <b>brighter</b> twilight (earlier)	⇒ Use  button to increase threshold to max. +50
Roller shutter shall move down at <b>darker</b> twilight (later)	⇒ Use  button to lower threshold to max. -50

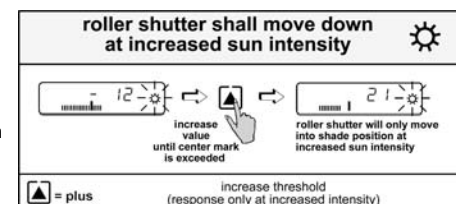
## 8.7 Sun function (only activated in the automatic mode)

With the sun function activated, the sun/twilight sensor, which is attached to the window, continuously checks the sun intensity. As soon as an individually selected sun threshold is attained, and the sun response delay has elapsed, the timer triggers the drive to move down the roller shutter. The roller shutter then moves down to the sensor and backs up a bit again. If the roller shutter does not move down at those lighting conditions, you perceive as correct, you can easily adjust the sun intensity threshold. The sun intensity is displayed by means of a bar graph indicator. As soon as the bar undershoots the mark in the center and the response delay has elapsed, the closed roller shutter will move up again. If the bar does not reach the mark in the center, the closed roller shutter will move up again after the response delay has elapsed.

## Threshold settings



The threshold can be individually adjusted between -50 and +50.



**Note:** The sun function operates only in the automatic mode and only between the programmed up and down times. After the evening down command, the sun function is automatically disabled because the roller shutter is closed. The display will indicate the moon symbol. In the automatic mode, the current sun intensity can always be indicated by touching the Info button and displaying the bar graph indicator.

## 8.8 Response and reset delay (for the sun function)

Response and reset delay are necessary in order to prevent the roller shutter from continuously moving up and down at quickly changing lighting conditions. After the sun threshold has been exceeded, the response delay will delay the downwards motion of the roller shutter. The reset delay prevents the roller shutter from immediately moving up after the sun threshold is undershot, e.g. due to temporary clouds.

## 8.9 1st Motor run time

The default 1st motor run time is set to 120 seconds by the manufacturer. This ensures, that the roller shutter can be completely opened and closed. **Note:** Make sure to always set the motor run time longer than the actual run time of the roller shutter. If the timer is used in combination with control units requiring a short-duration pulse, the motor run time is to be set to 3 seconds.

**Attention:** When using decentralised control units, such as DZ Plus, MS P2, the jumper between C and L1 must be removed!

## 8.10 1st Reverse function

Enter a time in seconds for the reverse function. After moving all the way down, the roller shutter will then move back up for those seconds you have entered and thus allows a gap position (for approx. 3 seconds or a partially open position for approx. 30 seconds). The roller shutter will only move back up, when the preset motor run time has elapsed, thus no later than 120 seconds. Reverse function = 0.0 indicates no reverse function.



**Note:** The reverse function must be set separately for the week program in the submenu and the day program in the main menu.

## 8.11 2nd Motor run time


The default 2nd motor run time is set to 120 seconds by the manufacturer. This ensures, that the roller shutter can be completely opened and closed. The 2nd down time can also be used as partial sunshade, provided that the sunshade is not controlled by a sun sensor. For this purpose, accordingly shorter run times (such as 15 seconds) should be programmed. If the partial sunshade is controlled by the 2nd motor run time instead of the sun sensor, the sunshade naturally moves into the shade position even during bad weather.

## 8.12 2nd Reverse function/reverse time, see 8.10

## 8.13 Automatic and manual summer/winter time changeover

When set to "ON" = summer and winter time will be automatically changed twice a year. When set to "OFF" = the automatic summer/winter time changeover is disabled and can be manually set with the  and  buttons.

## 9. Locking out the display

By touching the lock-out button  for 3 seconds, the display can be locked out for cleaning purposes. Touch the lock-out button for 3 seconds again, in order to unlock the display.

## 10. Installation of sun and twilight sensors

1. Carefully pull out the display.
2. Insert the plug of the sun/twilight sensor into the socket on the rear of the panel.
3. Carefully push the display back into the cover frame.
4. Attach the sun/twilight sensor at the desired location on the window pane.
5. Activate the sun/twilight function in the menu and switch the control to the automatic mode.

