

# Solexa II Radio control system

Item numbers 10144 (Display), 10150 (Set)





# elsner

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Installation, testing, commissioning and troubleshooting of the device may only be carried out by a qualified electrician.

This manual is amended periodically and will be brought into line with new software releases. The change status (software version and date) can be found in the contents footer. If you have a device with a later software version, please check

**www.elsner-elektronik.de** to find out whether a more up-to-date version of the manual is available.

#### Clarification of signs used in this manual

$\wedge$	Safety advice.
	Safety advice for working on electrical connections, components, etc.
DANGER!	indicates an immediately hazardous situation which will lead to death or severe injuries if it is not avoided.
WARNING!	indicates a potentially hazardous situation which may lead to death or severe injuries if it is not avoided.
CAUTION!	indicates a potentially hazardous situation which may lead to trivial or minor injuries if it is not avoided.
ATTENTION!	indicates a situation which may lead to damage to property if it is not avoided.
	"Control unit" The symbol is followed by a menu path. In this menu the settings just described can be changed.
	"Manual" The symbol is followed by chapter information with a page num- ber. In this chapter you will find additional information about the setting just described.

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# 1. Description

# 1.1. Range of application and functions

**Solexa II** controls via a wireless connection drives and devices on Elsner electronic wireless actuators and makes the convenient manual operation of these drives and consumers possible.

The basis of the system are the Solexa II display and weather station, which allow for automatic control according to time, indoor temperature, outdoor temperature, brightness, sun position, wind speed and precipitation.

- The shading automatic with weather station controls shutters, awnings and blinds according to the brightness and takes into account the direction of the sun, movement delays set, temperature blocks, wind, rain and frost alarms, movement position, timer and night functions.
- The ventilation automatic with weather station controls casement and sliding windows based on the indoor temperature. In doing so, outdoor temperature, wind, rain and frost alarm, movement position and timer functions are taken into account.
- The **light automatic** with weather station switches lights on and off according to the outdoor brightness (day/night) and time. If dimming modules are used, then the dim level (brightness of the lamp) is also taken into account.
- The heating automatic with weather station switches a one or two level heating according to the indoor temperature and takes into account day and night (timer switch) and has a timer switch for manual heating during nighttime operation.
- The **roof gutter automatic** with weather station switches a heating within a certain temperature range.
- For all outputs a daily automatic reset and an automatic reset, a short time after a manual operation, can be set.

#### Functions and characteristics of the Solexa II display:

 Operating part with monochrome touch display, indoor temperature sensor and real-time clock. Fixed integrated battery with USB charging socket. The display has a wall bracket, but can also be used like a remote control

#### Functions and characteristics of the Solexa II weather station:

- Brightness measurement (1 sun sensor), temperature measurement, wind speed measurement, precipitation recognition and GPS receiver for date/time and installation coordinates (sun position calculation)
- Weather station for use with up to 4 Solexa II displays
- Weather station with a connection for a 230 V motor (integrated motor control unit), for up to 16 Elsner RF wireless actuators and up to 32 Elsner RF-operating devices/sensors
- Integration of the weather station in the WLAN (for app usage) via optional interface SOL

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#### Compatible wireless actuators for the Solexa II system:

- Motor control units RF-MSG-ST, RF-MSG, RF-MSG-PF (each above Version 3.7) for drives on shadings and windows. If necessary, a number of drives can be connected to a RF-MSG using a group controller relay
- Switching relay RF-relay-ST, RF-relay-UP (each above version 5.5) for consumers such as lamps and one level heaters
- Dimmer RF-L UN-ST, RF-L LED-ST (each above version 1.4), RF-L-UP 1-10 V (above version 1.1) for dimmable lights
- Heating module RF-HE-St (above version 5) for two level heaters

The wireless actuators with a production date after 14.01.2016 are compatible with the Solexa II system. The production date can be found as part of the serial number which has the following structure "DD MM YY consecutive number".

#### Compatible operating devices and sensors for the Solexa II system:

- Remote control Remo 8 (above version 1.8), Remo pro
- Button Corlo P2 RF (above version 1.0)
- Button at the interface RF-B2-UP (above version 1.0)
- Temperature sensor WGT (above version 1.0)
- Sensor WGTH-UP (above version 1.3) for temperature measurement (humidity measurement by the sensor is not evaluated)

# **1.2.** Installation instructions

For information on installation, disposal, scope of delivery and technical data, please refer to the installation instructions.

### **1.2.1. Instructions for assembling the weather station**



#### Abb. 1

(A) There are drainage openings on the bottom of the housing.

(B) If necessary, the additional, prepared drainage point can be pierced. Proceed with caution so as not to damage the internal circuit board.

The wind value measured is outputted ca. 30 seconds after the power supply has been connected.

# 1.3. Initial start-up

 Installation, testing, operational start-up and troubleshooting of the unit should only be performed by an electrician (accredited according to VDE 0100).

The display is immediately ready for operation after having been unpacked. You can start with the basic settings as soon as the wireless modules and the weather station have been installed.

The display now already displays the room temperature:



Proceed with the installation of the control system as follows:

- 1. Installation
- 2. Basic settings (including teaching the wireless users) see the manual *Basic settings*.
- 3. Setting the automatic, see manual Automatic.

# 2. Operation

# 2.1. Operating the display

### 2.1.1. Charging the battery

The display has a fixed, integrated battery that cannot be removed. The "Battery" symbol displays the battery charging status:

- ➡ Charging status very good, device is ready for use.
- Charging status good, device is ready for use.
- Charging status low, charge the battery.
- **+ Beep every 15 minutes**. Charging status very low, charge the battery.
- Both SOC bars flashing. Battery faulty. Consult technical service of the manufacturer.

Charge the display before initial start-up. To charge, connect the display via a USB socket with a mains socket charging device or a PC. The charging device must have a charging current of 200 mA (or more).



Fig. 2

The USB charging socket is at the lower edge of the display.

If the device is not charged in time, the display switches off. If a weather station is being used in the system, then the automation is not affected. The automation continues to run without the indoor temperature function.

## 2.1.2. Maintenance and care

Fingerprints on the display and the housing are best removed with a cloth moistened with water or a microfibre cloth. Do not use an abrasive cleaning agent or aggressive cleansing agents.



# 2.2. The touch display

The manual controls, and the default settings of the automatic functions and the devices connected via radio, are carried out via the touch display of the control system. The button surfaces are actuated by pressing the display in the respective area. If a key is pressed, a brief audio signal is emitted.

Operating the display with long fingernails will not damage the display screen or the touch function. Touching with very hard and pointed objects (e.g. made from glass, gemstone or metal) should be avoided because this can cause scratches.

In addition to a direct touch with a finger, a biro without an extended pen tip can also be used to operate the display.

# **2.2.1.** Display and operating options on the start screen



The display has various areas in which information and functions can be called up.

Loading data.

#### 1 - Mode

The actual mode of the selected output is displayed.

Tap in the area of the symbol to change mode (Automatic/Manual).

Press in the area of the (Automatic/Manual) symbol to set all outputs with activated "daily automatic reset at a set time" to automatic (press until the high beep "button held down" sounds). Automatic mode. Automatic functions for the selected output are active.

Manual mode. Output was operated manually or switched to manual mode.

After an output has been operated manually, it remains in manual mode. Automatic mode is inactive. Set an automatic mode reset so that the output switches back to automatic, once a day or after a certain time after being operated manually (see *General settings* chapter: *Automatic reset* in the manual and automatic reset in the individual automatic descriptions in the manual).

#### 2 – Battery charging status

Observe the chapter 2.1.1. Charging the battery, page 12.

#### 3 – Time, day of the week

The time can be displayed in 12- or 24-hour mode. Further information on setting the clock can be found in the *Setting the time* chapter in the manual.

#### 4 - Settings menus

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Tap to access the automatic settings or

hold down for 3 seconds to access the default settings.

The automatic settings are described in the Automatic chapter in the manual.

The default settings are described in the Default setting chapter in the manual.

#### 5 – Room temperature and weather data

In this area, the indoor temperature value is displayed and, if a weather station is being used, the outdoor/weather data also. In this case, tap on the area with the values to switch between the "Temperature" display and the "Brightness/Wind" display.



Further information on the values for brightness and wind is in the manual, chapter *4.3.6. Units for sun and wind*, page 162.

#### 6 - Time reception (weather station)

If the radio symbol is displayed in the start screen, the controller has, within the last 5 minutes, received the actual time from the GPS receiver integrated into the weather station.

If no radio symbol is displayed, then the time has not been received for over 5 minutes. The controller's internal clock continues to run.

#### 7 – Active output functions

The right-hand edge of the display indicates the selected output functions, i.e. automatic mode status. There is a more precise description in the *2.2.1.1*. *Meaning of the functional symbols (automatic mode status)*, page 15 chapter.

#### 8 – Rocker switch for manual operation

9 - Outputs

You use the rocker switch to drive or switch the individual outputs manually. The outputs are visible at the lower edge of the display with the display position number and type symbol. The selected output is marked by a frame around the display position number.

Please note that at this position only outputs are displayed for which the display has been activated (see manual, *Display position* chapter in the descriptions of the default settings for *Motor control units (RF-MSG, weather station)*, for *Relay (RF-Relay, RF-HE)* and for *Dimmer (RF-L)*.

- Change output.
- Operate or switch selected output manually.
- $\boldsymbol{\smile}$

 $\bigcirc$  Selected output is blocked for manual operation (alarm function active).  $\underset{\longleftrightarrow}{\leadsto}$ 

# 2.2.1.1. Meaning of the functional symbols (automatic mode status)

The symbols show the automatic mode status for the selected output and the alarm functions valid for the manual mode. A function is only displayed if it has been activated for the output.

#### Shading (shutters, awnings, blinds)

Please note that for an action such as "extend shading" a number of conditions must be fulfilled. The functions are listed here in the sequence of their priority. This means that the sun protection function is only executed if all previously named functions for the shading have been released. The detailed description of the automatic functions is in the Shading - automatic mode chapter in the manual.

#### Alarm functions:

Alarm functions have the highest priority and prevent manual operation of the output.

Wind alarm. Retracted shading. Φ

In automatic mode, manual operation can again be activated, even if the automatic functions are blocked by wind alarm.

Frost alarm (combination of precipitation and low outdoor temperature). Retracted shading.

Rain alarm.

Retracted shading.

#### Time and night functions:

Timed closure or timed opening active.  $(\Box)$ 

- Dropping below the threshold value for twilight/night. \*\*
  - Night closure is executed.

#### Indoor and outdoor temperature:

- Indoor temperature is OK. Shading is released.
- **(1**) If the not symbol is displayed, the indoor temperature block is active.
  - Outdoor temperature is OK. Shading is released.
- If the *not* symbol is displayed, the outdoor temperature block is active.
  - Retraction delay is running. Shading is blocked because indoor temperature is  $\mathbf{X}$ too low.

#### Sun direction:



The sun is in the shading zone (compass direction). Shading is released.

#### Sun protection function:

Brightness threshold value for shading has been exceeded, extension delay is running. After the delay time has expired the shading is extended, if all other conditions are OK.



Shading is performed if all other conditions are OK.



Brightness below threshold value for shading, retraction delay is running. Sha-) ding is retracted after the delay time has expired.



Brightness below threshold value for shading. Sun protection automatic inactive.

#### Window

Please note that for an action such as "Ventilate according to indoor temperature" a number of conditions must be fulfilled. The functions are listed here in the sequence of their priority. This means that the temperature-dependent ventilation function is only executed if all previously named functions for the ventilation have been released.

The detailed description of the automatic functions can be found in the *Windows-Ventilation-Automatic mode* chapter in the manual.

#### Alarm functions:

Alarm functions have the highest priority and prevent manual operation of the output.

D Wind alarm. Window closed.

Manual mode: Manual operation blocked. Automatic mode: Output can be operated if the wind automatic block is running.



 $(\Box)$ 

Frost alarm (combination of precipitation and low outdoor temperature). Window closed.

🗥 Rain alarm.

Depending on the setting, the window is either closed or in the rain position.

#### **Timer functions:**

Timed closure or timed opening active.

#### **Outdoor temperature:**

Outdoor temperature is OK. Ventilation is released.

If the *not* symbol is displayed, the outdoor temperature block is active.

#### Ventilation function:

Indoor temperature for ventilation has been exceeded.

Ventilation is performed if all other conditions are OK.

#### Light

The detailed description of the automatic functions is in the *Light - Automatic mode* chapter in the manual.

- Values below twilight threshold value. Lights are switched on after a delay of
- 1 minute. If a lighting time period has also been set, the lights are only switched on during this period.
- ${}^{\textcircled{0}}$  Lighting time period active. If twilight switching has also been set, the lights are only switched on in twilight.

#### Heating

The detailed description of the automatic functions is in the *Heating - Automatic mode* chapter in the manual.

- Day mode. Only the day temperature value set is valid.

Night mode (night period). Only the night temperature value set is valid.



Currently valid reference temperature value not reached. Heating is turned on.

#### **Roof gutter heating**

The detailed description of the automatic functions can be found in the *Roof gutter heating - Automatic mode* chapter in the manual.



Outdoor temperature in the set range. Heating is turned on.

### 2.2.2. Beeps

If a button or a touch sensitive area is actuated, a beep sounds. If a button has been held down, then a higher beep sounds as confirmation that the button has been recognised as held down. This is, for example, valid for the settings button in order to access the default settings or the SET button to save.

Shortly before the display battery is flat, a warning signal sounds every 15 minutes (combination of high and low beeps).

### 2.2.3. Error messages

If, instead of a sensor value, ER error is displayed then the wireless connection to the weather station is disrupted or the sensor is defective.

Check whether the weather station is powered (fuse). Have the device checked by an electrician if the problem continues.



Installation, testing, operational start-up and troubleshooting of the unit should only be performed by an electrician (accredited according to VDE 0100).

# 2.2.4. Table: Memory locations for the outputs and inputs

In the table you can enter the devices that have been taught and the functions for the individual memory location and note keywords for automatic mode set.

Memory location	Туре	Display position	Room	Keyword

Memory location	Туре	Display position	Room	Keyword

Memory location	Туре	Display position	Room	Keyword

### 2.3. Operating the weather station

#### 2.3.0.1. Maintenance of the weather station



#### WARNING!

**Risk of injury caused by components moved automatically!** The automatic control can start system components and place people in danger (e.g. moving windows/awnings if a rain/wind alarm has been triggered while cleaning).

• Always isolate the system from the mains for servicing and cleaning.

The device must regularly be checked for dirt twice a year and cleaned if necessary. In case of severe dirt, the sensor may not work properly anymore.



#### ATTENTION

The device can be damaged if water penetrates the housing.

Do not clean with high pressure cleaners or steam jets.

# 3. Base settings

# **3.1. Information regarding base settings**

□ BASE SETTINGS



#### ATTENTION

Rain and wind alarms are deactivated while the base settings are displayed.

The base settings let you define important functions for operation and view the status of the device and wireless connections.

The following items are set in the base settings:

Abbr.	Item	
	<u> </u>	

- LAN Display language
- CLC Clock
- LEA Learn radio connections
- StAt Status for existing radio connections
- OUt Setting up outputs
- SER Service settings

Home screen





1. On the home screen, press the settings symbol for a longer time (approx. 3 seconds) until the high beep "long key stroke" sounds, in order to open the base settings.



The first item of the base settings is displayed (language).

You can now select your settings for the language, time etc. consecutively or jump items in order to get to where you want to make changes.

Use the following key functions to navigate in the base settings and make the settings:

( )

(<u>)</u>

Select setting.

Next/Previous setting.



Modify value.



Save and up one level (press for a longer time until the "long key stroke" beep sounds).



Leave settings, one level up without saving.



Leave settings, back to home screen without saving.



( ) 2. Switch to the desired setting.

You automatically leave the base settings and the home screen is shown, if no input occurs over a period of 5 minutes. Any changes made will not be saved.

### 3.1.1. Sequence for commissioning

The electrical installation must be completed before you start the base settings.

Please maintain this sequence for commissioning:

- 1. LAN (language, in case you wish to change it)
- 2. LEA (learn radio connections)
- 3. OUt (setting up outputs)
- 4. CLC (clock)

Once you have completed the base settings, continue with the automatic settings (4. Automatic, page 65)

# 3.2. Setting the language

#### □ BASE SETTINGS > LAN

Menu navigation for the Solexa II Control may be done in German or English.



1. Press the settings symbol for a longer time on the home screen (high beep) in order to activate the base settings.



2. Select the setting LAN language.

Select the language dEU (German) or ENG (English) (the value is flashing). Pre-set ENG.



# 3.3. Setting the time

#### □ BASE SETTING > CLC

The clock does not have to be set since the time of day is received via GPS by the weather station. Do make the setting, however, of whether the display on the home screen is in 12 hour or 24 hour mode, and how much the local time deviates from coordinated universal time UTC. If required, you can also use the automatic Switch off summer time changeover.



1. Press the settings symbol for a longer time on the home screen (high beep) in order to activate the base settings.



The following settings are available for the item CLC (clock):AbbreviationSetting24h12- or 24-hour displayUtCDeviation from UTC

#### SU Summer time changeover CET/CEST

#### Display mode 24/12 hour mode

□ BASE SETTING > CLC > 24h

The time may be shown in 24 hour mode or in 12 hour mode. If you select 12 hour mode, the indication "AM" or "PM" is displayed next to the time.

Note: The settings you make here only affect the display of the time on the home screen of this display. All settings for timers etc. in the menus are shown in 24 hour mode.





3. Select the item **CLC clock**.

4. Select the setting 24h 24/12 hour scheme.



Select the scheme 24 h or 12 h (value flashes). Pre-set: 24 h.

#### **Deviation from UTC**

□ BASE SETTING > CLC > UtC

Adjust the deviation of the local standard time ("winter time") in hours from UTC (coordinated universal time).

UTC deviation for Germany, standard time (winter time): +1:00 h.





3. Select the item **CLC clock**.

4. Switch to the setting UtC UTC deviation.



4. Select the setting UtC.

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Adjust the value (hours, number is flashing). Pre-set: 1:00 h, setting range -9:00 h to 9:00 h in full hours.

Any modification of the UTC deviation become visible on the clock on the display within about 2 minutes after the changes were made. Other displays in the system register the modification within approx. one hour. It is possible to speed up the update by restarting the displays (see chapter *3.7. Service area*, page 62).

#### Summer time changeover CET/CEST

 $\hfill\square$  BASE SETTING > CLC > SU

Set whether the **Solexa II** should automatically switch between summer and standard time (winter time) according to the summer time rule for Germany ("ON") or whether the standard time (winter time) should be maintained permanently ("OFF").

For weather stations up to and including software 2.6, a restart (power off and on again) must be carried out after switching CET/CEST on or off in order for the changeover to take effect. This is not necessary for newer software versions.



3. Select the item **CLC clock**.

ţ<u>ې</u>

#### 4. Switch to the setting SU Summer time changeover CET/CEST.



4. Select the setting SU.

Select between ON or OFF (value flashes). Default setting: ON.



Back without saving

### 3.4. Establishing wireless connections

□ Base settings level > LEA

All radio participants that are to work together in the **Solexa II** system first have to be taught-in. Please also always observe the instructions for teaching provided in the radio participant's data sheet.



#### WARNING! Electrical voltage!

Some devices have the programming key for teaching the wireless connection inside the housing and thus near unprotected live components.

Only skilled electricians (pursuant to VDE 0100) may teach-in such devices.



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1. Press the settings symbol for a longer time on the home screen (high beep) in order to activate the base settings.

2. Switch to the item LEA Learning.

At the **first start**, the radio connection to the weather station must be established first. Continue with chapter *3.4.1. Wireless connection with the weather station*, page 30.

If there **already is a wireless connection with the weather station**, the display will switch directly to the learning mode. Continue with chapter *3.4.2. Teaching radio actuators, operating devices and sensors*, page 31.

### 3.4.1. Wireless connection with the weather station

When you put the system in learning mode for the first time, the radio connection between display and weather station has to be established first.

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Installation, testing, operational start-up and troubleshooting of the unit should only be performed by an electrician (pursuant to VDE 0100).





3. Select the item **LEA Learning**.

Activated learning mode is indicated by the animation of the antenna symbol. Switch on the voltage connection of the weather station (16 A automat in the distribution box/ fuse box) or press the PRG key inside the housing.



#### WARNING! Electrical voltage!

The programming key of the weather station is inside the housing and thus near unprotected live components.

Therefore the device may be taught exclusively by a skilled electrician (pursuant to VDE 0100).

A brief sound signal shows that the weather station has been successfully taught. The display jumps up one menu level.

Continue with the teaching of the radio modules.

# **3.4.2. Teaching radio actuators, operating devices and sensors**

As soon as there is a radio connection with a weather station, **LEA Learn** automatically calls up the learning mode for radio actuators.





3. Select the item LEA Learning.

Activated learning mode of the system is indicated by the animation of the antenna symbol. Radio participants are now taught in that sequence in which the learning telegrams are received. Once a radio participant has been successfully taught, a short beep for confirmation sounds and the number of radio participants that have just been taught is displayed.



Switch on the voltage supply of the devices in order to teach-in radio actuators. This causes the operating devices and sensors to send a learning telegram. See the short overview below and the data sheets for the individual radio participants.

<u>Remote control Remo 8:</u> Press the middle of the key +/- until an "L" for ready for learning appears on the display. Press the up/down arrow keys to establish a radio connection.

<u>Pushbutton Corlo P2 RF</u>: Keep both keys pressed simultaneously for 5 to 7 seconds. Let go and press again briefly. The radio connection is automatically established in the next 15 seconds

Button interface RF-B2-UP: Press one of the PRG keys.

WGT: Press the PRG key.

WGTH-UP: Press the PRG key (right opening in the housing).

The system remains in learning mode for 5 minutes. If you wish to exit the learning mode before that time, press the Back button.

#### 3.4.2.1. Teach additional displays to a weather station



Installation, testing, operational start-up and troubleshooting of the unit should only be performed by an electrician (pursuant to VDE 0100).

Up to four Solexa II displays can be taught to a Solexa II weather station. The weather station has to learn each display separately. Proceed as described in chapter *3.4.1. Wireless connection with the weather station*, page 30.

After the learning, this display also shows any radio connections and settings that were already adjusted for the weather station via other displays.

Each display offers access to base and automatic settings.

Set suitable display spaces for the outputs of each display in order to adapt the manual operator interface (home screen) to the room in which the display is used (see chapter

*Display spaces* in the chapters on base settings of *Motor control device, relays* and *Dimmer*).

#### 3.4.2.2. Teach WLAN interface SOL to a weather station



Installation, testing, operational start-up and troubleshooting of the unit should only be performed by an electrician (pursuant to VDE 0100).

If a weather station is available in a system, the control may be integrated into local wireless networks (WLAN) via the WLAN interface SOL. This allows you to use the system with the **Solexa II Mobile App** using a smartphone or tablet PC.

1. First configure the connection of the SOL WLAN interface with the router and the app. Please observe the installation instruction for the interface.

2. Once the app signals that the SOL interface is in learning mode, you can install the connection to the Solexa II weather station:

3. Switch on the voltage connection of the weather station (16A automat in the distribution box/fuse box) or press the PRG key inside the housing.



#### WARNING! Electrical voltage!

The programming key of the weather station is inside the housing and thus near unprotected live components.

 Therefore the device may be taught exclusively by a skilled electrician (pursuant to VDE 0100).

The app notifies you when the weather station has been successfully taught.

# 3.5. Status display and deleting radio participants

□ Base settings level > StAt

The radio status of all radio participants can be viewed here, and radio connections can be deleted.



1. Press the settings symbol for a longer time on the home screen (high beep) in order to activate the base settings.

2. Switch to the item StAt Status.



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3. Switch to the item StAt.

#### **Status display**

All radio participants in the system are displayed with their current radio status. The following abbreviations are used for the radio participants:

- OP: Operating unit (Solexa II display)
- RE: Remo remote control
- b2: Button interface RF-B2-UP
- P2: Pushbutton Corlo P2-RF
- t: WGT sensor
- tH: WGTH-UP sensor
- M: Motor control unit
- R: Relay
- HE: Heating relay
- dl: Dimmer

Behind the abbreviation, the memory location number is displayed (see also *3.5.1. Memory locations*, page 36). The internal motor control unit of the weather station is not displayed since the weather station acts as a central device.


Tick means: radio connection is OK.

ER error means: radio connection is interrupted. In this case, the radio participant should be checked by a skilled electrician.

# **Deleting a radio participant**

Each individual radio participant may be deleted. When deleting, any settings made for a radio output (e.g. type, automatic settings) are deleted. If a new radio actuator is to be taught to this output (memory location), please reset the base settings!

The weather station is an exception. Once it has been taught-in, it acts as a central unit and cannot be removed. Follow the instructions in chapter *Deleting the control data of the weather station*, page 36 in order to delete the data of the weather station. The Solexa II display may be deleted in systems with a weather station. If you world like to reteach the same display, reset it to factory settings before doing so (see chapter 3.7. Service area, page 62). In order to teach the display (or a different one), proceed as explained in chapter 3.4.2.1. Teach additional displays to a weather station, page 32.



4. Press the settings key in the status display of the radio participant to be deleted in order to reach the deletion menu. 5. Press the SET key for a longer period (high beep) to delete the radio participant.



SET

Or press the Back key to cancel.

# Deleting the control data of the weather station



#### WARNING! Electrical voltage!

The programming key of the weather station is inside the housing and thus near unprotected live components.

Only skilled electricians (pursuant to VDE 0100) may delete such devices.



# ATTENTION

Loss of data!

When deleting the control data of the weather station, all radio connections and settings are lost. The device is reset to factory settings. The automatic control is no longer active.

If you would like to reset the Solexa II system, all the data of the weather station must be deleted. Proceed as follows:

- 1. Press the PRG key on the weather station board and only release it when the LED lights up permanently.
- 2. Press the PRG key and only release it when the LED flashes.
- 3. Press the PRG key and only release it when the LED goes out. The data is deleted.

# **3.5.1. Memory locations**

Certain memory locations in the system are reserved for certain devices. Within a memory area, the devices are placed according to their learning sequence.

Position	Range	Device type	Number of devices
01	Weather station	Drive output of the weather station	1
02 to 05	Displays	Display	4
06	WLAN	WLAN interface	1
07 to 22	Outputs	Actuators	16
23 to 54	Inputs	Operating units and sensors	32

When display and weather station are combined:

# 3.6. Setting up outputs

#### □ BASE SETTING > OUt

Each radio actuator taught to the system must be installed in this setting. Various settings options are shown depending on the actuator (motor control unit, relay...).

Home screen

Base setting (language)

Base setting (outputs)



1. Press the settings symbol for a longer time on the home screen (high beep) in order to activate the base settings.

2. Switch to the item **OUt outputs**.



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3. Select the item OUt.



4. Switch to the desired "space"/memory location (output).

The outputs also are named according to the memory location number (see also *3.5. Status display and deleting radio participants,* page 33). In addition, output 01 is marked with the weather station symbol.

 Operate the output with the up/down keys to determine which motor or output
consumer occupies that memory location. Note the function in the *1.7. Table:* Memory locations for the outputs and inputs, page 11.

#### 

Rain and wind alarms are deactivated while the base settings are displayed.

You may consecutively adjust the settings for each output or jump items to reach the setting you want. Make sure that you make sure to adjust all settings during first commissioning to ensure correct control of the output (safe position etc.). The following settings must be adjusted:

Motor control unit (drive on weather station or RF-MSG):

- tYP: Awning, blinds, shutters, window or reserve
- rOt: Rotational direction

mAN: Manual drive direction

- ALCO: Alarm command in case of wind, rain, frost (control of conventional control units)
- OPEN/EtN: Opening travel time (window) / extension time (shades)
- CLOS/rtr: Closing travel time (window) / retraction time (shades)
- rEVt: Reverse travel time (only for shutters)
- dEAd: Dead travel time
- dISP: Home screen display position
- INPt (InPt): Assignment of inputs (operating units)

Relays (consumers on RF relays):

- tYP: Light, heating, gutter heating or reserve
- dISP: Home screen display position
- INPt (InPt) Assignment of inputs (operating units)
- Two-stage relays (consumers on RF-HE):
- tYP: heating
- dISP: Home screen display position
- INPt (InPt): Assignment of inputs (operating units)

Dimmer (consumer on RF-L):

- tYP: Light
- mIN: Minimum dimming value
- mA: Maximum dimming value
- SbH: Behaviour when switched on
- SOVL: Switch on value
- dISP: Home screen display position
- INPt (InPt) Assignment of inputs (operating units)

Once base settings have been made on an output, it is in manual mode.

### 3.6.0.1. Operation with two or more displays

While base settings are made for a display taught to the system, this menu area is blocked for any other displays. If you try to simultaneously display the base settings of the output on another display, ER (error, mistake) is shown.

# **3.6.1. Motor control devices (RF-MSG, weather station)**

```
\Box BASE SETTING > OUt > SP X
```

The available settings for the weather station correspond to those for a radio motor control unit.

# 3.6.1.1. Type

□ BASE SETTING > OUt > SP X > tYP

You have to assign the type of device or drive connected for each radio module taught to the outputs of the **Solexa II Control**, or which function the output has to have. The automatic menu for the output is activated on the basis of this setting.





5. Select the settings for the output/memory location.



6. Select the setting tYP type .



Select ANG awning, WID window, bLd blind, SHt shutter or rES reserve (value flashes).

Reserve type means that the output is deactivated and neither automatic nor manual control via the system is available.

# 3.6.1.2. Rotational direction

```
□ BASE SETTING > 0Ut > SP X > r0t
```

The setting of the rotational direction defines the secure position of a drive. The correct setting is important for a safe function of the automatic function, e.g. for wind and rain alarms.

The settings for the rotational direction must be made independently of the subsequent settings for the manual drive direction.





5. Select the settings for the output/memory location.

6. Switch to the setting **rOt rotational direction**.



7. Select the setting rOt.

ATTENTION

#### Shades (awnings, shutters, blinds):

Check the drive behaviour when you press the UP key. You may move the drive with the up/down keys for this purpose.



### Rain and wind alarms are deactivated while this menu item is displayed.

Select rtr retract if the shading retracts with the UP key. Select EtN extend if the shading expands with the UP key.

The value flashes and is for once modified with right/left in this menu.



#### Window:

STOP

Check the drive behaviour when you press the UP key. You may move the drive with the up/down keys for this purpose.

# ATTENTION

#### Rain and wind alarms are deactivated while this menu item is displayed.

Select CLOS close if the window closes with the UP key. Select OPEN open if the window opens with the UP key.



The value flashes and is for once modified with right/left in this menu.

# 3.6.1.3. Manual drive direction

 $\Box$  BASE SETTING > OUt > SP X > mAN

For the drives, you can set the key that extracts and the one that retracts, or the one that opens and the one that closes. This adapts the assignment of the rocker switches to the actual drive direction of the drive and thus facilitates the operation for the user.





5. Select the settings for the output/memory location.

#### 6. Switch to the setting mAN manual direction.



7. Select the setting **mAN**.

#### Shades (awnings, shutters, blinds):

You may move the drive with the up/down keys for testing.

#### ATTENTION Rain and wind alarms are deactivated while this menu item is displayed.

Select rtr retract, if the shading should retract with the UP key. Select EtN extend, if the shading should expand with the UP key. The value flashes and is for once modified with right/left in this menu.



#### Window:

You may move the drive with the up/down keys for testing.



#### ATTENTION Rain and wind alarms are deactivated while this menu item is displayed.

Select CLOS close, if the window should close with the UP key. Select OPEN open, if the window should open with the UP key.



The value flashes and is for once modified with right/left in this menu.

# 3.6.1.4. Drive command for alarm functions

 $\Box$  BASE SETTING > OUt > SP X > ALCO

If a rain, wind or frost alarm is triggered, the drive is moved to a safe position (shading is retracted, window closes). The alarm drive command may end once the set retraction/closing travel time is over, or it is maintained continually as long as the alarm notification is valid.

The continuous drive command is required if you use the **Solexa II Control** as a central unit for wired motor control units (e.g. IMSG 230) that control several drives.





6. Switch to the setting **ALCO alarm command**.



7. Select the setting **ALCO**.

Select NO if the alarm drive command should end, once the set retraction time and/or closing travel time is over (pre-setting, setting for normal shading or window controls). Select YES if the alarm drive command should be maintained continuously. In this case, the drive command ends, once no alarm notification is present. The value flashes.



# 3.6.1.5. Extension time / opening travel time

#### □ BASE SETTING > OUt > SP X > EtN / OPEN

Travelling to an exact travel position is only possible once the travel times for the extension/opening and retraction/closing have been set. During commissioning, take the travel times and set them here.

#### Shades (awnings, shutters, blinds):

Determine the travel time for the extension, i.e. how long the drive takes to move from a fully retracted position (safe position) to a fully extended position (100% shading).





5. Select the settings for the output/memory location.

## 6. Switch to the setting **EtN extension time**.



#### 7. Select the setting EtN.

Adjust the value (number is flashing). Pre-setting 235 seconds, settings range 0 to 300 seconds.



#### Window:

Determine the travel time for opening, i.e. how long the drive takes to move from a fully closed position (safe position) to a fully opened position (100% opened).





7. Select the setting **OPEN**.

Adjust the value (number is flashing).



# 3.6.1.6. Retraction time / Closing travel time

□ BASE SETTING > OUt > SP X > rtr / CLOS

Travelling to an exact travel position is only possible once the travel times for the extension/opening and retraction/closing have been set. During commissioning, take the travel times and set them here.

#### Shades (awnings, shutters, blinds):

Determine the travel time for the retraction, i.e. how long the drive takes to move from a fully extended position (100% shading) to a fully retracted position (safe position).





5. Select the settings for the output/memory location.

6. Switch to the setting **rtr retraction time**.



7. Select the setting rtr.

Adjust the value (number is flashing). Pre-setting 240 seconds, settings range 0 to 300 seconds.



The retraction time must be longer than the extension time in order to fully retract the shades.

#### Window:

Determine the travel time for closing, i.e. how long the drive takes to move from a fully opened position (100% opened) to a fully closed position (safe position).





7. Select the setting **CLOS**.

Adjust the value (number is flashing).



The closing travel time must be longer than the opening travel time in order to fully close the window.

# 3.6.1.7. Reverse travel time

□ BASE SETTING > OUT > SP X > rEVt

This setting is only requested for the "shutters" type. An exact slat position may only be reached if the travel time for reversing is set. During commissioning, take the respective travel time and set it here.

Determine the reverse travel time, i.e. the time the slats need to make a complete turn, from the "closed" position to the stop on the other side.





5. Select the settings for the output/memory location.

6. Switch to the setting **rEVt reverse travel time**.



## 7. Select the setting **rEVt**.

Adjust the value (number is flashing).

Pre-setting 2.70 seconds, settings range 0.00 to 60.00 seconds (in steps of tenths of seconds).



# 3.6.1.8. Dead travel time

□ BASE SETTING > OUt > SP X > dEAd

The dead travel time describes how long an electronic drive needs to actually start the motion once the control relay has been closed. Stating the dead time allows a more precise positioning of the drive, e.g. when adjusting the slat angle (reversing). Please input the settings provided by the drive manufacturer.



6. Switch to the setting **dEAd dead travel time**.



### 7. Select the setting **dEAd**.

Adjust the value (number is flashing).

Pre-setting 0.00 seconds, settings range 0.00 to 2.00 seconds (in steps of hundredths of seconds).



# 3.6.1.9. Display position

 $\Box$  BASE SETTING > OUt > SP X > dISP

Each output (memory location) is assigned to a display position on the home screen when taught-in. You can change the position of the outputs (memory locations) and hide them in this menu. The outputs are then displayed in that order in the lower display area and may be selected for manual operation.

During the setting of the outputs, the display position is shown in the lower left home screen area near the type symbol.





5. Select the settings for the output/memory location.

# 6. Switch to the setting **dISP display position**.



### 7. Select the setting **dISP**.

Select the display position (number is flashing) or select OFF if the output should not be displayed on the home screen (the OFF value is between 19 and 1).

Display positions that have already been assigned are not shown and can therefore not be selected. In order to sort each output to the desired display position, you may work with short-term hiding or "caching" on high display position.



# 3.6.1.10.Assigning operating devices (inputs)

□ BASE SETTING > OUt > SP X > INPt

All outputs can basically be manually operated via the Solexa II display once they have been assigned a display position (see setting *Display position*). Additional operating devices such as on-site pushbuttons or remote controls are taught via the LER learning function. Each pushbutton and each channel on the remote control may be connected with the outputs. This allows you to directly operate the shading, window, light or heating on site using the pushbutton or the remote control.

# **STOP**

#### ATTENTION

Only drives/devices that have the same function should be operated together by one operating unit and/or channele.g. only shutters or only windows or only dimmable lights).

A maximum of eight operating units can be assigned to one output. The remote control Remo and a pushbutton interface RF-B2-UP are regarded as one device, the channels on a lower hierarchical level are not taken into account.





5. Select the settings for the output/memory location.



6. Switch to the setting INPt input assignment.



7. Select the setting INPt.

#### **Remote control Remo:**

Symbol for memory location with remote control 61

For remote control, you first have to assign the hand-held transmitter, then the desired channel.



While the memory location is shown, UP and/or DOWN is illuminated on the display when you press the respective key on the operating unit.



8. Link the remote control (press again to de-select the link).

ଚି When an operating unit and/or channel is assigned to an output, this is indicated by the link symbol (chain) next to the memory location number.





9. Select the linked remote control.



Switch to the desired channel on the remote control.



10. Link the channel (press again to de-select the link).

When an operating unit and/or channel is assigned to an output, this is indicated by the link symbol (chain) next to the memory location number.



11. Save the link (press for a longer time, high beep).

Check the assignment by manually operating the output via the remote control channel.

#### **Pushbutton Corlo P2 RF:**



Symbol for memory location with pushbutton



Switch to the memory location number of the pushbutton.



While the memory location is shown, UP and/or DOWN is illuminated on the display when you press the respective key on the operating unit.





8. Link the pushbutton (press again to de-select the link).

When an operating unit and/or channel is assigned to an output, this is indicated by the link symbol (chain) next to the memory location number.

9. Save the link (press for a longer time, high beep).

Check the assignment by manually operating the output via the pushbutton.

#### Button interface RF-B2-UP:



Symbol for memory location with pushbutton

Please make sure that you assign a double pushbutton to a drive and/or dimmer output.

Since two pushbuttons may be connected to the pushbutton interface, you first have to assign the interface and then the desired pushbutton.

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Switch to the memory location number of the pushbutton interface.

While the memory location is shown, UP and/or DOWN is illuminated on the dis play when you press the respective key on the operating unit.





8. Link the pushbutton interface (press again to de-select the link).

When an operating unit and/or channel is assigned to an output, this is indicated by the link symbol (chain) next to the memory location number.





9. Select the linked pushbutton interface.

()

Switch to the desired pushbutton channel on the pushbutton interface.

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10. Link the channel (press again to de-select the link).

When an operating unit and/or channel is assigned to an output, this is indicated by the link symbol (chain) next to the memory location number.



11. Save the link (press for a longer time, high beep).

Check the assignment by manually operating the output via the pushbutton.

# 3.6.2. Relay (RF relay, RF-HE)

 $\Box$  BASE SETTING > OUt > SP X

# 3.6.2.1. Type

 $\Box$  BASE SETTING > OUt > SP X > tYP

You have to assign the type of device or drive connected for each radio module taught to the outputs of the **Solexa II Control**, or which function the output has to have. The automatic menu for the output is activated on the basis of this setting. The heating module RF-HE is an exception in that the type is automatically recognised as heating.





5. Select the settings for the output/memory location.

6. Select the setting **tYP type**.

 Type and display
 Image: set on the screen of the scree

For an RF relay, select HEAt heating, LIG light, rOOF roof gutter heating or rES reserve (value flashes). The type is fixed to HEAt heating for the heating module RF-HE.

Reserve type means that the output is deactivated and neither automatic nor manual control via the system is available.

# 3.6.2.2. Display position

 $\Box$  BASE SETTING > OUt > SP X > dISP

Each output (memory location) is assigned to a display position on the home screen when taught-in. You can change the position of the outputs (memory locations) and hide them in this menu. The outputs are then displayed in that order in the lower display area and may be selected for manual operation.

The selection of a display location is identical for all radio actuators. Please follow the instructions in chapter *3.6.1.9. Display position*, page 51.

# 3.6.2.3. Assigning operating devices (inputs)

 $\Box$  BASE SETTING > OUt > SP X > INPt

The assignment of operating devices is identical for all radio actuators. Please follow the instructions in chapter *3.6.1.10*. Assigning operating devices (inputs), page 52.

# 3.6.3. Dimmer (RF-L)

□ BASE SETTING > OUt > SP X

# 3.6.3.1. Type

□ BASE SETTING > OUt > SP X > tYP

The type is automatically set to dl dimmer for an RF dimmer at one output of the **Solexa II Control** and does not have to be set.

## 3.6.3.2. Minimum dimming value

 $\Box$  BASE SETTING > OUt > SP X > mIN

The dimming range for the light may be limited. This limitation applies to the manual dimming of the lamp and for automatic mode. Set the minimum dimming value here. If applicable, please note the manufacturer's information for the lamp.



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5. Select the settings for the output/memory location.

6. Switch to the setting **mIN minimum dimming value**.



7. Select the setting **mIN**.

Adjust the value (number is flashing). The connected light is dimmed to the currently set value.

Factory setting 20%. The available range for the settings depends on the setting for the maximum dimming value. The minimum dimming value must be at least 10% below the maximum value.



## 3.6.3.3. Maximum dimming value

 $\Box$  BASE SETTING > OUt > SP X > mA

The dimming range for the light may be limited. This limitation applies to the manual dimming of the lamp and for automatic mode. Set the maximum dimming value here. If applicable, please note the manufacturer's information for the lamp.





5. Select the settings for the output/memory location.

6. Switch to the setting **mA maximum dimming value**.



7. Select the setting **mA**.

Adjust the value (number is flashing). The connected light is dimmed to the currently set value.

Factory setting 100%. The available range for the settings depends on the setting for the minimum dimming value. The maximum dimming value must be at least 10% above the minimum value.



# 3.6.3.4. Behaviour when switched on

 $\Box$  BASE SETTING > OUt > SP X > SbH

When manually switching on the light, you may either switch to the last selected dimming value or to a pre-set switch-on value. The switch-on value is set in the next menu option.





5. Select the settings for the output/memory location.

6. Switch to the setting **SbH switch on behaviour**.



7. Select the setting **SbH**.

Select LASt last dimming value or INPt input value (value flashes).



# 3.6.3.5. Switch on value

 $\Box$  BASE SETTING > OUt > SP X > SOVL



The dimming value upon switching on is selected here.



5. Select the settings for the output/memory location.



6. Switch to the setting **SOVL switch-on value**.



7. Select the setting SOVL.

Adjust the value (number is flashing).

Factory setting 10%. The available range for the settings depends on the settings for the minimum and maximum dimming value.



# **3.6.3.6. Display position**

 $\Box$  BASE SETTING > OUt > SP X > dISP

Each output (memory location) is assigned to a display position on the home screen when taught-in. You can change the position of the outputs (memory locations) and

hide them in this menu. The outputs are then displayed in that order in the lower display area and may be selected for manual operation.

The selection of a display location is identical for all radio actuators. Please follow the instructions in chapter *3.6.1.9. Display position*, page 51.

# 3.6.3.7. Assigning operating devices (inputs)

 $\Box$  BASE SETTING > OUt > SP X > INPt

The assignment of operating devices is identical for all radio actuators. Please follow the instructions in chapter *3.6.1.10. Assigning operating devices (inputs)*, page 52.

# 3.7. Service area

□ BASE SETTING > SER

STOP

# ATTENTION

#### Material damage due to improper use of the service functions!

The service settings are not required for the normal functioning of the control.

The service area shows the software version of the display and the weather station. The control may also be restarted and the display be returned to factory settings.



1. Press the settings symbol for a longer time on the home screen (high beep) in order to activate the base settings.

### 2. Switch to the item **SER service**.



3. Select the item SER.

The following data is displayed:

Vxx: Display software version

Vx: Weather station software version

The following functions are available:

StAR: Restart the display software

FACt: Load factory settings (deleting any settings made on the display)

### Showing the display software version

First, the display software version is shown (e.g. V 1.0)



# Showing the weather station software version

Advance to the next page.

This shows the weather station software version (e.g. V 1).



# **Display restart**

Switch to the StAR restart page.

The mode and the automatic are not affected by a restart of the display software.



 $\ensuremath{\left( \text{SET} \right)}$  Press the SET key for a longer period (high beep) to restart the system.

## Loading the display factory settings

Switch to the FACt page.

Resetting to factory settings will delete all display settings. After that, there is no radio connection between this display and the weather station, i.e. the display can no longer be used for manual operation and does not communicate any inside temperature data to the weather station.

The settings saved in the weather station remain intact, the automatic functions continue to work.



SET Press the SET key for a longer period (high beep) to reset the display to factory settings.

# 4. Automatic

# 4.1. Controls in automatic mode

The automatic control mode ensures that ambient climate values and timer settings are maintained.

#### Switching between automatic and manual mode

If one of the shades, a window, a light or a heating device is operated manually, the output switches to manual mode and remains in that mode. The automatic mode for that output is switched off. In this, it does not matter whether the manual operation was initiated via the display, via other radio operating devices logged into the system or via the app.

An automatic reset to automatic mode for the output occurs only when the automatic mode is reset. For further information about automatic mode resets, please refer to chapter *Automatic reset*, page 80.

The current mode of an output is shown on the display as soon as the output is selected (there is a frame visible around the number of the display position). On the top left, you can see either an A for automatic or a hand symbol for manual mode. Tap on the display around those symbols to change the mode. The symbol changes and the respective other mode is active.

#### Alarm functions

In case of a rain, wind or frost alarm, all outputs for which the alarm has been triggered are moved to safe position, independently of whether they are in automatic or in manual mode. After the alarm has been cancelled, the mode that was last active is restarted.

Please refer to the description of the automatic settings for each output type for more information about the priority of functions.

# 4.1.1. Safety information regarding automatic and alarm functions



#### WARNING!

**Risk of injury due to automatically moved components!** The automatic control may cause parts of the system to travel and pose a danger to humans.

- No persons may remain in the travelling range of electronically driven parts.
- Adhere to the relevant building regulations (see guideline for power-operated windows, doors and gates BGR 232 et al).
- Always disconnect the system from the mains power before maintenance or cleaning (e.g. switch off/remove fuse).

#### Rain alarm for automatically controlled windows:

Some time can pass before falling rain is recognised by the sensors in the system, depending on the rain amount and outdoor temperature. Furthermore, a closure time must be calculated for electrically-actuated windows or sliding roofs. Humidity-sensitive items should therefore not be placed in an area where they might be damaged by incoming precipitation. Please also bear in mind that in the event of a power failure and rainfall, a window will not be automatically closed if no emergency generator is installed.

#### Running rails of shades icing up:

Note that the rails of shutters, awnings and blinds which are externally mounted can ice up. Operating the drive under such conditions can damage the shades and drives.

# 4.1.1.1. Power failure, maintenance work, etc. (restart of control system)

In case of a **power failure**, drives and devices can no longer be controlled. In the event that a full range of services must be ensured even in the event of a mains power supply failure, an emergency power supply system with the relevant switching from the mains to the emergency power supply must be installed.

Settings which have been saved in the control system program will remain unaffected by any power failure.

All the drives and devices for which an automatic reset has been selected are in automatic mode after a **restart** following a voltage recovery (e.g. power failure). If in a system with a weather station only the display is restarted, the mode and the automatic are not affected by that.

Should **cleaning or maintenance work** be performed in the building, the control system must be voltage-free by tripping the fuse fitted on site, and secured against reactivation. This is to ensure that the controlled drives cannot operate.

# 4.1.2. Sequence for commissioning

Before starting the settings for the automatic mode, the base settings for the control must have been completed. The following items in particular must have been set (see *Base settings*, page 21):

- 5. LAN (language, in case you wish to change it)
- 6. CLC (time of day)
- 7. LEA (learn radio connections)
- 8. OUt (setting up outputs)

# 4.1.3. Key functions in the automatic menu

The following key functions are required for all configuration elements for automatic mode:





Select setting.

Modify value.



Save (press for a longer time until the high "long key stroke" beep sounds).



Leave settings, one level up without saving.



Leave settings, back to home screen without saving.

# 4.2. General automatic settings

 $\Box$  AUTO > GN

The general automatic settings include conditions that apply to several outputs, e.g. the travel delays for all shades and the twilight threshold value for all twilight/night functions.

The following parameters are adjusted in the general automatic settings:

- tLt: Twilight threshold value for shades and light
- dEL: Travel delays for shades
- FrAL: Frost alarm values for shades and windows
- WAL: Wind alarm automatic lock for shades and windows
- ArSt: Automatic reset for all outputs

You may consecutively adjust the settings or jump items to reach the setting you want.

Modifications to the general automatic settings may be entered on any display registered in the system. If modifications are entered parallel on two displays, the one that was saved last is always active. Any modifications saved before are overwritten. In case of changes, all parameters of the "general automatic settings" are saved (twilight threshold value *and* travel delays *and* frost alarm...).

# 4.2.1. Twilight threshold value

#### $\Box$ AUTO > GN > tLt

Lights, shutters, blinds and awnings have automatic functions that differentiate between day and night (or twilight). Here you can adjust the value below which the **Solexa II Control** switches to twilight/ night. The switch occurs with a temporal delay after the value has been lower than the threshold value or the latter has been exceeded continuously for more than 1 minute.



 1. Press the settings symbol time on the home screen briefly to access the automatic settings.

2. Switch to GN general in the automatic settings.



3. Select the item **GN**.

Gen. automatic (twilight)





4. Select the setting tLt twilight.



Adjust the value (number is flashing). Pre-setting 10 Lux, settings range 1 to 200 Lux.

# 4.2.2. Travel delays

#### $\Box$ AUTO > GN > dEL

Shutters, blinds and awnings have a travel delay in the sun automatics. This delay ensures that the shades do not continuously retract and extend in case of rapidly changing light conditions.

Here you can adjust the delay time for extension and retraction.



1. Press the settings symbol time on the home screen briefly to access the automatic settings.



2. Switch to **GN general** in the automatic settings.



3. Select the item **GN**.

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**4**. Switch to the setting **dEL travel delays**.

Here, the following travel delays are determined: <u>Abbreviation</u> <u>Setting</u> <u>EtN</u> extension delay rtr retraction delay

# **Extension delay**

#### $\Box$ AUTO > GN > dEL > EtN

The default setting for extension is 1 minute. Brightness must accordingly remain above its set value for shading for 1 minute continuously in order to extend the shades. The shades can thus react rapidly to the sun.



5. Select the setting dEL.

(<u>)</u>

6. Select the setting EtN extension delay.

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Adjust the value (number is flashing). Pre-setting 1 minute, settings range 1 to 240 minutes.



# **Retraction delay**

 $\Box$  AUTO > GN > dEL > rtr

The default setting for retraction is 12 minutes. Brightness must accordingly remain below its set value for shading for 12 minutes continuously in order to retract any shades that have been extended. The shadow from clouds passing in front of the sun can thus be "blanked out".



6. Switch to the setting **rtr retraction delay**.



7. Select the setting **rtr**.



Adjust the value (number is flashing). Pre-setting 12 minutes, settings range 1 to 240 minutes.

# 4.2.3. Frost alarm values

#### $\Box$ AUTO > GN > FrAL

Shutters, blinds, awnings and windows may be protected against freezing by means of a frost alarm. The frost alarm is active when during or after precipitation the outdoor temperature falls below a defined level.

The frost alarm is triggered in the following situations:

- The outdoor temperature is below the set frost alarm switch-on temperature and it begins to rain/snow.
- The outdoor temperature drops below the set switch-on temperature while it is raining/snowing.
- It has rained/snowed. The outdoor temperature falls below the set frost alarm switch-on temperature within the set standby period after the end of the precipitation.

The frost alarm ends in the following situations:

• The outdoor temperature remains above the set switch-off temperature for the set period of time.

You adjust which blinds will be retracted and which windows will be closed in case of frost alarm in the automatic functions for the individual blinds and windows. The frost alarm blocks all automatic functions and manual operation for those drives.

In case of an active frost alarm, the symbols for rain and for outdoor temperature are shown on the home screen (see chapter *The touch display*, page 13).





1. Press the settings symbol time on the home screen briefly to access the automatic settings.

2. Switch to **GN general** in the automatic settings.



3. Select the item **GN**.



4. Switch to the setting **FrAL frost alarm**.

This is where you set the following conditions for the frost alarm:

Abbreviatio	n Setting
ON	switch-on temperature for frost alarm
Stb	standby period with temperature check after precipitation.
OFF	switch-off temperature for frost alarm
FLL	follow-up time for the frost alarm

# Switch-on temperature for frost alarm

 $\Box$  AUTO > GN > FrAL > ON

First determine when the frost alarm shall be triggered. Set the outdoor temperature that must be undercut to trigger the frost alarm.





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#### 6. Select the setting ON switch-on temperature.

Adjust the value (number is flashing). Pre-setting 2°C. Lowest selectable value -5°C The range available for setting depends on the setting made for the switch-off temperature. The switch-on temperature is always at least 1° below the switch-off temperature.



# **Standby period**

 $\Box$  AUTO > GN > FrAL > Stb

Select how many hours after precipitation the frost alarm standby mode should be active (e.g. 5 hrs.). The temperature is also monitored during precipitation. Select the standby period in a way ensuring that the humidity left from the previous precipitation has all dried up.





6. Switch to the setting Stb standby.



7. Select the setting Stb.

Adjust the value (number is flashing). Pre-setting 5 hours, settings range 1 to 10 hours.



## Switch-off temperature for frost alarm

 $\Box$  AUTO > GN > FrAL > OFF

Select the conditions for stopping the frost alarm. Determine which outdoor temperature must be exceeded (e.g. 5°C).





6. Switch to the setting OFF switch-off temperature (press twice).



7. Select the setting **OFF**.

Adjust the value (number is flashing). Pre-set value 5°C, highest adjustable value 10°C. The adjustment range depends on the settings made for the switch-on temperature. The switch-off temperature is always at least 1° above the switch-on temperature.



#### **Follow-up time**

 $\Box$  AUTO > GN > FrAL > FLL

Determine the period of time that the switch-off temperature must be exceeded in order to actually turn off the frost alarm (e.g. 5 h). Select a period ensuring that ice has completely melted away.





6. Switch to the setting FLL follow-up time (press 3 times).



# 7. Select the setting FLL.

Adjust the value (number is flashing). Pre-setting 5 hours, settings range 1 to 10 hours.



# 4.2.4. Wind alarm automatic lock

#### $\Box$ AUTO > GN > WAL

If the wind threshold value for a shading or a window is exceeded for the duration of the delay time set in the output automatics, the wind alarm is triggered. When the values fall below the threshold value again, the alarm is maintained for another 5 minutes. If the wind value is exceeded once more during this period, the holding time of 5 minutes restarts. In the automatic settings, the wind threshold value and the delay time are determined separately for each shading and each window.

In addition, a period of time after the wind alarm can be set. During this period, the automatic functions are blocked. This means that if the output is in automatic mode before or during the wind alarm, then the automatic functions initially remain blocked after the wind alarm. However, manual operation is already possible again if no other alarm functions are active.

Set the period for the automatic block here. It applies to all shades and windows with wind alarm.





1. Press the settings symbol time on the home screen briefly to access the automatic settings.

2. Switch to GN general in the automatic settings.



3. Select the item GN.



4. Switch to the setting WAL wind alarm automatic lock.



5. Select the setting WAL.

Adjust the value (number is flashing). Pre-setting 0 minutes (no delay), settings range 0 to 360 minutes.



# 4.2.5. Automatic reset

#### $\Box$ AUTO > GN > ArSt

After manual operation, the respective automatic shading, the window, the light or heating device always remains in manual mode, automatic mode is deactivated. At the time of the general automatic reset, all drives and devices are returned to automatic mode. In addition, you may determine that automatic mode is reactivated after manual operation as well. The delay period for this can be set.

Automatic resets prevent manual operation of drives which then might remain in an inconvenient position (window inadvertently remains open, shutter remains retracted despite sunlight).

The general automatic reset and reset after manual operation can be separately activated and deactivated for each output in the automatic menu.



1. Press the settings symbol time on the home screen briefly to access the automatic settings.

## 2. Switch to GN general in the automatic settings.



3. Select the item **GN**.



4. Switch to the setting ArSt automatic reset.

 This is where you set the following conditions for the automatic reset:

 Abbreviation
 Setting

 Time for the general automatic reset.

dEL Delay for reset to automatic after manual operation

# Time of day for automatic reset

 $\Box$  AUT0 > GN > ArSt > tl

Determine the time of day for the daily automatic reset. The reset may be separately activated and deactivated for each output in the automatic menu





5. Select the setting ArSt.

6. Select the setting tl time of day.

First adjust the hour for the automatic reset (number flashes).

Then switch to the minute setting.

Adjust the minutes for the automatic reset (number flashes). Pre-setting 3:00 o'clock.



# **Delay time**

 $\Box$  AUTO > GN > ArSt > dEL

Set the period of time that is to pass after manual operation before the system switches back to automatic mode. The reset may be separately activated and deactivated for each output in the automatic menu.



Back to Home screen Setting: Delay Value Save (long) Change value (up/down) Back without saving

Adjust the value (number is flashing). Pre-setting 60 minutes, settings range 5 to 480 minutes.

# 4.3. Automatic setting for the outputs

#### □ AUT0 > 0Ut

The automatic mode for the individual shutters, awnings, blinds, windows, lights and heating devices are adjusted to the individual needs and conditions in the output automatic settings.

For each output, the automatic setting data sets for the type set are saved (shutter, awning, blinds, window, light, heating, roof gutter heating). The type of output is determined in the base settings (see also chapter *Setting up outputs*, page 37 ff.).

Modifications to the automatic settings for the outputs may be entered on any display registered in the system. If modifications are entered parallel on two displays, the one that was saved last is always active. Any modifications saved before are overwritten. After a modification, the entire output with all modifications is always overwritten.





1. Press the settings symbol time on the home screen briefly to access the automatic settings.



2. Switch to OUt outputs in the automatic settings.

The outputs are sorted according to memory location number in the automatic settings. They correspond to the sequence that happened to be used for the learning process.

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On the lower left, the symbol for the output type and the display position on the home screen are shown (type and display position are determined in the base settings, see chapter *Setting up outputs*, page 37).



#### Output types:

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	Roller Shutter
	Blind
$\overline{\mathbf{x}}$	Awning
	Window
<u></u>	Light (switchable or dimmable)
	Heating device
11	Roof gutter heating

Outputs of the "reserve" type are not shown since no automatic settings may be set for them.



# 3. Switch to the desired memory location (output).

You may consecutively adjust the settings for each output or jump items to reach the setting you want.

# 4.3.1. Shading automatics

#### $\Box$ AUTO > OUt > SP X

The following shading automatics are activated for outputs (memory locations) that were configured as a shutter, blind or awning in the base settings. The setting "slat position" is only available for shutters.

Please note that **alarm functions** for frost, wind and rain alarm have a priority position and apply both in automatic and in manual mode. The shading is retracted and cannot be manually extended.

If a shading is in automatic mode and none of the alarm functions is active, then the **forced and blocking settings** for time opening (retracting) followed by time and night closing (extending), outdoor temperature block (retracting) and indoor temperature block (retracting) are checked first.

The **shading automatics according to brightness** are only executed when no alarm, forced or blocking function is active and the sun direction is correct as well.

# 4.3.1.1. Shade settings

 $\Box$  AUT0 > OUt > SP X > SHd

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1. Press the settings symbol time on the home screen briefly to access the automatic settings.

2. Select **OUt outputs** in the automatic settings.



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3. Switch to the desired shading output (memory location).





4. Select the shading output (memory location).

The following parameters are set for the shading settings:

Abbreviation	Setting
brt	brightness
Sdlr	sun direction
tPOS	travel position
SPOS	slat position (only for shutters)
SENS	sensor for the indoor temperature block
ltb	indoor temperature block
Otb	outdoor temperature block

# **Brightness**

 $\Box$  AUT0 > OUt > SP X > SHd> brt

Set the brightness value from which the shading is to be extended. You can find some recommendations in chapter *Units for sun and wind*, page 162.

The set luminous intensity value must be undercut or exceeded for the length of the travel delay period in order for the automatic function to react. This is to prevent continuous shading extension and retraction in the event of rapidly changing light conditions. The travel delays can be adjusted in the general automatic settings.

In addition to a brightness value, you can also select SHd (always shade, keep extended) and nIE (never shade, keep retracted). In both cases, the shading does not react to brightness levels. This setting is particularly interesting for shutters and blinds.

The setting **SHd** ensures that the shading remains extended in automatic mode. Slat settings (for shutters) and travel position can be set individually. Rain, wind and frost alarm have the highest priority level in this shading type as well, as long as they are activated. It is also possible to set timed opening, night and timed closure as well as an outdoor temperature block. Manual travel is possible.

The setting **NEV** ensures that the shading remains retracted in automatic mode. Settings can be adjusted for timed opening, night and timed closure. Rain, wind and frost alarm have the highest priority level in this shading type as well, as long as they are activated. Manual travel is possible.





5. Select the setting SHd shading.

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6. Select the setting **brt brightness**.

Adjust the value (number flashes) or switch the shading depending on the brightness to "SHd" or "NEV" (the values SHd and NEV are between 99 and 1). Pre-setting 40 Kilolux, setting range 1 to 99 Kilolux, SHd, NEV.



## **Sun direction**

 $\Box$  AUT0 > OUt > SP X > SHd > SdIr

This setting is only available when shading occurs at a certain brightness value, i.e. *not* if "NEV" (do not react to brightness) or "SHd" (always leave extended) were set for the shading brightness.

Enter the compass direction in which the sun has to be for the shading to be activated.

The time of day must be saved in the system to allow **Solexa II Control** to calculate the current sun position. For this reason, it is imperative that you set the clock if you are using the sun position for the shading (see base settings chapter *Setting the time*, page 25).





5. Select the setting **SHd shading**.

6. Switch to the setting Sdlr sun direction.



7. Select the setting **Sdlr**.

Deselect the compass directions that are not required (segments flash). Pre-set: All compass directions are selected (N = north, O = east, S = south, W = west).

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One or two adjacent segments can be selected together. In order to select all the segments again, select any individual segment and then once again tap on the selected segment.

North =  $0^{\circ}$ 

Selection:

N Shade when the sun is between 270° and 90°. N+O Shade when the sun is between 270° and 180°.

N+O Shade when the sun is between 270 and 160.

O Shade when the sun is between 0° and 180°.

O+S Shade when the sun is between 0° and 270°.

S Shade when the sun is between 90° and 270°.

S+W Shade when the sun is between 90° and 0°.

W Shade when the sun is between 180° and 0°.

W+N Shade when the sun is between 180° and 90°.



#### **Actuation position**

 $\Box$  AUTO > OUt > SP X > SHd > tPOS

This setting is not available if the brightness for shading is set to "NEV" (do not react to brightness).

Set travel position for the automatic shading. The shading may travel to any position between 0% and 100%, with 0% being fully retracted and 100% fully extended.

If the shading is operated manually, the entire travel area is always available. The position set here only applies to the automatic mode.

In order to allow the **Solexa II Control** to arrive at the correct position, the runtime of the drive must be stored in the system. For this reason, it is imperative that you set the runtime if you are using the travel position for the shading (see base settings chapter *Extension time / opening travel time*, page 45 and *Retraction time / Closing travel time*, page 47).



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5. Select the setting SHd shading.

6. Switch to the setting **tPOS travel position**.



7. Select the setting **tPOS**.

Adjust the value (number is flashing). Pre-setting 100%, setting range 0 to 100%.



# **Slat position**

 $\Box$  AUTO > OUt > SP X > SHd > SPOS

This setting is only shown for shutters. This setting is not available if the brightness for shading is set to "NEV" (do not react to brightness).

Set the slat position for the automatic shading. The slats may move to any angle between 0% and 100%. 100% means fully closed (sun/glare protection).

If the shading is operated manually, the entire angle area is always available. The position set here only applies to the automatic mode.

In order to allow the **Solexa II Control** to arrive at the correct position, the runtime of the drive must be stored in the system. For this reason, it is imperative that you set the runtime if you are using a slat position for the shading (see base settings chapter *Reverse travel time*, page 49 and *Dead travel time*, page 50).





5. Select the setting SHd shading.

6. Switch to the setting **SPOS slat position**.



7. Select the setting SPOS.



Adjust the value (number is flashing). Pre-setting 75%, setting range 0 to 100%.

#### **Sensor selection**

 $\Box$  AUT0 > OUt > SP X > SHd > SENS

This setting is only available when shading occurs at a certain brightness value, i.e. *not* if "NEV" (do not react to brightness) or "SHd" (always leave extended) were set for the shading brightness.

Select the indoor sensor that is to be evaluated for the controls of this shading. If you select "off", the indoor temperature is not taken into account for the controls of the shading.

The display of the **Solexa II Control** has an integrated temperature sensor. If the indoor temperature is to be captured with another sensor, this external sensor must be taught by means of a wireless connection.





#### 6. Switch to the setting SENS sensor selection.



7. Select the setting SENS.

Switch to the desired sensor or to "off" (selection flashes).

Pre-setting dSP display. External sensors are shown as SE:01, SE:02 (etc.), with the number referring to the memory position.



#### Indoor temperature block

 $\Box$  AUT0 > OUt > SP X > SHd > Itb

This setting is not available, if the brightness for shading is set to "NEV" (do not react to brightness) or when the setting for the sensor selection is "off".

Set the indoor temperature block for the shading in order to utilise solar energy to heat up the room. If the indoor temperature is, for example, under the set value in the morning, the shades remain retracted despite the sun.

As soon as the set indoor temperature is exceeded, the block is lifted and the shade released. If the indoor temperature decreases, the block is activated as soon as the temperature is more than 3.0°C below the set value (hysteresis).

Please note that the shading is only extended when the extension delay period has passed, and is only retracted when the retraction delay period has passed (see chapter *General automatic mode settings >Travel delays*, page 70).

If you select "off", the indoor temperature is not taken into account for the controls of the shading.





5. Select the setting SHd shading.

6. Switch to the setting **Itb indoor temperature block**.



7. Select the setting **Itb**.

Adjust the value (number flashes) or set the indoor temperature block to "off" (the "OFF" value is between 40 and 5).

Pre-setting 25°C, adjustment range 5 to 40°C or OFF.



#### **Outdoor temperature block**

 $\Box$  AUTO > OUt > SP X > SHd > Otb

This setting is not available if the brightness for shading is set to "NEV" (do not react to brightness).

Set the outdoor temperature block for the automatic shading. The block only applies to automatic operation; no shading based on light intensity or the position of the sun

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takes place. The output still reacts to wind, rain and frost alarm even when the outdoor temperature block is active, as well as to night and timed travel commands and manual travel commands.

This is different to the frost alarm which retracts the shading and locks it against manual operation. When using the outdoor temperature block, please note that the shade rails or other mechanical components can remain iced even when the outdoor temperature has already risen to a relatively high value.

#### ATTENTION!

STOP

**Material damage due to the travel of frozen shades!** Drives or curtains can be damaged if an external shade which has frozen stiff is moved.

• Use the frost alarm function to obtain reliable protection against damages due to ice.

Set the outdoor temperature value recommended by the shade manufacturer. The block is lifted again only when the temperature rises more than 2.0 °C over the pre-set value (hysteresis). If you want the shading to be active independently of the outdoor temperature (e.g. in case of indoor awnings), select "off".





5. Select the setting SHd shading.

6. Switch to the setting **Otb outdoor temperature block**.



7. Select the setting Otb.

Adjust the value (number flashes) or set the outdoor temperature block to "off" (the "off" value is between 30 and -20). Pre-setting 5°C, adjustment range -20 to 30°C or OFF.



# 4.3.1.2. Night and timed closure

 $\Box$  AUTO > OUt > SP X > CLOS

The closing functions are useful especially for shutters and blinds, as they allow the latter to be used as a privacy screen. Manual retraction remains possible.



1. Press the settings symbol time on the home screen briefly to access the automatic settings.



2. Switch to **OUt outputs** in the automatic settings.







4. Select the shading output (memory location).

5. Switch to the setting CLOS night/timed closure.

The following settings for night and timed closure are adjusted in the general automatic settings:

Abbreviation	Setting
nIGH	night closure
tl	timed closure with 2 periods
tPOS	travel position for night/timed closure

# Night closure

 $\Box$  AUTO > OUt > SP X > CLOS > nIGH

Shutters and blinds are often closed as a privacy screen when it gets dark. To do this, turn on night closure. The brightness value that is used to determine twilight/night conditions can be adjusted in the general automatic settings (see chapter *Twilight threshold value*, page 68).





6. Switch to the setting **CLOS night/timed closure**.

7. Select the setting **nIGH night closure**.



Switch on the night closure (yes) or switch it off (no). Pre-setting is no.

#### **Timed closure**

 $\Box$  AUT0 > OUt > SP X > CLOS> tl

As an addition to the night closure in the dark, two periods may be determined when the shading is to be kept closed. Set the time for extension, retraction and the days of the week for period 1 and period 2.





6. Switch to the setting CLOS night/timed closure.

7. Switch to the setting tl close at set time.



8. Select the setting tl.

Time of day (period 1)



9. Select and set the value P1 period 1,

and accordingly P2 period 2.

Set the start and end of the period for timed closure respectively. Use 24h mode to differentiate between mornings and afternoons.



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Switch through the settings. The setting you can modify flashes. Sequence:

\* Start hour Start minute End hour End minute Monday Tuesday

...

Sunday.

Modify the values.

Select days of the week (up, marked with a circle) or down (down)

Pre-setting 00:00 to 00:00, no days selected. Timed closure is only applied when a day has been selected!



# Travel position for night and timed closure

 $\Box$  AUTO > OUt > SP X > CLOS > tPOS

This setting is only shown once night closure and/or a time for timed closure have been activated.

Set travel position for night and timed closure. The shading may travel to any position between 0% and 100%, with 0% being fully retracted and 100% fully extended.

In order to allow the **Solexa II Control** to arrive at the correct position, the runtime of the drive must be stored in the system. For this reason, it is imperative that you set the runtime if you are using the travel position for the shading (see base settings chapter *Extension time / opening travel time*, page 45 and *Retraction time / Closing travel time*, page 47).





6. Switch to the setting CLOS night/timed closure.

7. Switch to the setting tPOS travel position.



8. Select the setting **tPOS**.



Adjust the value (number is flashing). Pre-setting 100%, setting range 0 to 100%.

The shutter slats are always fully closed during night and timed closure.

# 4.3.1.3. Timed opening

 $\Box$  AUT0 > OUt > SP X > OPEN

The opening function determines the periods in which no shading takes place. The shading is retracted at the beginning of the timed opening, but can still be manually extended. After timed opening, the normal shading automatics are activated.



1. Press the settings symbol time on the home screen briefly to access the automatic settings.



2. Switch to **OUt outputs** in the automatic settings.

3. Switch to the desired shading output (memory location).



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4. Select the shading output (memory location).

5. Switch to the setting **OPEN timed opening**.



6. Select the setting **OPEN**.







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7. Select and set the value P1 period 1,

and accordingly P2 period 2.

Set the start and end of the period for timed opening respectively. Use 24h mode to differentiate between mornings and afternoons.

Switch through the settings. The setting you can modify flashes. Sequence:

Start hour Start minute End hour End minute Monday Tuesday ...

Sunday.

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- Modify the values.
- Select days of the week (up, marked with a circle) or down (down)

Pre-setting 00:00 to 00:00, no days selected. Timed opening is only applied when a day has been selected!



# 4.3.1.4. Frost alarm

 $\Box$  AUTO > OUt > SP X > FrAL

The frost alarm retracts shades in cold outdoor temperatures in combination with precipitation. This protects external shades from icing and from damage through travel when the rails are iced up. The conditions for frost alarms are determined in the general automatic settings (see chapter *Frost alarm values*, page 73).

Switch on the frost alarm for outside shutters, blinds and awnings.





1. Press the settings symbol time on the home screen briefly to access the automatic settings.

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2. Switch to **OUt outputs** in the automatic settings.



3. Switch to the desired shading output (memory location).

5. Switch to the setting FrAL frost alarm.

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#### 6. Select the setting FrAL.

Switch off the frost alarm (no) or switch it on (yes). Pre-setting is no.



# 4.3.1.5. Wind alarm

 $\Box$  AUT0 > OUt > SP X > WIN

The wind alarm protects sensitive exterior shades, especially awnings and slat shutters, against damages. By selecting "off" in the threshold value settings, the wind alarm can be switched off (e.g. for interior shades and blinds). Wind alarm is triggered, when the threshold value set for this output is exceeded for the duration of the delay time. When the values fall below the threshold value again, the alarm is maintained for another 5 minutes. If the wind value is exceeded once more during this period, the holding time of 5 minutes restarts.

In addition, a period of time after the wind alarm can be set. During this period, the automatic functions are blocked. This means that if the output is in automatic mode before or during the wind alarm, then the automatic functions initially remain blocked after the wind alarm (see chapter *Wind alarm automatic lock*, page 78).





1. Press the settings symbol time on the home screen briefly to access the automatic settings.

2. Switch to OUt outputs in the automatic settings.

3. Switch to the desired shading output (memory location).





4. Select the shading output (memory location).

5. Switch to the setting WIN wind alarm.

 The following parameters are determined for the wind alarm settings:

 Abbreviation
 Setting

 tV
 threshold value for wind alarm

 dEL
 delay time until wind alarm is triggered

## **Threshold value**

 $\Box$  AUT0 > OUt > SP X > WIN > tV

If the wind threshold value for the delay time set in the next step is exceeded, then a wind alarm is triggered. The shade is retracted and manual operation blocked.

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The wind velocity is stated in km/h (kilometres per hour). Please refer to chapter *Units for sun and wind*, page 162 for indications regarding the wind value settings. Depending on the direction of the façade, the weather exposed side and the installation position of the weather station, the optimal wind value for protecting the shades may vary. Please note the shade manufacturer's instructions and additionally observe the behaviour of the shades when it is windy. Then adjust the wind value as required.





6. Select the setting WIN wind alarm.

7. Select the setting tV threshold value.
Adjust the value (number flashes) or set the wind alarm to "off" (the "off" value is between 120 and 1). Pre-setting 20 km/h, adjustment range 1 to 120 km/h or OFF.



# Delay

 $\square$  AUTO > OUt > SP X > WIN > dEL

The wind alarm delay time determines for how long the wind threshold value must have been exceeded before wind alarm is triggered and the shades are retracted.

Memory location 07 (wind alarm) Wind alarm (threshold value)





6. Select the setting WIN wind alarm.

7. Switch to the setting dEL delay.



8. Select the setting dEL.



Adjust the value (number is flashing). Pre-setting 1 seconds, settings range 1 to 20 seconds.

# 4.3.1.6. Rain alarm

 $\Box$  AUTO > OUt > SP X > rAIN

The rain alarm protects shades which are mounted outdoors, especially awning cloth, against humidity. When the rain alarm is triggered, the shades are automatically re-tracted, and manual operation is disabled.

The rain alarm remains active for 5 minutes. If further rainfall is detected within these 5 minutes, the holding time restarts.





1. Press the settings symbol time on the home screen briefly to access the automatic settings.

2. Switch to **OUt outputs** in the automatic settings.

3. Switch to the desired shading output (memory location).





. Ociect the shading output (memory location

5. Switch to the setting rAIN rain alarm.



6. Select the setting **rAIN**.

Switch on the rain alarm (yes) or switch it off (no). Pre-setting is no.



# 4.3.1.7. Automatic Reset

 $\Box$  AUTO > OUt > SP X > ArSt

If the shades are operated manually, they remain in manual mode, automatic mode is deactivated.

Here you can determine whether the shades are reset to automatic operation at a set time on a daily basis and/or with a short delay after manual operation. The times for the two automatic resets are determined in the general settings (see chapter *Automatic reset*, page 80).



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1. Press the settings symbol time on the home screen briefly to access the automatic settings.

2. Switch to **OUt outputs** in the automatic settings.



3. Switch to the desired shading output (memory location).





4. Select the shading output (memory location).

5. Switch to the setting ArSt automatic reset.

The following parameters are determined for the automatic reset settings:

, to brothatton	ootting
dLy	daily automatic reset at a pre-determined time of day
mAN	delayed automatic reset after manual operation

# Daily automatic reset at a set time

 $\Box$  AUTO > OUt > SP X > ArSt > dLy

The general Automatic Reset occurs daily at the same time. If this function is activated for the shades, automatic mode is activated at the stated time.





6. Select the setting ArSt automatic reset.

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## 7. Select the setting dLy reset at a stated time of day.

Switch off automatic reset at a stated time (no) or switch it on (yes). Pre-setting is yes.



## Delayed automatic reset after manual operation

 $\Box$  AUT0 > OUt > SP X > ArSt > mAN

Alternatively, the automatic function can be reactivated at a set time following a manual intervention. Switch this delayed reset on or off.





6. Select the setting ArSt automatic reset.

7. Switch to the setting mAN delayed after manual operation.



8. Select the setting **mAN**.

Switch on delayed automatic reset at a stated time (yes) or switch it off (no). Pre-setting is no.



# 4.3.2. Window ventilation automatic mode

Level AUTO automatic settings > OUt> SP X

The following ventilation automatics are activated for outputs (memory locations) that were configured as a window in the base settings.

Please note that **alarm functions** for frost, wind and rain alarm have a priority position and apply both in automatic and in manual mode. The window is closed and cannot be manually opened. Gap ventilation when it is raining is only activated if no wind or frost alarm has been triggered.

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If a window is in automatic mode and none of the alarm functions is active, then the **forced and blocking settings** for time closing followed by outdoor temperature block (close) and indoor temperature block (open) are checked first.

The **ventilation automatics according to indoor temperature** are only executed when no alarm, forced or blocking function is active.

# 4.3.2.1. Sensor selection

 $\Box$  AUT0 > OUt > SP X > SENS

Select the indoor sensor that is to be evaluated for the controls of this window. If you select "off", the indoor temperature is not taken into account for the controls of the window.

The display of the **Solexa II Control** has an integrated temperature sensor. If the indoor temperature is to be captured with another sensor, this external sensor must be taught by means of a wireless connection.





1. Press the settings symbol time on the home screen briefly to access the automatic settings.



2. Switch to **OUt outputs** in the automatic settings.







4. Select the window output (memory location).



5. Select the setting **SENS sensor**.

Switch to the desired sensor or to "off" (selection flashes). Pre-setting dSP display. External sensors are shown as SE:XX, with the number referring to the memory position.



## 4.3.2.2. Indoor temperature for ventilation

 $\Box$  AUTO > OUt > SP X > IntP

This setting is only available, if a sensor for the indoor temperature has been selected, i.e. *not* in cases in which the setting "off" was chosen for the sensor selection (see previous chapter *Sensor selection*, page 92).

Set the indoor temperature at which the window is opened. The window is opened as soon as the temperature lies above the pre-set value. However, it is only closed again when the temperature falls under the pre-set value (hysteresis) by more than 2.0 °C. If you select "off", ventilation according to indoor temperature is not active.





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1. Press the settings symbol time on the home screen briefly to access the automatic settings.

2. Switch to **OUt outputs** in the automatic settings.



3. Switch to the desired window output (memory location).





5. Switch to the setting IntP indoor temperature.



6. Select the setting IntP.

Adjust the value (number flashes) or set the ventilation according to indoor temperature to "off" (the value OFF is between 40 and 5). Pre-setting 25°C, adjustment range 5 to 40°C or OFF.



# 4.3.2.3. Timed ventilation

 $\Box$  AUT0 > OUt > SP X > VEN

Ventilation may take place independently of the indoor temperature at pre-set ventilation periods. Two periods may be determined. Set the time for the start and end of ventilation as well as the days of the week for period 1 and period 2.

The window is only opened at ventilation times if the set outdoor temperature is reached (see chapter *Outdoor temperature block*, page 121). At the end of the ventilation period, the normal automated ventilation is once again performed according to the temperature.



1. Press the settings symbol time on the home screen briefly to access the automatic settings.





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## 3. Switch to the desired window output (memory location).



4. Select the window output (memory location).

5. Switch to the setting VEN ventilation periods.



## 6. Select the setting **VEN**.

Ventilation periods (period 1)





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7. Select and set the value P1 period 1, and accordingly P2 period 2.

Set the start and end of the period for timed ventilation respectively. Use 24h mode to differentiate between mornings and afternoons.

Switch through the settings. The setting you can modify flashes. Sequence:

Start hour Start minute End hour End minute Monday Tuesday ... Sunday.

- Modify the values.
- Select days of the week (up, marked with a circle) or down (down)

Pre-setting 00:00 to 00:00, no days selected. Timed closure is only applied when a day has been selected!



# 4.3.2.4. Opening position

□ AUTO > AUSG > SP X > POS

You can set a maximum opening position for automatic operation and the number of steps for gradual opening for the window.





1. Press the settings symbol time on the home screen briefly to access the automatic settings.



2. Switch to **OUt outputs** in the automatic settings.

3. Switch to the desired window output (memory location).





4. Select the window output (memory location).



5. Switch to the setting **POS position**.

The following parameters are determined for the position settings:

Abbreviation	Setting
tPOS	travel position
StP	number of steps

# **Actuation position**

 $\Box$  AUT0 > OUt > SP X > POS > tPOS

Set the maximum travel position for the automatic ventilation. The window may move to any position between 0% and 100%, with 0% being fully closed and 100% fully opened.

If the window is operated manually, the entire travel area is always available. The position set here only applies to the automatic mode.

In order to allow the **Solexa II Control** to arrive at the correct position, the runtime of the drive must be stored in the system. For this reason, it is imperative that you set the runtime if you are using the travel position for the window (see base settings chapter *Extension time / opening travel time*, page 45 and *Retraction time / Closing travel time*, page 47).



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### 6. Select the setting **POS position.**

### 7. Select the setting tPOS travel position

Adjust the value (number is flashing). Pre-setting 100%, setting range 0 to 100%.



## Number of steps

 $\Box$  AUTO > OUt > SP X > POS > StP

The window may be opened gradually in automatic mode. Set the number of travel positions here.

If you have activated ventilation according to indoor temperature, the control verify every 3 minutes whether the set room temperature is still exceeded and then possibly opens up another degree in order to speed up the cooling process, or closes one degree.



#### ATTENTION

# Material damage due to use of gradual operation with improper window motors!

Not all window motors are suitable for gradual/step operation.

 Only use this function with motors that have been recommended for gradual/step operation by the manufacturer.





6. Select the setting **POS position.** 

7. Switch to the setting StP steps.



8. Select the setting **StP**.

Adjust the number of degrees (number is flashing). Pre-setting 5, settings range 1 to 10.



# 4.3.2.5. Outdoor temperature block

 $\Box$  AUT0 > 0Ut > SP X > 0tb

Set the outdoor temperature block for the window. The block causes the window to remain closed. The outdoor temperature block can, for example, be used if the window should not be used for ventilation in winter (cold protection for plants).

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The outdoor temperature block only applies for automatic operation; no ventilation then takes place. Manual operation continues to remain possible, even when the window is blocked because of low outdoor temperatures.

The outdoor temperature-block becomes active as soon as the temperature sinks under the pre-set value. However, the block is only deactivated again when the temperature rises over the pre-set value by more than 2.0? (hysteresis).



1. Press the settings symbol time on the home screen briefly to access the automatic settings.



2. Switch to OUt outputs in the automatic settings.

3. Switch to the desired window output (memory location).





4. Select the window output (memory location).

5. Switch to the setting **Otb outdoor temperature block**.



6. Select the setting **Otb**.

 Type and display position home screen
 Save (long)

 Change value (up/down)

 Back to

 Home screen

 Save (long)

 Change value (up/down)

 Back without saving

Adjust the value (number flashes) or set the outdoor temperature block to "off" (the value OFF is between 30 and -20). Pre-setting 5°C, adjustment range -20 to 30°C or OFF.

# 4.3.2.6. Timed closure

 $\Box$  AUTO > OUt > SP X > CLOS

Ventilation may be prevented at pre-set times. Shut-off times prevent the windows, for example, from opening and closing at night, and thus causing noise.

Two periods may be determined. Set the time for the start and end of forced closure as well as the days of the week for period 1 and period 2.





1. Press the settings symbol time on the home screen briefly to access the automatic settings.



2. Switch to **OUt outputs** in the automatic settings.

3. Switch to the desired window output (memory location).





4. Select the window output (memory location).

5. Switch to the setting CLOS closing.

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6. Select the setting **CLOS**.







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7. Select and set the value P1 period 1, and accordingly P2 period 2.

Set the start and end of the period for timed ventilation respectively. Use 24h mode to

differentiate between mornings and afternoons.



\* Start hour Start minute End hour End minute Monday Tuesday ...

Sunday.

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- Modify the values.
- Select days of the week (up, marked with a circle) or down (down)

Pre-setting 00:00 to 00:00, no days selected. Timed closure is only applied when a day has been selected!



# 4.3.2.7. Frost alarm

 $\Box$  AUTO > OUt > SP X > FrAL

The frost alarm closes windows at cold outdoor temperatures in combination with precipitation. This prevents damages due to ice formation (e.g. on sealings). The conditions for frost alarms are determined in the general automatic settings (see chapter *Frost alarm values*, page 73).





1. Press the settings symbol time on the home screen briefly to access the automatic settings.

2. Switch to **OUt outputs** in the automatic settings.



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# 3. Switch to the desired window output (memory location).

5. Switch to the setting **FrAL frost alarm**.

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## 6. Select the setting FrAL.

Switch off the frost alarm (no) or switch it on (yes). Pre-setting is no.



## 4.3.2.8. Wind alarm

 $\Box$  AUTO > OUt > SP X > WIN

The wind alarm protects the system and equipment from damage by closing the window. Even manually opened windows are closed in the event of a wind alarm. By selecting "off" in the threshold value settings, the wind alarm may be switched off.

Wind alarm is triggered, when the threshold value set for this output is exceeded for the duration of the delay time. When the values fall below the threshold value again, the alarm is maintained for another 5 minutes. If the wind value is exceeded once more during this period, the holding time of 5 minutes restarts.

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In addition, a period of time after the wind alarm can be set. During this period, the automatic functions are blocked. This means that if the output is in automatic mode before or during the wind alarm, then the automatic functions initially remain blocked after the wind alarm (see chapter *Wind alarm automatic lock*, page 78).





1. Press the settings symbol time on the home screen briefly to access the automatic settings.

2. Switch to OUt outputs in the automatic settings.

3. Switch to the desired window output (memory location).





4. Select the window output (memory location).

5. Switch to the setting WIN wind alarm.

 The following parameters are determined for the wind alarm settings:

 Abbreviation
 Setting

 tV
 threshold value for wind alarm

 dEL
 delay time until wind alarm is triggered

## **Threshold value**

 $\Box$  AUT0 > OUt > SP X > WIN > tV

If the wind threshold value for the delay time set in the next step is exceeded, then a wind alarm is triggered. The window is closed and manual operation blocked.

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The wind velocity is stated in km/h (kilometres per hour). Please refer to chapter *Units for sun and wind*, page 162 for indications regarding the wind value settings.





6. Select the setting **WIN wind alarm**.



7. Select the setting tV threshold value.

Adjust the value (number flashes) or set the wind alarm to "off" (the value OFF is between 120 and 1). Pre-setting 30 km/h, adjustment range 1 to 120 km/h or OFF.



# Delay

 $\Box$  AUT0 > OUt > SP X > WIN > dEL

The wind alarm delay time determines for how long the wind threshold value must have been exceeded before wind alarm is triggered and the window is closed.





6. Select the setting WIN wind alarm.

7. Switch to the setting **dEL delay**.



8. Select the setting **dEL**.



Adjust the value (number is flashing). Pre-setting 1 seconds, settings range 1 to 20 seconds.

# 4.3.2.9. Rain alarm

 $\Box$  AUT0 > OUt > SP X > rAIN

The rain alarm provides protection from humidity damage by closing the window. Even manually opened windows are closed in the event of a rain alarm. A rain travel position may be selected for windows in protected areas so a gap remains open for air circulation.



## ATTENTION

**Material damage due to penetrating precipitation!** Depending on the amount of rain and the temperature, some time may pass until the weather station recognises precipitation.

- Do not place items that are sensitive to humidity near automatic windows.
- Plan in the travel time for the closing of the window.

The rain alarm remains active for 5 minutes. If further rainfall is detected within these 5 minutes, the holding time restarts.





1. Press the settings symbol time on the home screen briefly to access the automatic settings.

2. Switch to **OUt outputs** in the automatic settings.



3. Switch to the desired window output (memory location).





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4. Select the window output (memory location).

5. Switch to the setting rAIN rain alarm.

The following parameters are determined for the rain alarm settings:

Abbreviation	Setting
AL	Use alarm
tPOS	Travel position during rain alarm (gap opening)

# Use alarm

 $\Box$  AUT0 > OUt > SP X > rAIN > AL

Decide whether the window should be closed when it is raining.





6. Select the setting rAIN rain alarm.



7. Select the setting AL alarm.

Switch off the rain alarm (no) or switch it on (yes). Pre-setting is yes.



## **Travel position during rain**

 $\Box$  AUT0 > OUt > SP X > rAIN > tPOS

When a rain alarm has been triggered, the window may close fully (travel position = 0%) or leave a small gap open (travel position between 1% and 100%). This setting can only be selected, if the rain alarm function has been activated.

Please note that no rain travel position can be selected, if the travel command after an alarm has been set to "yes, continuously active" in the base settings for the window (see chapter *Drive command for alarm functions*, page 44). In this case, the window is always fully closed in case of rain alarm. The settings for the travel position are not shown in the menu.





6. Select the setting **rAIN rain alarm**.

7. Switch to the setting **tPOS travel position**.



8. Select the setting **tPOS**.

Adjust the value (number is flashing). Factory setting 5%. Selection range 0% to 100% (0% means closed, no gap ventilation).



# 4.3.2.10. Automatic Reset

 $\Box$  AUTO > OUt > SP X > ArSt

If the window is operated manually, it remains in manual mode, automatic mode is deactivated.

Here you can determine, whether the window is reset to automatic operation at a set time on a daily basis and/or with a short delay after manual operation. The times for

the two automatic resets are determined in the general settings (see chapter Automatic reset, page 80).



Press the settings symbol time on the home screen briefly
 to access the automatic settings.



2. Switch to **OUt outputs** in the automatic settings.

3. Switch to the desired window output (memory location).





Select the window output (memory location).

5. Switch to the setting ArSt automatic reset.

 Setting
 Setting

 dLy:
 daily automatic reset at a pre-determined time of day

mAN: delayed automatic reset after manual operation

# Daily automatic reset at a set time

 $\Box$  AUT0 > OUt > SP X > ArSt > dLy

The general Automatic Reset occurs daily at the same time. If this function is activated for the window, automatic mode is activated at the stated time.





6. Select the setting **ArSt automatic reset**.



7. Select the setting dLy reset at a stated time of day.

Switch off automatic reset at a stated time (no) or switch it on (yes). Pre-setting is yes.



# Delayed automatic reset after manual operation

 $\Box$  AUTO > OUt > SP X > ArSt > mAN

Alternatively, the automatic function can be reactivated at a set time following a manual intervention. Switch this delayed reset on or off.





6. Select the setting **ArSt automatic reset**.

7. Switch to the setting mAN delayed after manual operation.



8. Select the setting **mAN**.

Switch on delayed automatic reset at a stated time (yes) or switch it off (no). Pre-setting is no.



# 4.3.3. Light automatic mode

□ Level AUTO automatic settings > OUt > SP X

The following light automatics are activated for outputs (memory locations) that were configured as lighting in the base settings.

Light may be switched according to time of day and brightness (twilight). If a setting is selected for both options, the light is only switched on when both conditions are satisfied (only when it is dark during the set time period).

# 4.3.3.1. Timer switch

## $\Box$ AUTO > OUt > SP X > tl

Lights may be switched on in set periods. As soon as you additionally activate the twilight setting, the light will only be turned on at twilight in the selected time periods.

Two periods may be determined. Set the time for the start and end of lighting as well as the days of the week for period 1 and period 2.



1. Press the settings symbol time on the home screen briefly to access the automatic settings.

2. Switch to **OUt outputs** in the automatic settings.

3. Switch to the desired light output (memory location).





4. Select the light output (memory location).



5. Select the setting tl switch at set time.



6. Select and set the value P1 period 1, and accordingly P2 period 2.

Set the start and end of the period for the timer respectively. Use 24h mode to differentiate between mornings and afternoons.

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Switch through the settings. The setting you can modify flashes. Sequence:

Start hour Start minute End hour End minute Monday Tuesday

Sunday.

...

Modify the values.

Select days of the week (up, marked with a circle) or down (down)

Pre-setting 00:00 to 00:00, no days selected. The timer is only applied when a day has been selected!



## 4.3.3.2. Twilight activation

 $\Box$  AUT0 > OUt > SP X > tLt

Lights can be switched on in twilight conditions and/or at night. As soon as you additionally activate a timer setting, the light will only be turned on at twilight in the selected time periods.

The threshold value that is used to determine twilight/night conditions can be adjusted in the general automatic settings (see chapter *Twilight threshold value*, page 68).





1. Press the settings symbol time on the home screen briefly to access the automatic settings.

2. Switch to **OUt outputs** in the automatic settings.



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3. Switch to the desired light output (memory location).







5. Switch to the setting **tLt twilight activation**.



6. Select the setting **tLt**.



Switch on the twilight activation (yes) or switch it off (no). Pre-setting is no.

# 4.3.3.3. Dimming value

 $\Box$  AUT0 > 0Ut > SP X > dI

This setting is only displayed for lamps that have been connected via a wireless dimmer.

The dimming value may be set for the light automatics (timed or twilight activation).

Please note that the automatic dimming value is limited by the conditions for the dimming range in the base settings. Only values within the range for minimum and maximum dimming value may be selected (see base settings chapter *Dimmer: Minimum dimming value*, page 58 and *Maximum dimming value*, page 59).





1. Press the settings symbol time on the home screen briefly to access the automatic settings.

2. Switch to **OUt outputs** in the automatic settings.



# 3. Switch to the desired light output (memory location).



4. Select the light output (memory location).

5. Switch to the **dl dimming value** settings.

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6. Select the setting **dl**.

Adjust the value (number is flashing). The adjustment range depends on the minimum and maximum dimming values selected in the base settings.



# 4.3.3.4. Automatic Reset

 $\Box$  AUTO > OUt > SP X > ArSt

If the light is operated manually, it remains in manual mode, automatic mode is deactivated. Here you can determine, whether the light is reset to automatic operation at a set time on a daily basis and/or with a short delay after manual operation. The times for the two automatic resets are determined in the general settings (see chapter *Automatic reset*, page 80).

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1. Press the settings symbol time on the home screen briefly to access the automatic settings.

2. Switch to **OUt outputs** in the automatic settings.

3. Switch to the desired light output (memory location).





Select the light output (memory location).

5. Switch to the setting ArSt automatic reset.
The following parameters are determined for the automatic reset settings:

 Abbreviation
 Setting

 dLy:
 daily automatic reset at a pre-determined time of day

 mAN:
 delayed automatic reset after manual operation

#### Daily automatic reset at a set time

 $\Box$  AUTO > OUt > SP X > ArSt > dLy

The general Automatic Reset occurs daily at the same time. If this function is activated for the light, automatic mode is activated at the stated time.

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6. Select the setting ArSt automatic reset.

7. Select the setting dLy reset at a stated time of day.

Switch off automatic reset at a stated time (no) or switch it on (yes). Pre-setting is yes.



### Delayed automatic reset after manual operation

 $\square$  AUTO > OUt > SP X > ArSt > mAN

Alternatively, the automatic function can be reactivated at a set time following a manual intervention. Switch this delayed reset on or off.





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6. Select the setting ArSt automatic reset.

7. Switch to the setting mAN delayed after manual operation.



8. Select the setting **mAN**.

Switch on delayed automatic reset at a stated time (yes) or switch it off (no). Pre-setting is no.



# 4.3.4. Heating automatics

 $\square$  AUTO > OUt > SP X

The following heating automatics are activated for outputs (memory locations) that were configured as a heater in the base settings.

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Temperatures for the day and night are set, and times for night-time operation. In addition, the timer for manual activation from night-time operation is selected.

### 4.3.4.1. Sensor selection

 $\Box$  AUT0 > OUt > SP X > SENS

Select the indoor sensor that is to be evaluated for the controls of this heater. If you select "off", the entire automatic mode for this heater is deactivated, and the following menu items are not shown.

The display of the **Solexa II Control** has an integrated temperature sensor. If the indoor temperature is to be captured with another sensor, this external sensor must be taught by means of a wireless connection.



1. Press the settings symbol time on the home screen briefly to access the automatic settings.

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2. Switch to **OUt outputs** in the automatic settings.

3. Switch to the desired heating output (memory location).



4. Select the desired heating output (memory location).



5. Select the setting **SENS sensor**.

Switch to the desired sensor or to "off" (selection flashes).

Pre-setting dSP display. External sensors are shown as SE:01, SE:02 (etc.), with the number referring to the memory position.

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#### 4.3.4.2. Temperature for day-time operation

 $\Box$  AUTO > OUt > SP X > tdAy

This setting is only available, if a sensor for the indoor temperature has been selected, i.e. *not* in cases in which the setting "off" was chosen for the sensor selection (see previous chapter *Sensor selection*, page 113).

Set the indoor temperature, at which the heating is to be switched on during the day. The heating is activated as soon as the temperature falls below the pre-set value. However, it is only switched off again when the temperature rises above the pre-set value (hysteresis) by more than 0.5°C.

For heaters on the RF-HE relay, the control regularly checks every 3 minutes, whether the set room temperature is still not reached and then, if necessary, switches to the second heating level in order to speed up heating, or otherwise switches down one level.





1. Press the settings symbol time on the home screen briefly to access the automatic settings.

2. Switch to **OUt outputs** in the automatic settings.



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3. Switch to the desired heating output (memory location).





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5. Switch to the setting tdAy day-time temperature.



6. Select the setting tdAy.

Adjust the value (number is flashing).

Pre-setting 20°C, adjustment range 1 to 50°C if night-time operation is not activated. Otherwise, the minimum day-time temperature is 1° above the set night-time temperature.



### 4.3.4.3. Periods for night-time operation

 $\Box$  AUT0 > OUt > SP X > nIGH

The heating may be switched to night-time operation during fixed periods. In those cases, the night-time temperature set in the next step applies.

Two periods may be determined. Set the time for the start and end of night-time mode as well as the days of the week for period 1 and period 2.





1. Press the settings symbol time on the home screen briefly to access the automatic settings.

2. Switch to **OUt outputs** in the automatic settings.



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#### 3. Switch to the desired heating output (memory location).



#### 4. Select the heating output (memory location).

5. Switch to the setting **nIGH night-time operation periods**.



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#### 6. Select the setting **nIGH**.







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7. Select and set the value P1 period 1, and accordingly P2 period 2.

Set the start and end of the period for the timer respectively. Use 24h mode to differentiate between mornings and afternoons.

Switch through the settings. The setting you can modify flashes. Sequence:

Start hour Start minute End hour End minute Monday Tuesday ... Sunday. Modify the values.

Select days of the week (up, marked with a circle) or down (down)

Pre-setting 00:00 to 00:00, no days selected. The timer is only applied when a day has been selected!



### 4.3.4.4. Temperatures for night-time operation

 $\Box$  AUTO > OUt > SP X > tnIG

This setting is only available, if a period for night-time operation has been set (see previous chapter *Sensor selection*, page 113).

Set the indoor temperature, at which the heating is to be switched on during night-time operation periods. The heating is activated as soon as the temperature falls below the pre-set value. However, it is only switched off again when the temperature rises above the pre-set value (hysteresis) by more than 0.5°C.





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# 2. Switch to **OUt outputs** in the automatic settings.

3. Switch to the desired heating output (memory location).





4. Select the heating output (memory location).

5. Switch to the setting tnIG night-time operation temperature.



6. Select the setting **tnIG**.

Adjust the value (number is flashing).

Pre-setting is 16°C. The range available for the night-time temperature depends on the settings made for the day-time temperature. The maximum night-time temperature is 1° below the set day-time temperature. Minimum temperature 0°C.



### 4.3.4.5. Switch-off delay for manual heating

 $\Box$  AUTO > OUt > SP X > MOF

If the heating is switched on manually, a timer ensures that it is automatically switched off again. This allows you to heat manually without having to think about turning the heating off again.

After the period has passed, the heating switches off again automatically and remains in manual mode. Automatic mode only becomes active again at the next automatic reset. If an automatic reset is scheduled before the period is completed, automatic mode is activated immediately.



1. Press the settings symbol time on the home screen briefly to access the automatic settings.

2. Switch to **OUt outputs** in the automatic settings.

3. Switch to the desired heating output (memory location).





4. Select the heating output (memory location).

5. Switch to the setting MOF manual switch-off.



6. Select the setting MOF.

Adjust the value (number is flashing). Pre-setting 4 minutes, settings range 1 to 240 minutes.



### 4.3.4.6. Automatic Reset

 $\Box$  AUTO > OUt > SP X > ArSt

If the heating is operated manually, it remains in manual mode, automatic mode is deactivated.

Here you can determine, whether the heating is reset to automatic operation at a set time on a daily basis and/or with a short delay after manual operation. The times for the two automatic resets are determined in the general settings (see chapter *Automatic reset*, page 80).





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# 2. Switch to **OUt outputs** in the automatic settings.

3. Switch to the desired heating output (memory location).





4. Select the heating output (memory location).

5. Switch to the setting ArSt automatic reset.

The following pa	arameters are determined for the automatic reset settings
Abbreviation	Setting
dLy:	daily automatic reset at a pre-determined time of day
mAN:	delayed automatic reset after manual operation

### Daily automatic reset at a set time

 $\Box$  AUT0 > OUt > SP X > ArSt > dLy

The general Automatic Reset occurs daily at the same time. If this function is activated for the heating, automatic mode is activated at the stated time.



6. Select the setting **ArSt automatic reset**.

# 7. Select the setting **dLy reset at a stated time of day**.



Switch off automatic reset at a stated time (no) or switch it on (yes). Pre-setting is yes.

#### Delayed automatic reset after manual operation

 $\Box$  AUT0 > OUt > SP X > ArSt > mAN

Alternatively, the automatic function can be reactivated at a set time following a manual intervention. Switch this delayed reset on or off.





6. Select the setting ArSt automatic reset.

7. Switch to the setting mAN delayed after manual operation.



8. Select the setting **mAN**.



Switch on delayed automatic reset at a stated time (yes) or switch it off (no). Pre-setting is no.

## 4.3.5. Automatic mode for roof gutter heating

#### $\Box$ AUTO > OUt > SP X

The following roof gutter heating automatics are activated for outputs (memory locations) that were configured as a gutter heating in the base settings.

An outdoor temperature range is determined during which the heating is switched on.

### 4.3.5.1. Outdoor temperature range





1. Press the settings symbol time on the home screen briefly to access the automatic settings.

2. Switch to **OUt outputs** in the automatic settings.

3. Switch to the desired roof gutter heating output (memory location).



(<sup>2</sup>

4. Select the roof gutter heating output (memory location).

### **Top value**

 $\Box$  AUT0 > OUt > SP X > OUtR > FR

The heating is switched on as soon as temperatures fall below this value. In order to switch off the heating, the top value must, however, be exceeded by more than 2°C (or the temperature falls below the bottom value by more than 2°C).





5. Select the setting OUtR outdoor temperature range.

Adjust the value (number is flashing). Pre-set value 5°C, highest adjustable value 10°C. The adjustment range depends on the settings made for the bottom value. The top value is always at least 2°C above the bottom value.

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#### **Bottom value**

 $\Box$  AUT0 > OUt > SP X > OUtR > t0

The heating is switched off, if the temperature falls more than 2°C below the bottom value (hysteresis). If the temperatures are very low, no condensation occurs and the heating is not required.

The heating is switched on as soon as the bottom value is exceeded.





5. Select the setting **OUtR outdoor temperature range**.

Adjust the value (number is flashing). Pre-setting is -5°C. Minimum selectable value -20°C. The range depends on the top value. The bottom value is always at least 2°C below the top value.



### 4.3.5.2. Automatic Reset

 $\Box$  AUT0 > OUt > SP X > ArSt

If the roof gutter heating is operated manually, it remains in manual mode, automatic mode is deactivated.

Here you can determine, whether the heating is reset to automatic operation at a set time on a daily basis and/or with a short delay after manual operation. The times for the two automatic resets are determined in the general settings (see chapter *Automatic reset*, page 80).





1. Press the settings symbol time on the home screen briefly to access the automatic settings.



2. Switch to **OUt outputs** in the automatic settings.



3. Switch to the desired roof gutter heating output (memory location).

5. Switch to the setting **ArSt automatic reset**.

The following parameters are determined for the automatic reset settings:

Abbreviation	<u>Setting</u>
dLy:	daily automatic reset at a pre-determined time of day
mAN:	delayed automatic reset after manual operation

### Daily automatic reset at a set time

 $\Box$  AUTO > OUt > SP X > ArSt > dLy

The general Automatic Reset occurs daily at the same time. If this function is activated for the heating, automatic mode is activated at the stated time.





6. Select the setting ArSt.

7. Select the setting **dLy reset at a stated time of day**.



Switch off automatic reset at a stated time (no) or switch it on (yes). Pre-setting is yes.

### Delayed automatic reset after manual operation

 $\Box$  AUT0 > OUt > SP X > ArSt > mAN

Alternatively, the automatic function can be reactivated at a set time following a manual intervention. Switch this delayed reset on or off.





6. Select the setting ArSt.

7. Switch to the setting mAN delayed after manual operation.



8. Select the setting **mAN**.



Switch on delayed automatic reset at a stated time (yes) or switch it off (no). Pre-setting is no.

## 4.3.6. Units for sun and wind

Solar intensity is displayed in Lux and/or Kilolux (kLux). The value 1 kLux is reached already with an overcast sky, at 20 kLux the sun starts being visible, and 100 kLux is reached during a cloudless sky at midday. In our experience, it is recommended that shades be extended from 40 kLux onwards.

The wind speed is indicated in kilometres per hour and is abbreviated to km/h in the display. Depending on the location of the building and the installation position of the weather station, the optimal wind value for protecting the shades and windows can vary. You should observe the behaviour of the shades or windows in windy conditions, and adjust the wind value accordingly.

Description	km/h	m/s	Beaufort	Knots
No wind	< 1	< 0.3	0	< 1
Slight breeze	1-5	0.3-1.5	1	1-3
Slight wind	6-11	1.6-3.3	2	4-6
Light wind	12-19	3.4-5.4	3	7-10
Moderate wind	20-28	5.5-7.9	4	11-16
Fresh wind	29-38	8.0-10.7	5	17-21
Strong wind	39-49	10.8-13.8	6	22-27
Stiff wind	50-61	13.9-17.1	7	28-33
Stormy wind	62-74	17.2-20.7	8	34-40
Severe gale	75-88	20.8-24.4	9	41-47
Strong storm	89-102	24.5-28.4	10	48-55
Violent storm	103-117	28.5-32.6	11	56-63
Hurricane	> 117	> 32.6	12	> 63

The following tables are intended to help you identify the optimal values for your particular situation:

# **Questions about the product?**

You can reach the technical service of Elsner Elektronik under Tel. +49 (0) 70 33 / 30 945-250 or service@elsner-elektronik.de

We need the following information to process your service request:

- Type of appliance (model name or item number)
- Description of the problem
- Serial number or software version
- Source of supply (dealer/installer who bought the device from Elsner Elektronik)

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