

Installation, Adjustment, Operation

Reduced edition for window automation

Solexa II

Radio Control System

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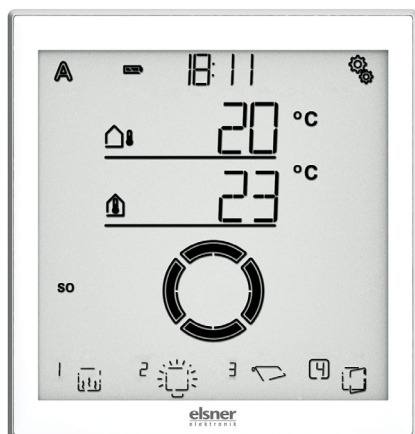


Solexa II

Radio control system

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Item numbers 10144 (Display), 10150 (Set)



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Installation, inspection, commissioning and troubleshooting of the device must only be carried out by a competent 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** in the menu area "Service" to find out whether a more up-to-date version of the manual is available.

Clarification of signs used in this manual



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 number. In this chapter you will find additional information about the setting just described.

INSTRUCTIONS FOR OPERATIONAL START-UP

1. Requirements:
The **electrical installation** has been finished by an electrician (accredited according to VDE 0100).
Note: The direction of rotation of the drives can be changed in the menu later.
The **display battery** is charged (via USB cable).
2. Set base settings of the control.
The menu overview with the pages numbers below will help you to navigate through the control menu.
Required steps in the necessary order:

A Establishing a **wireless connection** between the display and the weather station (learning);
afterwards teaching of the radio connection with the actuators (drives and consumer loads) and operating devices and sensors, if applicable. Brief instruction on the right.

B Configure **outputs** (actuators). This is necessary for a safe operation. The following settings must be made:
- type of the connected drive/consumer (e.g. blind, window, light)
- display position for manual operation
- inputs (operating devices, e. g. remote control) for additional operation of the output.
For drives (shadings, windows) additionally: rotational direction, manual direction, command for alarm funktions, travel times for the later correct positioning of the drive.
For dimmers additionally: minimum and maximum dimming value, behaviour and value when switched on.
3. Adjust the **general automatic settings**. Menu overviews see page 3.
4. Adjust the **automatic settings for each output**. Menu overviews see pages 3-4.

A ESTABLISHING WIRELESS CONNECTIONS

WEATHER STATION:

> Base settings

> Change to LEA

> Activated learning mode

Activated learning mode is indicated by the animation of the antenna symbol. Switch on the **voltage connection of the weather station**. Switch off and on the fuse automatic. A brief sound signal shows that the weather station has been successfully taught.

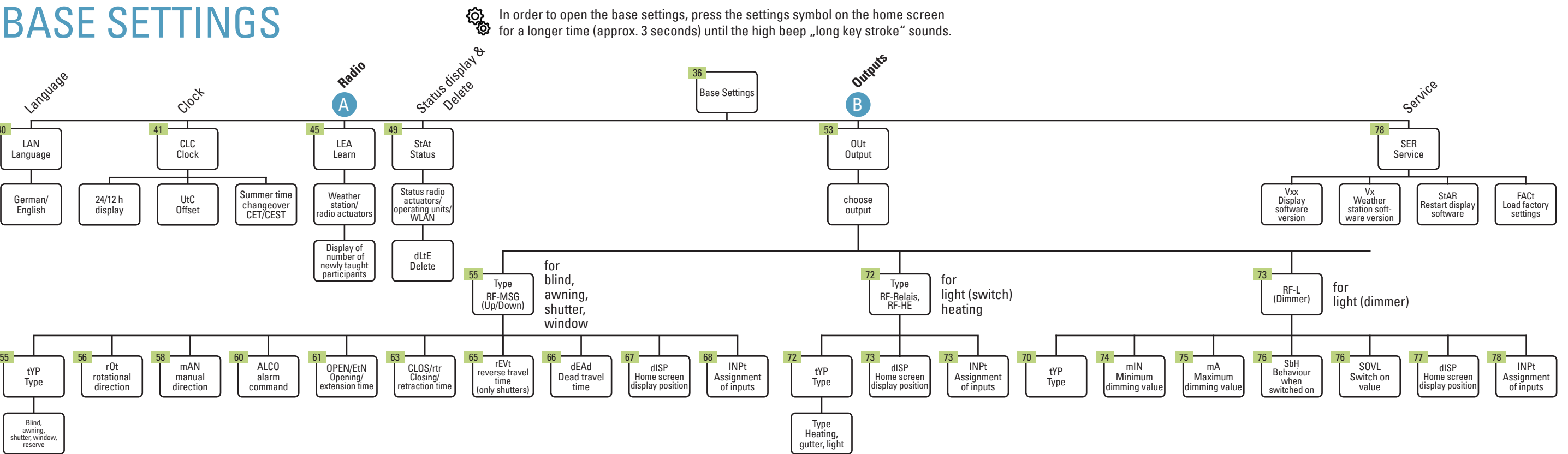
AKTUATORS, SENSORS, OPERATING DEVICES:

> Activated learning mode

Activated learning mode is indicated by the animation of the antenna symbol. **Switch on the voltage supply of the devices** (see the data sheets). 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.

After being taught the actuators can be operated on the display (home screen). The order of the displays can be adapted in the basic settings of the outputs (B).

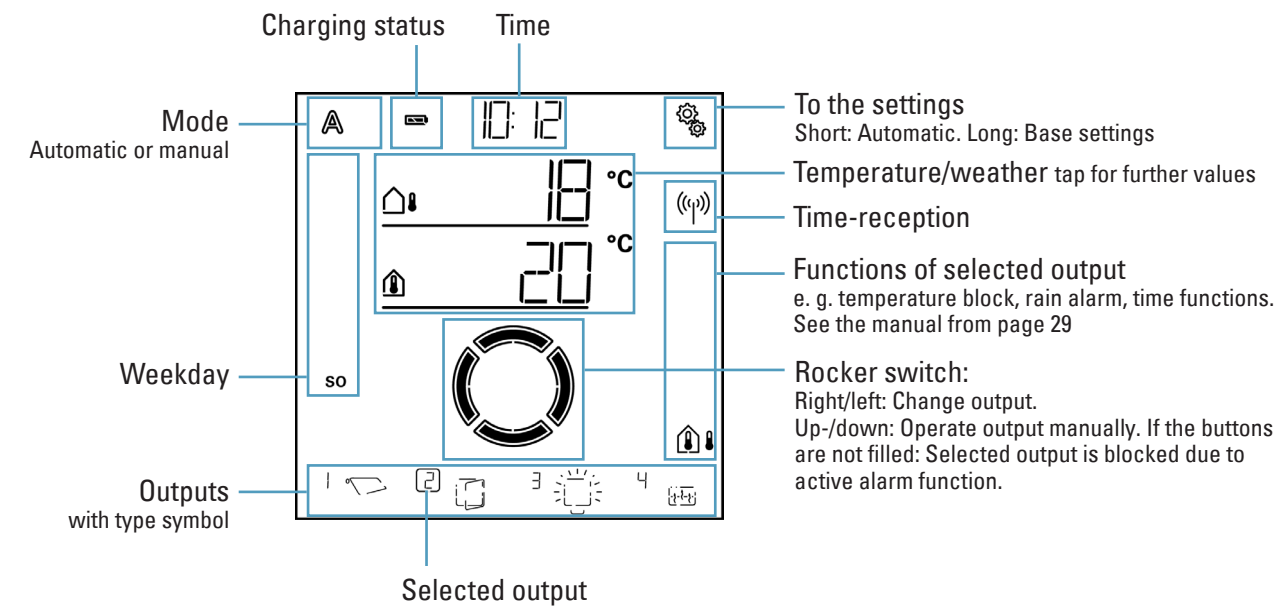
BASE SETTINGS



DISPLAY AND OPERATING OPTIONS

ON THE START SCREEN

See the manual from page 27.



KEY FUNCTIONS IN THE AUTOMATIC MENU

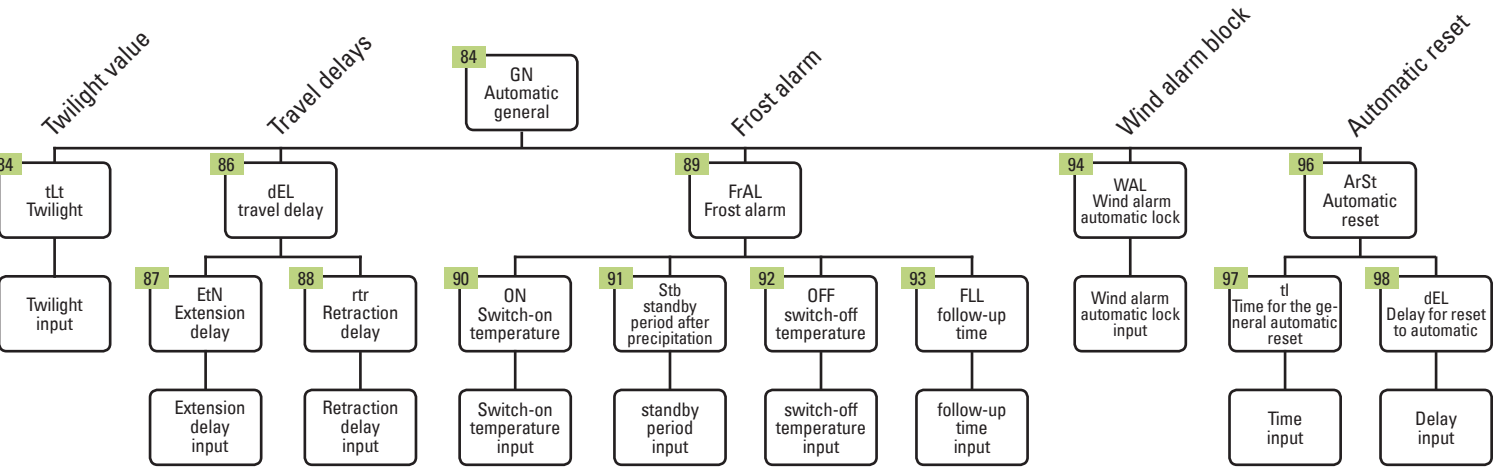
- Next/previous configuration step
- Select setting
- Modify value
- Save (press for a longer time until the high „long key stroke“ beep sounds)
- Leave setting, back without saving
- Leave setting, back to home screen

SHORTCUTS ON THE DISPLAY

12 h / 24 h	12- or 24-hour display	OPEN	Timed opening
AL	Alarm	Otb	Outdoor temperature block
ALCO	Alarm command	OUt	Outputs
ANG	Awning	OUtR	Outdoor temperature range
ArSt	Automatic reset	P1/2	Period 1/2
AUt0	Automatic	P1/2	Pushbutton Corlo P1-RF / P2-RF
b2	Button interface RF-B2-UP	POS	Position
bLd	Blind	R	Relay
brt	Brightness	rAIN	Rain alarm
CH	Channel of remote control	RE	Remo remote control
CLC	Clock	rES	Reserve
CLOS	Close	rEVt	Reverse travel time
CO	WG AQS/TH-UP sensor	rOOF	Roof gutter heating
dEAd	Dead travel time	rOt	Rotational direction
dEL	(Travel) Delay	rtr	Retract
dLtE	Delete	SbH	Switch-on behaviour
dEU	German	Sdlr	Sun direction
dISP	Display position	SENS	Sensor
dI	Dimmer / dimming value	SER	Service
dSP	Display	SHd	Shading OR Always
ENG	English	SHt	Shutter
ER	Error	SOVL	Switch on value
EtN	Extend	SP X	Space X
FACt	Factory settings	SPOS	Slat position
FLL	Follow-up time (frost alarm)	StAR	Restart the display software
FR	From	StAt	Status for radio connections
FrAL	Frost alarm	Stb	Standby
GN	General	StP	Steps
HE	Heating relay	t	WGT sensor
HEAt	Heating	tdAy	Day-time temperature
INPt (InPt)	Input assignment	tLt	Twilight
IntP	Indoor temperature	tNIG	Night-time operation temperature
Itb	Indoor temperature block	tO	to
LAN	Language	tPOS	Travel position
LEA	Learn radio connections	tYP	Type
LASt	Last Value	tV	Threshold value
LIG	Light	UN/UNKN	Unknown
M	Motor control unit / motor	UtC	Deviation from UTC
mA	Maximum dimming value	VEN	Ventilation periods
mAN	Manual drive direction	Vx	Weather station software version
mIN	Minimum dimming value	W	Weather Station
MOF	Manual switch-off	WAL	Wind alarm automatic lock
NEV	Never	WID	Window
nIGH	Night-time operation	WIN	Wind alarm
NO	NO	WL	WLAN
OFF	Off OR switch-off temperature	YES	Yes
OP	Operating unit (Solexa II display)		

GENERAL AUTOMATIC SETTINGS

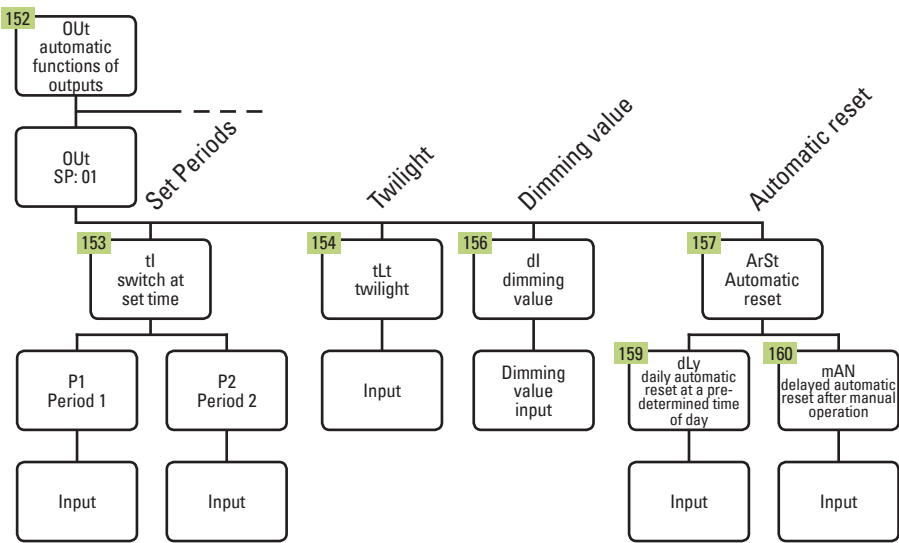
See the manual from page 84.



LIGHT AUTOMATIC FUNCTIONS

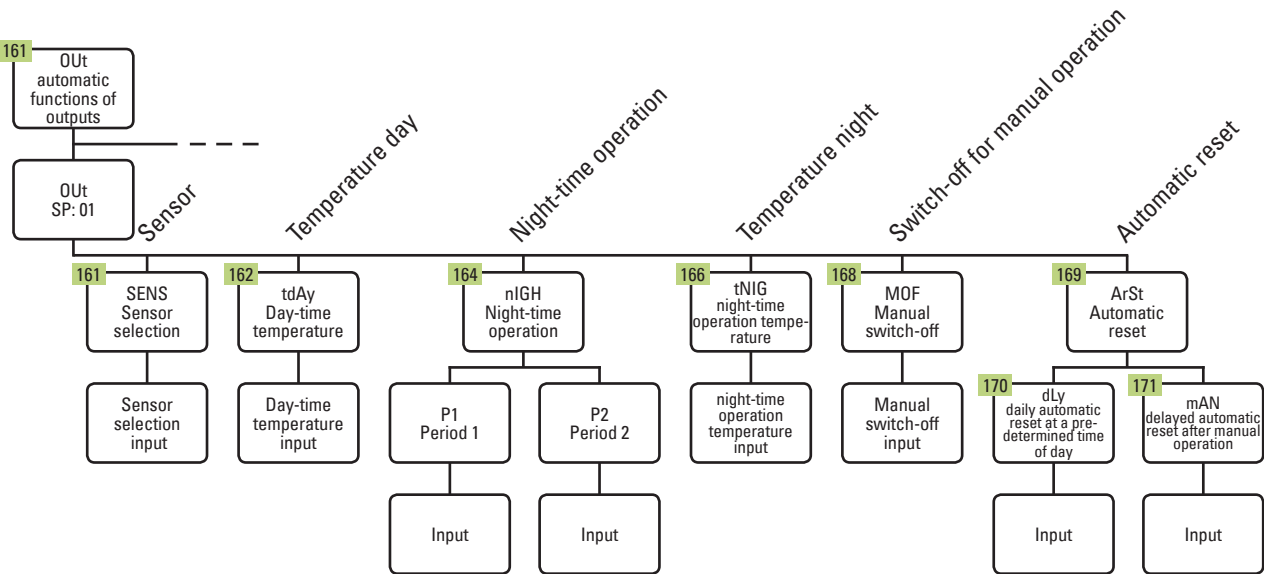
See the manual from page 152.

To access the automatic settings, press the settings symbol on the home screen briefly.



HEATING AUTOMATIC FUNCTIONS

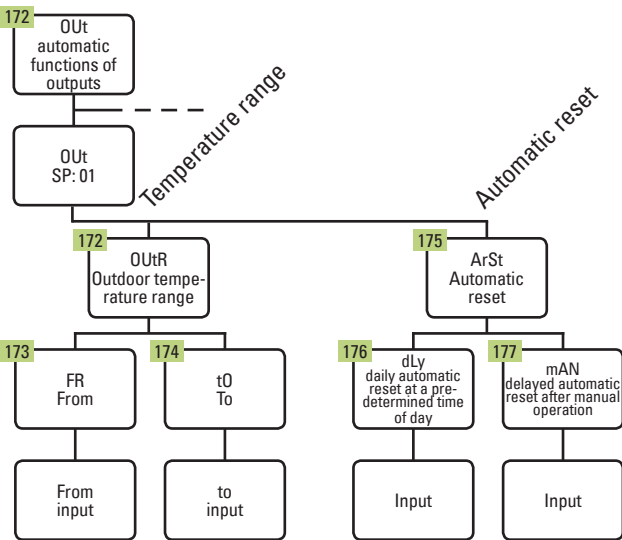
See the manual from page 161.



DEFROST AUTOMATIC FUNCTIONS

(roof gutter heating)

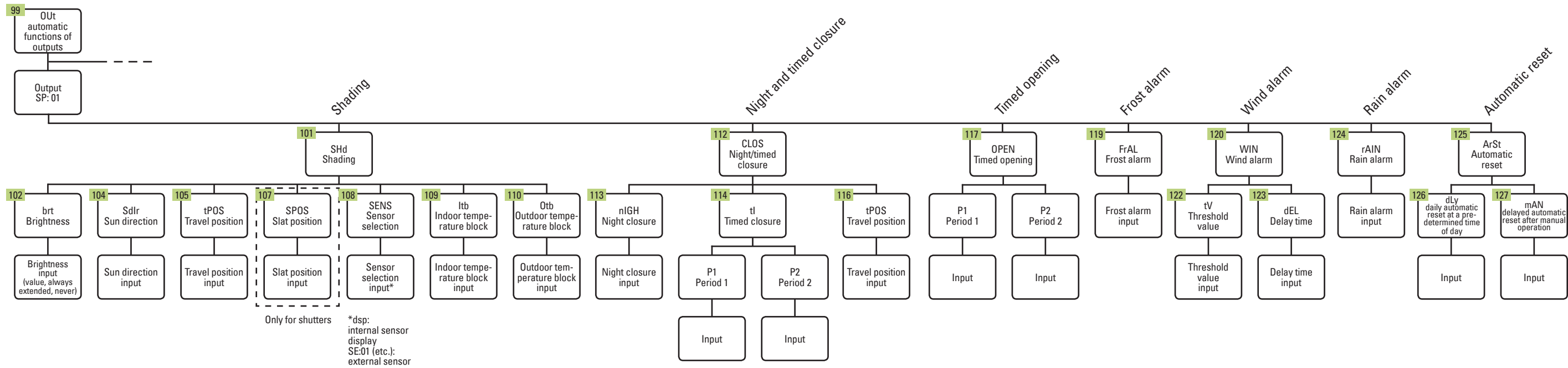
See the manual from page 172.



SHADING AUTOMATIC FUNCTIONS (shutter, awning, blinds)

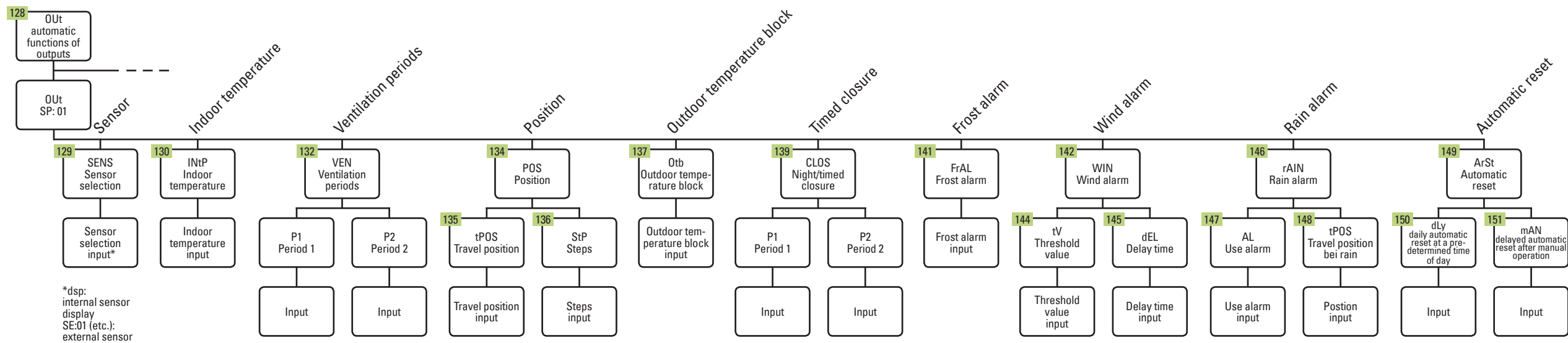
To access the automatic settings, press the settings symbol on the home screen briefly.

See the manual from page 99.



VENTILATION AUTOMATIC FUNCTIONS (window)

See the manual from page 128.



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 night-time 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

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. Deliverables

Display and weather station are available singly or as a set.

No. 10144:

- Solexa II display (with wall bracket, 4 screw anchors 4 × 20 mm, 4 flat head screw 3 × 25 mm)
- USB cable 0.5 m (USB-A plug to USB-B micro plug)

No. 10150:

- Solexa II display (with wall bracket, 4 screw anchors 4 × 20 mm, 4 flat head screw 3 × 25 mm)
- USB cable 0.5 m (USB-A plug to USB-B micro plug)
- Solexa II weather station

1.3. Technical specifications

1.3.1. Display

Material	Plastic
Display	Visible diagonal 126 mm
Colours	white/aluminium coloured painted
Assembly	Surface mounted with wall bracket
Dimensions	approx. 107 x 112 x 14 (W x H x D, mm)

Weight	approx. 170 g
Ambient temperature	Operation 0...+50°C, storage -10...+50°C
Ambient humidity	max. 95% RH, avoid condensation
Operating voltage	Battery 3.8 V DC
USB charging current	100 mA
Wireless frequency	868.2 MHz
Temperature measurement range	-40°C...+80°C

The product is compliant with the provisions of EC guidelines.

1.3.2. Weather station

Housing	Plastic
Colour	White / Translucent
Assembly	Surface mount
Protection category	IP44
Dimensions	approx. 96 × 77 × 118 (W × H × D, mm)
Weight	approx. 260 g
Ambient temperature	Operation -30...+60°C, storage -30...+70°C
Operating voltage	230 V AC, 50 Hz
Power consumption	Operation: ca. 4 W / 230 V
Wireless frequency	868.2 MHz
Switching capacity relay	max. 400 W
Rain sensor heater	approx. 1.2 W
Temperature measurement range	-40...+80°C
Resolution (temperature)	0.6°C
Wind measurement range	0...120 km/h
Resolution wind	1 km/h
Brightness measurement range	0...150 kLux
Brightness resolution	1 kLux

The product is compliant with the provisions of EC guidelines.

1.4. Installation/assembly

1.4.1. Installation notes



Installation, testing, operational start-up and troubleshooting should only be performed by an electrician.

**DANGER!****Risk to life from live voltage (mains voltage)!**

There are unprotected live components within the device.

- VDE regulations and national regulations are to be followed.
- Ensure that all lines to be assembled are free of voltage and take precautions against accidental switching on.
- Do not use the device if it is damaged.
- Take the device or system out of service and secure it against unintentional use, if it can be assumed, that risk-free operation is no longer guaranteed.

The device is only to be used for its intended purpose. Any improper modification or failure to follow the operating instructions voids any and all warranty and guarantee claims.

After unpacking the device, check it immediately for possible mechanical damage. If it has been damaged in transport, inform the supplier immediately.

The device may only be used as a fixed-site installation; that means only when assembled and after conclusion of all installation and operational start-up tasks and only in the surroundings designated for it.

Elsner Elektronik is not liable for any changes in norms and standards which may occur after publication of these operating instructions.

1.4.2. Notes on wireless equipment

When planning facilities with devices that communicate via radio, adequate radio reception must be guaranteed. The range of wireless control will be limited by legal regulation and structural circumstances. Avoid sources of interference and obstacles between receiver and transmitter, that could disturb the wireless communication. Those would be for example:

- Walls and ceilings (especially concrete and solar protection glazing).
- Metal surfaces next to the wireless participants (e. g. aluminium construction of a conservatory).
- Other wireless devices and powerful local transmitters (e.g. wireless headphones), which transmit on the same frequency. Please maintain a minimum distance of 30 cm between wireless transmitters for that reason.

1.4.3. Assembling the display

1.4.3.1. Assembly site and assembly preparations



Only install and use the device in dry rooms. Avoid condensation.



The measurement of the indoor temperature is influenced by sources of heat and cold in the proximity.

For an exact measurement

- avoid direct sunlight
- do not install above a radiator
- avoid draughts from windows/doors



Permanent, high UV exposure harms the display.

- Avoid direct sunlight

The display is battery-powered and communicates wirelessly with the weather station. It should be positioned at a height where it is easy to read, e.g. 150 cm.

1.4.3.2. Assembling the wall bracket

The wall bracket consists of two parts: The wall bracket and the cover.

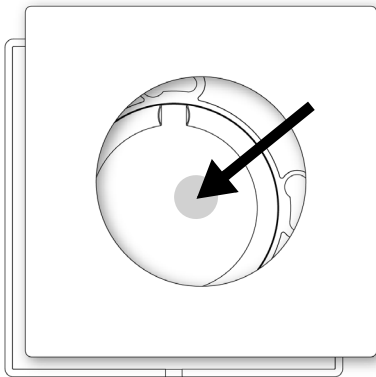


Abb. 1

Loosen the cover from the wall bracket.

Loosen in the disassembled/as delivered state:

Separate both parts by holding the cover on the outside and pressing out the wall bracket with the thumbs.

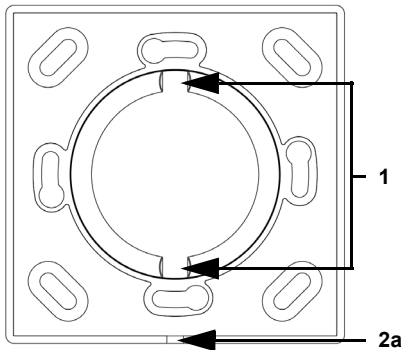


Abb. 2 Front view

Install the wall bracket using suitable aids (screws, adhesive pads).

(1) The two recesses in the locking must be positioned vertically so that the display is correctly positioned.

(2a) The notch points downwards.

Advice for mounting with screws:

- Turn the screws until the screw head is countersunk. Only then, the cover can be stuck.
- Don't tighten the screw too tightly. The wall bracket must not bend.
- The wall bracket should be screwed securely, so that it cannot be twisted.

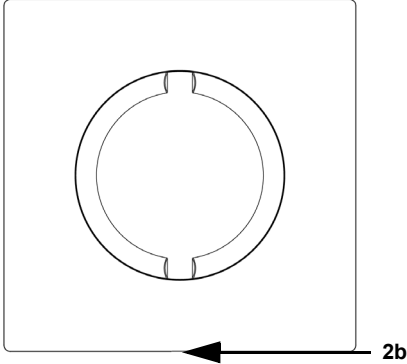


Abb. 3 Front view

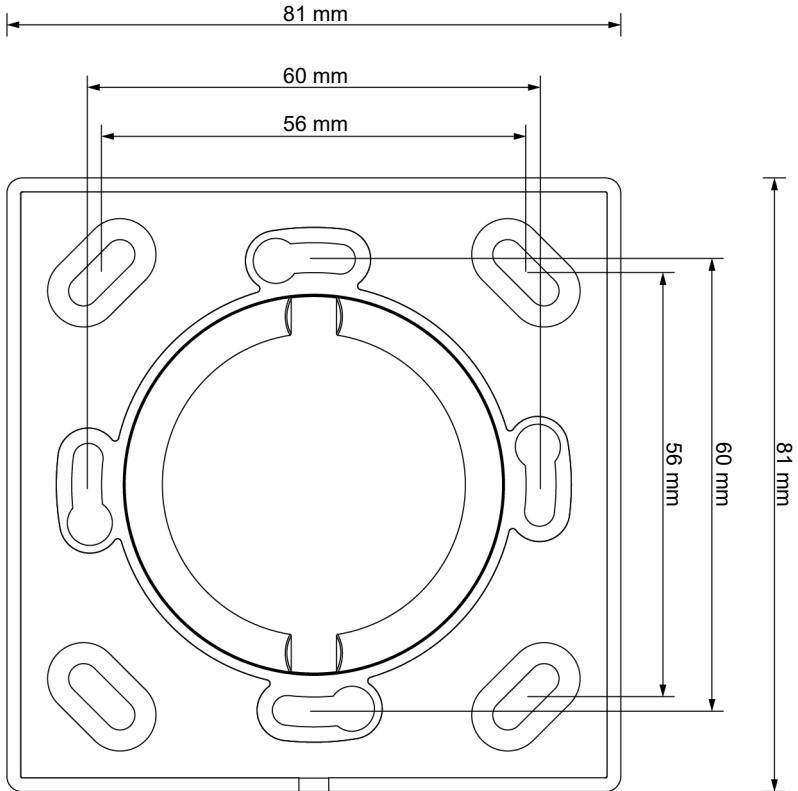
Stick the cover on to the wall bracket with the pre-assembled adhesive pads.

(2b) Here the notch again points downwards.

1.4.3.3. Drill sketch

Abb. 4

Printout not to scale! Use the wall bracket itself as a master/drill template!



1.4.3.4. Disassembling the wall bracket

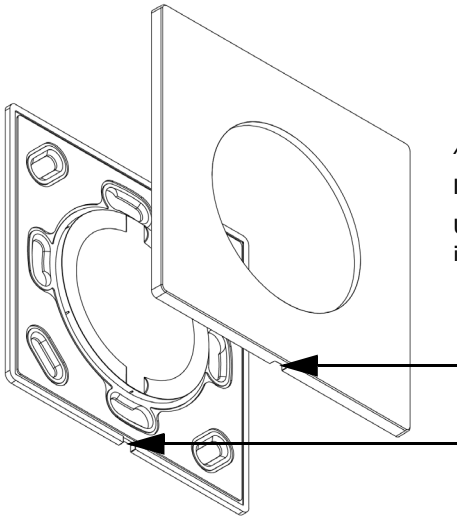


Abb. 5

In the assembled state loosen the cover:

Using a small screwdriver lever carefully in the groove. Remove the cover.

1.4.3.5. Instructions for assembly and initial start-up

Never expose the sensor to water (e.g. rain) or dust. This can damage the electronics.

1.4.4. Installing the weather station

1.4.4.1. Installation position

Choose an installation position in the building where wind, rain and sun can be measured unhindered by the sensors. The weather station must not be installed underneath any structural parts from which water can still drip onto the rain sensor after it has stopped raining or snowing. The weather station must not be shaded by anything, such as building structures or trees.

At least 60 cm of clearance must be left all round the weather station. This facilitates correct wind speed measurement without eddies. The distance concurrently prevents spray (raindrops hitting the device) or snow (snow penetration) from impairing the measurement. It also does not allow birds to bite it.

Please take note that an extended awning does not shade the device from sun and wind.

Temperature measurements can also be affected by external influences such as by warming or cooling of the building structure on which the sensor is mounted, (sunlight, heating or cold water pipes).

Magnetic fields, transmitters and interfering fields from electricity consumers (e.g. fluorescent lamps, neon signs, switched-mode power supplies etc.) can interfere with or even cut out reception of the GPS signal.

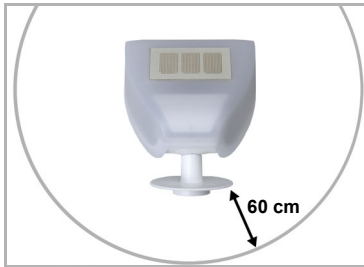


Abb. 6

There must be at least 60 cm of space below, to the sides and in front of the weather station left from other elements (structures, construction parts, etc.).

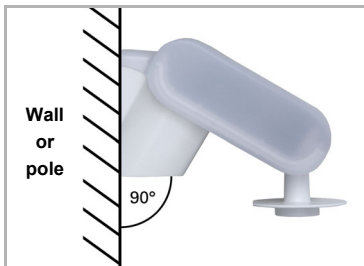


Abb. 7

The weather station must be mounted on a vertical wall (or a pole).



Abb. 8

The weather station must be mounted in the horizontal transverse direction (horizontally).

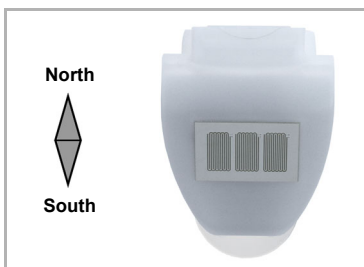


Abb. 9

For installation in the northern hemisphere, the weather station must be aligned to face south.

For installation in the southern hemisphere, the weather station must be aligned to face north.

1.4.4.2. Attaching the mount

The weather station comes with a combination wall/pole mount. The mount comes adhered by adhesive strips to the rear side of the housing.

Fasten the holder vertically to the wall or pole.

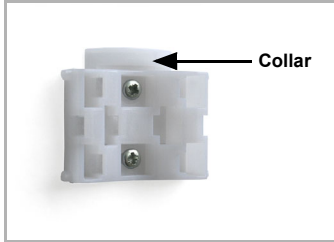


Abb. 10

For wall mounting: Flat side to the wall, crescent moon-shaped crosspiece facing up.

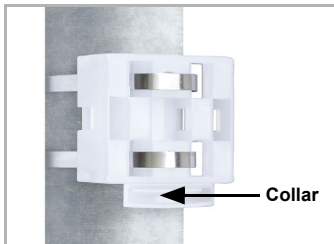


Abb. 11

For pole mounting: curved side to the pole, crosspiece facing down.

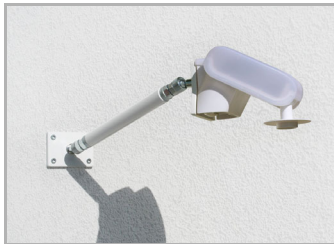


Abb. 12

Different mounting arms are available from Elsner Elektronik as additional, optional accessories for flexible installation of the weather station on a wall, pole or beam.

Example of the use of a mounting arm: Due to flexible ball joints, the sensor can be brought into ideal position.



Abb. 13

Example use of the hinge arm mounting: With the hinge arm mounting, the weather station projects from beneath the roof overhang. Sun, wind and precipitation can act upon the sensors without hindrance.



Abb. 14

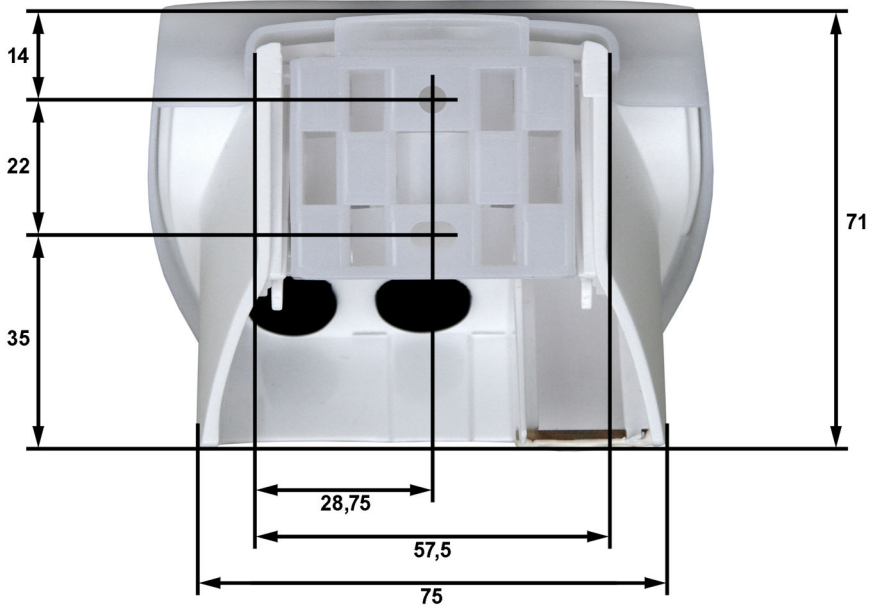
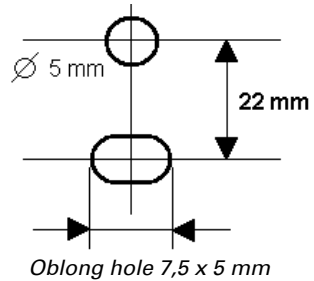
Example use of the hinge arm mounting:
Fitting to a pole with worm drive hose clips

1.4.4.3. Rear view and drill sketch

Abb. 15 a+b

Drill sketch.

Dimensions of the rear side of the housing with holder, dimensions in mm. Divergences are possible for technical reasons.



1.4.4.4. Preparing the weather station

Unclip the lid and
take it off from the top

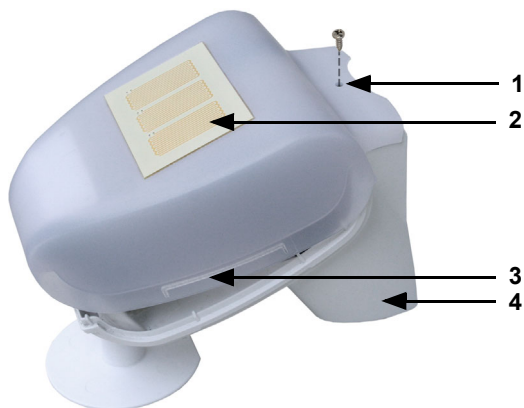


Abb. 16

- 1 Screw connection for cover
- 2 Lid with rain sensor
- 3 Lid notches
- 4 Bottom of housing

The weather station lid with the rain sensor latches into place on the lower edge to the right and left. Remove the lid from the weather station. Proceed carefully to avoid tearing off the cable connection between the circuit board in the lower section and the rain sensor in the lid.

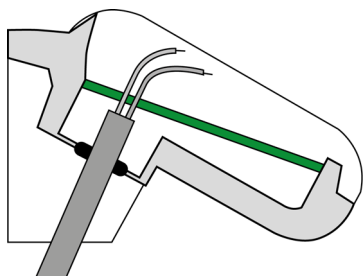


Abb. 17

Remove the cable shielding under the circuit board and only feed the connector cables upwards through the openings in the circuit board.

1.4.5. Connection

The weather station has one connection for a 230 V AC drive for awnings, shutters, blinds or windows. A number of drives can be connected in parallel. When switching motors in parallel, check whether a group control relay is specified by the motor manufacturer. Group control relays can be obtained from Elsner Elektronik or from the motor manufacturer.



ATTENTION

Damage to property from switching unsuitable motors in parallel!

Not all drives are suitable for parallel switching in drive groups.

- Use suitable drives or connect the drives via a group control relay.

Motors with a power input exceeding 400 watt must be operated through a relay or contactor with its own power supply.

Elsner Elektronik offers appropriate power supplies for direct current drives. Where required, please enquire indicating the motor types, the manufacturer and – if available – the technical specifications.

Guide the power cable and the connecting cable for the drive through the rubber seal on the lower side of the weather station. Connect the mains (L1/N/PE) and drive (PE/N/up/down) to the appropriate terminals.

The teaching of wireless users at the weather station is easier if the weather station and wireless actuators/sensors are secured via separate automatic circuit breakers.

Information on teaching wireless connections

To teach a wireless connection to the display observe the chapter *creating wireless connections* in the manual (basic settings).

The wireless connection to the weather station can be created in two different ways:

1. By pressing the programming button.
This method may only be performed by a qualified electrician (according to VDE 0100) since the programming button for the wireless connection is on the weather station circuit board.
2. By switching the power supply voltage off and on.
To enable this method, the weather station should be fused separately (16A circuit breaker). Further wireless users can be supplied via other circuit breakers. Thereby the power supply for the weather station and other wireless users can be interrupted independent of each other.

1.4.5.1. Layout of the circuit board

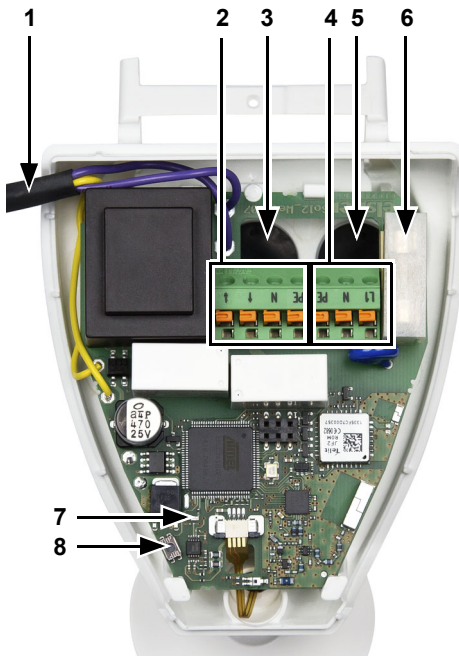


Abb. 18

- 1 Cable connection to the precipitation sensor in the casing lid
- 2 Drive connectors (spring loaded terminal, PE/N/up/down), suitable for solid conductors up to 1.5 mm² or fine wire conductors
- 3 Opening for drive cable
- 4 Power supply connections (230 V AC, spring loaded terminal, L1/N/ PE), suitable for solid conductors up to 1.5 mm² or fine wire conductors
- 5 Opening for power supply cable
- 6 Microfuse 6.3 A
- 7 LED programming
- 8 Programming button for teaching the wireless connection to the display

1.4.5.2. Mounting the weather station

Close the casing by placing the lid on the lower section. The lid must lock into place on the right and left with a distinct click.

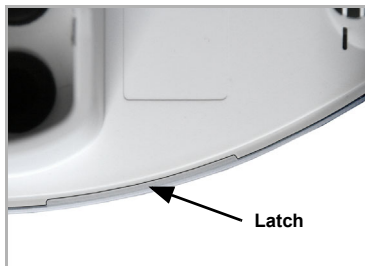


Abb. 19

Check that the lid and lower section have properly latched into place! The diagram shows the closed weather station from below.



Abb. 20
Screw the lid on to the underpart, to prevent unauthorised or accidental opening.



DANGER!
Risk to life from live voltage!

- In operation the lid must be screwed on.



Abb. 21
Push the casing from above into the installed holder. In doing this, the studs in the holder must click into the tracks on the casing.

For removal, the weather station can be pulled out of the holder upwards against the resistance of the notch.

1.4.6. Instructions for assembling the weather station

Do not open the weather station if water (rain) can get into it: Even a few drops can damage the electronics.

During installation care must be taken that the temperature sensor (small circuit board on the underside of the housing) is not damaged. The cable connection between the board and the rain sensor should also not be torn off or bent when being connected.

Remove all transport protection stickers present after installation.

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

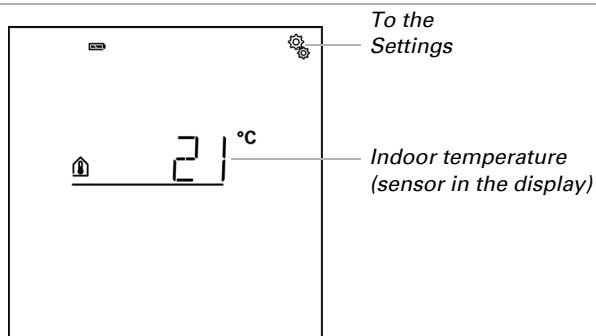
1.5. Initial start-up



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).

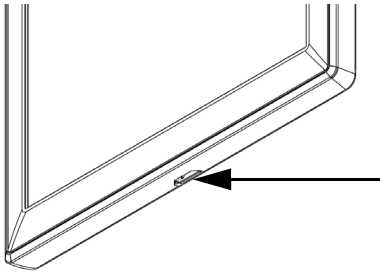


Fig. 22

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

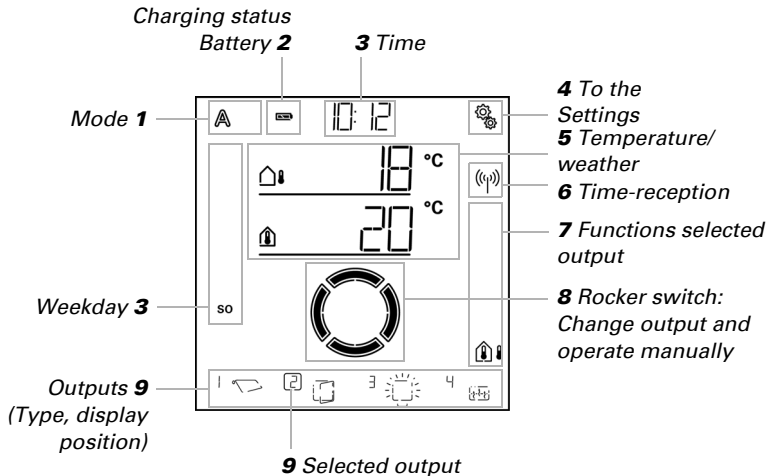
Fingerprints on the display and the housing are best removed with a cloth moistened with water or a microfibre cloth. Do not use an abrasive cleaning agent or aggressive cleansing agents.



Dispose of the used battery correctly – empty batteries should not be thrown away in household refuse.

2.1.3. 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 26.

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



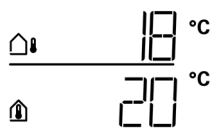
Tap to access the automatic settings or
hold down for 3 seconds to access the default settings.

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.

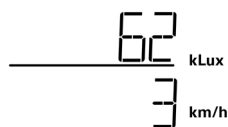
5 – Room temperature and weather data

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.



Temperature display:

- Current outdoor temperature (only if a weather station is being used)
- Current indoor temperature



Brightness/wind display (only if a weather station is being used):

- Current brightness (light intensity)
- Current wind speed

Further information on the values for brightness and wind is in the manual, chapter 4.3.6. *Units for sun and wind*, page 176.

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 2.1.3.1. *Meaning of the functional symbols (automatic mode status)*, page 29 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.

 Selected output is blocked for manual operation (alarm function active).



2.1.3.1. 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.
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.

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





Indoor and outdoor temperature:

-  Indoor temperature is OK. Shading is released.
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 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.
-  Brightness threshold value for shading has been exceeded.
Shading is performed if all other conditions are OK.
-  Brightness below threshold value for shading, retraction delay is running. Shading 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.

-  Wind alarm. Window closed.
Manual mode: Manual operation blocked. Automatic mode: Output can be operated if the wind automatic block is running.
-  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.



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.

2.1.4. 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).

2.1.5. 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).

2.1.6. 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	Type	Display position	Room	Keyword

[illegible]

2.2. Operating the weather station

2.2.0.1. 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 device 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

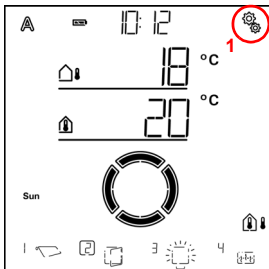
Rain and wind alarms are deactivated while the base settings are displayed.

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:

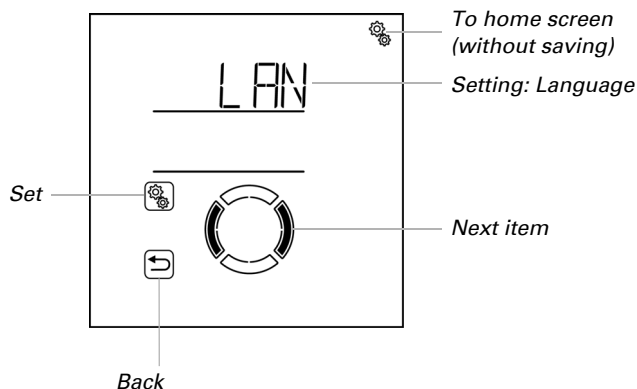
<u>Abbr.</u>	<u>Item</u>
LAN	Display language
CLC	Clock
LEA	Learn radio connections
StAt	Status for existing radio connections
OUt	Setting up outputs
SER	Service settings

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:

() Next/Previous setting.



Select setting.



Modify value.



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

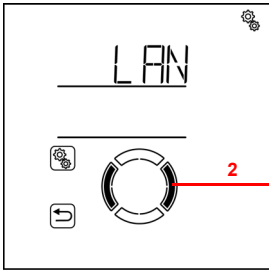


Leave settings, one level up without saving.

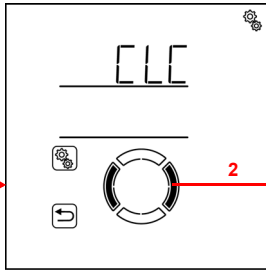


Leave settings, back to home screen without saving.

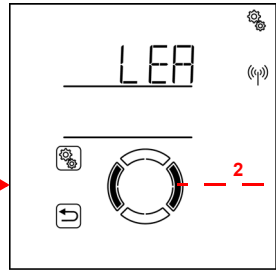
Base setting (language)



Base setting (clock)



Base setting (learning)



() 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)

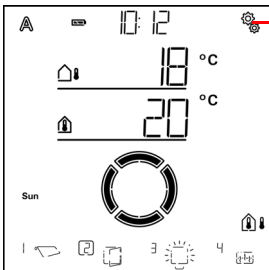
Once you have completed the base settings, continue with the automatic settings (4. *Automatic*, page 79)

3.2. Setting the language

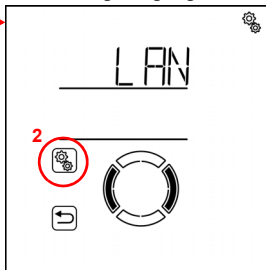
☐ BASE SETTINGS > LAN

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

Home screen



Base setting (language)



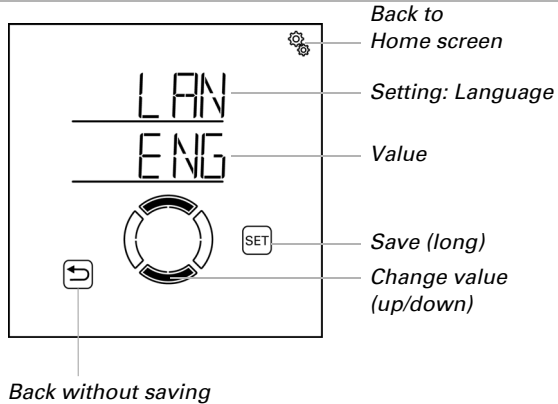


1. Press the settings symbol for a longer time on the home screen (high beep) in order to activate the base settings.



2. Select the setting LAN language.

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

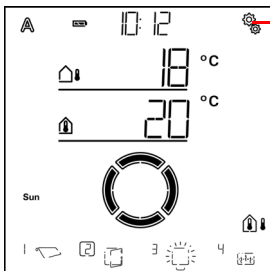


3.3. Setting the time

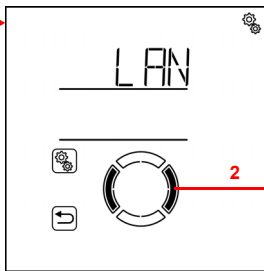
☐ BASE SETTING > CLC

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 co-ordinated universal time UTC. If required, you can also use the automatic Switch off summer time changeover.

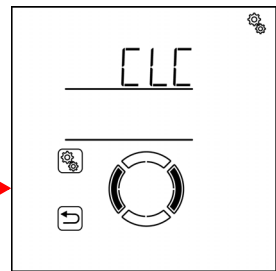
Home screen



Base setting (language)



Base setting (clock)



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 **CLC clock**.

The following settings are available for the item CLC (clock):

<u>Abbreviation</u>	<u>Setting</u>
24h	12- or 24-hour display
UtC	Deviation from UTC
SU	Summer time changeover CET/CEST

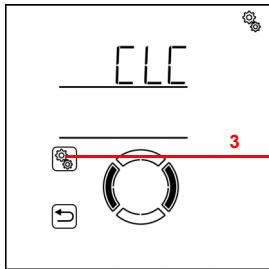
Display mode 24/12 hour mode

- ☐ BASE SETTING > CLC > 24h

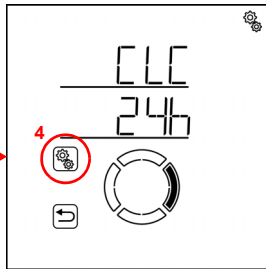
The time may be shown in 24 hour mode or in 12 hour mode. If you select 12 hour mode, the indication "AM" or "PM" is displayed next to the time.

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.

Base setting (clock)



Clock (12/24 h)

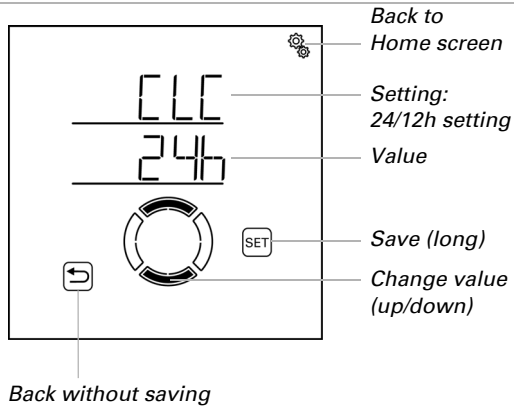


3. Select the item **CLC clock**.



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

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



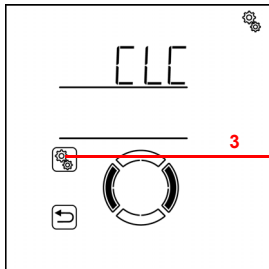
Deviation from UTC

☐ BASE SETTING > CLC > UtC

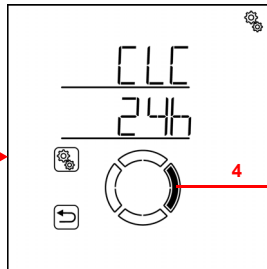
Adjust the deviation of the local standard time ("winter time") in hours from UTC (coordinated universal time).

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

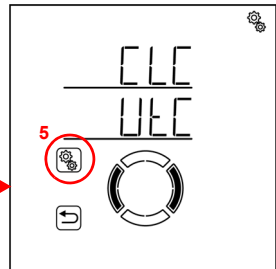
Base setting (clock)



Clock (12/24 h)



Clock (UTC)



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

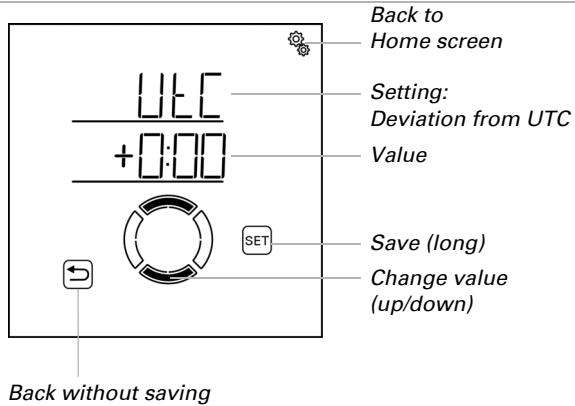


4. Switch to the setting **UtC UTC deviation**.



4. Select the setting **UtC**.

Adjust the value (hours, number is flashing). Pre-set: 0:00 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 76).

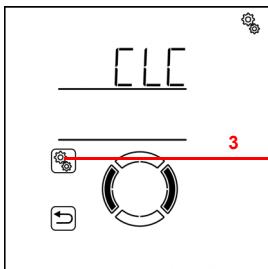
Summer time changeover CET/CEST

☐ BASE SETTING > CLC > SU

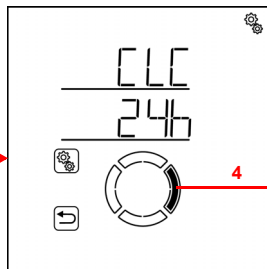
Set whether the **Solexa II** should automatically switch between summer and standard time (winter time) according to the summer time rule for Germany ("ON") or whether the standard time (winter time) should be maintained permanently ("OFF").

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.

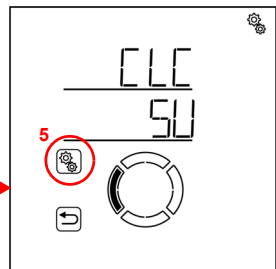
Base setting (clock)



Clock (12/24 h)



Clock (SU)



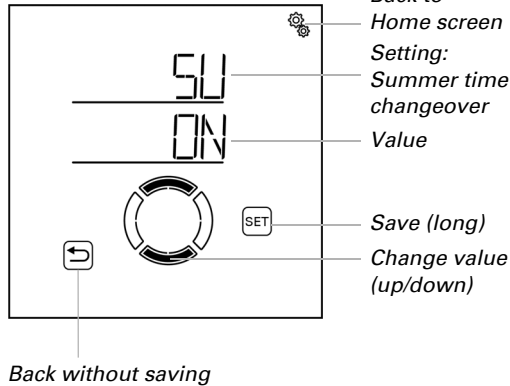
3. Select the item **CLC clock**.

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.



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.

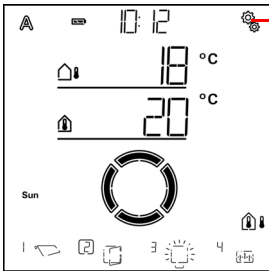


WARNING! **Electrical voltage!**

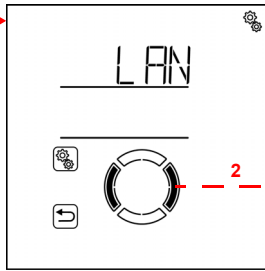
Some devices have the programming key for teaching the wireless connection inside the housing and thus near unprotected live components.

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

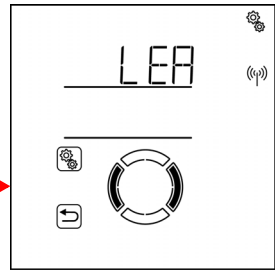
Home screen



Base setting (language)



Base setting (learning)



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 44.

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 45.

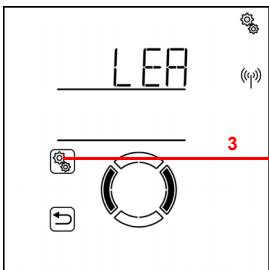
3.4.1. Wireless connection with the weather station

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.

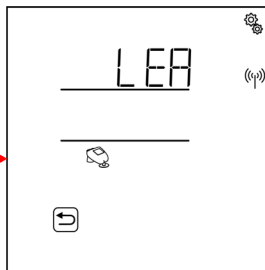


Installation, testing, operational start-up and troubleshooting of the unit should only be performed by an electrician (pursuant to VDE 0100).

Base setting (learning)



Learning



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).

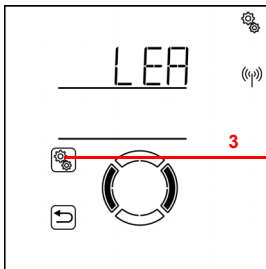
A brief sound signal shows that the weather station has been successfully taught. The display jumps up one menu level.

Continue with the teaching of the radio modules.

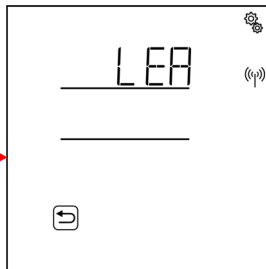
3.4.2. Teaching radio actuators, operating devices and sensors

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

Base setting (learning)

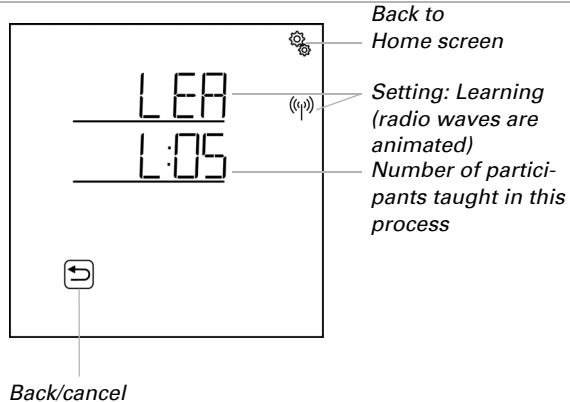


Learning



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.

Remote control Remo 8: 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.

Pushbutton Corlo P2 RF: 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 44.

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).

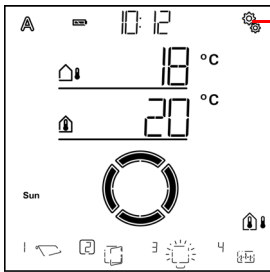
The app notifies you when the weather station has been successfully taught.

3.5. Status display and deleting radio participants

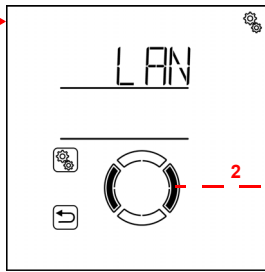
- ☐ Base settings level > StAt

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

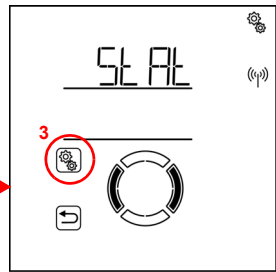
Home screen






Base setting (language)



Base setting (status)



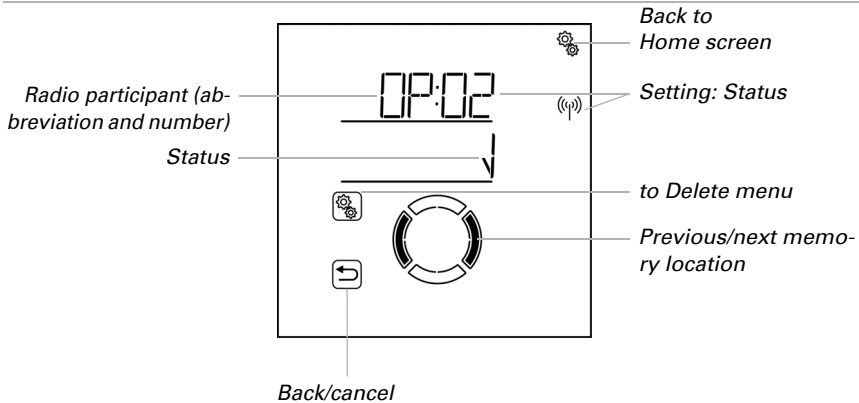
-  1. Press the settings symbol for a longer time on the home screen (high beep) in order to activate the base settings.
-  2. Switch to the item **StAt Status**.
-  3. Switch to the item **StAt**.

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 50). 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.

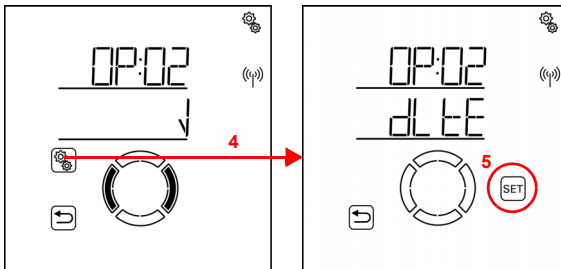


ER error means: radio connection is interrupted. In this case, the radio participant should be checked by a skilled electrician.

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 50 in order to delete the data of the weather station. The Sol-exa II display may be deleted in systems with a weather station. If you would like to re-teach the same display, reset it to factory settings before doing so (see chapter 3.7. *Service area*, page 76). 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 46.



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.



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.

When display and weather station are combined:

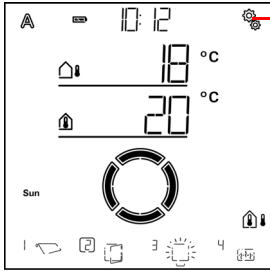
Position	Range	Device type	Number of devices
01	Weather station	Drive output of the weather station	1
02 to 05	Displays	Display	4
06	WLAN	WLAN interface	1
07 to 22	Outputs	Actuators	16
23 to 54	Inputs	Operating units and sensors	32

3.6. Setting up outputs

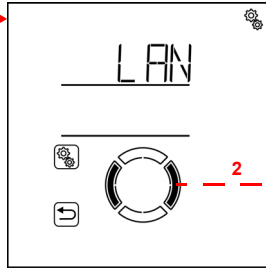
□ BASE SETTING > OUT

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...).

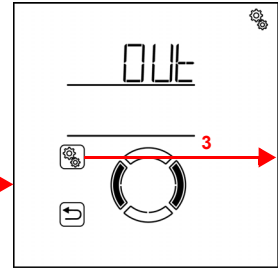
Home screen





Base setting (language)




Base setting (outputs)

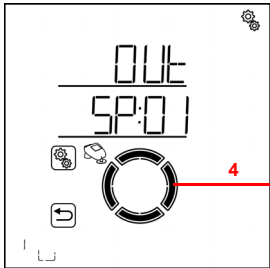


 1. Press the settings symbol for a longer time on the home screen (high beep) in order to activate the base settings.

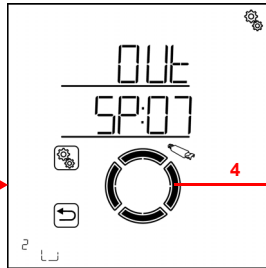
 2. Switch to the item **OUT outputs**.

 3. Select the item **OUT**.

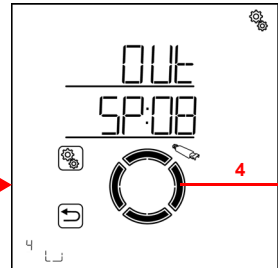
Outputs (SP 01)




Outputs (SP 07)




Outputs (SP 08)



 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 47). 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 1.6. Table: *Memory locations for the outputs and inputs*, page 11.



ATTENTION

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)

☐ BASE SETTING > OUT > SP X

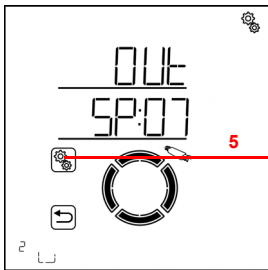
The available settings for the weather station correspond to those for a radio motor control unit.

3.6.1.1. Type

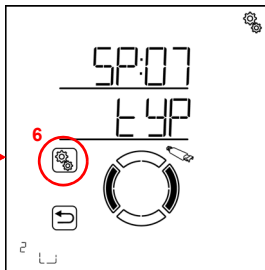
☐ BASE SETTING > OUT > SP X > tYP

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.

Outputs (SP 07)



SP 07 (type)

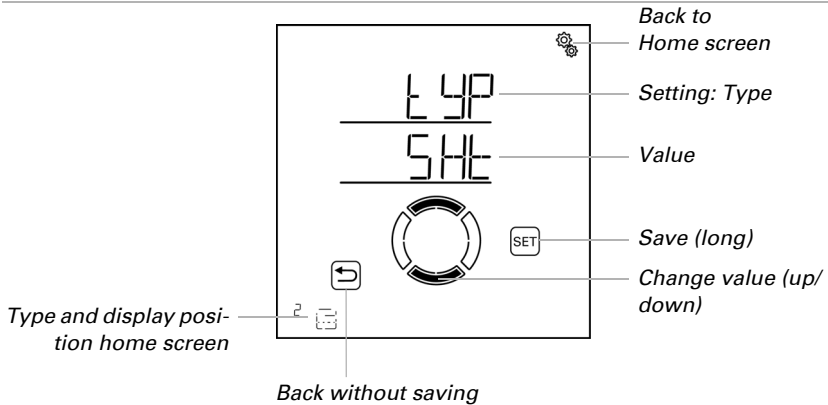


5. Select the settings for the output/memory location.



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.

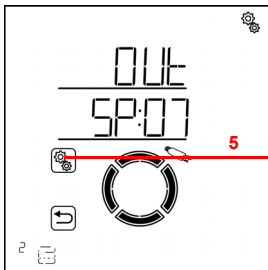
3.6.1.2. Rotational direction

☐ BASE SETTING > Out > SP X > rOt

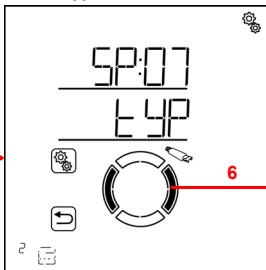
The setting of the rotational direction defines the secure position of a drive. The correct setting is important for a safe function of the automatic function, e.g. for wind and rain alarms.

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

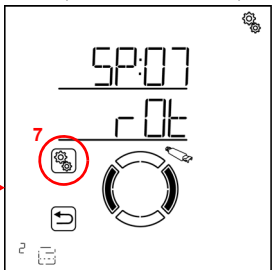
Outputs (SP 07)



SP 07 (type)



SP 07 (rotational direction)



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



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



7. Select the setting **rOt**.

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.



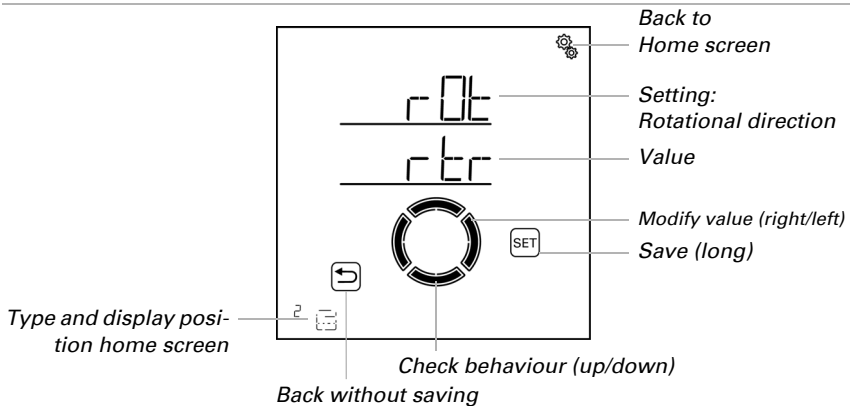
ATTENTION

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:

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



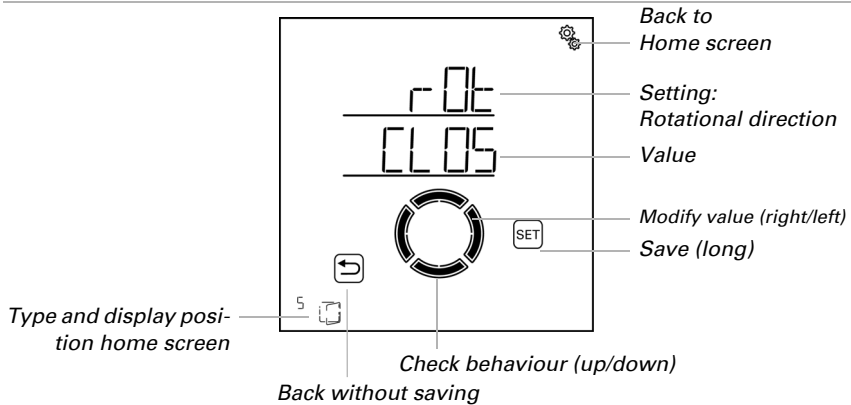
ATTENTION

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.

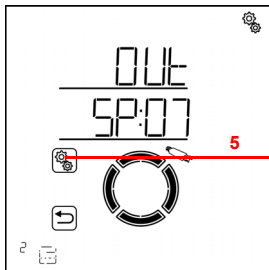


3.6.1.3. Manual drive direction

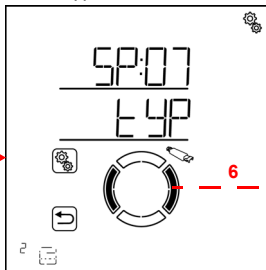
☐ BASE SETTING > OUT > SP X > mAN

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.

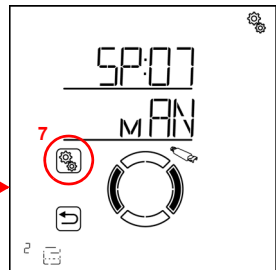
Outputs (SP 07)





SP 07 (type)




SP 07 (manual direction)



 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.

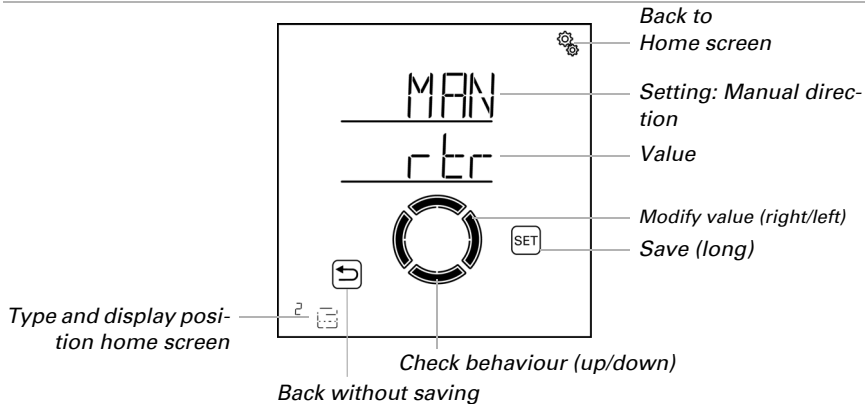
**ATTENTION**

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.

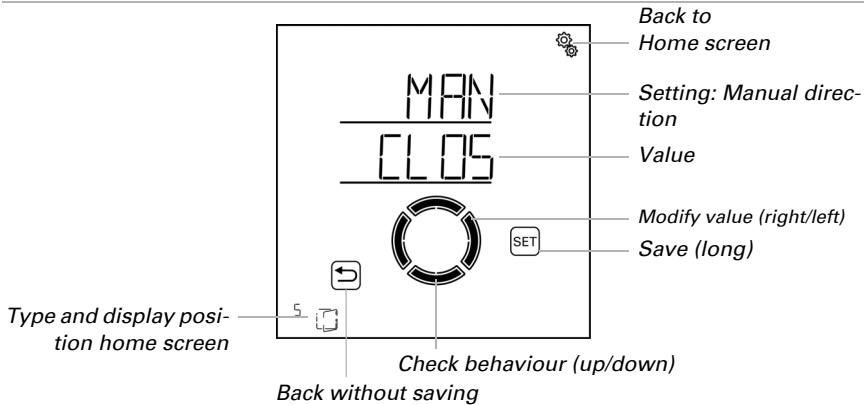
**ATTENTION**

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.



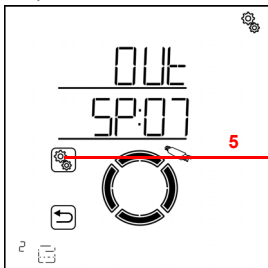
3.6.1.4. Drive command for alarm functions

□ BASE SETTING > Out > SP X > ALCO

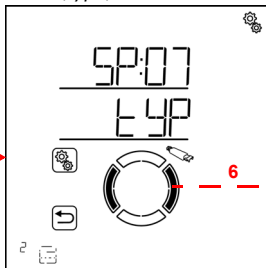
If a rain, wind or frost alarm is triggered, the drive is moved to a safe position (shading is retracted, window closes). The alarm drive command may end once the set retraction/closing travel time is over, or it is maintained continually as long as the alarm notification is valid.

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.

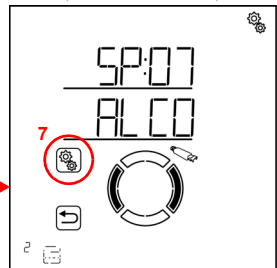
Outputs (SP 07)






SP 07 (type)

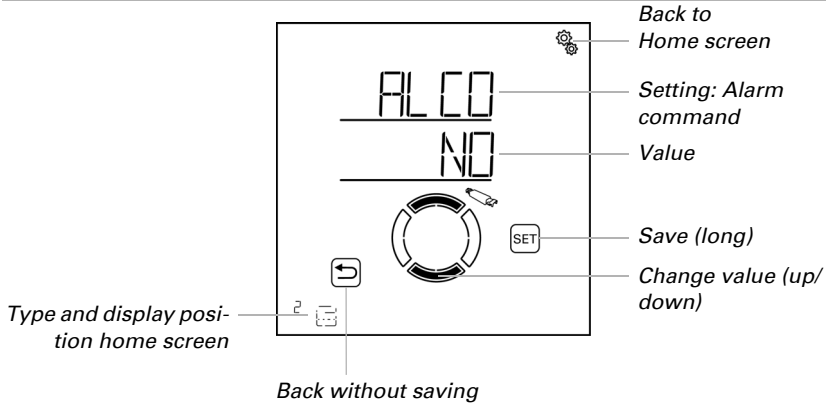


SP 07 (alarm command)



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

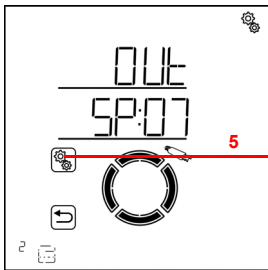
☐ BASE SETTING > Out > SP X > EtN / OPEN

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.

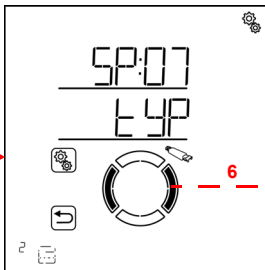
~~Shades (awnings, shutters, blinds):~~

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).

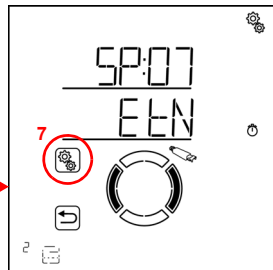
Outputs (SP 07)



SP 07 (type)



SP 07 (extension time)



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

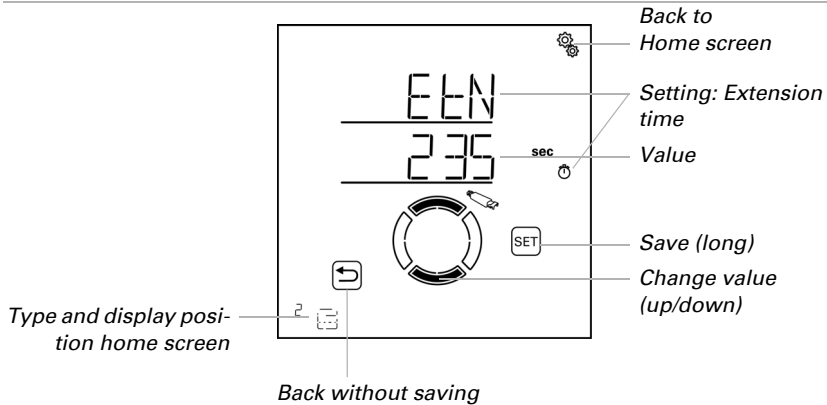
() 6. Switch to the setting **EtN extension time**.



7. Select the setting **EtN**.

Adjust the value (number is flashing).

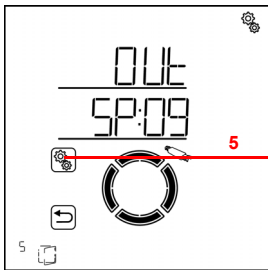
Pre-setting 235 seconds, settings range 0 to 300 seconds.



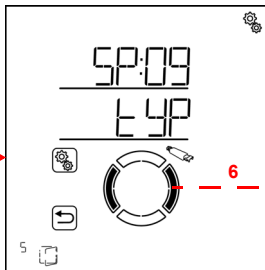
Window:

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).

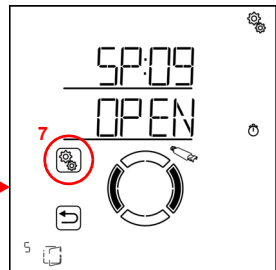
Outputs (SP 07)



SP 07 (type)



SP 07 (opening time)



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

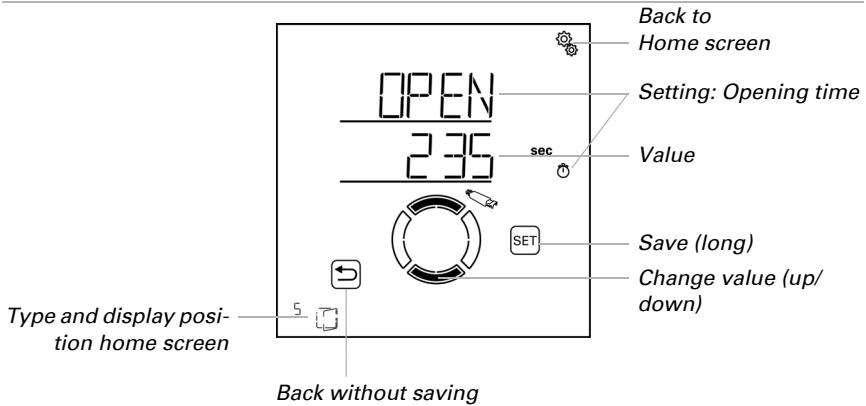
() 6. Switch to the setting **OPEN opening time**.



7. Select the setting **OPEN**.

Adjust the value (number is flashing).

Pre-setting 235 seconds, settings range 0 to 300 seconds.



3.6.1.6. Retraction time / Closing travel time

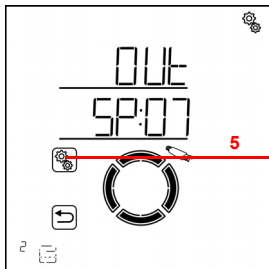
☐ BASE SETTING > Out > SP X > rtr / CLOS

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.

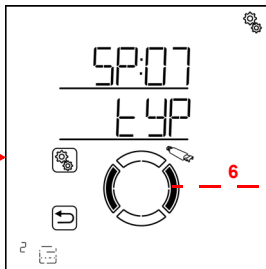
Shades (awnings, shutters, blinds):

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).

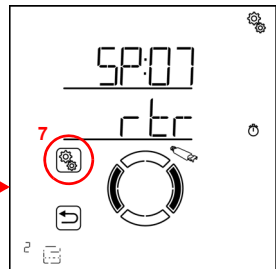
Outputs (SP 07)




SP 07 (type)



SP 07 (retraction time)



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

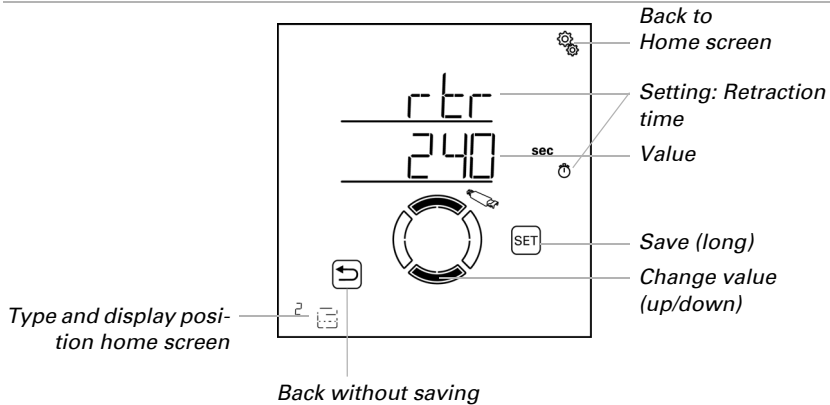
 6. Switch to the setting **rtr retraction time**.



7. Select the setting **rtr**.

Adjust the value (number is flashing).

Pre-setting 240 seconds, settings range 0 to 300 seconds.

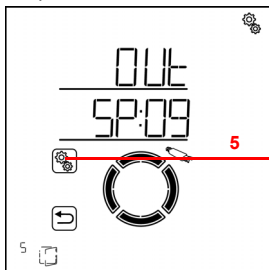


The retraction time must be longer than the extension time in order to fully retract the shades.

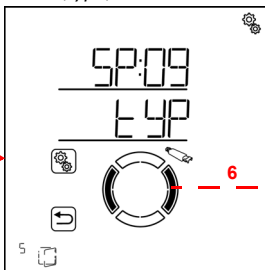
Window:

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).

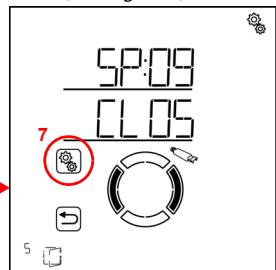
Outputs (SP 07)



SP 07 (type)



SP 07 (closing time)



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



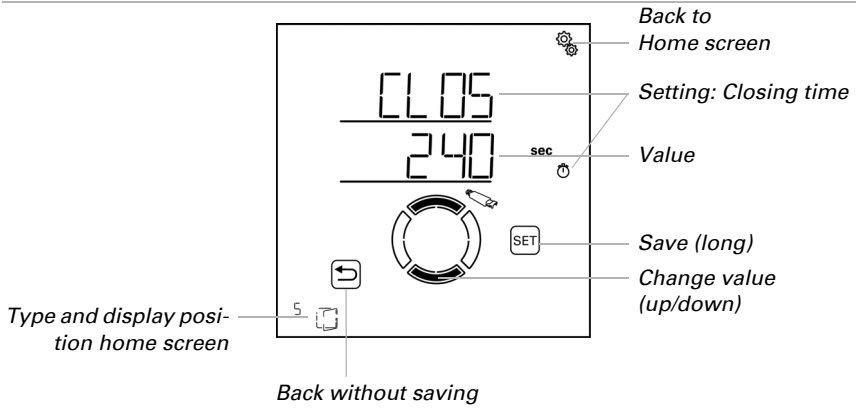
6. Switch to the setting **CLOS** closing time.



7. Select the setting **CLOS**.

Adjust the value (number is flashing).

Pre-setting 240 seconds, settings range 0 to 300 seconds.



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

3.7. Service area

□ BASE SETTING > SER



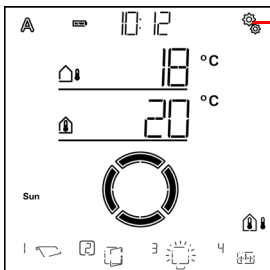
ATTENTION

Material damage due to improper use of the service functions!

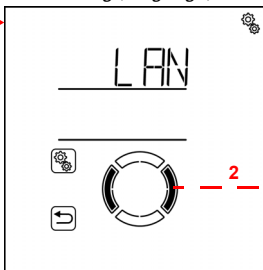
The service settings are not required for the normal functioning of the control.

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.

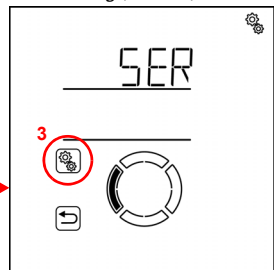
Home screen



Base setting (language)



Base setting (service)



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

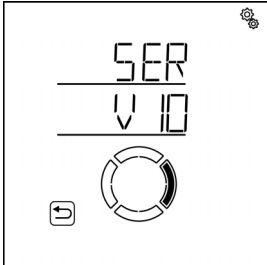
The following functions are available:

StAR: Restart the display software

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

Showing the display software version

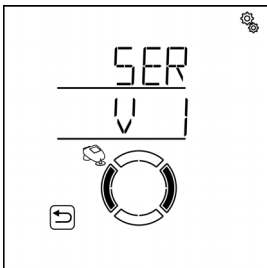
First, the display software version is shown (e.g. V 1.0)



Showing the weather station software version

► Advance to the next page.

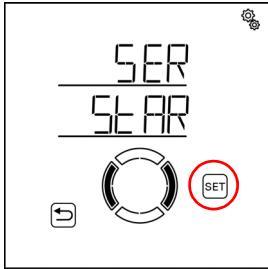
This shows the weather station software version (e.g. V 1).




Display restart

► Switch to the **StAR restart** page.

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



 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.



 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 94.

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 re-activation. 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 35):

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:

-  Next/previous configuration step.
-  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

☐ 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...).

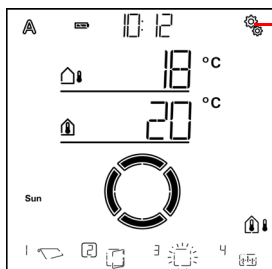
4.2.1. ~~Twilight threshold value~~

☐ AUTO > GN > tLt

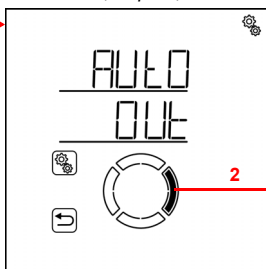
Lights, shutters, blinds and awnings have automatic functions that differentiate between day and night (or twilight).

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.

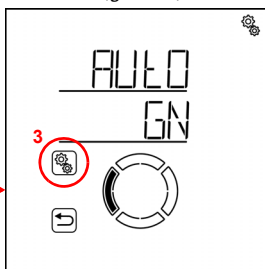
Home screen



Automatic (outputs)



Automatic (general)

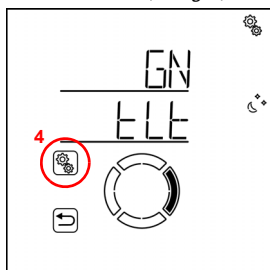


1. Press the settings symbol time on the home screen briefly to access the automatic settings.
2. Switch to **GN general** in the automatic settings.



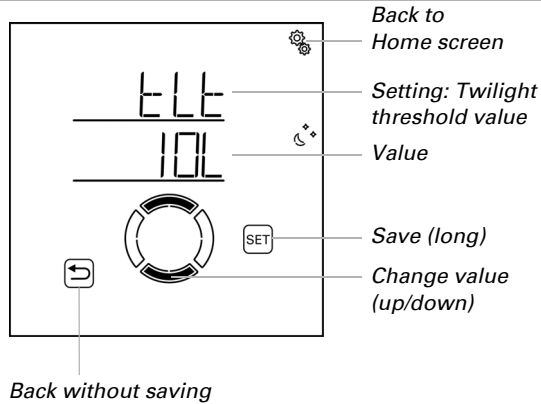
3. Select the item **GN**.

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.

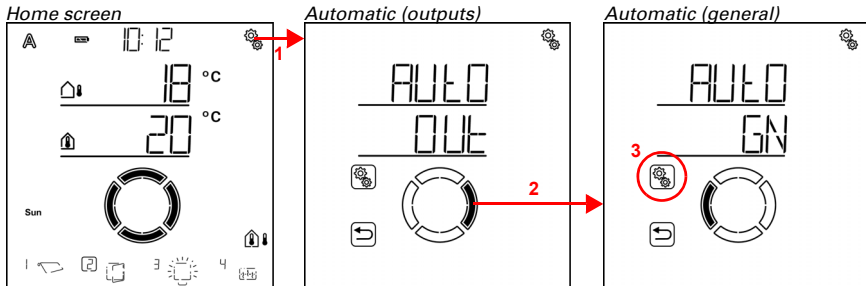


4.2.2. Travel delays

□ AUTO > GN > dEL

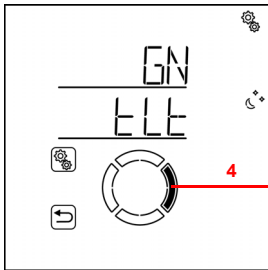
Shutters, blinds and awnings have a travel delay in the sun automatics. This delay ensures that the shades do not continuously retract and extend in case of rapidly changing light conditions.

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

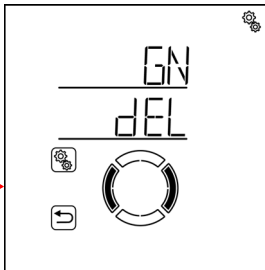


1. Press the settings symbol time on the home screen briefly to access the automatic settings.
2. Switch to **GN general** in the automatic settings.
3. Select the item **GN**.

Gen. automatic (twilight)



Gen. automatic (travel delays)



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

Here, the following travel delays are determined:

Abbreviation Setting

EtN extension delay

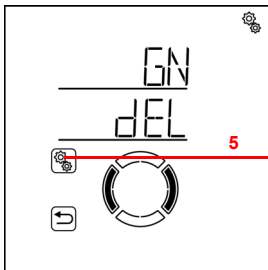
rtr retraction delay

Extension delay

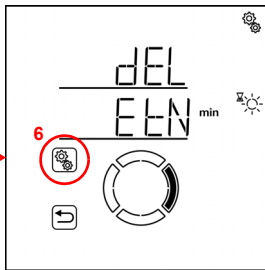
☐ AUTO > GN > dEL > EtN

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.

Gen. automatic (travel delay)



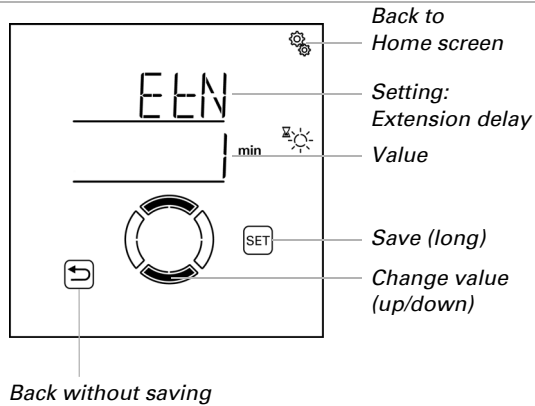
Travel delays (extension)



5. Select the setting **dEL**.

6. Select the setting **EtN extension delay**.

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

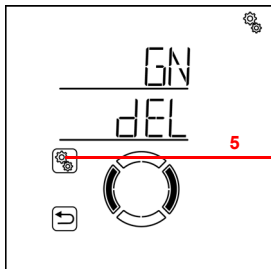


Retraction delay

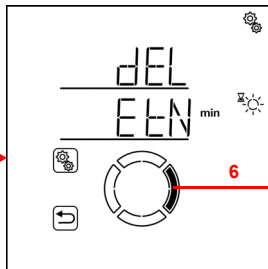
☐ AUTO > GN > dEL > rtr

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".

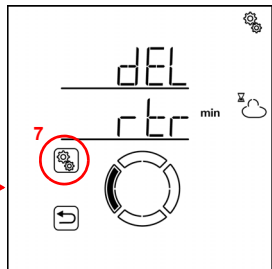
Gen. automatic (travel delay)



Travel delays (extension)



Travel delay (retracting)



5. Select the setting **dEL**.

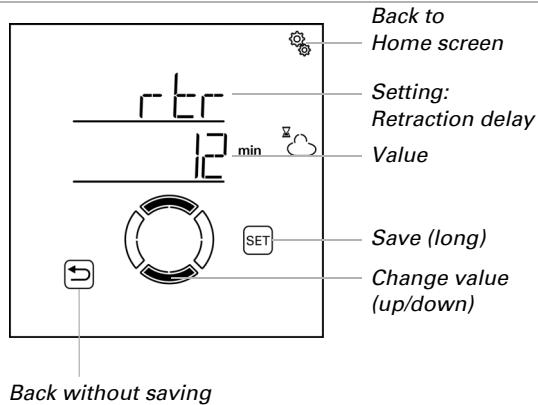


6. Switch to the setting **rtr retraction delay**.



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

☐ 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.

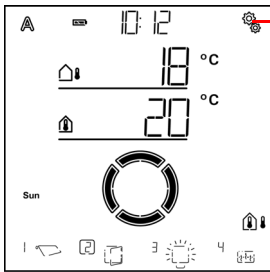
The frost alarm ends in the following situations:

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

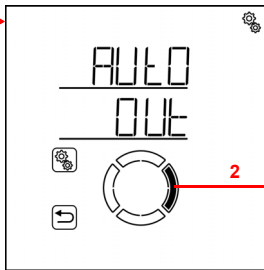
You adjust which blinds will be retracted and which windows will be closed in case of frost alarm in the automatic functions for the individual blinds and windows. The frost alarm blocks all automatic functions and manual operation for those drives.

In case of an active frost alarm, the symbols for rain and for outdoor temperature are shown on the home screen (see chapter *Display and operating options on the start screen*, page 27).

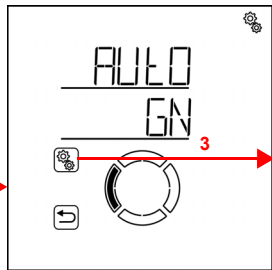
Home screen



Automatic (outputs)



Automatic (general)

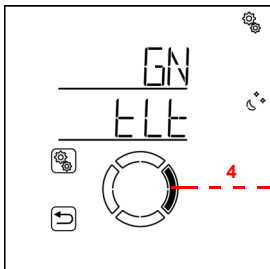


1. Press the settings symbol time on the home screen briefly to access the automatic settings.
2. Switch to **GN general** in the automatic settings.

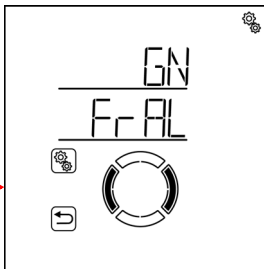


3. Select the item **GN**.

Gen. automatic (twilight)



Gen. automatic (frost alarm)



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

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

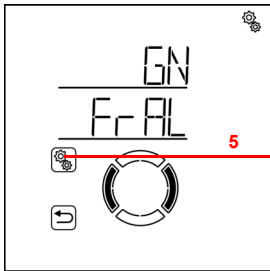
<u>Abbreviation</u>	<u>Setting</u>
ON	switch-on temperature for frost alarm
Stb	standby period with temperature check after precipitation.
OFF	switch-off temperature for frost alarm
FLL	follow-up time for the frost alarm

Switch-on temperature for frost alarm

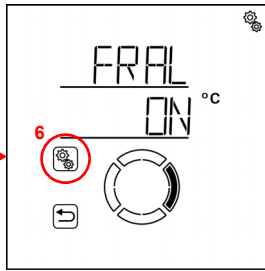
☐ AUTO > GN > FrAL > ON

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

Gen. automatic (frost alarm)



Frost alarm (switch-on temperature)

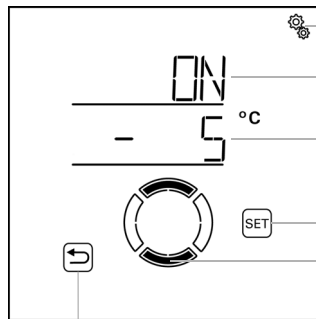


5. Select the setting **FrAL**.



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

Adjust the value (number is flashing). Pre-setting and 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.



Back to
Home screen

Setting: Switch-on
temperature

Value

Save (long)

Change value
(up/down)

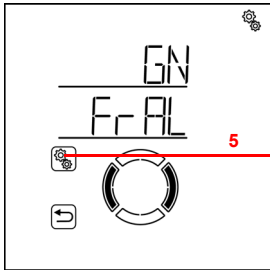
Back without saving

Standby period

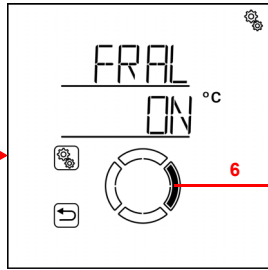
☐ AUTO > GN > FrAL > Stb

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.

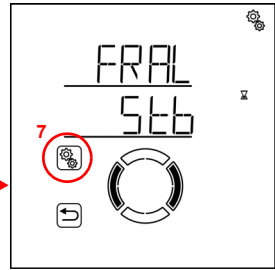
Gen. automatic (frost alarm)



Frost alarm (switch-on temperature)



Frost alarm (standby)



5. Select the setting **FrAL**.

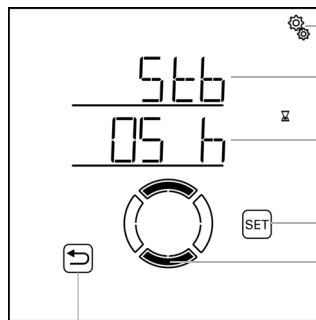


6. Switch to the setting **Stb standby**.



7. Select the setting **Stb**.

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



Back to
Home screen

Setting:
Standby period

Value

Save (long)

Change value
(up/down)

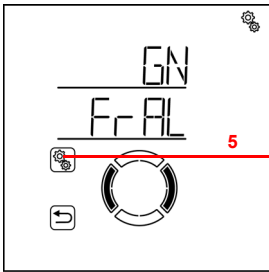
Back without saving

Switch-off temperature for frost alarm

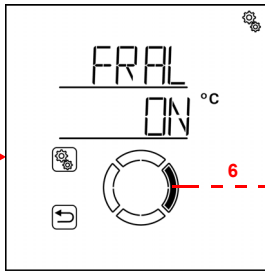
☐ AUTO > GN > FrAL > OFF

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

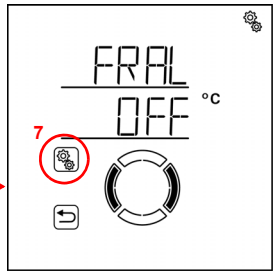
Gen. automatic (frost alarm)



FrAL (switch-on temperature)



FrAL (switch-off temperature)



5. Select the setting **FrAL**.

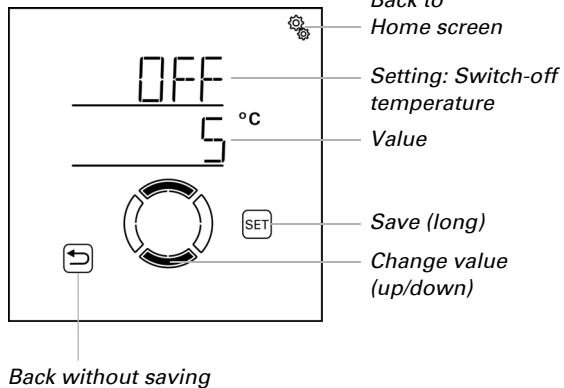


6. Switch to the setting **OFF switch-off temperature** (press twice).



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.

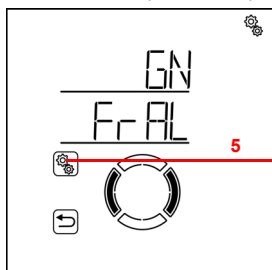


Follow-up time

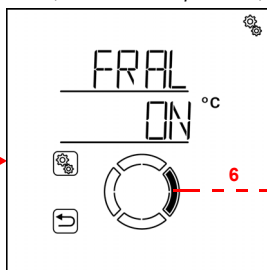
☐ AUTO > GN > FrAL > FLL

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.

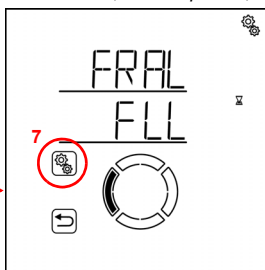
Gen. automatic (frost alarm)



FrAL (switch-on temperature)



Frost alarm (follow-up time)



5. Select the setting **FrAL**.

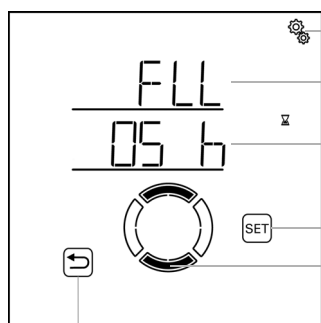


6. Switch to the setting **FLL follow-up time** (press 3 times).



7. Select the setting **FLL**.

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



Back to
Home screen

Setting:
Follow-up time
Value

Save (long)

Change value
(up/down)

Back without saving

4.2.4. Wind alarm automatic lock

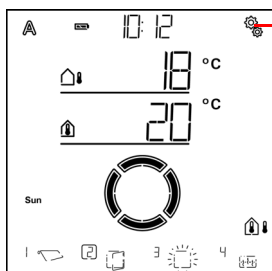
☐ AUTO > GN > WAL

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.

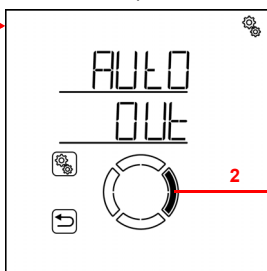
In addition, a period of time after the wind alarm can be set. During this period, the automatic functions are blocked. This means that if the output is in automatic mode before or during the wind alarm, then the automatic functions initially remain blocked after the wind alarm. However, manual operation 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.

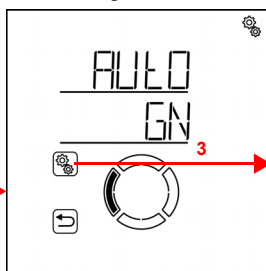
Home screen



Automatic (outputs)



Automatic (general)



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

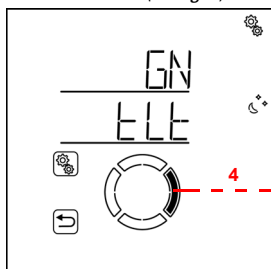


2. Switch to **GN general** in the automatic settings.

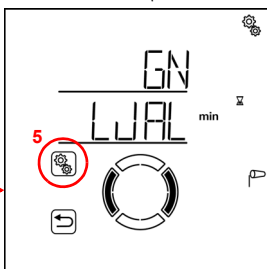


3. Select the item **GN**.

Gen. automatic (twilight)



Gen. automatic (wind alarm block)

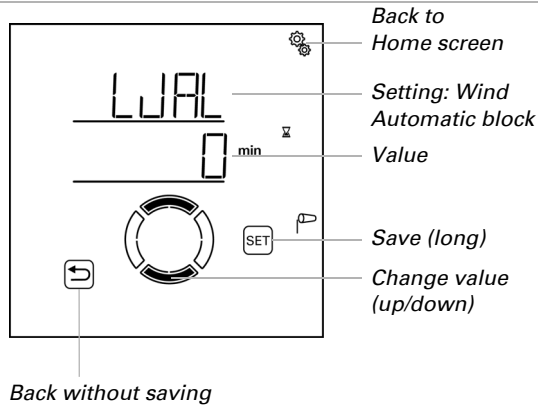


4. Switch to the setting **WAL wind alarm automatic lock**.



5. Select the setting **WAL**.

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



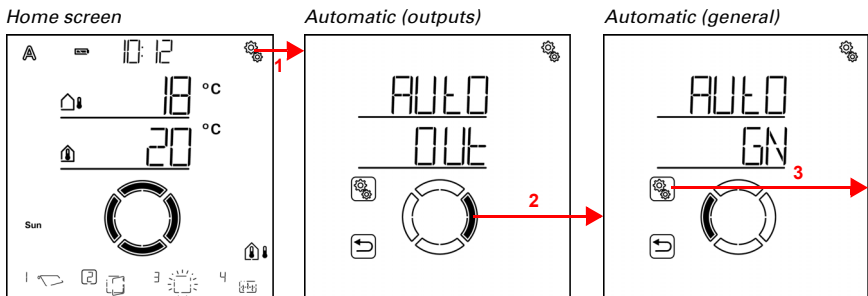
4.2.5. Automatic reset

☐ 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.



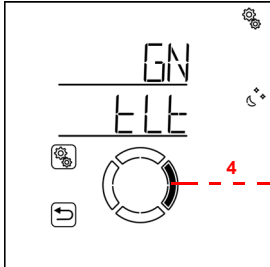
1. Press the settings symbol time on the home screen briefly to access the automatic settings.

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

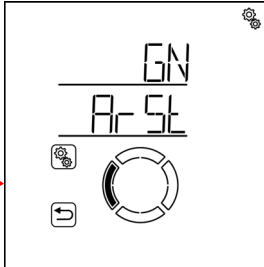


3. Select the item **GN**.

Gen. automatic (twilight)



Gen. automatic (auto reset)



4. Switch to the setting **ArSt automatic reset**.

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

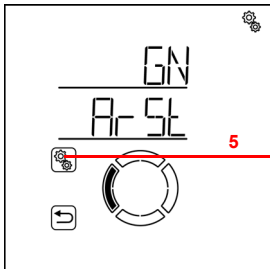
Abbreviation	Setting
tl	Time for the general automatic reset.
dEL	Delay for reset to automatic after manual operation

Time of day for automatic reset

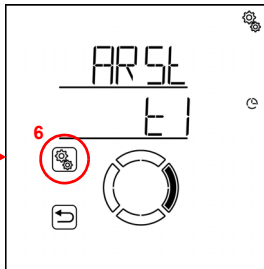
- ☐ AUTO > GN > ArSt > tl

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

Gen. automatic (auto reset)



Auto reset (time)



5. Select the setting **ArSt**.

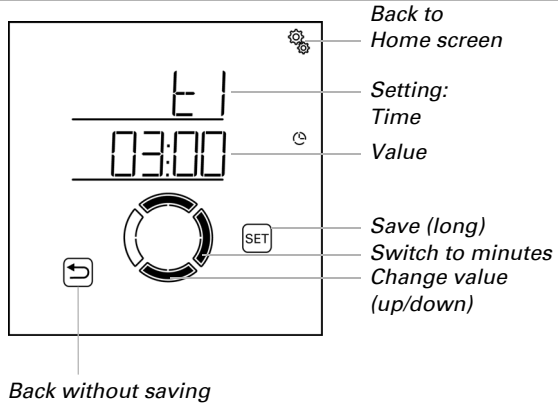


6. Select the setting **tl** time of day.

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.

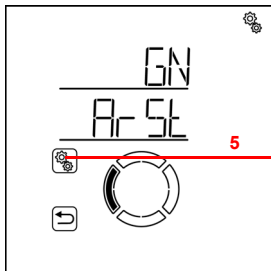


Delay time

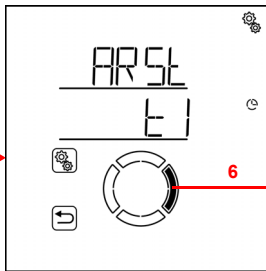
☐ AUTO > GN > ArSt > dEL

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.

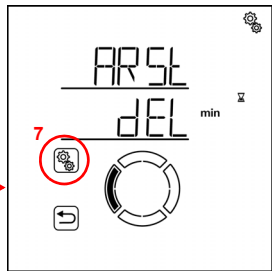
Gen. automatic (auto reset)





Auto reset (time)




Auto reset (delay)

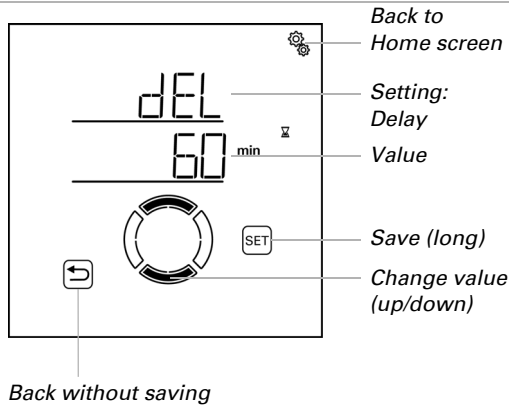


 5. Select the setting **ArSt**.

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

 7. Select the setting **dEL**.

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



4.3. Automatic setting for the outputs

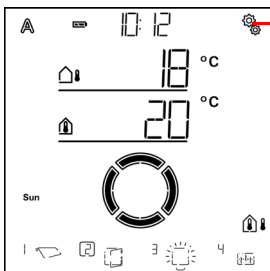
□ AUTO > OUT

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.

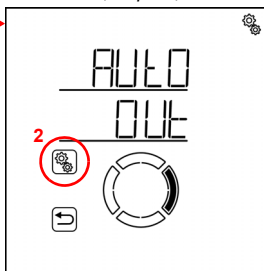
For each output, the automatic setting data sets for the type set are saved (shutter, awning, blinds, window, light, heating, roof gutter heating). The type of output is determined in the base settings (see also chapter *Setting up outputs*, page 51 ff.).

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.

Home screen



Automatic (outputs)





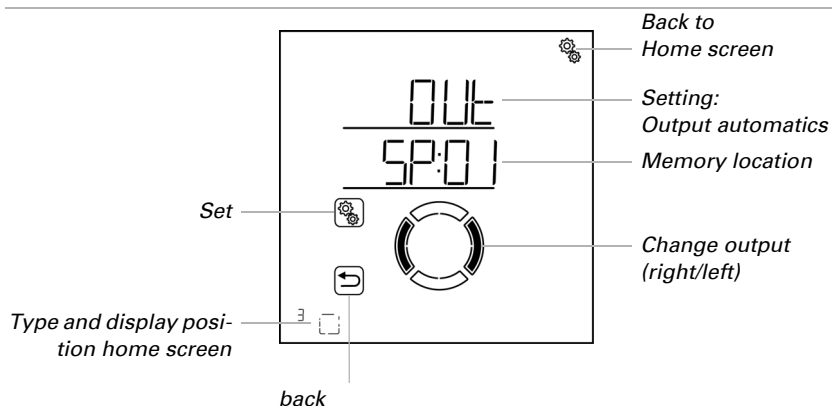
1. Press the settings symbol time on the home screen briefly to access the automatic settings.



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.

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 51).



Output types:



Roller Shutter



Blind



Awning



Window



Light (switchable or dimmable)



Heating device



Roof gutter heating

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

4.3.2. Window ventilation automatic mode

- ☐ Level AUTO automatic settings > OU↳ 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 can-

not be manually opened. Gap ventilation when it is raining is only activated if no wind or frost alarm has been triggered.

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.

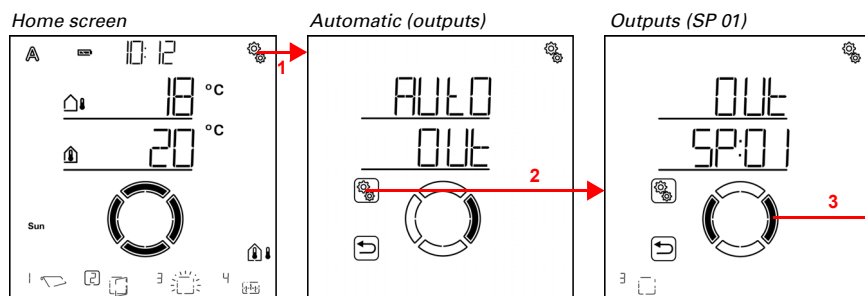
The **ventilation automatics according to indoor temperature** are only executed when no alarm, forced or blocking function is active.

4.3.2.1. Sensor selection

☐ AUTO > OUT > SP X > SENS

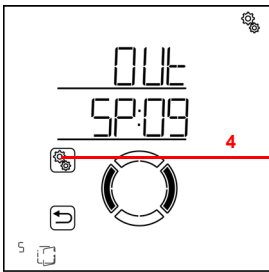
Select the indoor sensor that is to be evaluated for the controls of this window. If you select "off", the indoor temperature is not taken into account for the controls of the window.

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.

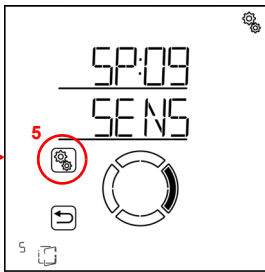


1. Press the settings symbol time on the home screen briefly to access the automatic settings.
2. Switch to **OUT outputs** in the automatic settings.
3. Switch to the desired window output (memory location).

Outputs (SP 09)



SP 09 (sensor)

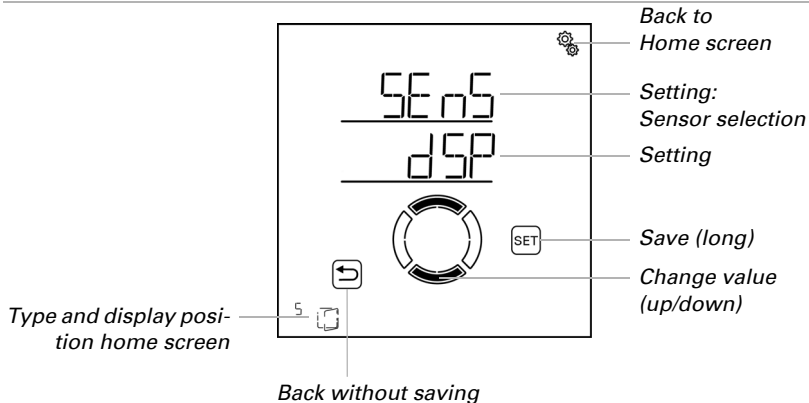


4. Select the window output (memory location).



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.



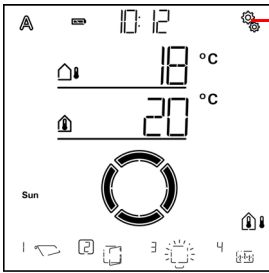
4.3.2.2. Indoor temperature for ventilation

☐ AUTO > OUT > SP X > IntP

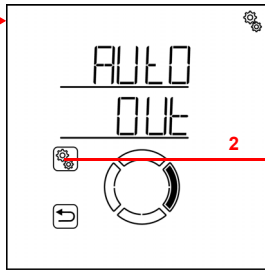
This setting is only available, if a sensor for the indoor temperature has been selected, i.e. *not* in cases in which the setting "off" was chosen for the sensor selection (see previous chapter *Sensor selection*, page 106).

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.

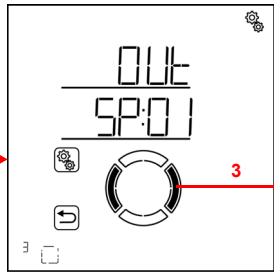
Home screen




Automatic (outputs)



Outputs (SP 01)



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

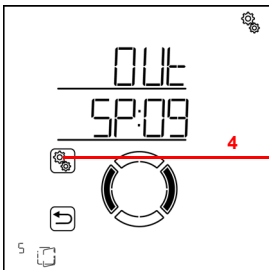


2. Switch to **Out outputs** in the automatic settings.

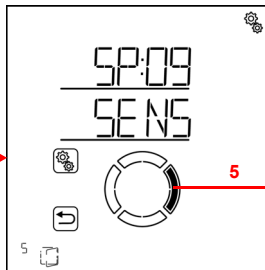


3. Switch to the desired window output (memory location).

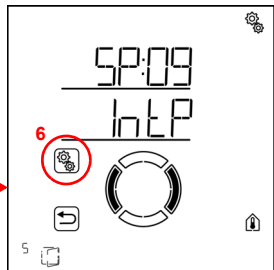
Outputs (SP 09)



SP 09 (sensor)



SP 09 (indoor temperature)



4. Select the window output (memory location).

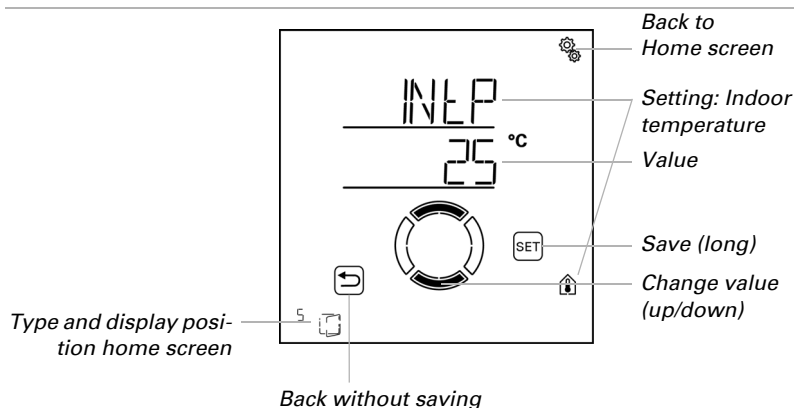


5. Switch to the setting **IntP indoor temperature**.



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.

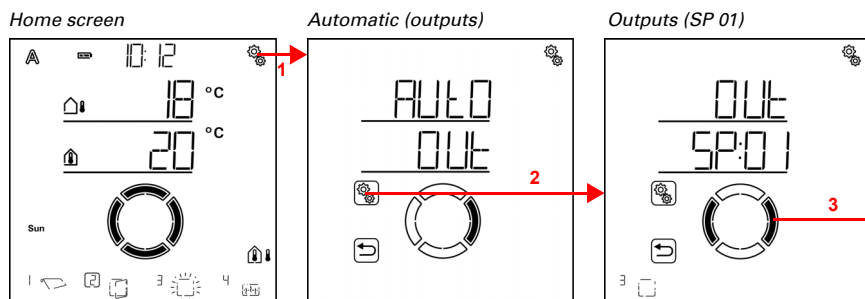


4.3.2.3. Timed ventilation

□ AUTO > 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 135). At the end of the ventilation period, the normal automated ventilation is once again performed according to the temperature.



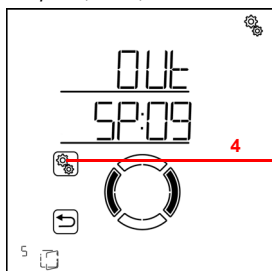
1. Press the settings symbol time on the home screen briefly to access the automatic settings.



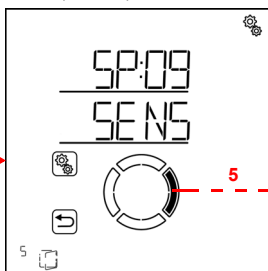
2. Switch to **OUT outputs** in the automatic settings.

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

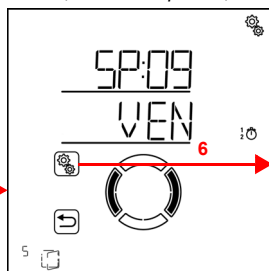
Outputs (SP 09)



SP 09 (sensor)



SP 09 (ventilation period)



4. Select the window output (memory location).

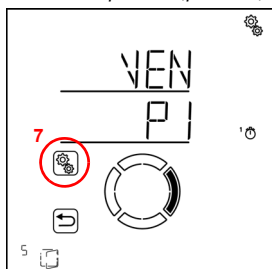


5. Switch to the setting **VEN ventilation periods**.



6. Select the setting **VEN**.

Ventilation periods (period 1)



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

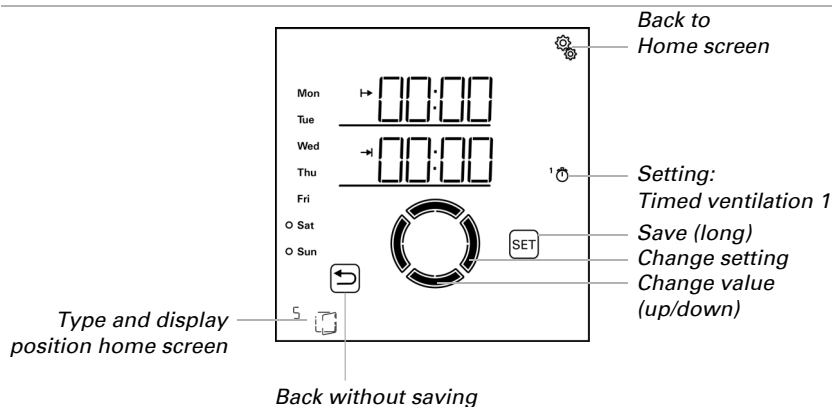
Tuesday

...

Sunday.

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

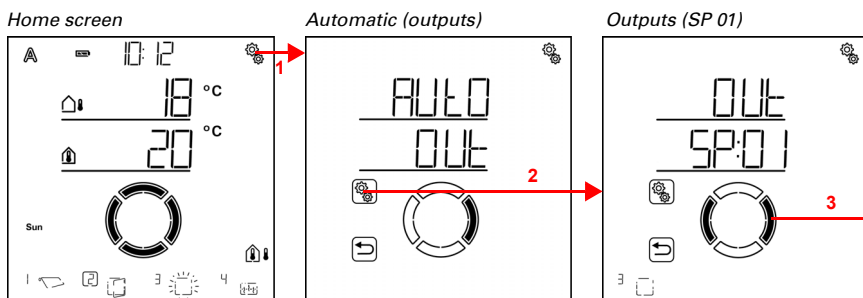
Pre-setting 00:00 to 00:00, no days selected. Timed closure is only applied when a day has been selected!



4.3.2.4. Opening position

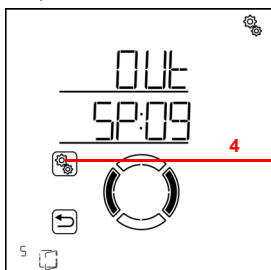
☐ AUTO > AUSG > SP X > POS

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

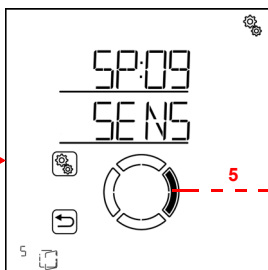


1. Press the settings symbol time on the home screen briefly to access the automatic settings.
2. Switch to **OUT outputs** in the automatic settings.
3. Switch to the desired window output (memory location).

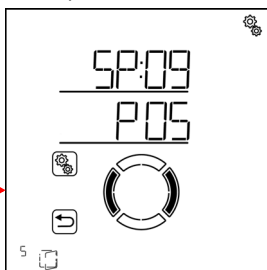
Outputs (SP 09)



SP 09 (sensor)



SP 09 (position)



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

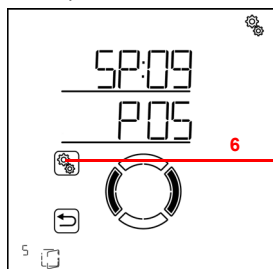
☐ AUTO > OUT > SP X > POS > tPOS

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.

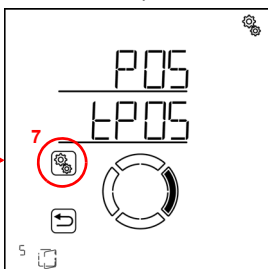
If the window is operated manually, the entire travel area is always available. The position set here only applies to the automatic mode.

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 59 and *Retraction time / Closing travel time*, page 61).

SP 09 (position)



Position (travel position)



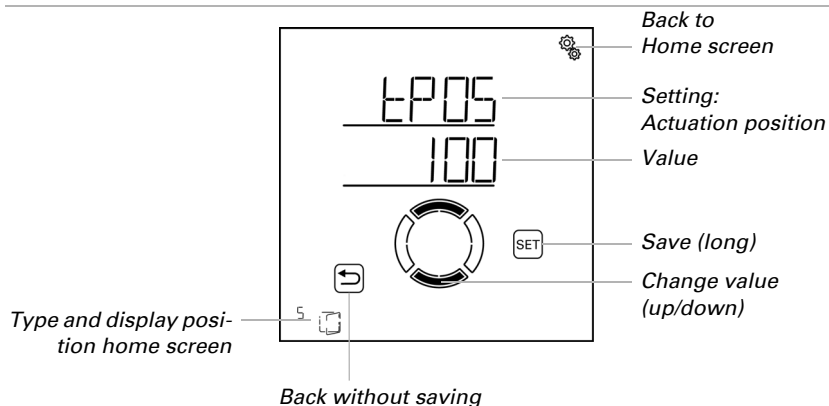


6. Select the setting **POS position**.



7. Select the setting **tPOS travel position**

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



Number of steps

☐ 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.



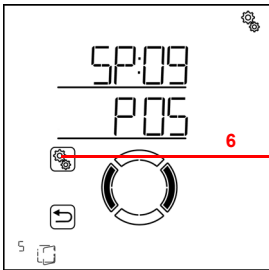
ATTENTION

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

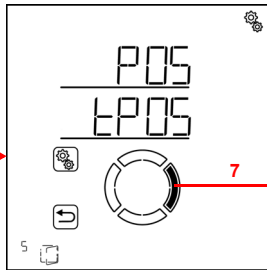
Not all window motors are suitable for gradual/step operation.

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

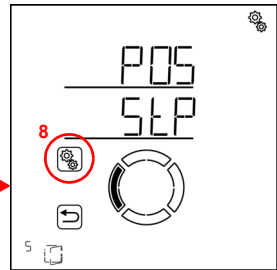
SP 09 (position)



Position (travel position)



Position (number of steps)



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

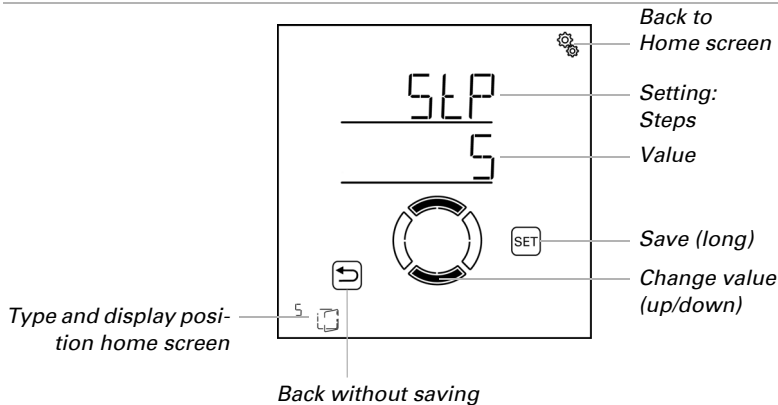


7. Switch to the setting **StP steps**.



8. Select the setting **StP**.

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



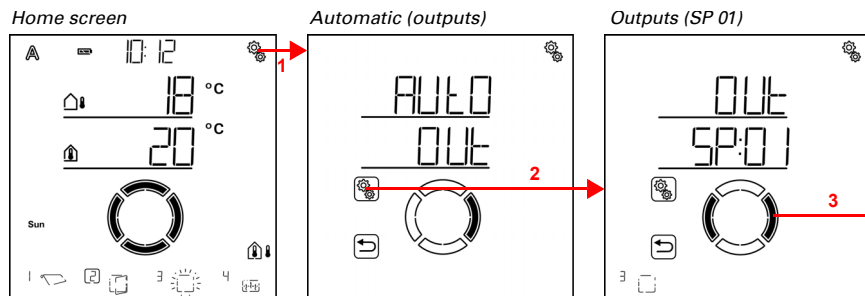
4.3.2.5. Outdoor temperature block

☐ AUTO > OUt > SP X > 0tb

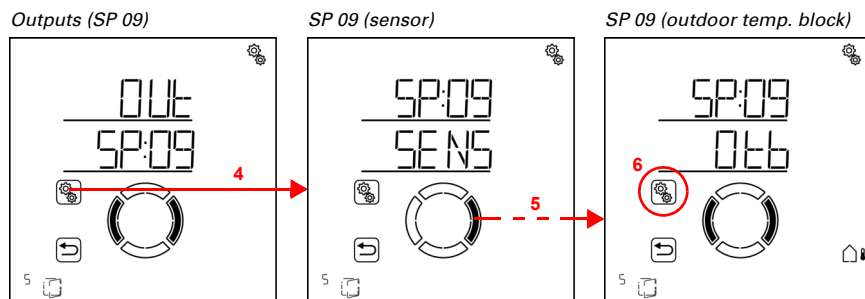
Set the outdoor temperature block for the window. The block causes the window to remain closed. The outdoor temperature block can, for example, be used if the window should not be used for ventilation in winter (cold protection for plants).

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).

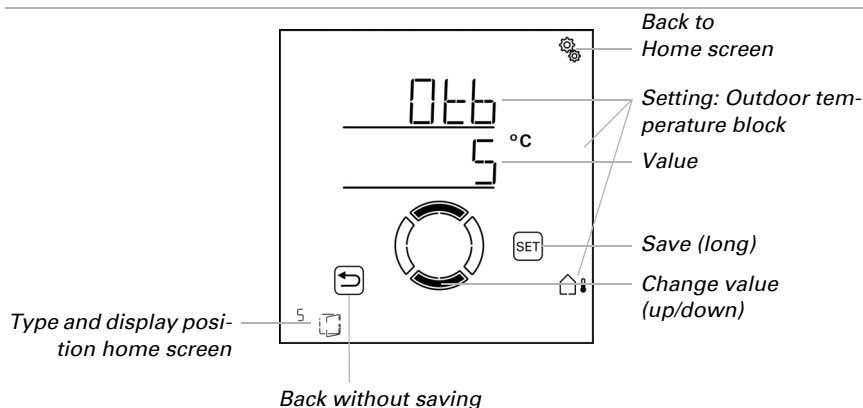


1. Press the settings symbol time on the home screen briefly to access the automatic settings.
2. Switch to **OUT outputs** in the automatic settings.
3. Switch to the desired window output (memory location).



4. Select the window output (memory location).
5. Switch to the setting **Otb outdoor temperature block**.
6. Select the setting **Otb**.

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.

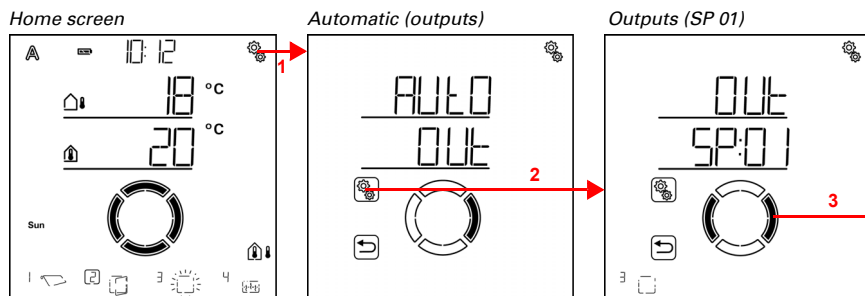


4.3.2.6. Timed closure

☐ 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.

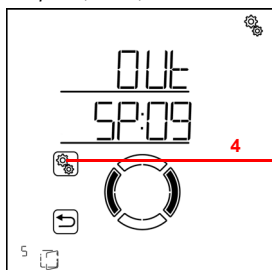


2. Switch to **OUT outputs** in the automatic settings.

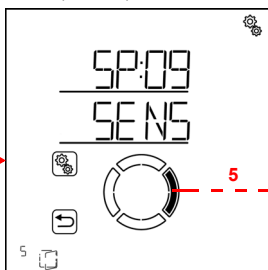


3. Switch to the desired window output (memory location).

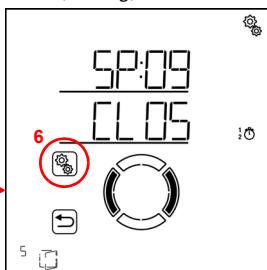
Outputs (SP 09)



SP 09 (sensor)



SP 09 (closing)



4. Select the window output (memory location).

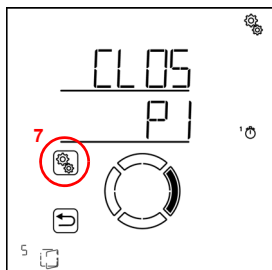


5. Switch to the setting **CLOS closing**.



6. Select the setting **CLOS**.

Closing (period 1)



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

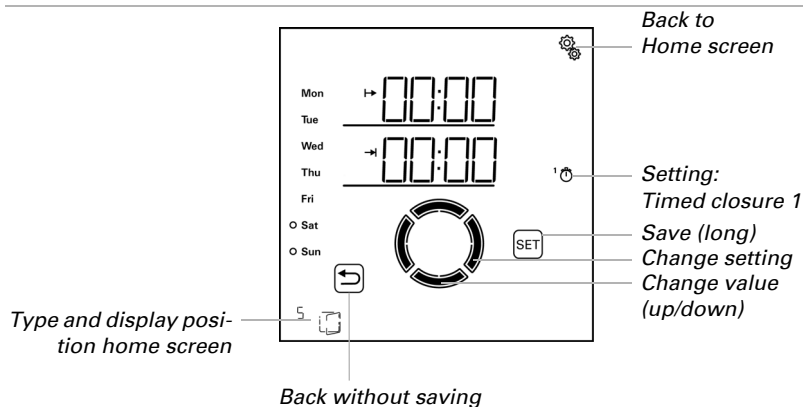
Tuesday

...

Sunday.

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

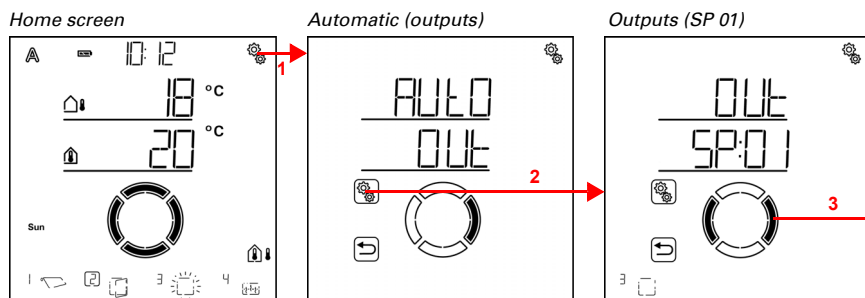
Pre-setting 00:00 to 00:00, no days selected. Timed closure is only applied when a day has been selected!



4.3.2.7. Frost alarm

☐ 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 87).



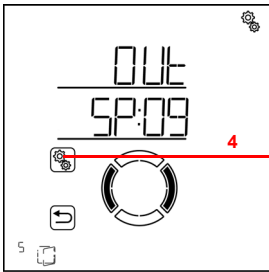
1. Press the settings symbol time on the home screen briefly to access the automatic settings.



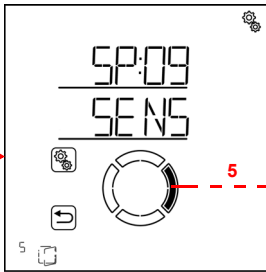
2. Switch to **OUT outputs** in the automatic settings.

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

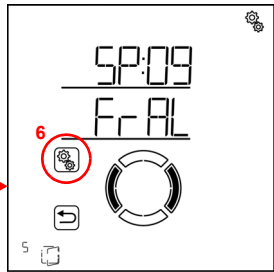
Outputs (SP 09)



SP 09 (sensor)



SP 09 (frost alarm)



4. Select the window output (memory location).

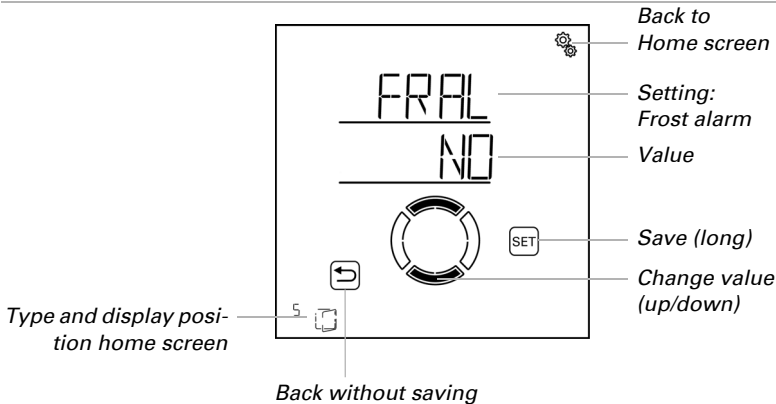


5. Switch to the setting **FrAL frost alarm**.



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

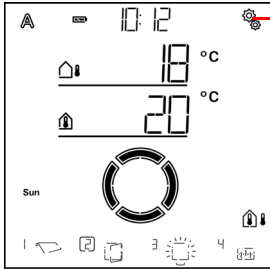
- ☐ AUTO > OUT > SP X > WIN

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.

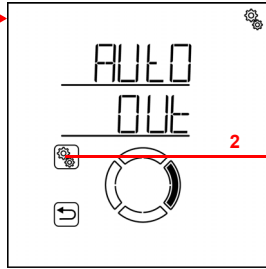
Wind alarm is triggered, when the threshold value set for this output is exceeded for the duration of the delay time. When the values fall below the threshold value again, the alarm is maintained for another 5 minutes. If the wind value is exceeded once more during this period, the holding time of 5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

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 92).

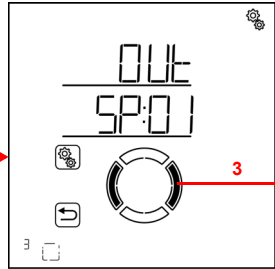
Home screen



Automatic (outputs)



Outputs (SP 01)



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

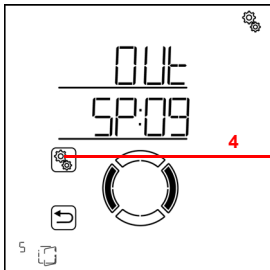


2. Switch to **OUT outputs** in the automatic settings.

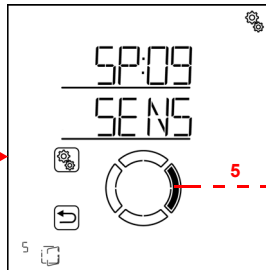


3. Switch to the desired window output (memory location).

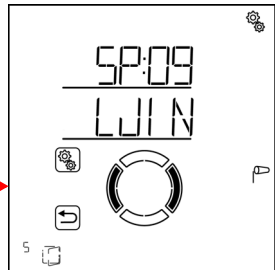
Outputs (SP 09)



SP 09 (sensor)



SP 09 (wind alarm)



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

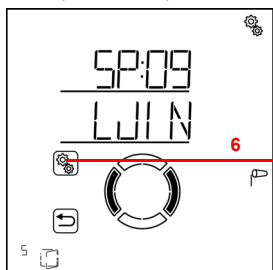
Threshold value

☐ AUTO > OUT > SP X > WIN > tV

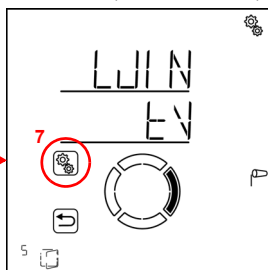
If the wind threshold value for the delay time set in the next step is exceeded, then a wind alarm is triggered. The window is closed and manual operation blocked.

The wind velocity is stated in km/h (kilometres per hour). Please refer to chapter *Units for sun and wind*, page 176 for indications regarding the wind value settings.

SP 09 (wind alarm)



Wind alarm (threshold value)

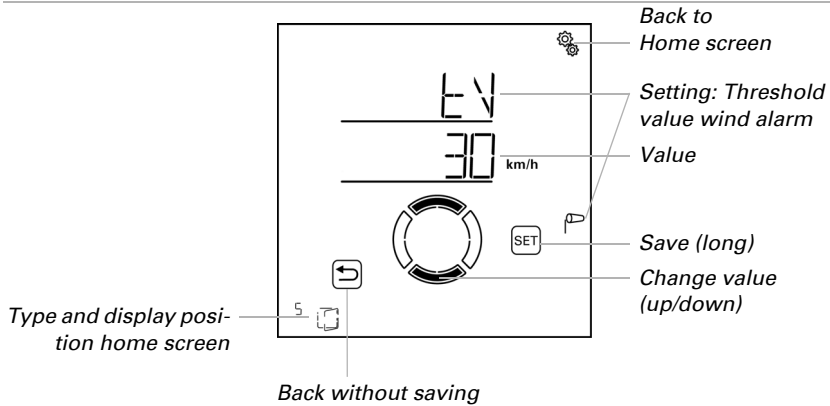


6. Select the setting **WIN wind alarm**.



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.

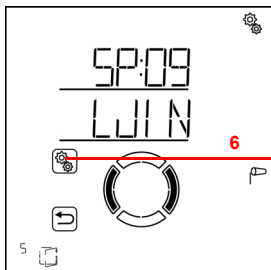


Delay

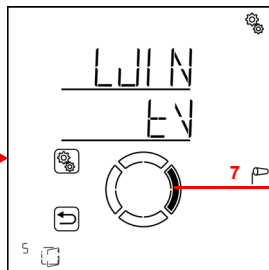
☐ AUTO > OUT > SP X > WIN > dEL

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

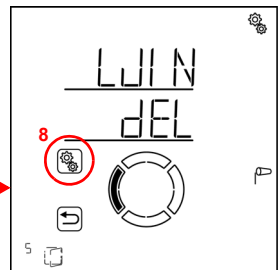
SP 09 (wind alarm)



Wind alarm (threshold value)



Wind alarm (delay)



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

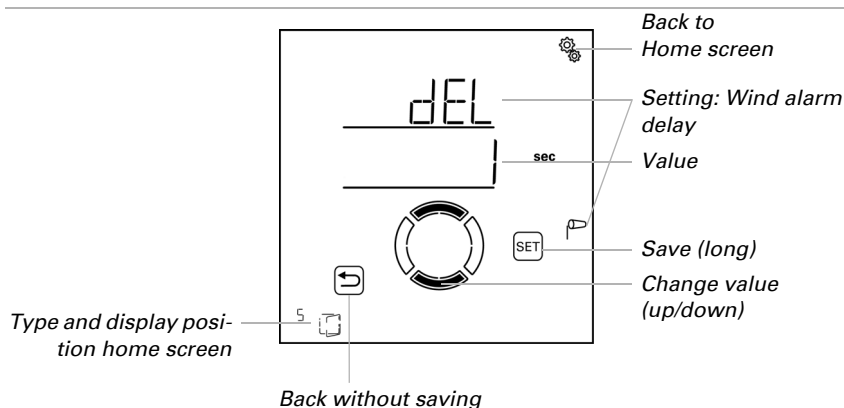


7. Switch to the setting **dEL delay**.



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

☐ AUTO > 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

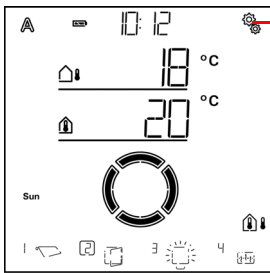
Material damage due to penetrating precipitation!

Depending on the amount of rain and the temperature, some time may pass until the weather station recognises precipitation.

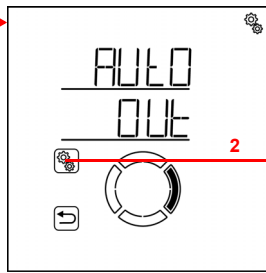
- Do not place items that are sensitive to humidity near automatic windows.
- Plan in the travel time for the closing of the window.

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

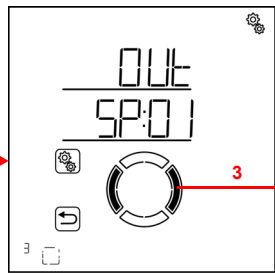
Home screen



Automatic (outputs)



Outputs (SP 01)



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

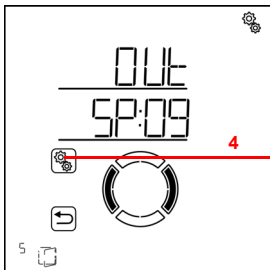


2. Switch to **OUT outputs** in the automatic settings.

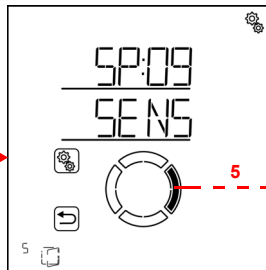


3. Switch to the desired window output (memory location).

Outputs (SP 09)



SP 09 (sensor)



SP 09 (rain alarm)



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

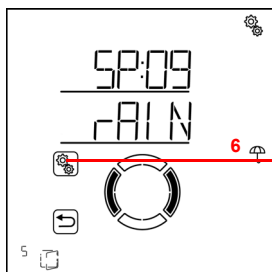
tPOS Travel position during rain alarm (gap opening)

Use alarm

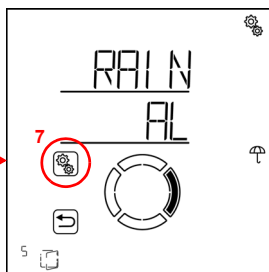
☐ AUTO > OUT > SP X > rAIN > AL

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

SP 09 (rain alarm)



Rain alarm (alarm)

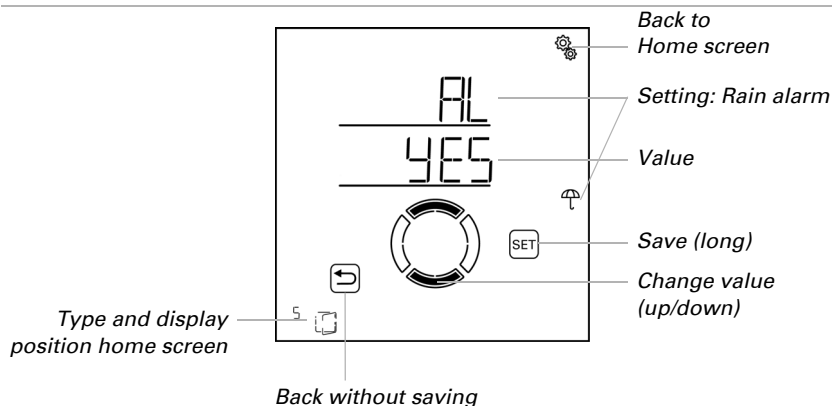


6. Select the setting **rAIN** rain alarm.



7. Select the setting **AL** alarm.

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



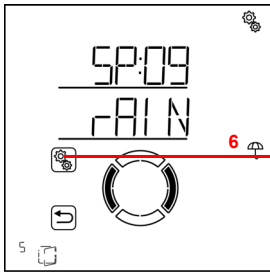
Travel position during rain

☐ AUTO > OUT > SP X > rAIN > tPOS

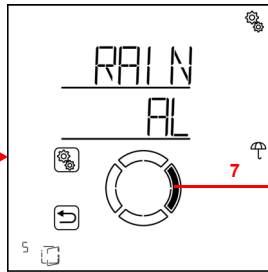
When a rain alarm has been triggered, the window may close fully (travel position = 0%) or leave a small gap open (travel position between 1% and 100%). This setting can only be selected, if the rain alarm function has been activated.

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 58). 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.

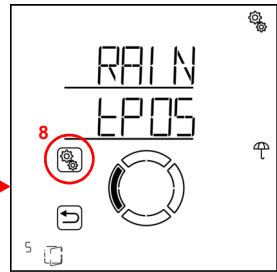
SP 09 (rain alarm)



Rain alarm (alarm)



Rain alarm (travel position)



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

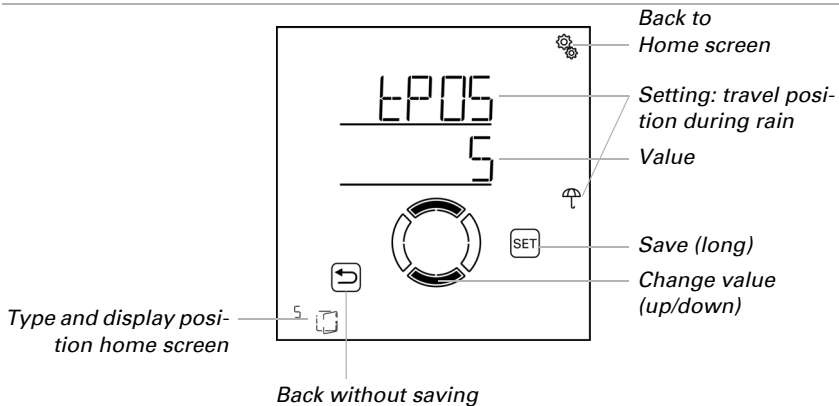


7. Switch to the setting **tPOS travel position**.



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

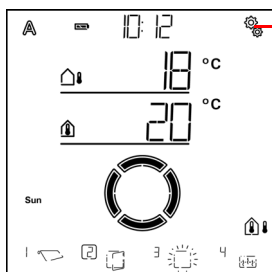
☐ AUTO > OUT > SP X > ArSt

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

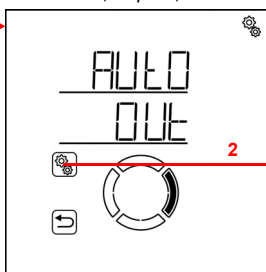
Here you can determine, whether the window is reset to automatic operation at a set time on a daily basis and/or with a short delay after manual operation. The times for

the two automatic resets are determined in the general settings (see chapter *Automatic reset*, page 94).

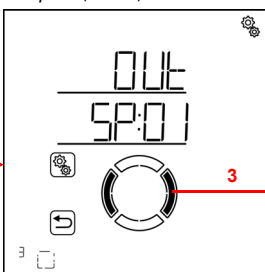
Home screen



Automatic (outputs)



Outputs (SP 01)



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

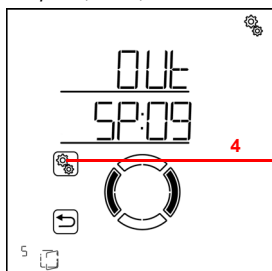


2. Switch to **OUT outputs** in the automatic settings.

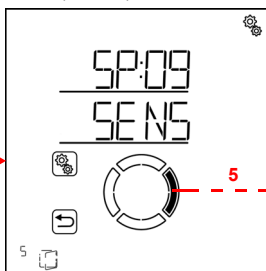


3. Switch to the desired window output (memory location).

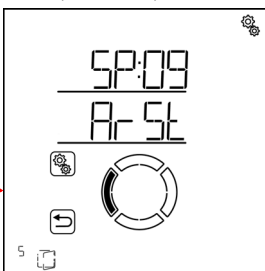
Outputs (SP 09)



SP 09 (sensor)



SP 09 (auto reset)



4. Select the window 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

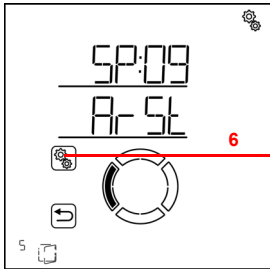
mAN: delayed automatic reset after manual operation

Daily automatic reset at a set time

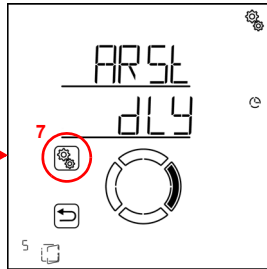
☐ AUTO > OUT > SP X > ArSt > dLy

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.

SP 09 (auto reset)



Auto reset (time)

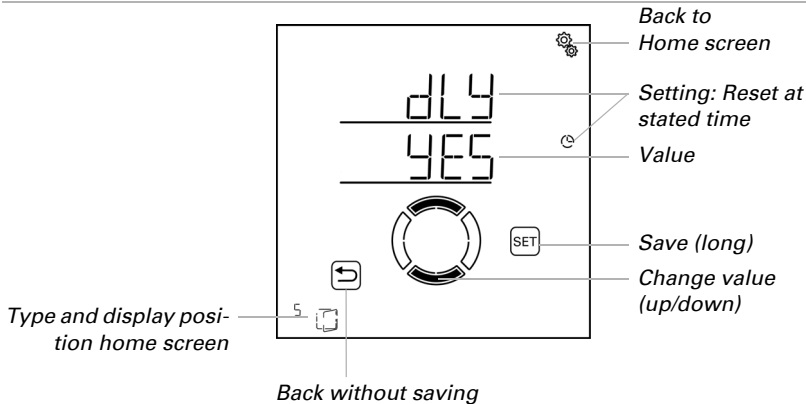


6. Select the setting **ArSt automatic reset**.



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.

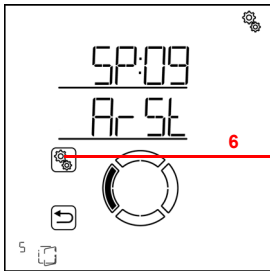


Delayed automatic reset after manual operation

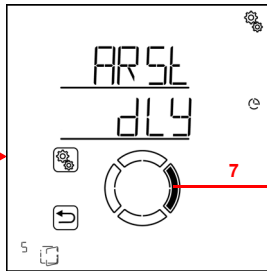
☐ AUTO > OUt > SP X > ArSt > mAN

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

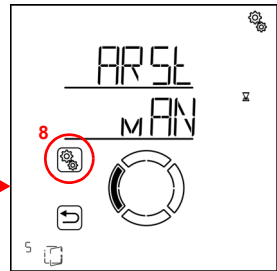
SP 09 (auto reset)



Auto reset (time)



Auto reset (delayed)



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

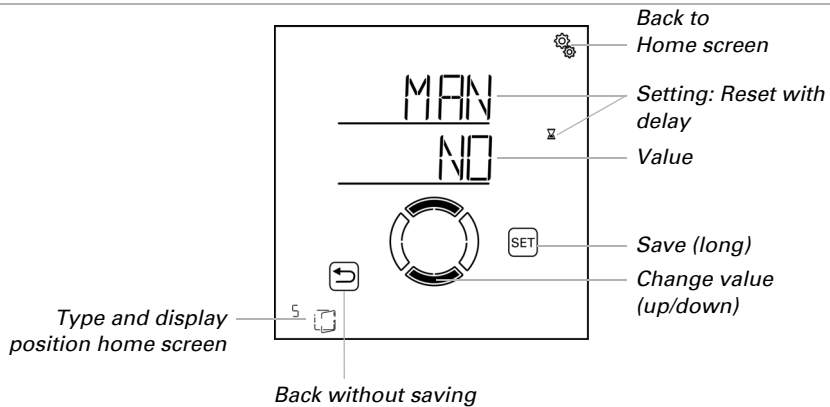


7. Switch to the setting **mAN delayed after manual operation**.



8. Select the setting **mAN**.

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



The following tables are intended to help you identify the optimal values for your particular situation:

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

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