

Doc. No. 10000429098\_01

Aluminium and Steel Systems

# Technical Information

Operating Instructions  
Automation Manager

en

**en 00 Operating instructions**

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# 1. Notes on this document

## 1.1. Target groups and qualifications

This document is intended for specialists, such as trained fitters and electricians. Before installing and commissioning, read through this document thoroughly and adhere to the specified sequence of the instructions. Schüco International KG shall not be liable for any damage which arises from a failure to adhere to these instructions.

Qualified personnel means employees who know how to assemble, install, commission, test and operate the product and who have the relevant qualifications, e.g. who have been trained and instructed in accordance with safety regulations on the maintenance and use of appropriate safety equipment and who have received training in First Aid.

Experts are people whose training and experience means that they have sufficient knowledge of power-operated windows, doors and gates and the corresponding electrical installations. They are familiar with the relevant accident prevention regulations, government “safety at work” regulations, guidelines and generally recognised technical regulations so that they are qualified to judge the occupational safety of power-operated windows, doors and gates and the corresponding electrical installations.

## 1.2. Handover of the document

After commissioning, hand over all the documentation pertaining to this product to the end customer. Make them aware of the safety instructions, to which they must pay particular attention.

## 1.3. Retention of the document

This document is a component of the product. Keep this document in an accessible place even after installation and commissioning, so that the information is always available.

## 2. Security

### 2.1. About the safety instructions



KEY WORD

Type / source / consequence of the danger

Pictograms and key words advise of the type of danger and the level of danger:



General personal injury



Personal injury from electrocution



Damage to property

DANGER!		Imminent danger resulting in death or severe injuries.
WARNING!		Potential imminent danger which may lead to death or severe injuries.
CAUTION!		Potentially dangerous situation which may lead to minor injuries.
NOTE		Imminent danger of damage to property which may lead to damage to or destruction of the product or environment.
INFORMATION		Information Information, tips and advice

### 2.2. Laws, regulations and technical rules

During installation and operation, observe the international, national and local safety regulations, laws and guidelines.

Accepted practice as usually codified in standards, guidelines, specifications, and regulations laid down by recognised bodies must be followed.

This applies in particular to:

- International and national regulations for the prevention of fire and accidents

## 2.3. Proper use

The Automation Manager is intended as a control for mechatronic Schüco products. Furthermore, additional electrical Schüco components can be connected to the Automation Manager.

Use the Automation Manager in protected areas or in dry interior rooms only.

Proper use also includes adhering to the installation and operating instructions. Any alternative use or a use beyond this remit is not in accordance with its purpose.

Incorrect use or unauthorised modification of the product may result in death or serious injury, or damage to the product and other material assets. Only original replacement parts may be used. The manufacturer / supplier shall not be liable for any damage resulting from infringement. The user alone bears the risk.

This device may be used by children aged 8 and over as well as by persons with reduced physical, sensory or mental capabilities or a lack of experience and knowledge provided that they are supervised or have been instructed in the safe use of the device and understand the resulting dangers.

Children must not play with the device. Cleaning and user maintenance must not be carried out by children without supervision. Children should be supervised to ensure that they do not play with the device.

## 2.4. General safety instructions

Follow the safety instructions in this document so as not to endanger your own life or that of others and to ensure error-free operation.



### DANGER!

Imminent danger resulting in death or severe injuries.

- ▶ Before any work on the product, all power packs must be disconnected and protected against anyone inadvertently switching them back on.
- ▶ Following each installation or alteration to the electrical system, carry out a test run to test all functions.

When planning, ensure that a risk analysis is conducted. This determines whether the installation of optional components is required. The manufacturer is responsible for retaining the risk analysis for at least 10 years.

For reasons of simplicity, this documentation does not contain every detail of all product types. The diagrams only show the essential components to illustrate the functions described. They do not claim to be complete and therefore installation on site must be modified according to prevailing conditions.



## 3. Contents of delivery, transportation and storage

### 3.1. Contents of delivery

Open all the packing units. Check that no components are missing and familiarise yourself with the components.

Included in delivery:

Art. No.	Description	
263 245	Automation Manager	<input type="checkbox"/>
	Quick start guide – Automation Manager	<input type="checkbox"/>

### 3.2. Transportation and storage



#### NOTE

Damage to property

- ▶ Protect against impact.
- ▶ Store only in dry interior rooms.
- ▶ Protect the device against moisture and dirt.



#### NOTE

Damage to property

- ▶ Do not throw or drop.
- ▶ Wind up any hanging cables and fix so that the cables cannot become tangled or detached.
- ▶ Maintain the transport and storage temperatures.

## 4. Product description

### 4.1. Overview of the user interface



①	Display	⑤	“Back/Cancel” button
②	“Up” button	⑥	Mini USB connection
③	“OK” button, confirmation button	⑦	Connection terminals
④	“Down” button		

### 4.2. Function assignment for buttons

The operation of the Automation Manager and of the embedded menu can be controlled using 4 momentary-contact switches.

**v (Down), ^ (Up):**

With the “Down” and “Up” buttons, you can scroll through the menu entries. You must use them to determine the position of the desired menu entry.

**OK (confirmation button):**

The confirmation button is used to confirm actions/functions and for menu selection.

Once the desired menu entry is selected, you can thus launch the menu item or access the next menu level using the confirmation button.



The “Back” button is needed to cancel and leave actions/functions or go back.

### 4.3. Technical data

Operating data	
Rated voltage	24 V DC
Current consumption	0,1 A
Protection rating	IP 20
Safety class DIN EN 61140	III
Operating mode	S1
Operating temperature	-10°C to +60°C
Ambient conditions	
Transport/storage temperature	-40°C to +85°C
Relative humidity	93 %
Dimensions, weight and installation	
Dimensions (H x W x D)	89 mm x 60 mm x 71 mm
Weight	125g
Installation	Top hat rail housing Series installation



#### NOTE

Damage to property

- ▶ Only power packs which conform to DIN 60 335-1 must be used.

## 5. Assembly and installation



### WARNING!

Death or severe injury.

- ▶ All work on the product must only be carried out by qualified personnel.
- ▶ Following each installation or alteration to the electrical system, carry out a test run to test all functions.
- ▶ Before any work on the product, all power packs must be disconnected and protected against anyone inadvertently switching them back on.
- ▶ The mains connection and earth conductor must be checked in accordance with DIN VDE 100-610.
- ▶ Insulate all the individual wires that are not in use.



### NOTE

Damage to property

- ▶ Do not pull cables over sharp edges.
- ▶ Do not crush the cables.

### 5.1. Prerequisites / preparation

Install the Automation Manager once you have installed the compatible products in accordance with the instructions or K drawings.

First of all, fix the top hat rail at the intended installation position in the distribution board.

Now fit the mounting rail bus connector to the top hat rail and fasten it using the clips.

Now fit the Automation Manager to the mounting rail bus connector, using the contacts as an alignment aid.

Further components can equally be installed on the top hat rail in addition to the Automation Manager.



①	Top hat rail	③	Automation Manager
②	Mounting rail bus connector		

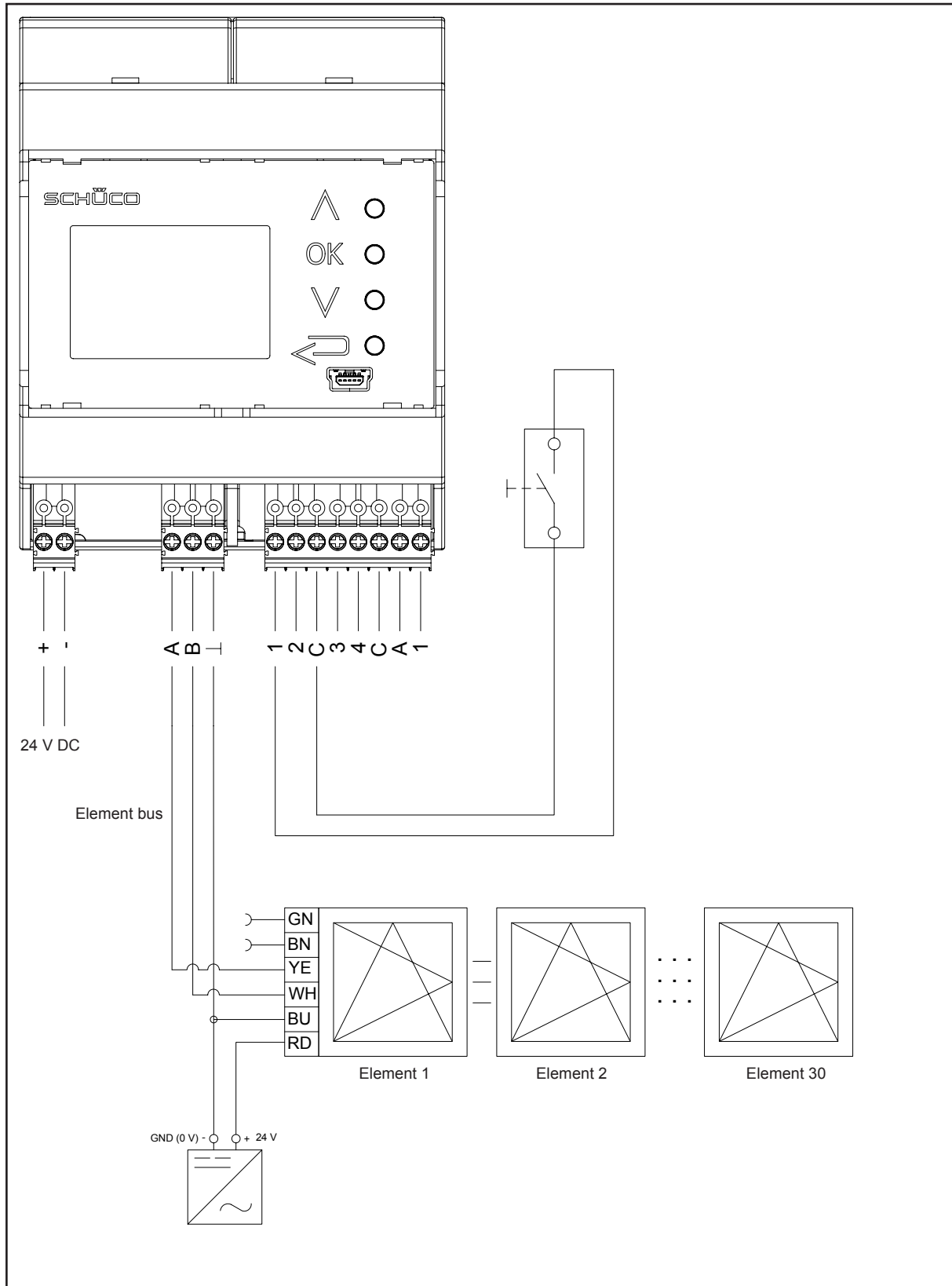
## 5.2. Connections



①	Connection of inputs for 24 V DC power pack
②	Connection of inputs for element bus
③	Connection of inputs and outputs for momentary-contact switches/sensors (preconfigured)
④	Mini USB connection (connection to PC/laptop)

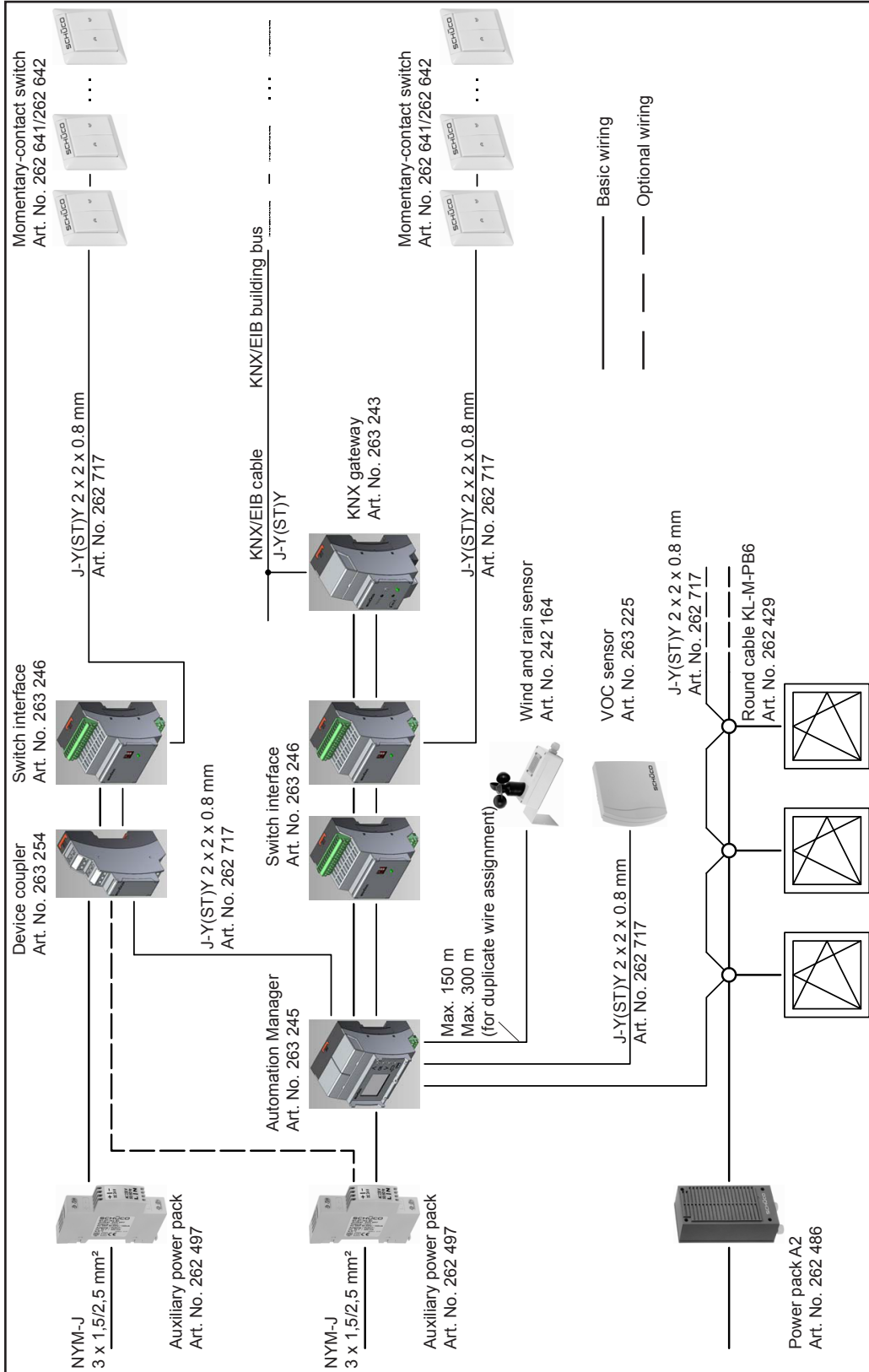
### 5.3. Circuit diagram

Automation Manager:

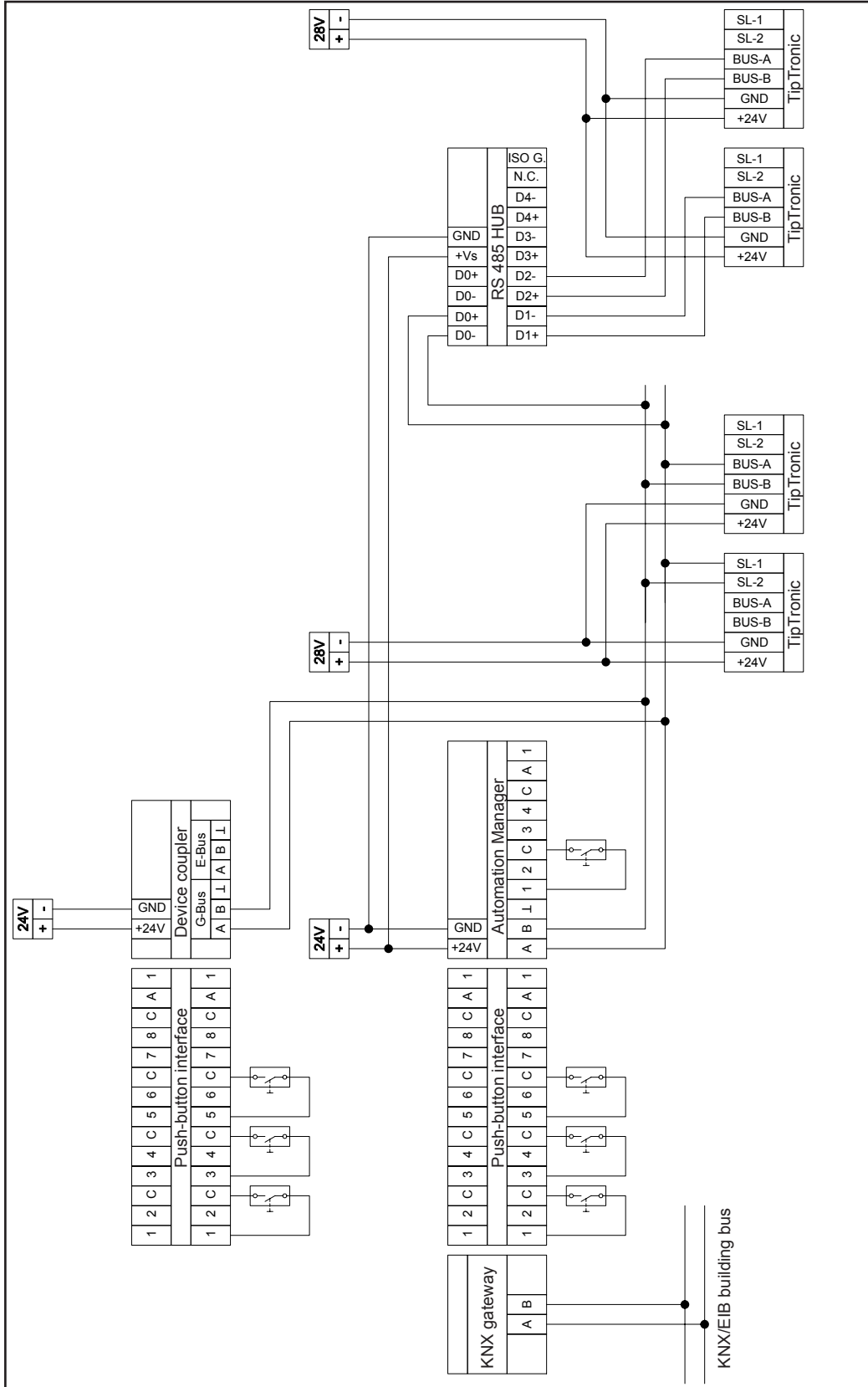


### 5.4. Automation Manager topology

Example:



Circuit diagram for external components  
 Example:





## 5.5. Electrical connection

The descriptions of the wire colours are taken from the current international colour abbreviations in accordance with IEC 60757.

BK	Black	GNYE	Green/yellow	SR	Silver
BN	Brown	GY	Grey	TQ	Turquoise
BU	Blue	PK	Pink	VT	Violet
GD	Gold	OG	Orange	WH	White
GN	Green	RD	Red	YE	Yellow

## 6. Commissioning

### 6.1. Initial commissioning

When starting up for the first time, the Automation Manager automatically jumps to the menu Settings → Configuration.

During initial commissioning, set the following configuration values here:

- Time
- Date
- Menu language

### 6.2. Buffer

In case of a drop in the energy level, the Automation Manager is equipped with a buffer.

The buffer is ensured by a battery, which retains the settings (time, date) for a period of 18 hours.

Once the buffer expires, the device restarts.

The time and date must now be set once more.

### 6.3. Automation Manager standby behaviour

In order to save energy and spare the hardware when working, a standby mode is installed in the Automation Manager. After 5 minutes of inactivity, the display lighting goes off.

After pressing a button, the lighting is switched back on.

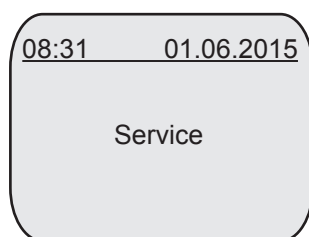
Fault notifications are still shown in standby mode.

### 6.4. Service behaviour

If a computer is connected to the mini USB connection of the Automation Manager, the Automation Manager switches to service mode.

The display of the Automation Manager switches to the service screen (Figure 1).

Figure 1: The service screen of the Automation Manager



#### INFORMATION

Actions that are being performed when the Automation Manager switches mode (mini USB connection to PC/laptop) are interrupted immediately.

In the service mode, no actions/functions are processed by the Automation Manager.

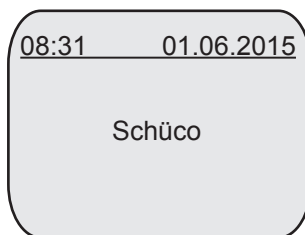
Button commands, commands from the building management system etc. are not processed at this time. The buttons are deactivated.

## 6.5. Display layout

The display has 2 display modes that are divided differently.

### 1. Display at the start screen (Figure 2)

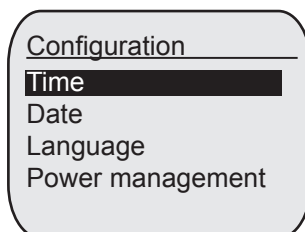
Figure 2: Display at the start screen



### 2. Menu structure display

If the display is in the menu structure (Figure 3), the display is divided differently. The current position in the menu entries is identified by inverting the font colour. In the header, the respective superordinate menu item is shown.

Figure 3: Display in the menu structure



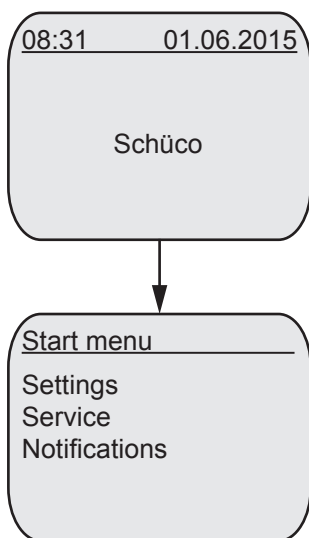
## 7. Start screen

The start screen contains the current time and date according to the configuration. The main menu “Start menu” is accessed by pressing the enter button (OK). This is made up of the following three main menu items:

- Settings
- Service
- Notifications

All of the settings for the Automation Manager are made in these main menu items. In addition, a variety of information can be called up on the display.

Overview of the start menu with the three main menu items:

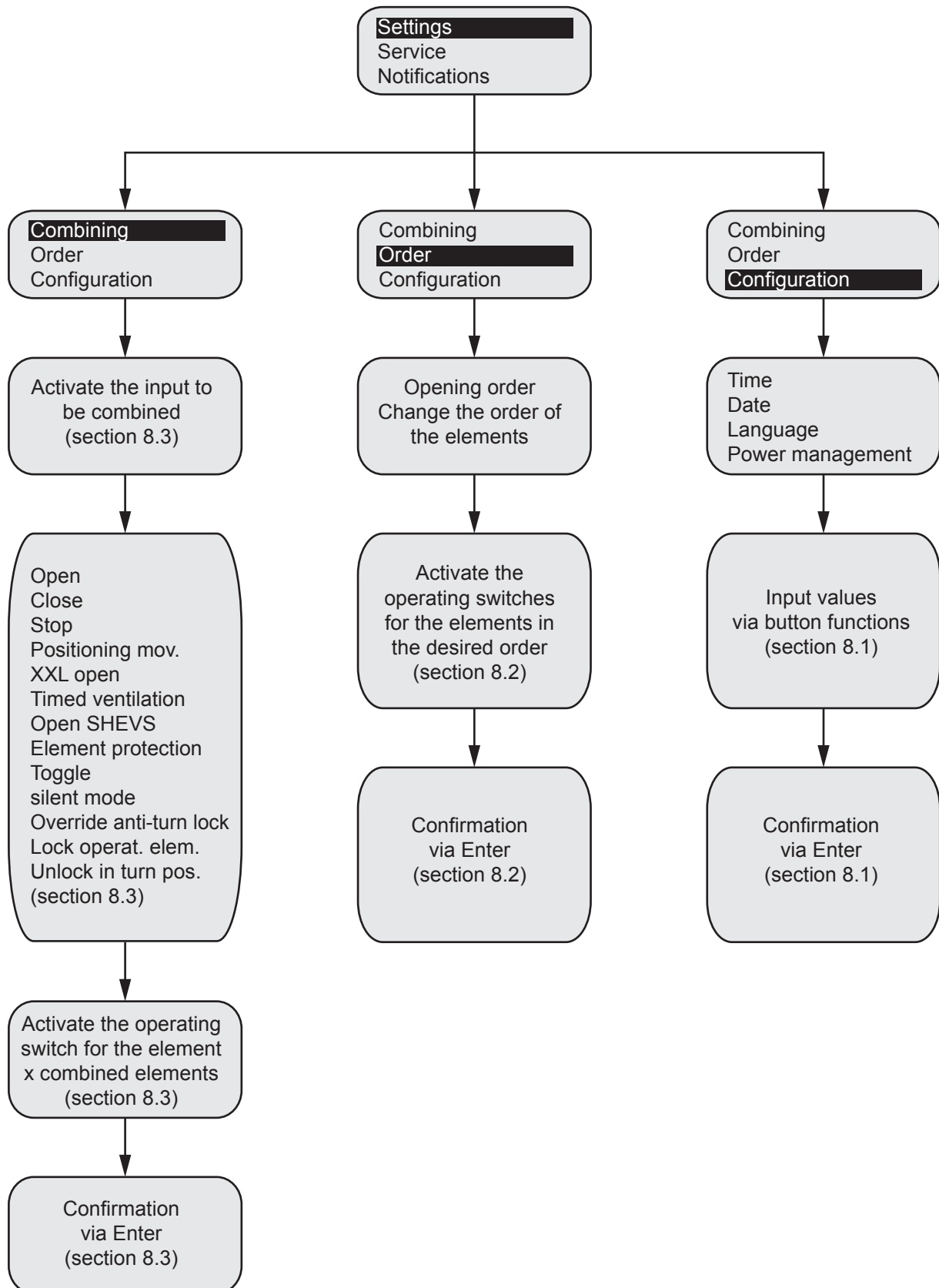


The main menu items are dealt with in detail in the following sections:

- Settings → Section 8
- Service → Section 9
- Notifications → Section 10

## 8. Settings

Overview of the Automation Manager menu structure.



## 8.1. Configuration

### 8.1.1. Default values

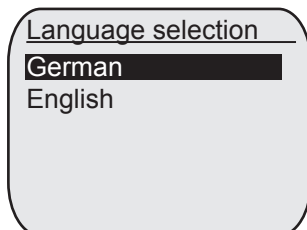
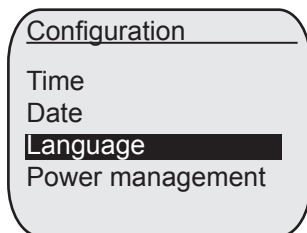
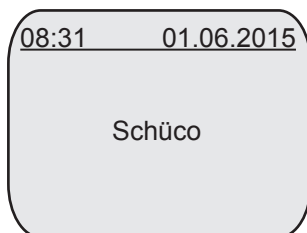
When starting up for the first time, as well as during factory resets and system resets, the initial values of the Automation Manager are on hand (default). However, depending on the “type of reset”, even more functions can be changed/deleted and retain default values. The differences here are described in more detail in the “Factory reset” and “System reset” sections (sections 9.3 and 9.4).

The following values (default) are preset in the factory settings:

- Time = 00:00
- Date = 01.01.2015
- Menu language = German (DE)
- Power management idle time = 3 seconds
- Error memory of Automation Manager = Empty
- Inputs 1-3 = Element protection against weather, open, close

### 8.1.2. Setting the menu language

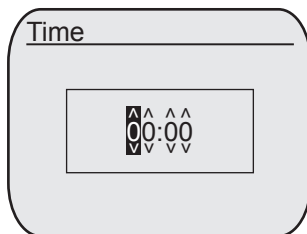
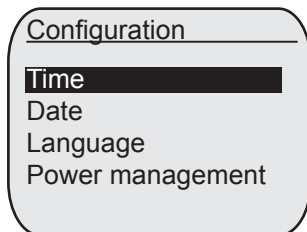
You can choose between the menu languages German (default) and English.



1. You are now at the **start screen**.  
Press the confirmation button (OK). Scroll (arrow buttons  $\wedge/\vee$ ) to the menu item “**Settings**” and press the confirmation button once more.  
Now scroll to the menu item “**Configuration**” and press the confirmation button again.
  - » The “**Configuration**” sub-menu appears on the display.
2. Scroll to the menu item “**Language**” and press the confirmation button.
  - » The “**Language selection**” menu appears on the display.
3. Using the arrow buttons, select the desired menu language and press the confirmation button.
  - » Your selected menu language is saved and the “**Configuration**” sub-menu appears on the display once more.

### 8.1.3. Setting the time

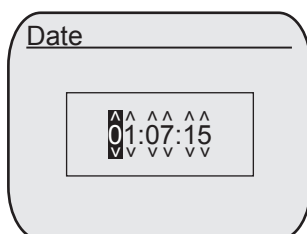
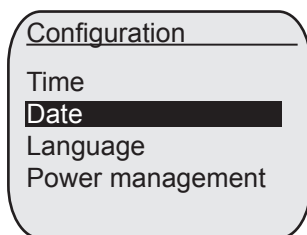
The time is displayed in 24-hour format.



1. You are now in the “**Configuration**” sub-menu.  
Scroll to the menu item “**Time**” and press the confirmation button.  
» The “**Time**” menu appears on the display.
2. Using the arrow buttons, set the current time on the display.  
Switch between the respective input positions using the confirmation button.  
After entering the right-hand value, press the confirmation button once more to save the time.  
» The “**Configuration**” sub-menu appears on the display once more.

### 8.1.4. Setting the date

The date is written in the format DD.MM.YY, e.g. 30.01.15.



1. You are now in the “**Configuration**” sub-menu.  
Scroll to the menu item “**Date**” and press the confirmation button.  
» The “**Date**” menu appears on the display.
2. Using the arrow buttons, set the current date on the display.  
Switch between the respective input positions using the confirmation button.  
After entering the right-hand value, press the confirmation button once more to save the date.  
» The “**Configuration**” sub-menu appears on the display once more.

### 8.1.5. Setting the delay time for power management

The power management delay time means that the number of power packs within a window group can be reduced. The Automation Manager opens and closes the individual elements with a time delay. The value range to be set here is 00 seconds - 59 seconds (default value 03 seconds).

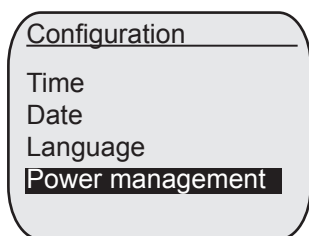


#### NOTE

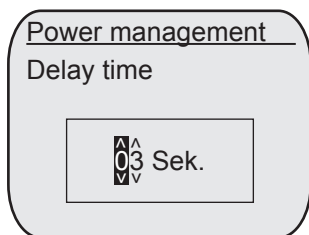
A setting of 00 seconds deactivates power management.

Damage to property

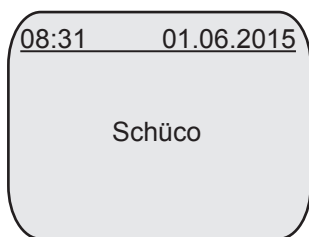
- ▶ Deactivating the power management can lead to an overload of the power packs.




1. You are now in the “**Configuration**” sub-menu. Scroll to the menu item “**Power management**” and press the confirmation button.
  - » The “**Power management delay time**“ menu appears on the display.



2. Using the arrow buttons, set the delay time on the display. Switch between the respective input positions using the confirmation button. After entering the right-hand value, press the confirmation button once more to save the delay time.
  - » The “**Configuration**” sub-menu appears on the display once more.

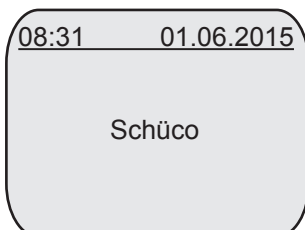
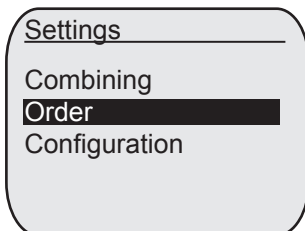
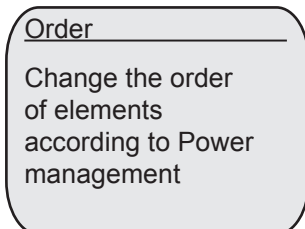
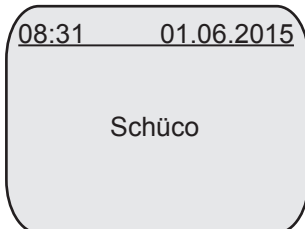



3. Press the “Back” button three times. 
  - » The **start screen** will appear on the display.



## 8.2. Setting the order

The order for operating the elements is changed individually in this menu item.

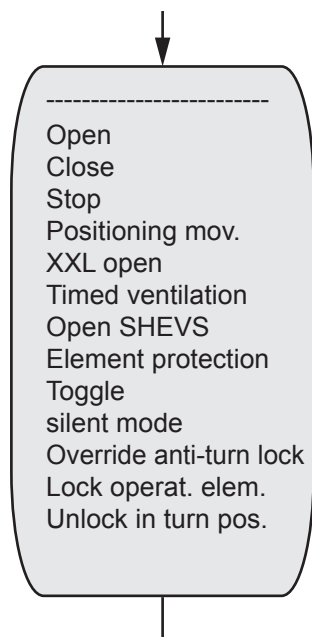


1. You are now at the **start screen**.  
Press the confirmation button (OK).  
Scroll (arrow buttons ^/v) to the menu item “**Settings**” and press the confirmation button once more.  
Now scroll to the menu item “**Order**” and press the confirmation button again.  
» The “**Order**” sub-menu appears on the display.
2. Press the confirmation button. Determine the required sequence using the operating switch on the elements.  
After making your selection, press the confirmation button once more to save the order.  
» The “**Settings**” sub-menu appears on the display.
3. Press the “Back” button twice.   
» The **start screen** will appear on the display.

### 8.3. Combining

Combinations perform actions/functions at the connected elements. Actions/functions are assigned via the Automation Manager or the operating switches of the individual elements.

Overview of the settings functions under combinations.



1. You are now at the **start screen**.  
Press the confirmation button (OK). Scroll (arrow buttons  $\wedge/\vee$ ) to the menu item **“Settings”** and press the confirmation button once more. Now scroll to the menu item **“Combining”** and press the confirmation button again.
  - » The **“Combining”** sub-menu appears on the display. In the **“Combining”** menu item, the setup sequence is always the same. Only the parameters that can be set vary according to the function.
2. If you have selected the **“Combining”** function, the prompt **“Please activate an input”** appears on the display. If a momentary-contact switch is now actuated, the resulting edge change causes the display to jump to the **“Function selection”** screen.
  - » A list opens, in which the functions that can be combined are displayed.

If the input to be combined is not yet combined, the initial position in the list of functions is a blank line. If there is already a combination at the input, the function already combined has the initial position in the list. The desired function is now selected and confirmed using the enter button.

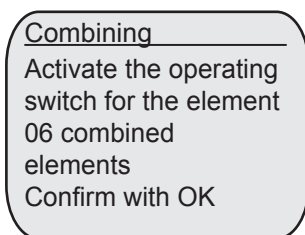
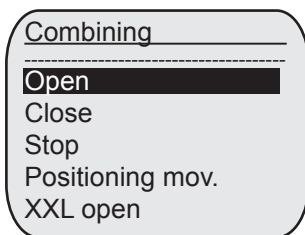
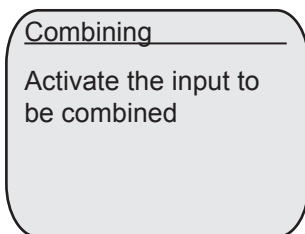
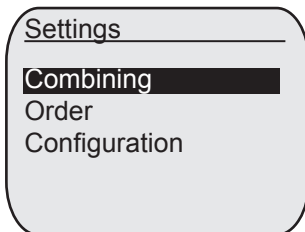


#### INFORMATION

- ▶ Locking functions always have a higher priority than movement functions.

### 8.3.1. Open

If an input is combined with “Open” and activated, the elements are opened. For windows, executing this means moving to 100% of the programmed chain length in the ventilation position.  
(Default for input 1: All elements are combined with this input and function)



1. You are now in the “**Settings**” sub-menu.  
Scroll to the menu item “**Combining**” and press the confirmation button again.  
» The “**Combining**” sub-menu appears on the display.
2. The prompt “**Please activate an input**” appears on the display.  
Now press the input (e.g. momentary-contact switch) that has been selected for the element group. Scroll to the menu item “**Open**” and press the confirmation button. Using the operating switch on the elements, determine the desired elements that are to be combined.  
The notification “**x combined elements**” appears on the display. Press the confirmation button once more.  
» The desired elements are combined with the function.  
The “**Settings**” sub-menu appears on the display.



#### INFORMATION

The procedure described above repeats for the following combinations:

- Close
- Stop
- XXL open
- Open SHEVS
- Element protection
- Toggle
- silent mode
- Override anti-turn lock
- Lock operating element
- Unlock in turn position

After selecting the element group, choose the respective combination from the menu. Following this, follow the procedure described above.

### 8.3.2. Close

If an input is combined with “Close” and activated, the elements are closed.

For windows, executing this means moving to the closed position from the ventilation position.

(Default for input 2: All elements are combined with the input and function)

→ Creating a combination - see section 8.3.1

### 8.3.3. Stop

If an input is combined with “Stop” and activated, the moving elements are stopped.

If the elements are stationary, this combination has no effect on them.

→ Creating a combination - see section 8.3.1

### 8.3.4. Maximum ventilation (XXL open)

If an input is combined with “XXL open” and activated, the elements are opened to their maximum (170%).

→ Creating a combination - see section 8.3.1

### 8.3.5. Open SHEVS

If an input is combined with “Open SHEVS” and activated, the elements then have the operating status “Open SHEVS” and the elements move to their SHEVS position.

If the combined input is enabled once more, the operating status is reset and the elements can be operated as normal once again.

External components are required for this function (VOC sensor).

→ Creating a combination - see section 8.3.1

### 8.3.6. Element protection

The function named here is intended to protect the windows. The purpose of this combination is to seal the windows in order to protect the electronics inside from moisture.

If an input is activated with this combination, all of the combined elements then have the operating status “Ventilation lock” and close.

(Default for input 3: All elements are combined with this input and function)

External components are required for this function (wind and rain sensor).

→ Creating a combination - see section 8.3.1

### 8.3.7. Toggle

If an input is combined with “Toggle”, using this enables single-button operation. This generally means that:

- If an element is open/partially open, it is closed
- If an element is closed, it is opened to 100%
- If an element is moving, it is stopped

Before performing this function, the status of all combined elements must be checked. If at least one combined element is still moving, a stop command follows for all combined elements.  
→ Creating a combination - see section 8.3.1



#### INFORMATION

It makes sense to combine the “Toggle” function with one element only. However, the system is not preset to prevent use with several elements.

### 8.3.8. silent mode

If an input is combined with “silent mode” and activated, the elements move at a reduced speed when closing or opening.

This reduced speed is maintained until the operating status of the elements is reset.

→ Creating a combination - see section 8.3.1

### 8.3.9. Override the anti-turn lock

If an input is combined with “Override anti-turn lock” and activated, the anti-turn lock programmed for the selected elements is released. Window elements can now be opened to the turn position by turning the window handle.

→ Creating a combination - see section 8.3.1

### 8.3.10. Lock an operating element

If an input is combined with “Lock operating element” and activated, elements can no longer be operated at their local operating units. For window elements, this means that no further movement can be initiated by actuating the window handle.

Operation via a momentary-contact switch (all elements) is still possible.

→ Creating a combination - see section 8.3.1

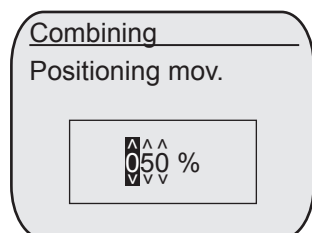
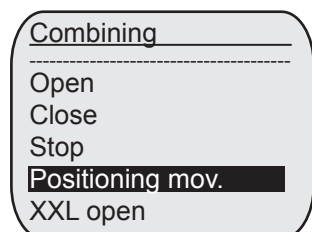
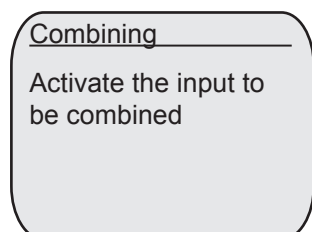
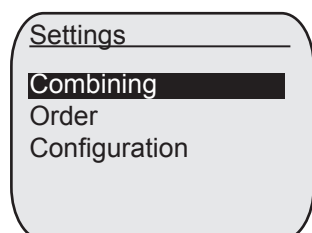
### 8.3.11. Unlock in the turn position

If an input is combined with “Unlock in turn position” and activated, all elements unlocked in turn position. In doing so, window elements open in turn position without having to move the handle to the turn position.

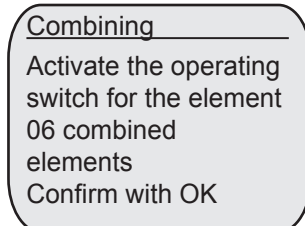
→ Creating a combination - see section 8.3.1

### 8.3.12. Positioning movements

If an input is combined with “Positioning mov.” and activated, the elements are opened to a defined opening width. For windows, executing this means moving to a set value between 0% and 100%, in tilt position. In the display menu, the desired value is requested following selection of the function. This value can be set from 0 to 100%.

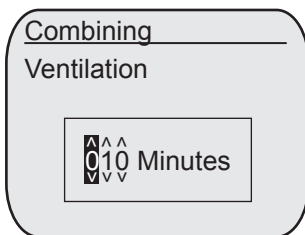
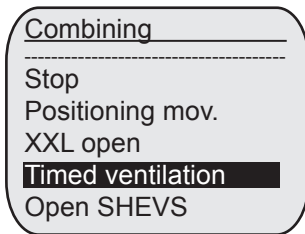
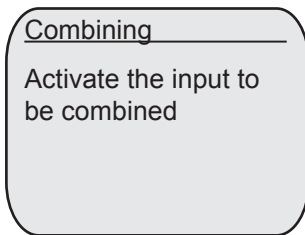
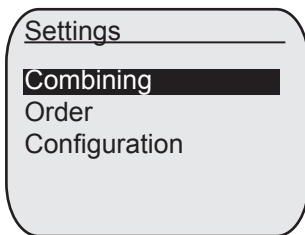


1. You are now in the “**Settings**” sub-menu.  
Scroll to the menu item “**Combining**” and press the confirmation button again.  
» The “**Combining**” sub-menu appears on the display.
2. The prompt “**Please activate an input**” appears on the display.  
Now press the input (e.g. momentary-contact switch) that has been selected for the element group. Scroll to the menu item “**Positioning mov.**” and press the confirmation button.  
» The menu item “**Positioning mov.**” appears on the display.
3. Using the arrow buttons, set the desired value on the display.  
Switch between the respective input positions using the confirmation button.  
After entering the right-hand value, press the confirmation button once more to save the value. Using the operating switch on the elements, determine the desired elements that are to be combined. The notification “**x combined elements**” appears on the display. Press the confirmation button once more.  
» The desired elements are combined with the function.  
The “**Settings**” sub-menu appears on the display.

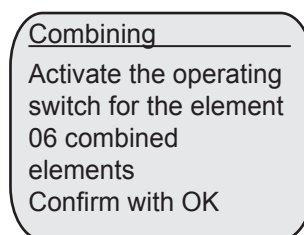


### 8.3.13. Timed ventilation

If an input is combined with “Timed ventilation” and activated, the elements are opened. Once they have opened, a definable time period will run down. Once this defined time period has elapsed, the elements automatically close once more. In the display menu, the desired time period here is requested following selection of the function. This value can be set from 1 to 255 minutes.

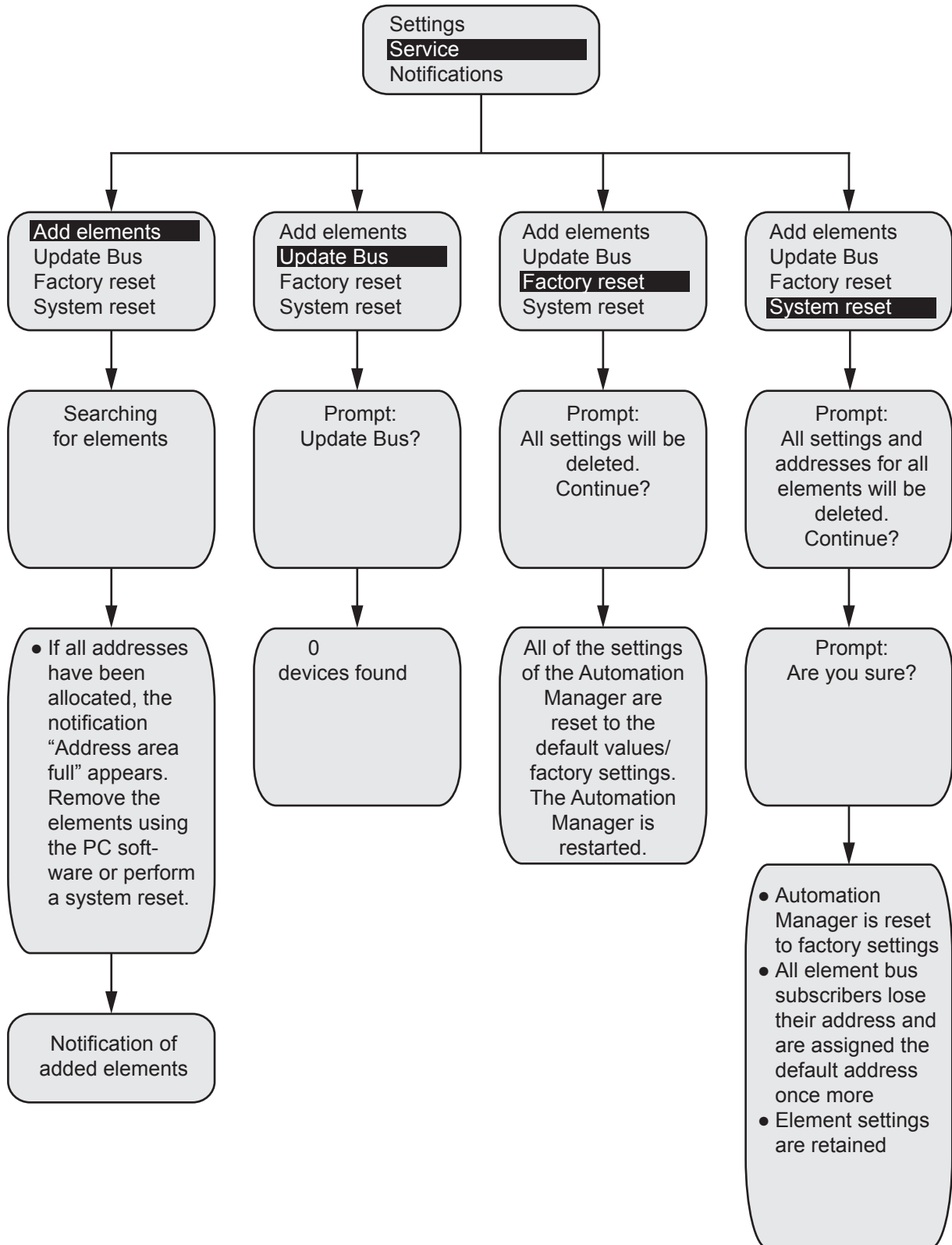


1. You are now in the “**Settings**” sub-menu.  
 Scroll to the menu item “**Combining**” and press the confirmation button again.  
 » The “**Combining**” sub-menu appears on the display.
2. The prompt “**Please activate an input**” appears on the display.  
 Now press the input (e.g. momentary-contact switch) that has been selected for the element group. Scroll to the menu item “**Timed ventilation**” and press the confirmation button.  
 » The menu item “**Timed ventilation**” appears on the display.
3. Using the arrow buttons, set the desired value on the display.  
 Switch between the respective input positions using the confirmation button.  
 After entering the right-hand value, press the confirmation button once more to save the value. Using the operating switch on the elements, determine the desired elements that are to be combined. The notification “**x combined elements**” appears on the display. Press the confirmation button once more.  
 » The desired elements are combined with the function.  
 The “**Settings**” sub-menu appears on the display.



## 9. Service

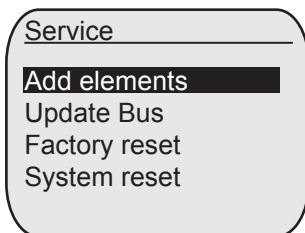
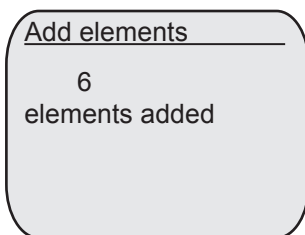
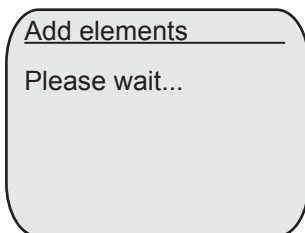
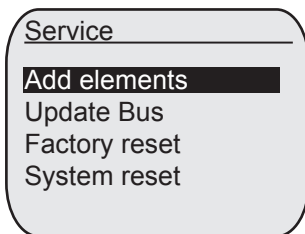
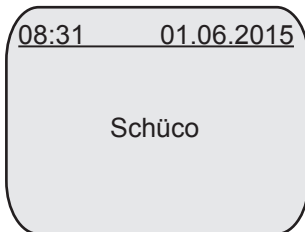
Overview of the Automation Manager service functions.





## 9.1. Adding elements

Under this menu item you can add recently connected elements. This action is absolutely necessary as the new elements are not added automatically. After completing the action, the number of added elements is always displayed.



1. You are now at the **start screen**.  
Press the confirmation button (OK).  
Scroll (arrow buttons ^/v) to the menu item **“Service”** and press the confirmation button once more.
  - » The **“Service”** sub-menu appears on the display.
2. Scroll to the menu item **“Add elements”** and press the confirmation button.
  - » The notification **“Please wait”** appears on the display  
→ A search for elements to add is performed.  
Once the search is complete, the notification **“x elements added”** appears on the display.
3. Press the confirmation button.
  - » The elements are added.  
The **“Service”** sub-menu appears on the display.

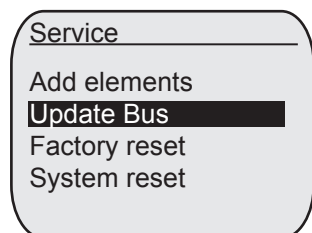
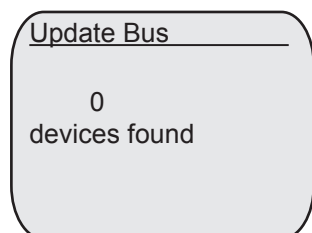
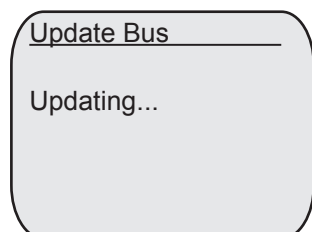
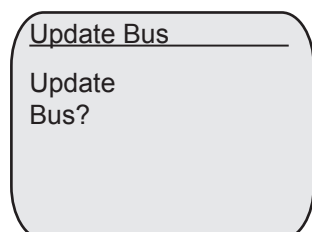
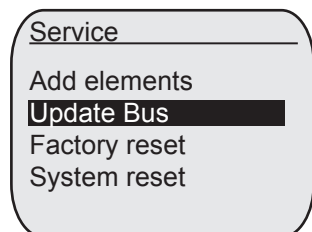


### INFORMATION!

If all addresses have been allocated, the notification “Address area full” appears. Remove the elements using the PC software or perform a system reset.

## 9.2. Updating the device bus

Upon selection of the menu item “Update Bus”, the following infotext appears: “Update Bus?”. Upon pressing “OK”, the notification “Updating...” appears on the display. During the update, no other actions can be carried out. Strokes of the buttons on the Automation Manager will not be interpreted. Once the update is complete, the notification “x devices found” appears on the display.



1. You are now in the “**Service**” sub-menu.  
 Scroll to the menu item “**Update Bus**” and press the confirmation button.  
 » The prompt “**Update Bus?**” appears on the display.
2. Press the confirmation button.  
 » The notification “**Updating...**” appears on the display  
 → A search for up-to-date device buses is performed.  
 Once the search is complete, the notification “**x devices found**” appears on the display.
3. Press the confirmation button.  
 » The device buses are updated.  
 The “**Service**” sub-menu appears on the display.



### INFORMATION

Performing this action is essential in order to detect all of the devices on the top hat rail. Furthermore, the action must be repeated when new devices are connected, as otherwise no devices are detected by the Automation Manager.

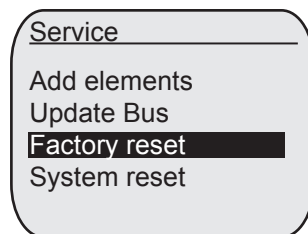
### 9.3. Factory reset



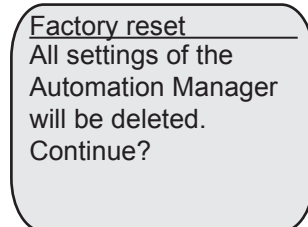
#### INFORMATION


Performing the action “Factory reset” will delete all the settings of the Automation Manager.

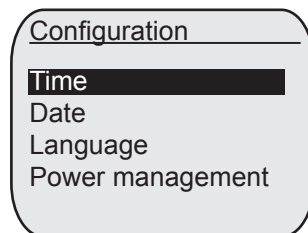
Upon selection of the menu item “Factory reset”, the following infotext appears: “All settings of the Automation Manager will be deleted. Continue?”. At this point, pressing the “Back” button will cancel the action without resetting the Automation Manager to factory settings. Upon pressing the “Confirmation” button, the action is carried out and the Automation Manager resets itself to its factory settings and restarts. All addresses of the elements are retained and do not have to be added again. After the restart, the Automation Manager jumps to the menu “Settings → Configuration” (section 8.1).



1. You are now in the “**Service**” sub-menu.  
Scroll to the menu item “**Factory reset**” and press the confirmation button.
  - » The prompt “**All settings of the Automation Manager will be deleted. Continue?**” appears on the display.



2. To exit the menu:  
Press the back button. 
  - » The “**Service**” sub-menu appears on the display.
2. To continue with the action:  
Press the confirmation button.
  - » The Automation Manager has performed the factory reset. A restart takes place and you are now in the “**Configuration**” sub-menu.  
Carry out the configuration as during commissioning (section 8.1)



## 9.4. System reset



### INFORMATION

Performing the action “System reset” will delete all the settings of the Automation Manager and the addresses of all elements.

Upon selection of the menu item “System reset”, the following infotext appears:

“Settings of the Automation Manager and addresses of all elements will be deleted. Continue?”

At this point, pressing the “Back” button will cancel the action without performing a system reset of the Automation Manager. Upon pressing the “Confirmation” button, another infotext appears:

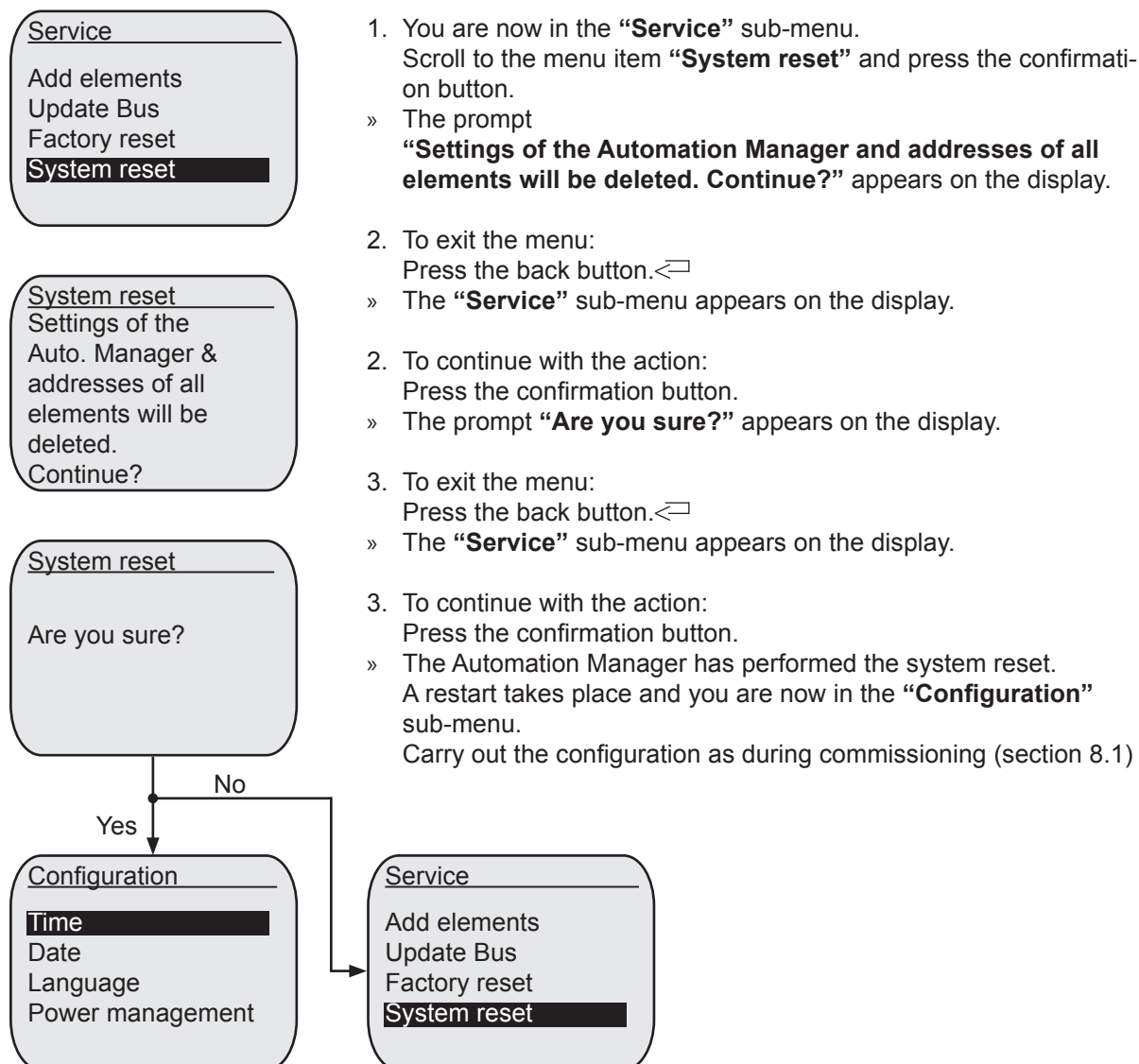
“Are you sure?” At this point, too, the action can still be cancelled by pressing the “Back” button.

If the system reset is now started by pressing the “Confirmation” button, all element addresses are deleted (during a factory reset these addresses are retained) and default addresses are allocated.

The Automation Manager now carries out a system reset.

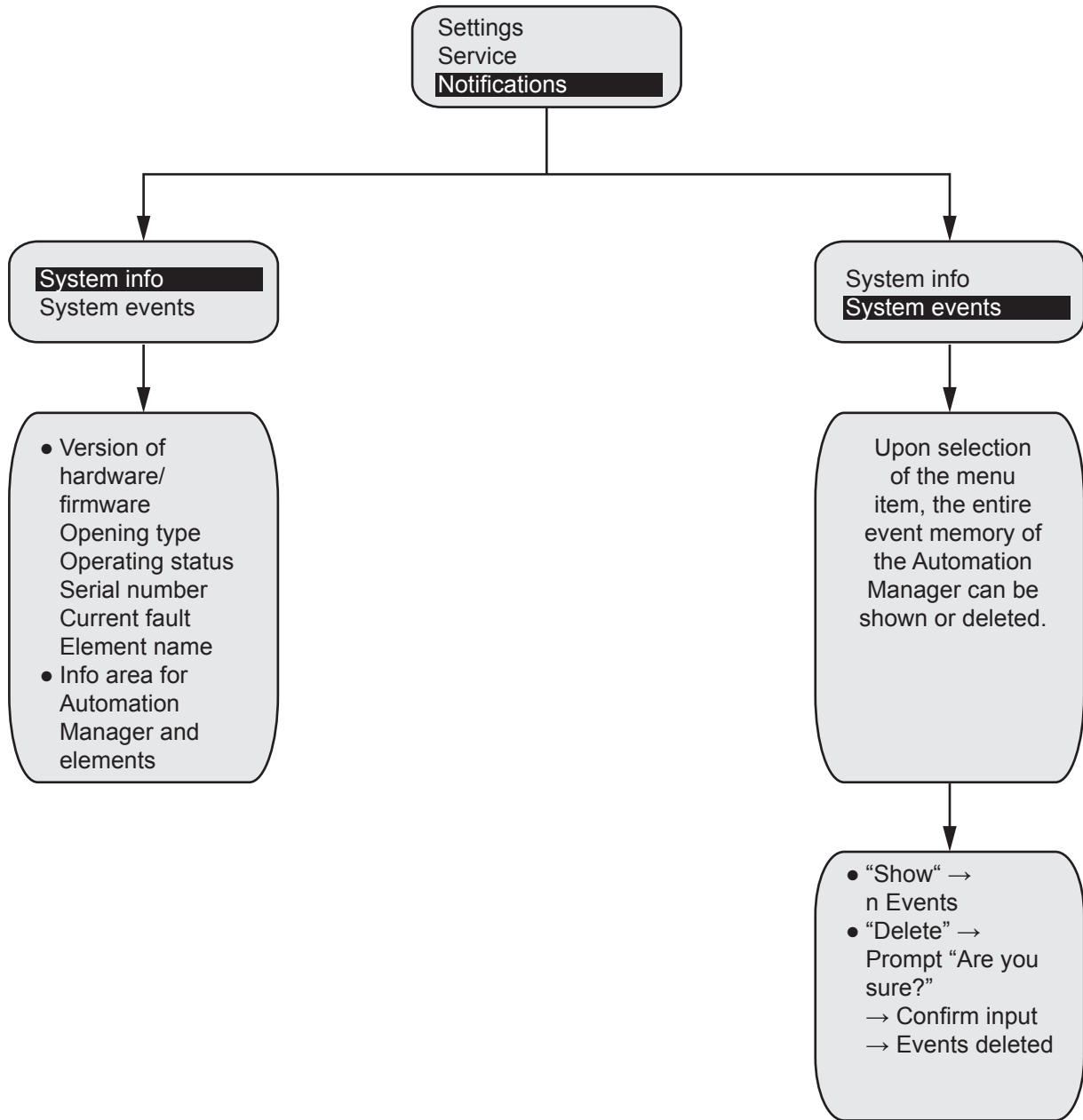
All of the element settings are retained.

After the restart, the Automation Manager jumps to the menu “Settings → Configuration” (section 8.1).



# 10. Display

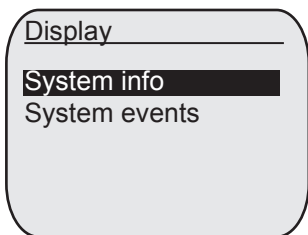
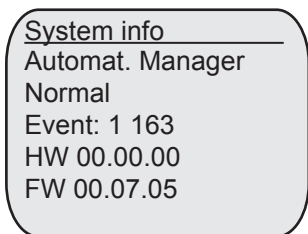
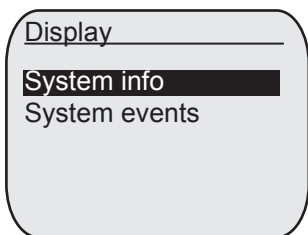
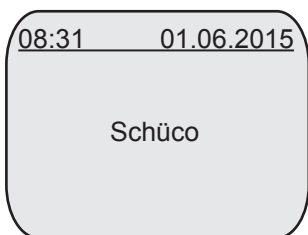
Overview of the notification functions of the Automation Manager.



## 10.1. System info

Upon selection of the menu item “System info”, the most important information for the Automation Manager and the elements is shown page by page. You can use the arrow buttons “^/v” to navigate the pages and the list. When you reach the last point in the list, you are automatically returned to the first point.

Pressing the “Back” button takes you back to the menu level.



1. You are now at the **start screen**.  
Press the confirmation button (OK). Scroll (arrow buttons ^/v) to the menu item “**Notifications**” and press the confirmation button once more.  
» The “**Notifications**” sub-menu appears on the display.
2. Scroll to the menu item “**System info**” and press the confirmation button.  
The information about the Automation Manager and the elements appears on the display.  
Scroll between the individual pieces of information on the pages.  
» The information appears on the display.
3. Press the confirmation button.  
» The “**Notifications**” sub-menu appears on the display.



### INFORMATION

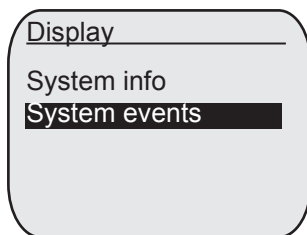
For the meaning of the event, refer to section 11.

## 10.2. System events (see section 11 for explanation)

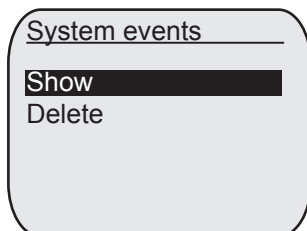
Upon selection of the menu item “System events”, two selection options are available.

- In the menu item “Show”, you can browse through all events in the circular buffer of the Automation Manager. These are displayed with an error code and time stamp and sorted into chronological order. When you reach the end of the list, you are automatically returned to the first point.  
Pressing the “Back” button takes you back to the menu level.
- Under the menu item “Delete”, the following infotext appears: “Are you sure?”  
At this point, pressing the “Back” button will cancel the action without the Automation Manager deleting the “System events”.  
If the “Confirmation” button is pressed, all of the “System events” will be deleted by the Automation Manager.

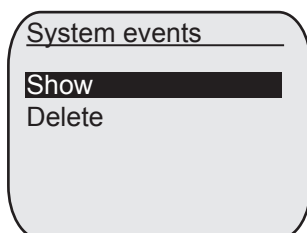
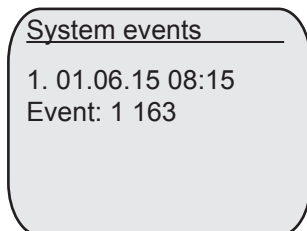
### 10.2.1. Displaying



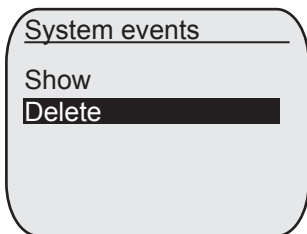
1. You are now in the “**Notifications**” sub-menu.  
Scroll to the menu item “**System events**” and press the confirmation button.  
» The “**System events**” sub-menu appears on the display.
2. Scroll to the menu item “**Show**” and press the confirmation button. Scroll between the individual system event on the pages.  
» The system events appear on the display.



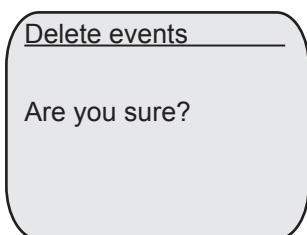
3. Press the confirmation button.  
» The “**System events**” sub-menu appears on the display.




### 10.2.2. Deleting

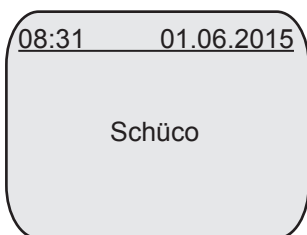



1. You are now in the “**System events**” sub-menu.  
Scroll to the menu item “**Delete**” and press the enter button.  
» The prompt “**Are you sure?**” appears on the display.



2. To exit the menu:  
Press the back button.   
» The “**System events**” sub-menu appears on the display.

2. To continue with the action:  
Press the confirmation button.  
» The Automation Manager has deleted all system events.



3. Press the “Back” button three times.   
» The **start screen** will appear on the display.



# 11. Faults (events)

## 11.1. Fault management

Faults in the system are recorded in the Automation Manager with a time stamp. Faults with the element, on the other hand, are stored by the element itself. Here, the latest element fault in each case is displayed for the respective element under the menu item "System info".

Under the menu item "System component events", the event memory of the Automation Manager can then be reviewed and/or deleted.

The last 30 system faults are shown with their time, date and event code.

Here, the information is displayed in chronological order. If the memory for the event values is full, the oldest events in the memory at that time are overwritten. Regardless of the menu item in which the Automation Manager finds itself at the time, the display takes on the layout of the start screen and the respective event is shown.

This is also shown if the Automation Manager is in standby mode or an action is in progress on the display. If the display is in standby mode, its lighting is activated when an event notification is received and it therefore exits standby mode.

The confirmation button (OK) must be pressed in order to submit an acknowledgement of the event.

When an event occurs, the Automation Manager returns to the menu item previously executed once an acknowledgement has been submitted.

In the process, confirmation was given that the event has been noted. Having acknowledged the first event, you must also acknowledge every additional event on the display by pressing the confirmation button where there are a number of events in the system.

## 11.2. Event

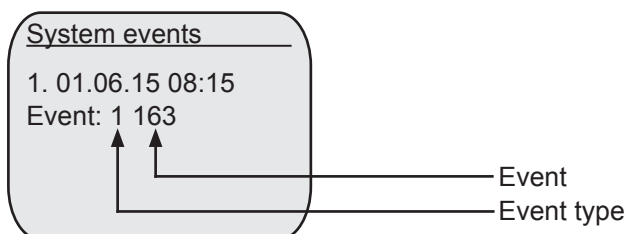
Faults and noteworthy occurrences are grouped together as events.

These events are created in the event memory. A distinction is made between event types and system events.

### 11.2.1. Event type

Event types are used in order to ensure clarity in event notifications.

Figure: System events display



Event code	Event type	Event
1 163	Automation Manager event	Dip in power supply

### 11.2.2. System event

The system events are stored by the Automation Manager for subscribers to its system.

Example::

Event code	Event	Event
0 0	No event type	No fault
49 5	Automation Manager event	Flash programming error in combined segment
16 7	TipTronic SimplySmart event	Overvoltage
50 16	Push-button interface event 1	Command currently invalid
84 13	Element event 5	Short circuit in finger lock
91 23	Event at new element 12	Sensor strip disconnection



#### INFORMATION

- ▶ The event consists of the value for the event type and the value for the event.

The following tables list all event types, system events and events.

## 11.3. Event types

### 11.3.1. General event types:

Event code	Event
0	No event type
1	Automation Manager event
16	TipTronic SimplySmart event

### 11.3.2. Device bus event types:

Event code	Event
49	Automation Manager event
50	Push-button interface event 1
51	Push-button interface event 2
52	Push-button interface event 3
53	Push-button interface event 4
58	KNX Gateway event

### 11.3.3. Element bus event types:

Event code	Event	Event code	Event
80	Element event 1	90	Element event 11
81	Element event 2	91	Element event 12
82	Element event 3	92	Element event 13
83	Element event 4	93	Element event 14
84	Element event 5	94	Element event 15
85	Element event 6	95	Element event 16
86	Element event 7	96	Element event 17
87	Element event 8	97	Element event 18
88	Element event 9	98	Element event 19
89	Element event 10	99	Element event 20

## Element bus event types (continued):

Event code	Event	Event code	Event
100	Element event 21	122	New element event 11
101	Element event 22	123	New element event 12
102	Element event 23	124	New element event 13
103	Element event 24	125	New element event 14
104	Element event 25	126	New element event 15
105	Element event 26	127	New element event 16
106	Element event 27	128	New element event 17
107	Element event 28	129	New element event 18
108	Element event 29	130	New element event 19
109	Element event 30	131	New element event 20
111	Default element event	132	New element event 21
112	New element event 1	133	New element event 22
113	New element event 2	134	New element event 23
114	New element event 3	135	New element event 24
115	New element event 4	136	New element event 25
116	New element event 5	137	New element event 26
117	New element event 6	138	New element event 27
118	New element event 7	139	New element event 28
119	New element event 8	140	New element event 29
120	New element event 9	141	New element event 30
121	New element event 10	255	Invalid KNX gateway status

## 11.4. System events

### 11.4.1. General system events:

Event code	Event	Solution
0	No fault	
16	Command currently invalid	<ul style="list-style-type: none"><li>• Check whether superordinate commands (disable commands) are in place</li><li>• Wind or rain sensor</li></ul>
17	Timeout in receiving	<ul style="list-style-type: none"><li>• Check whether the faulty subscriber is connected to a communication bus (element bus or device bus)</li></ul>
18	Subscriber is not responding	<ul style="list-style-type: none"><li>• Check whether the faulty subscriber is connected to a communication bus (element bus or device bus)</li></ul>
19	Invalid parameter	<ul style="list-style-type: none"><li>• Check whether the firmware versions of the system and element are compatible</li></ul>
129	Checksum fault	<ul style="list-style-type: none"><li>• The transmission process was not completed. Run same command/communication again</li></ul>
130	Direction incorrect	<ul style="list-style-type: none"><li>• Check whether there is more than 1 Automation Manager present in the system</li><li>• Check whether a computer with the “Engineering Automation Tool” software is connected to the element bus</li></ul>
131	Bus address incorrect	<ul style="list-style-type: none"><li>• Check addresses of the respective subscribers</li><li>• Reassign addresses if necessary</li></ul>
132	Telegram length invalid	<ul style="list-style-type: none"><li>• Check the number of elements in the element list against the actual number of elements physically present</li></ul>

## 11.5. Events

### 11.5.1. Automation Manager events:

Event code	Event	Solution
0	No fault	
1	ROM test failed	<ul style="list-style-type: none"> <li>● Replace device</li> </ul>
2	EEPROM test failed	<ul style="list-style-type: none"> <li>● Replace device</li> </ul>
3	RAM test failed	<ul style="list-style-type: none"> <li>● Replace device</li> </ul>
4	Flash deletion error in combined segment	<ul style="list-style-type: none"> <li>● Restart the device by disconnecting the operating voltage</li> <li>● Carry out a factory reset</li> </ul>
5	Flash programming error in combined segment	<ul style="list-style-type: none"> <li>● Restart the device by disconnecting the operating voltage</li> <li>● Carry out a factory reset</li> </ul>
161	CRC error in combined segment	<ul style="list-style-type: none"> <li>● Recreate existing combinations in the system</li> </ul>
6	Flash deletion error in bus topology segment	<ul style="list-style-type: none"> <li>● Restart the device by disconnecting the operating voltage</li> <li>● Carry out a factory reset</li> </ul>
7	Flash programming error in bus topology segment	<ul style="list-style-type: none"> <li>● Restart the device by disconnecting the operating voltage</li> <li>● Carry out a factory reset</li> </ul>
162	CRC error in bus topology segment	<ul style="list-style-type: none"> <li>● Recreate the order of elements</li> </ul>
165	CRC and segment ID error in error memory segment	<ul style="list-style-type: none"> <li>● Clear the error memory of the Automation Manager</li> </ul>
163	Dip in power supply	<ul style="list-style-type: none"> <li>● Check that the power pack is providing an adequate power supply (24 V DC)</li> <li>● Check that the housing is correctly connected to the modules on the top hat rail.</li> </ul>
164	Watchdog error	

## 11.5.2. TipTronic SimplySmart events:

Event code	Event	Solution
0	No fault	
1	ROM test failed	<ul style="list-style-type: none"> <li>● Replace control unit</li> </ul>
2	EEPROM test failed	<ul style="list-style-type: none"> <li>● Replace control unit</li> </ul>
3	RAM test failed	<ul style="list-style-type: none"> <li>● Replace control unit</li> </ul>
4	Fault during internal uC test	<ul style="list-style-type: none"> <li>● Replace control unit</li> </ul>
5	TipTronic magnet fault	<ul style="list-style-type: none"> <li>● Install TipTronic magnet</li> <li>● Install in the centre at the same height as the control unit</li> </ul>
6	Low voltage (supply voltage below 20 V)	<ul style="list-style-type: none"> <li>● Check whether a Schüco power supply is connected</li> <li>● Check the terminals and cables</li> </ul>
7	Overvoltage (supply voltage over 32 V)	<ul style="list-style-type: none"> <li>● Check whether a Schüco power supply is connected</li> <li>● Reduce the output voltage of the power supply</li> </ul>
8	Polarity of supply voltage reversed	<ul style="list-style-type: none"> <li>● Correct polarity of the supply voltage</li> </ul>
9	Short circuit in chain actuator loop 1	<ul style="list-style-type: none"> <li>● Replace the actuator in loop 1</li> </ul>
10	Short circuit in chain actuator loop 2	<ul style="list-style-type: none"> <li>● Replace the actuator in loop 2</li> </ul>
11	Short circuit in locking roller loop 1	<ul style="list-style-type: none"> <li>● Replace the locking roller(s) in loop 1</li> </ul>
12	Short circuit in locking roller loop 2	<ul style="list-style-type: none"> <li>● Replace the locking roller(s) in loop 2</li> </ul>
13	Short circuit in finger lock	<ul style="list-style-type: none"> <li>● Replace finger lock</li> </ul>
14	Excess current in chain actuators	<ul style="list-style-type: none"> <li>● Check fitting for mechanical stiffness</li> <li>● Adjust fitting</li> </ul>
15	Failure of Mosfet chain actuator in loop 1	<ul style="list-style-type: none"> <li>● Replace control unit</li> <li>● Check chain actuator in loop 1</li> </ul>
16	Failure of Mosfet chain actuator in loop 2	<ul style="list-style-type: none"> <li>● Replace control unit</li> <li>● Check chain actuator in loop 2</li> </ul>

Loop 1 = Control unit side opposite the operating element connection

Loop 2 = Control unit and operating element connection on the same side

## TipTronic SimplySmart events (continued):

Event code	Event	Solution
17	No speed control signal from chain actuator in loop 1	<ul style="list-style-type: none"> <li>● Test/reinsert piercing contacts</li> <li>● Check wires</li> <li>● Replace chain actuator in loop 1 if necessary</li> </ul>
18	No speed control signal from chain actuator in loop 2	<ul style="list-style-type: none"> <li>● Test/reinsert piercing contacts</li> <li>● Check wires</li> <li>● Replace chain actuator in loop 2 if necessary</li> </ul>
19	Contacting problem on the chain actuator in loop 1	<ul style="list-style-type: none"> <li>● Test/reinsert piercing contacts</li> <li>● Check wires</li> </ul>
20	Contacting problem on the chain actuator in loop 2	<ul style="list-style-type: none"> <li>● Test/reinsert piercing contacts</li> <li>● Check wires</li> </ul>
21	Monitoring of chain actuator synchronisation	<p>When monitoring the synchronisation of the two actuator loops, too great a difference in position has resulted</p> <ul style="list-style-type: none"> <li>● Replace chain actuators</li> <li>● Use chain actuators with a similar speed in an element</li> </ul>
22	Sensor strip short circuit	<ul style="list-style-type: none"> <li>● Check the wiring in the cable link connector</li> <li>● Check the plug connector on the sensor strip</li> </ul>
23	Sensor strip disconnection	<ul style="list-style-type: none"> <li>● Check the wiring in the cable link connector</li> <li>● Check the plug connector on the sensor strip</li> </ul>
24	Sensor strip status not permissible	<ul style="list-style-type: none"> <li>● Check the wiring in the cable link connector</li> <li>● Check the plug connector on the sensor strip</li> </ul>
25	Permissible power-on time exceeded	<ul style="list-style-type: none"> <li>● Wait a few minutes</li> </ul>
26	Cancel after 10 attempts to close	<ul style="list-style-type: none"> <li>● Check for a jam (object, sensor strip etc.)</li> <li>● Check fitting for mechanical stiffness</li> <li>● Adjust fitting</li> <li>● Movement to the "CLOSED" end position in dead man operation mode</li> </ul>
27	Small actuator on the SHEVS control unit	<ul style="list-style-type: none"> <li>● Replace the actuator and program the window again</li> </ul>

Loop 1 = Control unit side opposite the operating element connection

Loop 2 = Control unit and operating element connection on the same side



## 12. Decommissioning and disposal



The materials used can be recycled. Observe the environmental requirements with regard to recycling, re-use and disposal of operating materials and components in accordance with the local, country-specific and international current technical regulations and official regulations. Make a contribution towards protecting our environment and dispose of the device at a collection point.

## 13. Service and support

At Schüco, a high level of customer satisfaction is our priority. If you require further information or encounter problems not dealt with in detail in this document, you can request the requisite information from Mechatronic Technical Support.

You can reach your contact partners on the service phone numbers below:

### Hotline - Metal systems

Please contact your local branch.

### Hotline - Mechatronics

Tel.: +49 (0) 521 - 783 665

Fax: +49 (0) 521 - 783 836

E-mail: [Support\\_Automation@schueco.com](mailto:Support_Automation@schueco.com)

## 14. Abbreviations index

VFF	German Association of Window and Façade Manufacturers
VDE	German association for electrical, electronic and information technologies

en Original operating instructions or (and)  
translation of original operating instructions

Schüco International KG  
Karolinenstraße 1-15  
33609 Bielefeld  
Tel. +49 521 783-0  
Fax +49 521 783-451  
[www.schueco.de](http://www.schueco.de)