Technical Manual
System Access Point

free@
home

SAP-S-1-84

SAP-S-127.1

Power and productivity
for a better world™

ABB

1   Notes on the instruction manual

Please read this manual through carefully and adhere to the information contained therein. This will assist you in preventing damage to persons and property and ensure reliable operation and long service life of the device.

Please keep this manual in a safe place.

If you pass the device on, also include this manual.

Busch-Jaeger accepts no liability for failure to observe the instructions in this manual.

If you require additional information or have questions about the device, please contact Busch-Jaeger or visit our Internet site at:

www.BUSCH-JAEGER.com

www.abb.com/freeathome

2   Safety

The device has been constructed according to the latest valid regulations governing technology and is operationally reliable. It has been tested and left the factory in a technically safe and reliable state.

However, residual hazards remain. Read and adhere to the safety instructions to prevent such hazards.

Busch-Jaeger accepts no liability for failure to observe the safety instructions.

2.1   Used symbols

The following symbols point to dangers involved in the use of the device and provide practical instructions.

Warning

This symbol in connection with the signal word "Warning" indicates a dangerous situation which could lead to immediate death or to serious injury.

Attention - damage to property

This symbol indicates a possibly damaging situation for the product. Non-observance can lead to damage or destruction of the product.

Note...
This symbol indicates information or references to additional useful topics. This is not a signal word for a dangerous situation.

This symbol indicates information on the protection of the environment.

The following symbols are used in the manual to draw attention to special dangers:

This symbol indicates a dangerous situation due to electric current. If such a sign is ignored, it can lead to serious injuries or even death.

2.2 Intended use

This device is a central control and commissioning device for surface mounting at a fixed location. Only one System Access Point per system is permitted to be installed.

The device is intended for the following:

» operation according to the listed technical data and types of load,

» installation in dry interior rooms,

» use with the connecting options available on the device.

The intended use also includes adherence to all specifications in this manual.

> Note...
> Observe also the details on cyber security (see QR code on supplement to device or at www.busch-jaeger-catalogue.com).

2.3 Improper use

Each use not listed in chapter 2.2 is deemed improper use and can lead to personal injury and damage to property.

Busch-Jaeger is not liable for damages caused by use deemed contrary to the intended use of the device. The associated risk is borne exclusively by the user/operator.

The device is not intended for the following:

» unauthorized structural changes,

» repairs,

» use outdoors or in bathroom areas,

» use with an additional bus coupler.

2.4 Target group / qualification of personnel

Installation, commissioning and maintenance of the device must only be carried out by trained and properly qualified electrical installers.

The electrical installers must have read and understood the manual and follow the instructions provided.

The electrical installers must adhere to the valid national regulations in their country governing the installation, functional test, repair and maintenance of electrical products.

The electrical installers must be familiar with and correctly apply the "Five safety regulations" (DIN VDE 0105, EN 50110):

1. Disconnect from power;

2. Secure against being re-connected;

3. Ensure there is no voltage;

4. Connect to earth and short-circuit;

5. Cover or barricade adjacent live parts.

2.5   Safety instructions

	Warning
	Electric voltage! Risk of death and fire due to electrical voltage of 230 V.

Dangerous currents flow through the body when coming into direct or indirect contact with live components. This can result in electric shock, burns or even death.

» Work on the 230 V supply system may only be performed by authorised and qualified electricians.

» Disconnect the mains power supply before installation / disassembly.

» Never use the device with damaged connecting cables.

» Do not open covers firmly bolted to the housing of the device.

» Use the device only in a technically faultless state.

» Do not make changes to or perform repairs on the device, on its components or its accessories.

» Keep the device away from water and wet surroundings.

Attention - damage to property

Risk of damaging the device due to external factors.

Moisture and contamination can damage or destroy the device.

» Protect the device against humidity, dirt and damage during transport, storage and operation.

3   Information on protection of the environment

All packaging materials and devices bear the markings and test seals for proper disposal.

The products meet the legal requirements, in particular the laws governing electronic and electrical devices and the REACH ordinance (EU Directive 2002/96/EG WEEE and 2002/95/EG RoHS), (EU-REACH Directive and Law for the Execution of the Directive (EG) No.1907/2006).

The device contains valuable raw materials which can be recycled. Used electric and electronic devices must not be disposed of with domestic waste.

» Always dispose of the packaging material and electric devices and their components via the authorized collecting depots and disposal companies.
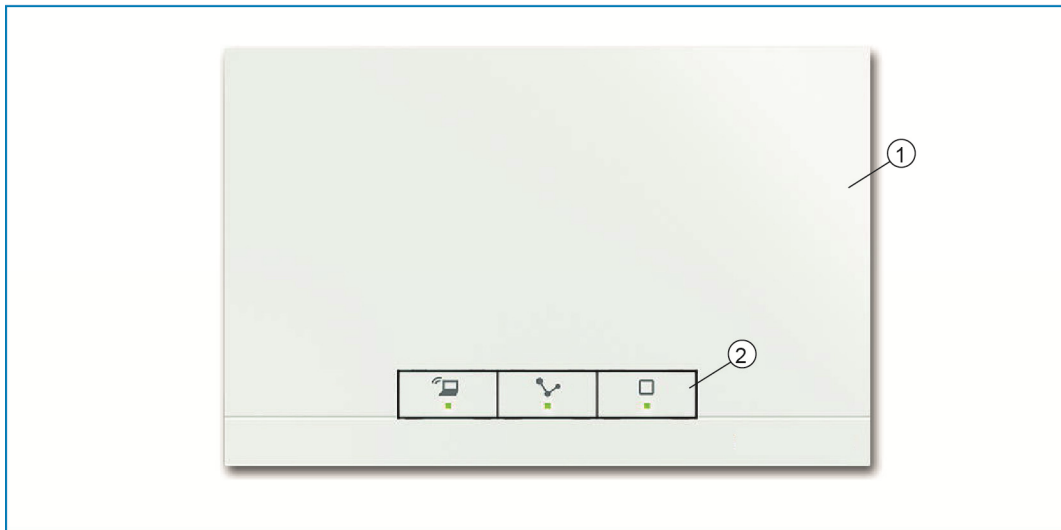
4   Product description

Fig. 1: Product overview

[1] Front of device

[2] Operating buttons and status LEDs

This device is a central control and commissioning device for surface mounting at a fixed location. The System Access Point establishes the connection between the free@home participants and the smartphone, tablet or PC. It is used to identify and program the participants during commissioning. It also executes time and astro programs and serves as exchange to switch functions via the free@home app.

The Web-based user interface of the System Access Point can be called up and operated simultaneously by several participants (computers and/or mobile devices) via the free@home app). This can, depending on the changes made, lead to losses in performance. It then takes longer to implement changes. That is why it is recommended to operate the user interface with only 4 participants at the same time.

After activating the bus voltage the System Access Point automatically detects all devices in the system, provided they have been connected correctly. The integrated bus coupler makes possible the connection to the free@home bus line.

Also the System Access Point counts as a participant of the system.

Additional product features:

»   Green LEDs as status indication.

4.1   Scope of supply

The scope of supply includes the device and an enclosed bus connection terminal. Additional adapter cables are not included in the scope of supply.

4.2   Type overview

Article no.	Product name	Power Supply
SAP-S-1-84	System Access Point	230 V~ 70 mA, 50/60 Hz;
SAP-S-127.1	System Access Point	127 V~ 120 mA, 50/60 Hz;

Table 1: Overview of types

5   Technical data

5.1   Main overview

Parameters	Value
Power Supply	**SAP-S-1-84**: 230 V~ 70 mA, 50/60 Hz; **SAP-S-127.1**: 127 V~ 120 mA, 50/60 Hz; Screw-type terminals: 2 x 2.5 mm^2 rigid; 2 x 1.5 mm^2 flexible
Bus voltage, bus subscribers	24 VDC (via a separate power adaptor); 1 (12 mA)
Connection	Bus connection terminal: 0.4-0.8 mm
Line type	J-Y(St)Y, 2 x 2x 0.8 mm
Wire stripping	6-7 mm
RJ connector	RJ 45
Protection	IP20
Ambient temperature	-5 °C – +45 °C
Storage T°	-20 °C – +70 °C

Table 2: Technical data

5.2   Dimensions

Note...
All dimensions are in mm.

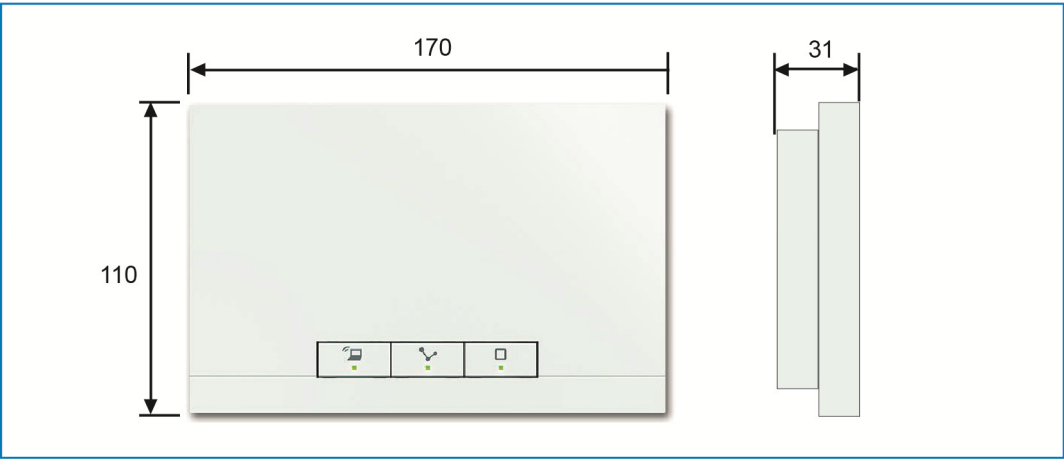*Fig. 2: Dimensions*

5.3   Connection diagrams

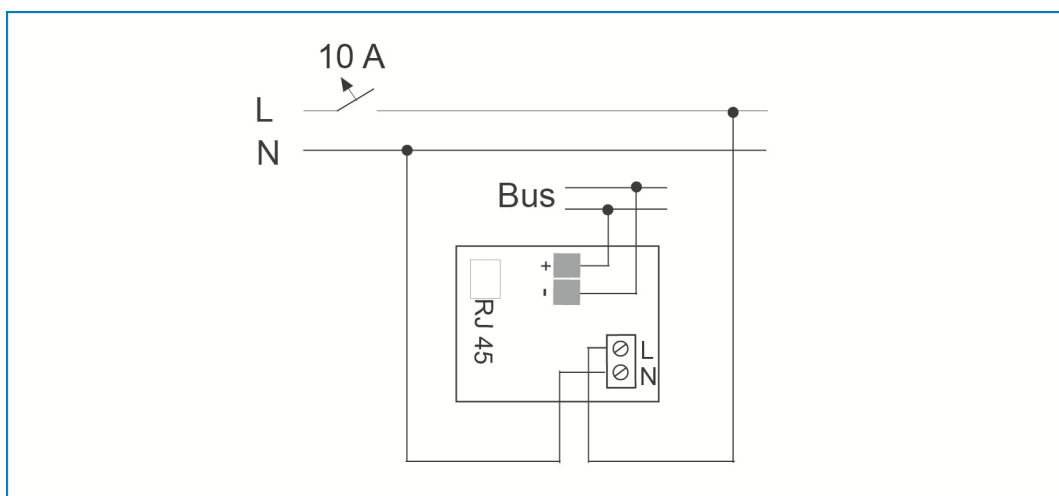*Fig. 3: Electrical connection*

6   Mounting

6.1   Planning instructions

Note...
Planning and application instructions for the system are available in the free@home system manual. They can be downloaded at www.abb.com/freeathome.
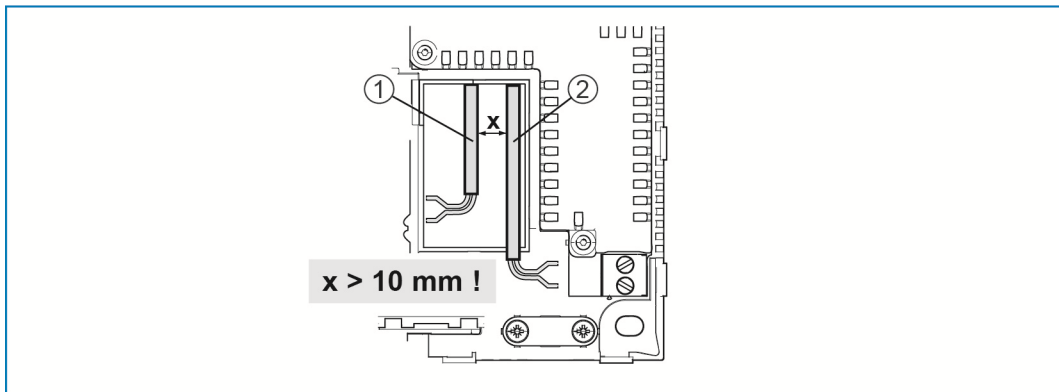
6.2   Safety instructions for mounting

Fig. 4: SELV power circuits

[1] Bus line
[2] 230 V power cord

Warning - Risk of death due to short-circuit

Risk of death due to electrical voltage of 230 V during short-circuit in the low-voltage line.

» Observe the spatial division (> 10 mm) of SELV electric circuits to other electric circuits during mounting (see Fig. 4).
» If the minimum distance is insufficient, use electronic boxes or insulating tubes.
» Observe the correct polarity.
» Observe the relevant standards!

Warning - Risk of death due to electrical voltage

Dangerous currents flow through the body when coming into direct or indirect contact with live components. This results in electric shock, burns or even death.

Work improperly carried out on electrical systems is a hazard to one's own life and that of the user. Also fires and serious damage to property can result.

» Install the device only if you have the necessary electrical engineering knowledge and experience (see chapter 2.4).

» Use suitable personal protective clothing.

» Use suitable tools and measuring devices.

» Check the supply network type (TN-system, IT system, TT system) to secure the following power supply conditions (classic connection to ground, protective earthing, necessary additional measures, etc.).

6.3   Mounting / Installation

Note ...

The devices with integrated bus coupler are intended for surface mounting at a fixed location. The cable is fed via the corresponding flush-mounted boxes or surface mounted. The bus line is always inserted on the rear side! This means that the cable is always fed via a flush-mounted box.

» Patched CAT wires are connected directly via the RJ45 female connector. Only shielded CAT wires are used!

» For installations with a permanent connection outside the installation an easy-to-access isolating fixture must be available.

» For installations with a plug-in connection the socket outlet must be mounted close to the installation and be easy to access.

Two options for mounting are possible.

6.3.1   Mounting option A

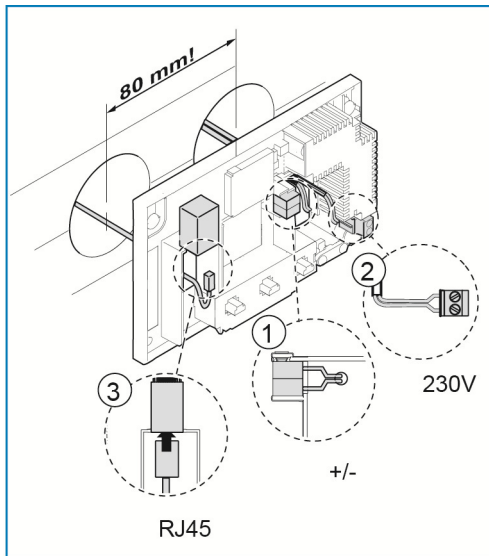The 230 V power cord, the bus line and the CAT wire (optional for LAN) are inserted on the rear side.

Two flush-mounted boxes are used. The minimum distance between the flush-mounted boxes should amount to at least 80 mm.
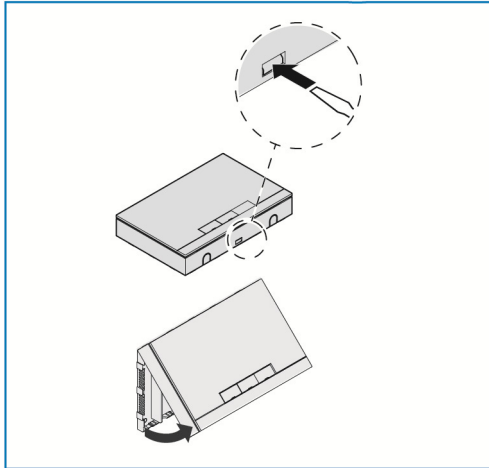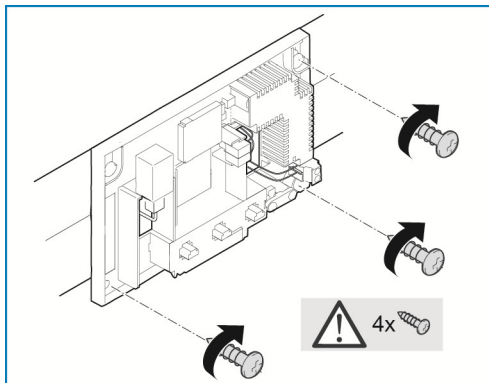
» Open the cover of the housing.
- Use a screw driver and insert it into the slot shown in the illustration.
- Slightly press the holder in and tilt the housing toward the top.
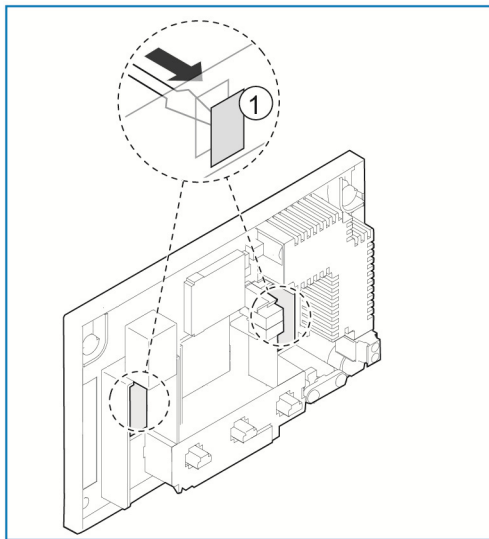
» Break out the two breaking points [1] for the cable entries with a screw driver from the rear.

» Connect the free@home bus line [1] with the bus connection terminal.
  Observe the correct polarity!
» Connect the 230 V power cord [2] to the bottom terminal block.
» As an option, a CAT wire [3] (for LAN) can be connected to the RJ45 socket.
  Observe the circuit diagrams in chapter 5.3.

» Draw the holes for the screws on the wall.
» Fix the rear panel to the wall with 4 screws.

» Attach the housing cover to the top of rear panel.
» Close the cover of the housing.

6.3.2   Mounting option B

The bus line is inserted on the rear side.

The 230 V power cord and the CAT wire (optional for LAN) are installed on the surface and inserted on the underside. This requires the use of only one flush-mounted box.

» Open the cover of the housing.
- Use a screw driver and insert it into the slot shown in the illustration.
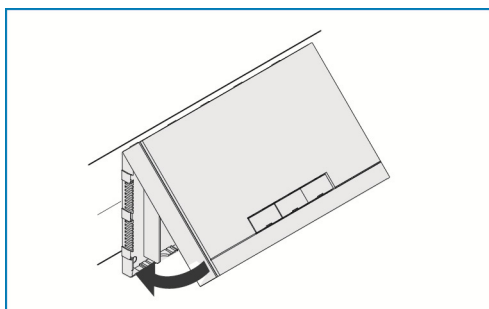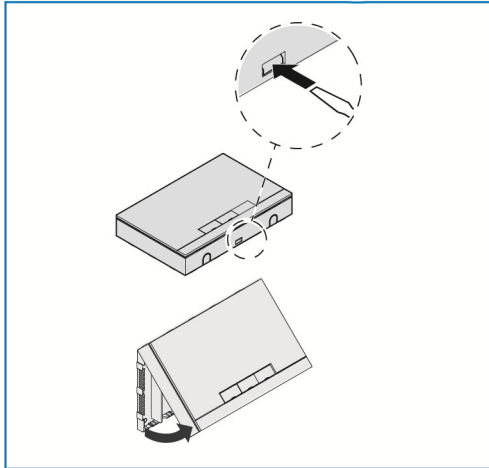- Slightly press the holder in and tilt the housing toward the top.
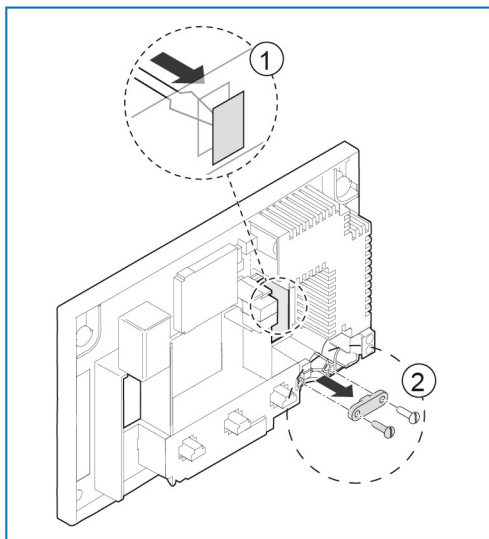
» Break out the breaking point [1] for the cable entry with a screw driver from the rear.
» Screw off the cable holder [2].
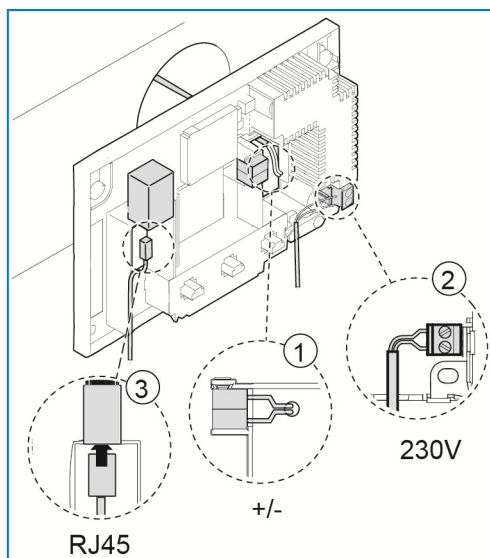
» Connect the free@home bus line [1] with the bus connection terminal. **Observe the correct polarity!**
» Connect the 230 V power cord [2] to the bottom terminal block.
» As an option, a CAT wire [3] (for LAN) can be connected to the RJ45 socket. **Observe the circuit diagrams in chapter 5.3**.
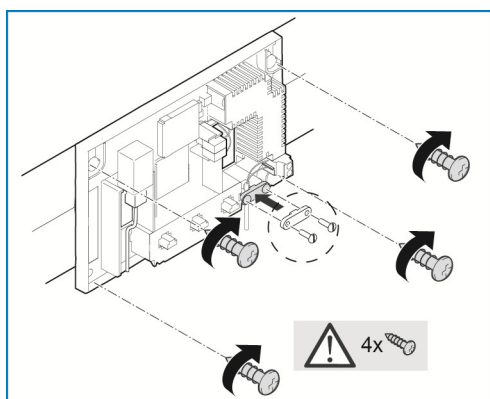
» Draw the holes for the screws on the wall.
» Fix the rear panel to the wall with 4 screws.
» Screw the cable holder back on.
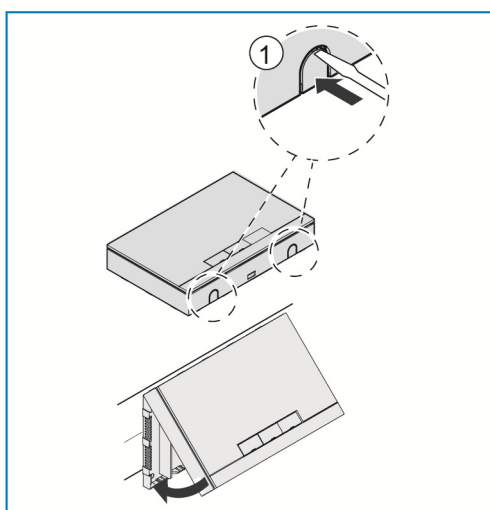
» Break out the breaking points [1] for the underside cable entry with a screw driver.
» Attach the housing cover to the top of rear panel.
» Close the cover of the housing.

7   Commissioning

Commissioning is always carried out via the Web-based surface of the System Access Point.

The System Access Point establishes the connection between the free@home participants and the smartphone, tablet or PC. It is used to identify and program the participants during commissioning.

Devices which are physically connected to the free@home bus, log themselves automatically into the System Access Point. They transmit information about their type and supported functions.

Commissioning of the System Access Point is described in the following chapters.

Note ...
All the devices of the system must be correctly wired and connected to the bus line!

» Commissioning is always carried out via the System Access Point.

» A smartphone, tablet or PC is required for commissioning. Recommendation: Connect the device with a smartphone, table or PC via WLAN.

» No additional software is required.

» The use of the free@home app is recommended for commissioning via smartphone or tablet, it can be downloaded free of charge from the App Store (for iOS) or from the Google Play Store (for Android).

7.1   System requirements

User interface

To open the Web-based user interface of the System Access Point you require a computer with a LAN or WLAN network adaptor and an installed Internet browser.

The recommended browsers are:

» Firefox (from version 9)
» Internet Explorer (from version 11)
» Google Chrome
» Safari

free@home app

For the installation of the free@home app you require a smartphone or tablet with an Android (from 4.4) or iOS (from iOS 7) operating system.

Home network

To be able to access the free@home APP and Internet services (e.g. e-mail) at the same time during standard operation, the System Access Point must be integrated into the existing home network after commissioning. For this, a router with Ethernet or WLAN interface is required.

7.2   Network connection

The System Access Point makes available its own WLAN during commissioning, so that it can be comfortably programmed in mobile mode, even when no network infrastructure is available.

However, in the final state the System Access Point should be set up as participant within the available network infrastructure. The System Access Point can be connected to the available network infrastructure of the apartment either via the installed Ethernet port or the installed WLAN antenna.

7.2.1   Connection via WLAN

If the System Access Point cannot be connected to the Internet router via cable, it can be logged into the existing WLAN network via WLAN as client.
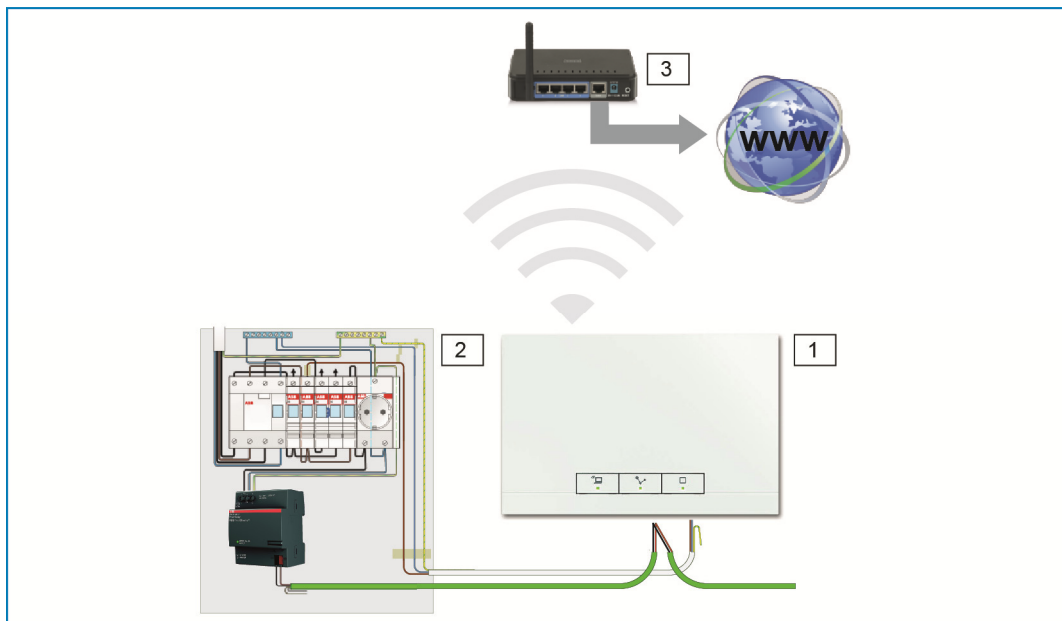

Fig. 5: Connection via WLAN

[1] System Access Point

[2] Distribution

[3] IP router

7.2.2   Connection via patch cable

If the System Access Point and the Internet router are installed side by side, they can be connected via a patch cable.
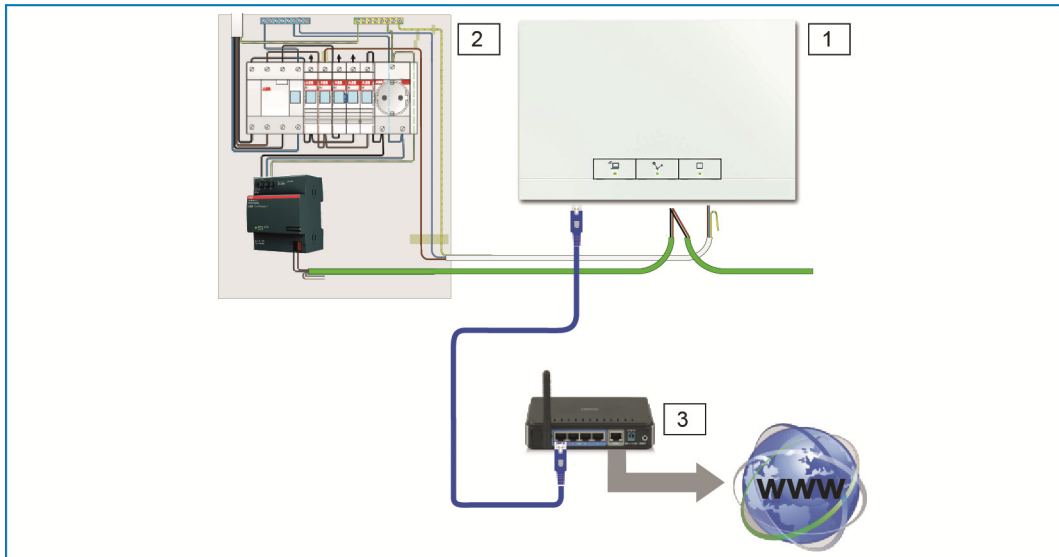
Fig. 6: Connection via patch cable

[1] System Access Point

[2] Distribution

[3] IP router

7.2.3   Connection via installation cable in case of structured cabling

If the System Access Point is to be connected via a CAT installation cable, it can be connected via the RJ45 socket with an LSA adapter.
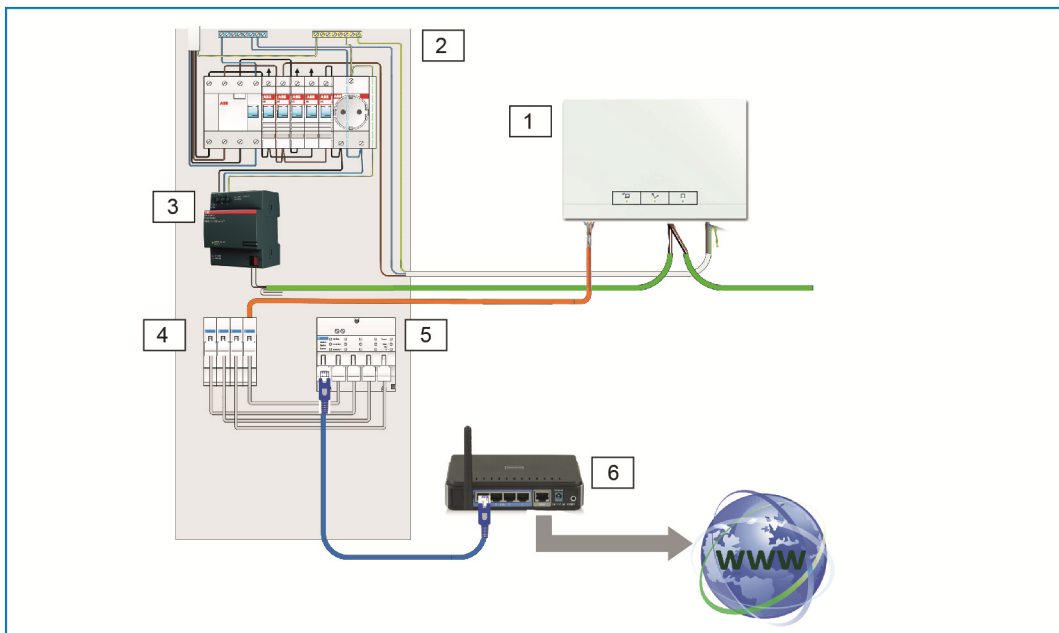
Fig. 7: Connection in case of structured cabling

[1] System Access Point

[2] Distribution

[3] Power supply

[4] Ethernet patch terminals

[5] Switch

[6] IP router

7.3   Establishing the connection to user interface of the System Access Point

Information about network settings is required to establish a connection.

Fig. 8: Text on the power adaptor

[1] WLAN password (SSID)

[2] Password

[3] IP Address

[4] LAN MAC address

[5] WIFI MAC address

» Open the cover of the System Access Point.

- The information about the network settings is located in the printing of the power adaptor.

Then use one of the following options to open the user interface of the System Access Point.

7.3.1   Option A: Establishing the connection with smartphone/tablet
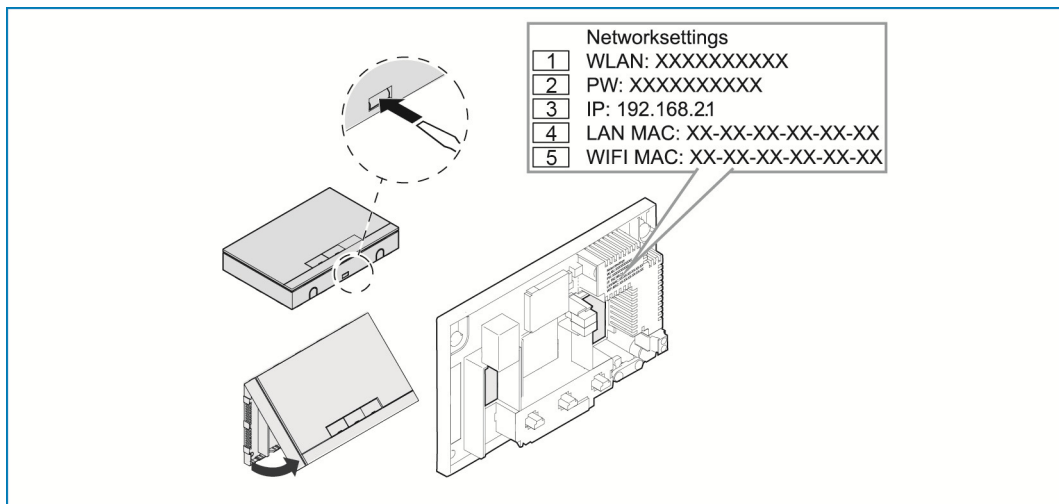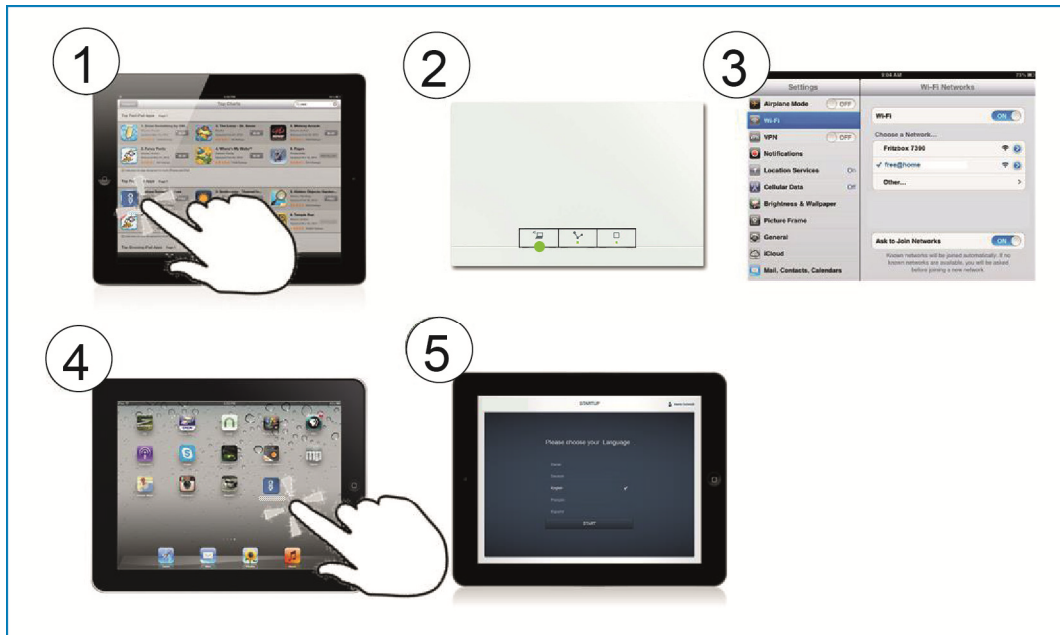

Fig. 9: Connection with smartphone

[1]   Install the free free@home app for Android or iOS.

[2]   Energize the System Access Point.

Ensure that the access point mode [2] has been activated (left button lights up). If not, press the access point button to activate it.

[3]   Connect the terminal device with the WLAN of the System Access Point (SSID: SysAPXXXX). Enter the password (see chapter 7.3).

[4]   Start the app.

[5]   The app establishes a connection to the System Access Point automatically.

7.3.2   Option B: Establishing the connection with the PC via WLAN
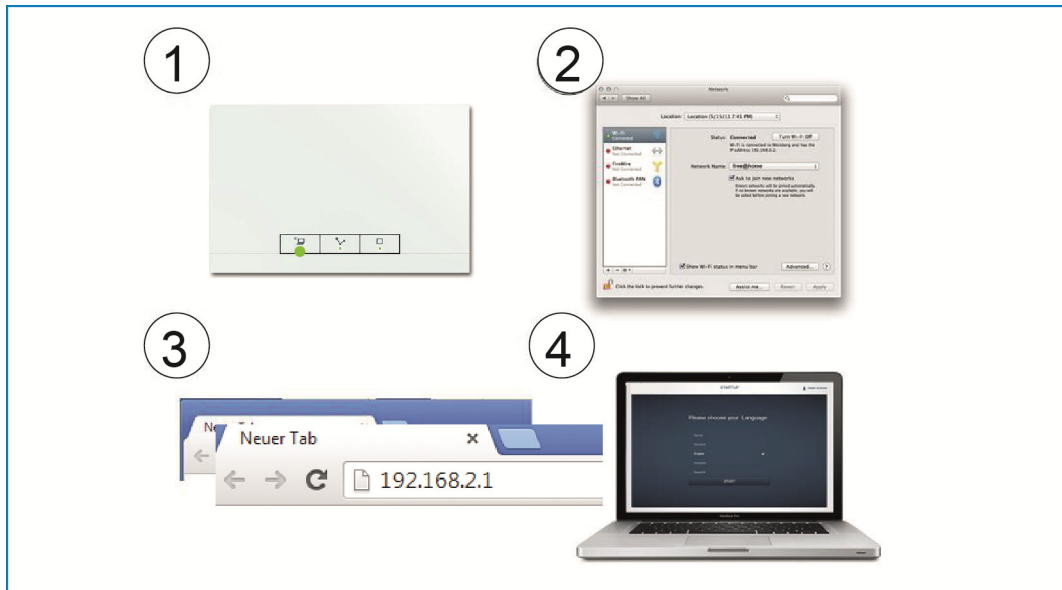
Fig. 10: Connection with PC via WLAN

[1]   Energize the System Access Point.

        Ensure that the access point mode has been activated (left button lights up). If not, press the access point button to activate it.

[2]   Connect the PC with the WLAN of the System Access Point (SSID: Sys-APXXXX). Enter the password (see chapter 7.3).

[3]   Start your Internet browser.

        Enter the IP address "192.168.2.1" in the address line of your browser and confirm it.

[4]   The connection to the System Access Point has been established.

7.3.3   Option C: Establishing the connection with the PC via patch cable
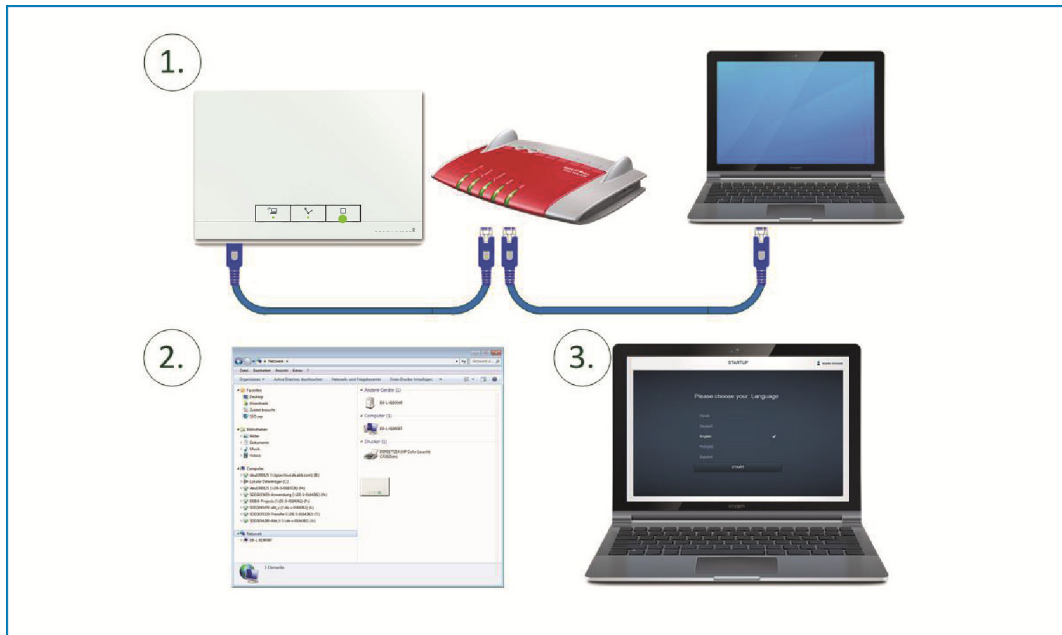

Fig. 11: Connection with PC via patch cable

[1]   Connect the System Access Point and the PC with the router.

[2]   Energize the System Access Point.

Ensure that the access point mode has **not** been activated. If it is activated, press the access point button to deactivate it.

Note...

The System Access Point functions only as "DHCP Client". This means that it can only be reached under the IP address that is assigned to it automatically by the router.

Call up the user interface of the System Access Point. For this there are two options:

A - Open Windows Explorer of your PC. The System Access Point is displayed as device under "Network". Double click on the device to open the user interface (prerequisite: the computer must support UPnP).

B - Enter the IP address that has been assigned automatically by the browser in the address line of the browser (you will find the assigned IP address in the user interface of your browser.

Example for Fritzbox: Under "Home network > Network" set the view on "Extended" to fade in the IP addresses).

[3]   The connection to the System Access Point has been established.

7.4   Additional explanations about the network functions

7.4.1   Access point mode

The access point mode is intended for commissioning of the system. The System Access Point establishes its own WLAN and acts as DHCP server (devices which connect themselves as client with the WLAN receive an IP address automatically).

Advantage:

The system can also be made operational and operated without a router (e.g. Fritzbox).

Disadvantage:

In access point mode the System Access Point cannot be simultaneously connected to an Internet router. For continuous operation the System Access Point should therefore be configured as LAN or WLAN client so that the users can both surf on the Internet with their devices and operate the free@home system without having to change between different WLAN networks.

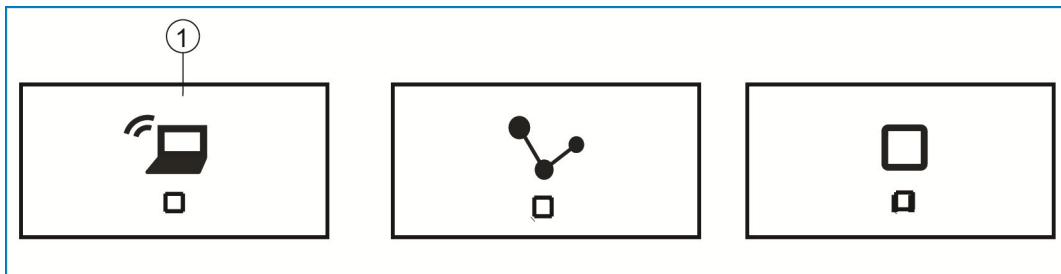*Fig. 12: Access point button*

[1] Access point button

» Press the access point button [1] to activate or deactivate the access point mode. During initial commissioning the access point mode is automatically activated.

» The network name (SSID), the WLAN password and the IP address of the System Access Point is located in the printing of the power adaptor (see chapter 7.3).

7.4.2   LAN / WLAN client mode

If a router is already available it is recommended to connect the System Access Point with this network via LAN or WLAN as client.

The following options are available to activate the client mode:

» **A -** Connect the System Access Point via LAN with the router before commissioning. When the cable is plugged in it is recognized automatically and the access point mode is deactivated. The System Access Point then receives an IP address from the router automatically. During the attempt to connect, the connection display flashes. After the connection has been established the connection display lights up permanently.

» **B -** Connect the System Access Point via LAN with the router after commissioning. Here the access point mode must be deactivated manually. This can be carried out with a press of the button on the device itself or in the network settings of the user interface. The System Access Point then receives an IP address from the router automatically. During the attempt to connect, the connection display flashes. After the connection has been established the connection display lights up permanently.

» **C -** Connect the System Access Point via WLAN with the router after commissioning. This can be carried out via the network settings of the user interface. There select the name* of the network with which you want to connect and enter the network key. The System Access Point then receives an IP address from the router automatically. During the attempt to connect, the connection display flashes. After the connection has been established the connection display lights up permanently.

The access point mode can be activated again at any time. If the access point mode is deactivated, the LAN client or, if it has been configured, the WLAN client mode is activated.

Note...
The list of recommended network names (SSIDs) is created during the boot-up process of the System Access Point. The WLAN networks that cannot be reached at this point will not be shown in the list of recommendations.

7.5   Carrying out the basic settings of the user interface

Note...
Detailed descriptions are available in the online Help in each of the individual pages under button '?'.

During initial commissioning you will be asked to supply the following basic data (automatic wizard!).

The data are saved on the System Access Point. The entry of the data can be skipped, which however, can lead to the restriction of functions. However, the data can be also be entered at a later point in time.

Language

Selects the language of the display text. The following languages are available:

- » German
- » Danish
- » English
- » Spanish
- » Finnish
- » French
- » Italian
- » Norwegian
- » Dutch
- » Polish
- » Portuguese
- » Russian
- » Swedish
- » Chinese

Site

Serves as basis for the astro function.

Date / Time

Sets the time for the system. The time will be synchronized automatically when the connection to the Internet is established.

User name / Password

Ensures protection against faulty configuration. Additional users can be added later.

Note...
The password must consist of at least 4 characters.

Name of installation

Display name of device within the IP network.

7.6   Setup of the main menu

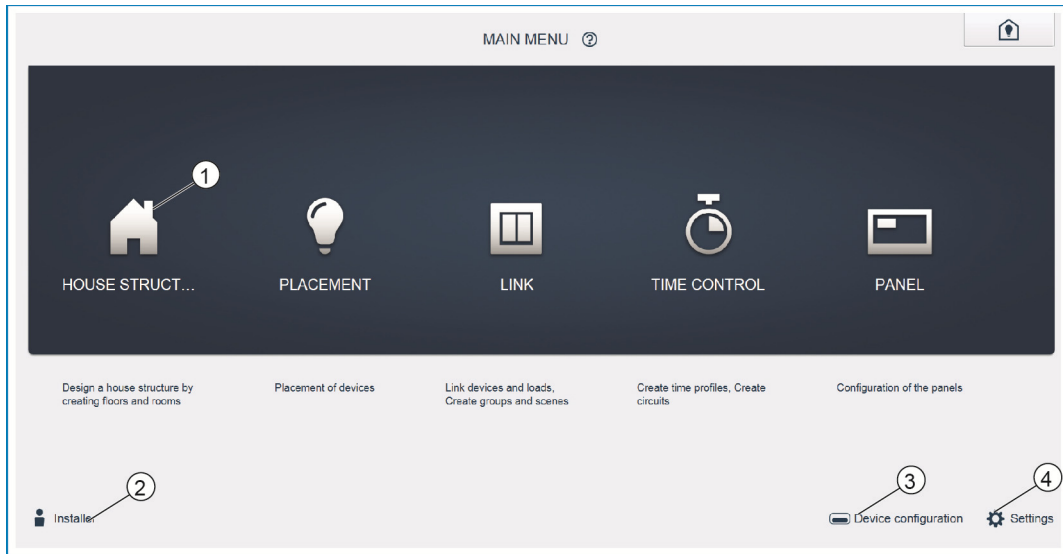The main menu is the starting base for all the steps to follow.

Fig. 13: Main menu

[1] Menu items
[2] Logged-in user
[3] Menu "Device configuration"
[4] Menu "Settings"

Located in the central area are the menu items [1] that are to be processed step by step (from left to right) for the configuration. Since the steps follow each other consecutively, they remain deactivated until the preceding step has been executed.

The logged-in user [2] is indicated at the bottom left.

Also the menus "Device configuration" [3] and "Settings" [4] can be reached via the main menu.

7.7   Setup of the working area

The working area of menu items "House structure", "Placement" and "Linking" is divided into two areas: the floor plan (working area) on the left side and the list view on the right side.

Fig. 14: Working area

[1] Floor plan (working are)

[2] Enlarge/Reduce

[3] List view

Each area can be enlarged or reduced via the title bar [2].

All actions can be carried out both in the floor plan [1] and in the list view [3]. If a change is made in the floor plan [1], this change is also made in the list view [3] and in reverse.

Both areas represent different views of the same configuration. While the floor plan displays the graphical view and allows operation via drag-and-drop, the list view offers a clear tabular view.

7.8   Creating the house structure

The first step of the configuration is the creation of the house structure.

Here a digital image of the apartment or the house with all its floors and rooms is created. This information is used during the next step to allocate the devices available in the house to a function and to their mounting position. After commissioning has been completed the floor plan here created is also used for the visualization of the installation and as orientation for the switchable loads.

> **Note...**
> If devices are also to be switched outdoors, e.g. lights on the terrace or in the garden, you should create a "Terrace" or "Garden" room, to be able to position the devices there.

> **Note...**
> Detailed descriptions are available in the online Help in each of the individual pages under button '?'.
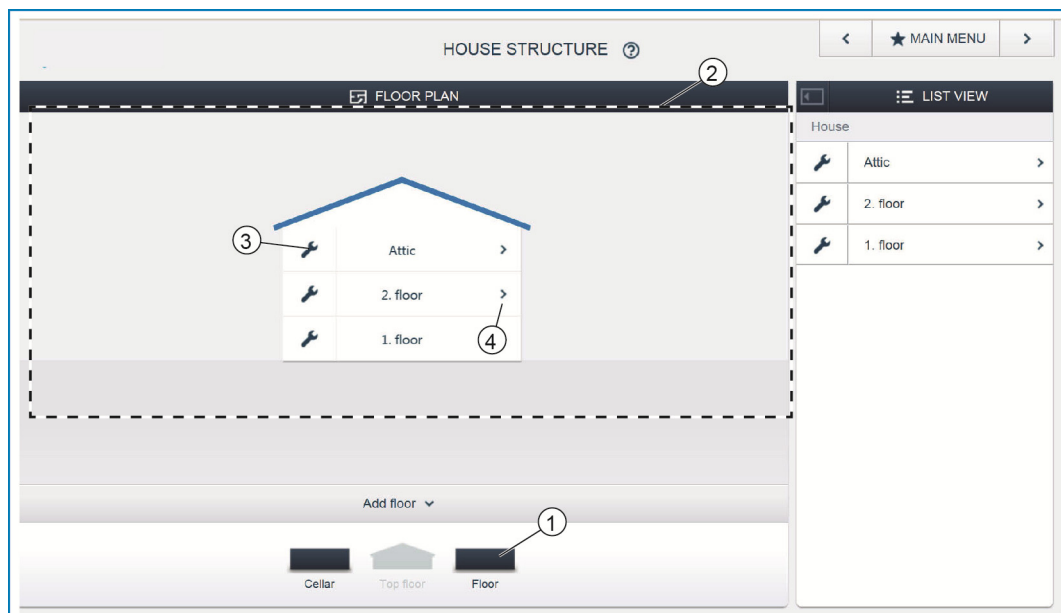

Fig. 15: View of floors

»   Pull the desired floor icon [1] onto the working area [2] via drag-and-drop.

To rename the floor:

»   Click on the spanner icon [3].

- The selected floor is displayed in the list view and can be renamed there.

To add rooms to the floor:

»   Click on the arrow icon of the desired floor [4].

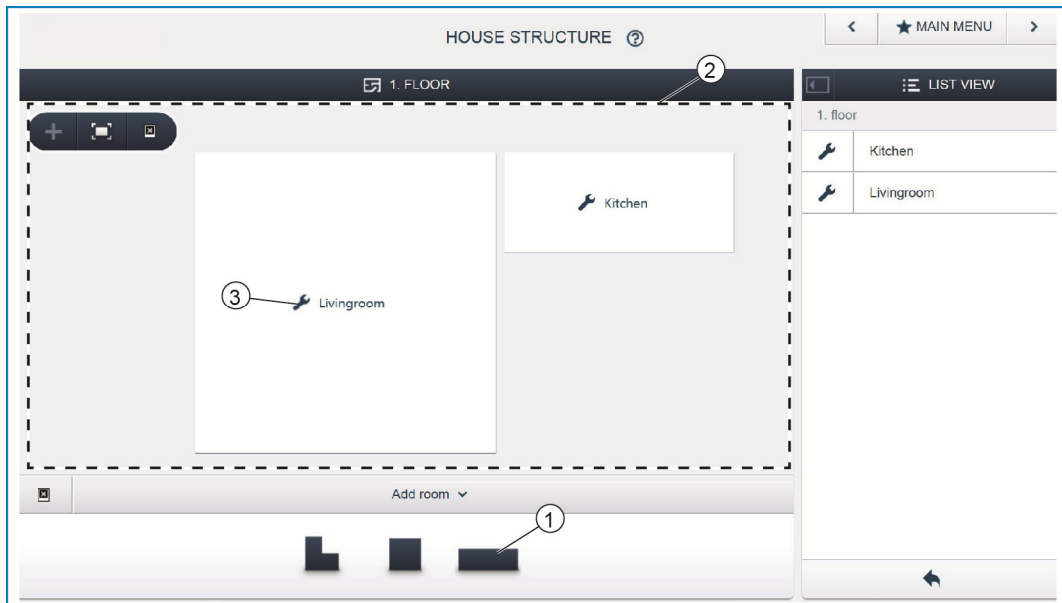- The floor plan of the selected floor is displayed in the working area.

Fig. 16:Floor plan of the floor

» Pull the desired room icon [1] onto the working area [2] via drag-and-drop.

To rename the room:

» Click on the spanner icon [3].
- The selected room is displayed in the list view and can be renamed there.

7.9 Allocating devices to rooms

In the next step the devices connected to the system must be identified, i.e. they are allocated to a room according to their function and are given a descriptive name.

> **Note...**
> The "Add device" bar displays only those applications that are actually connected to the system.
>
> They are only displayed until the devices have been moved on the floor plan via drag-and-drop. This means that the list keeps getting shorter as the devices are being positioned.
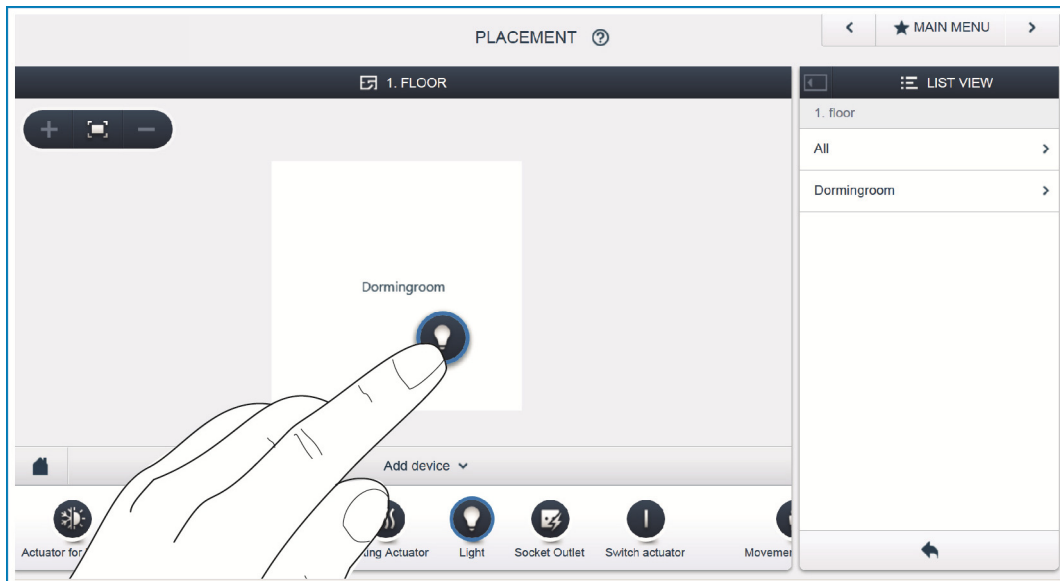
Fig. 17: Adding device

» In the "Add device" bar select the desired application and pull it via drag-and-drop onto the floor plan in the working area.
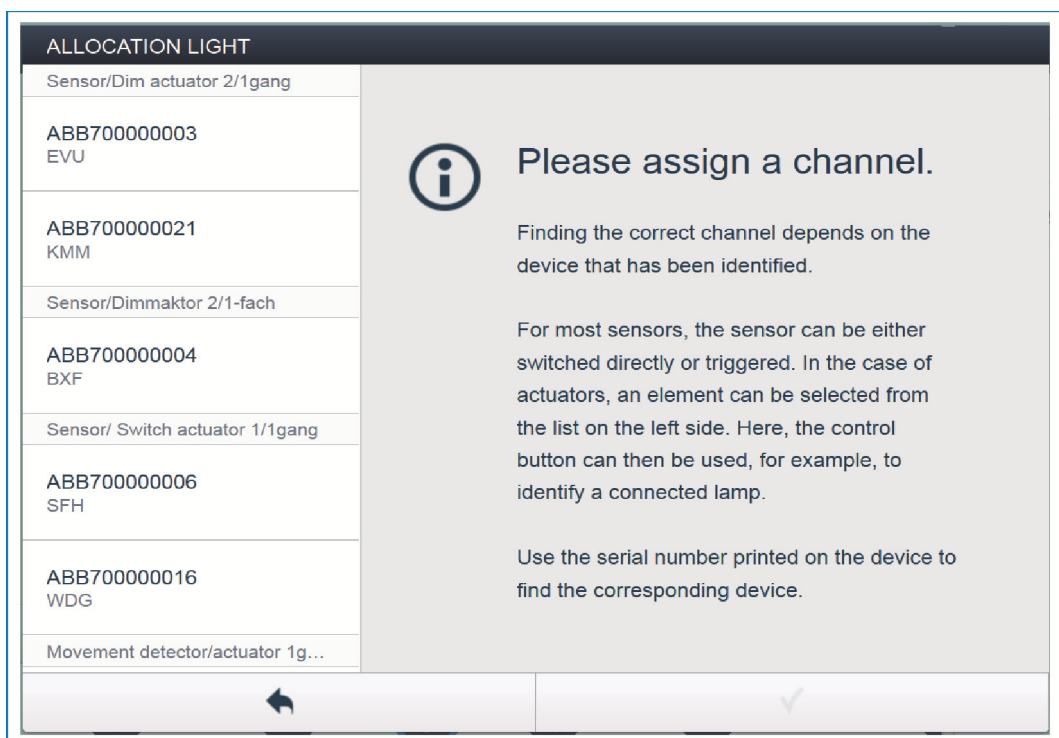

Fig. 18: Allocation

- A pop-up window opens automatically which lists all the devices suitable for the application selected.

If after positioning on the floor plan there are several possible devices in the pop-up window for selection, the device which switches the desired function must now be selected.

The desired device can be identified in 3 ways.

7.9.1   Identification of devices

Identification via serial number

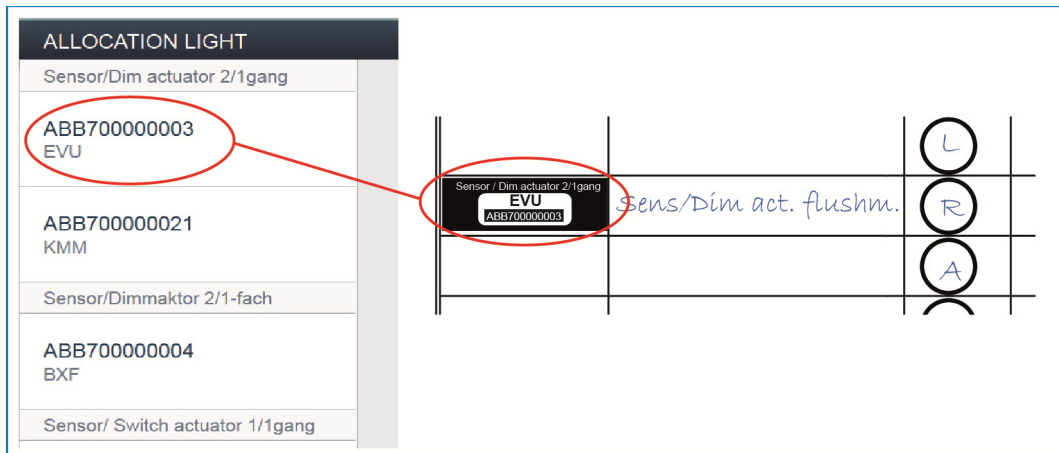*Fig. 19 Identification via serial number*

»   Compare the short 3-digit number of the identity label, which should be glued to the device plan, with the numbers in the list and in this way identify the device you are searching for and, if necessary, also the channel.

Identification via switching (only suitable for actuators)

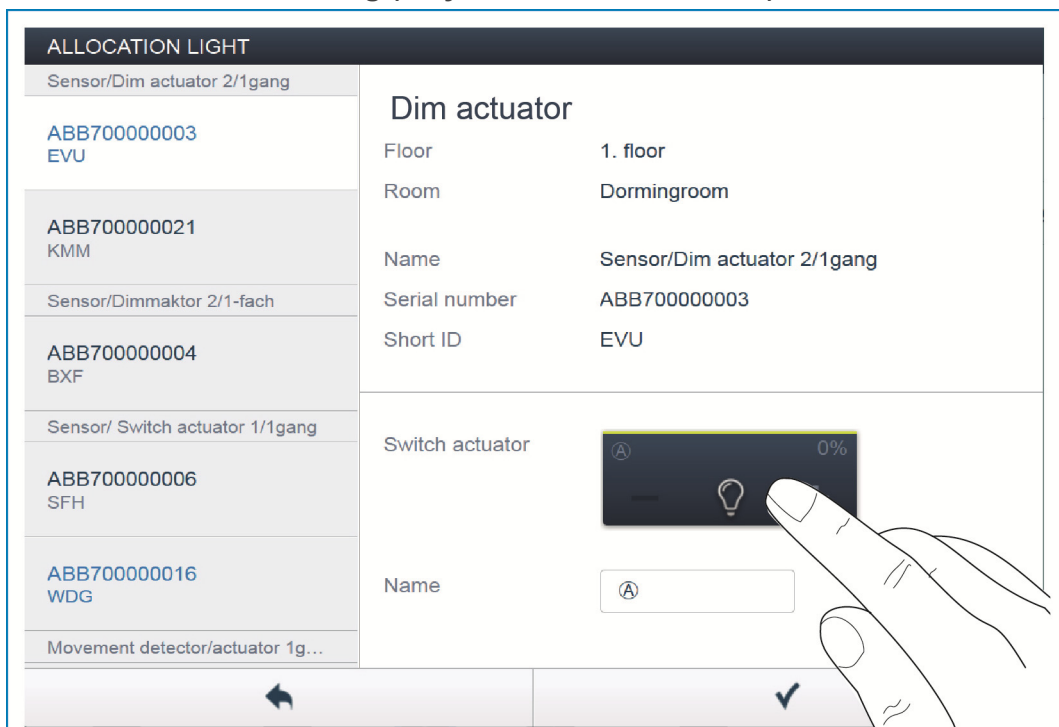*Fig. 20 Identification via switching*

»   Select a device and a channel from the list.
»   Press the button in the detailed view of the device.
-   The connected load is switched.
»   Continue until you have found the device you are looking for.

Identification via local operation

Fig. 21 Identification via local operation

» Go to the device that is to be linked with the selected application.

» Press the "Ident" button on the device.

- The associated device is selected automatically. In case an actuator has several channels you now need to select the correct channel.

7.9.2 Assigning a name

Fig. 22: Assigning a name

» Enter a name that is easy to understand and under which the application is to be displayed later (e.g. "Ceiling light").

» Press the tick at the bottom right to take over the entry.

7.10   Setting options per channel

General settings and special parameter settings can be made for each channel.
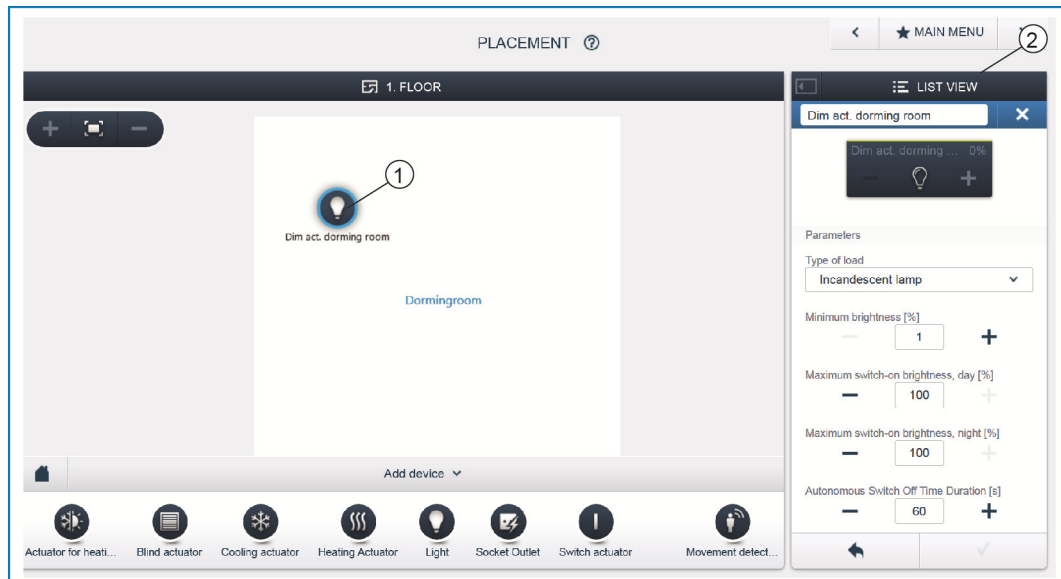
Device selection

Fig. 23: Device selection

» Select the device icon [1] in the floor plan of the working area view.

- All setting options for the respective channel are displayed in the list view [2].

Note...
The possible parameter settings of the individual devices are available in the technical manual of the respective device.

7.11   Linking

The sensors and actuators created in step "Allocation" can now be linked to implement simple ON/OFF circuits, two-way circuits, scenes, and many more.

7.11.1   Connecting actuator and sensor
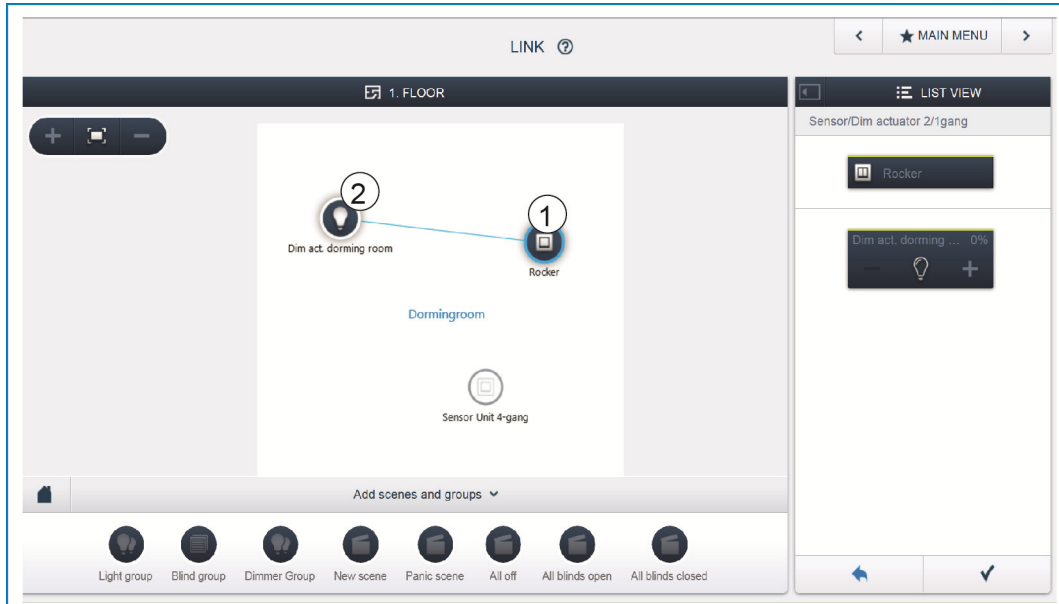
Fig. 24: Connecting actuator and sensor

» To connect an actuator with a sensor, first click on the desired sensor [1] which is to operate the actuator and then on the actuator [2].

» Press the tick at the bottom right to take over the entry.

- A blue connecting line indicates the link between the two devices. The configuration is now transmitted automatically to the devices. The transmission can (depending on the number of affected devices) take a number of seconds. During the transmission a progress bar is displayed around the devices affected.

- After the transmission has been completed the sensor can be operated directly locally.

7.11.2 Switching options

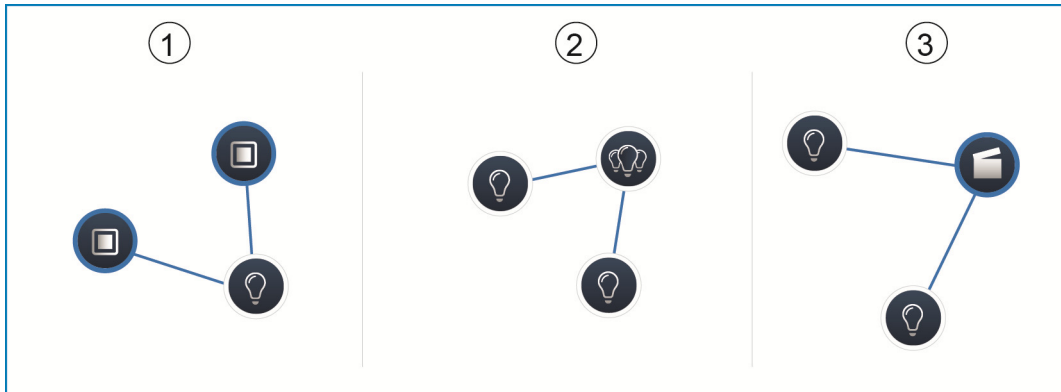Several switching options are available.

Fig. 25: Switching options

[1] Two-way circuit
[2] Group circuit
[3] Scene

Two-way circuit [1]

An actuator is connected with one or several sensors.

Group circuit [2]

Several actuators of the same type (e.g. all the lights in a corridor, all roller blinds of a room) are combined in a group. The group acts like a single actuator and can be connected with sensors or integrated into scenes (at ON all actuators of the group switch on, at OFF they all switch off).

Scene [3]

A scene creates a state that can be defined by the user. This, for example, allows the user to create a "TV" scene that dims the living room light, switches off the lights in the corridor and dips the blinds.

Scenes cannot be switched ON or OFF. When a scene is called up, it is always the pre-defined state that is restored. The states of the participants in a scene can be defined when the scene is created. A created scene can also be linked with a sensor to enable it to be switched locally.

7.12   Time control

All programmed devices and scenes of the system can be switched automated via the timer.

○   Note...
Detailed descriptions are available in the online Help in each of the individual pages under button '?'.

7.12.1 Time profiles

A time profile defines a collection of switching times. Several time profiles can be created and switched active / inactive independent of each other (green tick = time profile active -> saved switching actions are executed).

This, for example, allows separate time profiles for controlling blinds and lighting to be created, to obtain a better visual clarity. Or a special holiday profile can be created, which you only activate during your absence.
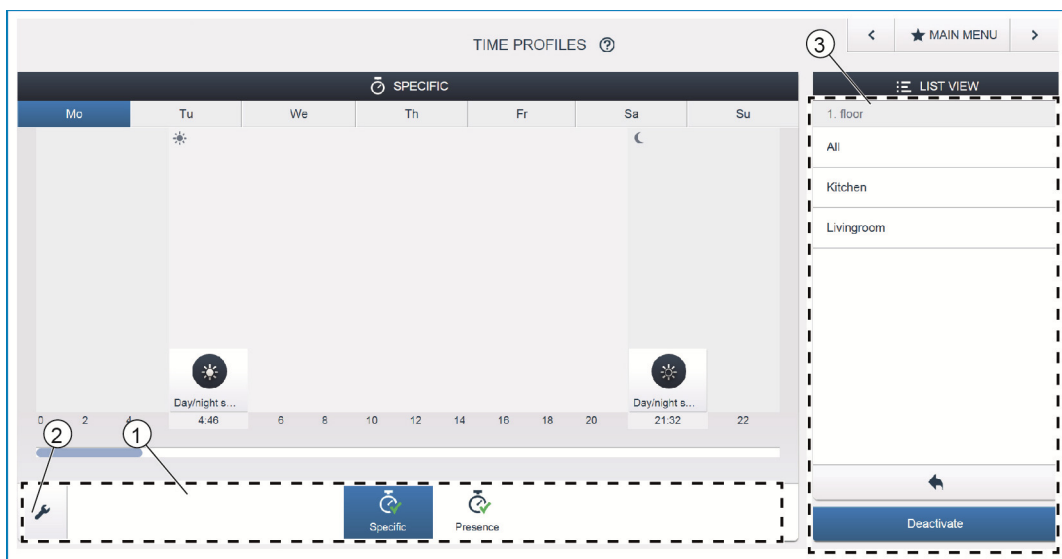

Fig. 26: Time control - profile view

[1] Overview of profiles
[2] Spanner icon
[3] List view

All time profiles are displayed in the profile view [1]. When selecting a profile, all switching times for devices and scenes stored in this profile are indicated on a timeline in an overview display.

Additional profiles can be created and existing ones renamed or deleted via the spanner icon [2].

»   First select the profile you wish to edit and then click on the spanner icon [2].

»   Contents from the profiles that have already been created can be taken over into the currently active profile via the arrow icon in the editing mode.

Two profiles have already been created in the factory settings:

» Base profile,
» Presence profile.

Base profile

The base profile can be freely edited. It already contains the object "Day/night switchover" in astro mode.

The day/night switchover serves the control elements and the dimmers as switchover time between bright and dark for the status LED, and the switch-on brightness (settable in the parameters of the control element, and the dimmer).

Example of application: The light in the corridor is not to switch on with 100% brightness after 11 p.m., but with the reduced brightness of 40%.

Or: The light for orientation of the sensors in the bedroom is to be switched off after 11 p.m.

Presence profile

The presence profile is a special time profile with which presence simulation can be implemented. The timeline of the presence simulation is filled with the desired switching actions, the same as a normal time profile. However, no switching time needs to be defined.

Instead, the switching times are filled automatically with historical data of what actually took place. It presents an image of customary use. All the events of the last 7 days are stored in the historical data. What is not stored are events that were switched on and off in quick succession. The presence simulation can be edited, activated and deactivated the same as all other time profiles. Additional switching events can be added or certain events deleted.
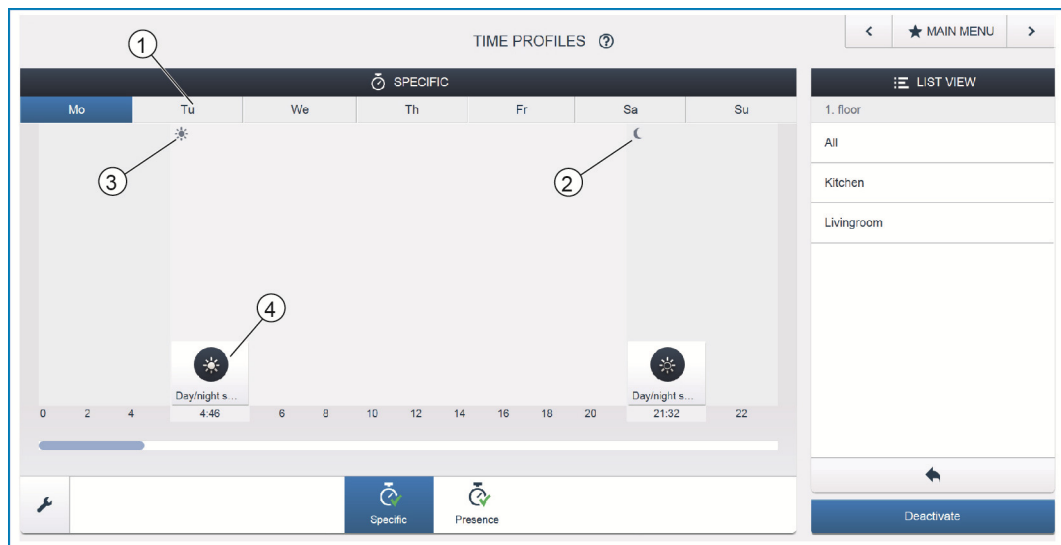
7.12.2 Timeline

Fig. 27: Time control - Timeline

[1] Timeline

[2] Sunset

[3] Sunrise

[4] Switching event

The timeline [1] displays all the switching times of a selected weekday. Switching actions that take place at the same time are displayed stacked.

The sun and moon icons indicate the time for sunrise [3] and sundown [2].

The selection of a certain switching event [4] changes the view to a detailed view.
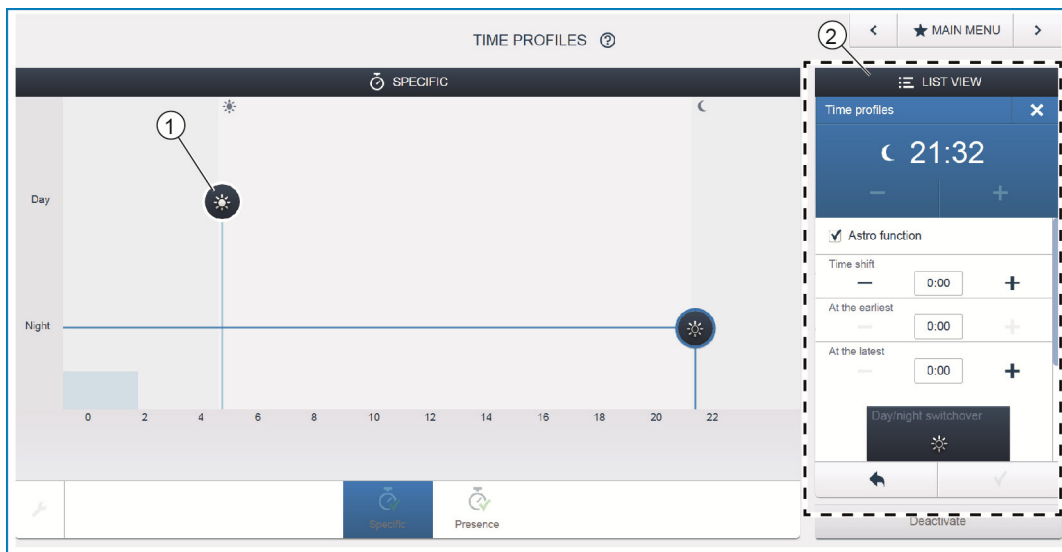
7.12.3 Detailed view

Fig. 28: Time control - Detailed view

[1] Timeline (Detailed view)

[2] List view

In the detailed view the switching time can be adjusted either by shifting a marked icon in the timeline [1] or via settings in the list view [2].

Also the weekdays can be defined at which the event is to be repeated, or the circuit can be activated via the astro function. Switching times can be linked with the times for sunrise and sunset via the astro function.

List view

All devices and scenes that have been programmed can be selected via the list view [2]. They are sorted there according to their mounting position. These devices can be positioned on the timeline [1] via drag-and-drop to define the switching times.

7.13   Panels

In the panel configuration the buttons of the free@home Touch 7" and the favourites bar (visible in the operating view of the app) can be freely equipped. All panels installed in the system, as well as the favourites bar, can be selected from the bottom selection bar.

Important: Only panels appear that have been previously positioned on the floor plan under commissioning step "Placement"!

The allocated actuator channels can be positioned on the panel via drag-and-drop from the list view. After the confirmation the configuration is taken over and becomes visible on the device after a few seconds.

Note...
Detailed descriptions are available in the online Help in each of the individual pages under button '?'.

7.14   Additional general settings in the System Access Point

System information

Information about the current software version status.

Network

Here the network settings of the System Access Point can be programmed. Possible settings:

»   LAN client - Used when the System Access Point is connected to the Internet router via network cable.

Note: This mode is activated automatically when the access point mode is deactivated (LED of the left button is off).

»   WLAN client - Used when the System Access Point is connected to the Internet router via WLAN.

User

Here additional users can be created, deleted or access rights changed. The system differentiates between 3 types of users with different access rights:

»   User 'Fitter'

Has all access rights (Master reset, creation of data protection).

»   User 'Configuration'

Cannot make changes critical to the system (changing settings related to the bundling of channels for dimmers, re-configuring of binary inputs).

»   User 'Operation'

Cannot make changes to the system, but only operate the devices.

General

Here the setting of the system name, the system language, the location and the time is carried out.

Data backup

The data backup stores all the settings made. It is first backed up on the internal memory of the System Access Point, but it can also be exported. The data backup is created automatically at regular intervals, but it can also be created manually. Data backups that have been created by user type "Fitter", can be restored by other users, but cannot be deleted by them.

Service

Loads the current firmware to the free@home devices. This only necessary if the update of the devices was rejected during the update dialogue (see also chapter 8).

Master reset

Resets all free@home devices connected to the bus to the factory settings. All data backups, user data, floor plans and time programs are retained.

Reset database

Resets the System Access Point completely or partly to the factory settings. The selection of the parameters to be reset is made in the pop-up window.

8   Updating options

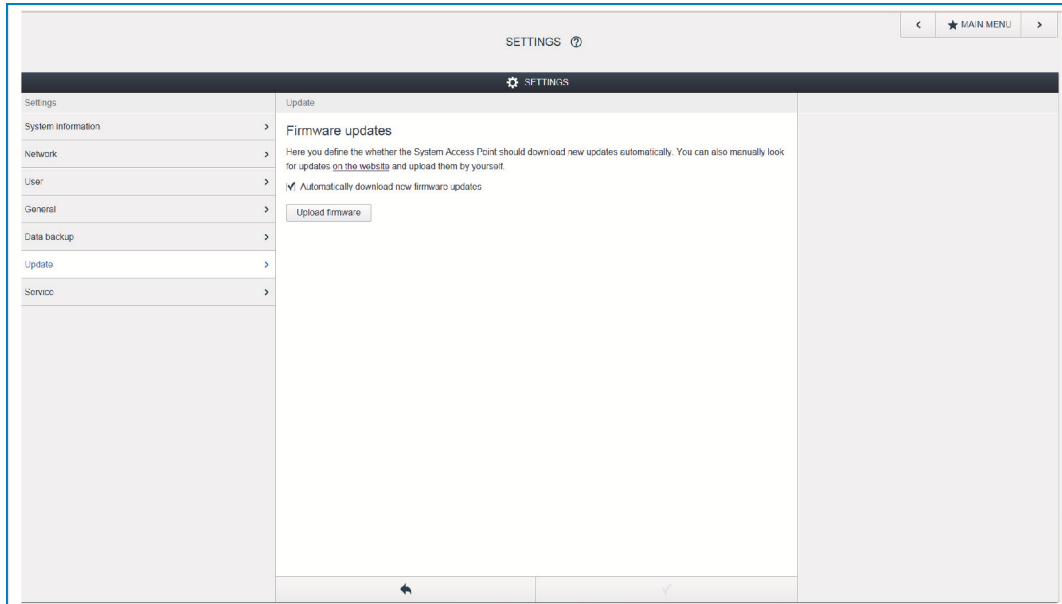A firmware update is carried out via the device settings of the Web-based user interface of the System Access Point.

Fig. 29: Firmware update

Upload firmware

A firmware update of the System Access Point and the free@home devices is carried out by pressing button "Upload firmware". The update file contains both the updates of the System Access Point as well as the updates for all system devices. The update consists of four steps:

[1]   Upload of the firmware to the System Access Point - takes place automatically after the update file has been selected.

[2]   Processing the firmware - takes place automatically after the successful update. The process can take a few minutes.

[3]   Installing the firmware - takes place after confirming the update dialogue. The update takes a few minutes. After the update has been carried out successfully, the System Access Point restarts. This could lead to the website in the Internet browser continuing to indicate an ongoing update process. An update of the website (F5 key) rectifies the problem.

[4]   Firmware update of all free@home devices connected to the bus - after confirming the update dialogue all free@home devices connected to the bus are updated automatically. The update is always carried out simultaneously on two devices and can be recognized by the mutual flashing of the LEDs. The process takes approximately 2 minutes for each device. The system can be operated as usual during the update.

9   Operation

9.1   Control and display elements
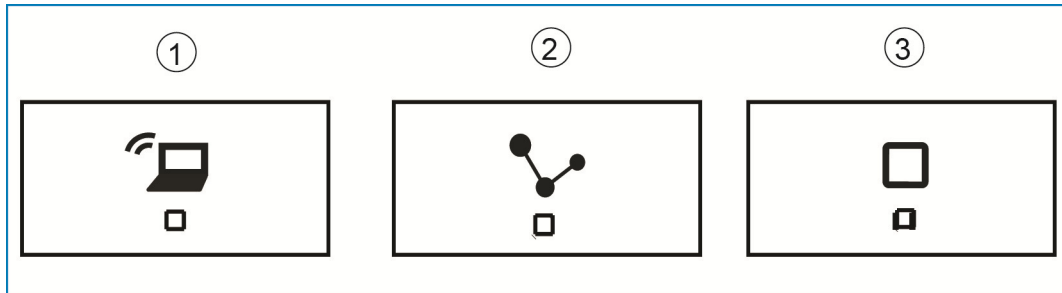

Fig. 30: Control and display elements

[1] Access point button
[2] Connection display
[3] Operating display

Access point button

» Function button: Button operation switches the access point mode On/Off

» LED Status: On = access point mode ON; Off = access point mode OFF

Connection display

» Function button: No function

» LED Status: On = connection with LAN/WLAN; Off = no connection with LAN/WLAN; Flashing = attempting to connect

Operating display

» Function button: No function

» LED Status: On (50%) = voltage is applied, device is booting; On = device is ready for operation; Off = no voltage; Flashing = fault

9.2   Master reset without access to Web-based user interface

A master reset is carried out as follows:

» Lift the cover off the System Access Point.

» Briefly press the reset button (above the bus connection terminal).

» During the boot-up process, which starts now, simultaneous press all three buttons until all three LEDs light up. This can take up to a minute. The System Access Point is then back to its factory settings.

10   Maintenance

The unit is maintenance-free. In case of damage (e.g., during transport or storage), do not perform repairs. Once the unit is opened, the warranty is void!

Access to the device must be guaranteed for operation, testing, inspection, maintenance and repairs (according to DIN VDE 0100-520).

10.1   Cleaning

Dirty units can be cleaned with a dry cloth. If this is not sufficient, a cloth slightly moistened with a soap solution can be used. Caustic cleaning agents or solvents must not be used.

ABB-free@home®

A member of the ABB Group

Busch-Jaeger Elektro GmbH
PO Box
58505 Lüdenscheid

Freisenbergstraße 2
58513 Lüdenscheid

www.BUSCH-JAEGER.com
info.bje@de.abb.com

Central sales service:
Tel.: +49 2351 956-1600
Fax: +49 2351 956-1700

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