

ABB-Welcome

83220-SM-xxx-500
83220-SM-xxx-515
ABB-WelcomeTouch



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1 Safety



Warning

Electric voltage!

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

- Work on the 230V supply system may only be performed by authorised electricians!
- Disconnect the mains power supply prior to installation and/or disassembly!

2 Intended use

The ABB-WelcomeTouch 83220-SM-xxx-500 is an integral part of the ABB Welcome door communication system and operates exclusively with components from this system. The device must only be installed in dry indoor rooms.

3 Environment



Consider the protection of the environment!

Used electric and electronic devices must not be disposed of with domestic waste.

- The device contains valuable raw materials which can be recycled. Therefore, dispose of the device at the appropriate collecting depot.

3.1 ABB devices

All packaging materials and devices from ABB bear the markings and test seals for proper disposal. Always dispose of the packaging material and electric devices and their components via the authorized collecting depots and disposal companies.

ABB 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 ordinance and law for the implementation of the ordinance (EG) No.1907/2006)

4 User Manual

Detailed information for planning ABB-Welcome systems is contained in the user manual. Download at www.Busch-Jaeger.com.

5 Operation

5.1 Standard operation

5.1.1 Control elements

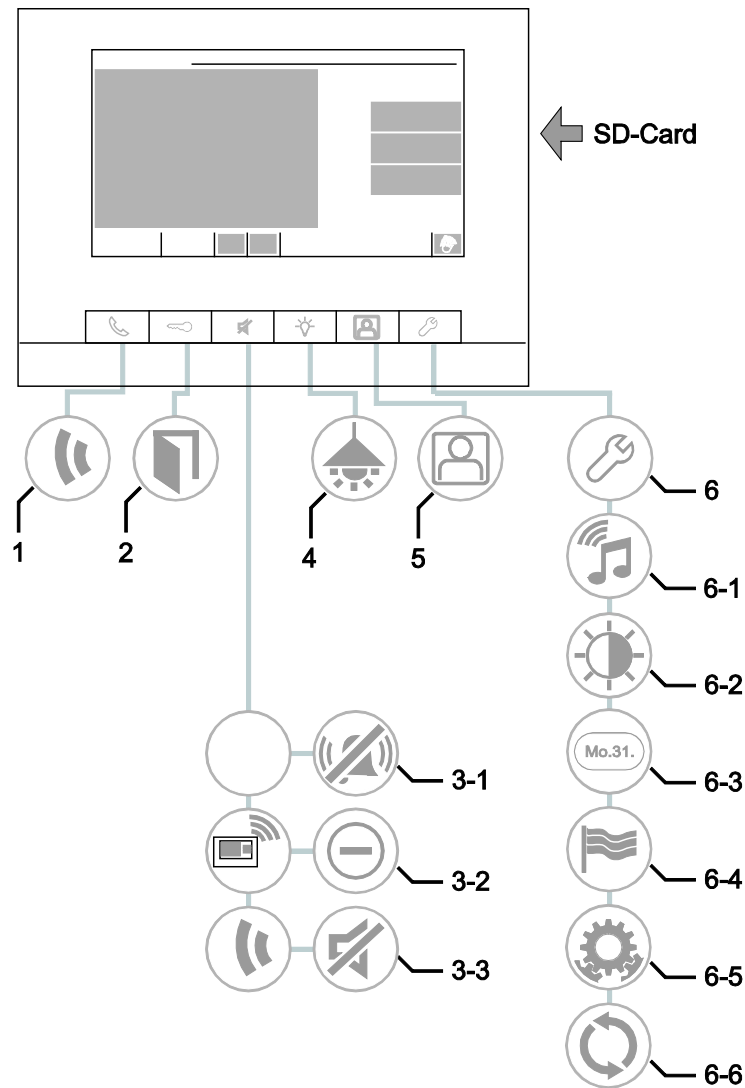


Fig. 1: Overview of control buttons

No.	Function
1	Press this button accept a call.
2	Press this button to open the door.
3-1	Press this button to deactivate the doorbell.
3-2	While a call is pending, this button has the "reject call" function. - Press this button reject a call.
3-3	During the conversation the button has the "mute" function. Press on this button to activate the mute function. – The party at the other end cannot hear you. - Press the button again to continue the conversation.
4	Press this button to switch on the lighting.
5	Press this button to display the events and picture memory / history.
6	Press this button to change to "Settings". – Setting nos. 6-1 to 6-6 are available on the touch screen.
6-1	• The ring tone volume
6-2	• The brightness of the display
6-3	• The time and date
6-4	• The language
6-5	• Door Entry System
6-6	• Firmware update

5.1.2 Welcome screen and status bar

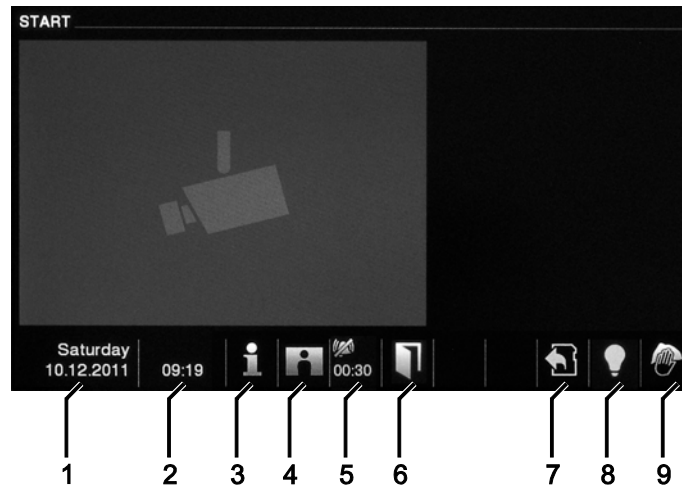


Fig. 2: Status bar

No.	Function
1	Current date - Set the date by touching the button.
2	Time - Set the correct time by touching the button.
3	System information - Call up the address (number of the indoor station) of this panel and the current hardware and software information by touching the button.
4	History - New information is available in History (events and picture memory) when this icon flashes. E.g., a missed call. - Display the events and picture memory by touching the button.
5	Mute function - The icons "crossed-out handset" and "crossed-out bell" indicate the mute function of the microphone or the loudspeaker of the panel.
6	Open entrance door - The "Open door" icon is displayed when you press the door opener or activate the function "Automatic door opener".
7	SD card - The icon shows whether you have inserted an SD card.
8	Light - The icon is shown when you have switched the light directly from the panel.
9	Cleaning blockage - The icon is shown when the display is blocked to prevent functions being triggered during cleaning.

5.2 Control actions

5.2.1 Setting up the voice and video connection



Fig. 3: Setting up the voice and video connection

The following functions are available for setting up the voice and video connections (pressing the handset button):

No.	Function
1	Designation of camera
2	Set the volume by touching the respective buttons (plus and minus).
3	If several outdoor stations or external cameras are connected: – Select the camera by touching the respective buttons (forward and back).
4	Set the display by touching the respective buttons. <ul style="list-style-type: none">• Saturation of the display (plus and minus)• Contrast of the display (plus and minus)

5.2.2 Opening the door



Fig. 4: Opening the door

When activating the door opener (by pressing the key button), the following function is available:

No.	Function
1	The "Open door" icon is displayed when you press the door opener or activate the function "Automatic door opener".

5.2.3 Muting

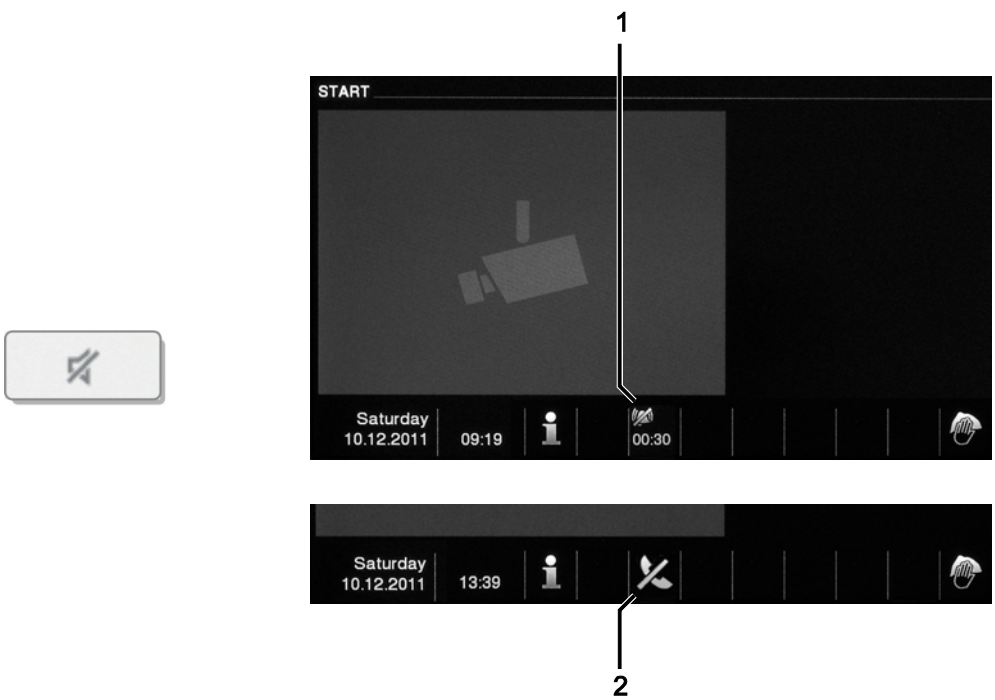


Fig. 5: Mute function (mute timer)

The following functions are available for muting (mute timer):

No.	Function
1	No call is pending: If you press the "Mute function" while no call is pending the bell sound of the panel is deactivated for a certain period. - If calls come in during this time, only the video image is displayed. - Missed calls are displayed in the events and picture storage.
2	A call is pending: If you press the button "Mute function" during a call, the microphone of the panel is deactivated until the button is pressed again.

5.2.4 Switching the light

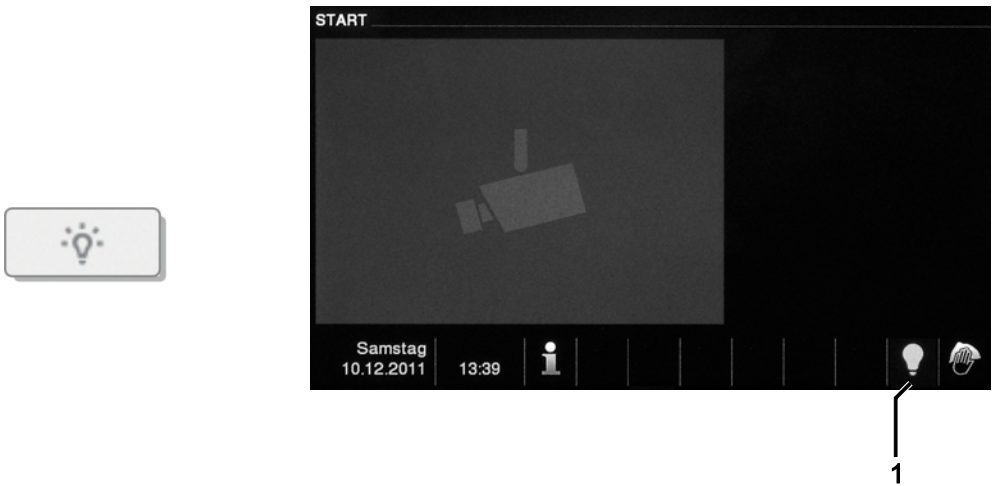


Fig. 6: Switching lights

When activating the light switch, the following function is available:

No.	Function
1	The "Light" icon is displayed when you press the button "Switching lights".

5.2.5 Events and picture memory / history

The panel records all events. Pressing the "History" button displays the last 100 events (prior events are overwritten).

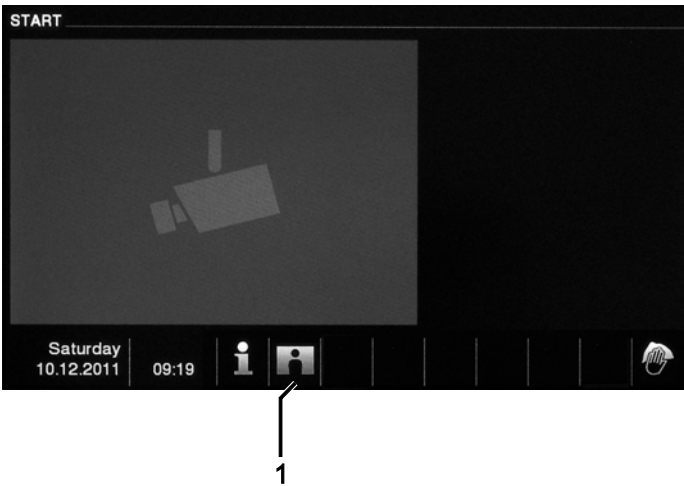


Fig. 7: Events and picture storage / history

No.	Function
1	<div>If you have activated the function "Auto snapshots activated" in the system settings, the flashing icon in the status bar signals a newly taken snapshot.</div> <div>- The symbol stops flashing when you call up the events and picture storage.</div>



Fig. 8: Events and picture storage / history

During a call you can take a snapshot at any time by pressing the "History" button, even when the "Automatic snapshots" function is not active.

The following functions are available for the "Events and picture storage /history" function.

No.	Function
1	If you have activated the system setting "Automatic snapshots", a miniature view is displayed in the events list when incoming calls are missed. <ul style="list-style-type: none">- Date, time and the type of the event are recorded together with the snapshot.- If no automatic snapshots are active, a camera icon is displayed in the miniature view.
2	Individual entries or the entire list can be deleted at any time. <ul style="list-style-type: none">- Snapshots which you would like to archive can be copied on an inserted SD card (SD, SDHC).
3	Three pictures are always made when a visitor rings the bell. This ensures an optimum snapshot. <ul style="list-style-type: none">- All recorded pictures are called up via the detail view.
4	Display of the detail view of a record
5	Select the event by touching the respective buttons (forward and back).
6	Select the single picture by touching the respective buttons (1 to 3).

5.2.6 Inserting the SD card

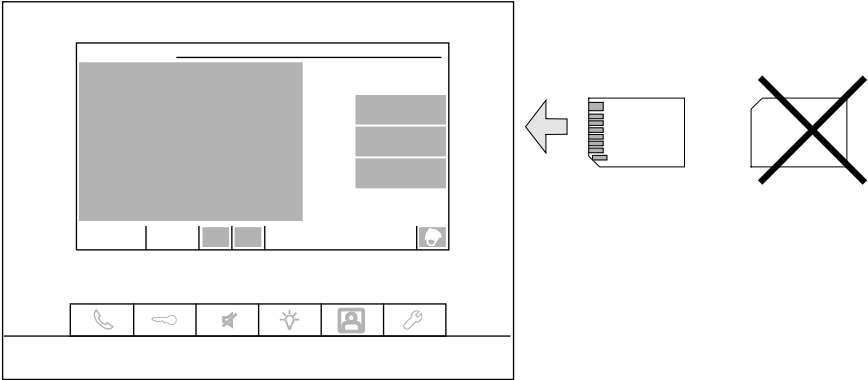


Fig. 9: Inserting the SD card

5.2.7 Settings
5.2.7.1 Overview

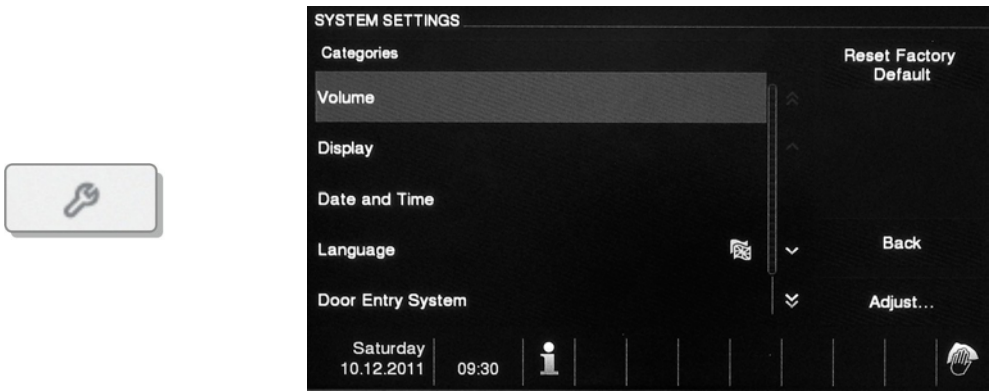


Fig. 10: Overview of settings

The following areas are available when touching the "Settings" button:

No.	Function
1	Volume – The volumes of the bell sounds
2	Display – Different display settings
3	Date and time – Different time settings
4	Language – The local language
5	Door Entry System – Different system settings, e.g bell sounds
6	Firmware update

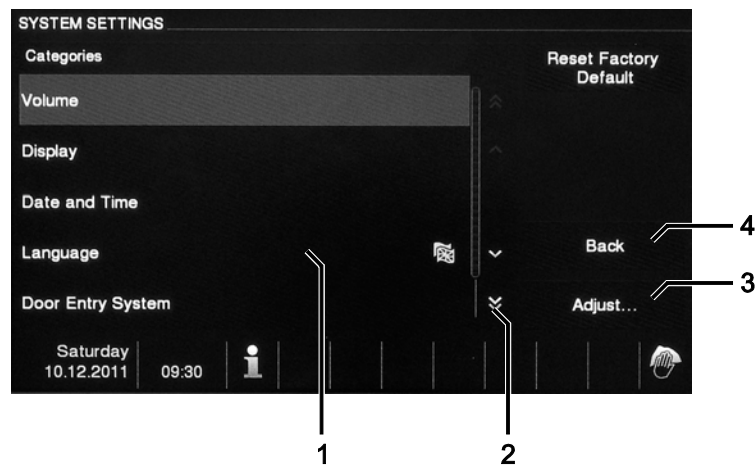


Fig. 11: Settings

To change into the settings areas of the list field (1), carry out the following steps:

1. To display the hidden functions, tip on the scroll buttons (2).
2. Touch one of the setting areas.
3. Touch the button "Set" (3).
 - The device changes to the setting area selected.
 - The individual functions are described in the following chapters.
 - The device changes back to the start page via button "Back".

5.2.7.2 Volume

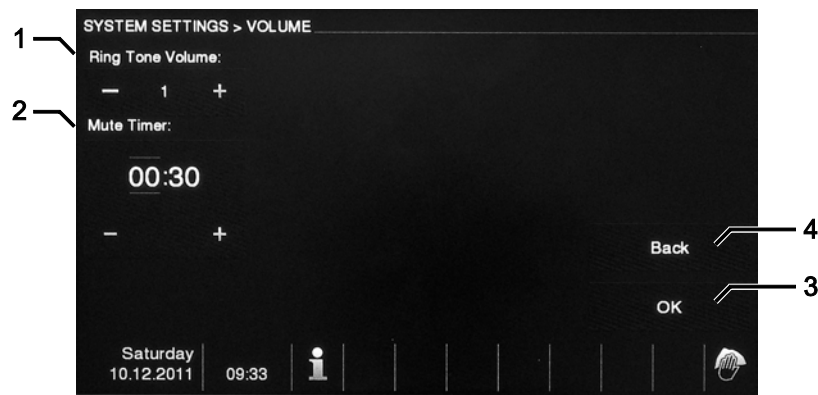


Fig. 12: Setting the volume

When changing to "Volume" the following functions become available:

No.	Function
1	Bell-sound volume – Set the volume of the bell sound via the "Plus / minus" buttons.
2	Mute timer - Use the "Plus / minus" buttons to set the time of the mute function which you activate via the "mute" button. – Before the adjustment tip on ""Hours" or "Minutes". The active range is marked with a frame.
3	OK – By tipping on this button you activate the settings.
4	Back – By tipping on this button you return to the start page without saving the settings.

5.2.7.3 Display

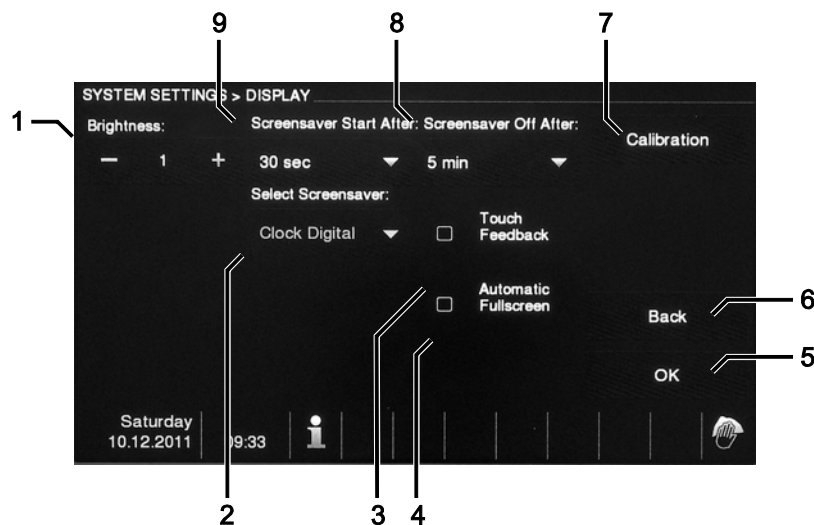


Fig. 13: Display settings

When changing to "Display", the following functions become available:

No.	Function
1	Brightness - Set the brightness of the display via the "Plus / minus" buttons.
2	Screen saver - The display is preset as digital clock - If an SD card with suitable pictures is located in the device, you can select a screen saver via the fold-down menu. If several pictures are stored on the SD card they are displayed as a slide show. Slide show (electronic picture frame) - Each picture appears for 20 seconds. Picture requirements: - The pictures must be stored on the SD card in directory "DCIM" (Digital Camera Images) on the first level. - The maximum admissible size of the picture is 2048 x 1960 pixel. - The maximum admissible resolution of a picture is 800 x 480 pixel. - The resolution of the display is 800 x 600. Larger pictures will be reduced to this resolution. - The format supported is "jpg".
3	Touch feedback - By tipping on the checkbox you activate or deactivate the feedback tone which sounds when the display is touched.
4	The entire screen - Activate or deactivate the full-page mode of the door camera by tipping on the checkbox. The full-page mode remains active for the period the picture of the visitor is shown after the door bell has been rung.
5	OK - By tipping on this button you activate the settings.
6	Back - By tipping on this button you return to the start page without saving the settings.
7	Calibration - If the buttons and the associated graphics of the display are no longer superimposed, the monitor must be calibrated. - Tip on the calibration button and then consecutively on the 5 displayed position crosses. Finally confirm the dialogue box displayed. The display has been calibrated.

8	<p>Screen saver Off</p> <ul style="list-style-type: none">– Select the active period for the screen saver via the fold-down menu until it switches itself off automatically.– Available are 5 / 15 / 30 minutes.– To protect the display the maximum period for the display is limited to 30 minutes.
9	<p>Screen saver On</p> <ul style="list-style-type: none">– Select the start time for the screen saver via the fold-down menu.– Available are 30 / 60 / 120 seconds.

5.2.7.4 Date / time

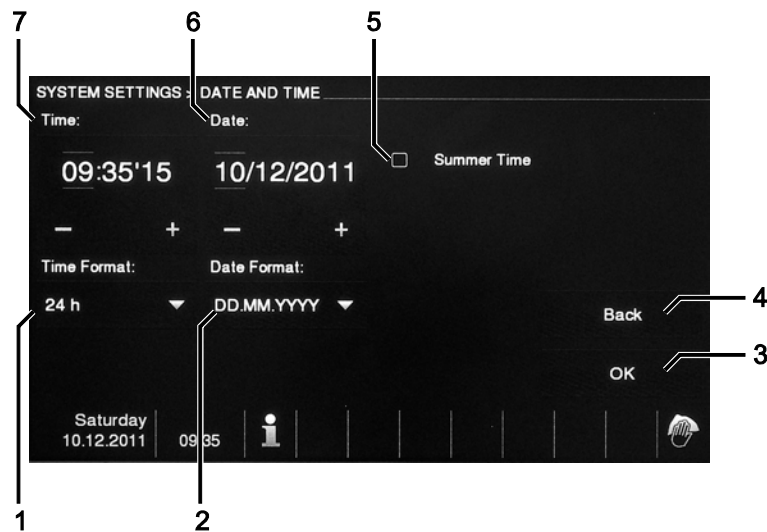


Fig. 14: Settings of the date and time

With the change to "Date and time" the following functions become available:

No.	Function
1	Time <ul style="list-style-type: none"> – Set the time via the "Plus / minus" buttons. – Before the adjustment tip on ""Hours", "Minutes" or "Seconds". The active area is marked with a frame.
2	Date <ul style="list-style-type: none"> – Set the date via the "Plus / minus" buttons. – Before the adjustment tip on "Day", "Month" or "Year". The active area is marked with a frame.
3	OK <ul style="list-style-type: none"> – By tipping on this button you activate the settings.
4	Back <ul style="list-style-type: none"> – By tipping on this button you return to the start page without saving the settings.
5	Summertime <ul style="list-style-type: none"> – Activate or deactivate the summertime by tipping on the checkbox (automatic switchover).
6	Time <ul style="list-style-type: none"> – Select the format of the displayed time via the fold-down menu. – Available are 12 h am/pm / 12 h / 24 h.
7	Date <ul style="list-style-type: none"> – Select the format of the displayed date via the fold-down menu.

5.2.7.5 Language

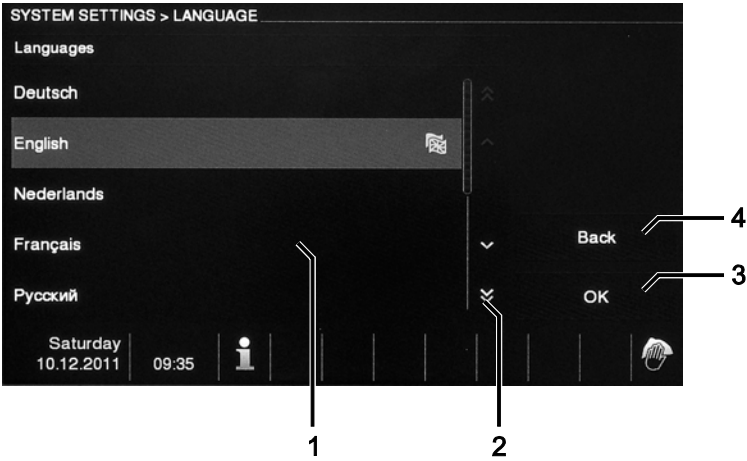


Fig. 15: Setting the language

When changing to "Language" the following functions become available:

No.	Function
1	Language (list field) – Here the languages available for selection are listed
2	Scroll – To display the hidden languages tip on the scroll boxes.
3	OK – By tipping on this button you activate the settings.
4	Back – By tipping on this button you return to the start page without saving the settings.



Foreign language is set

If a foreign language has been set, take the following steps for a reset:

1. Tip on the "Settings" button below the display.
2. In the list field of the "Settings" display (on the left in the display) tip on the 4th entry from the top (this entry is marked with a flag).
3. In the "Settings" display, tip on the button at the bottom right (adjust).
 - The device changes to the "Language" display.
4. In the list field (1) of the "Language" display (on the left in the display) tip on your language.
5. In the "Language" display, tip on the button at the bottom right (3) (ok).
 - The device changes the language.
 - The device changes back to the start page.

The language has been changed.

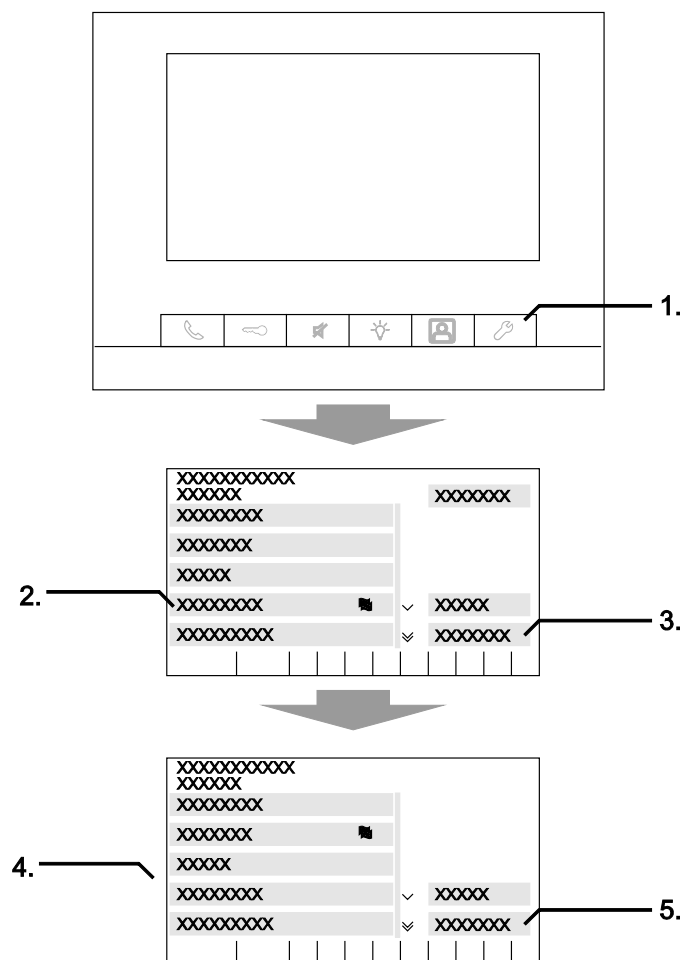


Fig. 16: Foreign language is set

5.2.7.6 Door Entry System

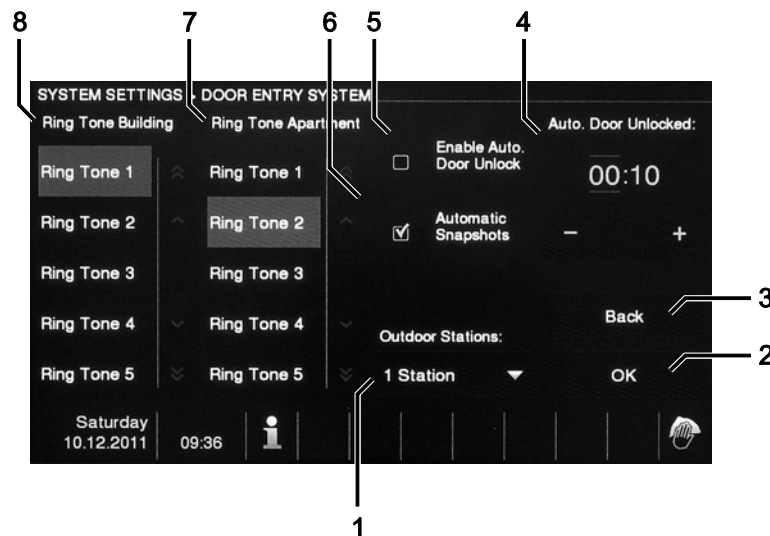


Fig. 17: Settings of the Door Entry Systems

**Information about the settings**

The settings always apply to all connected outdoor stations.

With the change to "Door Entry System" the following functions become available:

No.	Function
1	Outdoor stations – Select the number of available outdoor stations via the fold-down menu. – A maximum of 4 outdoor stations connected to the device are available.
2	OK – By tipping on this button you activate the settings.
3	Back – By tipping on this button you return to the start page without saving the settings.
4	Door opened automatically – Via the "Plus / Minus" buttons adjust the period the automatic door opener (5) is to be active. – Before the adjustment tip on "Hours" or "Minutes". The active range is marked with a frame.
5	Automatic door opener – The automatic door opener unlocks the door when the bell is activated. – Activate or deactivate the automatic door opener by tipping on the checkbox.
6	Automatic snapshots – When the bell is pressed, three snapshots are automatically stored in the History. – This function can only be activated when the automatic door opener is deactivated. Otherwise too many snapshots would be stored during busy periods.
7	Bell sound for apartment – Select the bell sound for the apartment door by tipping on one of the buttons in the list field. – While tipping on the button the melody of the bell sound is played.
8	Bell sound for the building – Select the bell sound for the front door by tipping on one of the buttons in the list field. – While tipping on the button the melody of the bell sound is played.

5.2.7.7 Firmware update

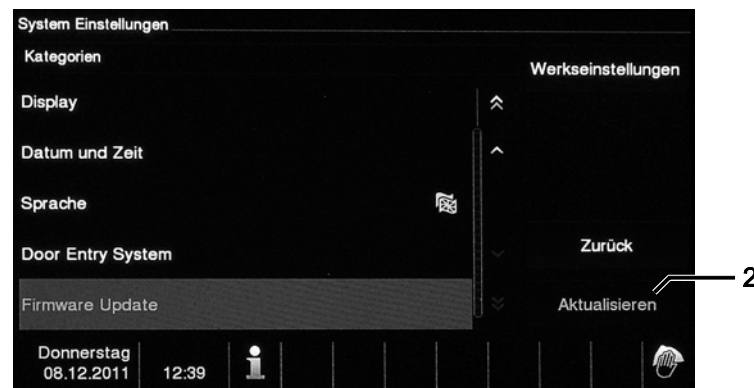


Fig. 18: Firmware update

The firmware updates are made available on the Internet at www.busch-jaeger.de.

If the firmware for your device is to be updated, carry out the following steps:

1. On page www.busch-jaeger.de enter the article number of the device in the "Search" section.
 - The page changes to the area of the device.
 - If an update for the firmware is available, it is ready for downloading in this area.
 - The package for downloading includes the firmware and instructions on how to install the firmware.
2. Install the firmware according to the downloaded instructions.

5.3 Cleaning

**Caution**

Risk of damage to the screen surface.

The screen surface can be damaged by hard or sharp objects!

Never use such objects for entries on the touch screen monitor.

- Use your finger or a plastic stylus.

The screen surface can be damaged by cleaning fluids or abrasive agents!

- Clean the surfaces using a soft cloth and commercially available glass cleaner.
- Never use abrasive cleaning agents.

5.4 Adjusting the device

5.4.1 Terminal resistor

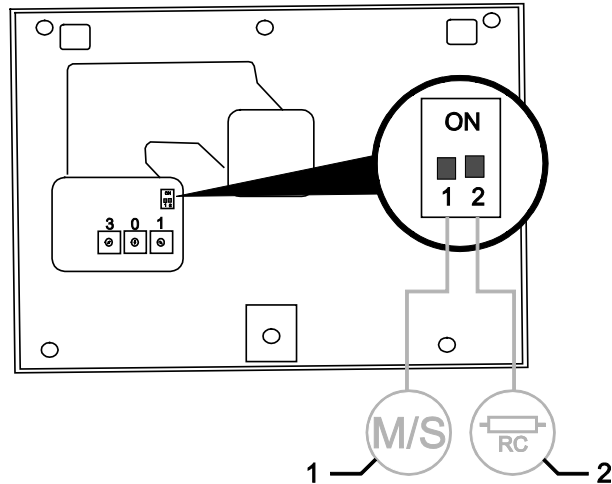


Fig. 19:

- In pure audio installations always set the terminal resistor (2) on "OFF".
- In video installations or mixed audio and video installations set the terminal resistor for the the last devices of a branch on "ON".

5.4.2 Setting the master/slave switch

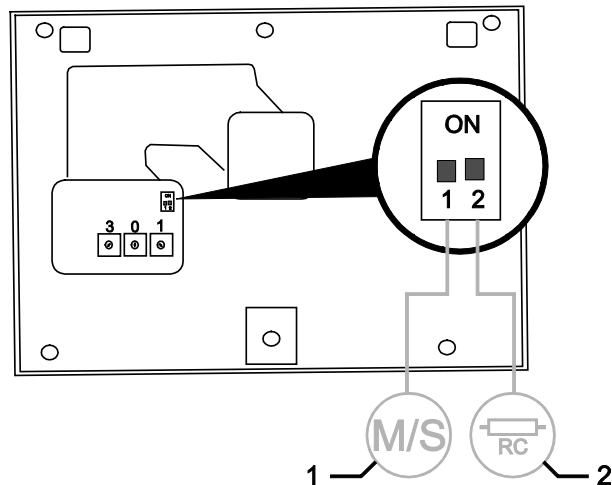


Fig. 20:

One station in each apartment must be set as "Master". All additional indoor stations in the same apartment must be set as "Slave".

Indoor station that is to be set as "Master"

Set the switch "M"(1-1) on "ON".

For all other indoor stations

Set the switch "S"(1-2) on "OFF".

6 Technical data

Designation	Value
Display resolution:	800 x 480
Display size:	17.8 cm (7")
Operating temperature	-5° C to +40° C
Storage temperature	-20° C – +70° C
Protection	IP 30
Single-wire clamps	2 x 0.6 mm ² – 2 x 1 mm ²
Fine-wire clamps	2 x 0.6 mm ² – 2 x 0.75 mm ²
Bus voltage	28 V- ±2 V
Volume	Maximum 80 dB

7 Mounting / Installation



Warning

Electric voltage!

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

- Low-voltage and 230 V cables must not be installed together in a flush-mounted socket!
In case of a short-circuit there is the danger of a 230 V load on the low-voltage line.

7.1 Requirements for the electrician



Warning

Electric voltage!

Install the device only if you have the necessary electrical engineering knowledge and experience.

- Incorrect installation endangers your life and that of the user of the electrical system.
- Incorrect installation can cause serious damage to property, e.g. due to fire.

The minimum necessary expert knowledge and requirements for the installation are as follows:

- Apply the "five safety rules" (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;
 5. Cover or barricade adjacent live parts.
- Use suitable personal protective clothing.
- Use only suitable tools and measuring devices.
- Check the type supply network (TN system, IT system, TT system) to secure the following power supply conditions (classic connection to ground, protective earthing, necessary additional measures, etc.).

7.2 General installation instructions

- Terminate all branches of the wiring system via a connected bus device (e.g., indoor station, outdoor station, system device).
- Do not install the system controller directly next to the bell transformer and other power supplies (to avoid interference).
- Do not install the wires of the system bus together with 230 V wires.
- Do not use common cables for the connecting wires of the door openers and wires of the system bus.
- Avoid bridges between different cable types.
- Use only two wires for the system bus in a four-core or multi-core cable.
- When looping, never install the incoming and outgoing bus inside the same cable.
- Never install the internal and external bus inside the same cable.

7.3 Mounting

Installation on an FM socket according to DIN 49073-1, or directly on a level wall surface.

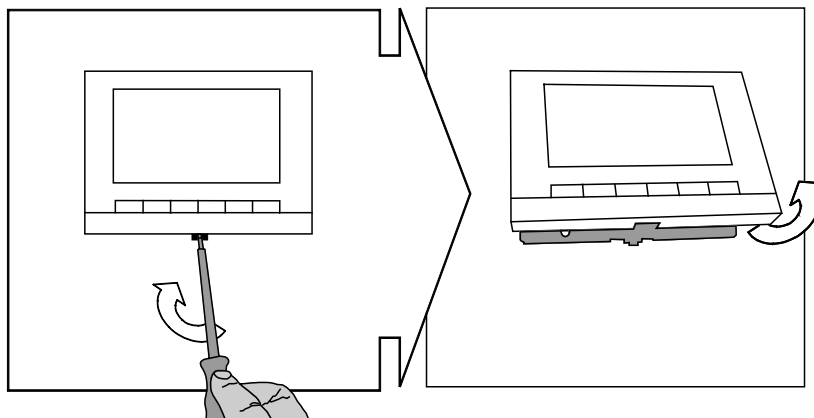


Fig. 21:

1. Open the housing of the panel by pulling the clamp on the bottom of the device.

Video for mounting and connecting the device



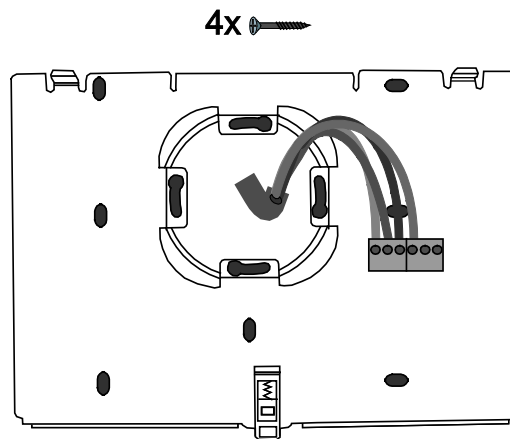


Fig. 22:

2. Fix the bottom of the device to the wall.

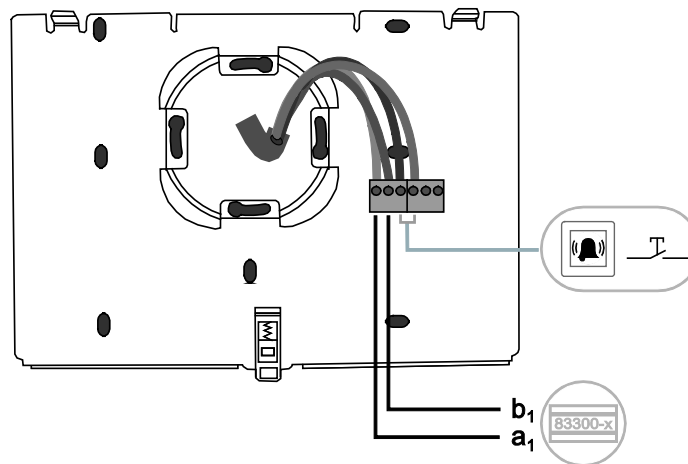


Fig. 23:

3. Connect the bottom part of the device according to the graphics (see chapter "Connection" on page 34).

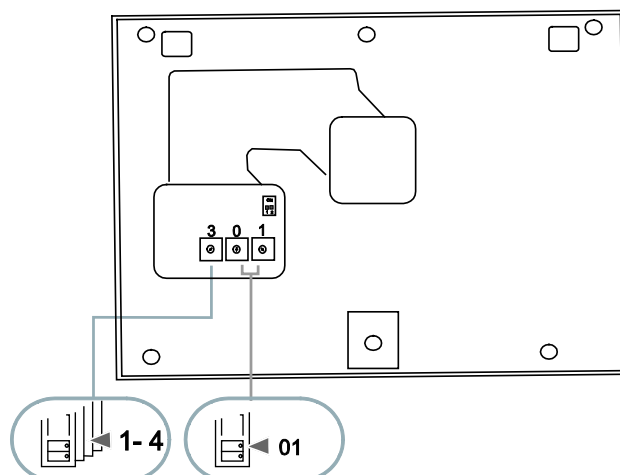


Fig. 24:

- 4 Set the address of the preferred outdoor stations and the address of the indoor station on the rotary switches (see chapter "Addressing" on page 35).

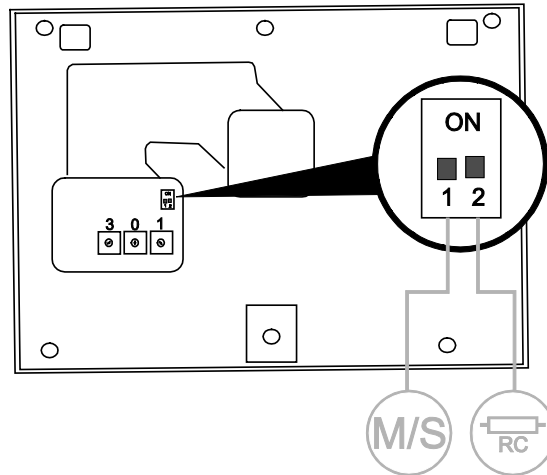


Fig. 25:

5. Set the master/slave function and the terminal resistor on the switches at the rear of the top part of the housing (see chapter "Setting the master/slave switch" on page 27).

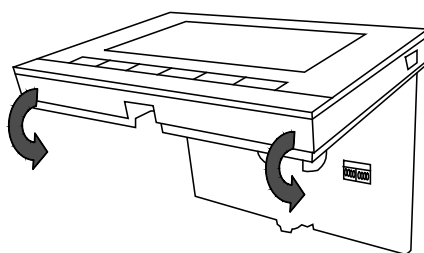
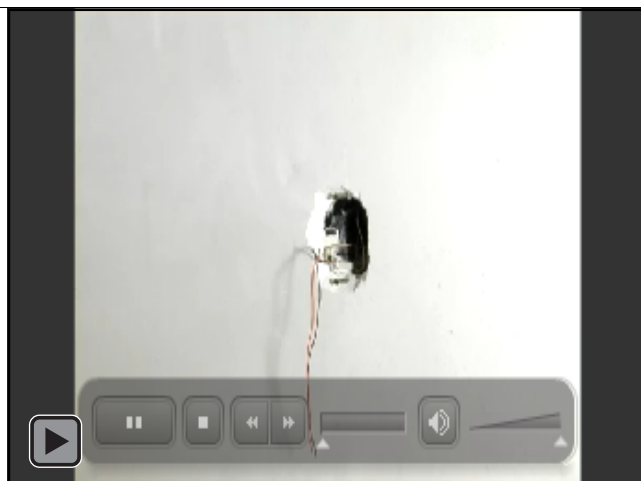


Fig. 26:

6. Latch the upper part of the device onto its bottom part. To do this, place the upper side of the device on the lock-in lugs and then press the bottom side onto the bottom part of the device until the clamp catches.

The installation of the indoor station is now complete.

Video for mounting the device



7.4 Connection

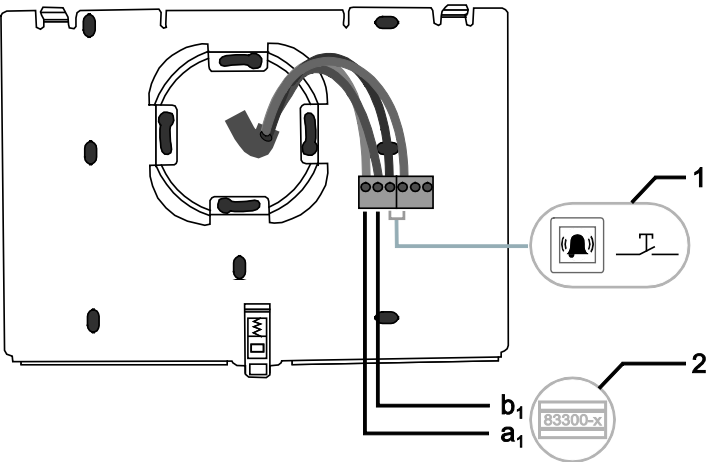


Fig. 27:

No.	Function
1	Connection for the floor call push-button
2	<ul style="list-style-type: none">• Connection for the system controller• When using several indoor stations: connection for the internal bus

8 Addressing

8.1 Addressing the stations

8.1.1 Potentiometer

Before installing as system, it must be addressed.

For this "Addressing", three potentiometers have been fitted to the rear of the device. The digits 0 to 9 can be set on each potentiometer.

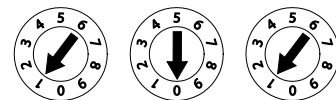


Fig. 28: Potentiometer for setting the stations

Outdoor station:

The left potentiometer (1) at an outdoor station indicates the address of this station.

The next two potentiometers (2) indicate the address of the **topmost** doorbell push-button of this station. The doorbell push-switches below that are automatically numbered (consecutive).

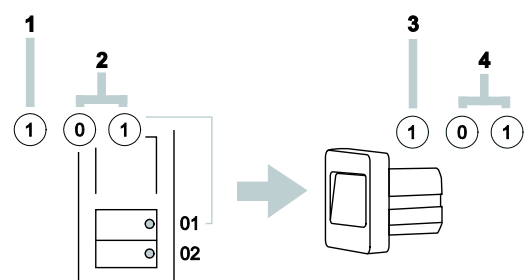


Fig. 29: The function of the potentiometers

Indoor station:

The left potentiometer (3) of the indoor station indicates the address of the preferred outdoor station. The next two potentiometers (4) indicate the address of this indoor station.

8.1.2 Setting the address of the outdoor station:

The allocation to one of the four inputs of the system is made on the outdoor stations and the associated switch actuators for door and light via the setting of the address.

For this the potentiometer house/outdoors is set on an address between 1 and 4. The potentiometer is located on the rear of the outdoor station or the front of the MDRC switch actuator.

8.1.3 Assigning the doorbell push-button of an outdoor station to an apartment

The doorbell push-buttons of an outdoor station are assigned to the apartments consecutively from top to bottom and left to right with the addresses 01, 02, etc.

This assignment applies equally to several outdoor stations in a system. This means that in Figure 31 on page 37, in each outdoor station push-button A is assigned to apartment 01, etc.

This factory setting is fixed via two potentiometers on the rear of the outdoor station. The middle potentiometer must be on "0" and the right one on "1".

8.1.4 Setting the address of the indoor station

The apartment is assigned on the indoor station via the setting of the address. Up to 99 apartments can be addressed within one system. In each of these up to four indoor stations with the same rights can be located with the same address.

When pressing the assigned doorbell push-button, all four indoor stations are called. The address of an indoor station (e.g. "15") is set with the aid of the potentiometers on the indoor station, the middle one indicating the tens digit (here "1") and the right one the singles digit (here "5"). The potentiometer is located on the back or outside of the indoor stations.

8.1.5 Setting of the "standard outdoor station"

For several outdoor stations in a system the "standard outdoor station" must be set on the indoor stations. For this the potentiometer STATION is set on the address of the standard outdoor station - between 1 and 4. The potentiometer is located on the rear of the indoor stations.

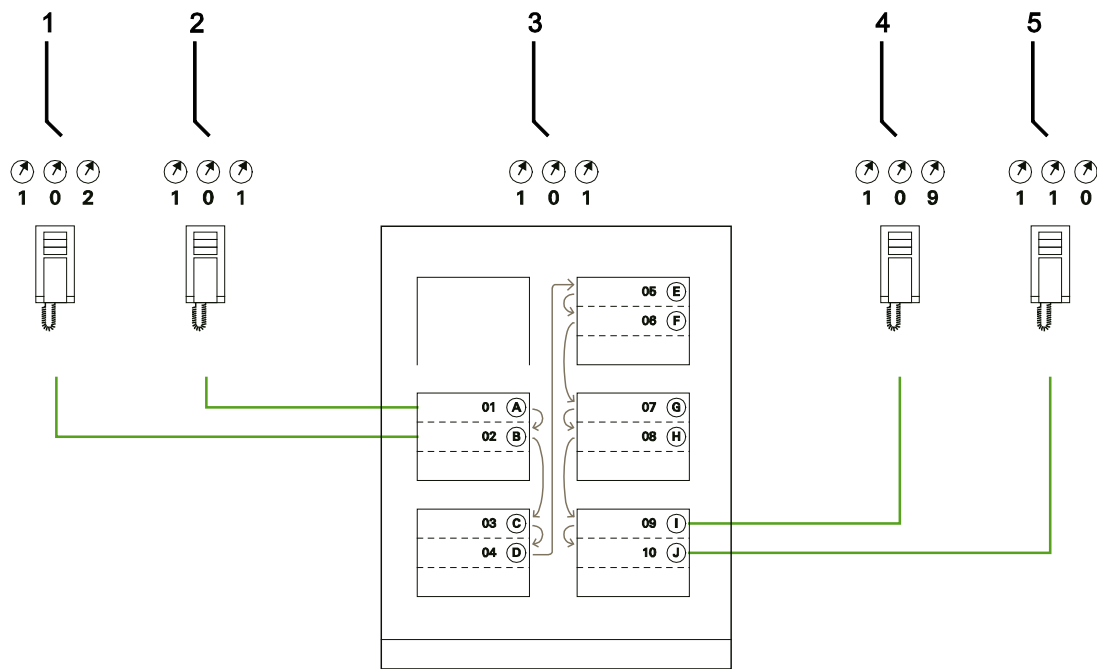


Fig. 30: Factory assignment of doorbell push-buttons

No.	Designation
1	Apartment 01
2	Apartment 01
3	Outdoor station
4	Apartment 09
5	Apartment 10

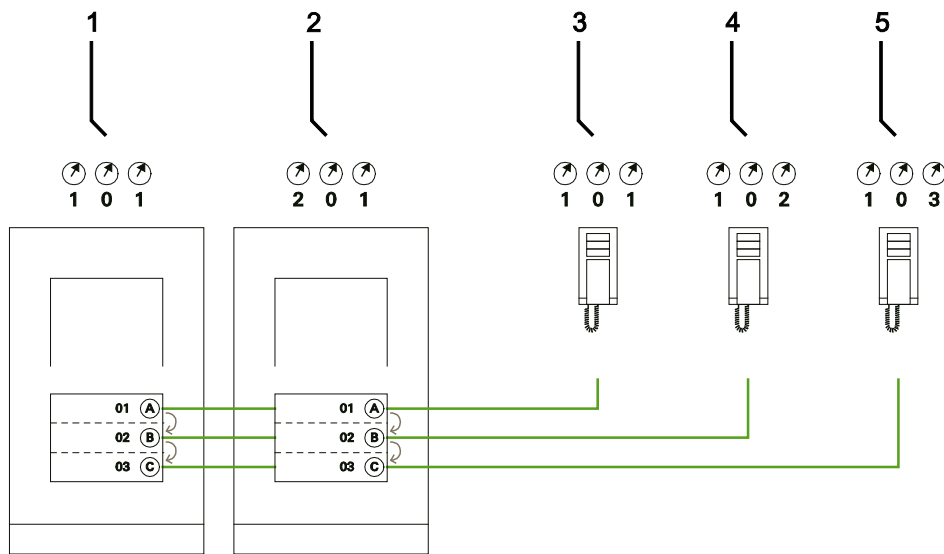


Fig. 31: Several outdoor stations with identical assignment

No.	Designation
1	Main entrance outdoor station
2	Side entrance outdoor station
3	Apartment 01
4	Apartment 02
5	Apartment 03

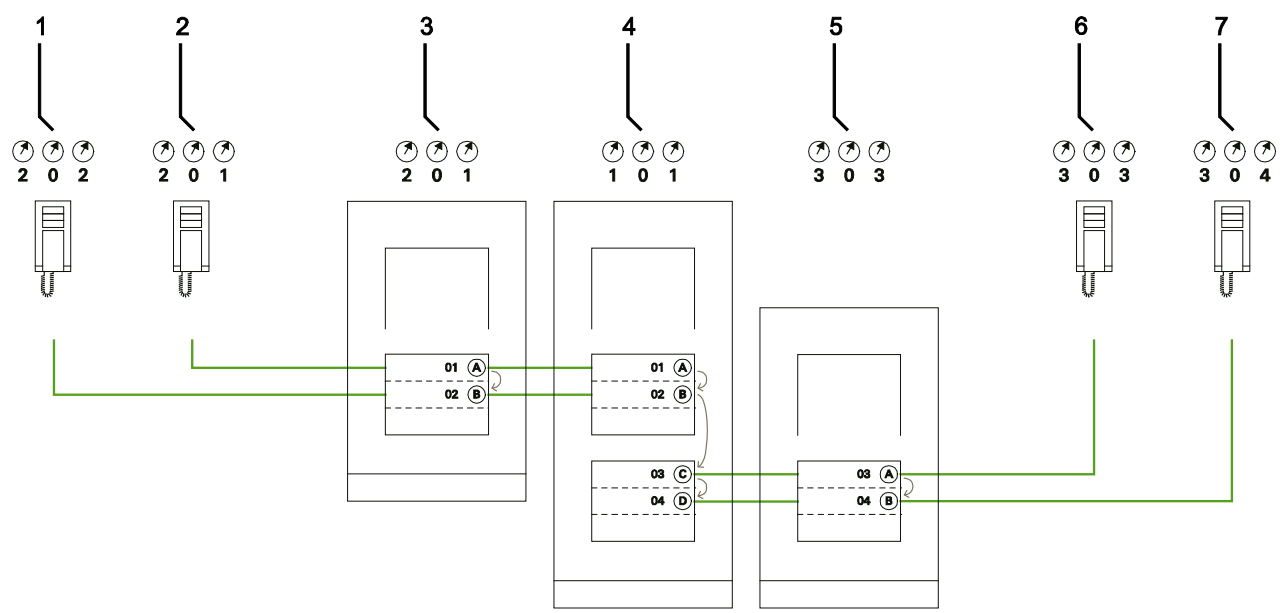


Fig. 32: Several outdoor stations with identical assignment

No.	Designation
1	Apartment 01
2	Apartment 02
3	Outdoor station of the left building
4	Outdoor station of the entrance gate
5	Outdoor station of the right building
6	Apartment 03
7	Apartment 04

8.2 Video for addressing the device



Video for addressing the device





Project name: _____

Mounting position for the outdoor station: _____

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