2TMD041800D0012 | 11.08.2025

Product manual

Busch-Welcome® IP

H81381P.-.-03 IP pushbutton outdoor station





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1 Notes on the instruction manual

Please read through this manual carefully and observe the information it contains. This will assist you in preventing injuries and damage to property and ensure both reliable operation and a long service life for the device.

Please keep this manual in a safe place. If you pass the device on, also pass on this manual along with it. Busch-Jaeger accepts no liability for any failure to observe the instructions in this manual.

2 Safety



Warning

Electric voltage!

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.

- Disconnect the mains power supply prior to installation and/or disassembly!
- Permit work on the 100-240 V supply system to be performed only by specialist staff!

3 Intended use

As part of the Busch-Welcome[®] IP system, this device can only be used with accessories from that system.

Security mode

This outdoor station runs in "Security mode" by default to guarantee high security.

In "Security mode", this outdoor station requires a certificate issued by the management software before it can function normally.

Compatible mode

If there is no management software, this outdoor station needs to run in "Compatible mode" to function normally. This can be set on the indoor station. Please refer to the product manual for . IP touch 7".

Video privacy



Video privacy

Making and saving video recordings can infringe on personal rights! Always observe the applicable legal and labeling requirements for the placement and operation of video components!

4 Environment



Consider the protection of the environment!

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

 The device contains valuable raw materials that can be recycled. Therefore, dispose of the device at the appropriate collecting facility.

4.1 Busch-Jaeger devices

All packaging materials and devices from Busch-Jaeger bear the markings and test seals for proper disposal. Always dispose of the packing materials and electric devices and their components via an authorized collection facility or disposal company.

Busch-Jaeger products meet the legal requirements, in particular the laws governing electronic and electrical devices and the REACH ordinance.

(EU-Directive 2012/19/EU WEEE and 2011/65/EU RoHS)

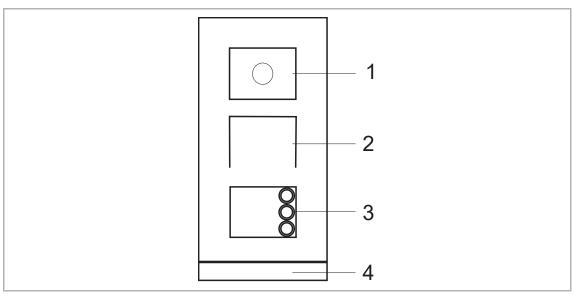
(EU-REACH ordinance and law for the implementation of the ordinance (EG) No.1907/2006)

5 Product description

5.1 Device type

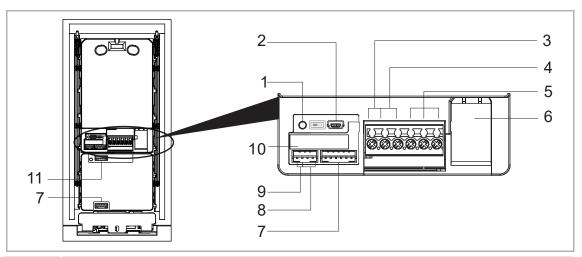
Article number	Product ID	Product name	Colour	Size (HxWxD) Unit: mm
H81381P1- S-03	2TMA130010X0019	OS, IPpush, 1 gang	Stainless steel	135 x 277 x 29
H81381P2- S-03	2TMA130010X0020	OS, IPpush, 2 gang	Stainless steel	135 x 277 x 29
H81381P3- S-03	2TMA130010X0021	OS, IPpush, 3 gang	Stainless steel	135 x 277 x 29

5.2 Control elements



No.	Function
1	Camera
2	Speaker and microphone integration
3	Round pushbutton
4	End strip

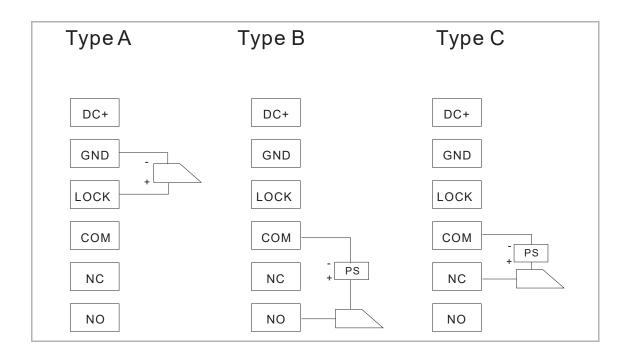
5.3 Terminal description



No.	Function
1	Reset button
2	Micro USB update connector
3	Plug-in clamps (DC+GND) for standalone power supply
4	Plug-in clamps (LOCKGND) for door opener
5	Plug-in clamps (COMNCNO) for floating output, door opener
6	LAN (PoE)
7	Connector for next module
8	Connector for exit button
9	Connector for the sensor used for door status detection
10	Connector for 5" display module
11	Connector for previous module

5.4 Lock type and connection

Lock type	Pic	Operation type	Voltage	Wiring type
Electrical strike lock, 12V	0 0 0	Power on to open	12 V ≕/~	Type A/B
Electrical strike lock, 24V	0 0 0	Power on to open	24 V ==/~	Туре В
Electrical rim lock, 12 V		Power on to open	12 V	Type A/B
Electrical mortise lock	A The second	Power off to open	12 V =	Type C
Magnetic lock	•	Power off to open	12/24 V 	Type C



6 Technical data

Designation	Value
Rating voltage	24 V DC
Operating voltage range	20-27 V DC
Rating current	27 V DC, 300 mA 24 V DC, 330 mA
Operating temperature	-40 °C+55 °C
Product dimensions	135mm x 276.9 mm × 17.6 mm
Camera type	CMOS
Camera viewing angle	130°
Resolution ratio	HD (1280 x 720 pixel)
Power supply for door opener	18 V, 4 A impulse, max. 250 mA holding
Floating output for door opener	230 V AC, 3 A 30 V DC, 3 A
Video codec	H.264
Audio codec	G.711
IP level	IP 54
IK level	IK 07
Network connection standard	IEEE 802.3, 10Base-T/100Base-TX, auto MDI/MDI-X

7 Mounting/Installation



Warning

Electric voltage!

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.

- Disconnect the mains power supply prior to installation and/or disassembly!
- Permit work on the 100-240 V supply system to be performed only by specialist staff!

7.1 Requirement for the electrician



Warning

Electric voltage!

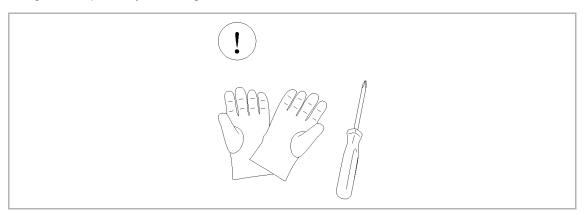
Install the device only if you have the necessary electrical engineering knowledge and experience.

- 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
 - 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.
- Use suitable personal protective clothing.
- Use only suitable tools and measuring devices.
- Check the type of supply network (TN system, IT system, TT system) to secure the following power supply conditions (classic connection to ground, protective grounding, necessary additional measures, etc.).

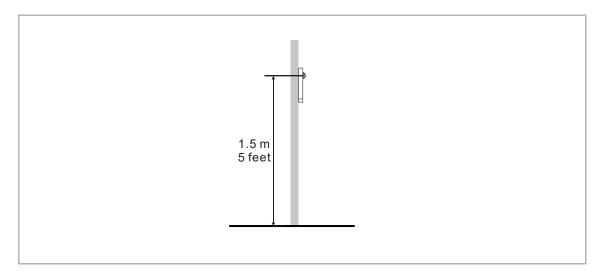
7.2 Mounting

7.2.1 Preparation

Use gloves to protect yourself against cuts.



7.2.2 Installation height



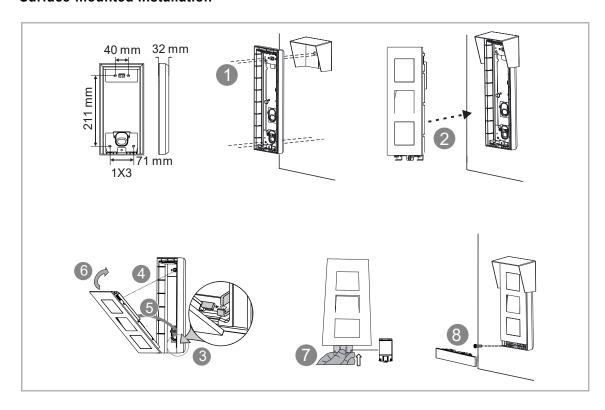


Note

The following installation situations must be avoided without fail to ensure picture quality:

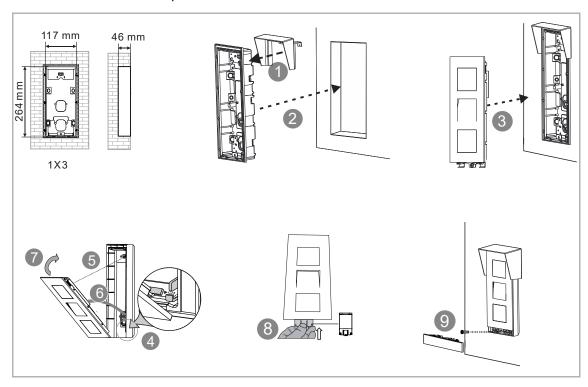
- Direct light
- Direct sunlight
- Extremely bright picture background
- Highly reflective walls on the opposite side of the door station

7.2.3 Surface-mounted installation

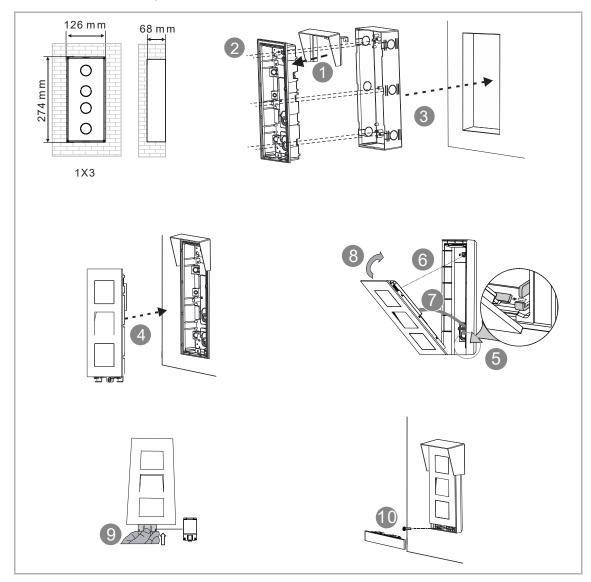


7.2.4 Flush-mounted installation

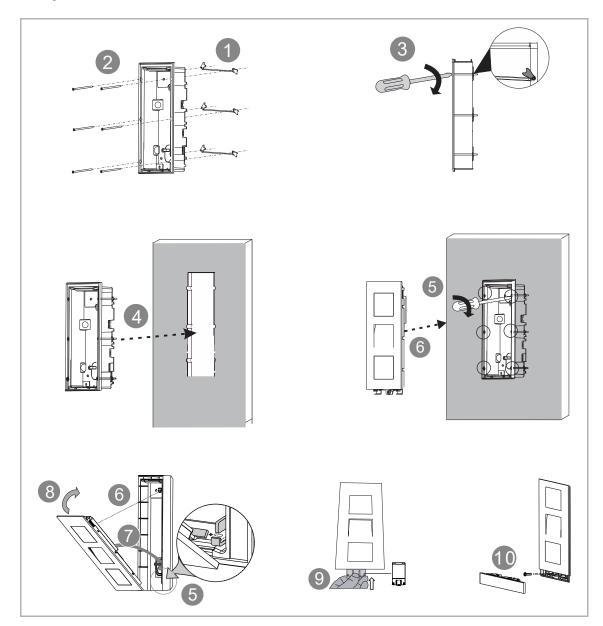
1. Flush-mounted without pre-installation box



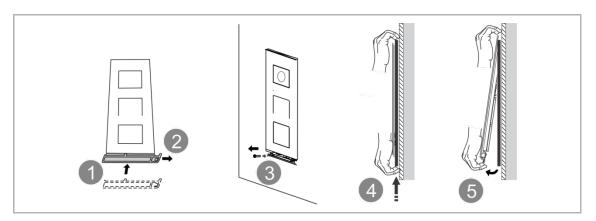
2. Flush-mounted with pre-installation box



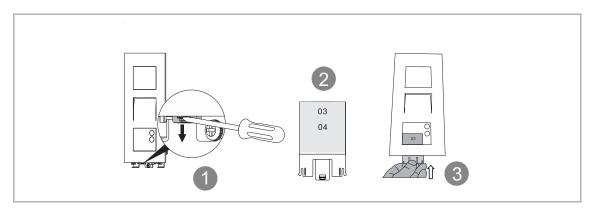
7.2.5 Cavity wall installation



7.2.6 Dismantling



7.2.7 Replacing the nameplate



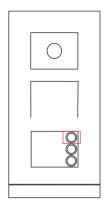
8 Commissioning

8.1 Configure the settings on Indoor Station

8.1.1 Enter engineering mode of Outdoor Station

0	Note
	The Outdoor Station must be on the same network as the Indoor Station.

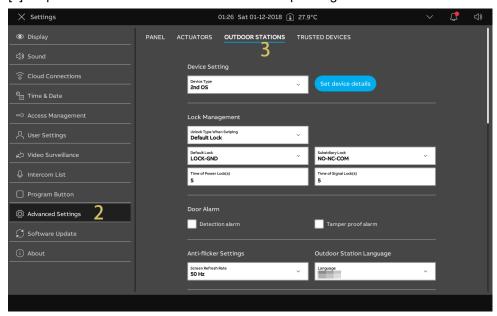
- [1] Power on the Outdoor Station, wait until all 3 LED indicators go out.
- [2] Press and hold the first pushbutton for 10 seconds until all 3 LED indicators flash.



8.1.2 Accessing the "Outoodr Stations" screen

Please follow the steps below:

- [1] Ensure that the Outdoor Station is in engineering mode.
- [2] On the "Settings" screen of the panel, tap "Advanced Settings".
- [3] Tap "Outdoor Stations" to access the corresponding screen.



$\frac{\circ}{1}$

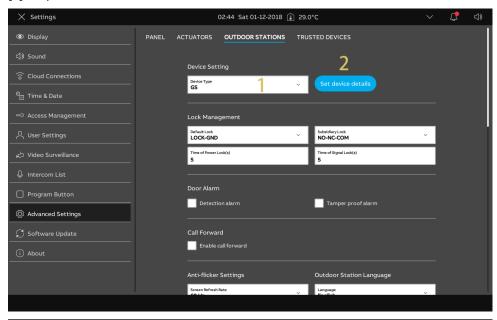
Note

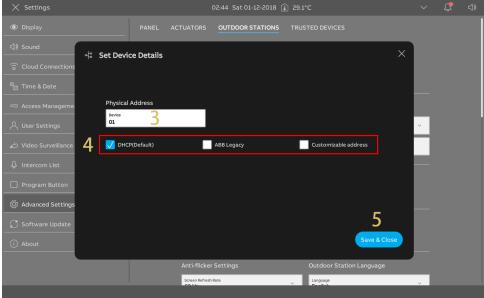
The Outdoor Station will exit engineering mode if no operation is carried out for 5

8.1.3 Configuring the device type

Configuring the Gate Station

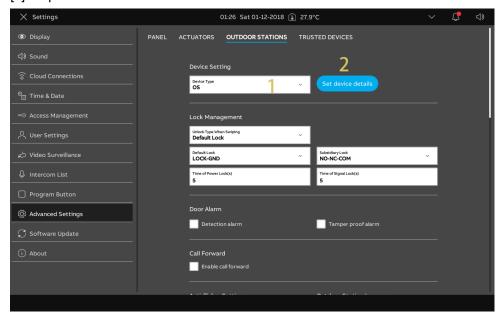
- [1] On the "Outdoor Stations" screen, go to the "Device setting" section, select "GS" from the drop-down list.
- [2] Tap "Set device details".
- [3] Enter the device number (01...32).
- [4] Select the network type, it can set to "DHCP", "Customizable address" or "ABB Legacy".
- If "ABB Legacy" is selected, IP address will be "10.0.x.x".
- [5] Tap "Save & Close".

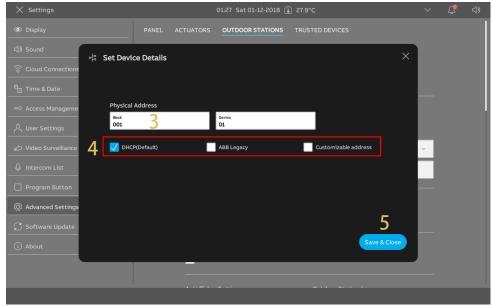




Configuring the Outdoor Station

- [1] On the "Outdoor Stations" screen, go to the "Device setting" section, select "OS" from the drop-down list.
- [2] Tap "Set device details".
- [3] Enter the block number (001...999) and the device number (01...64).
- [4] Select the network type, it can set to "DHCP", "Customizable address" or "ABB Legacy".
- If "ABB Legacy" is selected, IP address will be "10.0.x.x".
- [5] Tap "Save & Close".

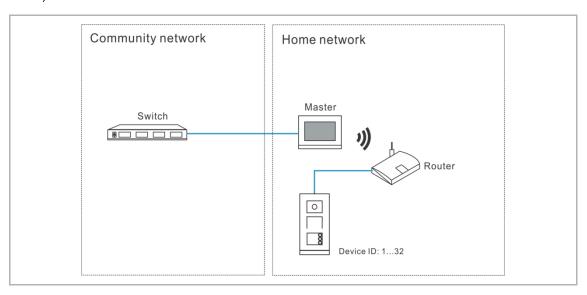




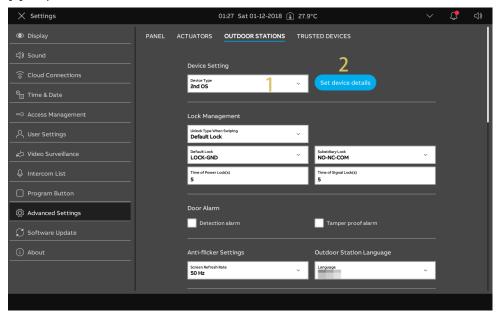
Configuring the 2nd Outdoor Station

1. Location of IP Actuator = Internal

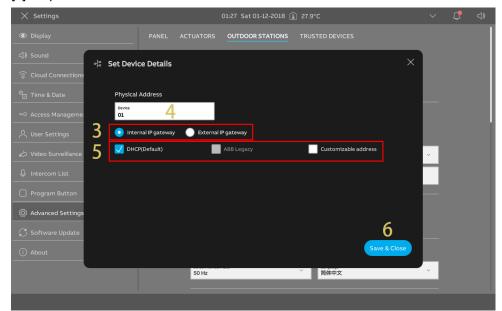
In this case, the Outdoor Station connects to the router in the apartment (see the diagram below).



- [1] On the "Outdoor Stations" screen, go to the "Device setting" section, select "2nd OS" from the drop-down list.
- [2] Tap "Set device details".

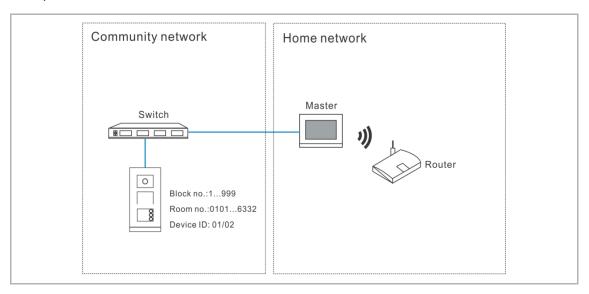


- [3] Select "Internal IP gateway".
- [4] Enter the device number (1...32).
- [5] Select the network type, it can set to "DHCP", "Customizable address" or "ABB Legacy".
- If "ABB Legacy" is selected, IP address will be "10.0.x.x".
- [6] Tap "Save & Close".

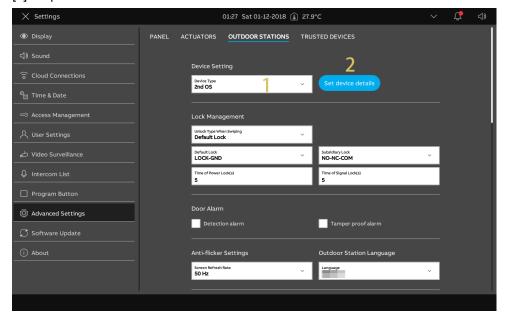


2. Location of IP Actuator = External

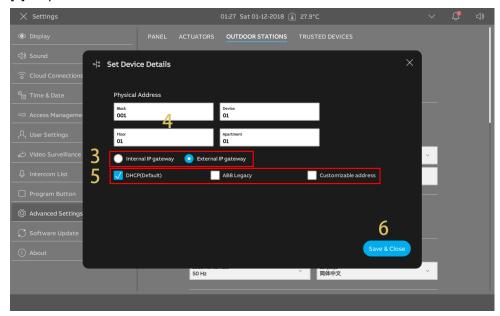
In this case, the Outdoor Station connects to the switch outside the apartment (see the diagram below).



- [1] On the "Outdoor Stations" screen, go to the "Device setting" section, select "2nd OS" from the drop-down list.
- [2] Tap "Set device details".



- [3] Select "External IP gateway".
- [4] Enter the block number (001...999), floor number (01...63), apartment number (01...32) and device number (01...02).
- [5] Select the network type, it can set to "DHCP", "Customizable address" or "ABB Legacy".
- If "ABB Legacy" is selected, IP address will be "10.0.x.x".
- [6] Tap "Save & Close".



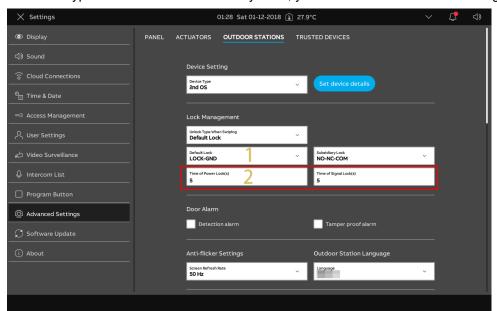
) No

The external and internal types cannot be used in mixed scenarios in the same apartment.

8.1.4 Configuring the lock

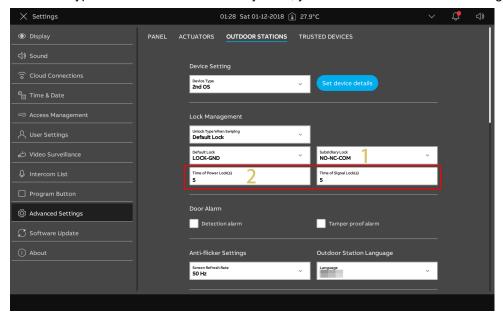
1. Configuring the default lock

- [1] On the "Outdoor Stations" screen, go to the "Lock Management" section, select the lock type from the drop-down list.
- It can be set to "Lock-GND", "NO-NC-COM" or "IP Actuator".
- If the lock type is set to "IP Actuator", you need to select the lock type from the drop-down list. It can be set to "Power lock" or "Relay lock".
- [2] Enter the unlock time.
- If lock type = "Lock-GND" or "Power lock", you need to set the time for the power lock.
- If lock type = "NO-NC-COM" or "Relay lock", you need to set the time for the signal lock.



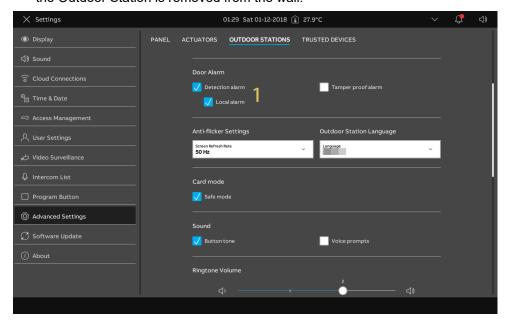
2. Configuring the subsidiary lock

- [1] On the "Outdoor Stations" screen, go to the "Lock Management" section, select the lock type from the drop-down list.
- It can be set to "Lock-GND", "NO-NC-COM" or "IP Actuator".
- If the lock type is set to "IP Actuator", you need to set the lock type from the drop-down list. It can be set to "Power lock" or "Relay lock".
- [2] Enter the unlock time.
- If lock type = "Lock-GND" or "Power lock", you need to set the time for the power lock.
- If lock type = "NO-NC-COM" or "Relay lock", you need to set the time for the signal lock.



8.1.5 Configuring the "Door alarm" function

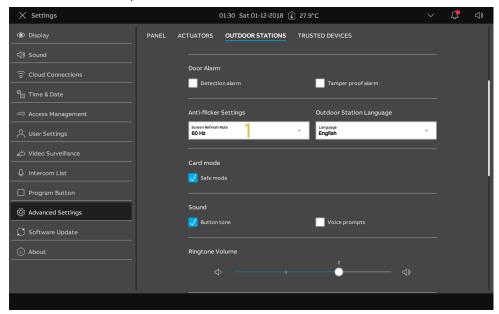
- [1] On the "Outdoor Stations" screen, go to the "Door Alarm" section, tick the check box to enable the functions.
- If the "Detection Alarm" function is enabled, the panel will send an alarm to SmartAP when the door is open for longer than 120 seconds (a sensor should first be connected to the Outdoor Station).
- If the "Local Alarm" function is enabled, the panel also sounds an alarm locally.
- If the "Tamper proof Alarm" function is enabled, the panel will send an alarm to SmartAP if the Outdoor Station is removed from the wall.



8.1.6 Configuring the "Anti-flicker" function

Please follow the steps below:

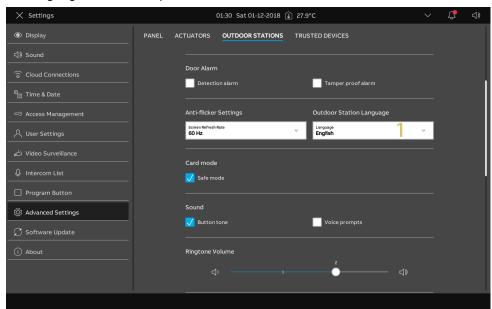
[1] On the "Outdoor Stations" screen, go to the "Anti-flicker settings" section, select the refresh rate from the drop-down list. It can be set to "60 Hz" or "50 Hz".



8.1.7 Configuring the language

Please follow the steps below:

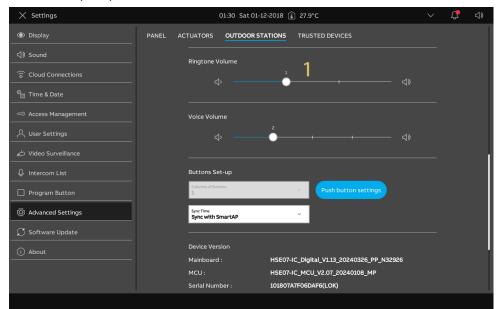
[1] On the "Outdoor Stations" screen, go to the "Outdoor Station Language" section, select the language from the drop-down list.



8.1.8 Configuring the ringtone volume

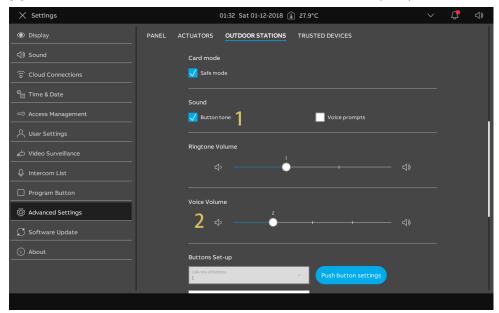
Please follow the steps below:

[1] On the "Outdoor Stations" screen, go to the "Ringtone volume" section, select the ringtone volume (1...3)



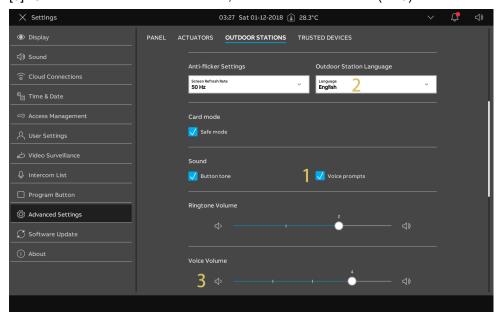
8.1.9 Configuring the "Button tone" function

- [1] On the "Outdoor Stations" screen, go to the "Sound" section, tick the check box to enable the function.
- [2] Go to the "Voice Volume" section, select the voice volume (1...5).



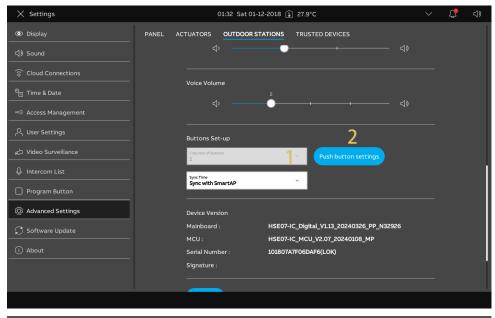
8.1.10 Configuring the "Voice prompts" function

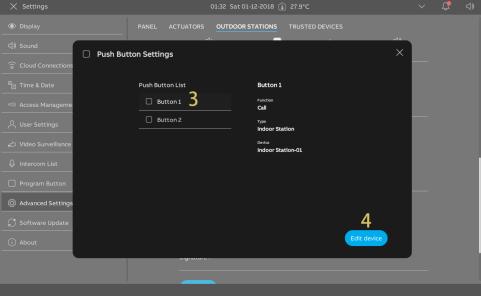
- [1] On the "Outdoor Stations" screen, go to the "Sound" section, tick the check box to enable the function.
- [2] Go to the "Outdoor Station Language" section, select the language.
- [3] Go to the "Voice Volume" section, select the voice volume (1...5).



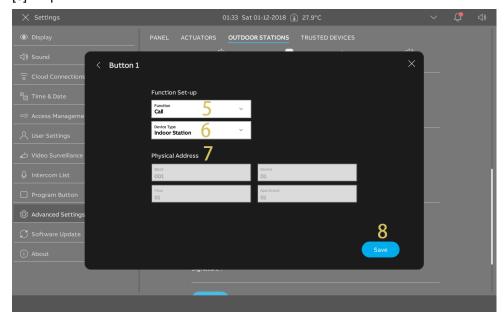
8.1.11 Configuring the push buttons

- [1] On the "Outdoor Stations" screen, go to the "Buttons set-up" section, select the column number. This setting is only available when detecting the bar push-button module on the Outdoor Station. It can be set to "1" or "2".
- [2] Tap "Push button settings".
- [3] Tap the relevant push button.
- [4] Tap "Edit device".



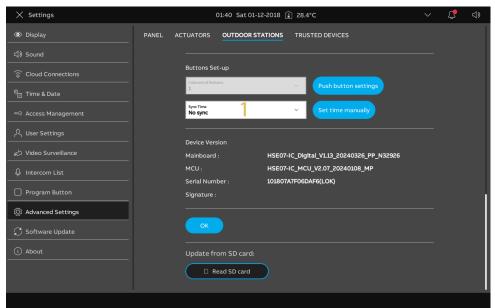


- [5] Select the function from the drop-down list. It can be set to "Call", "Turn on the light" or "None".
- [6] Select the device type from the drop-down list. It can be set to "Indoor Station" or "Phone Guard Unit".
- [7] Enter the address according to the device type.
- [8] Tap "Save".



8.1.12 Configuring the "Time sync" function

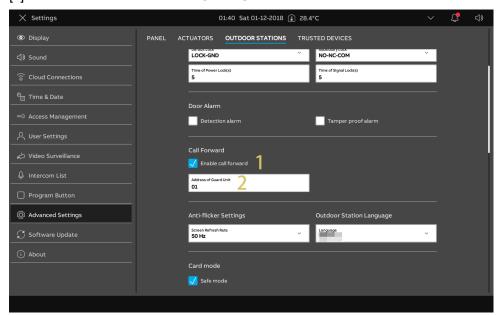
- [1] On the "Outdoor Stations" screen, go to the "Buttons set-up" section, select the sync time method from the drop-down list.
- If "Sync with SmartAP" is selected, the Outdoor Station will sync the time from the management software.
- If "No sync" is selected, tap "Set time manually" to enter the time and date manually.



8.1.13 Configuring call forward

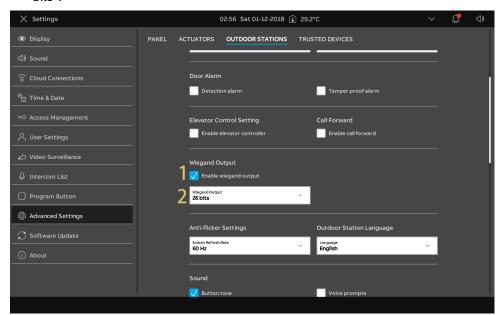
This function can be available only when "Device type" is set to "OS".

- [1] On the "Outdoor Stations" screen, go to the "Call Forward" section, tick the check box to enable the function.
- [2] Enter the address of default Guard Unit.



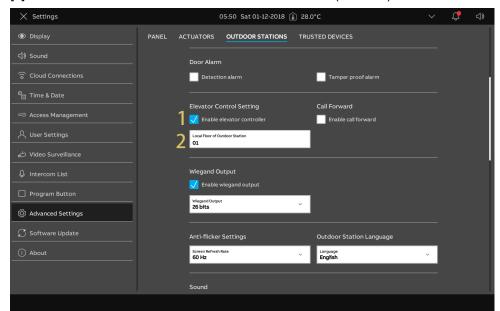
8.1.14 Configuring Wiegand Output

- [1] On the "Outdoor Stations" screen, go to the "Wiegand Output" section, tick the check box to enable the function.
- [2] Select the Wiegand Output type from the drop-down list. It can be set to "26 bits" or "32 bits".



8.1.15 Configuring the lift

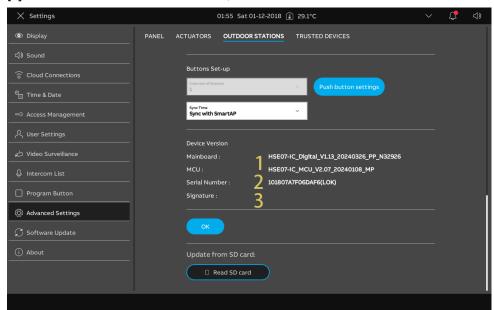
- [1] On the "Outdoor Stations" screen, go to the "Elevator Control Setting" section, tick the check box to enable the function.
- [2] Enter the floor number of the local Outdoor Station (-7...+63).



8.1.16 Viewing the information

Please follow the steps below:

[1] On the "Outdoor Stations" screen, scroll down to view the information.



No.	Description
1	Mainboard version and MCU version
2	Serial number
3	Signature

8.1.17 Updating the firmware

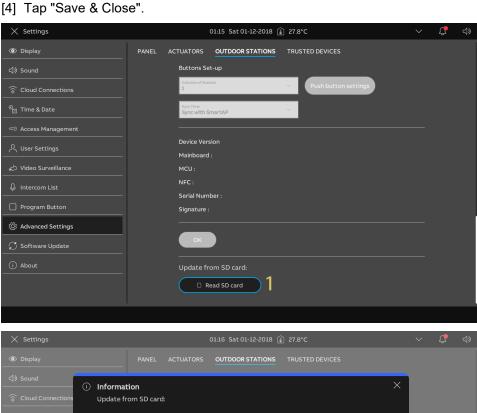
The Outdoor Station can be updated the firmware via the panel which supports micro SD card.

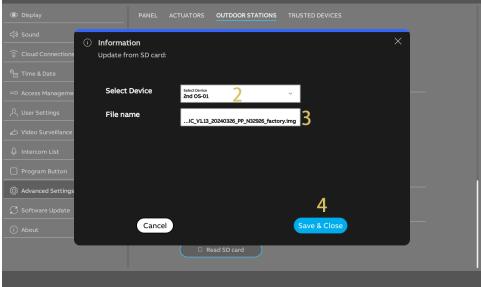
Precondition

The Outdoor Station must exit engineering mode before the firmware is upgraded.

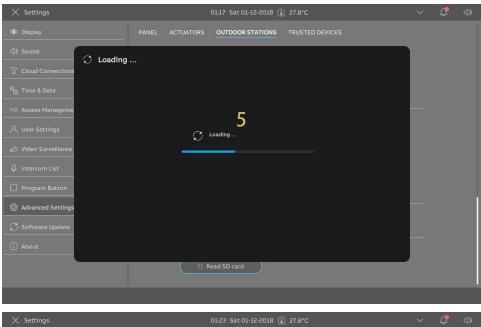
Updating the firmware via the panel

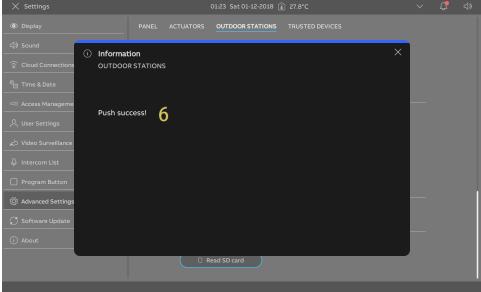
- [1] On the "Outdoor Stations" screen of the panel, tap "Read SD card".
- [2] Select the designated Outdoor Station.
- [3] Select the updating file from SD card.





- [5] "Loading..." will be displayed to indicate that the upgrade is in progress.
- [6] "Push success!" will be displayed if the upgrade is successful.





8.2 Configure the settings on "Smart Access Point"

8.2.1 Adding the Outdoor Station

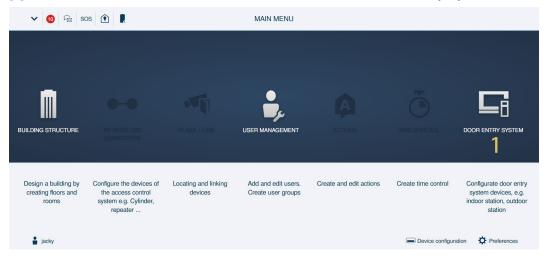
$\prod_{i=1}^{\infty}$

Note

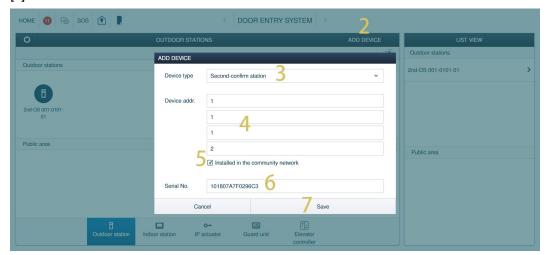
Only an Outdoor Station without a certificate can be added by SmartAP. This Outdoor Station will lose its certificate if its physical address is changed. The Outdoor Station needs to be powered on before being added.

Please follow the steps below:

[1] On the "Main Menu" screen of "Smart Access Point", click "Door Entry System".

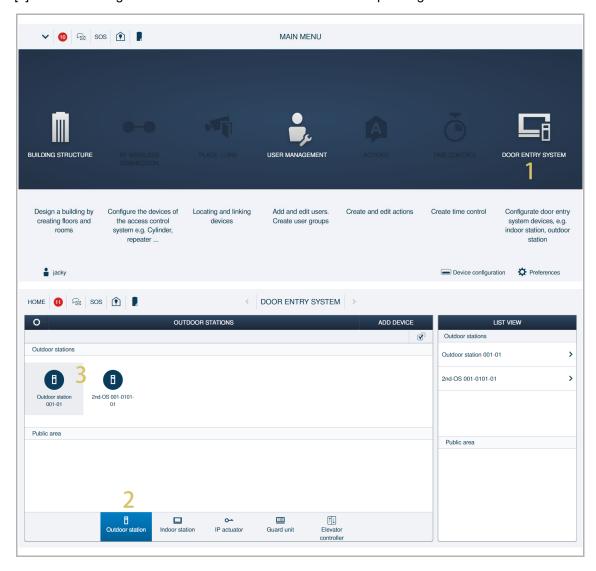


- [2] Click "Add Device".
- [3] Select the device type from the drop-down list. It could be set to "Gate station", "Outdoor station" or "Second-confirm station".
- [4] Enter the device address.
- [5] This function is available only when device type is set to "Second-confirm station".
- If the Outdoor Station is installed in the community network, "Installed in the community network" should be enabled.
- [6] Enter the serial number.
- [7] Click "Save".



8.2.2 Accessing the "Outoodr Stations" screen

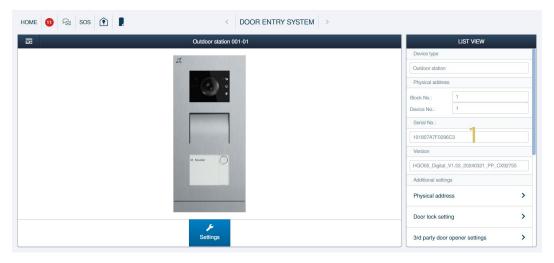
- [1] On the "Main Menu" screen, click "Door Entry System".
- [2] Click "Outdoor Station".
- [3] Click the designated Outdoor Station to access the corresponding screen.



8.2.3 Viewing the serial number

Please follow the steps below:

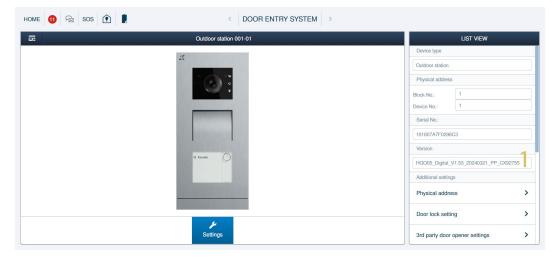
[1] On the designated Outdoor Station screen, go to the "Serial No." section to view the serial number.



8.2.4 Viewing the version

Please follow the steps below:

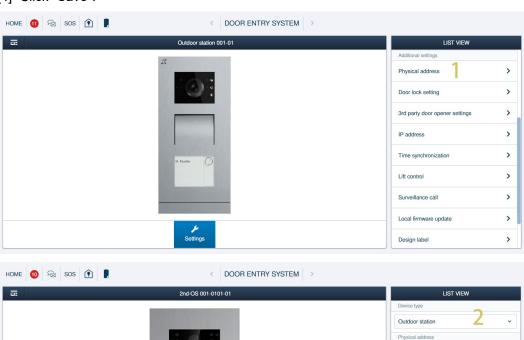
[1] On the designated Outdoor Station screen, go to the "Version" section to view the firmware version.



8.2.5 Configuring the physical address

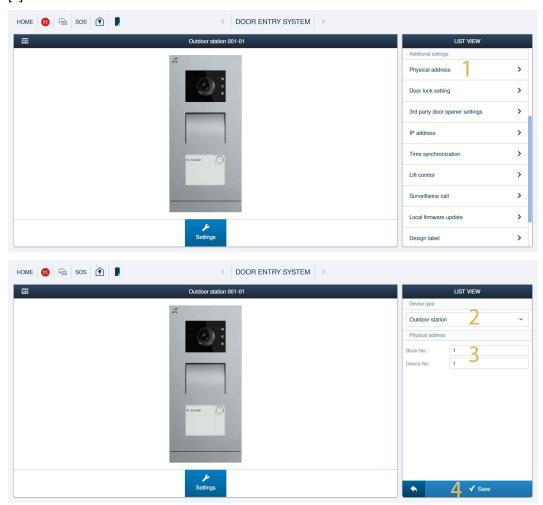
1. Gate Station

- [1] On the designated Outdoor Station, go to the "Additional settings" section, click "Physical address".
- [2] Go to the "Device type" section, select "Gate Station".
- [3] Enter the device number (01...32).
- [4] Click "Save".



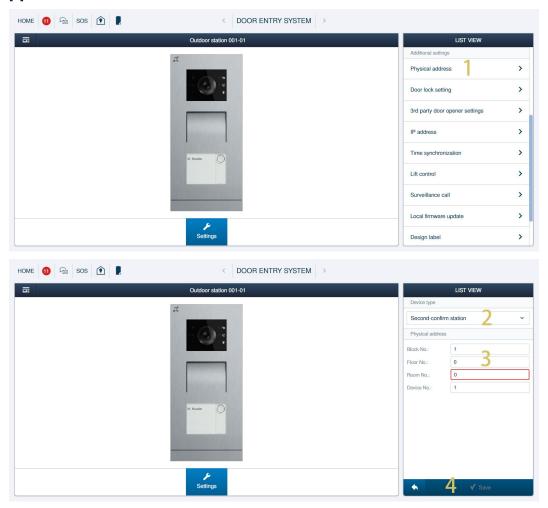
2. Outdoor Station

- [1] On the designated Outdoor Station, go to the "Additional settings" section, click "Physical address".
- [2] Go to the "Device type" section, select "Outdoor Station".
- [3] Enter the block number (001...999) and the device number (01...64).
- [4] Click "Save".



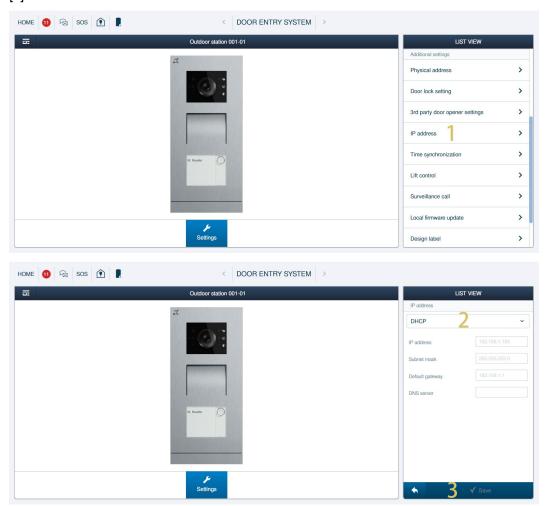
3. Second-confirm Station

- [1] On the designated Outdoor Station, go to the "Additional settings" section, click "Physical address".
- [2] Go to the "Device type" section, select "Second-confirm Station".
- [3] Enter the physical address.
- [4] Click "Save".



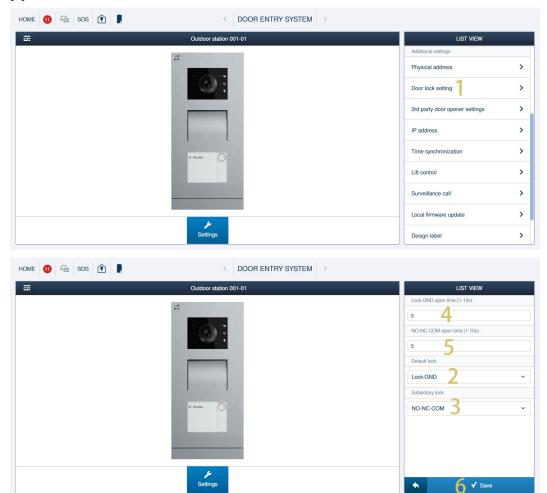
8.2.6 Configuring the IP address

- [1] On the designated Outdoor Station screen, go to the "Additional settings" section, click "IP address".
- [2] Select the network type, it can set to "DHCP" or "Static address.
- If "Static address" is selected, you need to enter the IP address manually.
- [3] Click "Save".



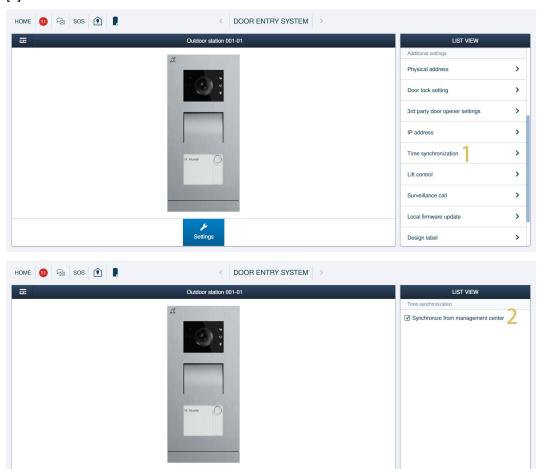
8.2.7 Configuring the lock

- [1] On the designated Outdoor Station screen, go to the "Additional settings" section, click "Door lock setting".
- [2] Set the lock type of default lock, it can be set to "Lock-GND", "NO-NC-COM" or "IP Actuator".
- If "IP Actuator" is selected, you need enter the device number of IP Actuator of select the designated IP Actuator.
- [3] Set the lock type of subsidiary lock, it can be set to "Lock-GND", "NO-NC-COM" or "IP Actuator".
- If "IP Actuator" is selected, you need enter the device number of IP Actuator of select the designated IP Actuator.
- [4] Set the unlock time for "Lock-GND".
- [5] Set the unlock time for "Relay lock".
- [6] Click "Save".



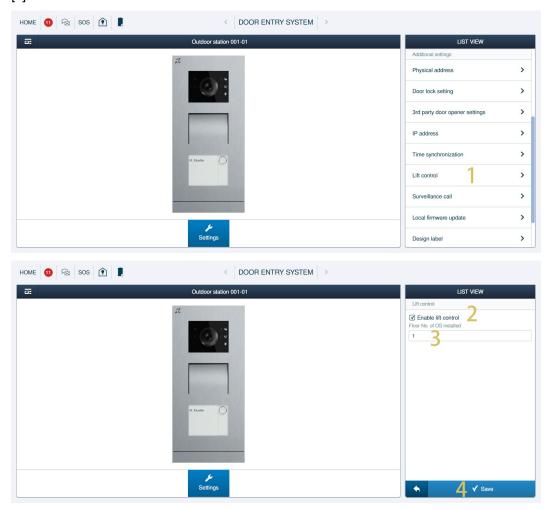
8.2.8 Configuring the "Time sync" function

- [1] On the designated Outdoor Station screen, go to the "Additional settings" section, click "Time synchronization".
- [2] Tick/untick the check box to enable/disable the function.
- If the function is enabled, the Outdoor Station will sync the time from the management software.
- [3] Click "Save".



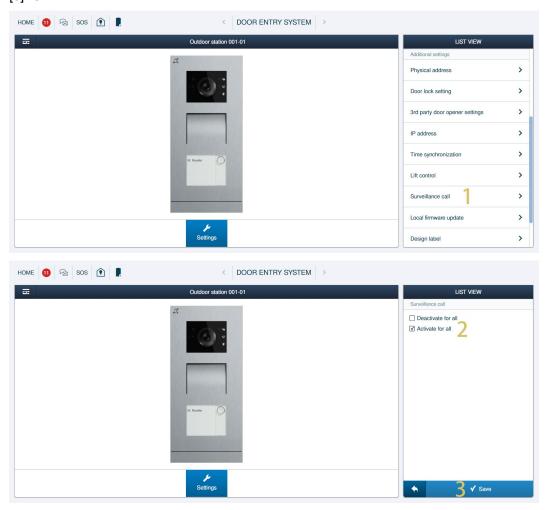
8.2.9 Configuring the lift

- [1] On the designated Outdoor Station screen, go to the "Additional settings" section, click "Lift control".
- [2] Tick the check box to enable the function.
- [3] Enter the floor number of the local Outdoor Station (-7...+63).
- [4] Click "Save".



8.2.10 Configuring the "Surveillance call" function

- [1] On the designated Outdoor Station screen, go to the "Additional settings" section, click "Surveillance call".
- [2] Tick the check box to enable the function.
- [3] Click "Save".



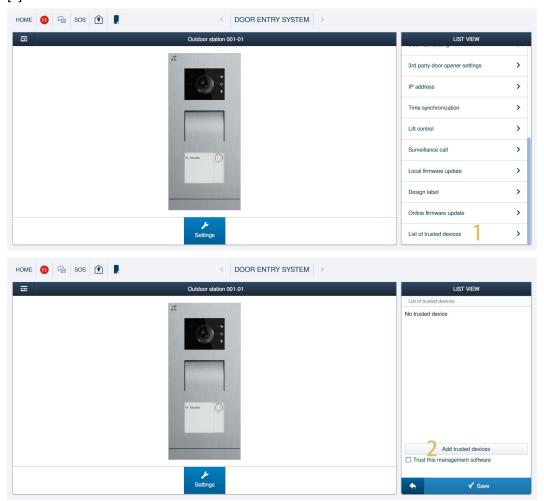
8.2.11 Configuring the trusted devices

If you want to release the lock on the Outdoor Station, you need to check:

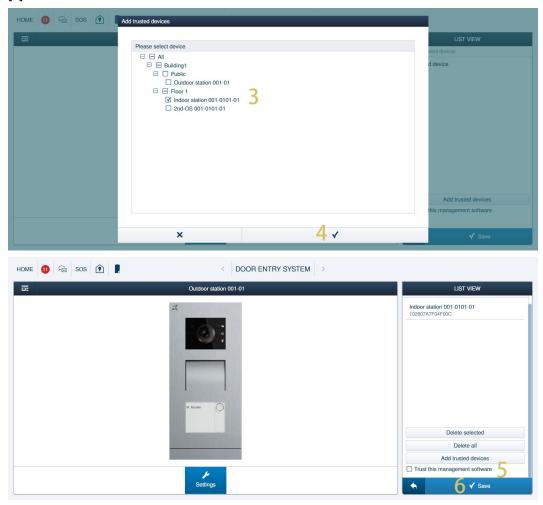
- The Indoor Station and the Outdoor Station have been signed on "Smart Access Point".
- The Indoor Station has been added on the trusted list on the Outdoor Station.

Please follow the steps below to add the trusted device:

- [1] On the designated Outdoor Station screen, click "List of trusted devices".
- [2] Click "Add trusted devices".



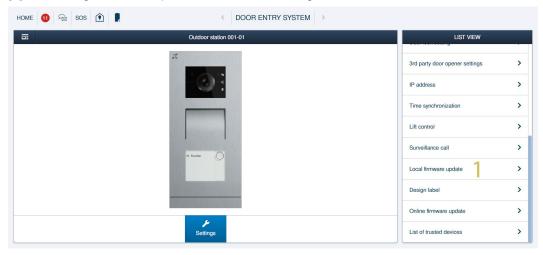
- [3] Select the designated Indoor Stations to trusted list.
- [4] Click " √ " to confirm.
- [5] [Optional] You need to enable the "Trust this management software" function if you want this Outdoor Station to unlock in the event of an emergency.
- [6] Click "Save".

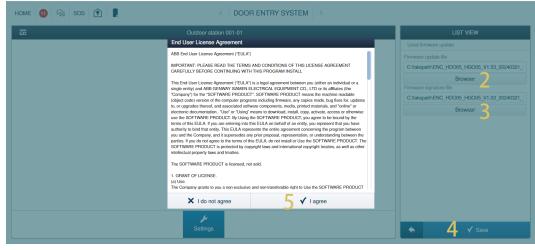


8.2.12 Updating the firmware

1. Local firmware update

- [1] On the designated Outdoor Station screen, click "Local firmware update".
- [2] Click "Browser" to select the update file (.img).
- [3] Click "Browser" to select the signature file (.sig).
- [4] Click "Save".
- [5] Click "I agree" to accept the end user license agreement.



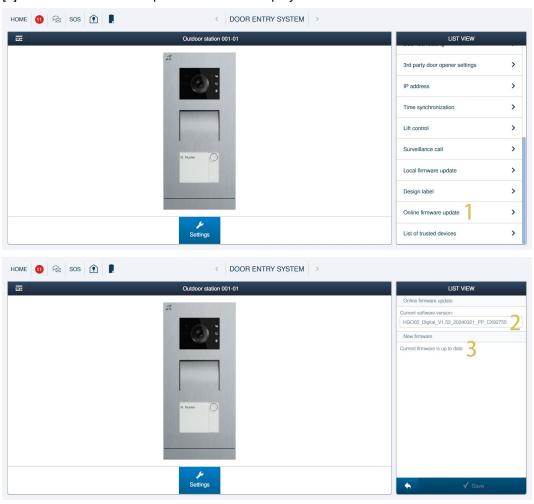


- [6] Update status will be displayed.
- [7] Click "Close" when the update is completed.



2. Online firmware update

- [1] On the designated IP Actuator screen, click "Online firmware update".
- [2] Current firmware version will be displayed.
- [3] "Current firmware is up to date" will be displayed if no newer version is available.



8.3 Card management

The chapter applies to the Outdoor Station integrated with IC card reader.

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Note

It is recommended that IC cards are created and maintained using local Outdoor Station or management software only.

1. Card management on local Outdoor Station

Initiate status

When the device is powered on the first time, all 3 indicators flash in red, orange & green.

Create admin card

The first card swiped after powering up the device within 60 seconds will be as the admin card.

Function	Action	Unlock indicator
Create admin card	Swipe card 1x	Green

Enter settings

In standby status, swipe the admin card once to enter the settings.

Function	Action	Unlock indicator
Enter settings	Swipe admin card 1x	Orange

Normal settings

After entering the settings, following functionalities can be implemented:

Function	Action	Unlock indicator
Enrol user	Swipe admin card 1x	Orange flashes 1x
	Swipe user card 1x	Green
Delete user	Swipe admin card 2x	Orange flashes 2x
	Swipe user card 1x	Green
Enrol new admin	Swipe admin card 3x	Orange flashes 3x
	Swipe new admin card 1x	Green
Delete admin	Swipe admin card 4x	Orange flashes 4x
	Swipe other admin card 1x	Green
Delete all users	Swipe admin card 5x	Orange flashes quickly
Delete all users	Swipe admin card 1x	Green

During setting, please swipe the same admin card.

Function	Action	Unlock indicator
Exit settings	Swipe admin card 1x or no cards swiped within 15 seconds	-

Function	Action	Unlock indicator
Open a door	Swipe the enrolled keycard	Green

Technical data of IC card

Operating frequency	13,56 MHz
Standard	ISO 14443A
Support card	Mifare one S50/S70, Mifare desfire EV1/EV2
Output format	Wiegand 26/34 bit

$\frac{\circ}{\parallel}$

Note

A maximum of 5000 IC cards can be supported if the device type of the Outdoor Station is set to "OS".

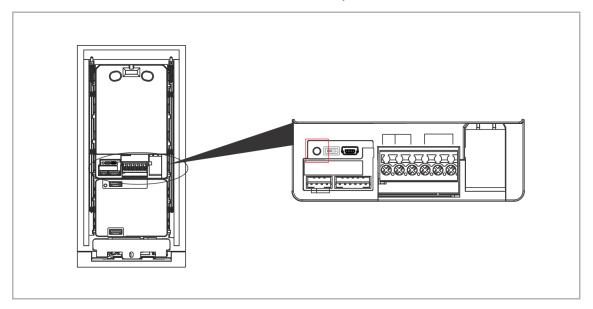
A maximum of 40,000 IC cards can be supported if the device type of the Outdoor Station is set to "GS".

2. Card management on management software

Please see the "Management software" product manual for more details.

8.4 Restoring to factory default

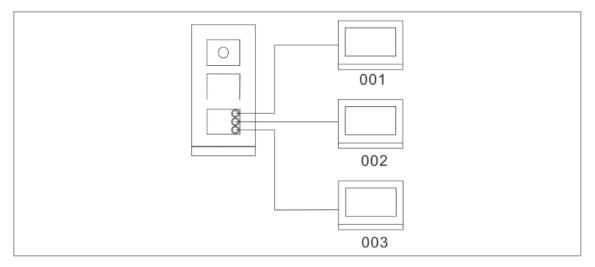
- [1] Power on the Outdoor Station, wait until all 3 LED indicators go out.
- [2] Within 2 minutes of powering on the Outdoor Station, press and hold the reset button for 10 seconds until the 3 LED indicators are lit continuously.



9 Operation

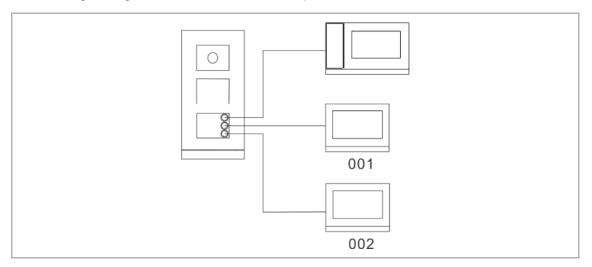
9.1 Calling a resident

Press the button to start a call (default) and press again to restart the call.



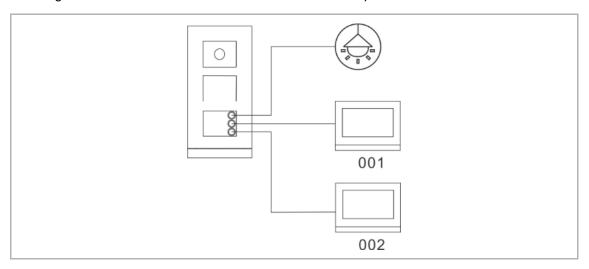
9.2 Calling a guard unit

If the outdoor station has been configured via the indoor station, we can press the pushbutton to call the designated guard unit. Please refer to the product manual for the IP touch.



9.3 Turn on a light

If the outdoor station is configured by the indoor station, we can press the pushbutton to switch on the light connected to the IP actuator. Please refer to the product manual for the IP touch.



10 Cyber security

10.1 Disclaimer

H81381P.-. products are designed to be connected and to communicate information and data via a network interface, which should be connected to a secure network. It is customer's sole responsibility to provide and continuously ensure a secure connection between the product and customer's network or any other network (as the case may be) and to establish and maintain appropriate measures (such as but not limited to the installation of firewalls, application of authentication measures, encryption of data, installation of antivirus programs, etc.) to protect the H81381P.-. product, the network, its system and interfaces against any kind of security breaches, unauthorized access, interference, intrusion, leakage and/or theft of data or information. Busch-Jaeger and its affiliates are not liable for damages and/or losses related to such security breaches, unauthorized access, interference, intrusion, leakage and/or theft of data or information.

Although Busch-Jaeger provides functionality testing on the products and updates that we release, you should institute your own testing program for any product updates or other major system updates (to include but not limited to code changes, configuration file changes, third party software updates or patches, hardware change out, etc.) to ensure that the security measures that you have implemented have not been compromised and system functionality in your environment is as expected.

10.2 Performance and service

Network performance

Туре	Value
Ethernet	24 Mbps (37,449 packets/sec)
ARP	12 Mbps (18,724 packets/sec)
ICMP	22 Mbps (34,328 packets/sec)
IP	22 Mbps (34,328 packets/sec)

Port and service

Port	Service	Purpose
5070	UDP	To be used by SIP client.
7777	TCP/UDP	To be used for device management.
10777	TLS	Secure channel for device management
7005	TCP	To be used for connectivity detection when this feature is enabled.
8887	TCP	To be used for firmware update.

10.3 Deployment guideline

All devices need to work in security mode by default and. all devices in one system shall be signed by a public CA at commissioning stage, normally management software works as CA.

It's suggested that compatible mode only to be used when device needs to communicate with previous generation products. In this mode, data transmission between devices are not encrypted, it may lead to data leaks and has the risk of being attacked.

When user decide to remove the device from system, user shall reset the device to factory setting in order to remove all the configuration data and sensitive data in the device. This will prevent sensitive data leak.

It is recommended to apply "MAC filter" and "Rate limiter" in the switch to prevent DOS attack.

10.4 Upgrading

Device supports firmware updates via management software, a signature file will be used to verify the authentication and integrity of firmware.

10.5 Backup/Restore

None.

10.6 Malware prevention solution

The H81381P.-. device is not susceptible to malware, because custom code cannot be executed on the system. The only way to update the software is by firmware upgrades. Only firmware signed by Busch-Jaeger can be accepted.

10.7 Password rule

The user must change the engineering password when accessing the engineering settings for the first time. This engineering password must not include continuously increasing or decreasing numbers (e.g. 123456, 654321), and three consecutive identical numbers are similarly not permitted (e.g. 123444, 666888).

11 Notice

We reserve the right to at all times make technical changes as well as changes to the contents of this document without prior notice.

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