

## ABB-Welcome

M2138.K-A Keypad outdoor station

M251381A-. Audio module

M25138.M Audio/video module

5138.CR Display module

5138.K-. Keypad module

5138.FP-. Fingerprint module

5138.RP. Round pushbutton module

5138.SP. Pushbutton module



## Table of contents

1	Notes on the instruction manual .....	4
2	Safety .....	4
3	Intended use .....	4
4	Environment .....	5
4.1	ABB devices .....	5
5	Product description .....	6
5.1	Device type .....	6
5.2	Lock type and connection .....	8
5.3	Audio module .....	10
5.4	Audio/video module .....	13
5.5	Display module .....	16
5.6	Keypad module .....	18
5.7	Fingerprint module .....	20
5.8	Pushbutton module .....	22
5.9	Round pushbutton module .....	23
6	Mounting/Installation .....	24
6.1	Requirement for the electrician .....	24
6.2	General installation instructions .....	25
6.3	Mounting .....	26
6.3.1	Preparation .....	26
6.3.2	Installation height .....	26
6.3.3	Product dimension .....	27
6.3.4	Mounting modules and wiring .....	29
6.3.5	Surface-mounted installation .....	29
6.3.6	Flush-mounted installation without pre-installation box .....	30
6.3.7	Flush-mounted installation with pre-installation box .....	30
6.3.8	Cavity wall installation .....	31
6.3.9	Dismantling .....	32
6.3.10	Multi-column outdoor station .....	34
6.3.11	Assemble the modules .....	36
7	Commissioning & Operation .....	37
7.1	Pushbutton outdoor station .....	37
7.1.1	Overview .....	37
7.1.2	Function sequence of the pushbuttons .....	37
7.1.3	Setting the voice language .....	38
7.1.4	Extending a display module .....	39
7.1.5	Extending a keypad module .....	41
7.2	Round pushbutton outdoor station .....	43
7.2.1	Overview .....	43
7.2.2	Managing IC cards .....	43
7.2.3	Setting the Wiegand format .....	45
7.2.4	Switching off the validation .....	45

7.3	Keypad outdoor station with display module.....	46
7.3.1	Overview.....	46
7.3.2	Accessing the "System settings" screen.....	46
7.3.3	Setting the device type.....	46
7.3.4	Setting the call mode.....	46
7.3.5	Managing the password.....	47
7.3.6	Managing IC cards.....	47
7.3.7	Managing contacts.....	47
7.3.8	Other settings.....	48
7.3.9	Resetting the system password.....	48
7.3.10	Restoring to default settings.....	48
7.3.11	Initiating a call via the physical address.....	49
7.3.12	Initiating a call via the logic address.....	49
7.3.13	Initiating a call via the name list.....	49
7.3.14	Calling a guard unit.....	50
7.4	Keypad outdoor station without display module.....	51
7.4.1	Overview.....	51
7.4.2	Accessing the "System settings" screen.....	51
7.4.3	Setting the device type.....	51
7.4.4	Managing the password.....	52
7.4.5	Setting the voice language.....	52
7.4.6	Resetting the system password.....	52
7.4.7	Initiating a call via the physical address.....	53
7.4.8	Calling a guard unit.....	53
7.5	Fingerprint outdoor station.....	54
7.5.1	Overview.....	54
7.5.2	Managing the fingerprints.....	54
8	Notice.....	56

## 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. ABB 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

The device is an integral part of the ABB-Welcome door communication system and operates exclusively with components from this system.

## 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 ABB devices**

All packaging materials and devices from ABB 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.

ABB 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

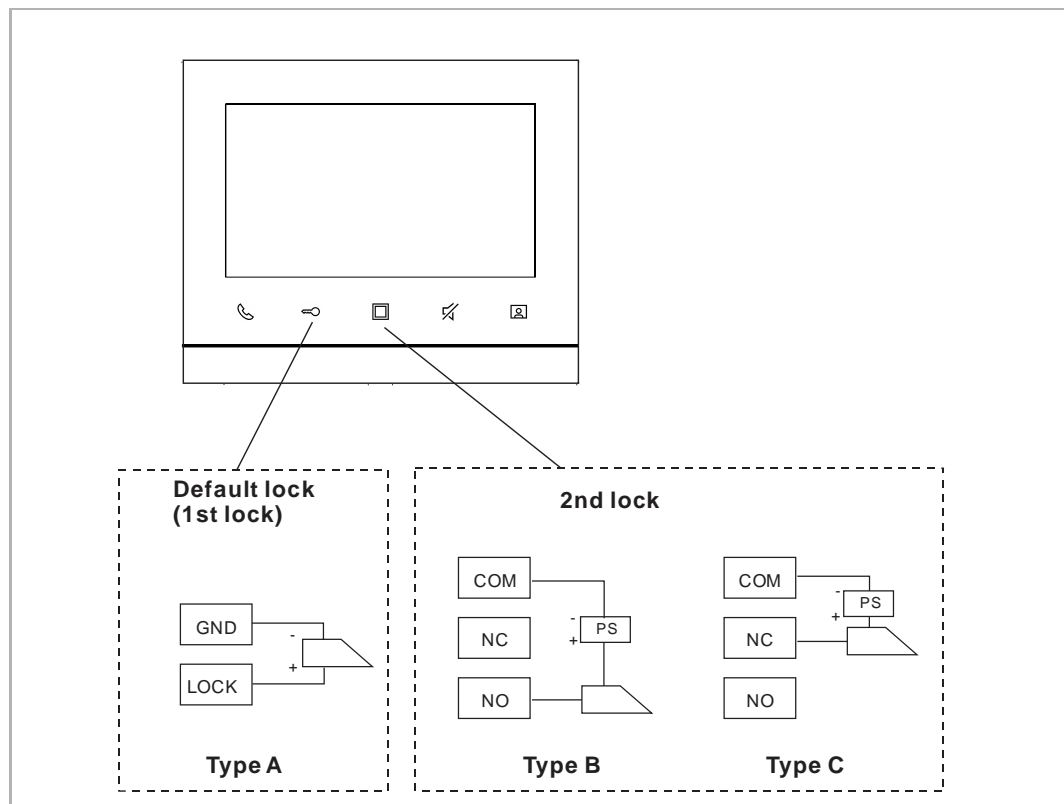
### 5.1 Device type

Article number	Order number	Product name	Color	Size (HxWxD) Unit: mm
M21381K-A	2TMA210010A0051	Video outdoor station, with keypad, with ID card	Aluminium	135 x 349 x 29
M21382K-A	2TMA210010A0053	Video outdoor station, with keypad, with IC/Desfire card	Aluminium	135 x 349 x 29
M251381A-A	2TMA200160A0001	Audio module	-	91 x 71.5 x 28
M251381M	2TMA200160N0043	Audio/video module	-	143 x 71.5 x 28
M251382M	2TMA200160N0044	Audio/video module, speech synthesis, T-loop	-	143 x 71.5 x 28
51381CR	2TMA130160N0010	Display module, ID	-	97 x 72 x 25
51382CR	2TMA130160N0009	Display module, with IC/Desfire card	-	97 x 72 x 25
51381K-A	2TMA210160A0009	Keypad module	Aluminium	97 x 72 x 25
51381K-S	2TMA130160X0001	Keypad module	Stainless steel	97 x 72 x 25
51381K-W	2TMA130010W0014	Keypad module	White	97 x 72 x 25
51381FP-A	2TMA200160A0025	Fingerprint module	Aluminium	97 x 72 x 28
51381FP-S	2TMA200160X0003	Fingerprint module	Stainless steel	97 x 72 x 28
51381FP-W	2TMA200160W0004	Fingerprint module	White	97 x 72 x 28

## Product description

Article number	Order number	Product name	Color	Size (HxWxD) Unit: mm
51381RP1	2TMA130160N0003	Round pushbutton module, 1 button	-	97 x 72 x 25
51381RP2	2TMA130160N0004	Round pushbutton module, 2 buttons	-	97 x 72 x 25
51381RP3	2TMA130160N0005	Round pushbutton module, 3 buttons	-	97 x 72 x 25
51382RP1	2TMA130160N0006	Round pushbutton module, 1 button, Desfire/IC	-	97 x 72 x 25
51382RP2	2TMA130160N0007	Round pushbutton module, 2 buttons, Desfire/IC	-	97 x 72 x 25
51382RP3	2TMA130160N0008	Round pushbutton module, 3 buttons, Desfire/IC	-	97 x 72 x 25
51381SP3	2TMA130160N0001	Pushbutton module, 3/6 buttons	-	97 x 72 x 25
51381SP4	2TMA130160N0002	Pushbutton module, 4/8 buttons	-	97 x 72 x 25

## 5.2 Lock type and connection



### 1. Default lock (1st lock)




This lock is released by pressing the unlock button on the indoor station. Default value is "Lock-GND".

### 2. 2nd lock

This lock is released by pressing the programmable button on the indoor station. Default value is "COM-NC-NO". You need to set the programmable button to "Release the 2nd lock" on the indoor station before use.

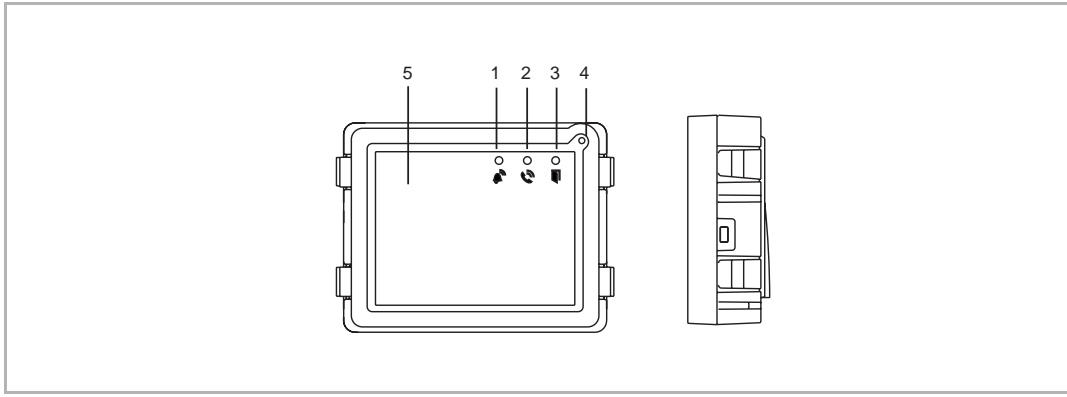


## Product description

Lock type	Pic	Operation type	Voltage	Wiring type
Electrical strike lock, 12V		Power on to open	12 V $\overline{=}$ /~	Type A/B
Electrical strike lock, 24V		Power on to open	24 V $\overline{=}$ /~	Type B
Electrical rim lock, 12 V		Power on to open	12 V $\overline{=}$	Type A/B
Electrical mortise lock		Power off to open	12 V $\overline{=}$	Type C
Magnetic lock		Power off to open	12/24 V $\overline{=}$	Type C

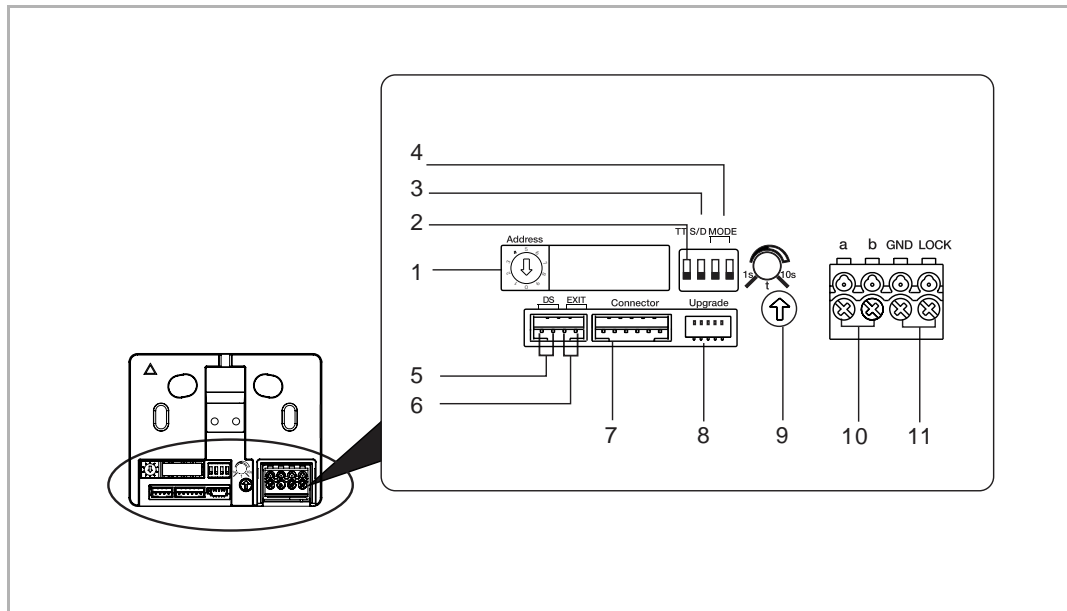
### 5.3 Audio module

#### 1. Control elements



No.	Description
1	<b>Ring Indicator</b> <ul style="list-style-type: none"> <li>▪ flashes slowly: ringing</li> <li>▪ flashes quickly: busy line</li> </ul>
2	Call indicator
3	Unlock indicator
4	Microphone
5	Speaker

2. Interface description



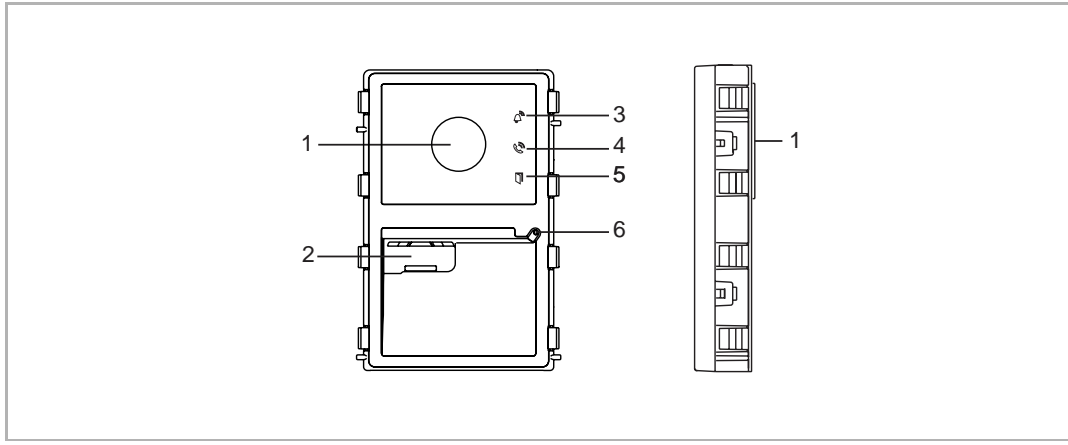
No.	Description
1	Set the address of outdoor station (1...9)
2	Set feedback tone of pushbutton, ON = enable
3	Set pushbutton as single column or double columns, ON = double
4	<p><b>Set function of 1st/2nd pushbutton</b></p> <p>3-&gt;OFF,4-&gt;OFF, call indoor station/call indoor station</p> <p>3-&gt;ON,4-&gt;OFF, switch on light/call indoor station</p> <p>3-&gt;OFF,4-&gt;ON, call guard unit/call indoor station</p> <p>3-&gt;ON,4-&gt;ON, switch on light/call guard unit</p>
5	Connector for the sensor used for door status detection
6	Connector for exit button
7	Connector for next module
8	Connector for upgrade (Only for factory use)
9	Adjust door unlock time, 1-10 s
10	Plug-in clamps (a - b) for bus connection and power input
11	Plug-in clamps (LOCK - GND) for door opener

## 3. Technical data

Input (a, b)	24 V $\overline{=}$
Operating voltage range	20-30 V $\overline{=}$
Standby current	24 V $\overline{=}$ , 8 mA
Operating current	24 V $\overline{=}$ , 120 mA
Operating temperature	-40 °C...+55 °C
Power supply for door opener (LOCK - GND)	18 V $\overline{=}$ , 4 A impulse, max. 250 mA holding
Single-wire clamps	2 x 0.28 mm <sup>2</sup> ...2 x 0.75 mm <sup>2</sup>
Fine-wire clamps	2 x 0.28 mm <sup>2</sup> ...2 x 0.75 mm <sup>2</sup>

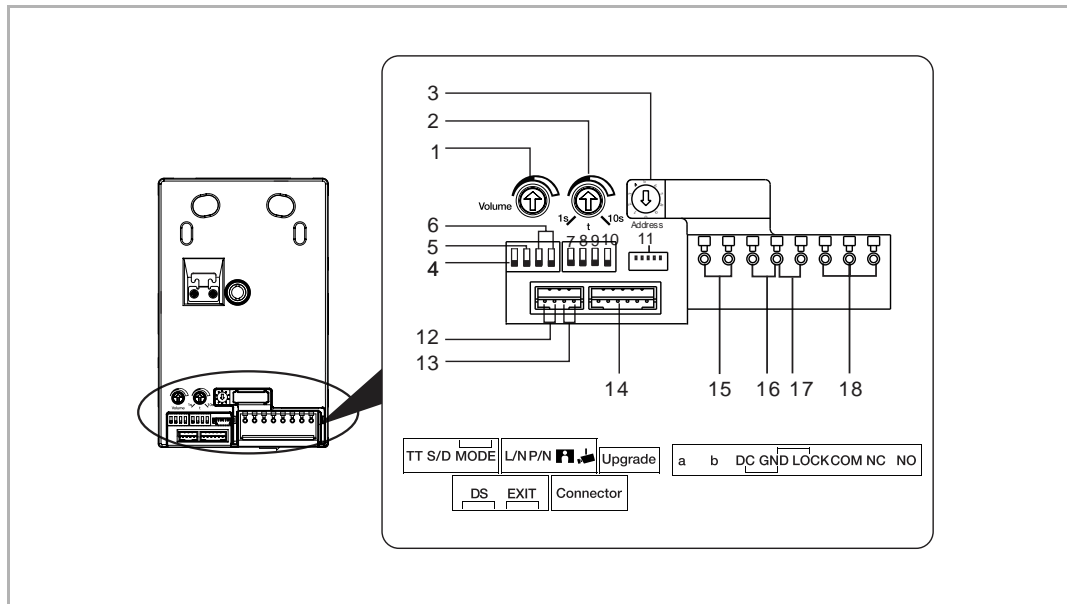
**5.4 Audio/video module**



1. Control elements



No.	Description
1	Camera
2	Speaker
3	Ring indicator
4	Call indicator
5	Unlock indicator
6	Microphone

2. Interface description



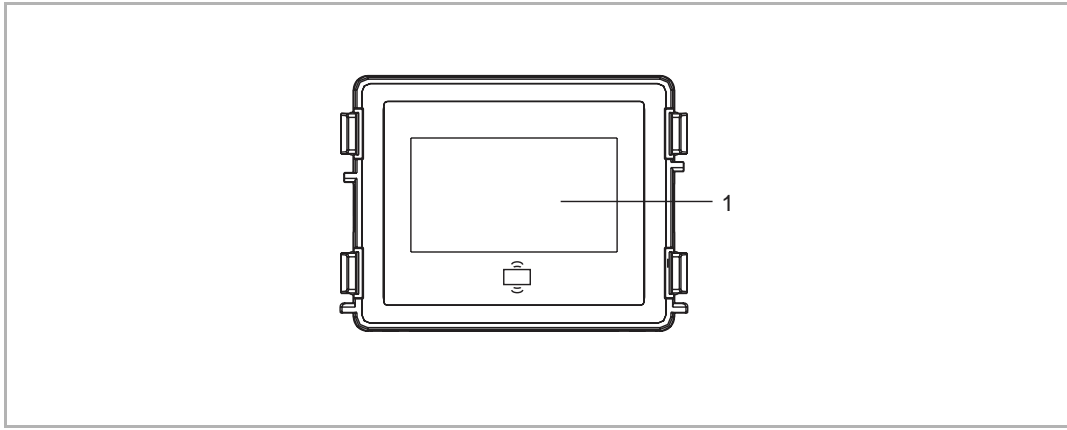
No.	Description
1	Adjust loudspeaker volume
2	Adjust door unlock time, 1-10 s
3	Set the address of outdoor station (1...9)
4	Set feedback tone of pushbutton, ON = enable
5	Set pushbutton as single column or double columns, ON = double
6	<b>Set function of 1st/2nd pushbutton</b> 3->OFF,4->OFF, call indoor station/call indoor station 3->ON,4->OFF, switch on light/call indoor station 3->OFF,4->ON, call guard unit/call indoor station 3->ON,4->ON, switch on light/call guard unit
7	<b>Set default lock</b> OFF = set (Lock-GND) as default lock ON = set (COM-NC-NO) as default lock *Default lock is controlled by "unlock" button on indoor station
8	Set the video mode PAL/NTSC OFF = PAL video mode ON = NTSC video mode
9	 Enable/disable snapshot function, ON = enable
10	 Enable/disable surveillance function, ON = enable
11	Connector for upgrade (Only for factory use)
12	Connector for the sensor used for door status detection
13	Connector for exit button
14	Connector for next module

## 3. Technical data

Input (a, b)	20-30 V $\overline{=}$
Standby current	24 V $\overline{=}$ , 60 mA
Operating current	24 V $\overline{=}$ , 200 mA (M251381M) 24 V $\overline{=}$ , 230 mA (M251382M)
Operating temperature	-40 °C...+55 °C
Image sensor	CMOS sensor 1/3.2"
Effective pixels	1292 (H) x 968 (V)
Resolution	550 TV lines
Horizontal detection angle	approx.100°
Vertical detection angle	approx.70°
Diagonal detection angle	approx.130°
Camera Standard	PAL/NTSC
Power supply for door opener (LOCK - GND)	18 V $\overline{=}$ , 4 A impulse, max. 250 mA holding
Floating output for door opener (COM - NC - NO)	30 V $\sim/\overline{=}$ , 1 A
Single-wire clamps	2 x 0.28 mm <sup>2</sup> ...2 x 0.75 mm <sup>2</sup>
Fine-wire clamps	2 x 0.28 mm <sup>2</sup> ...2 x 0.75 mm <sup>2</sup>

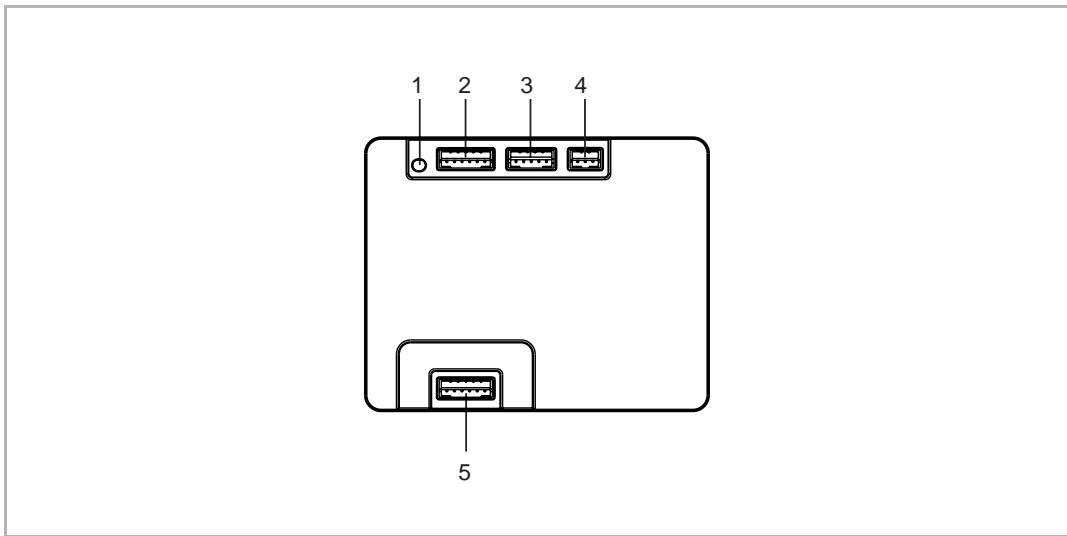
## 5.5 Display module

### 1. Control elements



No.	Description
1	LCD display

### 2. Interface description



No.	Description
1	Program button
2	Connector for previous module
3	Connector for device software update
4	Connector for Wiegand 26/34 bits output
5	Connector for next module



## 3. Technical data

The following applies to 51381CR and 51382CR.

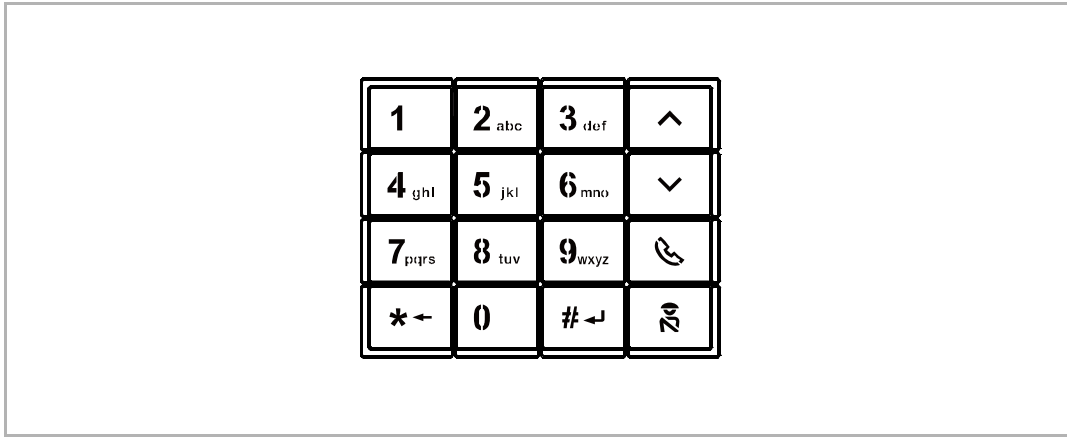
Rating voltage	24 V $\approx$
Operating voltage range	20-27 V $\approx$
Rating current	27 V $\approx$ , 145 mA 24 V $\approx$ , 160 mA
Operating temperature	-40 °C...+55 °C
Frequency range (ID)	125KHz
Standard (ID)	ISO18000-2
Support card (ID)	EM4100, EM4205, EM4305, EM4450, TK4100, T5567
Maximum power (ID)	$\leq$ -3.19 dB $\mu$ A/m @ 3m
Frequency range (IC)	13.56MHz
Standard (IC)	ISO 14443A
Support card (IC)	Mifare One S50/S70, etc.
Maximum power (IC)	$\leq$ -4.75 dB $\mu$ A/m @ 3m
Output format (ID & IC)	Wiegand 26/34 bits




The following applies to 51383CR.

Operating voltage range	20-30 V $\approx$
Standby current	24 V $\approx$ , 170 mA
Operating current	24 V $\approx$ , 170 mA
Operating temperature	-40 °C...+55 °C
Frequency range	13.56MHz
Standard	ISO 14443A
Support card	Mifare One S50/S70, etc.
Maximum power	$\leq$ 4.97dB $\mu$ A/m @ 3m
Output format	Wiegand 26/34 bits

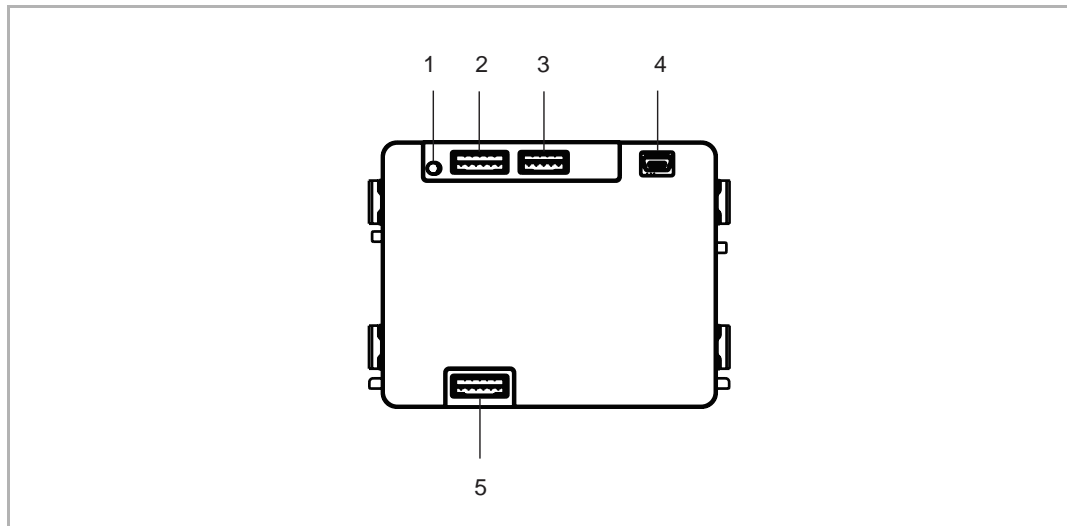
## 5.6 Keypad module

### 1. Control elements



No.	Description
1	<p><b>Call a resident</b></p> <ul style="list-style-type: none"> <li>▪ Enter an indoor station number (001) or room number (e.g. 0101) to call a resident.</li> <li>▪ Display the contact list on the display module via pressing "  " or "  ". Then select a name from the list to initiate a call.</li> <li>▪ Press [*] during the call to cancel the call.</li> </ul>
2	<p><b>Call guard unit</b></p> <p>Press "  " to call the guard unit if a guard unit is available in the system.</p>
3	<p><b>Release the lock via unlock password</b></p> <ul style="list-style-type: none"> <li>▪ Press [#] [Password] [#] to release the default lock connected to the audio module.</li> <li>▪ Press [#] [2] [#] [Password] [#] to release the 2nd lock connected to the audio module.</li> <li>– Unlock password is 123456 by default. And this password can be set on the indoor station.</li> </ul>
4	<p><b>System settings</b></p> <ul style="list-style-type: none"> <li>▪ Press [#] [*] [System password] [#] to enter the system settings.</li> <li>– System password is 345678 by default. And this password can be changed on the outdoor station.</li> </ul>

## 2. Interface description



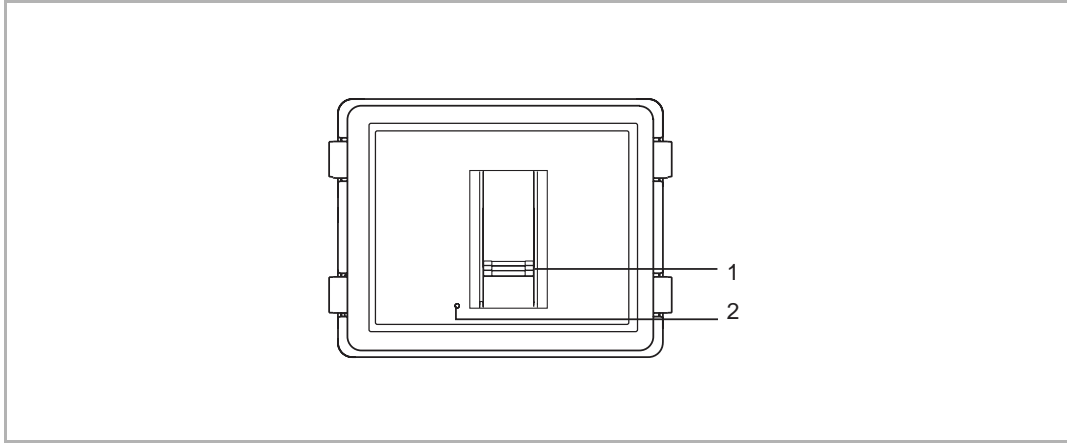
No.	Description
1	Program button
2	Connector for previous module
3	Connector for device software update (can only be done at the factory)
4	Micro USB update connector
5	Connector for next module

## 3. Technical data

Rating voltage	24 V $\approx$
Operating voltage range	20-27 V $\approx$
Rating current	27 V $\approx$ , 20 mA 24 V $\approx$ , 20 mA
Operating temperature	-40 °C...+55 °C

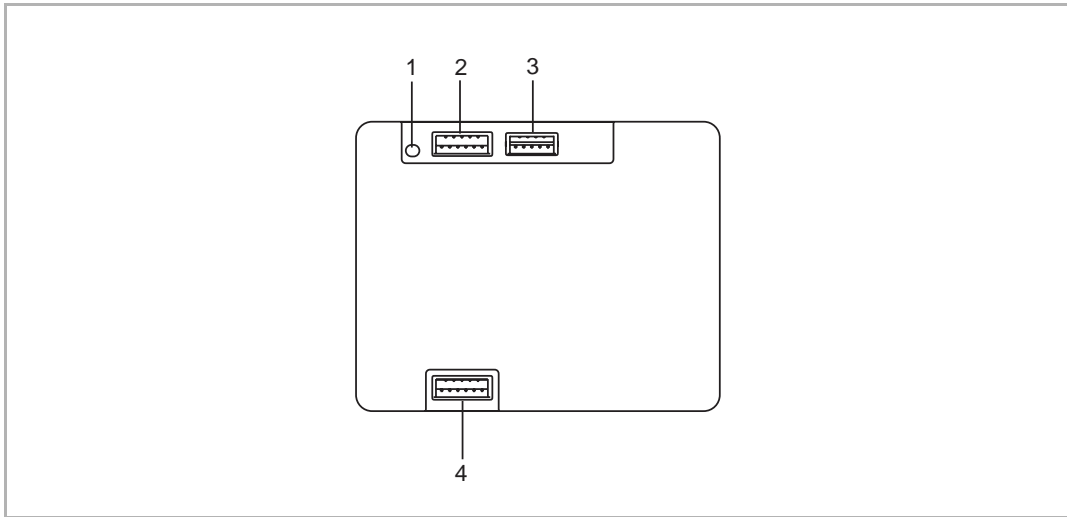
## 5.7 Fingerprint module

### 1. Control elements



No.	Description
1	Fingerprint swipe area
2	Fingerprint LED

### 2. Interface description



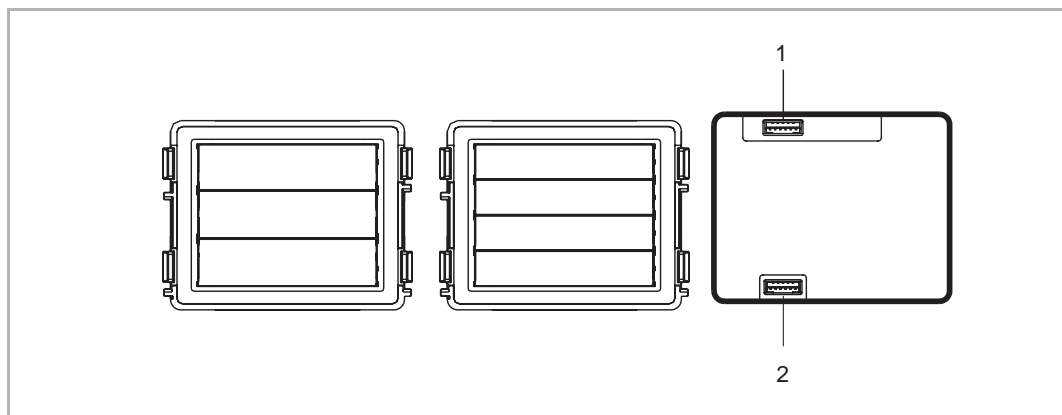
No.	Description
1	<b>Program button</b> Press this button for 5 seconds within 30 seconds after is powered on to restore to factory default settings.
2	Connector for previous module
3	Connector for device software update
4	Connector for next module

## 3. Technical data

Operating voltage range	20-30 V $\overline{=}$
Standby current	24 V $\overline{=}$ , 40 mA
Operating current	24 V $\overline{=}$ , 40 mA
Operating temperature	-25 °C...+55 °C

## 5.8 Pushbutton module

### 1. Interface description



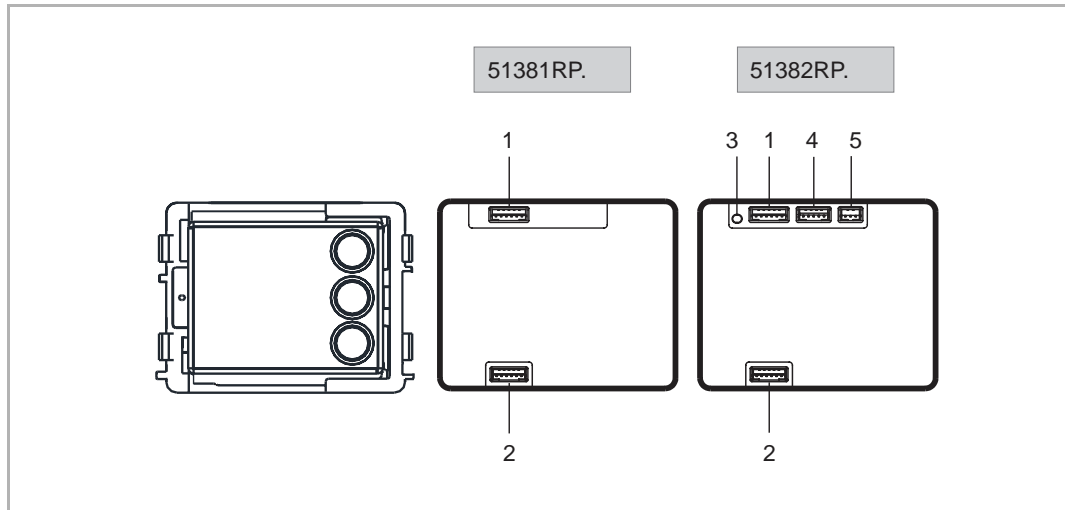
No.	Description
1	Connector for previous module
2	Connector for next module

### 2. Technical data

Rating voltage	24 V $\overline{=}$
Operating voltage range	20-27 V $\overline{=}$
Rating current	27 V $\overline{=}$ , 8 mA 24 V $\overline{=}$ , 8 mA
Operating temperature	-40 °C...+55 °C

## 5.9 Round pushbutton module

### 1. Interface description



No.	Description
1	Connector for previous module
2	Connector for next module
3	Program button
4	Connector for device software update
5	Connector for Wiegand 26/34 bits output

### 2. Technical data

Rating voltage	24 V $\approx$
Operating voltage range	20-27 V $\approx$
<sup>1</sup> Rating current	27 V $\approx$ , 10 mA 24 V $\approx$ , 10 mA
<sup>2</sup> Rating current	27 V $\approx$ , 35 mA 24 V $\approx$ , 40 mA
Operating temperature	-40 °C...+55 °C
<sup>2</sup> Frequency range	13.56MHz
<sup>2</sup> Maximum power	≤0 dBμA/m @ 3m

<sup>1</sup> 51381RP. <sup>2</sup> 51382RP

## 6 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!

### 6.1 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.).



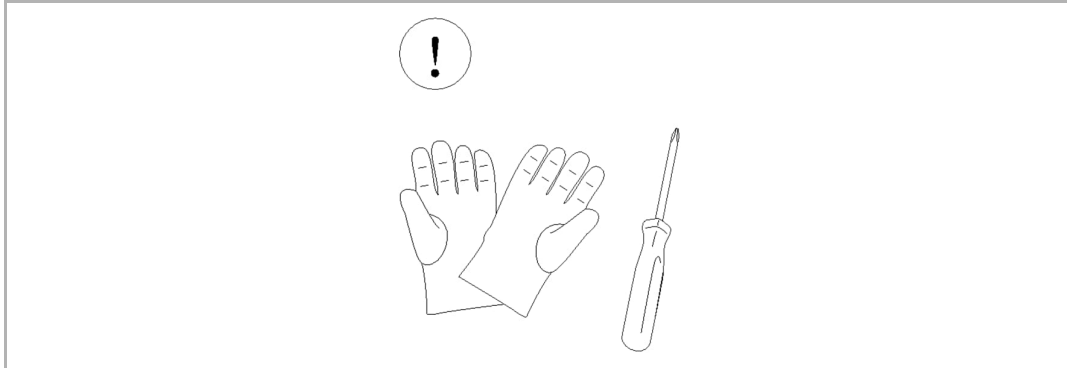
### 6.2 General installation instructions

- 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 100-240 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.
- For optimum tone quality ensure that the module is seated correctly. Press the microphone with the microphone adjuster directly against the voice plate.

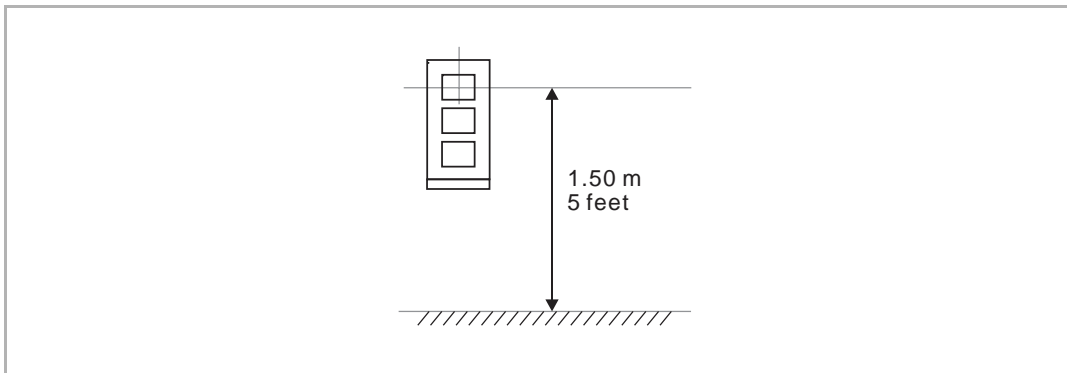
**6.3 Mounting**

**6.3.1 Preparation**

Use gloves to protect yourself against cuts.

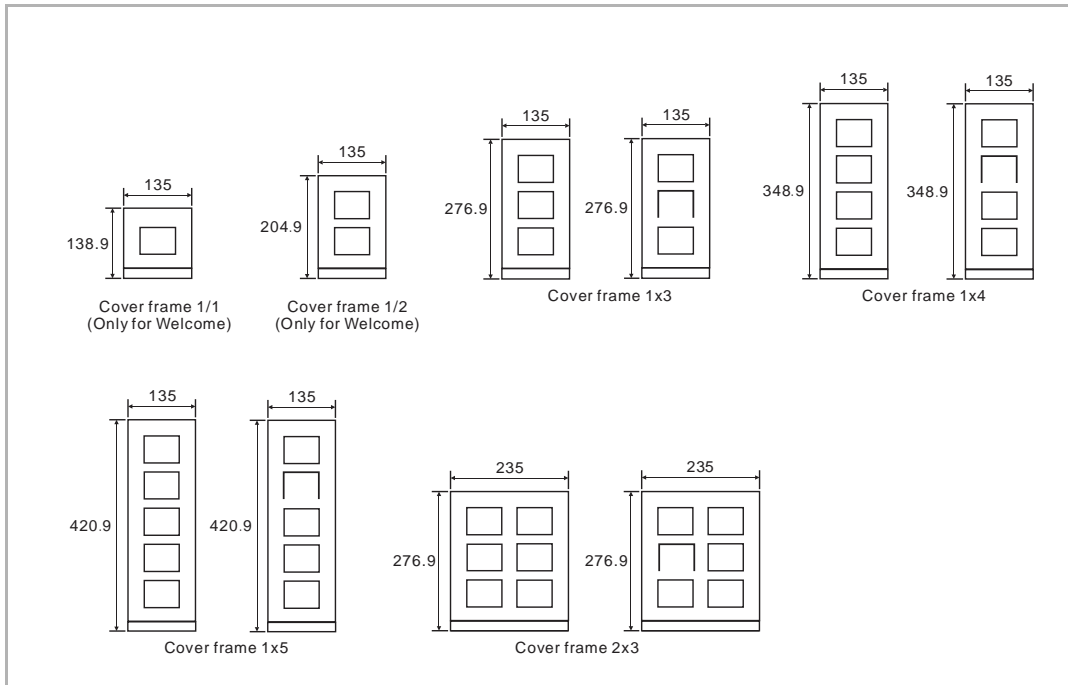


**6.3.2 Installation height**

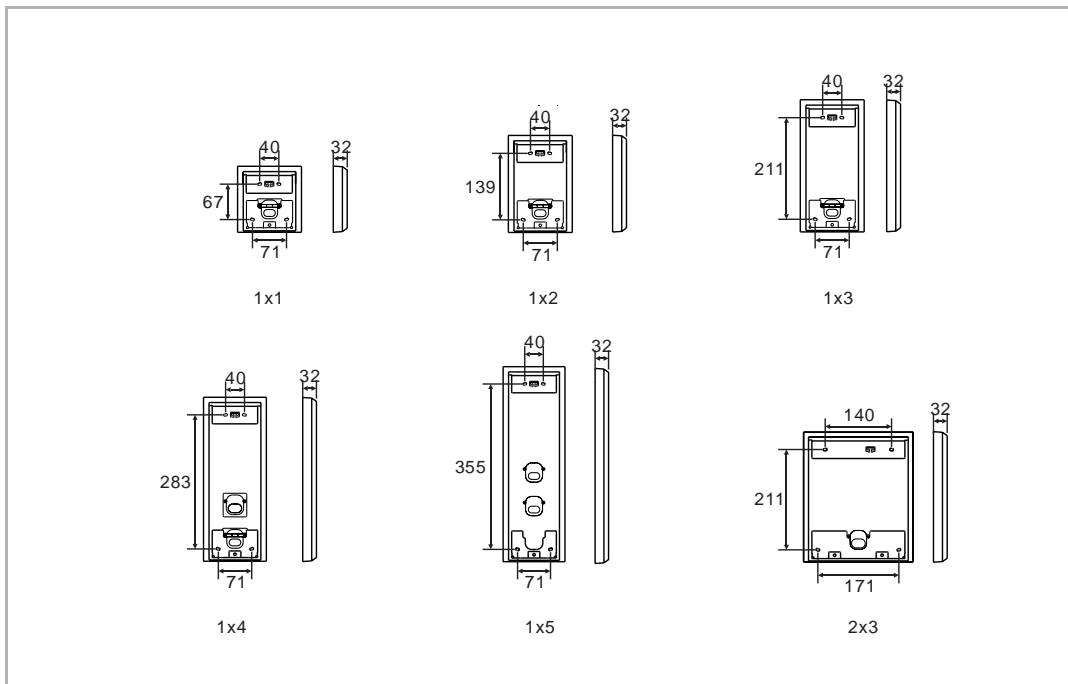


6.3.3 Product dimension

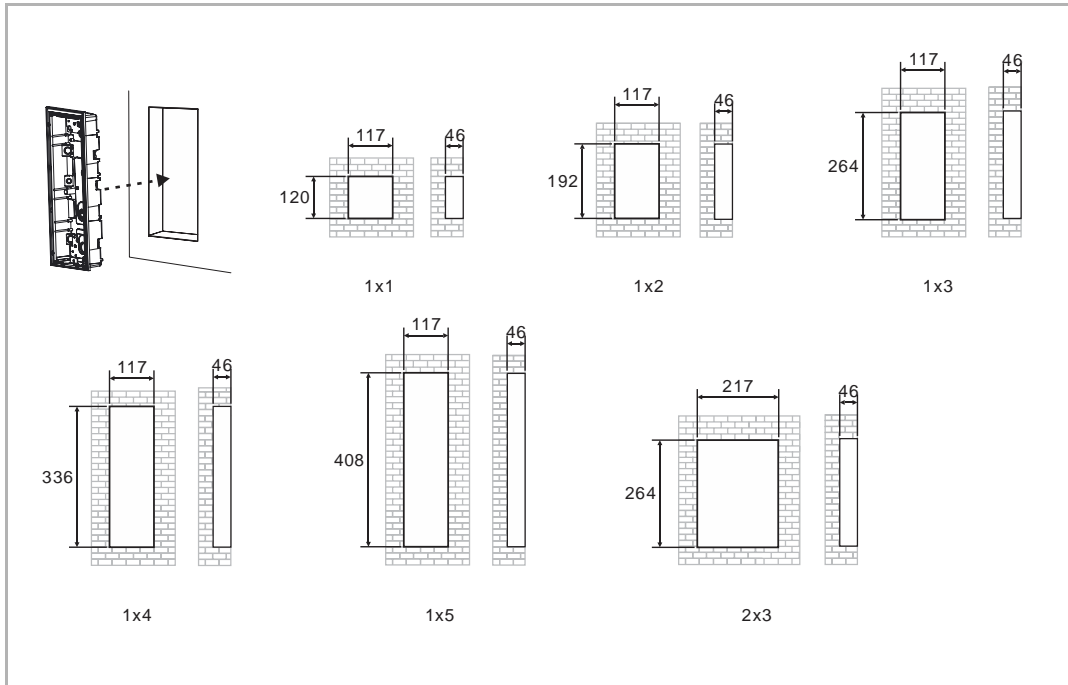
1. Cover frame (unit: mm)



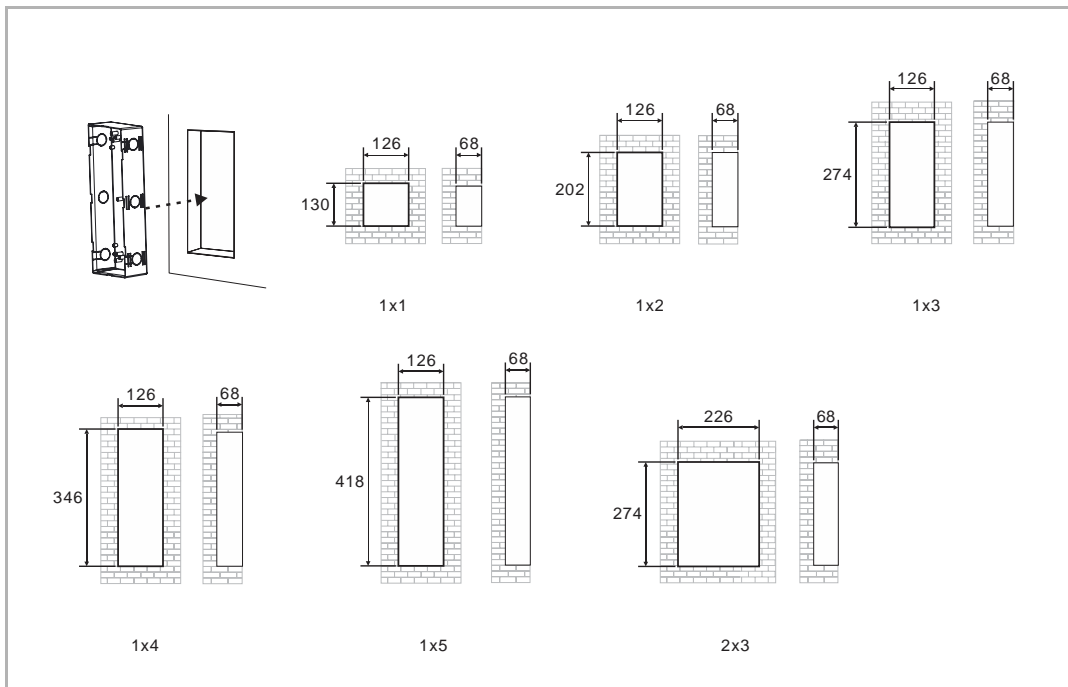
2. Surface-mounted box (unit: mm)



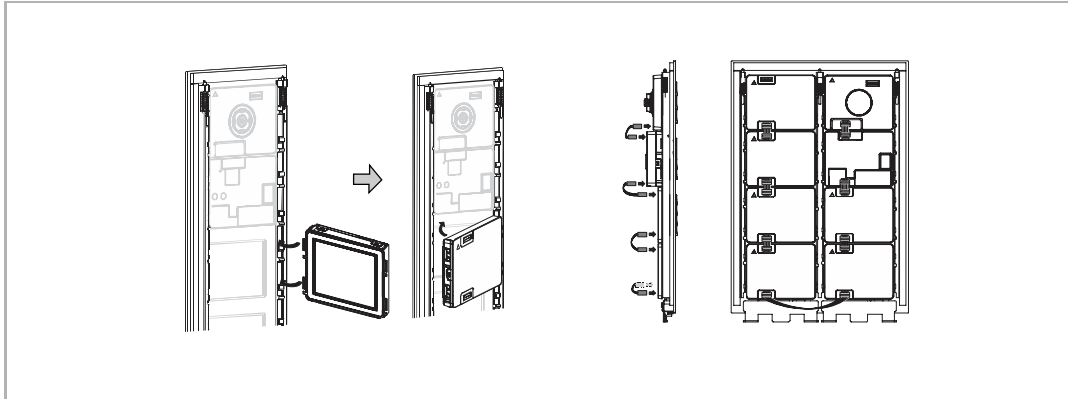
3. Flush-mounted box (unit: mm)



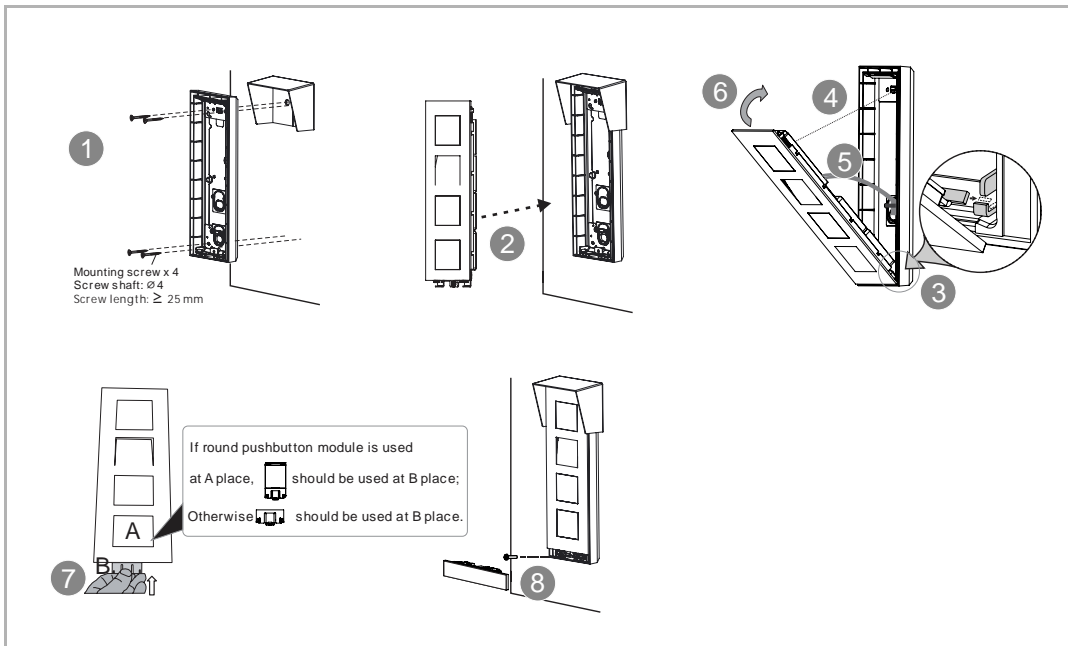
4. Pre-installation box



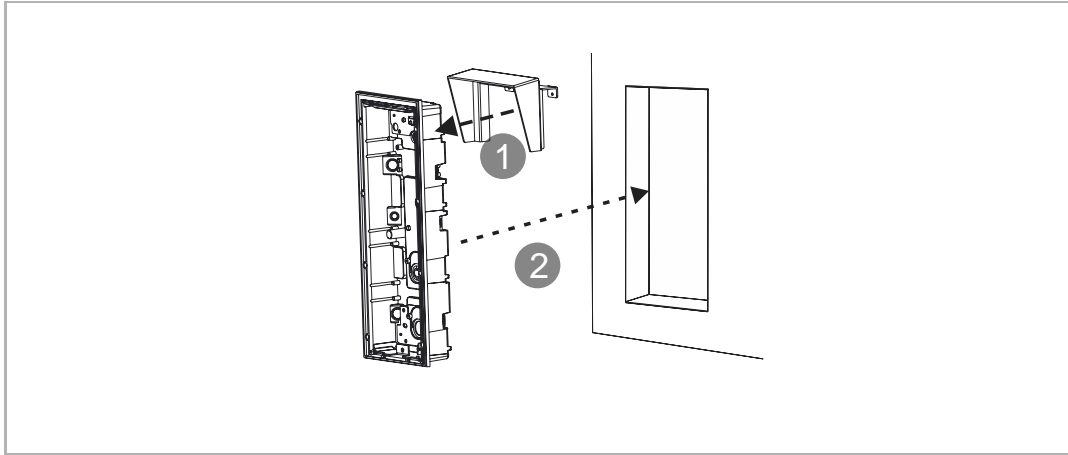
6.3.4 Mounting modules and wiring



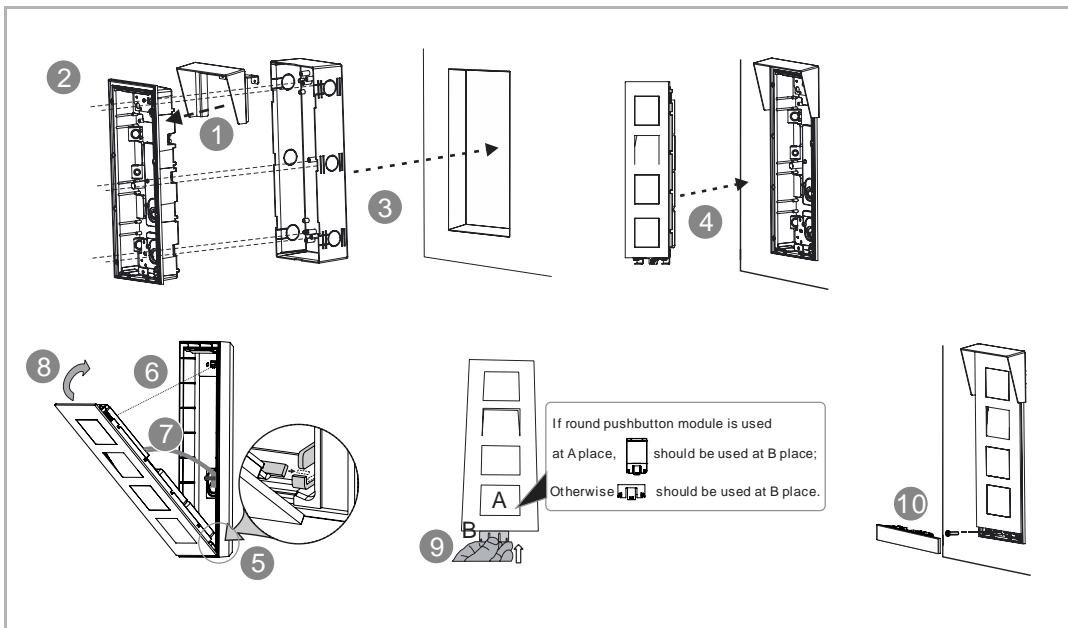
6.3.5 Surface-mounted installation



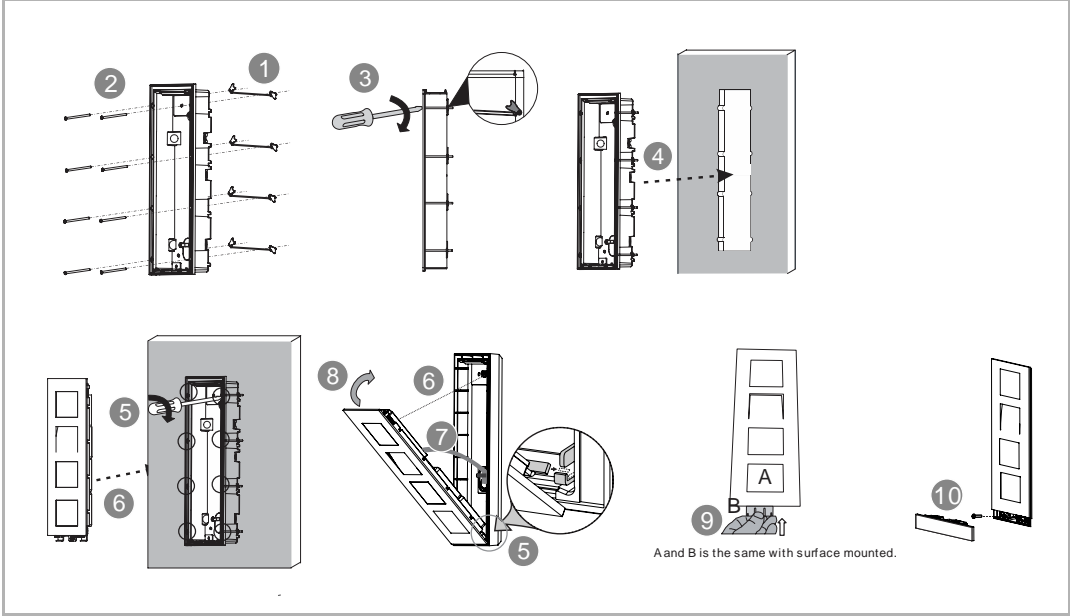
**6.3.6 Flush-mounted installation without pre-installation box**



**6.3.7 Flush-mounted installation with pre-installation box**

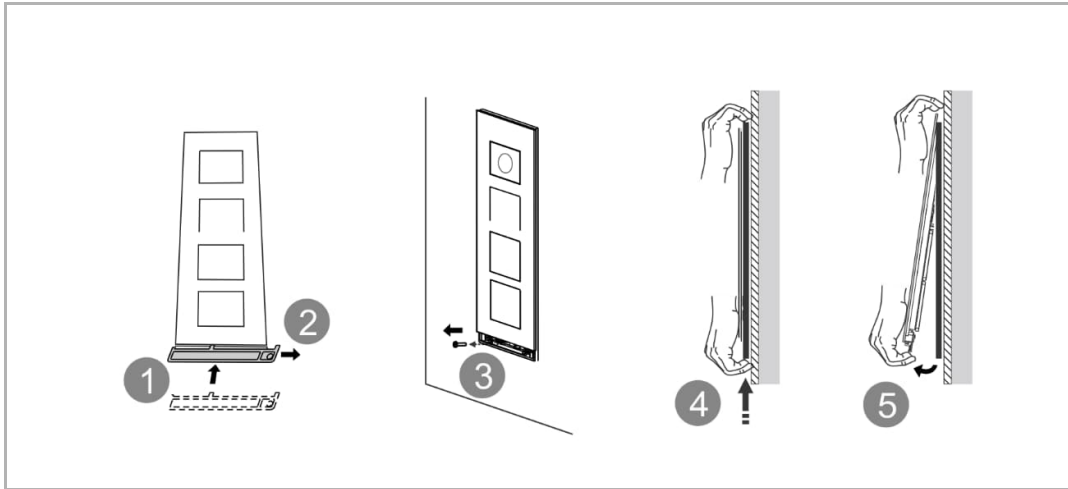


6.3.8 Cavity wall installation

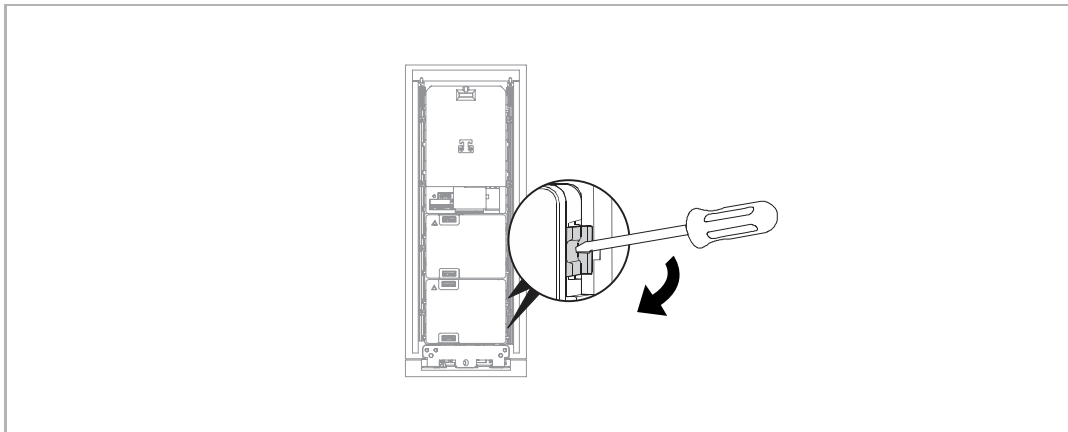


**6.3.9 Dismantling**

1. Dismantle the outdoor station from the wall

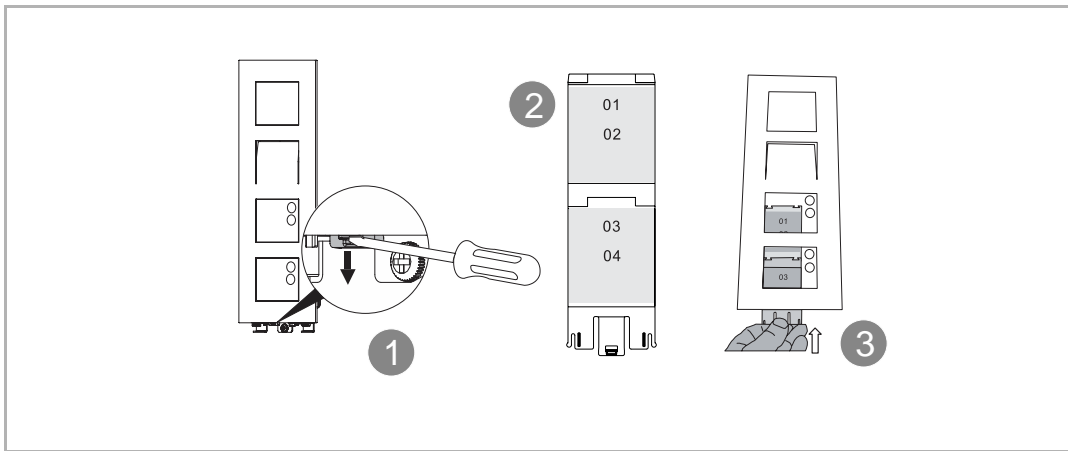
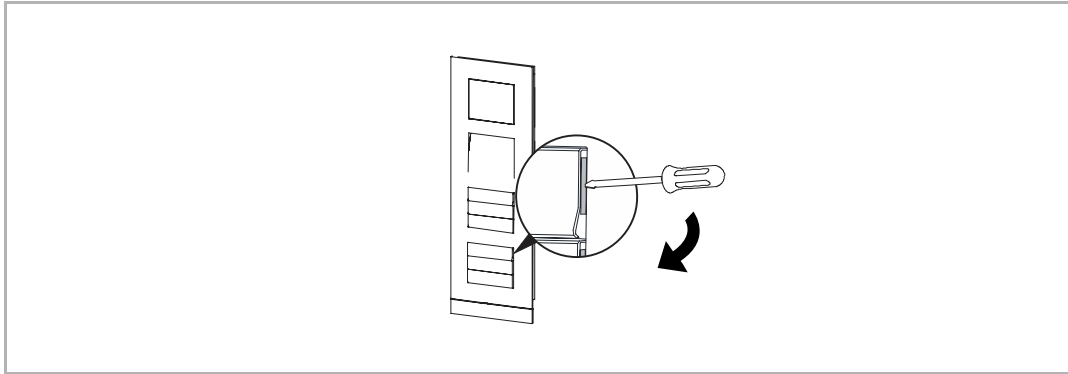


2. Dismantle the modules



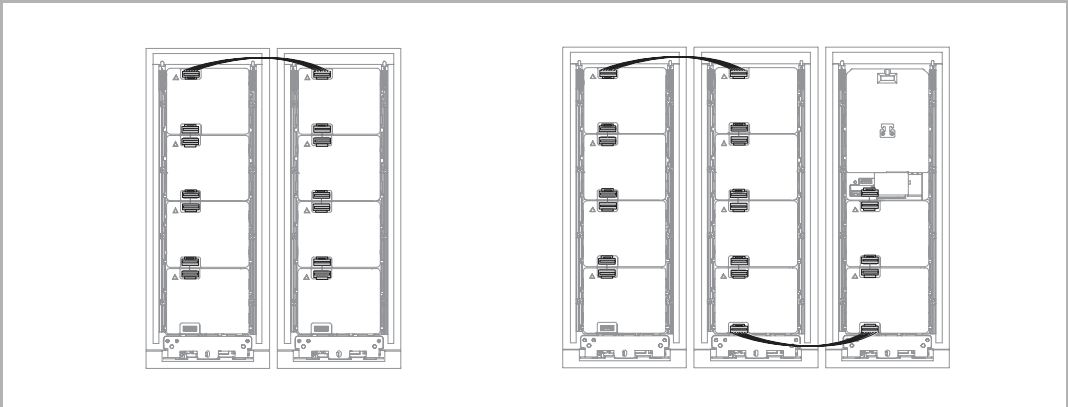


3. Replace the nameplate

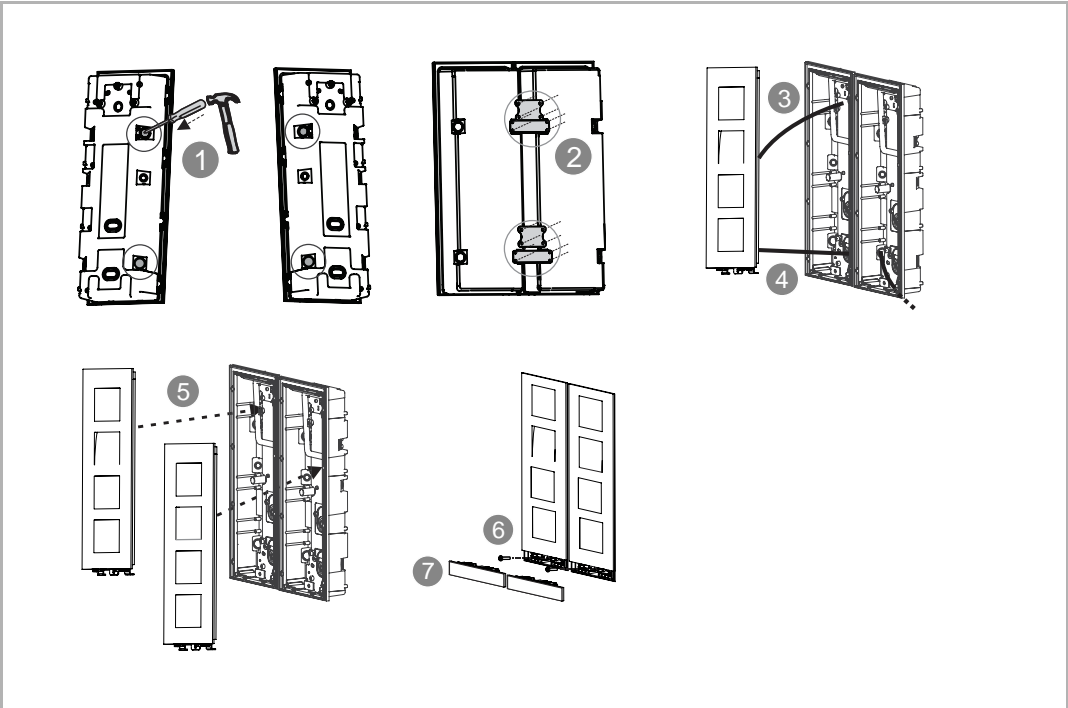


6.3.10 Multi-column outdoor station

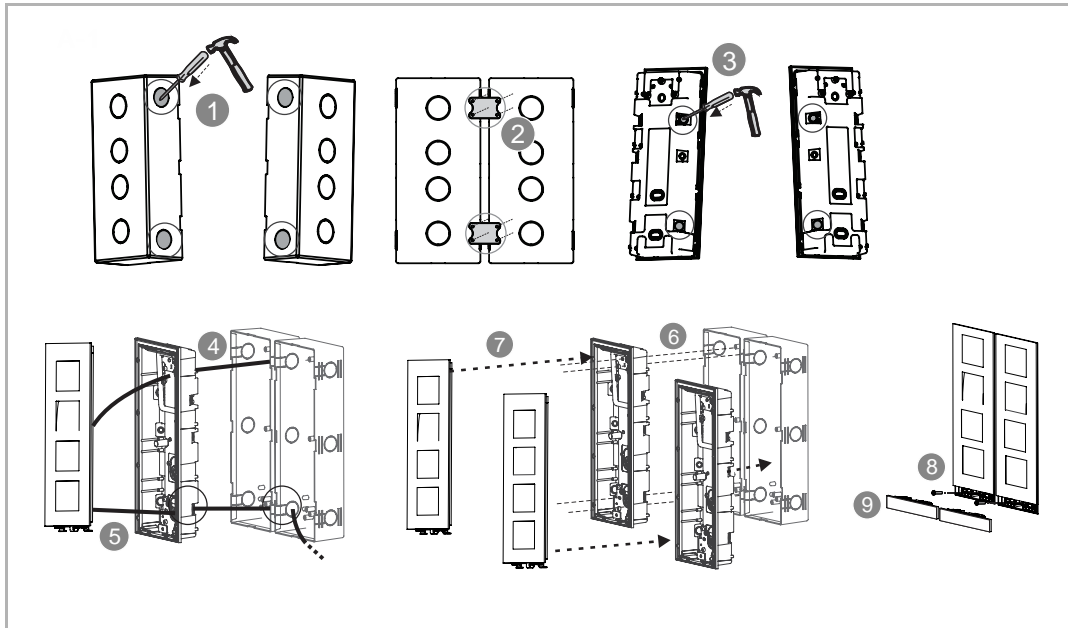
1. Wiring



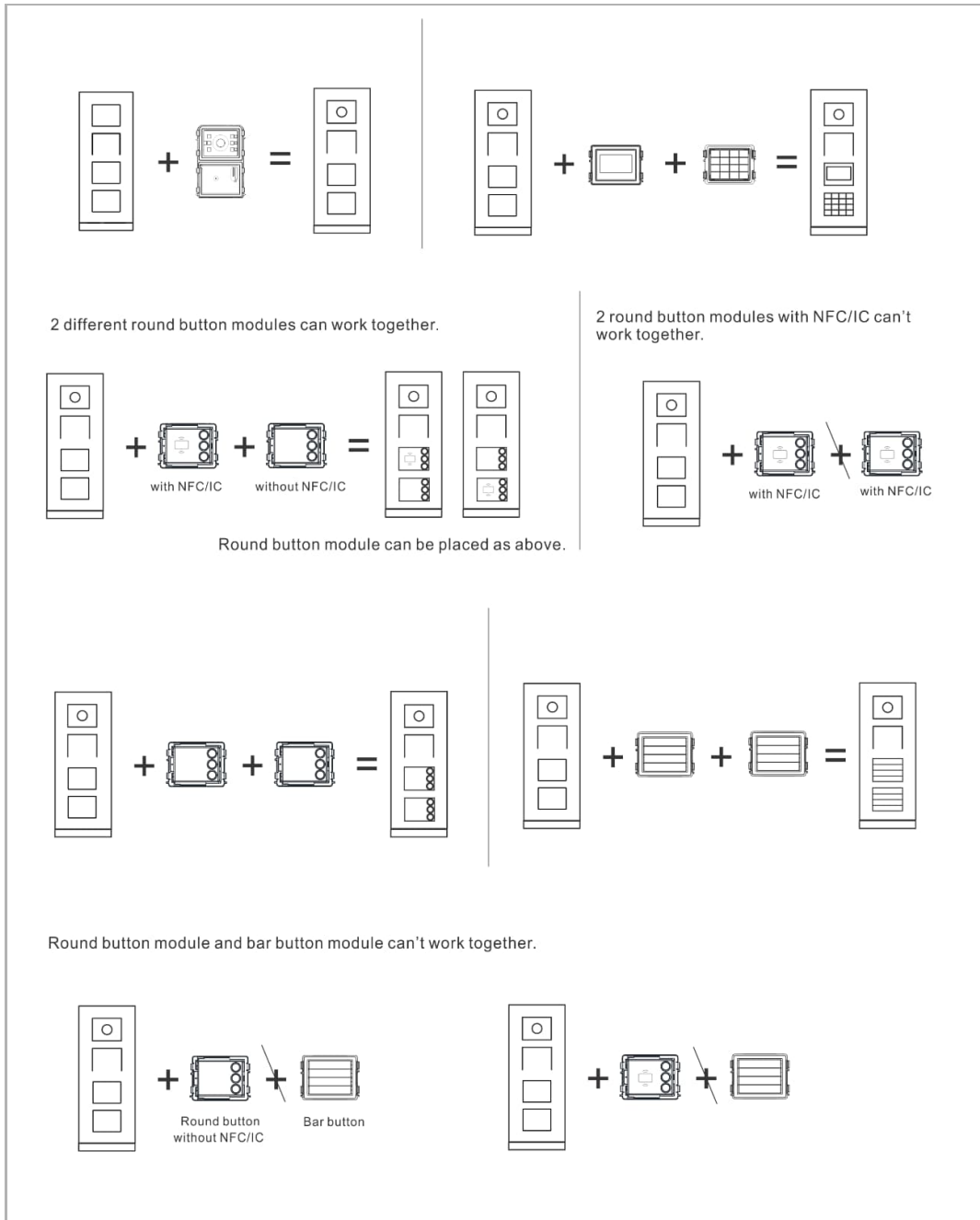
2. Flush-mounted without pre-installation box



3. Flush-mounted with pre-installation box



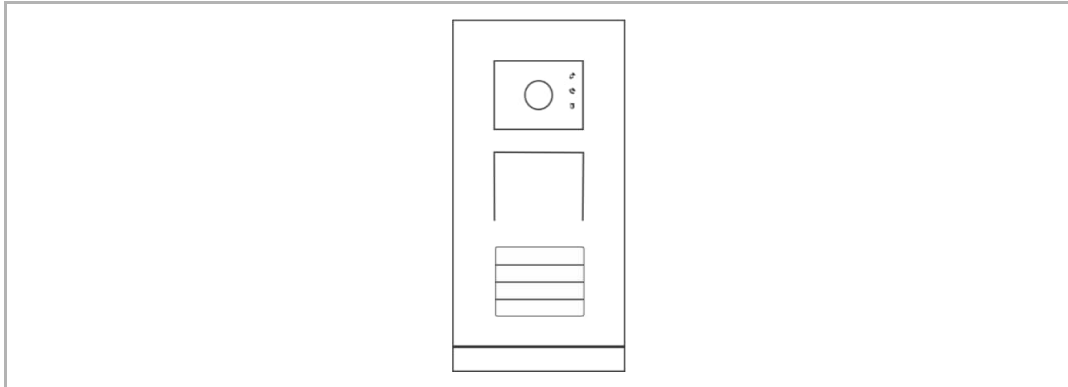
6.3.11 Assemble the modules



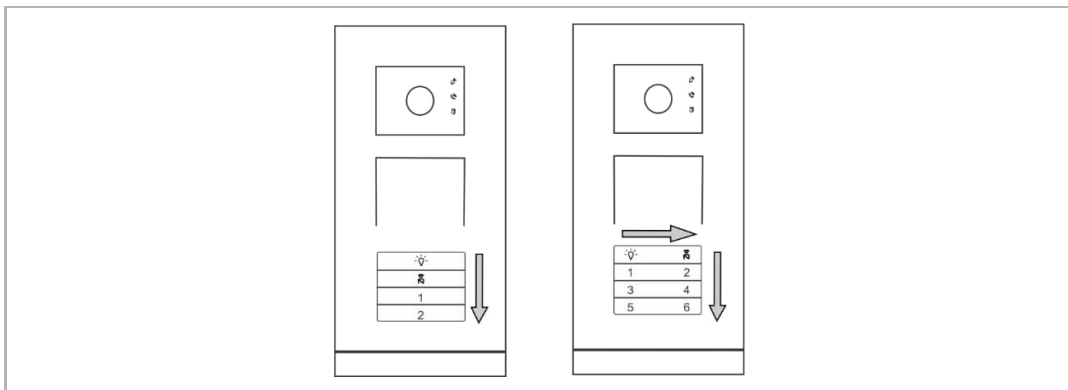
## 7 Commissioning & Operation

### 7.1 Pushbutton outdoor station

#### 7.1.1 Overview



#### 7.1.2 Function sequence of the pushbuttons



- The functions "Switching on light" and "Calling guard unit" are always assigned to the 1st/2nd pushbutton.
- In case of a single column, the button numbers are assigned from top to down (see the left diagram above).
- In case of double columns, the button numbers are assigned from left to right, then top to down (see the right diagram above).

### 7.1.3 Setting the voice language

If the audio module has a speech synthesis function, the voice language can be set to the local language.

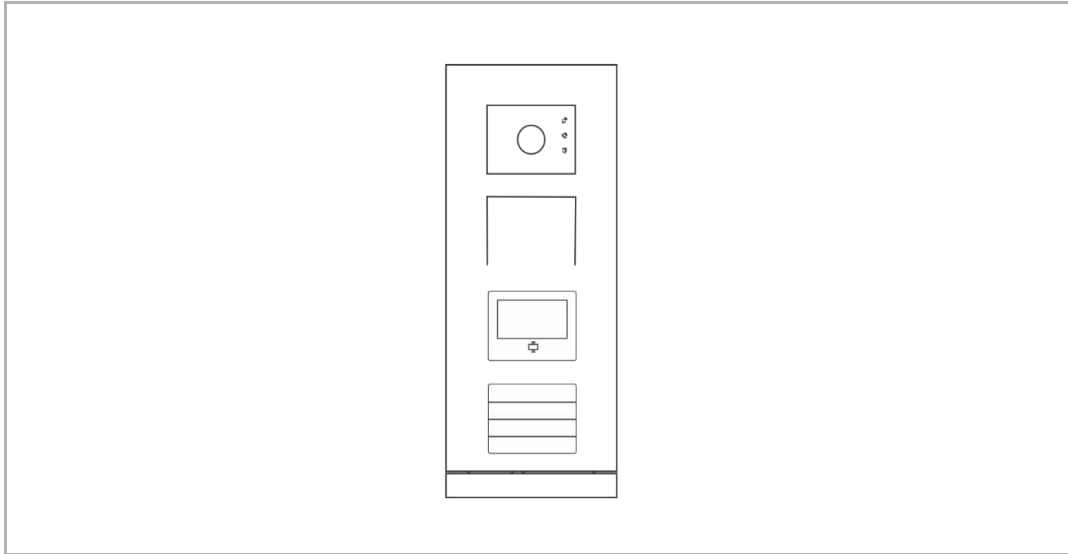
Please follow the steps below:

- [1] Write down the address of the outdoor station (e.g. "1").
- [2] Set the address of the outdoor station to "0".
- [3] Press and hold the 1st button for 3 seconds to play the voice message.
- [4] Click the 1st button to play the next language.
- [5] Press and hold the 1st button for 3 seconds to save and exit the setting.
- [6] Restore the address of the outdoor station (e.g. "1").

## 7.1.4 Extending a display module

The display and card reader module can be assembled with a pushbutton outdoor station. A user can swipe cards to release the lock.

In this case, a master card is needed to manage the cards.



### Registering a master card

Please follow the steps below:

- [1] Turn off the power of the outdoor station.
- [2] Power on the outdoor station.
- [3] Press and hold the program button on the display module for 5 seconds to enter the setting within 30s when powered on.
- [4] Swipe any card to create the master card.
- [5] A prompt "Register master card successfully" will be displayed on the screen of the display module.

\*Only 1 master card can be registered.

### Delete the master card

Please follow the steps below:

- [1] Turn off the power of the outdoor station.
- [2] Power on the outdoor station.
- [3] Press and hold the program button on the display module for 5 seconds to enter the setting within 30s when powered on.
- [4] Swipe the existing master card to delete it.
- [5] A prompt "Delete master card successfully" will be displayed on the screen of the display module.

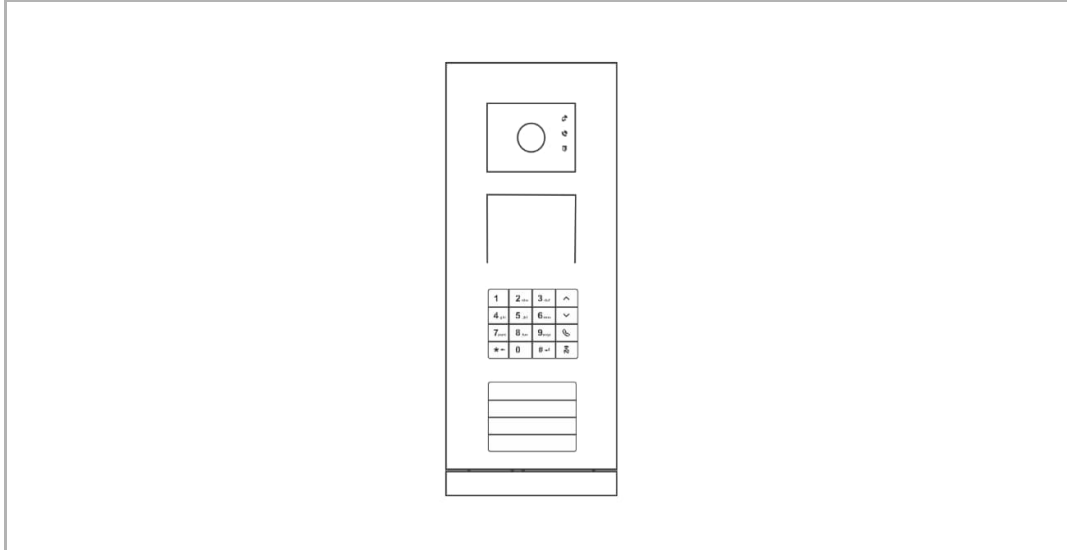
### **System settings**

- Swipe the MASTER card to enter the setting mode (three LEDs on the audio/video module will turn on).
- There are maximum 6 optional functions, each function has a 5 second countdown.
  - Program card
  - Language
  - Wiegand output
  - Choose door
  - Date and time
  - Back
- Current function will be operated if no operation is carried out within 5 seconds.
- Next function will be selected if the master card is swiped within 5 seconds.
- The setting mode will be exited if no operation is carried out within 30 seconds.



### 7.1.5 Extending a keypad module

The keypad module can be assembled with a pushbutton outdoor station and users can enter the password to open the door.



#### Enter the setting mode

In standby status, press **[#] [\*] [System password] [#]** to enter the setting mode (The system password is 345678 by default).

#### Set the device type to outdoor station

On the setting mode, press **[1] [#] [1] [#]**

#### Set the device type to gate station

On the setting mode, press **[1] [#] [2] [#]**

#### Change the system password

On the setting mode, press **[2] [#] [new system password] [#] [new system password] [#]**

\*System password should be 6-8 bits.



#### Set the unlock password



On the setting mode, press **[3] [#] [Unlock password] [#] [Unlock password] [#]**

\*Unlock password should be 3-8 bits.

### Set the voice message

If the audio module with the speech synthesis function is used, the voice language can be set to local language.

On the setting mode, press [4] [#] [  ]/[  ] [#]

\*Press [  ]/[  ] to select a language.

### Enable the access control function

On the setting mode, press [5] [#] [1] [#]

### Enable the access control function

On the setting mode, press [5] [#] [2] [#]

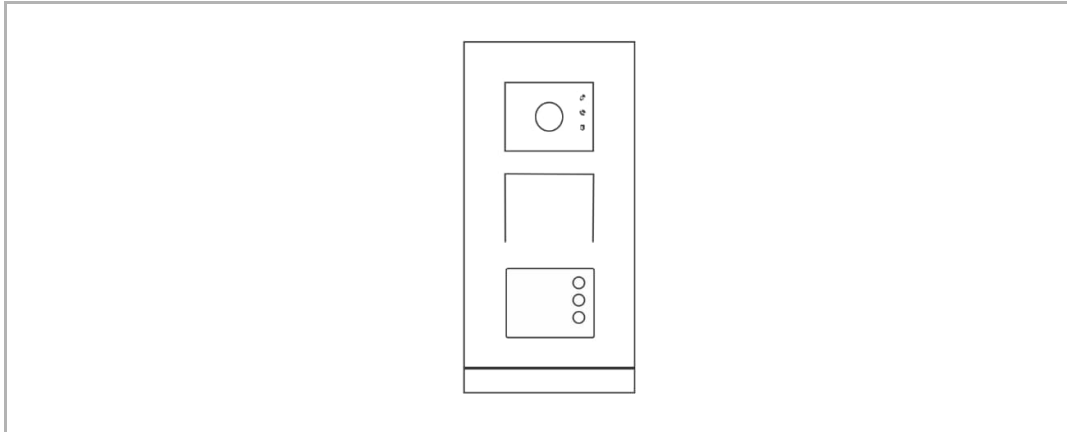
### Reset the system password

Please follow the steps below:

- [1] Turn off the outdoor station.
- [2] Power on the outdoor station.
- [3] Press and hold the "Program button" on the keypad module for 5 seconds within 30 seconds when powered on.
- [4] A beep sounds to indicate the system password has been restore to 345678.

## 7.2 Round pushbutton outdoor station

### 7.2.1 Overview



### 7.2.2 Managing IC cards

A maximum of 500 IC cards can be managed on the round pushbutton outdoor station.

#### Primary card

The first card swiped on the round pushbutton module of the outdoor station will be taken as primary card within 60 seconds when the outdoor station is powered on. Round pushbutton module will light green.

#### Enter the setting mode

In standby status, swipe the primary card or any admin card to enter the setting mode. Round pushbutton module will light up in orange.

## Configure the settings

In setting mode, the following functions can be carried out.

Function	Command	LED
Enroll user card	Swipe admin card 1x	Orange flash x1
	Swipe card (new user) 1x	Green
Delete user cards	Swipe admin card 2x	Orange flash x2
	Swipe card (user x) 1x	Green
Enroll new admin cards	Swipe admin card 3x	Orange flash x3
	Swipe card (new admin) 1x	Green
Delete admin cards	Swipe admin card 4x	Orange flash x4
	Swipe card (admin x) 1x	Green
Delete all user cards	Swipe admin card 5x	Orange flashing quickly
	Swipe admin card 1x	Green

## Exit the setting mode

In setting mode, swipe current admin card once to exit the setting mode.

\*Current admin card = admin card used to enter the setting mode

## Open a door

In standby status, swipe any enrolled cards to open a door.

## Restore to factory default

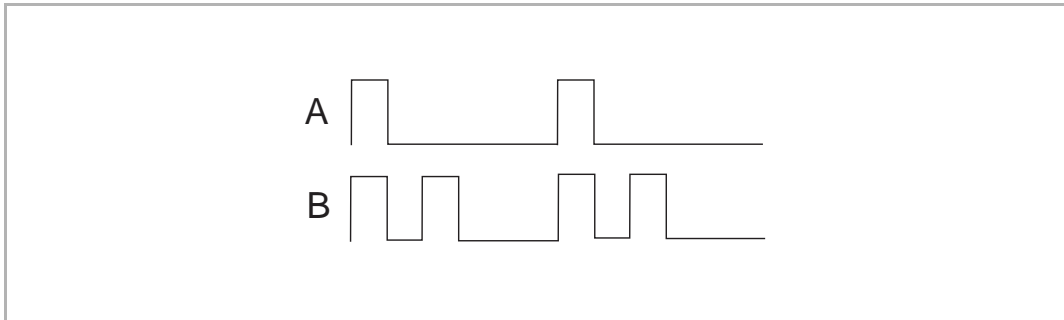
Please follow the steps below:

- [1] Power off the outdoor station.
- [2] Power on the outdoor station.
- [3] Press and hold the "Program" button for 5 seconds within 60 seconds when the outdoor station is powered on.
- [4] Round pushbutton module flashes red, green and orange cyclically.

### 7.2.3 Setting the Wiegand format

Please follow the steps below:

- [1] In standby status, swipe the primary card or any admin card to enter the setting mode. The round pushbutton module will light up in orange.
- [2] Press and hold the 1st button for 3 seconds to set the Wiegand format; the flash times of the round pushbutton module and beep times of the outdoor station indicate the selection.
  - 26-bit, round pushbutton module flashes green once, beeps once (see A below))
  - 34-bit, round pushbutton module flashes green twice, beep twice (see B below).

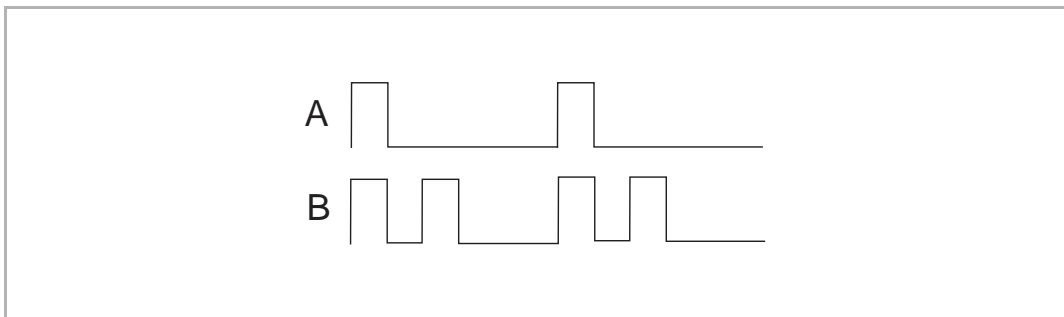


### 7.2.4 Switching off the validation

Sometimes, the ID cards are only enrolled on a 3rd party device and not on the outdoor station. In this case, a beep will be sounded on the outdoor station when these cards are swiped on the outdoor station.

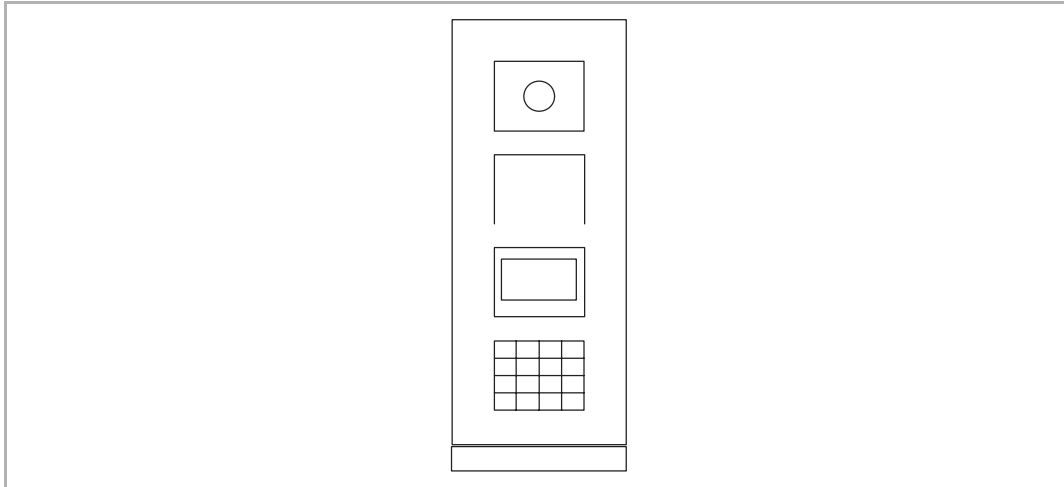
You can mute the beep by following the steps below:

- [1] In standby status, swipe the primary card or any admin card to enter the setting mode. The round pushbutton module will light up in orange.
- [2] Press and hold the 1st button for 3 seconds to switch on or off the validation ("On" by default). The flash times of the round pushbutton module and beep times of the outdoor station indicates the selection.
  - on, round pushbutton module flashes green once, beeps once (see A below))
  - off, round pushbutton module flashes green twice, beep twice (see B below).



**7.3 Keypad outdoor station with display module**

**7.3.1 Overview**



**7.3.2 Accessing the "System settings" screen**

In standby status, press [#] [\*] [System password] [#] to enter the system setting screen.

\*System password is 345678 by default.



**Note**

The following operations are all carried out after you enters the system setting screen.

**7.3.3 Setting the device type**

Function	Operation
Device type → outdoor station	[Configurations] [#] >> [Device Type] [#] >> [Outdoor St.] [#]
Device type → gate station	[Configurations] [#] >> [Device Type] [#] >> [Gate Station] [#]

**7.3.4 Setting the call mode**

Function	Operation
Call mode → physical address	[Configurations] [#] >> [Call mode] [#] >> [Physical Add.] [#]
Call mode → logic address	[Configurations] [#] >> [Call mode] [#] >> [Logic Add.] [#] >> enter the number of digits (1-8 digits)

### 7.3.5 Managing the password

Function	Operation
Modify the system password	[Configurations] [#] >> [System code] [#] >> [Modify] [#] >> [New password] [#] >> [New password] [#]
Reset the system password	[Configurations] [#] >> [System code] [#] >> [Reset] [#]
Enable the unlock password	[Access Control] [#] >> [Door open code] [#] >> [Enable] [#]
Disable the unlock password	[Access Control] [#] >> [Door open code] [#] >> [Disable] [#]
Reset the unlock password	[Access Control] [#] >> [Door open code] [#] >> [Reset] [#]

### 7.3.6 Managing IC cards

A maximum of 3000 IC cards are supported.

Function	Operation
Register the cards (maximum 3000)	[Access Control] [#] >> [Proximity card] [#] >> [Register card] [#] >> enter the card number or swipe the card
Delete the cards	[Access Control] [#] >> [Proximity card] [#] >> [Delete card] [#] >> enter the card number or swipe the card
Clear all cards	[Access Control] [#] >> [Proximity card] [#] >> [Delete all] [#]

### 7.3.7 Managing contacts

A maximum of 3000 contacts are supported.

Function	Operation
Add a contact with user name	[Contact] [#] >> [Add] [#] >> [User name] [#] >> enter a physical address and a user name
Add a contact with logic address	[Contact] [#] >> [Add] [#] >> [Logic add.] [#] >> enter a physical address and a logic address
Modify a contact with user name	[Contact] [#] >> [Modify] [#] >> [User name] [#] >> enter a new user name
Modify a contact with logic address	[Contact] [#] >> [Modify] [#] >> [Logic add.] [#] >> enter a new logic address
Delete a contact with user name	[Contact] [#] >> [Delete] [#] >> [User name] [#] >> select the user name
Delete a contact with logic address	[Contact] [#] >> [Delete] [#] >> [Logic add.] [#] >> enter the logic address
Clear all contacts	[Contact] [#] >> [Clear all] [#]

### 7.3.8 Other settings

Function	Operation
Set date and time	[Settings] [#] >> [Date & time] [#] >> enter date and time [#]
Set door open time for the 2nd lock	[Settings] [#] >> [Door Open Time] [#] >> enter the time [#]
Enable the voice message	[Settings] [#] >> [Voice Message] [#] >> [On] [#]
Disable the voice message	[Settings] [#] >> [Voice Message] [#] >> [Off] [#]
Select the language	[Settings] [#] >> [Language] [#] >> Select a language [#]
Set welcome message	[Settings] [#] >> [Welcome Msg.] [#] >> Enter the message (maximum 64 characters) [#]
Set the Wiegand format to 26-bit (default)	[Settings] [#] >> [Wiegand Output] [#] >> [26 bit!] [#]
Set the Wiegand format to 34-bit	[Settings] [#] >> [Wiegand Output] [#] >> [34 bit!] [#]
Set the default lock to be released when swiping the card	[Settings] [#] >> [Choose Door] [#] >> [1st-Lock] [#]
Set the 2nd lock to be released when swiping the card	[Settings] [#] >> [Choose Door] [#] >> [2nd-Lock] [#]
View the firmware	[Settings] [#] >> [Information] [#]

### 7.3.9 Resetting the system password

You cannot access the system setting screen if you forgot the system password.

Please follow the steps below to reset the system password:

- [1] Power off the outdoor station.
- [2] Power on the outdoor station.
- [3] Press and hold the "Program" button on the keypad module for 5 seconds within 30 seconds when the outdoor station is powered on.
- [4] A beep will be sounded if successful.

### 7.3.10 Restoring to default settings

Please follow the steps below:

- [1] In standby status, press [#] [\*] [System password] [#] to enter the system setting screen.
- [2] In the system setting screen, press [Settings] [#] >> [Reset] [#].



## 7.3.11 Initiating a call via the physical address

### Precondition

Set call mode to "Physical address". see chapter 7.3.4 "Setting the call mode" on page 46.

1. Device type = outdoor station

In standby status, enter the **[Room number]** (001-250) on the keypad module to initial a call.

2. Device type = gate station

In standby status, enter the **[Building number]** (01-60) and the **[Room number]** (001-250) on the keypad module to initial a call.




## 7.3.12 Initiating a call via the logic address


### Precondition

- Set call mode to "Logic address". see chapter 7.3.4 "Setting the call mode" on page 46.
- Add a contact with logic address. see chapter 7.3.7 "Managing contacts" on page 47.

In standby status, enter the **[Logic address]** on the keypad module to initial a call.

## 7.3.13 Initiating a call via the name list


In standby status, press "  " or "  " on the keypad module to display the name list on the display module. Select the designated name and press "  " on the keypad module to initiate a call.

\*In standby status, you can also enter the name on the keypad module directly and press "  " on the keypad module to initiate a call.

### Leaving home mode

If the indoor station works in "Leaving home mode" when you initiate a call, there will be a voice message played and you can record your message after a beep is sounded.

### 7.3.14 Calling a guard unit

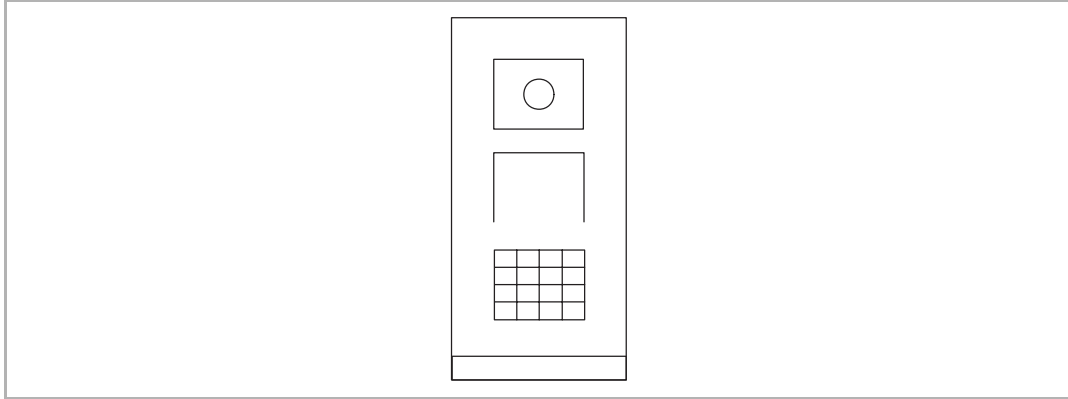
In standby status, press "  " on the keypad module to call the guard unit.

#### **Intercept mode**

If the guard unit is working in "Intercept mode", the call will be intercepted by the guard unit first. Then the call will be forwarded to the designated indoor station if the identification is verified successfully.

**7.4 Keypad outdoor station without display module**

**7.4.1 Overview**



**7.4.2 Accessing the "System settings" screen**

In standby status, press **[#] [\*] [System password] [#]** to enter the system settings.

\*System password is 345678 by default.



**Note**

The following operations are all carried out after you enter the system settings.

**7.4.3 Setting the device type**



Function	Operation
Device type → outdoor station	<b>[1] [#] &gt;&gt; [1] [#]</b>
Device type → gate station	<b>[1] [#] &gt;&gt; [2] [#]</b>

**7.4.4 Managing the password**

Function	Operation
Enable the unlock password	[5] [#] >> [1] [#]
Disable the unlock password	[5] [#] >> [2] [#]
Modify the system password	[2] [#] >> [New system password] [#] >> [New system password] [#] *System password should be 6-8 bits
Modify the unlock password	[3] [#] >> [New unlock password] [#] >> [New unlock password] [#] *Unlock password should be 3-8 bits

**7.4.5 Setting the voice language**

You can set the voice language if the video/audio module has the speech synthesis function.

Function	Operation
Select the language	[4] [#] >> press "  " or "  " to select a language [#]

**7.4.6 Resetting the system password**

You cannot access the system setting screen if you forget the system password.

Please follow the steps below to reset the system password:

- [1] Power off the outdoor station.
- [2] Power on the outdoor station.
- [3] Press and hold the "Program" button on the keypad module for 5 seconds within 30 seconds when the outdoor station is powered on.
- [4] A beep will be sounded if successful.

### 7.4.7 Initiating a call via the physical address


1. Device type = outdoor station

In standby status, enter the **[Room number]** (001-250) on the keypad module to initiate a call.

2. Device type = gate station

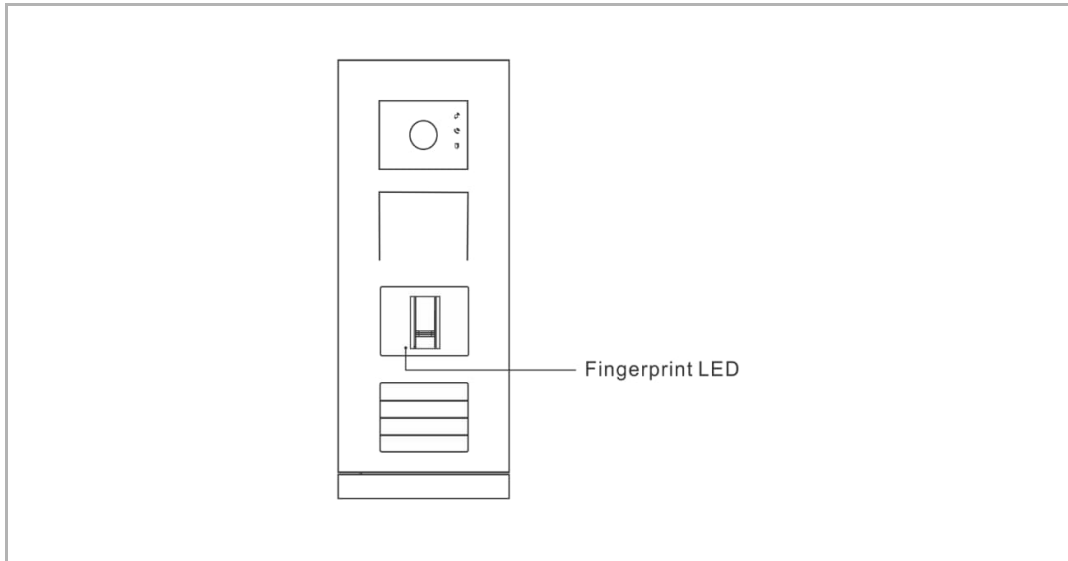
In standby status, enter the **[Building number]** (01-60) and the **[Room number]** (001-250) on the keypad module to initiate a call.

### 7.4.8 Calling a guard unit

In standby status, press "  " on the keypad module to call guard unit.

## 7.5 Fingerprint outdoor station

### 7.5.1 Overview



### 7.5.2 Managing the fingerprints

#### Create the primary fingerprint

If this module has not enrolled any fingerprint, the fingerprint LED will flash green, orange and red in sequence when the outdoor station is powered on.

Swipe the primary finger 3~5 times until the fingerprint LED lights up in green.

#### Enter the setting mode

In standby status, swipe the primary finger or any admin finger once to enter setting mode, the fingerprint LED will light up in orange.

#### Create a user fingerprint

In setting mode, swipe the current admin finger once and a user finger 3~5 times.

\*Current admin = the admin used to enter the setting mode.

#### Delete a user fingerprint

In setting mode, swipe the current admin finger twice and an enrolled user finger 3~5 times.

#### Create an admin fingerprint

In setting mode, swipe the current admin finger 3 times and an admin finger 3~5 times.

### Delete an admin fingerprint

In setting mode, swipe the current admin finger 4 times and an enrolled admin finger 3-5 times.

### Delete all user fingerprints

In setting mode, swipe the current admin finger 6 times.



#### Note

The fingerprint LED will light up in green if successful.

All the settings can also be carried out via the PC management software.

### Open a door

In standby status, swipe an enrolled user finger to open a door.

## 8 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.

The detailed specifications agreed to at the time of ordering apply to all orders. ABB accepts no responsibility for possible errors or incompleteness in this document.

We reserve all rights to this document and the topics and illustrations contained therein. The document and its contents, or excerpts thereof, must not be reproduced, transmitted or reused by third parties without prior written consent by ABB.





---

ABB Xiamen Smart Technology Co., Ltd.  
No.7, Fangshan South Road, Hi-tech area,  
Torch park, Xiang An District, Xiamen,  
China  
Tel: +86 592 295 9000  
Fax: +86 592 562 5072

[www.abb.com](http://www.abb.com)