

2TMD042000D0042 | 05.05.2022

Product manual

ABB i-HD

H81402FR-. Outdoor station, IP touch 10, Face Recognition



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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. 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

As part of the ABB-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.



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 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)

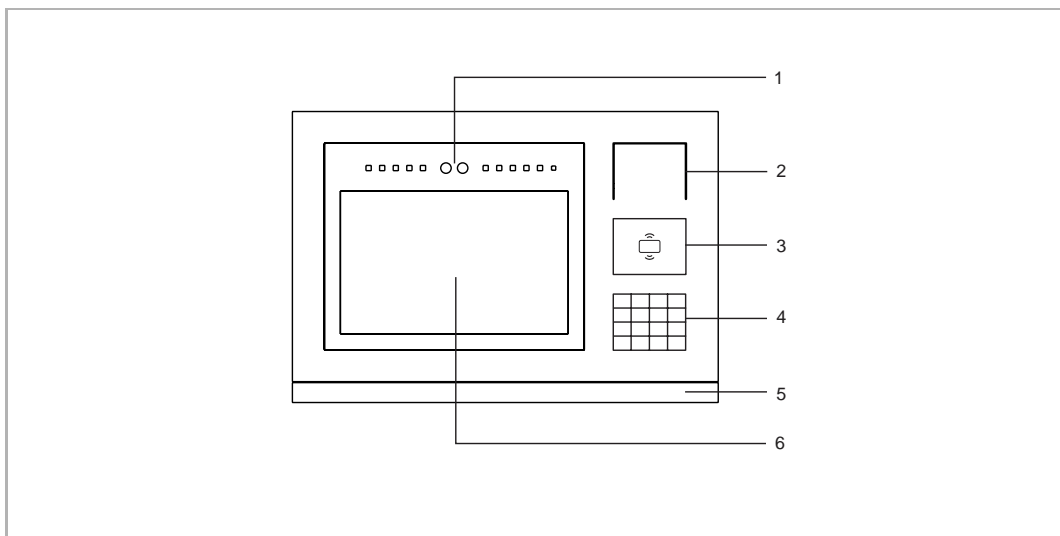
(EU-REACH ordinance and law for the implementation of the ordinance (EG) No.1907/2006)

5 Product description

5.1 Device type

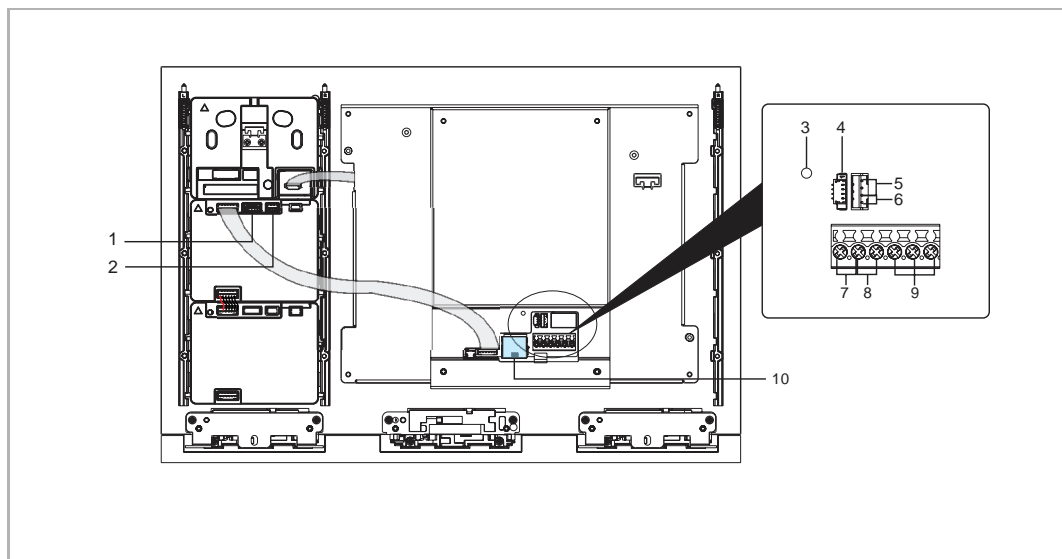
Article number	Product ID	Product name	Colour	Size (mm)
H81402FR-S	2TMA130011X0001	OS, IPtouch 10, FR	Stainless steel	408 x 278 x 35

5.2 Control elements








No.	Function
1	Camera
2	Speaker and microphone
3	IC card reader
4	Keypad
5	End strip
6	10.1" touch display

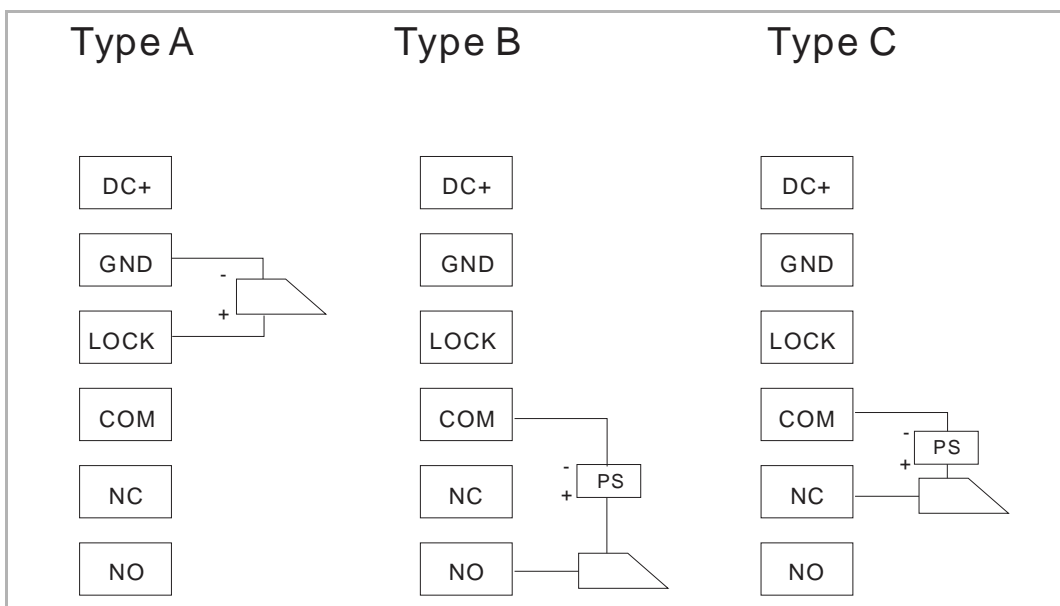
5.3 Terminal description



No.	Function
1	Connector for device software update (can be carried out at the factory only)
2	Connector for Wiegand output It supports 26 bits and 34 bits
3	Reset button
4	Connector for software debugging (for factory use only)
5	Connector for exit button
6	Connector for the sensor used for door status detection
7	Plug-in clamps (DC+...GND) for power supply
8	Plug-in clamps (LOCK...GND) for door opener
9	Plug-in clamps (COM...NC...NO) for floating output
10	LAN port

5.4 Lock type and connection

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



6 Technical data

Designation	Value
Rating voltage	24 V $\overline{\text{---}}$
Operating voltage range	20-27 V $\overline{\text{---}}$
Rating current	27 V $\overline{\text{---}}$, 630 mA 24 V $\overline{\text{---}}$, 700 mA
Operating temperature	-20 °C...+55 °C
Camera type	CMOS
Camera viewing angle	90°
Camera resolution ratio	1920 x 1080 pixels
Ambient brightness	<50000 Lux
Power supply for door opener	18 V $\overline{\text{---}}$, 4 A, 10 ms impulse, max. 250 mA holding
Floating output for door opener (resistive load)	230 V \sim , 3 A 30 V $\overline{\text{---}}$, 3 A
Video codec	H.264
Audio codec	G.711
IP level	IP 54
IK level	IK 05
Product dimension	408 mm x 278 mm x 35 mm

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.

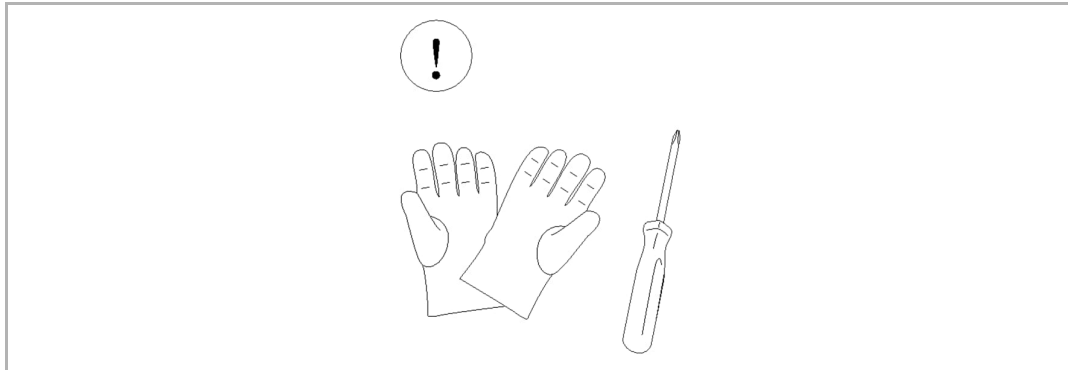
The minimum necessary expert knowledge and requirements for the installation are as follows:

- 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

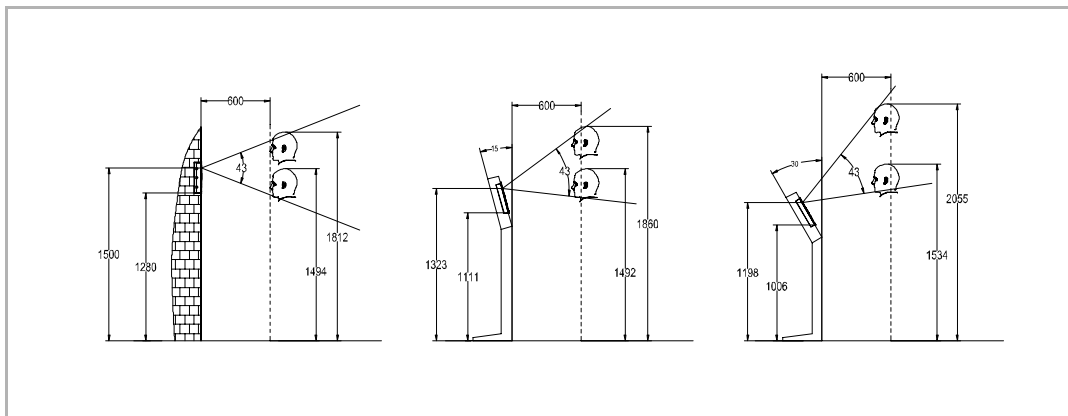
7.2.1 Preparation

Use gloves to protect yourself against cuts.



7.2.2 Installation height

Unit: mm



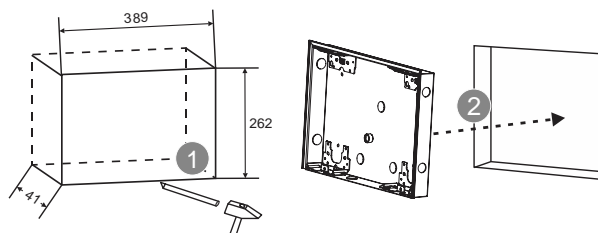
**Note**

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

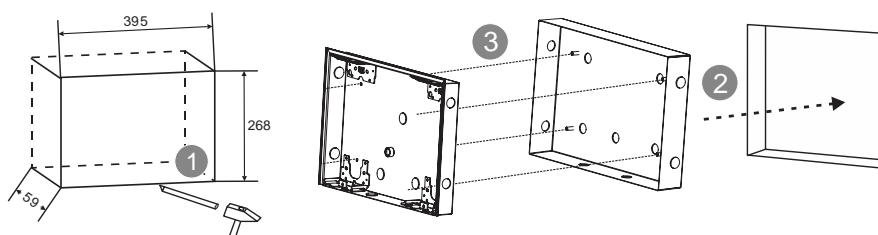
- Direct light
- Direct sunlight
- Extremely bright picture background
- Highly reflective walls on the opposite side of the door station

7.2.3 Flush-mounted installation

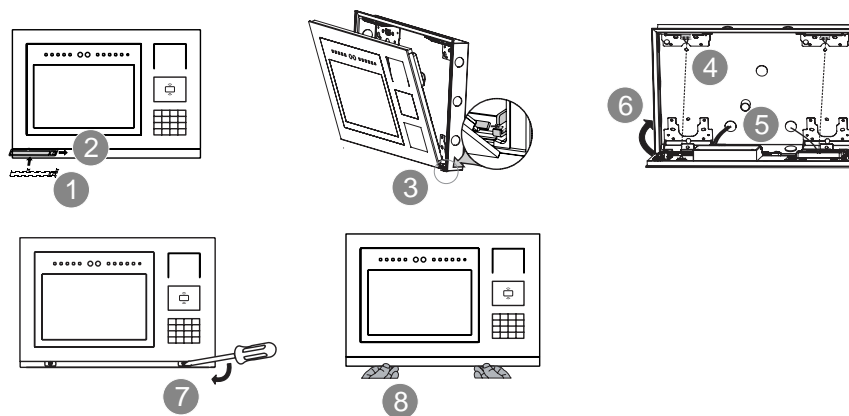
A1: Without pre-installation box



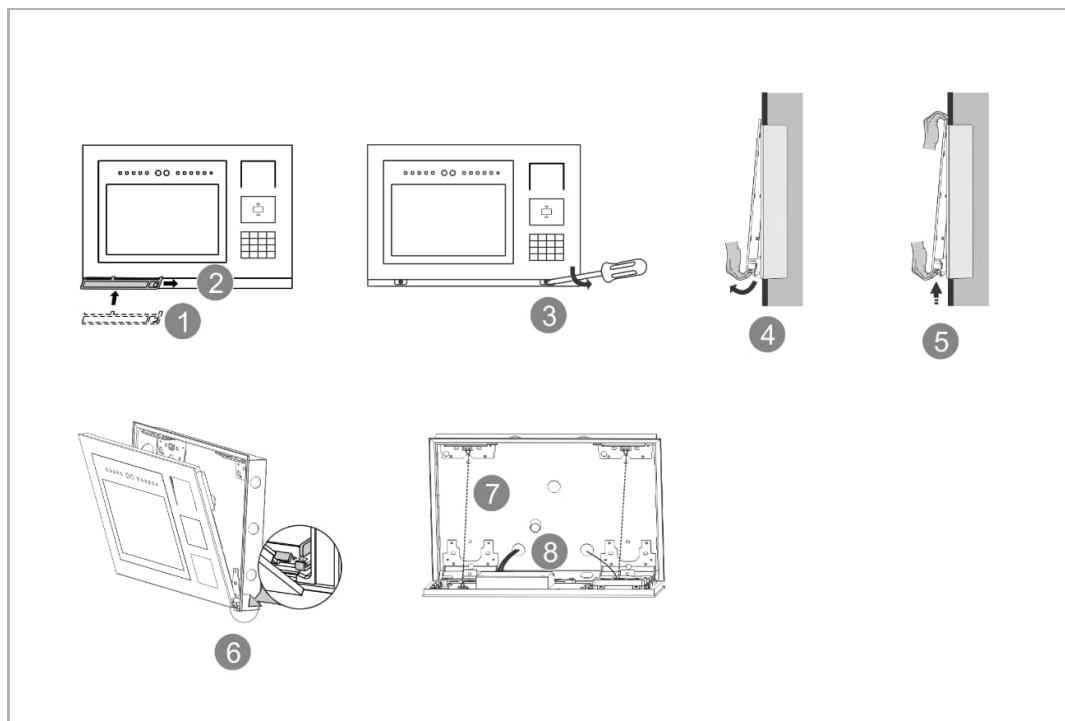
A2: With pre-installation box



B



7.2.4 Dismantling



8 Commissioning

8.1 Welcome screen

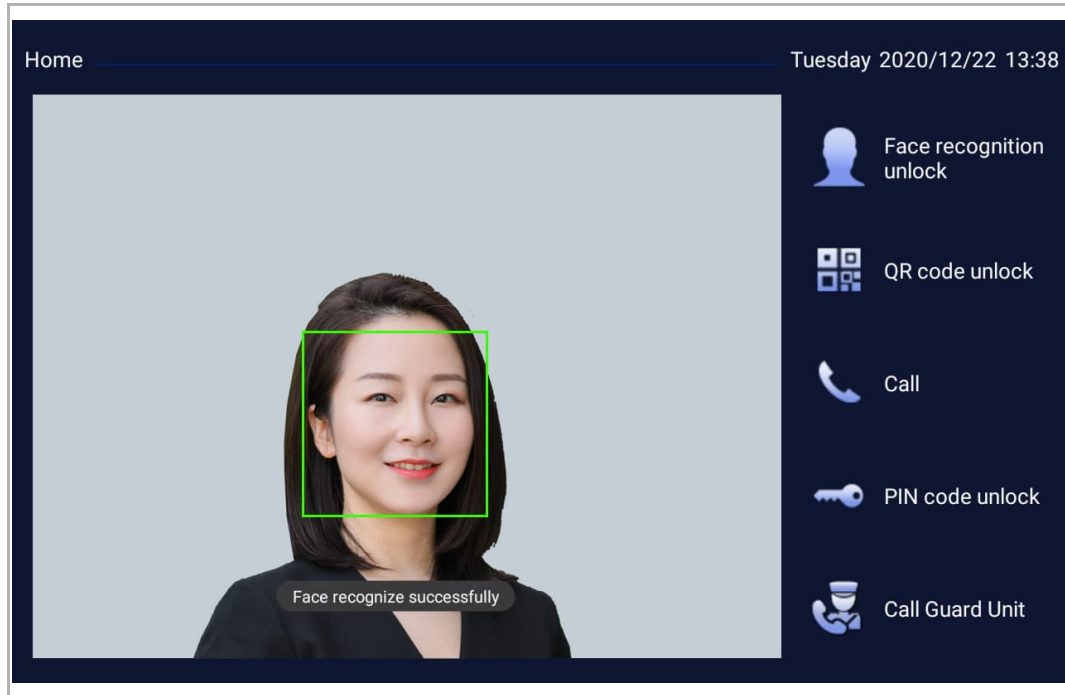
This outdoor station will display the "Welcome screen" if no operation is carried out within 10 seconds and the screen will play the bulletins or the screensaver images in a circle before it goes off. The screen closing time can be set in "System settings" >> "Display" > "Turn off the screen".



No.	Function
1	Welcome message The welcome message can be set locally or set on the management software.
2	Developer information Developer information can be text or a picture. It is sent from the management software.
3	Bulletin Bulletins can be text or a picture. A maximum of 3 bulletins are displayed on the screen and each bulletin will be displayed for 10 seconds. They are sent from the management software.

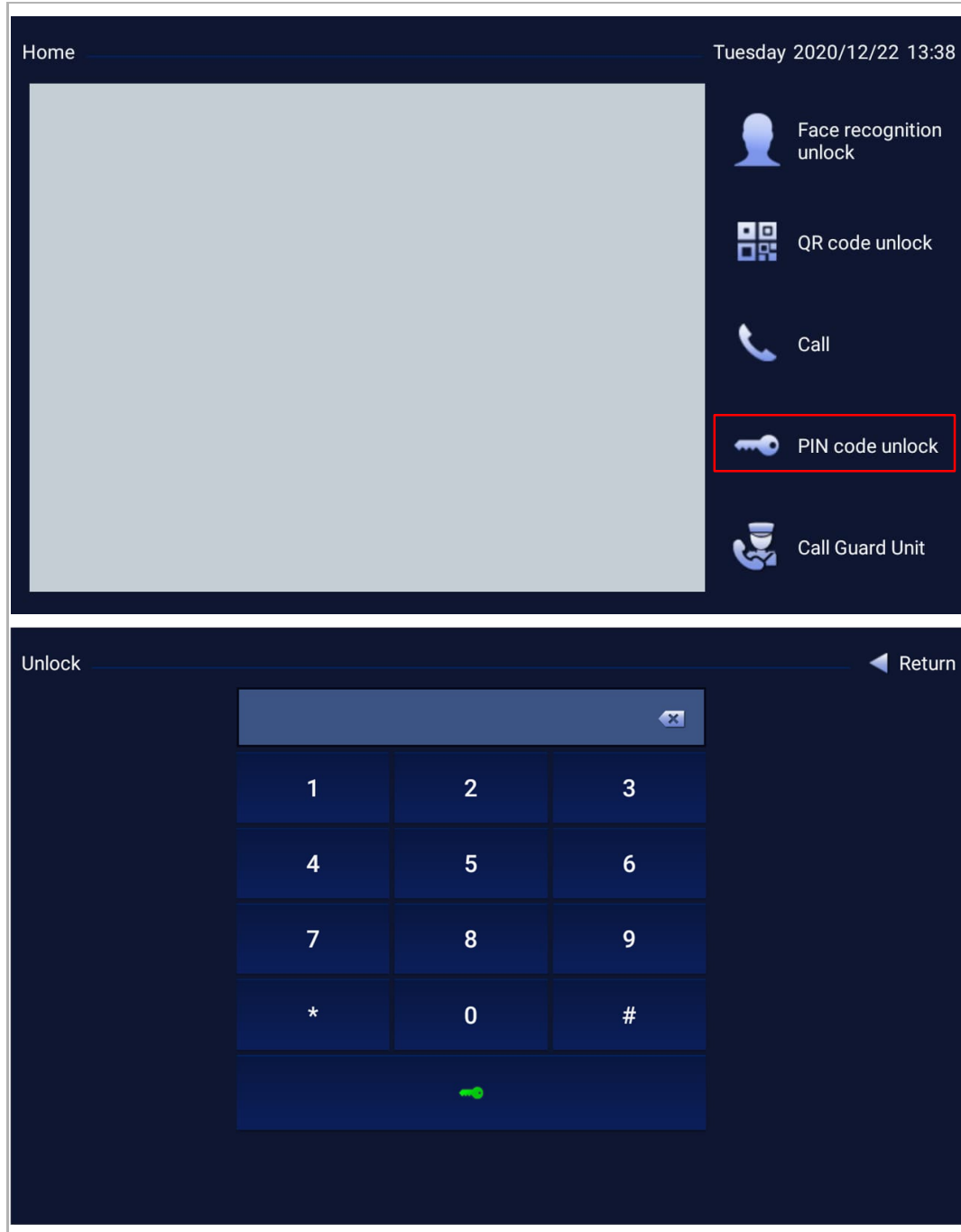
8.2 Home screen

On the welcome screen, when the face is recognized or click any area on the screen to access the home screen.



8.3 Entering the "Settings" screen

In standby status, on the home screen, tap "PIN code unlock", then press [#] [*] [engineering password] [#] to access the "Settings" screen.



**Note**

The engineering password must be changed the first time you access the engineering settings. (The system default is 345678. This password should only be used for initial setting work and should be changed to another password. It cannot be used as the actual password)

**Note**

If an incorrect engineering password is entered 5 times within 2 minutes, no further attempts are permitted for the next 1 minute.

8.4 Engineering settings

On the "Settings" screen, tap "Engineering settings" to access the corresponding screen.

Level 1	Level 2	Level 3	Option
Engineering settings	Device attribute	⁽¹⁾ Block no.	Outdoor station: 001...999
		Device type	<ul style="list-style-type: none"> Outdoor station Gate station
		Device no.	<ul style="list-style-type: none"> Outdoor station: 01...64 Gate station: 01...32
	System attribute	Call guard unit	<ul style="list-style-type: none"> On (default) Off
		⁽²⁾ Type of default guard unit	Phone guard unit
		⁽²⁾ Address of default guard unit	1...32
		Digits of indoor station	<ul style="list-style-type: none"> 3 digits 4 digits
		⁽³⁾ Block digits	<ul style="list-style-type: none"> 1 digit 2 digits 3 digits
		Compatible mode	<ul style="list-style-type: none"> On Off (Default)
	Network setting	Automatically obtain an IP address	<ul style="list-style-type: none"> On (Default) Off (set the static IP)
		VLAN ID	<ul style="list-style-type: none"> On Off (Default)
		Local area network VLAN ID	<ul style="list-style-type: none"> On Off (Default)
	Cloud intercom setting	QR code of the device	Please see more details on the "Cloud intercom setting" chapter below.
	Change password	Enter current password	Enter new password twice

⁽¹⁾ This setting is only available when the device type is set to "Outdoor station".

⁽²⁾ This setting is only available when the "Call guard unit" function is enabled.

⁽³⁾ This setting is only available when the device type is set to "Gate station".

Cloud intercom setting

1. Purpose

Bind the outdoor station to the cloud via cloud intercom setting.

2. Precondition

- Ensure that the cloud has created the community and topology.
- Ensure the outdoor station has been connected to the external network.

3. Setting

Please follow the steps below:

- [1] On the "Engineering settings" screen, click "Cloud intercom setting".
- [2] The screen will show "unregistered" status before the QR code is scanned by the Maintenance App.
 - Obtain the maintenance app from after-sales (currently only the Android version is supported).
 - In the maintenance app, scan the QR code in Figure 2, enter the related information to complete the binding. Please contact ABB after-sales for more details of the maintenance app.
- [3] The screen will display "registered".



Note

"Cloud intercom setting" can also be done via ABB PC management system. Cloud intercom and related app functions cannot be realized without this setting.

8.5 Access control settings

On the "Settings" screen, tap "Access control" to access the corresponding screen.

Level 1	Level 2	Level 3	Option
Access control	Password	Private password	<ul style="list-style-type: none"> On Off (default)
		Public password	<ul style="list-style-type: none"> On, 3...8 digits Off (default)
	Card mode	⁽¹⁾ Safe mode	<ul style="list-style-type: none"> On (default) Off
	⁽¹⁰⁾ User card	⁽²⁾ Enroll	<ul style="list-style-type: none"> Outdoor station: Maximum 5,000 pcs Gate station: Maximum 40,000 pcs
		⁽³⁾ Delete card	
		Delete all	
	Card setting	⁽⁴⁾ Copy card to another outdoor station	<ul style="list-style-type: none"> On Off (default)
		⁽⁵⁾ Copy card to another gate station	<ul style="list-style-type: none"> On Off (default)
		⁽⁴⁾ Address of outdoor station	1...64
		⁽⁵⁾ Address of gate station	1...32
		Unlock type when swiping	Default lock
			Subsidiary lock
			Unlock manually

⁽¹⁾ When "Safe mode" is set to "On", this outdoor station will only support IC cards with a token.

⁽²⁾ The IC cards enrolled on local outdoor station will sync the data with the management software. When the "Lift control" function is enabled, you need to set the current floor number.

⁽³⁾ The local outdoor station can remove the IC cards enrolled locally or enrolled on the management software, but the management software cannot remove the IC cards enrolled on the local outdoor station.

⁽⁴⁾ This setting is only available when the device type is set to "Outdoor station".

⁽⁵⁾ This setting is only available when the device type is set to "Gate station".

Level 1	Level 2	Level 3	Option
Access control	⁽¹¹⁾ Face recognition management	⁽⁶⁾ Enroll	[1] Face recognition [2] Enter the name, room no. and phone no., tap "Enroll". When a pop-up window displays the privacy agreement, tap "agree" to access the registration screen. <ul style="list-style-type: none"> Building no is needed when the device type is set to "Gate station"
		Delete all	
	Face recognition setting	⁽⁷⁾ Human detection	<ul style="list-style-type: none"> On (default) Off
		⁽⁸⁾ Face recognition similarity rate required	80 (default)
		Daytime motion detection setting	35 (default)
		Night motion detection setting	5 (default)
		⁽⁹⁾ Photosensitive setting	5 (default)

⁽⁶⁾ When the "Lift control" function is enabled, you need to set the current floor number.

⁽⁷⁾ If this function is enabled, the image from a photo or a video cannot release the lock on the outdoor station.

⁽⁸⁾ The value range is 0-100, 80 by default. The higher value leads to a higher face matching requirement.

⁽⁹⁾ By setting this parameter to adapt the camera to a variety of complex environments. Please consult the technical engineer for more details.

⁽¹⁰⁾ On the "Settings" screen, you can also tap "User card" to access the corresponding screen quickly.

⁽¹¹⁾ On the "Settings" screen, you can also tap "Face recognition management" to access the corresponding screen quickly.

8.6 System settings

On the "Settings" screen, tap "System settings" to access the corresponding screen.

Level 1	Level 2	Level 3	Option
System settings	Sound settings	Call volume	1...5
		System volume	1...5
		⁽¹⁾ Voice prompts	<ul style="list-style-type: none"> On (default) Off
		Ringtone feedback	<ul style="list-style-type: none"> On (default) Off
	Display	Turn off the screen	<ul style="list-style-type: none"> 1 minute 2 minutes (default) 5 minutes 10 minutes
		Touch feedback	<ul style="list-style-type: none"> On (default) Off
		Auto-brightness	<ul style="list-style-type: none"> On (default) Off (1...10)
	Data and time	Time sync from	<ul style="list-style-type: none"> sync from mgmtc. Local setting Sync from NTP (need to set the time zone)
		⁽²⁾ Set time	hh:mm
		⁽²⁾ Set date	yyyy/mm/dd
		Time format	<ul style="list-style-type: none"> 12 hours 24 hours (default)
	Unlock time	Date format	<ul style="list-style-type: none"> DD/MM/YYYY MM/DD/YYYY YYYY/MM/DD (default)
		Lock-GND	1...10 seconds
	Default lock	NO-NC-COM	1...10 seconds
		Lock-GND	
		NO-NC-COM	
		IP actuator	<ul style="list-style-type: none"> Power lock (ID range: 1...32) Relay lock (ID range: 1...32)

⁽¹⁾ If this function is enabled, the outdoor station will play the sound for "Call in progress" during the operation. The language of the voice prompt will be the same as the language setting.

⁽²⁾ This setting is only available when the "Time sync from" is set to "Local setting".

Level 1	Level 2	Level 3	Option
System settings	Subsidiary lock	Lock-GND	
		NO-NC-COM	
		IP actuator	<ul style="list-style-type: none"> Power lock (ID range: 1...32) Relay lock (ID range: 1...32)
	⁽³⁾ Unlock mode configuration	Face recognition unlock	<ul style="list-style-type: none"> On (default) Off
		QR code unlock	<ul style="list-style-type: none"> On (default) Off
	Welcome screen settings	Developer information	<ul style="list-style-type: none"> On (default) Off
		Bulletin	<ul style="list-style-type: none"> On (default) Off
		Text on Welcome screen	Welcome (default)
	⁽⁴⁾ Lift settings	Block no.	001...999
		⁽⁵⁾ Lift control	<ul style="list-style-type: none"> On (current floor, -7...+63) Off (default)
	Language		
		Wiegand output	<ul style="list-style-type: none"> Off (default) 26 bits 34 bits
		Anti-flicker	<ul style="list-style-type: none"> 60 Hz 50 Hz (default)
		Door open alarm	<ul style="list-style-type: none"> On (can be set as "Local alarm") Off (default)
		Temper alarm	<ul style="list-style-type: none"> On Off (default)
		Forward to guard unit	<ul style="list-style-type: none"> On Off (default)

⁽³⁾ On the "Settings" screen, you can also tap "Unlock mode configuration" to access the corresponding screen quickly.

⁽⁴⁾ This setting is only available when the device type is set to "Outdoor station".

⁽⁵⁾ Note: if the "Lift control" function is enabled and the lift control module YSM23-LC is used, the communication between the outdoor station and the lift control module will not be encrypted. Please contact the ABB concerned staff to purchase an encrypted lift control module when the encrypted communication is needed.

Level 1	Level 2	Level 3	Option
System settings	Reset user settings	Reset	
	Help	Version	<ul style="list-style-type: none"> ▪ Major version ▪ MCU version ▪ Hardware version ▪ Card version ▪ Keypad version
		Serial number	The number is used to obtain the certificate issued by the management software.
		Signature	The value is displayed when the certificate issued is obtained successfully.
		QR code	To scan the QR code to obtain the product manual.
		Reboot	To reboot the device

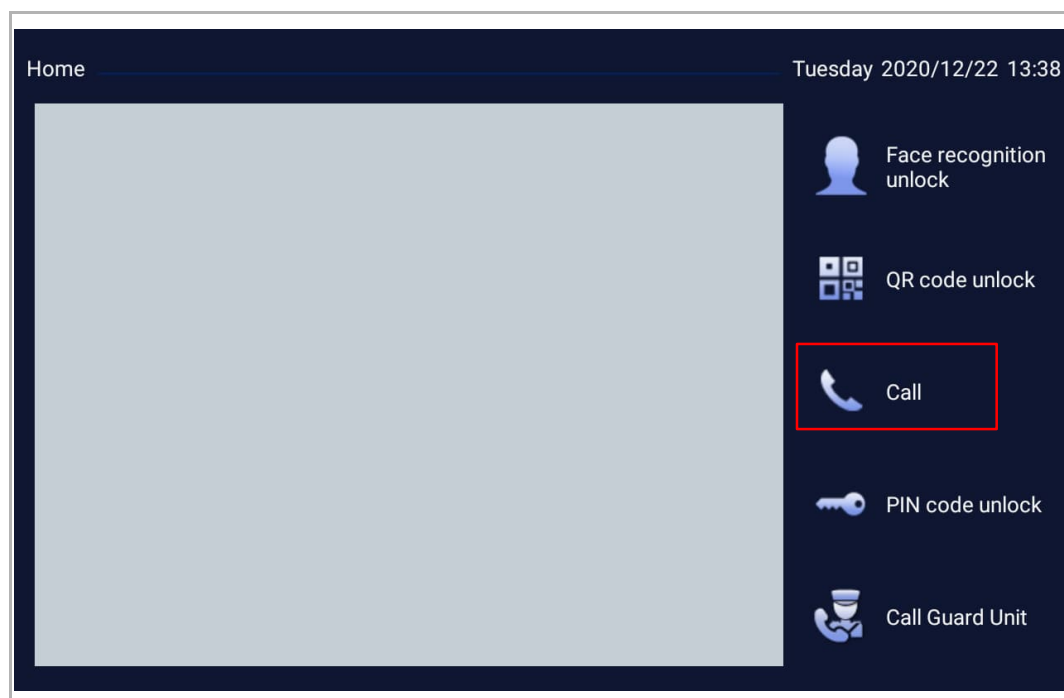
9 Operation

9.1 Call a resident via keypad

On the home screen, tap "Call", then enter [address] to initiate a call.

- When the device type is set to "Outdoor station", [address] = room number (e.g. "0101").
- When the device type is set to "Gate station", [address] = block number & room number (e.g. "010101").

Or you enter [address] on the keypad module to initiate a call directly.



9.2 Call guard unit

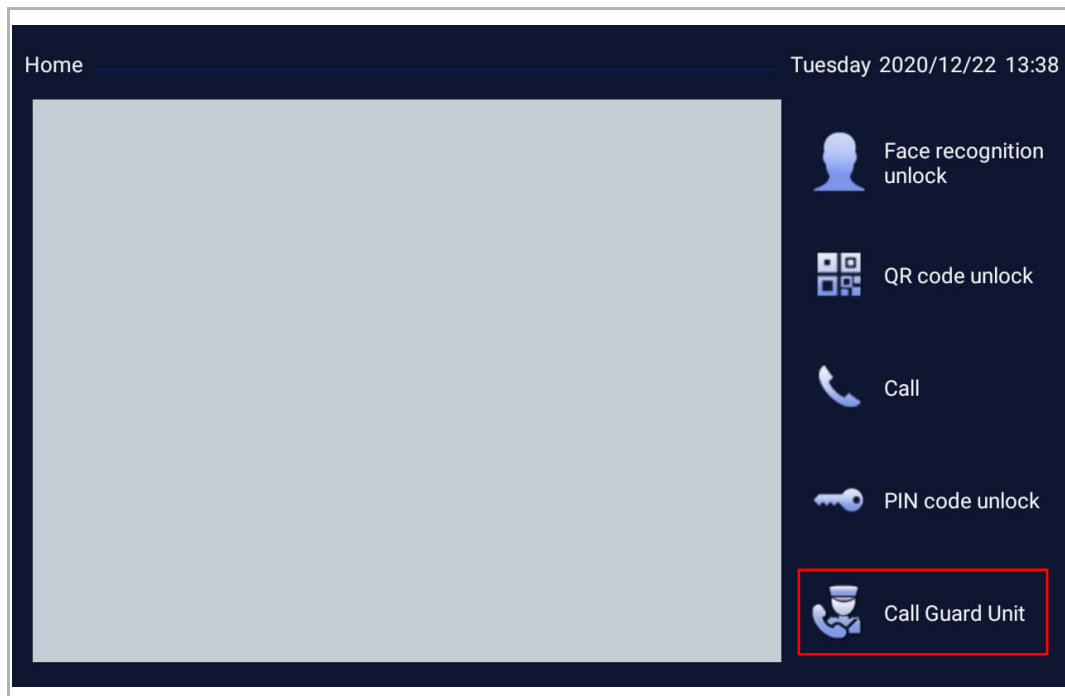
Precondition

On the "Settings" screen, complete the following settings:

- "Engineering settings" >> "System attribute" >> "Call guard unit" >> "On" >> "Address of default guard unit" >> enter the guard unit number (1~32)

Call guard unit

On the home screen, tap "Call guard unit" to initiate a call.



9.3 Releasing the lock by entering a password

9.3.1 Releasing the lock with a password set on the indoor station

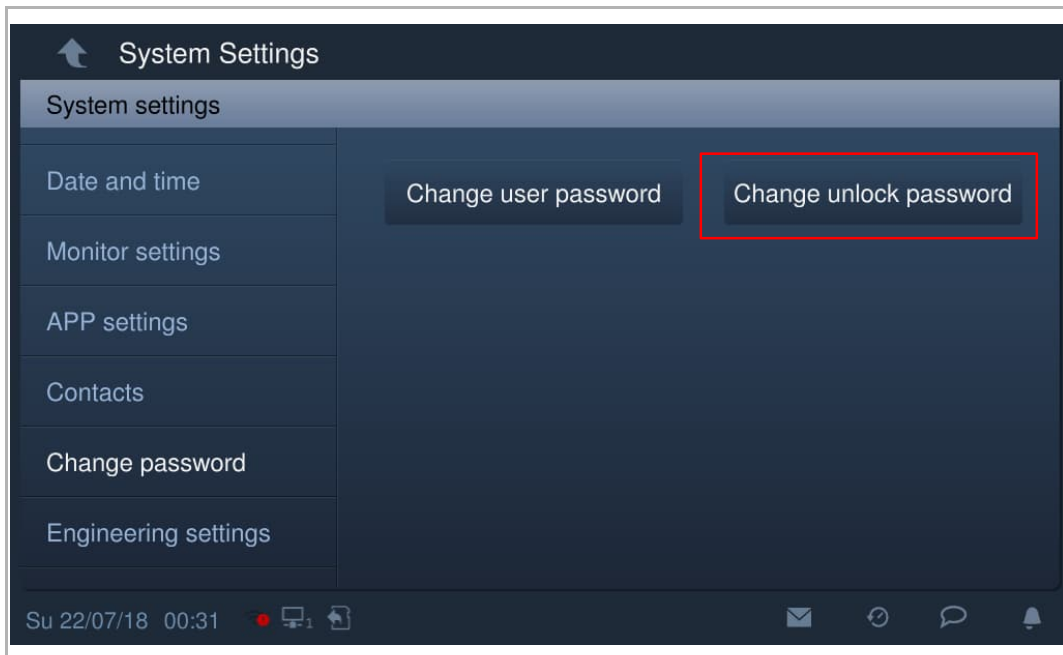
Precondition

On the "Settings" screen of the outdoor station, follow the steps below:

- "Access control" >> "Password" >> "Private password" >> "On"

On the "System settings" screen of the indoor station, follow the steps below:

- "Change password" >> "Change unlock password">>Set a 3-8 digit password.



Password rule

This password must not include continuously increasing or decreasing numbers (e.g. 123456, 654321). Three consecutive identical numbers are similarly not permitted (e.g. 123444, 666888).



Note

The indoor station should be added to the trusted list of the outdoor station before use.

Releasing the lock

On the home screen of the outdoor station, tap "PIN code unlock",

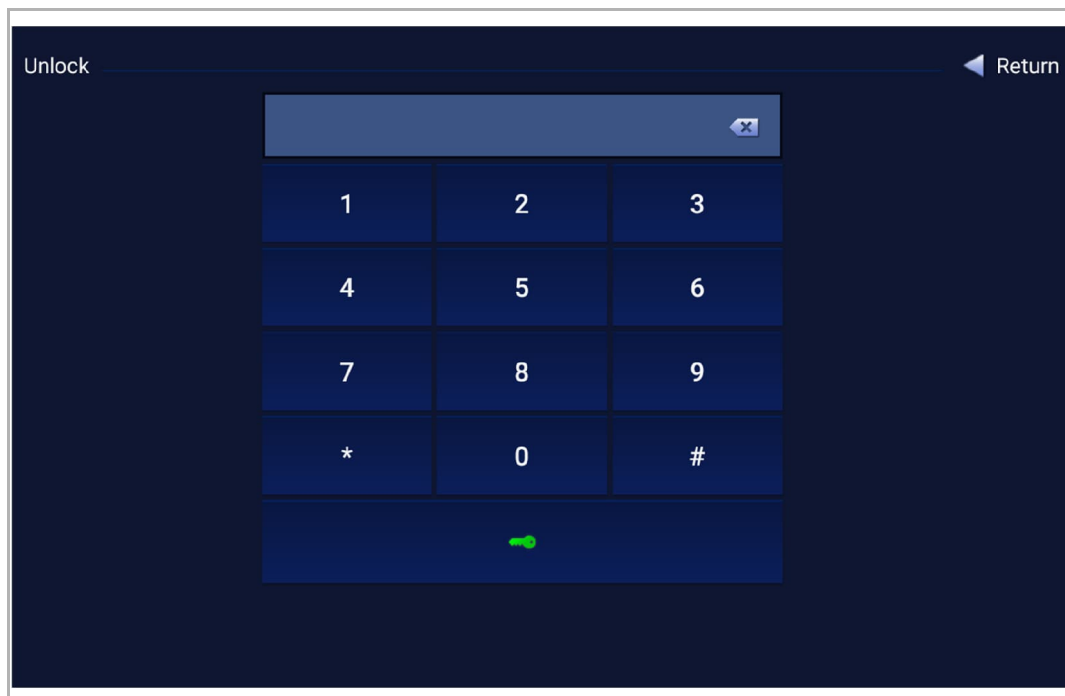
- When the "Device type" is set to "Outdoor station", tap [*] [room number] [#] [password] [#]
- When the "Device type" is set to "Gate station", tap [*] [building number] [#] [room number] [#] [password] [#]

followed by "  " to release the lock.

Or on the keypad module,

- When the "Device type" is set to "Outdoor station", press [*] [room number] [#] [password] [#]
- When the "Device type" is set to "Gate station", press [*] [building number] [#] [room number] [#] [password] [#]

followed by "  " on the unlock screen to release the lock.



Wrong password

If an incorrect password is entered 5 times within 2 minutes, no further attempts are permitted for the next minute.

9.3.2 Releasing the lock with a password set on the local outdoor station

Precondition

On the "Settings" screen, follow the steps below:

- "Access control" >> "Password" >> "Public password" >> "On" >> enter a 3-8 digit password.



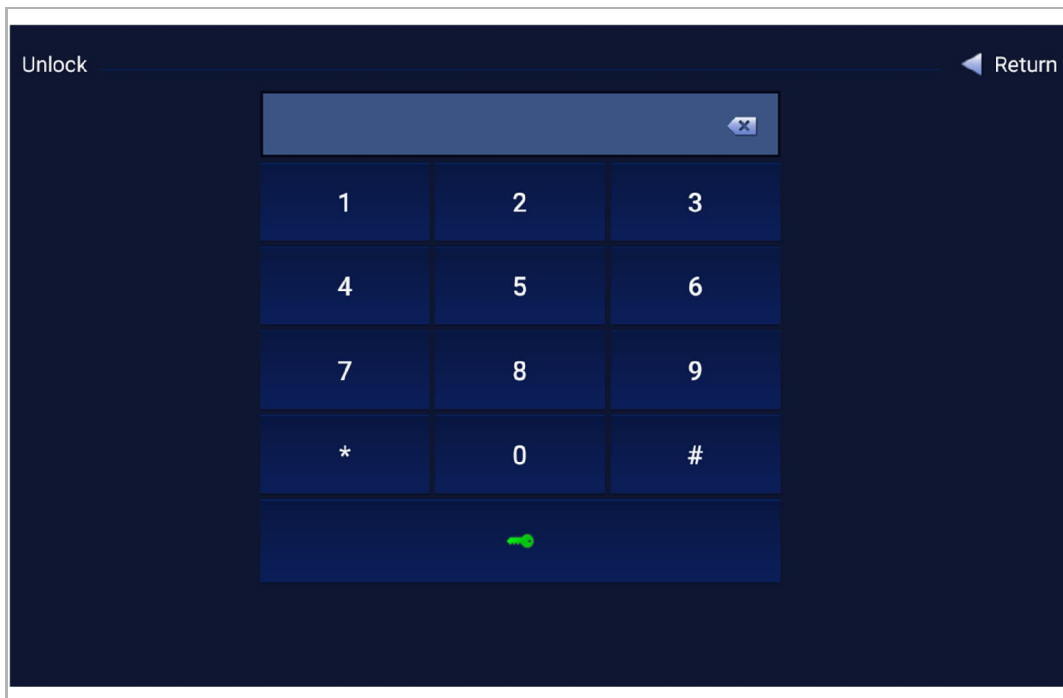
Password rule

This password must not include continuously increasing or decreasing numbers (e.g. 123456, 654321). Three consecutive identical numbers are similarly not permitted (e.g. 123444, 666888).

Releasing the lock

On the home screen of the outdoor station, tap "PIN code unlock", enter [#] [password] [#], followed by "🔑" to release the lock.

Or on the keypad module, you can enter [#] [password] [#], followed by "🔑" on the unlock screen to release the lock.



Wrong password

If an incorrect password is entered 5 times within 2 minutes, no further attempts are permitted for the next minute.

9.3.3 Releasing the lock with a password set on the App

Precondition


You need to create an unlock password on the App. For more information, please see the App product manual.

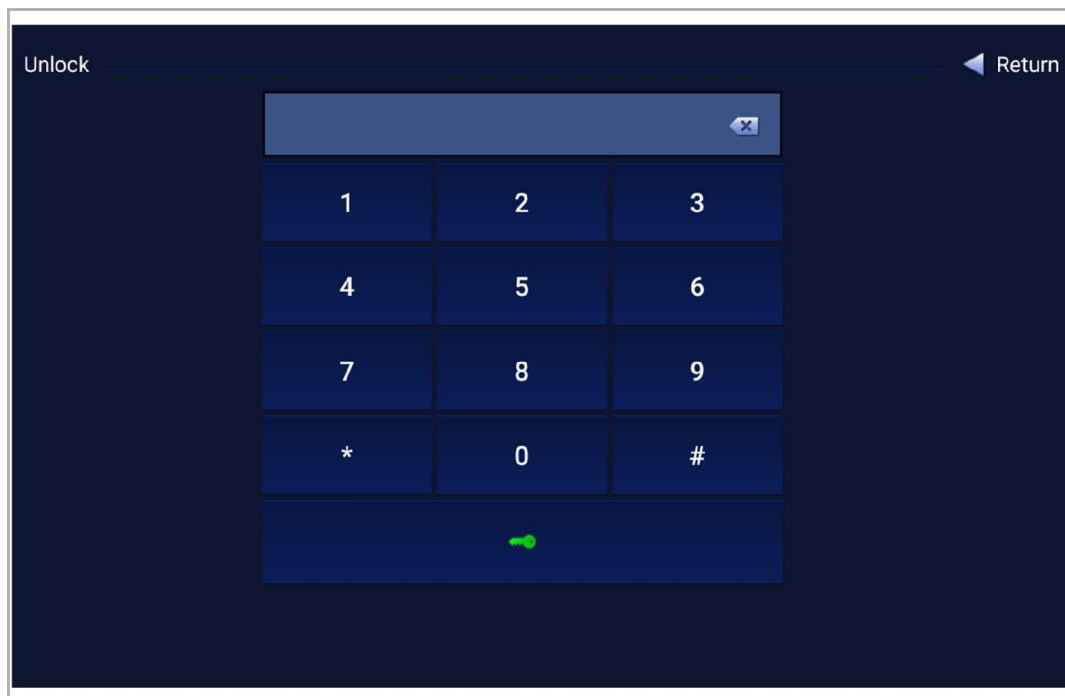


Note

The indoor station should be added to the trusted list of the outdoor station before use.

Releasing the lock

On the home screen of the outdoor station, tap "PIN code unlock", enter the [password], followed by "  " to release the lock.



Wrong password

If an incorrect password is entered 5 times within 2 minutes, no further attempts are permitted for the next minute.

9.4 Releasing the lock with a QR code set on the App

1. Create an unlock QR code

Please see the App product manual for more details.

2. Use the unlock QR code on the outdoor station

Precondition

On the "Settings" screen of the outdoor station, follow the steps below:

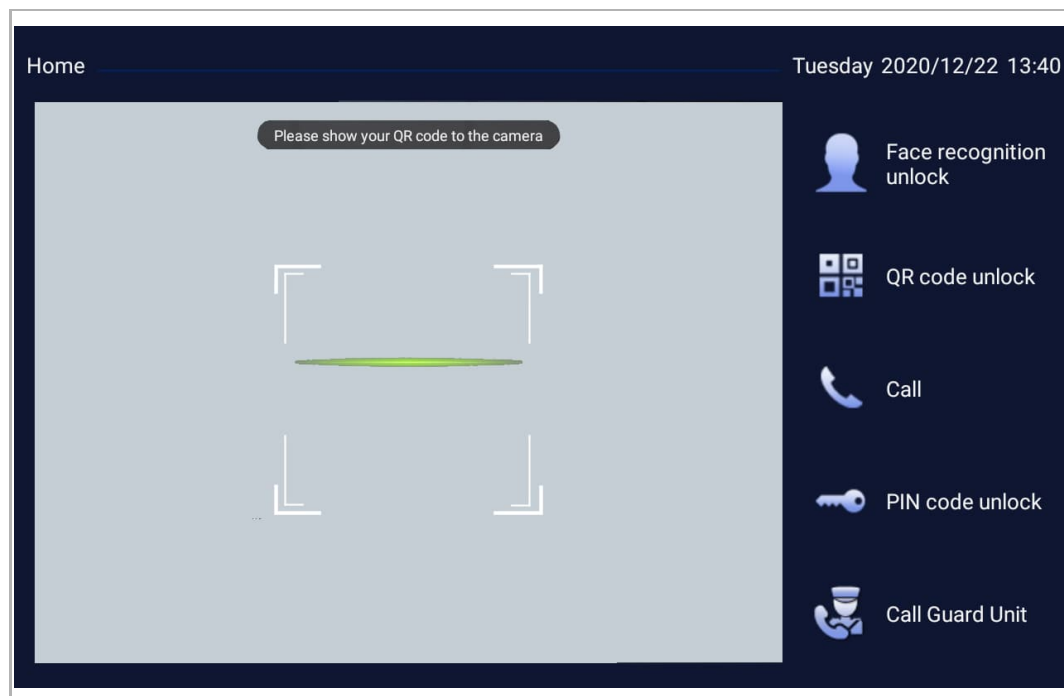
- Tap "System settings" >> "Unlock type configuration" >> "QR code unlock" >> enable.



Releasing the lock

Please follow the steps below:

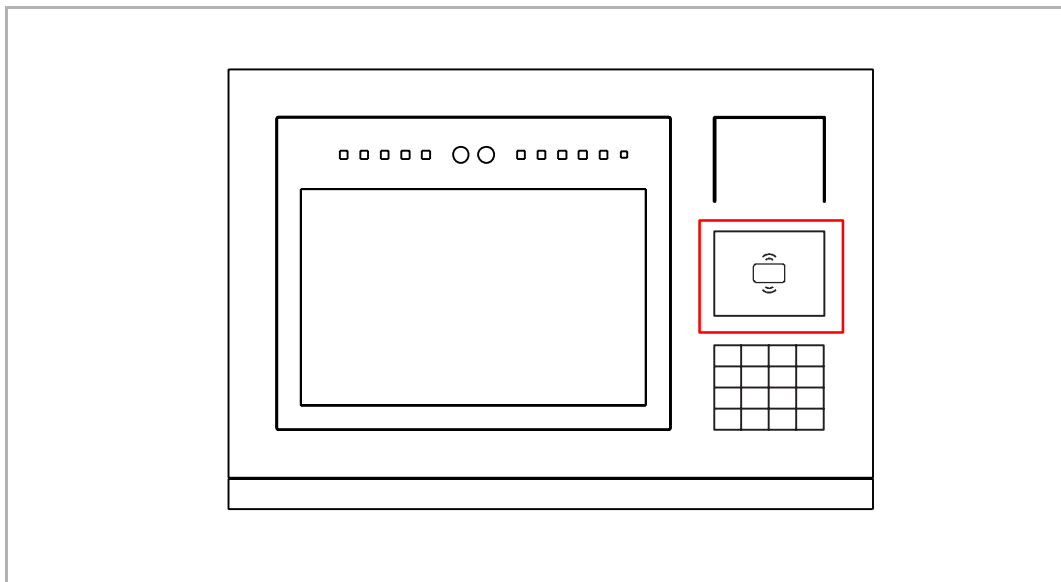
- [1] On the home screen of the outdoor station, tap "QR code unlock", a green line will be displayed on the screen and moves from top to down.
- [2] Place the QR code on your mobile in front of the camera on the outdoor station to release the lock.



9.5 Releasing the lock by swiping IC cards

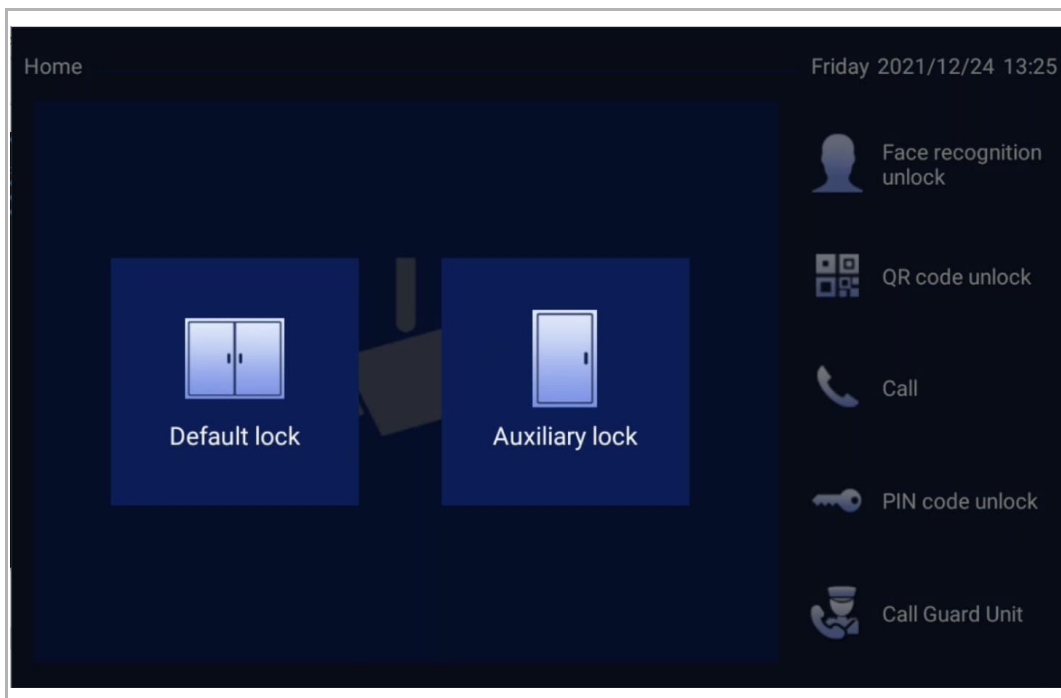
Swiping an IC card

Swipe a registered IC card on the specified area to release the lock.



Unlock manually

If the "unlock manually" function is enabled, "default lock" or "Auxiliary lock" can be selected after swiping the card.



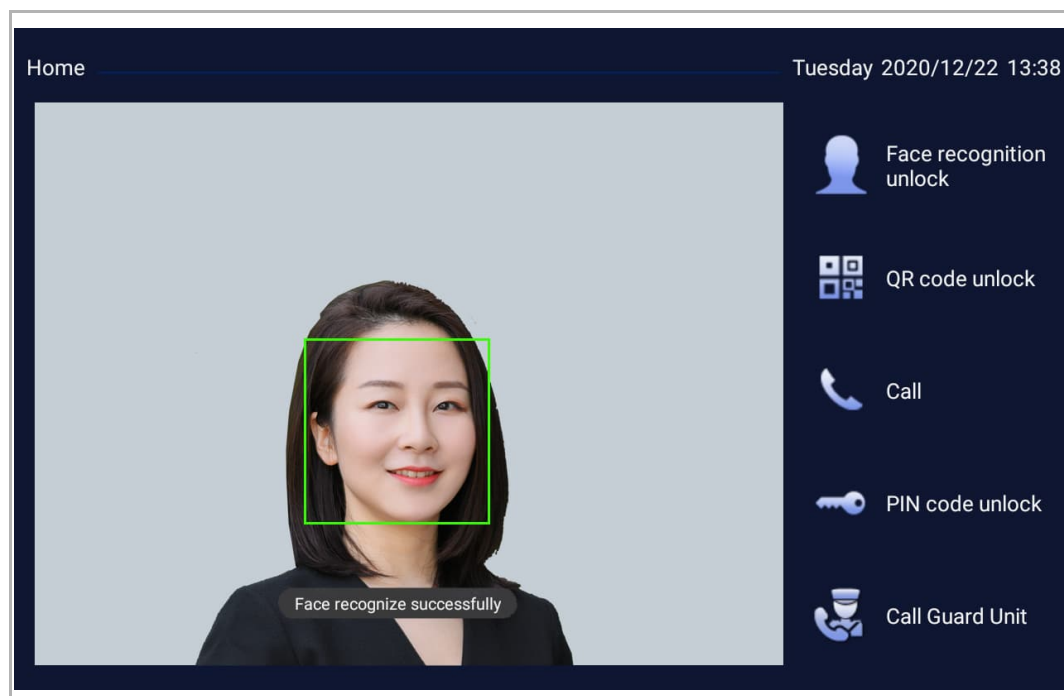
IC card specification

Operating frequency	13.56 MHz
Standard	ISO 14443A
Support card	Mifare one S50/S70, Mifare desfire EV1/EV2
Output format	Wiegand 26/34 bit

9.6 Releasing the lock by a face

If your face has been registered in advance, when you approach the outdoor station, the outdoor station will recognize your face and release the lock ("Face recognize successfully" will be displayed on the screen and the voice prompt (e.g. "Door is open") will be played in the same time if the "Voice prompt" function is enabled.

Or on the home screen of the outdoor station, tap "Face recognition unlock" to initiate the face recognition.



10 Cyber security

10.1 Disclaimer

H81402FR- 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 the 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 H81402FR- 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. ABB 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 ABB 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

Type	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
68	UDP	DHCP client
5068	UDP	SIP port to communicate with the cloud
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.

10.3 Deployment guideline

All devices need to work in security mode by default. All devices on one system shall be signed by a public CA at commissioning stage; normally the management software acts as the CA.

It's suggested that compatible mode is only used when the 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 the user decides to remove the device from the system, the user shall reset the device to the factory settings to remove all the configuration data and sensitive data on the device. This will prevent sensitive data leak.

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

It is recommended that users isolate Internet services and local network services by enabling VLAN settings!

The device may not work normally when subjected to IP fragmentation attacks. It is recommended to use switches that can resist IP fragmentation attacks during deployment. The following are some of the switch models that have passed the test, for reference:

TP-LINK/TL-SG1016T

MERCURY/SG108 Pro

10.4 Upgrading

The device supports firmware updates via management software.

10.5 Backup/Restore

None.

10.6 Malware prevention solution

The H81402FR- device is not susceptible to malware, because custom code cannot be executed on the system. The only way to update the software is via firmware upgrades. Only firmware signed by ABB can be accepted.

10.7 Password rule

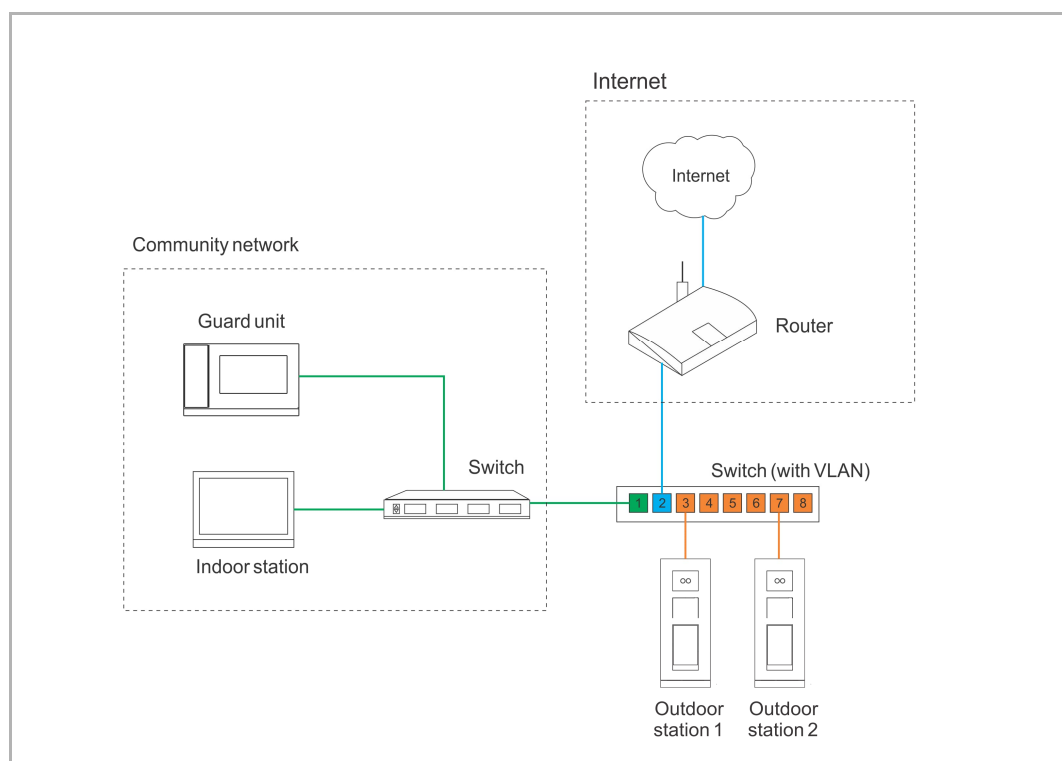
The user must change the engineering password when accessing the engineering settings for the first time. This engineering password must not include continuously increasing or decreasing numbers (e.g. 12345678, 98765432), and three consecutive identical numbers are similarly not permitted (e.g. 123444, 666888).

10.8 VLAN setting

In some case, the outdoor station needs to connect the community network (LAN) and the Internet at the same time. In order to improve system security, it is recommended to set VLAN to isolate the community network and the Internet. For this application, a switch supporting 802.1Q VLAN function needs to be used.

Example

In the figure below, it is assumed that port 1 of the switch is connected to the community network, port 2 is connected to the Internet and port 3 ~ port 8 can be connected to the outdoor station.



Note

The following operation will take the "Mercury sg108pro switch" as an example to describe the VLAN setting.

Different switches have differences in VLAN settings.

Please follow the steps below:

1. Enable the 802.1Q VLAN function on the switch
2. Set the VLAN ID for the ports of the switch

The following table is only an example:

VLAN ID	VLAN name	Tagged port	Untagge port
300	Community	3-8	1
400	Internet	3-8	2

3. Set the PVID for the ports of the switch

In this case, the PVID of the port1 should be set to "300" and the PVID of the port2 should be se to "400".

4. Set the VLAN ID for the outdoor station

In this case, the VLAN ID (LAN) should be set to "300" and the internet VLAN ID (Internet) should be se to "400".

The screenshot shows the 'Engineering settings' menu with a 'Return' button at the top right. The left sidebar contains the following options: 'Device attribute', 'System attribute', 'Network Setting' (highlighted), 'Cloud intercom setting', and 'Change password'. The main configuration area on the right includes:

- Subnet Mask:** 255 . 255 . 255 . 0
- Gateway:** 192 . 168 . 1 . 1
- DNS:** 114 . 114 . 114 . 114
- ☒ **VLAN ID (Internet):** 400
- ☒ **VLAN ID (LAN):** 300
- SAVE CONFIGURATION** button

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