Product manual

ABB-Welcome IP

H8131.P.-. Mini video outdoor station
H8136.P.-. Mini video outdoor station
# 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 Control elements............................................................................7
   5.3 Terminal description .......................................................................8
   5.4 Lock type and connection ...............................................................9
6 Technical data ........................................................................................10
7 Mounting/Installation .............................................................................11
   7.1 Requirement for the electrician .......................................................11
   7.2 Mounting ........................................................................................12
      7.2.1 Preparation ............................................................................12
      7.2.2 Installation height....................................................................12
      7.2.3 Installation situation ................................................................13
      7.2.4 Surface-mounted installation .................................................14
      7.2.5 Flush-mounted installation ......................................................16
      7.2.6 Cavity wall installation ............................................................17
      7.2.7 Replacing the nameplate .........................................................18
8 Commissioning ......................................................................................19
   8.1 Configure the settings on indoor station ........................................19
      8.1.1 Enter engineering mode of outdoor station .........................19
      8.1.2 Enter outdoor station through an indoor station ..................20
      8.1.3 Device type settings ...............................................................22
      8.1.4 Unlock type when swiping setting ..........................................26
      8.1.5 Default lock setting ...............................................................27
      8.1.6 Subsidiary lock setting ............................................................28
      8.1.7 Door status detection setting ................................................29
      8.1.8 Tamper proof alarm setting ....................................................30
      8.1.9 Ringtone volume setting .........................................................31
      8.1.10 Button tone setting ...............................................................32
      8.1.11 Voice prompts setting ...........................................................33
      8.1.12 Language setting .................................................................34
      8.1.13 Lift control setting ...............................................................35
      8.1.14 Anti-flicker setting ...............................................................36
      8.1.15 Call forward setting .............................................................37
      8.1.16 Wiegand setting .................................................................38
      8.1.17 Push-button setting ..............................................................39
      8.1.18 Time sync setting ...............................................................41
      8.1.19 Compatible mode setting .....................................................42
      8.1.20 Updating the firmware .........................................................43
### Table of contents

8.1.21 Viewing the version ................................................................. 45  
8.1.22 Viewing the serial number ........................................................... 46  
8.2 Configure the settings on "Smart Access Point" 47  
8.2.1 Adding mini outdoor station ......................................................... 47  
8.2.2 Configure the settings .............................................................. 49  
8.3 Card management ........................................................................ 56  
8.4 Restoring to factory default ............................................................ 58  
9 Cyber security ................................................................................ 59  
9.1 Disclaimer .................................................................................. 59  
9.2 Performance and service .............................................................. 59  
9.3 Deployment guideline ................................................................. 60  
9.4 Upgrading .................................................................................. 60  
9.5 Backup/Restore ............................................................................ 60  
9.6 Malware prevention solution ....................................................... 60  
10 Notice ......................................................................................... 61
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.
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

<table>
<thead>
<tr>
<th>Article number</th>
<th>Product ID</th>
<th>Product name</th>
<th>Colour</th>
<th>Size (HxWxD) Unit: mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>H81313P1-A</td>
<td>2TMA130010A0001</td>
<td>Mini video outdoor station, 1 button, ID, SM</td>
<td>Aluminum alloy</td>
<td>99 x 168 x 26</td>
</tr>
<tr>
<td>H81313P2-A</td>
<td>2TMA130010A0004</td>
<td>Mini video outdoor station, 2 buttons, ID, SM</td>
<td>Aluminum alloy</td>
<td>99 x 168 x 26</td>
</tr>
<tr>
<td>H81363P1-A</td>
<td>2TMA130010A0007</td>
<td>Mini video outdoor station, 1 button, ID, FM</td>
<td>Aluminum alloy</td>
<td>105 x 180 x 43</td>
</tr>
<tr>
<td>H81363P2-A</td>
<td>2TMA130010A0010</td>
<td>Mini video outdoor station, 2 buttons, ID, FM</td>
<td>Aluminum alloy</td>
<td>105 x 180 x 43</td>
</tr>
<tr>
<td>H81364P1-A</td>
<td>2TMA130010A0013</td>
<td>Mini video outdoor station, 1 button, FM</td>
<td>Aluminum alloy</td>
<td>105 x 180 x 43</td>
</tr>
</tbody>
</table>
### 5.2 Control elements

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ring indicator</td>
</tr>
<tr>
<td></td>
<td>Indicator flashes slowly: ringing</td>
</tr>
<tr>
<td></td>
<td>Indicator flashes quickly: busy line</td>
</tr>
<tr>
<td>2</td>
<td>Call indicator</td>
</tr>
<tr>
<td>3</td>
<td>Unlock indicator</td>
</tr>
<tr>
<td>4</td>
<td>Speaker and microphone integration</td>
</tr>
<tr>
<td>5</td>
<td>Call button</td>
</tr>
<tr>
<td>6</td>
<td>Label field</td>
</tr>
<tr>
<td>7</td>
<td>Integrated ID card reader</td>
</tr>
</tbody>
</table>
### 5.3 Terminal description

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Connector for the sensor used for door status detection</td>
</tr>
<tr>
<td>2</td>
<td>Connector for exit button</td>
</tr>
<tr>
<td>3</td>
<td>Plug-in clamps (LOCK...AGND) for door opener</td>
</tr>
<tr>
<td>4</td>
<td>Plug-in clamps (COM...NC...NO) for floating output</td>
</tr>
<tr>
<td>5</td>
<td>Plug-in clamps (DC+...GND) for standalone power supply</td>
</tr>
<tr>
<td>6</td>
<td>LAN (PoE)</td>
</tr>
<tr>
<td>7</td>
<td>N/A</td>
</tr>
</tbody>
</table>

![Diagram of terminal connections]
### 5.4 Lock type and connection

<table>
<thead>
<tr>
<th>Lock type</th>
<th>Pic</th>
<th>Operation type</th>
<th>Voltage</th>
<th>Wiring type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical strike lock, 12V</td>
<td></td>
<td>Power on to open</td>
<td>12 V <del>/</del></td>
<td>Type A/B</td>
</tr>
<tr>
<td>Electrical strike lock, 24V</td>
<td></td>
<td>Power on to open</td>
<td>24 V <del>/</del></td>
<td>Type B</td>
</tr>
<tr>
<td>Electrical rim lock, 12 V</td>
<td></td>
<td>Power on to open</td>
<td>12 V</td>
<td>Type A/B</td>
</tr>
<tr>
<td>Electrical mortise lock</td>
<td></td>
<td>Power off to open</td>
<td>12 V</td>
<td>Type C</td>
</tr>
<tr>
<td>Magnetic lock</td>
<td></td>
<td>Power off to open</td>
<td>12/24 V</td>
<td>Type C</td>
</tr>
</tbody>
</table>

#### Type A
- DS
- EXIT
- AGND
- LOCK
- NC
- COM
- NO
- GND
- DC+

#### Type B
- DS
- EXIT
- AGND
- LOCK
- NC
- COM
- NO
- GND
- DC+

#### Type C
- DS
- EXIT
- AGND
- LOCK
- NC
- COM
- NO
- GND
- DC+
# Technical data

<table>
<thead>
<tr>
<th>Designation</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rating voltage</td>
<td>24 V ipp</td>
</tr>
<tr>
<td>Operating voltage range</td>
<td>20-27 V ipp</td>
</tr>
<tr>
<td>Rating current</td>
<td>27 V ipp, 310 mA</td>
</tr>
<tr>
<td></td>
<td>24 V ipp, 350 mA</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-40 °C...+55 °C</td>
</tr>
<tr>
<td>Product dimensions</td>
<td>99 mm x 168 mm x 26 mm (H8131.P.-.)</td>
</tr>
<tr>
<td></td>
<td>105 mm x 180 mm x 43 mm (H8136.P.-.)</td>
</tr>
<tr>
<td>Camera type</td>
<td>CMOS</td>
</tr>
<tr>
<td>Camera viewing angle</td>
<td>104°</td>
</tr>
<tr>
<td>Power supply for door opener</td>
<td>15 V ipp, 4A impulse, max. 250 mA holding</td>
</tr>
<tr>
<td>Floating output for door opener</td>
<td>30 V ipp, 3 A</td>
</tr>
<tr>
<td>IP level</td>
<td>IP 54</td>
</tr>
<tr>
<td>IK level</td>
<td>IK 07</td>
</tr>
<tr>
<td>Network connection standard</td>
<td>IEEE802.3, 10/100 Mbps, auto MDI/MDI-X</td>
</tr>
</tbody>
</table>
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

1.5 m
5 feet
7.2.3 Installation situation

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
7.2.4 Surface-mounted installation

Product dimension

Surface-mounted on the wall

Mounting screw x 4
Screw shaft: Ø4
Screw length: ≥ 2.5 mm
Surface-mounted on the box (e.g. VDE box)

1. Mounting screw x 4
   Screw shaft: Ø4
   Screw length: ≥ 25 mm
7.2.5 Flush-mounted installation

Product dimension

Flush-mounted with pre-installation box

Mounting screw x 4
Screw shaft: Ø4
Screw length: ≥ 25 mm
7.2.6 Cavity wall installation

Product dimension

Mounting

Mountingscrew x 4
Screw shaft: Ø4
Screw length: ≥ 25 mm
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

**Note**
The mini outdoor station must be on the same network as the indoor station.

Please follow the steps below,

- Power up the mini outdoor station, the three indicators light up green.
- After a period of time, the three indicators go out.
- Press and hold the first pushbutton for 5 s.
- When the pushbutton module and the three indicators are flashing green at the same time, the mini outdoor station enters engineering mode.
8.1.2 **Enter outdoor station through an indoor station**

On the extra screen of indoor station, click "System" to access the corresponding screen.

![System Settings Screen](image)

On the "System settings" screen, click "Engineering settings", enter the engineering password to access the corresponding screen.

![Input Password Screen](image)
On the "Engineering settings" screen, tap "Outdoor station settings" to access the corresponding screen.
8.1.3 Device type settings

1. Device type = OS (outdoor station)

Please follow the steps below:

[1] On the "Outdoor station settings" screen, select "OS" from the drop-down list.
[2] Enter the block number (1…999).
[3] Enter the device number (1…64).
[4] Tap " " to exit the setting, tap "OK" to save the settings.
2. Device type = 2nd OS (2nd confirmed outdoor station)

Location of IP gateway = Internal

In this case, the 2nd OS is connected to the router in the apartment (see diagram below).

Please follow the steps below:

[1] On the "Outdoor station settings" screen, select "2nd OS" from the drop-down list.
[2] Select "Internal" from the drop-down list.
[3] Enter the device number (1…32).
[4] Tap " " to exit the setting, tap "OK" to save the settings.
Location of IP gateway = External
In this case, the 2nd OS is connected to the switch outside the apartment (see diagram below).
Please follow the steps below:

1. On the "Outdoor station settings" screen, select "2nd OS" from the drop-down list.
2. Select "External" from the drop-down list.
3. Enter the block number (1…999).
4. Enter the room number (01…63 + 01…32 e.g. 0101).
5. Enter the device number (1…2).
6. Tap " " to exit the setting, tap "OK" to save the settings.

**Note**
The external and internal types cannot be used in mixed scenarios in the same apartment.
8.1.4 Unlock type when swiping setting

This setting applies to pushbutton outdoor stations with card reader only. Please follow the steps below:

[1] On the "Outdoor station settings" screen, select unlock type from the drop-down list. It can be set to "Default lock" or "Subsidiary lock".

[2] Tap " " to exit the setting, tap "OK" to save the settings.
8.1.5 Default lock setting

Please follow the steps below:

[1] On the "Outdoor station settings" screen, select the lock type from the drop-down list. It can be set to "Lock-GND", "NO-NC-COM" or "IP Actuator".

[2] If lock type = "IP actuator", you need to set the lock type from the drop-down list. It can be set to "Power lock" or "Relay lock" (optional).

[3] If lock type = "IP actuator", you need to set the device number of the IP actuator (optional).

[4] Enter the unlock time for the power lock (default 5 seconds).

[5] Enter the unlock time for the signal lock (default 5 seconds).

[6] Tap " " to exit the setting, tap "OK" to save the settings.
8.1.6 **Subsidiary lock setting**

Please follow the steps below:

1. On the "Outdoor station settings" screen, select lock type from the drop-down list. It can be set to "Lock-GND", "NO-NC-COM" or "IP Actuator".

2. If lock type = "IP actuator", you need to set the lock type from the drop-down list. It can be set to "Power lock" or "Relay lock" (optional).

3. If lock type = "IP actuator", you need to set the device number of the IP actuator (optional).

4. Enter the unlock time for the power lock (default 5 seconds).

5. Enter the unlock time for the signal lock (default 5 seconds).

6. Tap " " to exit the setting, tap "OK" to save the settings.
8.1.7 Door status detection setting

If this function is enabled, the IP touch will send an alarm to the management software when the door is open longer than 120 s (a sensor should first be connected to the outdoor station).

Please follow the steps below:

[1] On the "Outdoor station settings" screen, select the check box "Door status detection" to enable the function.

[2] If the function "Sound of local alarm" is enabled, the IP touch also sounds an alarm locally.

[3] Tap " " to exit the setting, tap "OK" to save the settings.
8.1.8 **Tamper proof alarm setting**

If this function is enabled, the IP touch will send an alarm to the management software if the outdoor station is removed from the wall.

Please follow the steps below:

1. On the "Outdoor station settings" screen, select the check box "Tamper proof alarm" to enable the function.

2. Tap "  " to exit the setting, tap "OK" to save the settings.
8.1.9 Ringtone volume setting

Please follow the steps below:

[1] On the "Outdoor station settings" screen, tap "+" or "-" to adjust the ringtone volume.

[2] Tap " " to exit the setting, tap "OK" to save the settings.
8.1.10 Button tone setting

Please follow the steps below:

[1] On the "Outdoor station settings" screen, tick the check box "Button tone" to enable the function.

[2] Tap "+" or "-" to adjust the voice volume.

[3] Tap " " to exit the setting, tap "OK" to save the settings.
8.1.11 Voice prompts setting

If this function is enabled, the outdoor station will play the sound for "Call in progress" during the operation.

Please follow the steps below:

[1] On the "Outdoor station settings" screen, tick the check box "Voice prompts" to enable the function.

[2] Tap "+" or "-" to adjust the voice volume.

[3] The language of the voice prompt will be the same as the language setting.

[4] Tap " " to exit the setting, tap "OK" to save the settings.
8.1.12 Language setting

Please follow the steps below:

[1] On the "Outdoor station settings" screen, select a language from the drop-down list.

[2] Tap " separator " to exit the setting, tap "OK" to save the settings.
8.1.13 Lift control setting

This setting is available when the device type of outdoor station is set to "OS".

Please follow the steps below:

[1] On the "Outdoor station settings" screen, tick the check box "Lift control settings" to enable
the function.

[2] Enter the floor number of the local outdoor station (-7…+63).

[3] Tap " " to exit the setting, tap "OK" to save the settings.
8.1.14 Anti-flicker setting

Please follow the steps below:

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

[2] Tap " " to exit the setting, tap "OK" to save the settings.
8.1.15 **Call forward setting**

This setting is available when the device type of outdoor station is set to "OS" or "GS". If this function is enabled, each incoming call from this outdoor station will be transferred to the designated guard unit.

Please follow the steps below:

[1] On the "Outdoor station settings" screen, select the check box "Call forward" to enable the function.

[2] Enter the address of the designated guard unit (1…32).

[3] Tap " " to exit the setting, tap "OK" to save the settings.
8.1.16 Wiegand setting

Please follow the steps below:

[1] On the "Outdoor station settings" screen, select the check box "Wiegand output" to enable the function.

[2] Select the Wiegand output format from the drop-down list. It can be set to "26 bits" or "34 bits".

[3] Tap " ■ " to exit the setting, tap "OK" to save the settings.
8.1.17 Push-button setting

Please follow the steps below:

[1] On the "Outdoor station settings" screen, select the columns of button from the drop-down list. This setting is only available when detecting the bar push-button module on the outdoor station. It can be set to "1" or "2" (optional).

[2] Tap "Push-button address setting".
[3] Select the function from the drop-down list. It can be set to "Call", "Turn on the light" or "None".

[4] Select the device type from the drop-down list. It can be set to "Indoor station" or "Phone guard unit".

[5] Enter the address according to the device type.

[6] Tap "OK".

[7] Tap "  

" to exit the setting, tap "OK" to save the settings.
8.1.18 Time sync setting

Please follow the steps below:

[1] On the "Outdoor station settings" screen, select the sync time method from the drop-down list. It can be set to "Sync with mgmtc." or "Close time sync". If "Sync with mgmtc." is selected, the outdoor station will sync the time from the management software.

[2] If "Close time sync" is selected, the time and date need to be set manually (optional).

[3] Tap " " to exit the setting, tap "OK" to save the settings.
8.1.19 **Compatible mode setting**

The outdoor station works in security mode to guarantee high security ("Compatible mode" is disabled by default).

It is suggested that compatible mode is only used when the devices need to communicate with previous generation products. In this mode, data transmission between devices is not encrypted, may lead to data leaks and has the risk of attacks.

Please follow the steps below:

1. On the "Outdoor station settings" screen, tap the slider "Compatible mode" to switch on/off the function.

2. Tap " " to exit the setting, tap "OK" to save the settings.
### 8.1.20 Updating the firmware

**Note**
The outdoor station must exit engineering mode before the firmware is upgraded.
If the gate station (device type = GS) needs to update the firmware, a gate station (device ID = 1) must be used before updating.
If the building outdoor station (device type = OS) needs to update the firmware, a building outdoor station (device ID = 1) must be used before updating.

Please follow the steps below:

1. On the "Outdoor station settings" screen, tap "Firmware update".

![Image: Engineering settings screen with Firmware update option highlighted.](image-url)
[2] Select the designated outdoor station from the drop-down list.
[3] Select the upgrade file from the SD card.
8.1.21 Viewing the version

On the "Outdoor station settings" screen, view the version information.
8.1.22 Viewing the serial number

On the "Outdoor station settings" screen, view the serial number.
8.2 Configure the settings on "Smart Access Point"

8.2.1 Adding mini outdoor station

**Note**
Only a mini outdoor station without a certificate can be added by SmartAP. This mini outdoor station will lose its certificate if its physical address is changed. The mini outdoor station needs to be powered on before being added.

On the "Smart Access Point" configuration screen, follow the steps below,

[1] Click "Door Entry System".
[2] Click "Add device".


[4] Enter the device address,
   - block number
   - floor number
   - room number
   - device number

[5] If the mini 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 Configure the settings

On the configuration screen, click "Door entry system", "Outdoor stations", then click a mini outdoor station to access the settings.
## Basic information

<table>
<thead>
<tr>
<th>No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Device ID</td>
</tr>
<tr>
<td>2</td>
<td>Click the icon to return to the previous screen</td>
</tr>
<tr>
<td>3</td>
<td>Overview of the outdoor station</td>
</tr>
<tr>
<td>4</td>
<td>Device type of the outdoor station</td>
</tr>
<tr>
<td>5</td>
<td>Display the address of the outdoor station</td>
</tr>
<tr>
<td>6</td>
<td>Display the serial number of the outdoor station</td>
</tr>
<tr>
<td>7</td>
<td>Display the firmware version of the outdoor station</td>
</tr>
</tbody>
</table>
Additional settings

<table>
<thead>
<tr>
<th>No.</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Set the physical address for the outdoor station.</td>
</tr>
<tr>
<td>2</td>
<td>Unlock setting</td>
</tr>
<tr>
<td>3</td>
<td>Enable or disable the time synchronization with the management software.</td>
</tr>
<tr>
<td>4</td>
<td>Update the firmware via local PC.</td>
</tr>
<tr>
<td>5</td>
<td>Update the firmware via the external website.</td>
</tr>
<tr>
<td>6</td>
<td>Manage the trusted devices</td>
</tr>
</tbody>
</table>
(1) Unlock setting

Please follow the steps below:

[1] On the designated outdoor station screen, click "Door lock setting".
[2] Set the lock type for the locks, it can set to "Lock-GND", "NO-NC-COM" or "IP actuator".
[3] Set the unlock time for the locks (1...10 seconds).
[4] Click "√" to save.
If lock type is set to "IP actuator", please follow the steps below:
[1] Click "Select IP actuator addr.".
[2] Select the designated IP actuator.
[3] Click "Confirm".
(2) Manage the trusted device

If you want to release the lock on the mini 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 mini outdoor station.

Please follow the steps below to add the trusted device:

[1] On the designated mini outdoor station screen, scroll down the list and 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".
8.3 Card management

The chapter applies to the mini outdoor station integrated with ID card reader.

**Note**
It is recommended that ID cards are created and maintained using local outdoor station or management software only.

1. Card management on local outdoor station

**Programming**

- **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 60s will be as the admin card.

<table>
<thead>
<tr>
<th>Function</th>
<th>Action</th>
<th>Unlock indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create admin card</td>
<td>Swipe card 1x</td>
<td>Green</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Function</th>
<th>Action</th>
<th>Unlock indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter settings</td>
<td>Swipe admin card 1x</td>
<td>Orange</td>
</tr>
</tbody>
</table>
After entering the settings, following functionalities can be implemented:

<table>
<thead>
<tr>
<th>Function</th>
<th>Action</th>
<th>Unlock indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrol user</td>
<td>Swipe admin card 1x</td>
<td>Orange flashes 1x</td>
</tr>
<tr>
<td></td>
<td>Swipe user card 1x</td>
<td>Green</td>
</tr>
<tr>
<td>Delete user</td>
<td>Swipe admin card 2x</td>
<td>Orange flashes 2x</td>
</tr>
<tr>
<td></td>
<td>Swipe user card 1x</td>
<td>Green</td>
</tr>
<tr>
<td>Enrol new admin</td>
<td>Swipe admin card 3x</td>
<td>Orange flashes 3x</td>
</tr>
<tr>
<td></td>
<td>Swipe new admin card 1x</td>
<td>Green</td>
</tr>
<tr>
<td>Delete admin</td>
<td>Swipe admin card 4x</td>
<td>Orange flashes 4x</td>
</tr>
<tr>
<td></td>
<td>Swipe other admin card 1x</td>
<td>Green</td>
</tr>
<tr>
<td>Delete all users</td>
<td>Swipe admin card 5x</td>
<td>Orange flashes quickly</td>
</tr>
<tr>
<td></td>
<td>Swipe admin card 1x</td>
<td>Green</td>
</tr>
</tbody>
</table>

During setting, please swipe the same admin card.

<table>
<thead>
<tr>
<th>Function</th>
<th>Action</th>
<th>Unlock indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exit settings</td>
<td>Swipe admin card 1x or no cards swiped within 15 seconds</td>
<td>--</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Function</th>
<th>Action</th>
<th>Unlock indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open a door</td>
<td>Swipe the enrolled keycard</td>
<td>Green</td>
</tr>
</tbody>
</table>

**Technical data of ID card**

<table>
<thead>
<tr>
<th>Used frequency</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>125KHz</td>
<td>EM4100, EM4205, EM4305, EM4450, TK4100, T5567/T5577</td>
</tr>
</tbody>
</table>

**Note**
A maximum of 64 ID cards can be supported by mini outdoor station.

2. Card management on management software

Please see the "Management software" product manual for more details.
8.4 Restoring to factory default

Please follow the steps below:

[1] Power on the device and wait a while until 3 LED indicators will turn off.

[2] Then press and hold the 1st button for 3 seconds within 30 seconds until 3 LED indicators begin to flash green at the same time to indicate the device entering configuration mode.

[3] Press and hold the 1st button for 10 seconds until the 3 LED indicators turn off.

[4] The device will reboot automatically and the unlock indicator will flash red, green and orange repeatedly.
9 Cyber security

9.1 Disclaimer

These 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 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.

9.2 Performance and service

Network performance

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethernet</td>
<td>24 Mbps (37,449 packets/sec)</td>
</tr>
<tr>
<td>ARP</td>
<td>12 Mbps (18,724 packets/sec)</td>
</tr>
<tr>
<td>ICMP</td>
<td>22 Mbps (34,328 packets/sec)</td>
</tr>
<tr>
<td>IP</td>
<td>22 Mbps (34,328 packets/sec)</td>
</tr>
</tbody>
</table>

Port and service

<table>
<thead>
<tr>
<th>Port</th>
<th>Service</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>5070</td>
<td>UDP</td>
<td>To be used by SIP client.</td>
</tr>
<tr>
<td>7777</td>
<td>TCP/UDP</td>
<td>To be used for device management.</td>
</tr>
<tr>
<td>10777</td>
<td>TLS</td>
<td>Secure channel for device management</td>
</tr>
<tr>
<td>7005</td>
<td>TCP</td>
<td>To be used for connectivity detection when this feature is enabled.</td>
</tr>
<tr>
<td>8887</td>
<td>TCP</td>
<td>To be used for firmware update.</td>
</tr>
</tbody>
</table>
9.3 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 acts 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.

9.4 Upgrading

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

9.5 Backup/Restore

None.

9.6 Malware prevention solution

The 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.
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