



# 2N Access Unit QR

User Manual



# Table of Contents

<b>Symbols and Terms Used</b> .....	<b>3</b>
<b>Product Description</b> .....	<b>4</b>
Basic Features .....	4
Product Versions .....	5
Accessories .....	5
Accessories for Installation .....	5
Frames .....	8
Extenders .....	11
Electric Locks .....	20
Power Supply .....	26
Other accessories .....	26
Package Completeness Check .....	31
<b>Installation</b> .....	<b>32</b>
Mechanical Installation .....	32
General Mounting Principles .....	32
Flush mounting – into classic bricks, hollow bricks, thermally insulated fronts, etc. ....	33
Flush mounting – into plasterboard .....	55
Surface Installation .....	74
Installation Completion .....	95
Electric Installation .....	96
Power Supply .....	96
Power Supply Installation .....	97
Device Connectors .....	98
LAN Connection .....	100
Overvoltage Protection .....	100
Main and Extending Modules .....	103
Module Interconnection .....	103
Module Power Supply .....	104
Module Specifications .....	107
<b>Brief Guidelines</b> .....	<b>111</b>
Device Configuration Interface Access .....	111
Domain Name .....	111
IP address .....	111
Web Configuration Interface Login .....	111
IP Address Retrieval .....	112
IP Address Retrieval Using 2N Network Scanner .....	112
Firmware Update .....	113
Device Restart .....	113
Restart Using Web Configuration Interface, .....	114
Factory Default Reset .....	114
<b>Device Control</b> .....	<b>115</b>
<b>Maintenance - Cleaning</b> .....	<b>116</b>
<b>Troubleshooting</b> .....	<b>117</b>
<b>Technical Parameters</b> .....	<b>118</b>
<b>Directives, Laws and Regulations - General Instructions and Cautions</b> .....	<b>125</b>
Industry Canada .....	125
FCC .....	125
Electric Waste and Used Battery Pack Handling .....	127

## Symbols and Terms Used

The following symbols and pictograms are used in the manual:



**DANGER**

**Always abide** by this information to prevent persons from injury.



**WARNING**

**Always abide** by this information to prevent damage to the device.



**CAUTION**

**Important information** for system functionality.



**TIP**

**Useful information** for quick and efficient functionality.



**NOTE**

Routines or advice for efficient use of the device.

# Product Description

In this section, we introduce the **2N Access Unit QR** product, outline its application options and highlight the advantages following from its use. The section also includes safety precautions.

## Basic Features

**2N Access Unit QR** is an access unit equipped with a full HD camera used as an elegant QR code reader. Thanks to modularity, the assembly can be complemented with another **2N Access Unit 2.0** module (including the compatible **2N IP Verso** modules except for **2N IP Verso – Induction Loop**) and assembled according to individual needs. It provides a reliable and innovative building access control and easy interoperability with other systems for enhanced building security. **2N Access Unit QR** can be used as an access unit for office buildings, residential areas or other applications.

The user specifies a list of modules and accessories that meet their particular needs and assembles them using the plug&play connections. This approach allows for individual system configurations and also leaves space for additional functionality if necessary.

The device has the Gold license, which includes the Enhanced Video, Enhanced Integration and Lift Control licenses.

### The main advantages of this device are:

**Wide Angle Camera with Full HD Resolution** – provides visitors with a simplified access based on QR code reading. The camera is elegantly hidden behind darkened glass, so it is not visible. The camera can also be used for VMS connection.

**Keypad** – the device can be equipped with a numeric keypad module, which turns the device into a code lock for lock switch activation.

**Card Reader** – the device can be equipped with a card reader module, which provides access control functionality based on RFID cards or chips. With additional software features, functions other than the door lock can be RFID card controlled too.

**Electric Lock Switch** – this switch can be controlled using QR codes, the numeric keypad or a PC application. The switch can be completed with additional module outputs if necessary. A wide range of switch settings allows for a variety of applications.

**Robustness** – the device is designed as a robust, mechanically resistant intercom, which withstands weather conditions without needing extra accessories.

**Device Installation** – is very easy. All you have to do is assemble the required modules and connect the assembly to your LAN with a network cable. The modules are plug&play, so there is no need to configure them manually. The device can be supplied either from a 12 V DC power source or using PoE if supported by your LAN.

**Device Configuration** – use a PC equipped with any internet browser for configuration.

### Other advantages of the device

- elegant design,
- weather resistance,
- variable mounting options (brick/plasterboard flush mounting, surface mounting),
- sensitive microphone for noise detection and speakerphone for playing preset messages,
- integrated color FullHD camera with a wide-angle lens,

## Product Description

- optional numeric keypad with backlight,
- option to have multiple modules of the same kind – for example, a card reader for both entering and leaving the building,
- integrated electronic lock switches with wide setting options,
- optional integrated RFID card reader module,
- LAN (PoE) or external 12 V power supply,
- configuration via web interface,
- up to 10,000 users to be added,
- up to 20 user time profiles,
- video codecs (),
- HTTPS server for configuration,
- SNTP client for server time synchronization,
- SMTP client for e-mail sending,
- RTSP server for video streaming,
- TFTP/HTTP client for automated configuration update.

## Product Versions



**Part No. 916201**

Axis Part No. 03089-001

### **2N Access Unit QR**

It provides access control via a QR code.

One blind module is always supplied with the device.

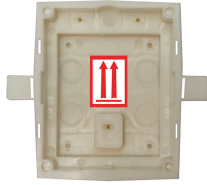
## Accessories

### **Accessories for Installation**

**2N Access Unit QR** is designed for outdoor applications and requires no additional roof.

Choose the proper a mounting box depending on your particular installation needs.

## Product Description



### **Part No. 9155014**

Axis Part No. 01284-001

Flush mounting box, 1-module

The box is designed for brick/plasterboard flush mounting of 1-module.

Delivered including accessories for multiple box assemblies.

**Remember to order it together with a 1-module flush mounting frame, Part No. 9155011.**

---



### **Part No. 9155015**

Axis Part No. 01285-001

Flush mounting box, 2-module

The box is designed for brick/plasterboard flush mounting of 2-module.

Delivered including accessories for multiple box assemblies.

**Remember to order it together with a 2-module flush mounting frame, Part No. 9155012.**

---



### **Part No. 9155016**

Axis Part No. 01286-001

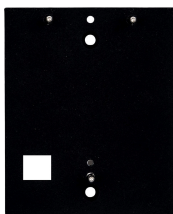
Flush mounting box, 3-module

The box is designed for brick/plasterboard flush mounting of 3-module.

Delivered including accessories for multiple box assemblies.

**Remember to order it together with a 3-module flush mounting frame, Part No. 9155013.**

---



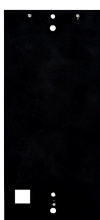
### **Part No. 9155061**

Axis Part No. 01293-001

1-module mounting backplate

Mounting backplate for glass/uneven surface mounting of 1 module.

---



### **Part No. 9155062**

Axis Part No. 01294-001

2-module mounting backplate

Mounting backplate for glass/uneven surface mounting of 2 modules.

---

## Product Description



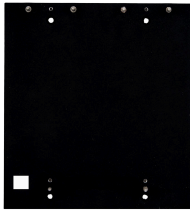
**Part No. 9155063**

Axis Part No. 01295-001

3-module mounting backplate

Mounting backplate for glass/uneven surface mounting of 3 modules.

---



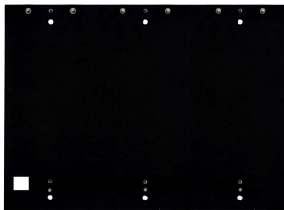
**Part No. 9155064**

Axis Part No. 01296-001

2 x 2-module mounting backplate

Mounting backplate for glass/uneven surface mounting of 2 (w) x 2 (h) modules.

---



**Part No. 9155065**

Axis Part No. 01297-001

3 x 2-module mounting backplate

Mounting backplate for glass/uneven surface mounting of 3 (w) x 2 (h) modules.

---



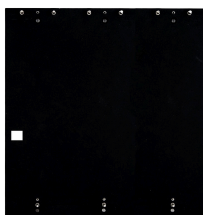
**Part No. 9155066**

Axis Part No. 01298-001

2 x 3-module mounting backplate

Mounting backplate for glass/uneven surface mounting of 2 (w) x 3 (h) modules.

---



**Part No. 9155067**

Axis Part No. 01299-001

3 x 3-module mounting backplate

Mounting backplate for glass/uneven surface mounting of 3 (w) x 3 (h) modules.

---



**Part No. 9155072**

Axis Part No. 01940-001

2-module slope board

The 2-module slope board is used as a backplate for installations with a tilt of 25°.

---

## Product Description



### **Part No. 916020**

Axis Part No. 01371-001

Cable with RJ45 connector

RJ45 adapter



### **Part No. 9155050/9155054/9155055**

Axis Part No. 01267-001/01268-001/01269-001

1/3/5 m interconnecting cable

Interconnection cable for distant module installation.

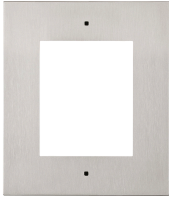
Only one interconnecting cable is allowed per installation.

The maximum bus length is 7 m.

## **Frames**

The above mentioned mounting boxes and 2N Verso extending modules are compatible with 2N Access Unit.





**Part No. 9155011**

Axis Part Nos. 01278-001

Flush mounting frame, 1 module

Covering frame for the 1-module brick/plasterboard flush mounting box.

The 1-module frame is used, for example:

- When an additional module is added to an existing installation.
- When the module is mounted onto an extended interconnecting cable, for an OUT card reader, for example.

**Remember to order the frame when you order a 1-module flush mounting box, Part No. 9155014.**

---



**Part No. 915501B**

Axis Part No. 012345

Flush mounting frame, 1 module – black

Covering frame for the 1-module brick/plasterboard flush mounting box.

The 1-module frame is used, for example:

- When an additional module is added to an existing installation.
- When the module is mounted onto an extended interconnecting cable, for an OUT card reader, for example.

**Remember to order the frame when you order a 1-module flush mounting box, Part No. 9155014.**

---



**Part No. 9155012**

Axis Part No. 012345

Flush mounting frame, 2 modules

Covering frame for the 2-module brick/plasterboard flush mounting box.

**Remember to order the frame when you order a 2-module flush mounting box, Part No. 9155015.**

---



**Part No. 9155012B**

Axis Part No. 012345

Flush mounting frame, 2 modules – black

Covering frame for the 2-module brick/plasterboard flush mounting box.

**Remember to order the frame when you order a 2-module flush mounting box, Part No. 9155015.**

---

## Product Description



### **Part No. 9155013**

Axis Part No. 012345

Flush mounting frame, 3 modules

Covering frame for the 3-module brick/plasterboard flush mounting box.

**Remember to order the frame when you order a 3-module flush mounting box, Part No. 9155016.**



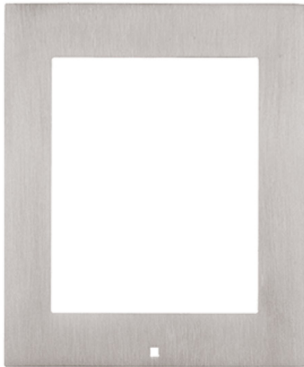
### **Part No. 9155013B**

Axis Part No. 012345

Flush mounting frame, 3-module – black

Covering frame for the 3-module brick/plasterboard flush mounting box.

**Remember to order the frame when you order a 3-module flush mounting box, Part No. 9155016.**



### **Part No. 9155021**

Axis Part No. 012345

Surface mounting frame, 1 module

The 1-module frame is used, for example:

- when an additional module is added to an existing installation,
- when the module is mounted onto an extended interconnecting cable, for an OUT card reader, for example.



### **Part No. 9155021B**

Axis Part No. 012345

Surface mounting frame, 1 module – black

The 1-module frame is used, for example:

- when an additional module is added to an existing installation,
- when the module is mounted onto an extended interconnecting cable, for an OUT card reader, for example.

## Product Description



**Part No. 9155022**

Axis Part No. 012345

Surface mounting frame, 2 modules

---



**Part No. 9155022B**

Axis Part No. 012345

Surface mounting frame, 2 modules – black

---



**Part No. 9155023**

Axis Part No. 012345

Surface mounting frame, 3 modules

---



**Part No. 9155023B**

Axis Part No. 012345

Surface mounting frame, 3 modules – black

### Extenders

9155032 - predecessor of 91550941?

916031 - predecessor of 916019



**NOTE**

**2N Access Unit QR** also supports the **2N IP Verso** extending modules.

## Product Description



### Part No. 9155030

Axis Part No. 01252-001

2N IP Verso – Infopanel

The Infopanel module helps you place such information into the device installation as house number, opening hours and similar data.

The Infopanel backlight is software controlled.



### Part No. 9155031

Axis Part No. 01253-001

2N IP Verso – Keypad

The numeric keypad module helps you dial users via their phonebook positions or phone numbers. Also, it helps you control the lock and other functions via a numeric code.

The digits and symbols are backlit.



### Part No. 9155031B

Axis Part No. 01254-001

2N IP Verso – Keypad – black

The numeric keypad module helps you dial users via their phonebook positions or phone numbers. Also, it helps you control the lock and other functions via a numeric code.

The digits and symbols are backlit.



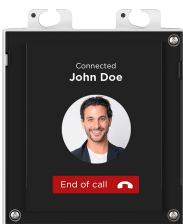
### Part No. 9155047

Axis Part No. 01277-001

2N IP Verso – Touch Keypad

The numeric touch keypad module helps you dial users via their phonebook positions or phone numbers, Also, it helps you control the lock and other functions via a numeric code.

The digits and symbols are backlit.



### Part No. 9155036

Axis Part No. 01275-001

2N IP Verso – Touch display

The touch display module allows visitors to dial users in a smartphone-like way.

## Product Description

a keypad.



### Part No. 9160341

2N IP Verso 125 kHz

It provides access control via contactless cards or key fobs.

Supported RFID cards 125 kHz:

- EM4x02
- NXP HiTag2



### Part No. 9160341US

Axis Part No. 02137-001

2N IP Verso 125 kHz

It provides access control via contactless cards or key fobs.

Supported RFID cards 125 kHz:

- EM4x02
- NXP HiTag2



### Part No. 9160342

Axis Part No. 02143-001

2N IP Verso 13.56 MHz, NFC ready

It provides access control via contactless cards or key fobs. The module supports the following 13.56 MHz cards or other carriers:

Supported RFID cards 13.56 MHz:

- **ISO14443A** (MIFARE Classic, MIFARE Plus, MIFARE Mini, MIFARE Ultralight, MIFARE DESFire CSN only)
- **PicoPass** (HID iClass CSN, Picopass)
- **FeliCa** (Standard, Lite)
- **ST SR** (SR, SRI, SRIX)
- **Mobile Key**



### Part No. 9160342-S

Axis Part No. 02142-001

2N IP Verso 13.56 MHz, secured NFC ready

It provides access control via contactless cards or key fobs. The module supports the following 13.56 MHz cards or other carriers:

Supported RFID cards 13.56 MHz:

## Product Description

- **ISO14443A** (MIFARE Classic, MIFARE Plus, MIFARE Mini, MIFARE Ultralight, MIFARE DESFire CSN only)
- **PicoPass** (HID iClass CSN, Picopass)
- **FeliCa** (Standard, Lite)
- **ST SR** (SR, SRI, SRIX)
- **HID PAC** (HID SEOS, HID iClass SE, iClass SR, HID MIFARE DESFire with SIO, HID MIFARE Classic with SIO)
- **Mobile Key**
- **2N PICard**



### Part No. 916031

Axis Part No. 02263-001

2N IP Verso Fingerprint reader

Used for verification of human fingerprints for access control and intercom/third party equipment control.



### Part No. 9160344

Axis Part No. 02138-001

2N IP Verso RFID – 125 kHz, 13.56 MHz, NFC

It provides access control via contactless cards or key fobs. The module supports the following 13.56 MHz cards or other carriers:

Compatible with firmware version 2.13 and higher.

Supported RFID cards 13.56 MHz:

- **ISO14443A** (MIFARE Classic, MIFARE Plus, MIFARE Mini, MIFARE Ultralight, MIFARE DESFire CSN only)
- **PicoPass** (HID iClass CSN, Picopass)
- **FeliCa** (Standard, Lite)
- **ST SR** (SR, SRI, SRIX)
- **Mobile Key**



### Part No. 91550945/9155082

Axis Part No. 02778-001

Bluetooth & RFID – 125 kHz, 13.56 MHz, NFC

A combined Bluetooth & card reader module helps you control access using a numeric code, contactless cards or key fobs. The module supports the 125 kHz and 13.56 MHz cards and/or other carriers.

Supported RFID cards 125 kHz:

- EM4x02
- NXP HiTag2

Supported RFID cards 13.56 MHz:

## Product Description

- **ISO14443A** (MIFARE Classic, MIFARE Plus, MIFARE Mini, MIFARE Ultralight, MIFARE DESFire CSN only)
- **PicoPass** (HID iClass CSN, Picopass)
- **FeliCa** (Standard, Lite)
- **ST SR** (SR, SRI, SRIX)
- **Mobile Key**



### Part No. 9160345

Axis Part No. 02772-001

2N IP Verso Bluetooth & RFID – 125 kHz, 13.56 MHz, NFC

A combined Bluetooth – card reader module helps you control access using an access code, Mobile Key in your smartphone or an access card. The module supports the 125 kHz and 13.56 MHz cards and/or other carriers.

Supported RFID cards 125 kHz:

- EM4x02
- NXP HiTag2

Supported RFID cards 13.56 MHz:

- **ISO14443A** (MIFARE Classic, MIFARE Plus, MIFARE Mini, MIFARE Ultralight, MIFARE DESFire CSN only)
- **PicoPass** (HID iClass CSN, Picopass)
- **FeliCa** (Standard, Lite)
- **ST SR** (SR, SRI, SRIX)
- **Mobile Key**



### Part No. 9160336

Axis Part No. 02546-001

2N IP Verso Touch keypad & RFID – 125 kHz, 13.56 MHz, NFC

A combined touch keypad – card reader module helps you control access using a numeric code, contactless cards or key fobs. The module supports the 125 kHz and 13.56 MHz cards and/or other carriers.

Supported RFID cards 125 kHz:

- EM4x02
- NXP HiTag2

Supported RFID cards 13.56 MHz:

- **ISO14443A** (MIFARE Classic, MIFARE Plus, MIFARE Mini, MIFARE Ultralight, MIFARE DESFire CSN only)
- **PicoPass** (HID iClass CSN, Picopass)
- **FeliCa** (Standard, Lite)
- **ST SR** (SR, SRI, SRIX)
- **Mobile Key**

## Product Description



### Part No. 9160336-S

Axis Part No. 01852-001

2N IP Verso Touch keypad & RFID – 125 kHz, secured 13.56 MHz, NFC

A combined touch keypad – card reader module helps you control access using a numeric code, contactless cards or key fobs. The module supports the 125 kHz and 13.56 MHz cards and/or other carriers.

Supported RFID cards 125 kHz:

- EM4x02
- NXP HiTag2
- HID Prox

Supported RFID cards 13.56 MHz:

- **ISO14443A** (MIFARE Classic, MIFARE Plus, MIFARE Mini, MIFARE Ultralight, MIFARE DESFire CSN only)
- **PicoPass** (HID iClass CSN, Picopass)
- **FeliCa** (Standard, Lite)
- **ST SR** (SR, SRI, SRIX)
- **HID PAC** (HID SEOS, HID iClass SE, iClass SR, HID MIFARE DESFire with SIO, HID MIFARE Classic with SIO)
- **Mobile Key**
- **2N PICard**



### Part No. 9160347

Axis Part No. 02776-001

2N IP Verso Touch keypad & Bluetooth & RFID - 125 kHz, 13.56 MHz, NFC

A combined touch keypad – Bluetooth – card reader module helps you control access using an access code, Mobile Key in your smartphone or an access card. The module supports the 125 kHz and 13.56 MHz cards and/or other carriers.

Supported RFID cards 125 kHz:

- EM4x02
- NXP HiTag2

Supported RFID cards 13.56 MHz:

- **ISO14443A** (MIFARE Classic, MIFARE Plus, MIFARE Mini, MIFARE Ultralight, MIFARE DESFire CSN only)
- **PicoPass** (HID iClass CSN, Picopass)
- **FeliCa** (Standard, Lite)
- **ST SR** (SR, SRI, SRIX)
- **Mobile Key**



## Product Description



### Part No. 9160347-S

Axis Part No. 02777-001

2N IP Verso Touch keypad & Bluetooth & RFID - 125 kHz, secured 13.56 MHz, NFC

A combined touch keypad – Bluetooth – card reader module helps you control access using an access code, Mobile Key in your smartphone or an access card. The module supports the 125 kHz and 13.56 MHz cards and/or other carriers.

Supported RFID cards 125 kHz:

- EM4x02
- NXP HiTag2
- HID Prox

Supported RFID cards 13.56 MHz:

- **ISO14443A** (MIFARE Classic, MIFARE Plus, MIFARE Mini, MIFARE Ultralight, MIFARE DESFire CSN only)
- **PicoPass** (HID iClass CSN, Picopass)
- **FeliCa** (Standard, Lite)
- **ST SR** (SR, SRI, SRIX)
- **HID PAC** (HID SEOS, HID iClass SE, iClass SR, HID MIFARE DES-Fire with SIO, HID MIFARE Classic with SIO)
- **Mobile Key**
- **2N PICard**



### Part No. 9155039

Axis Part No. 02782-001

2N IP Verso – Blind Panel

The blind panel module helps fill up redundant space in installations.

The main unit is supplied with one blind panel module.



### Part No. 9155034

Axis Part No. 01257-001

I/O Module

The module provides logical inputs and outputs for integration of sensors or other devices.

The module is installed below another module, i.e., needs no separate position.

## Product Description



### **Part Nos. 9155037**

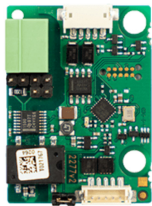
Axis Part No. 01259-001

#### Wiegand Module

The Wiegand module helps you interconnect your system with other systems via the Wiegand interface.

The module is installed below another module, i.e., needs no separate position.

---



### **Part No. 91550371**

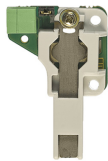
Axis Part No. 02577-001

#### OSDP Module

The OSDP module provides OSDP communication with a connected OSDP device (control panel, door controller) and **2N Access Unit QR** (placed outside).

The module is installed below another module, i.e., needs no separate position.

---



### **Part No. 9155038**

Axis Part No. 01260-001

#### Tamper Switch

The Tamper Switch module secures your system by detecting intercom opening or top frame removing.

The module is installed below another module, i.e., needs no separate position.

Remember to purchase the I/O module, **Part No. 9155034**, along with the Tamper Switch.

---



### **Part No. 9159010**

Axis Part No. 01386-001

#### Security Relay

A handy add-on that significantly enhances security. It prevents lock tampering.

To be installed between the protected device from which it is also powered and the lock controlled by it.

---

## Product Description



### **Part No. 9155198SET**

Axis Part No. 01975-001

Security package for 2N devices

The security package provides increased door security.

The safety package includes a safety relay, a protection switch and an I/O module.

## Electric Locks



### Part No. 11202101

Electric opener Mini 5 series – short

The electric opener is designed for door frame installation, especially for such narrow profiles as aluminum, wooden or PVC frames

Features:

- short sheet metal front cover version (130 mm)
  - 16 mm width
- 



### Part No. 11202101-L

Electric opener Mini 5 series – long

The electric opener is designed for door frame installation, especially for such narrow profiles as aluminum, wooden or PVC frames

Features:

- long sheet metal front cover version (250 mm)
  - 16 mm width
- 



### Part No. 11202102

Electric opener Mini 5 series with door hold in open state – short

The electric opener is designed for door frame installation, especially for such narrow profiles as aluminum, wooden or PVC frames

Features:

- short sheet metal front cover version (130 mm)
  - 16 mm width
- 



### Part No. 11202102-L

Electric opener Mini 5 series with door hold in open state – long

The electric opener is designed for door frame installation, especially for such narrow profiles as aluminum, wooden or PVC frames

Features:

- long sheet metal front cover version (250 mm)
  - 16 mm width
-

## Product Description

### Part No. 11202103



Electric opener Mini 5 series with mechanical blocking – short

The electric opener is designed for door frame installation, especially for such narrow profiles as aluminum, wooden or PVC frames

Features:

---

### Part No. 11202103-L



Electric opener Mini 5 series with mechanical blocking – long

The electric opener is designed for door frame installation, especially for such narrow profiles as aluminum, wooden or PVC frames

Features:

- long sheet metal front cover version (250 mm)
  - 16 mm width
- 

### Part No. 11202104



Electric opener Mini 5 series with monitoring – short

The electric opener is designed for door frame installation, especially for such narrow profiles as aluminum, wooden or PVC frames

Including a door state monitoring micro switch – open/closed.

Features:

- short sheet metal front cover version (130 mm)
  - 16 mm width
- 

### Part No. 11202104-L



Electric opener Mini 5 series with monitoring – long

The electric opener is designed for door frame installation, especially for such narrow profiles as aluminum, wooden or PVC frames

Including a door state monitoring micro switch – open/closed.

Features:

- long sheet metal front cover version (250 mm)
  - 16 mm width
-

## Product Description

### Part No. 11202105



Electric fail safe opener Mini 5 series with mechanical blocking – short

The electric opener is designed for door frame installation, especially for such narrow profiles as aluminum, wooden or PVC frames

Under voltage, the opener is secured, i.e. blocked, once voltage is stopped, the opener is unblocked and the door can be opened.

Features:

- short sheet metal front cover version (130 mm)
  - 16 mm width
- 

### Part No. 11202105-L



Electric fail safe opener Mini 5 series with mechanical blocking – long

The electric opener is designed for door frame installation, especially for such narrow profiles as aluminum, wooden or PVC frames

Under voltage, the opener is secured, i.e. blocked, once voltage is stopped, the opener is unblocked and the door can be opened.

Features:

- long sheet metal front cover version (250 mm)
  - 16 mm width
- 

### Part No. 11202106



Electric fail safe opener Mini 5 series with monitoring – short

The electric opener is designed for door frame installation, especially for such narrow profiles as aluminum, wooden or PVC frames

Under voltage, the opener is secured, i.e. blocked, once voltage is stopped, the opener is unblocked and the door can be opened.

Features:

- short sheet metal front cover version (130 mm)
  - 16 mm width
- 

### Part No. 11202106-L



Electric fail safe opener Mini 5 with monitoring – long

The electric opener is designed for door frame installation, especially for such narrow profiles as aluminum, wooden or PVC frames

The electric opener is fully reversible and highly resistant.

Under voltage, the opener is secured, i.e. blocked, once voltage is stopped, the opener is unblocked and the door can be opened.

## Product Description

### Features:

- long sheet metal front cover version (250 mm)
- 16 mm width



### Part No. 11202201

Electromechanical lock SAM 7255

The self-locking 72/55 lock with panic function is a suitable solution for emergency exits. A key is necessary to open the door from the outside (or an electric pulse from a connected 2N IP intercom/reader).



### Part No. 11202201-M

Electromechanical lock SAM 7255 with monitoring

The self-locking 72/55 lock with panic function is a suitable solution for emergency exits. A key is necessary to open the door from the outside (or an electric pulse from a connected 2N IP intercom/reader).



### Part No. 11202202

Electromechanical lock SAM 9235

The self-locking 92/35 lock with panic function is a suitable solution for emergency exits. A key is necessary to open the door from the outside (or an electric pulse from a connected 2N IP intercom/reader).



### Part No. 11202202-M

Electromechanical lock SAM 9235 with monitoring

The self-locking 92/35 lock with panic function is a suitable solution for emergency exits. A key is necessary to open the door from the outside (or an electric pulse from a connected 2N IP intercom/reader).



### Part No. 11202301

Cable bushing FX290

Provides secure passage and protection of the power cable between the door frame and the door wing.

### Features:

- 290 mm length
-

## Product Description



### **Part No. 11202302**

Cable bushing FX510

Provides secure passage and protection of the power cable between the door frame and the door wing.

Features:

- 510 mm length



### **Part No. 11202303**

Cable protector FX300G

Provides secure passage and protection of the power cable between the door frame and the door wing.

Features:

- 440 mm length



### **Part No. 11202304**

Cable protector FX500G

Provides secure passage and protection of the power cable between the door frame and the door wing.

Features:

- 640 mm length



### **Part No. 11202107**

Electromagnetic lock MEX100

Used as a door holding supplement, not replacing the lock.

It consists of two parts:

- powered part,
- counterpart.

The door cannot be opened under voltage. Once voltage is disconnected, the magnets release and the door opens.



## Product Description



### **Part No. 11202501**

Magnetic handle P300RP

The magnetic handle fully replaces a mortise lock and a door handle.

The door cannot be opened under voltage. Once voltage is disconnected, the magnets release and the door opens.

Suitable for wooden, metal and glass doors.



### **Part No. 11202401**

Automatic opener ED100

Low-energy, simple automatic machine for a fully contactless operation.

Interconnectable with a motion sensor and electronic access control system. Can be used both for the right and left doors and is available in the IN/OUT opening design.



#### **TIP**

FAQ: [Electric locks – Differences between locks for 2N IP access systems](#)

## Power Supply



**Part No. 91378100E (with EU cable)**

**Part No. 91378100US (with US cable)**

Axis Part No. 01403-001

One-port PoE injector

For intercom supply via Ethernet cable where the PoE switch is absent.

---



**Part No. 91341481E (with EU cable)**

**Part No. 91341481US (with US cable)**

Axis Part No. 02520-001

Stabilized 12 V / 2 A power supply

The supply must be used where PoE is not used.

---



**Part No. 932928**

Axis Part No. 02529-001

12 V transformer

For 230 V mains voltage.

Designed for external supply of electric locks.

## Other accessories

## Product Description

### Part No. 9159013



Axis Part No. 02523-001

Departure button

The departure button is connected to the device logic input for opening the door from inside the building.

---

### Part No. 9159012



Axis Part No. 01388-001

Magnetic door contact

Set for installation on a door, enabling the status of door opening to be ascertained. Used where the device is used for door protection, open door detection or forced opening.

---

### Part No. 9134173



Axis Part No. 01384-001

RFID chip card MIFARE, 13.56 Hz

RFID chip card, MIFARE Classic 1k, 13.56 MHz.

---

### Part No. 9134174



Axis Part No. 01385-001

RFID chip fob MIFARE, 13.56 MHz

RFID chip fob, MIFARE Classic 1k, 13.56 MHz.

---

### Part No. 9134165E



Axis Part No. 01395-001

RFID chip card EM, 125 Hz

RFID chip card, type EM4100, 125 kHz.

---

## Product Description

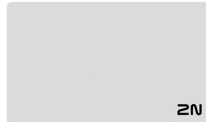


### **Part No. 9134166E**

Axis Part No. 01396-001

RFID chip fob EM, 125 Hz

RFID chip fob, type EM4100, 125 kHz.



### **Part No. 11202601**

Axis Part No. 02787-001

RFID chip card MIFARE DESFire, 13.56 MHz

RFID chip fob, type MIFARE DESFire EV3 4 K, 13.56 MHz (ISO/IEC14443A).

Suitable for data encryption in PICard Commander.

The package includes 10 pieces.



### **Part No. 11202602**

Axis Part No. 02788-001

RFID fob MIFARE DESFire, 13.56 MHz

RFID fob, type MIFARE DESFire EV3 4 K, 13.56 MHz (ISO/IEC14443A).

Suitable for data encryption in PICard Commander.

The package includes 10 pieces.



### **Part No. 9137420E**

Axis Part No. 01399-001

External RFID reader, 125 kHz

External RFID card reader connectable to a PC via a USB interface.

Suitable for system administration and adding of EM41xx cards (125 kHz) using the device web configuration or PICard Commander.



### **Part No. 9137421E**

Axis Part No. 01399-001

External RFID reader, 13.56 MHz + 125 kHz, NFC/HCE

External RFID card reader connectable to a PC via a USB interface.

## Product Description

Suitable for system administration and adding of 13.56 MHz/125 kHz cards and Android devices with NFC/HCE support using the device web configuration or the Access Commander.

Suitable for uploading of MIFARE DESFire cards into the PICard Commander encryption application.

The following RFID cards can be read:

Supported RFID cards 125 kHz:

- EM4x02
- NXP HiTag2

Supported RFID cards 13.56 MHz:

- **ISO14443A** (MIFARE Classic, MIFARE Plus, MIFARE Mini, MIFARE Ultralight, MIFARE DESFire CSN only)
- **PicoPass** (HID iClass CSN, Picopass)
- **FeliCa** (Standard, Lite)
- **ST SR** (SR, SRI, SRIX)
- **Mobile Key**

The device can also read the 13.56 MHz 2N PICard RFID cards.



---

### Part No. 9137424E

Axis Part No. 01527-001

External secured RFID reader, 13.56 MHz + 125 kHz, NFC/HCE

External secured RFID card reader connectable to a PC via a USB interface.

Suitable for system administration and adding of 13.56 MHz/125 kHz cards and Android devices with NFC/HCE support using the device web configuration or the Access Commander.

Suitable for uploading of MIFARE DESFire cards into the PICard Commander encryption application.

The following RFID cards can be read:

Supported RFID cards 125 kHz:

- EM4x02
- NXP HiTag2
- HID Prox

Supported RFID cards 13.56 MHz:

- **ISO14443A** (MIFARE Classic, MIFARE Plus, MIFARE Mini, MIFARE Ultralight, MIFARE DESFire CSN only)
- **PicoPass** (HID iClass CSN, Picopass)
- **FeliCa** (Standard, Lite)
- **ST SR** (SR, SRI, SRIX)
- **HID PAC** (HID SEOS, HID iClass SE, iClass SR, HID MIFARE DESFire with SIO, HID MIFARE Classic with SIO)

## Product Description

- **Mobile Key**
- **2N PICard**

---

### Part No. 9137410E



Axis Part No. 01397-001

External IP relay, 1 output

Stand-alone relay, which can be controlled from an IP intercom via HTTP commands and helps control devices from an unlimited distance.

---

### Part No. 9159014EU/US/UK



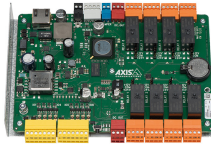
Axis Part No. 01404-001

2N 2Wire (set of 2 adaptors and power source for EU/US/UK)

The 2N 2Wire converter allows you to use the existing 2-wire cabling from your original doorbell or door intercom for connecting any IP device. You do not have to configure anything, all you need is one 2N 2Wire unit at each end of the cable and a power supply connected to at least one of these units. The 2N 2Wire unit then provides PoE power not only to the second converter, but to all of the connected IP end devices.

---

### Part No. 9160501



Axis Part No. 0820-001

AXIS A9188 Network I/O relay module

The relay is part of the lift access solution. One relay can control up to 8 floors. A 2N IP intercom or access unit can be interconnected with up to 8 AXIS A9188 lift relays. The solution is thus suitable for up to 64 floors.

---

### Part No. 9137422E



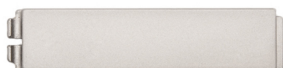
Axis Part No. 01402-001

2N IP intercom – external Bluetooth reader (USB interface)

An external Bluetooth reader connected to your computer via USB . It can be used for pairing the new users who want to use their smartphones with the **2N Mobile Key** application for access to controlled areas.

A USB driver is required for the external reader to work properly.

## Product Description



**Part No. 9155051**

Axis Part No. 01270-001

**2N Access Unit QR** One-button blind

The one-button blind helps blind a button on the main unit.

---



**Part No. 9155051B**

Axis Part No. 01523-001

**2N Access Unit QR** One-button blind, black

The one-button blind helps blind a button on the main unit.

## Package Completeness Check

Please check the product delivery before installation. Contents:

1x **2N Access Unit QR**

---

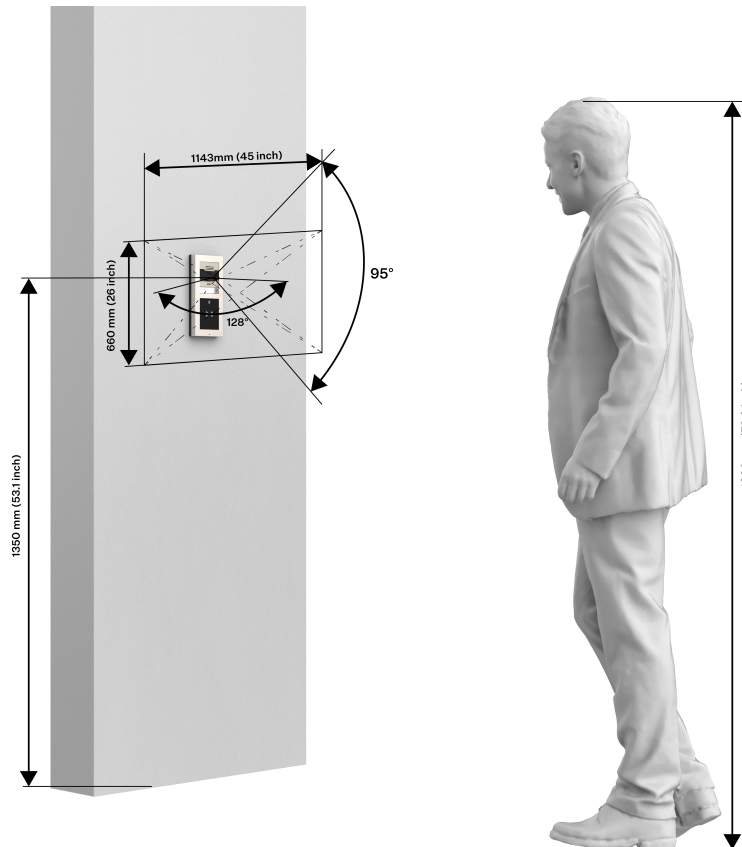
1x Certificate of ownership

---

1x Quick Start manual

# Installation

For optimal functionality, the device is recommended to be placed at a height according to the following scheme:



## Mechanical Installation

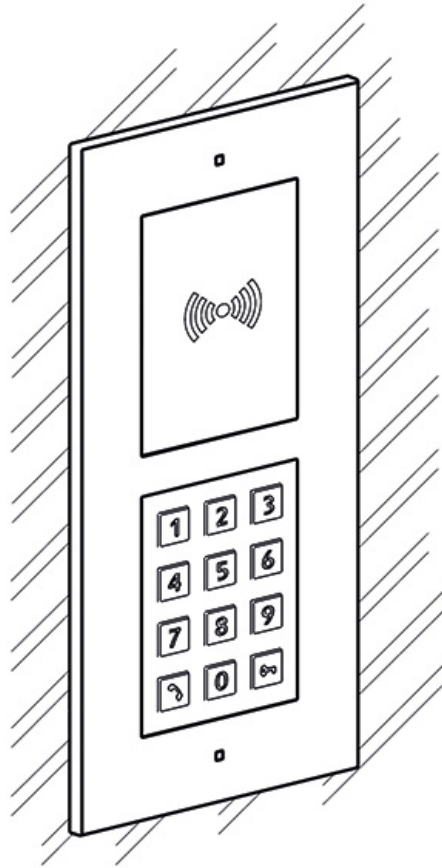
### General Mounting Principles

- Before starting the mechanical installation on a selected place, make sure carefully that the preparations associated with it (drilling, wall cutting) cannot damage the electrical, gas, water and other existing wires and pipes.
- The warranty does not apply to the product defects and failures arisen as a result of improper installation (in contradiction herewith). The manufacturer is neither liable for damage caused by theft within an area that is accessible after the attached electric lock is switched on. The product is not designed as a burglar protection device except when used in combination with a standard lock, which has the security function.
- When the proper installation instructions are not met, water might get in and destroy the electronics. As the device circuits are constantly under voltage water leakage causes electrochemical reaction. The manufacturer's warranty shall be void for products damaged in this way!
- Make sure that the dowel holes have the required diameter. If the diameters are too large, the dowels may get loose! Use the mounting glue to secure the dowels if necessary.
- Make sure that the depths of the dowel holes are accurate!
- Do not use low-quality dowels to avoid their falling out of the wall!
- Having removed the front panel, make sure that no dirt gets inside the product, especially onto the sealing surface.



- Make sure that the plasterboard interior does not show a pressure value significantly different from that of the room, e.g. that it is not connected with overpressure ventilation. If the difference is too great, separate the device in terms of pressure (using, e.g., a mounting box) and seal the cable passage.

**Flush mounting – into classic bricks, hollow bricks, thermally insulated fronts, etc.**



What you need for mounting:

- **2N Access Unit QR**,
- a properly cut hole as instructed in the box package,
- plaster, mounting glue, mounting foam or mortar as necessary,
- flush mounting box and frame
  - for 1-modules: box (Part No. **9155014**), frame (Part No. **9155011**)
  - for 2-modules: box (Part No. **9155015**), frame (Part No. **9155012**)
  - for 3-modules: box (Part No. **9155016**), frame (Part No. **9155013**)

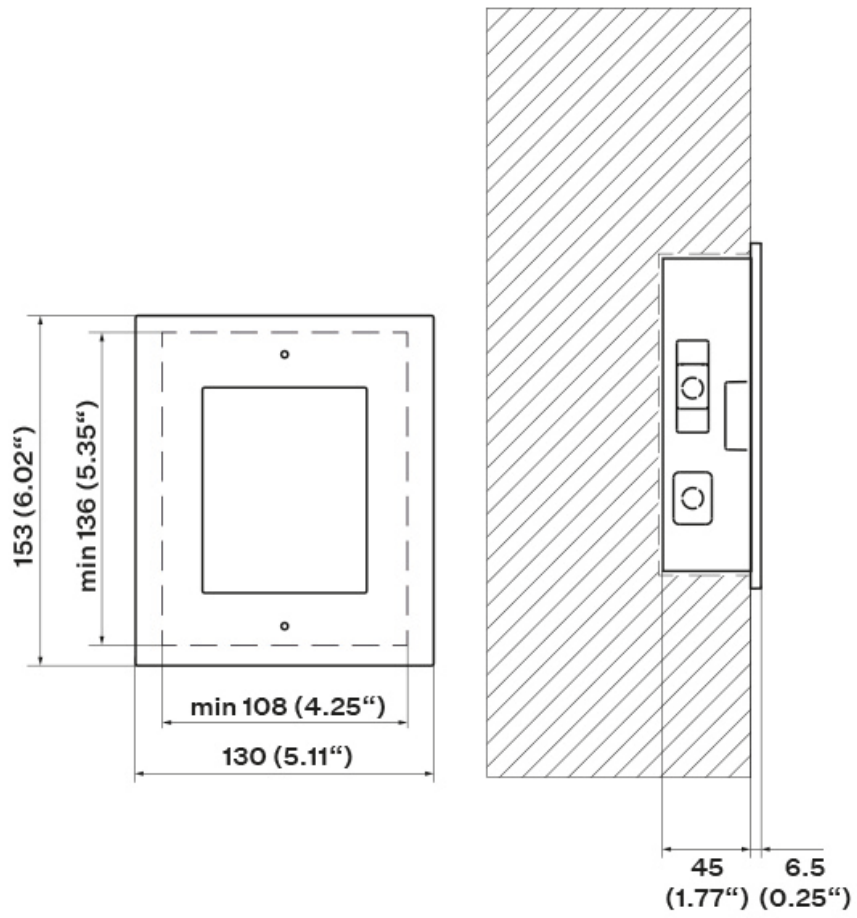


**NOTE**

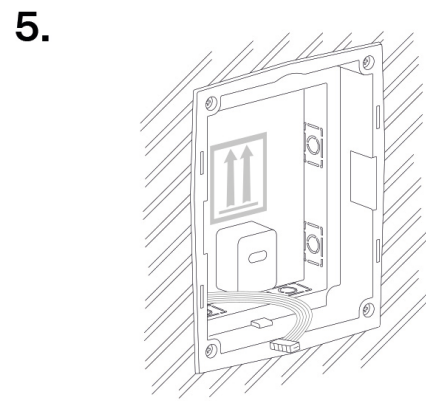
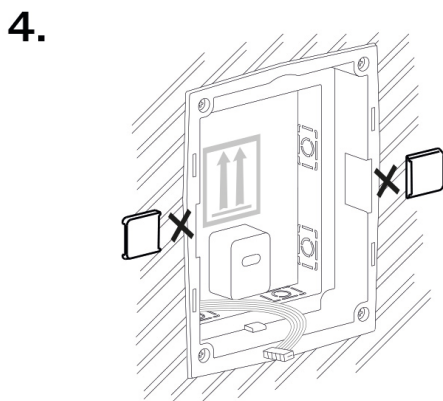
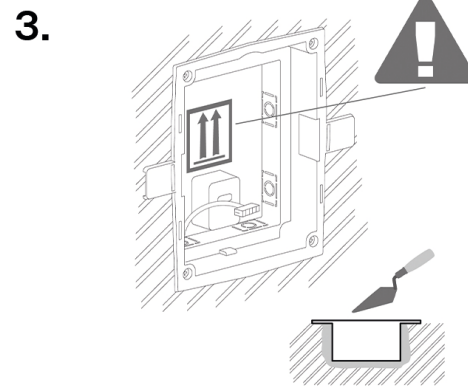
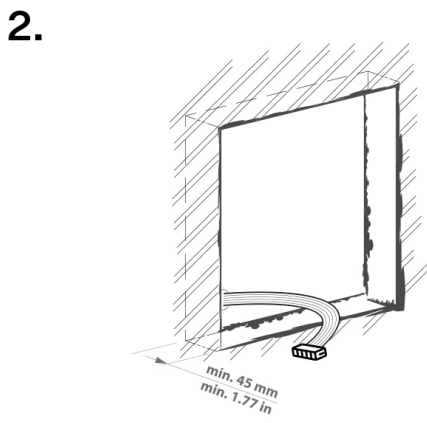
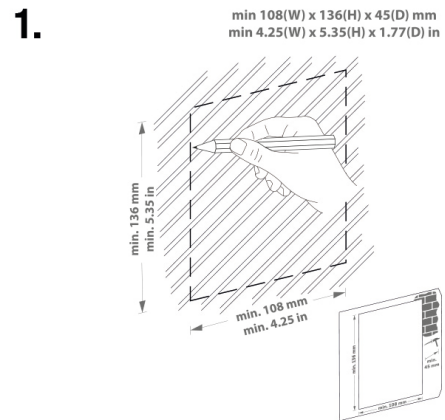
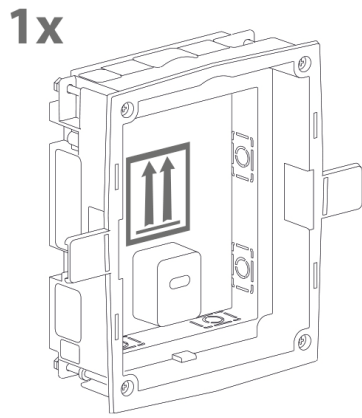
The one-module frame is designed for stand-alone installations of extending modules such as OUT readers, etc. A 2-module frame is required for the main unit installation.

To install a device **2N Access Unit QR** into a wall, mount the flush mounting box first. Then install the device into it.

### 1-Module Installation



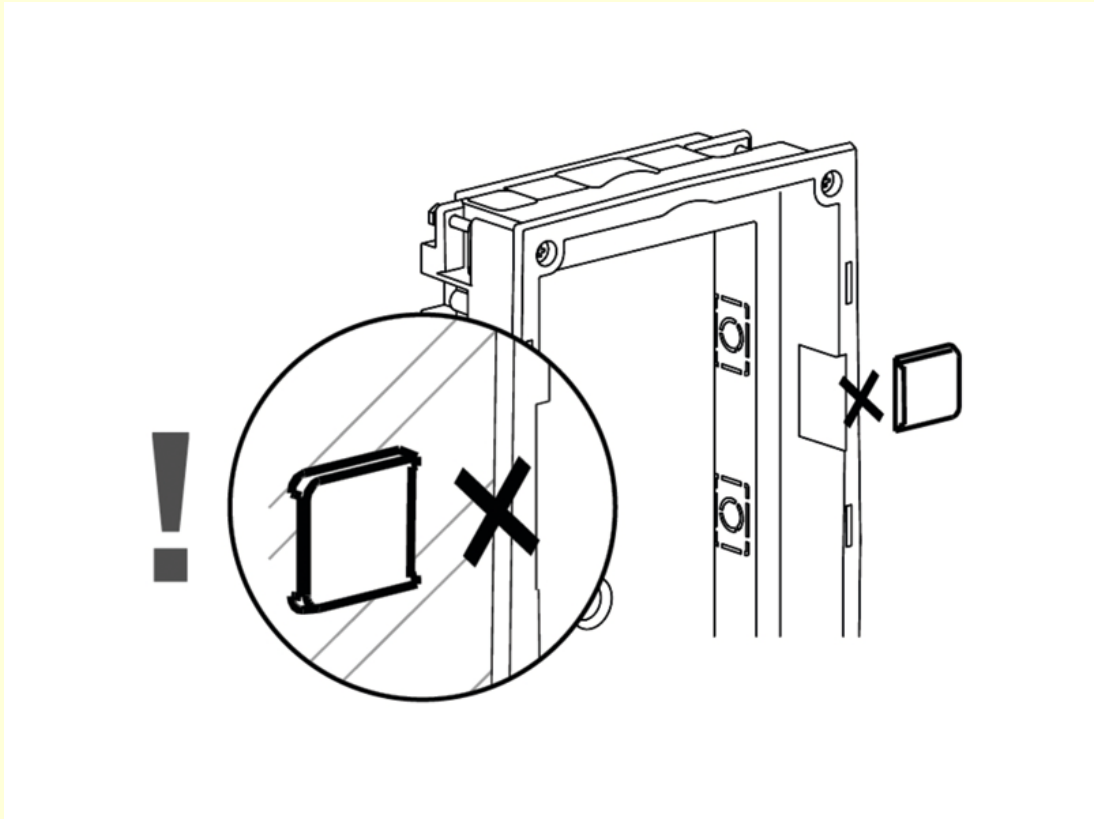
Box Installation





**CAUTION**

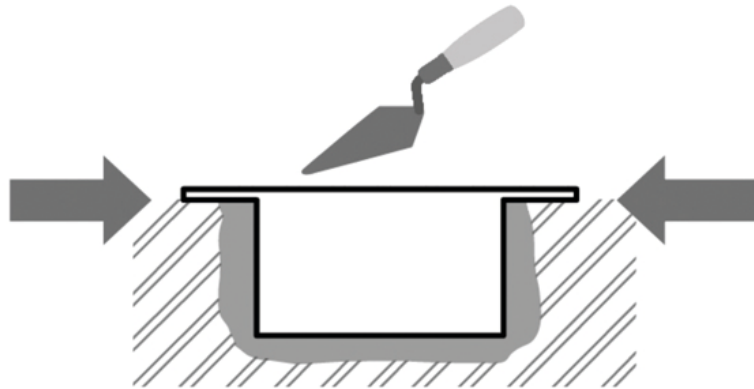
When the walling material has hardened, break off the side stops.





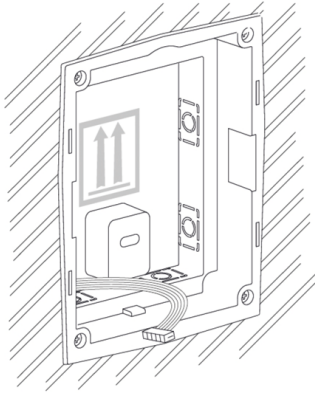
**WARNING**

Make sure that the flush mounting box edges are not aligned with the wall but overlap the wall surface. When the proper box installation instructions are not met, water might get in and destroy the device installed. Side stops are used for a correct wall position.

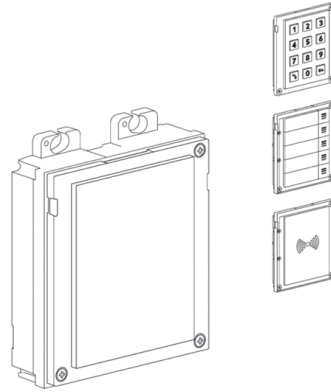


### 1-Module Installation into Box

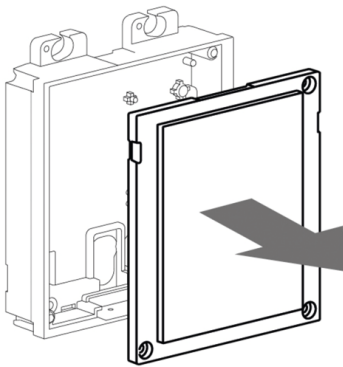
1.



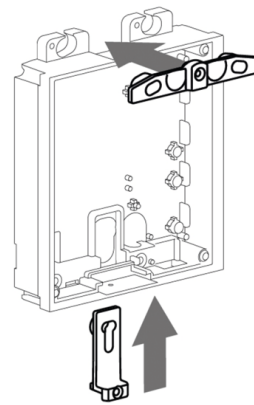
2.



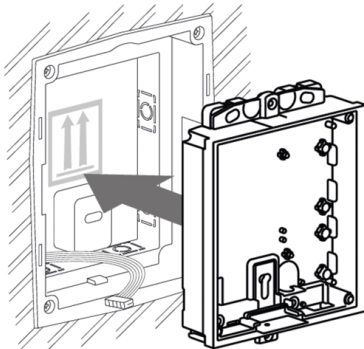
3.



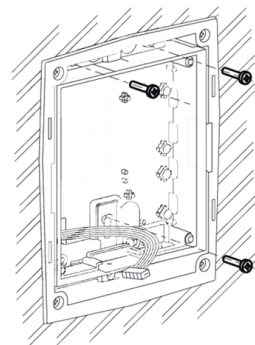
4.



5.

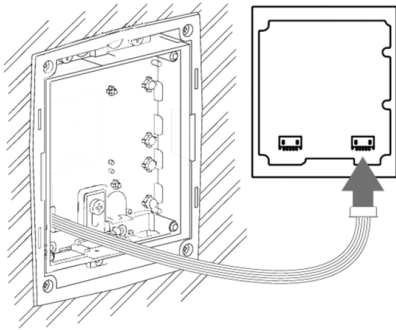


6.

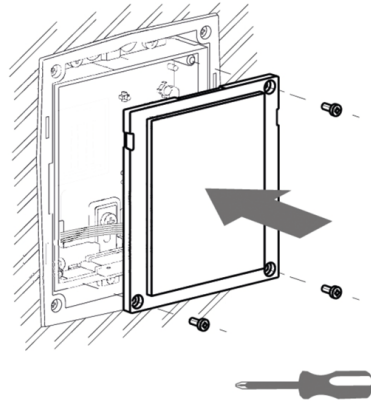


# Installation

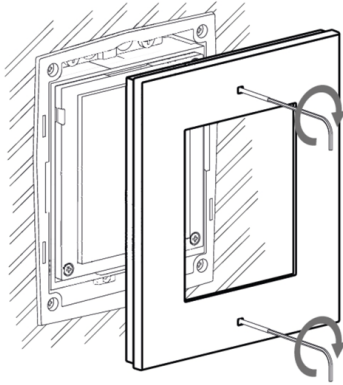
7.



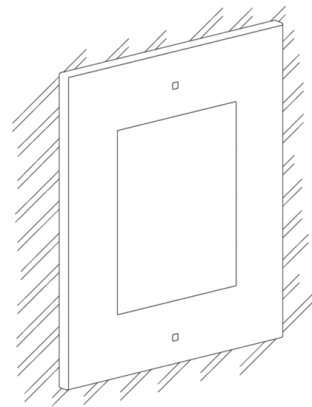
8.



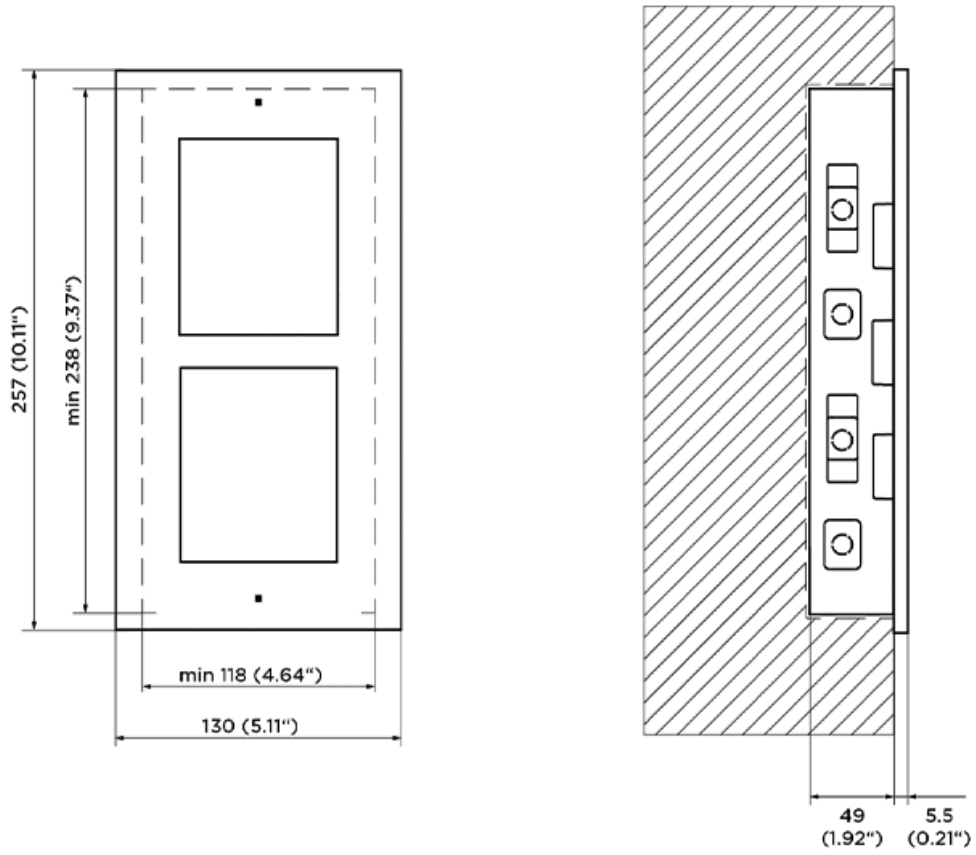
9.



10.

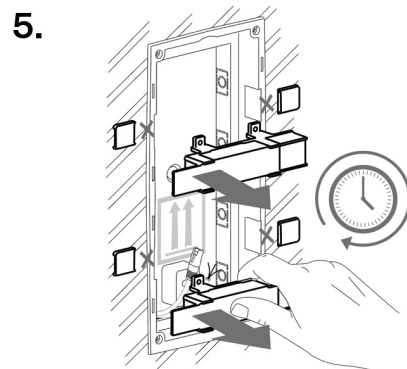
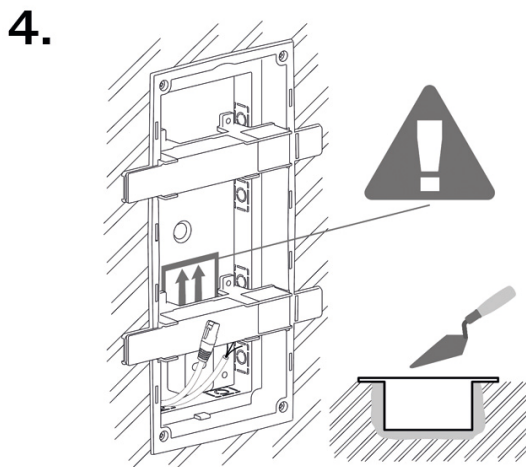
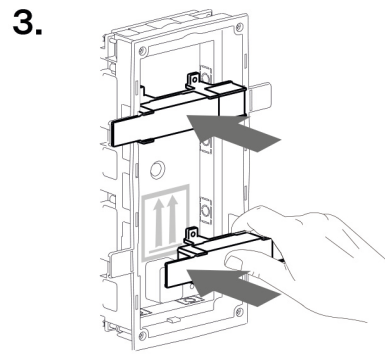
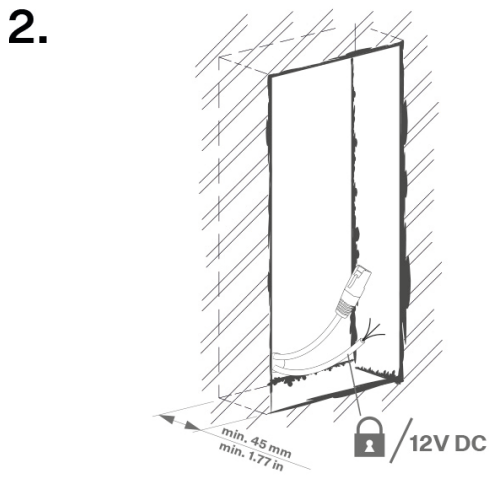
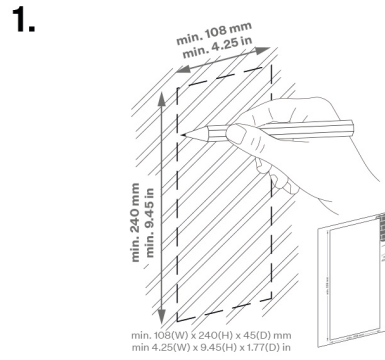
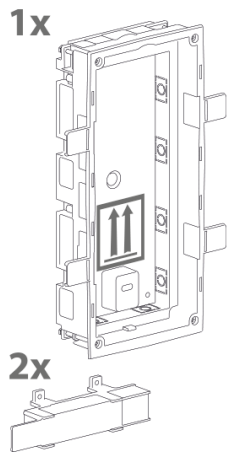


## 2-Module Installation

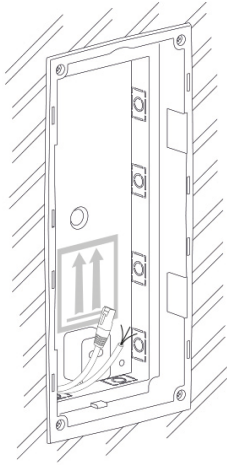




Box Installation

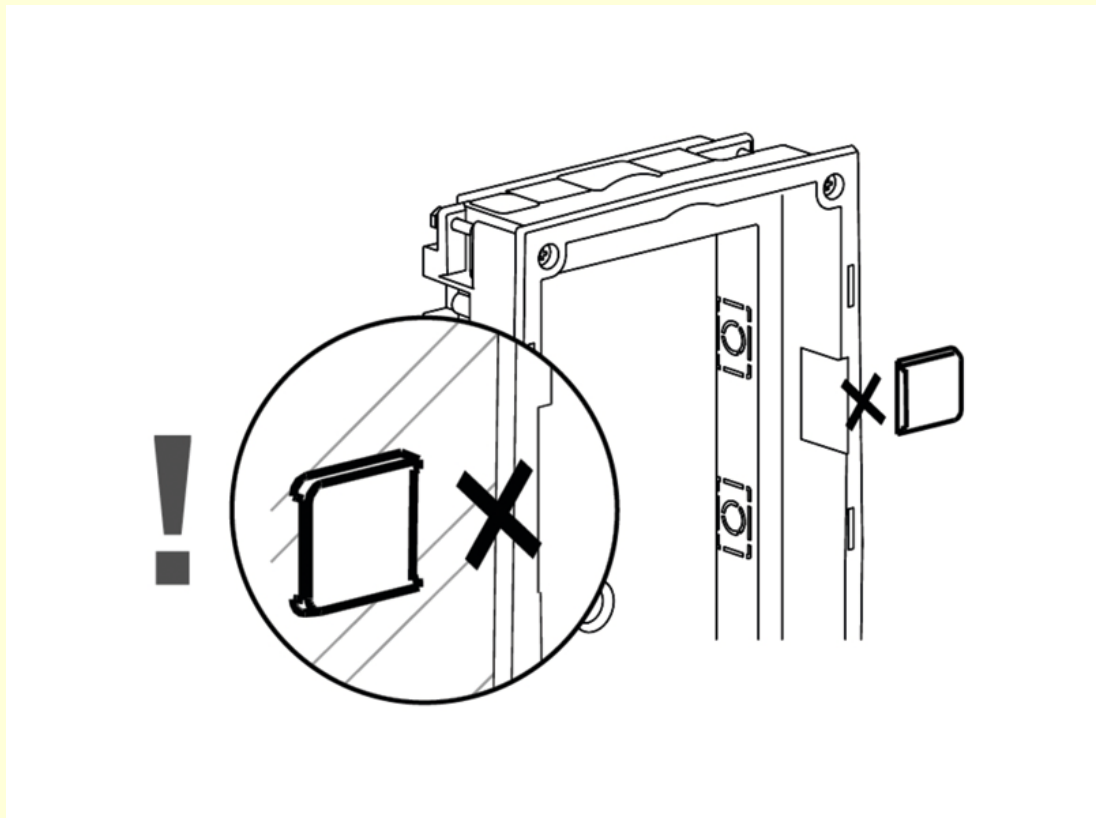


6.



**CAUTION**

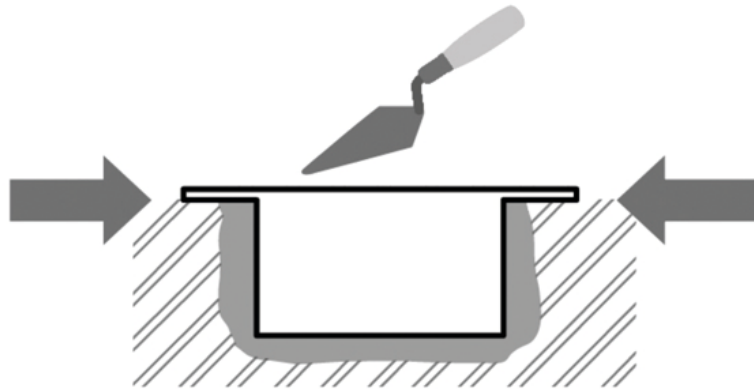
When the walling material has hardened, break off the side stops.





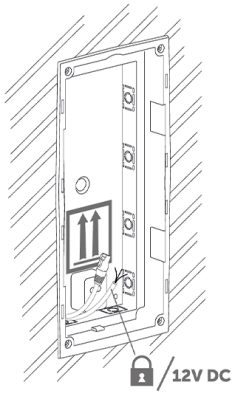
**WARNING**

Make sure that the flush mounting box edges are not aligned with the wall but overlap the wall surface. When the proper box installation instructions are not met, water might get in and destroy the device installed. Side stops are used for a correct wall position.

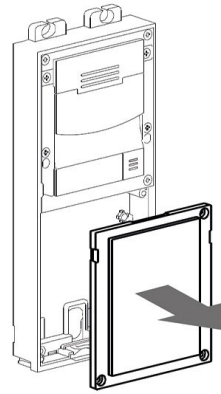


### 2-Module Installation into Box

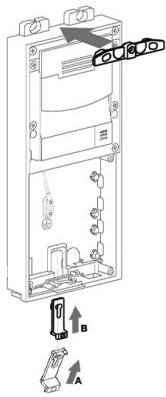
1.



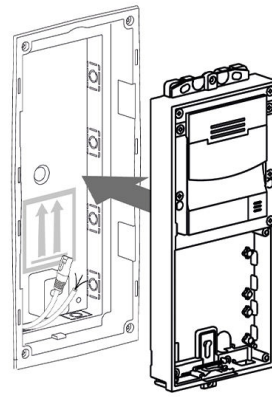
2.



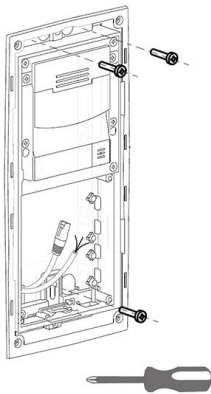
3.



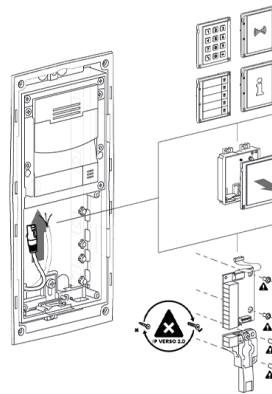
4.



5.

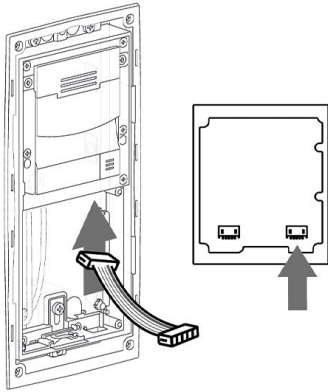


6.

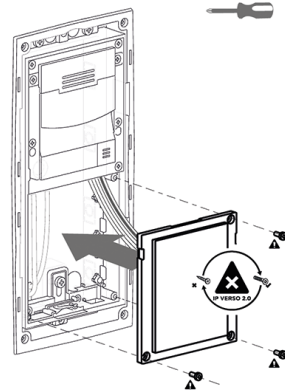


## Installation

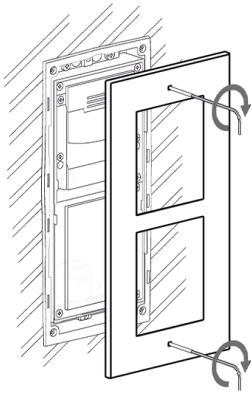
7.



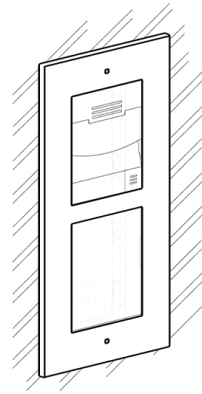
8.



9.



10.

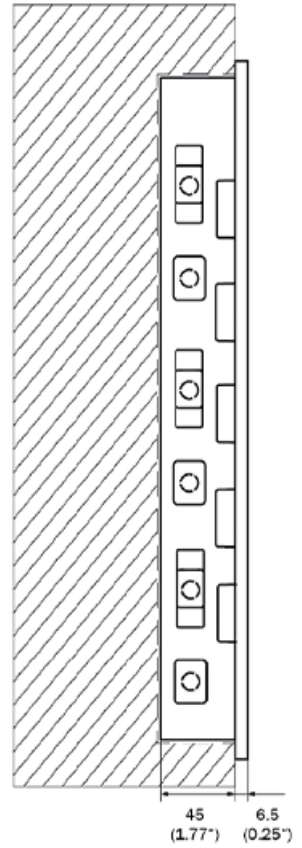
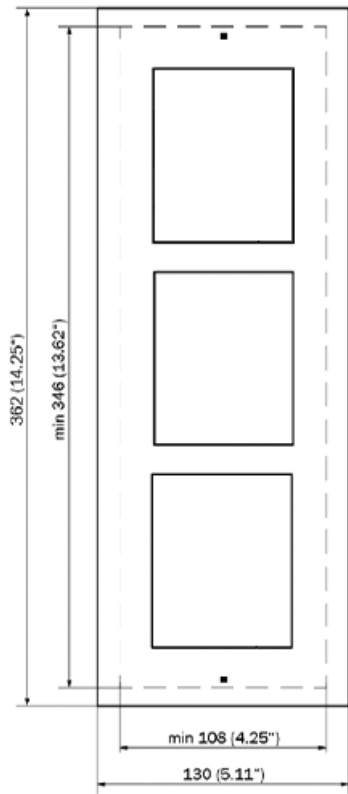


### Frame Attachment

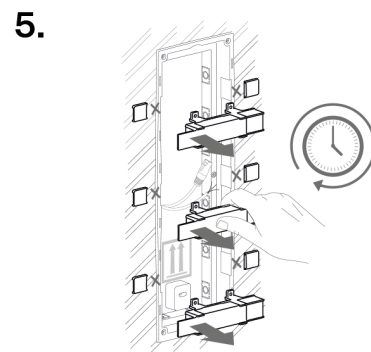
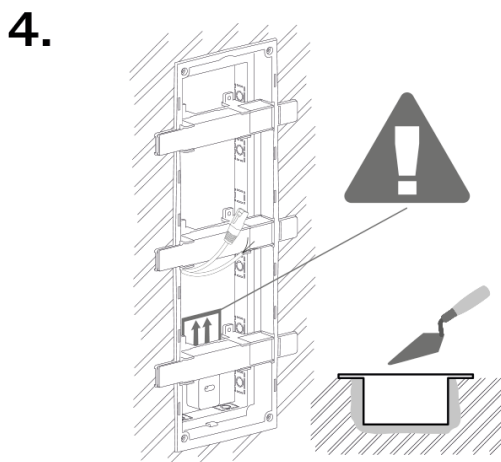
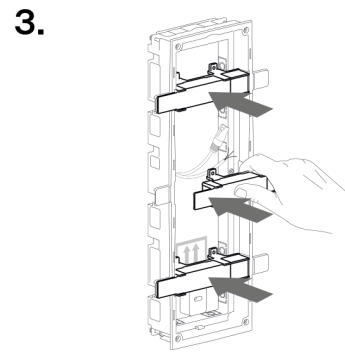
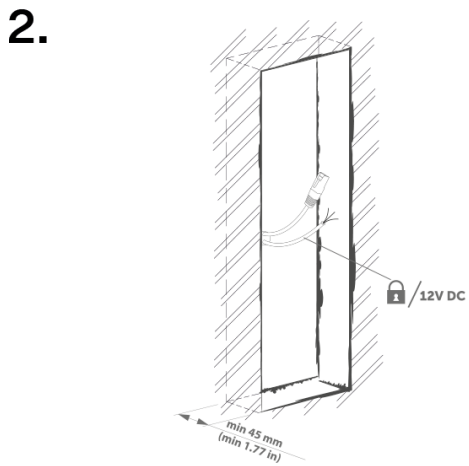
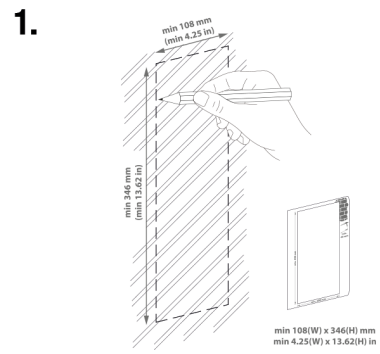
Check the frame sealing before fitting the frame.

Screw the flush mounting frame in the upper and bottom parts.

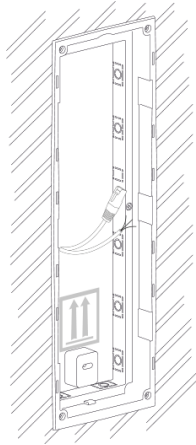
### 3-Module Installation



Box Installation

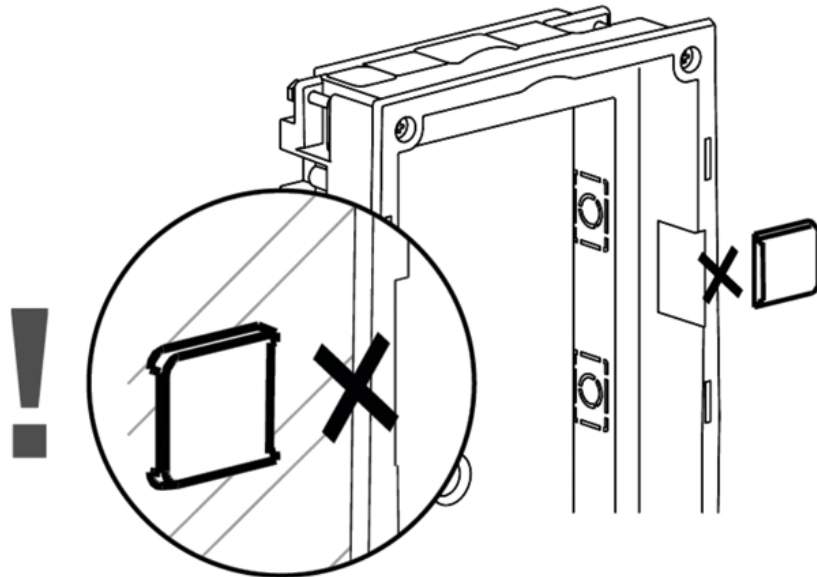


6.



**CAUTION**

When the walling material has hardened, break off the side stops.

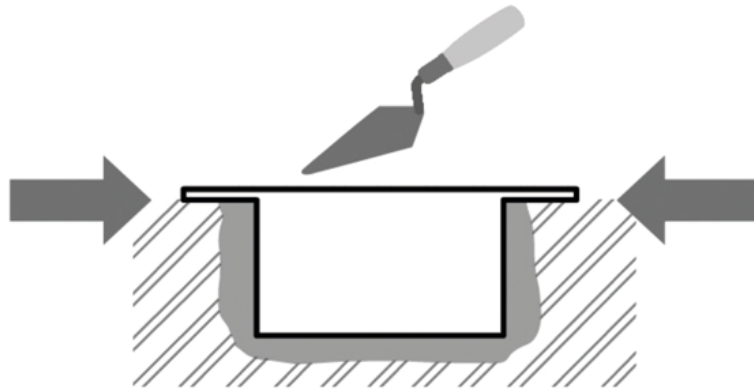




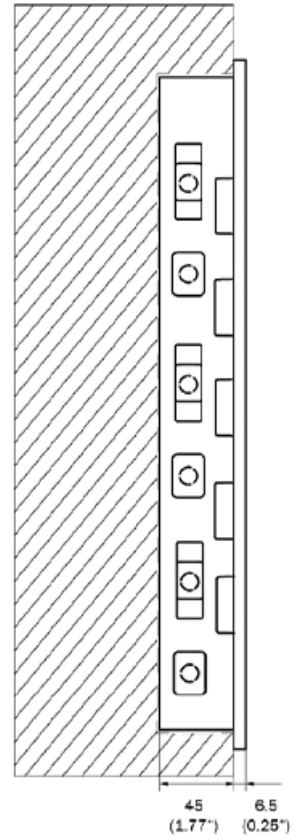
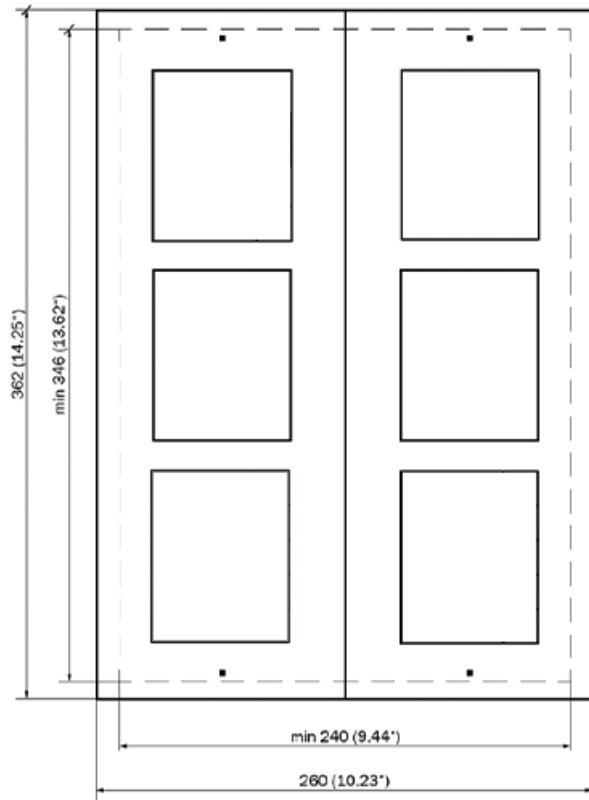


**WARNING**

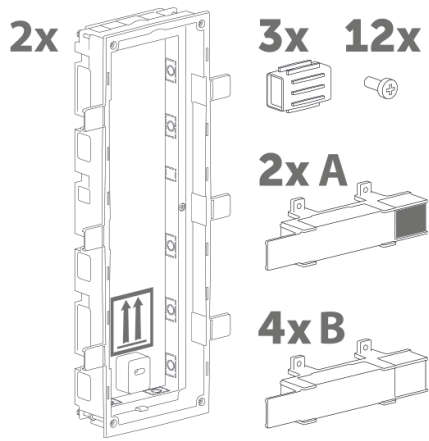
Make sure that the flush mounting box edges are not aligned with the wall but overlap the wall surface. When the proper box installation instructions are not met, water might get in and destroy the device installed. Side stops are used for a correct wall position.



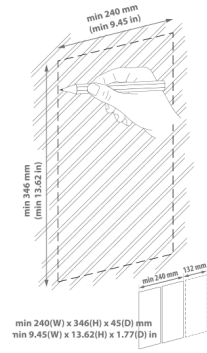
**Installation of Multiple 3-Module Boxes Next to Each Other**



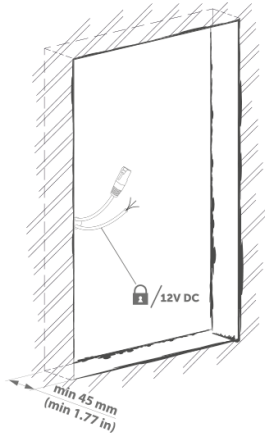
# Installation



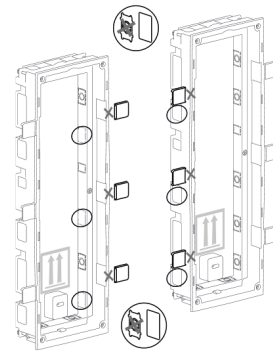
**1.**



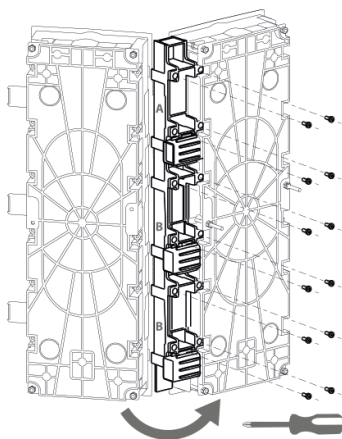
**2.**



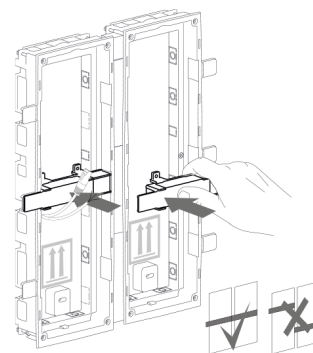
**3.**



**4.**

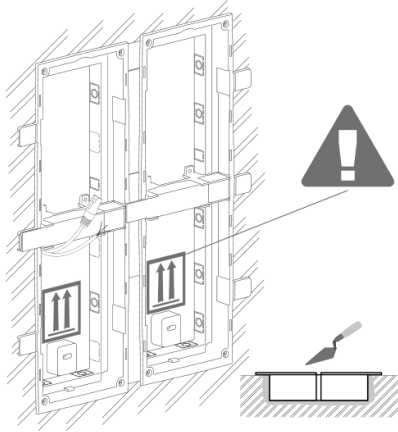


**5.**

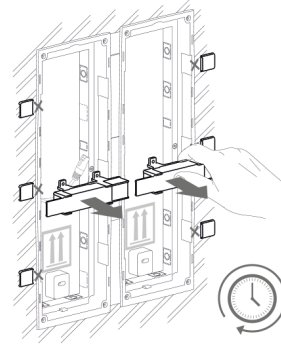


# Installation

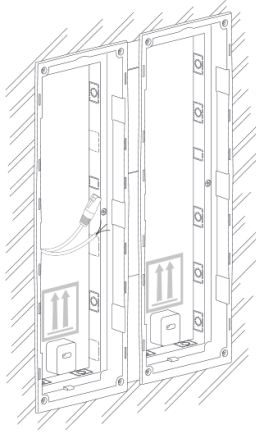
6.



7.

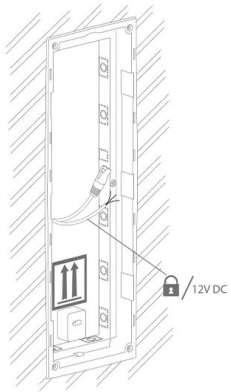


8.

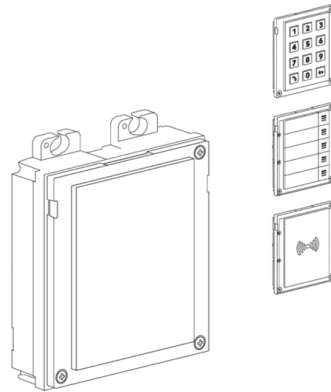


### 3-Module Installation into Box

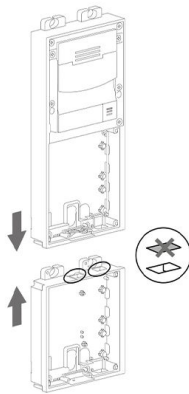
1.



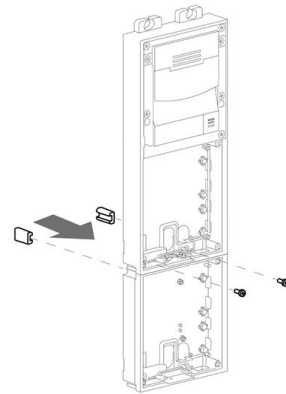
2.



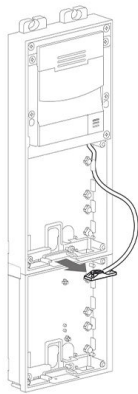
3.



4.



5.

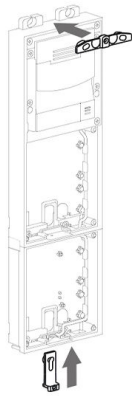


6.

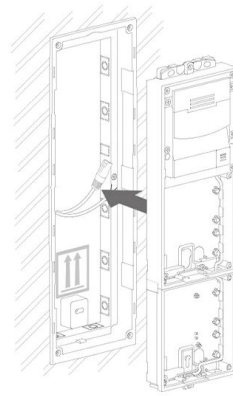


## Installation

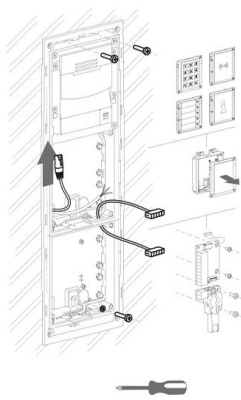
7.



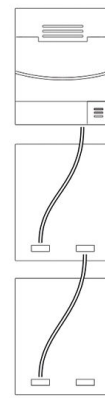
8.



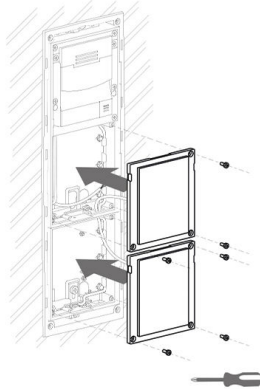
9.



10.



11.



12.

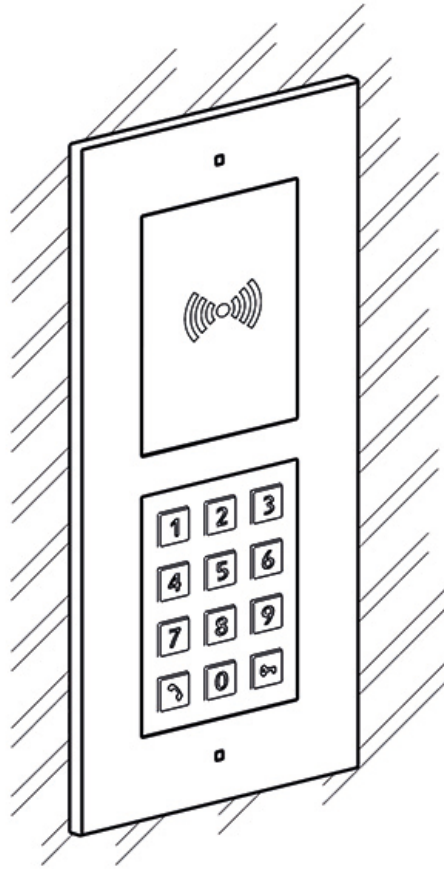


### Frame Attachment

Check the frame sealing before fitting the frame.

Screw the flush mounting frame in the upper and bottom parts.

## Flush mounting – into plasterboard



What you need for mounting:

- **2N Access Unit QR**,
- a properly cut hole as instructed in the box package,
- flush mounting box and frame
  - for 1-modules: box (Part No. **9155014**), frame (Part No. **9155011**)
  - for 2-modules: box (Part No. **9155015**), frame (Part No. **9155012**)
  - for 3-modules: box (Part No. **9155016**), frame (Part No. **9155013**)

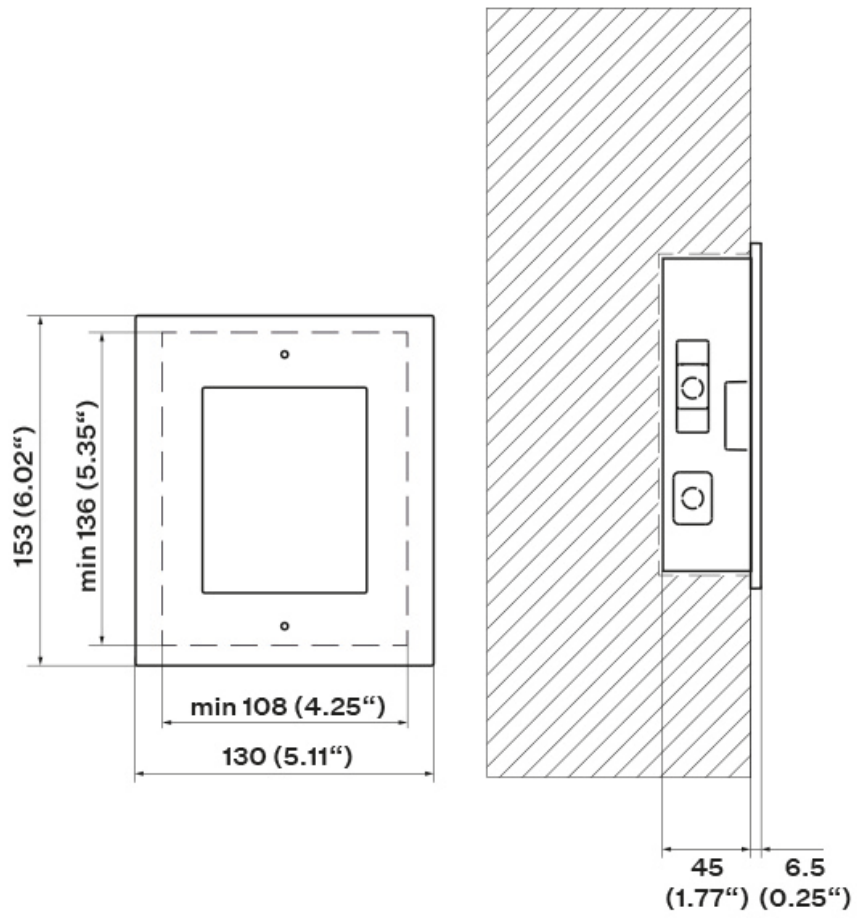


### NOTE

The one-module frame is designed for stand-alone installations of extending modules such as OUT readers, etc. A 2-module frame is required for the main unit installation.

To install a device **2N Access Unit QR** into a wall, mount the flush mounting box first. Then install the device into it.

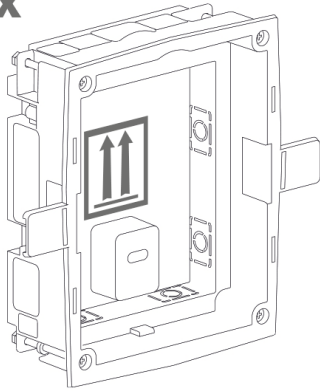
### 1-Module Installation





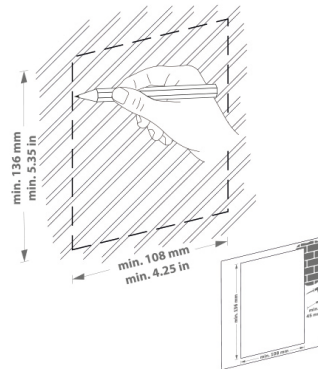
Box Installation

1x

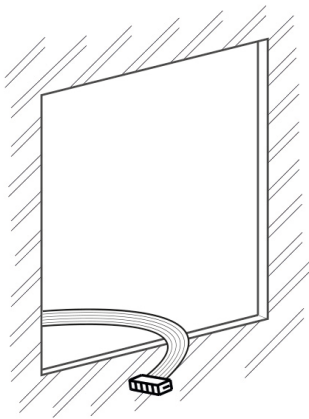


1.

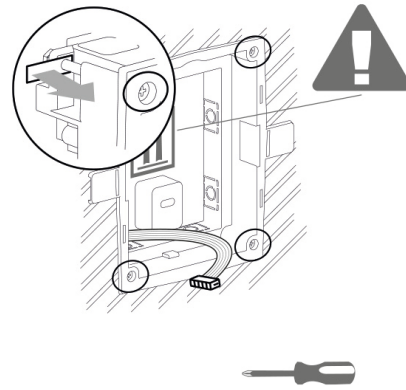
min 108(W) x 136(H) x 45(D) mm  
min 4.25(W) x 5.35(H) x 1.77(D) in



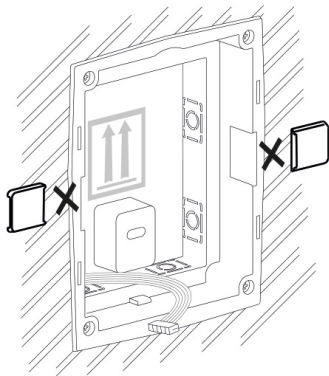
2.



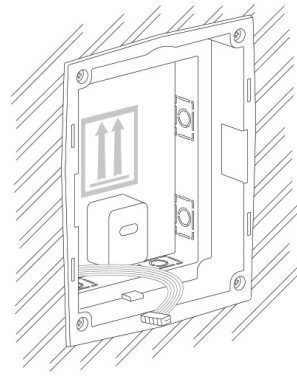
3.



4.



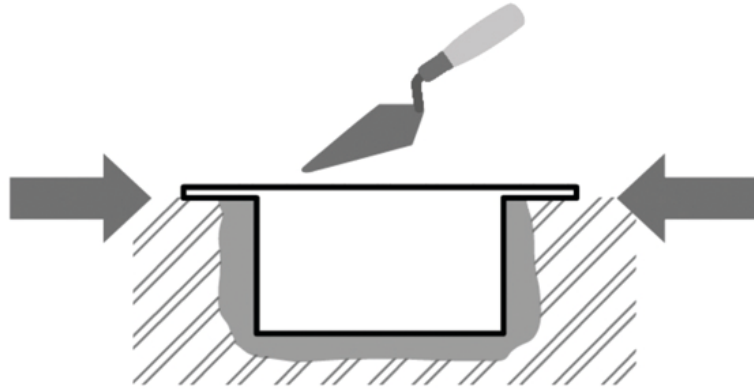
5.





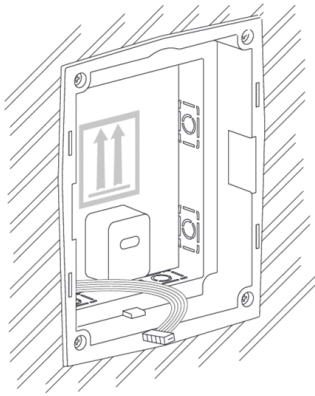
**WARNING**

Make sure that the flush mounting box edges are not aligned with the wall but overlap the wall surface. When the proper box installation instructions are not met, water might get in and destroy the device installed. Side stops are used for a correct wall position.

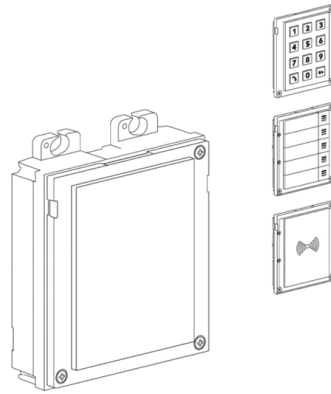


### 1-Module Installation into Box

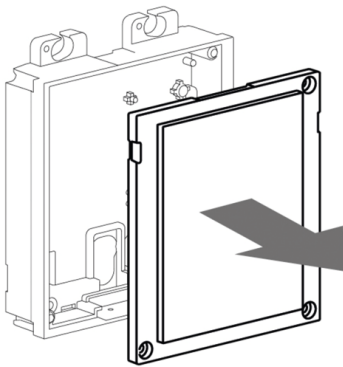
1.



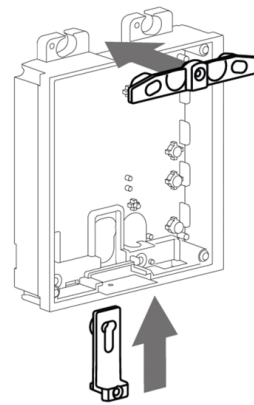
2.



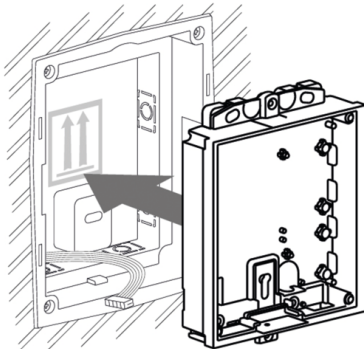
3.



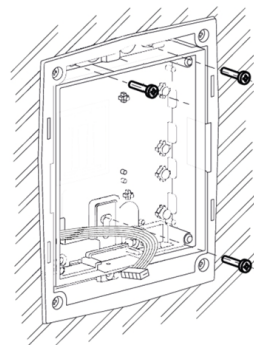
4.



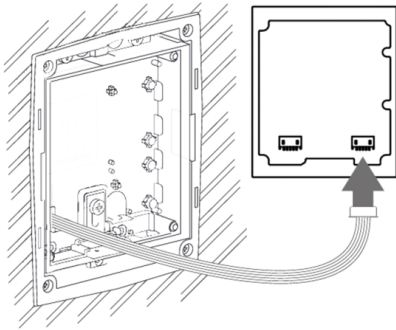
5.



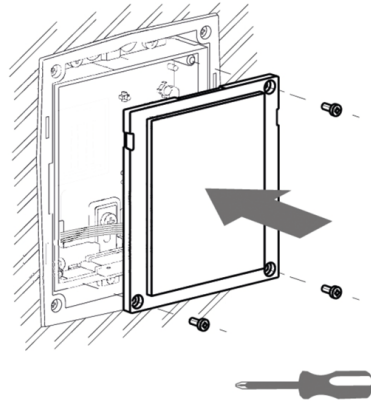
6.



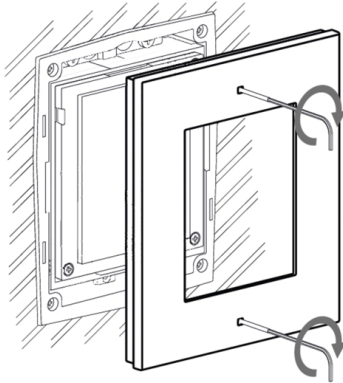
7.



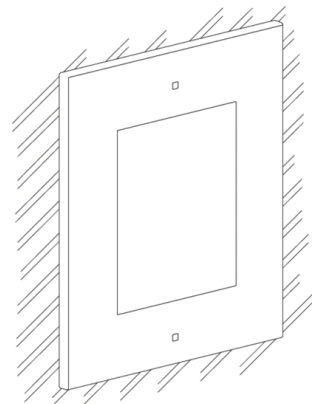
8.



9.



10.

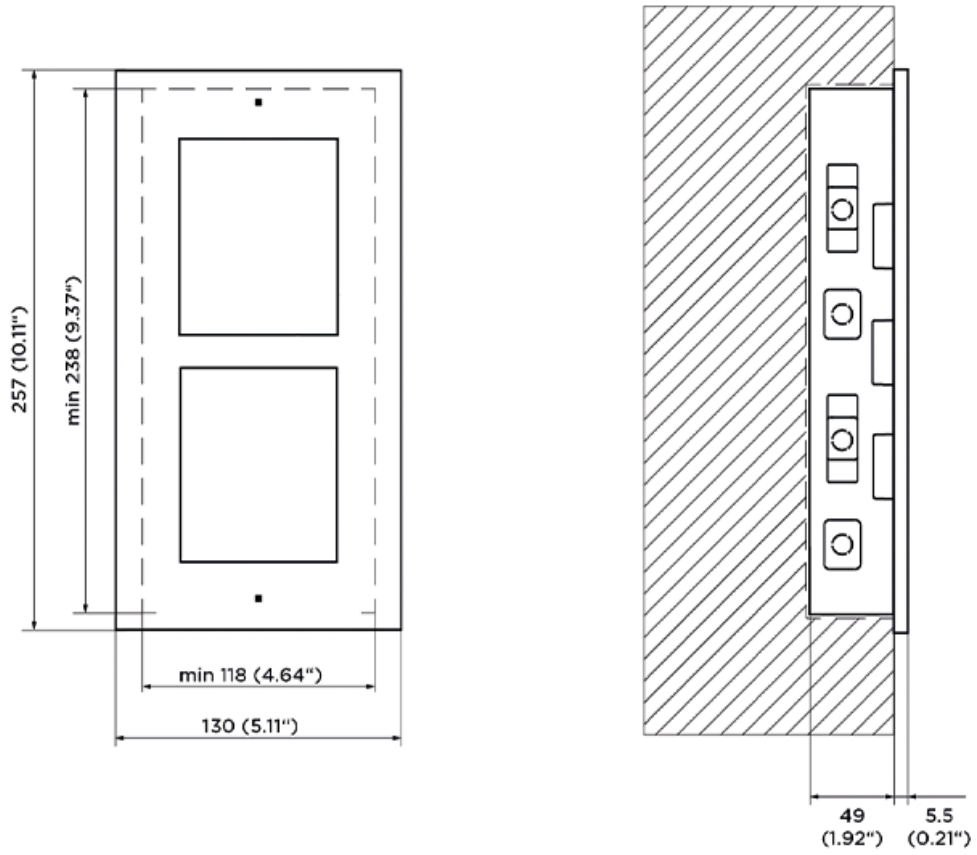


**Frame Attachment**

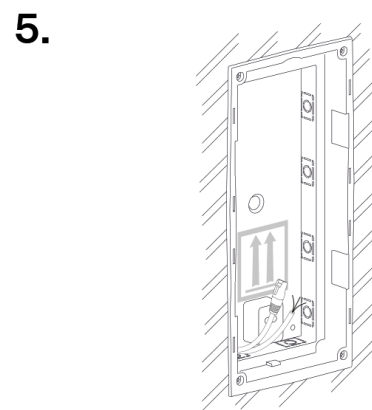
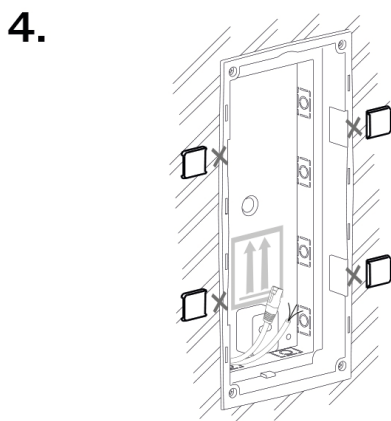
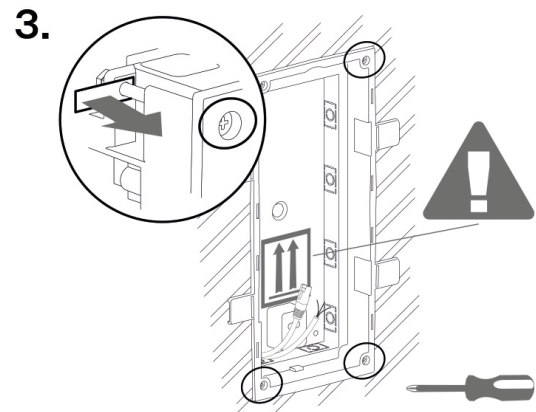
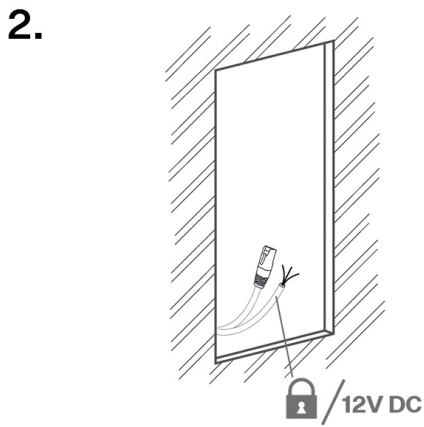
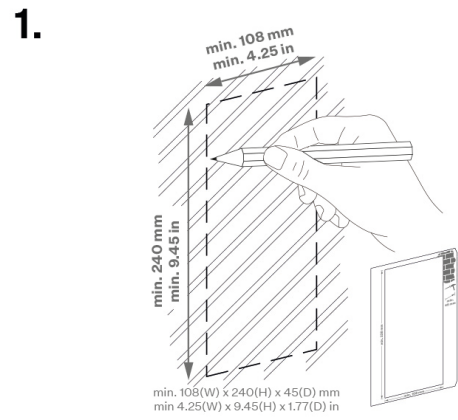
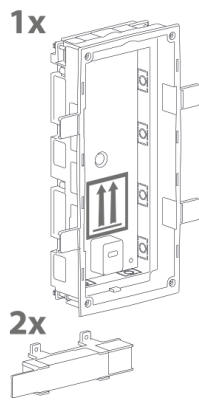
Check the frame sealing before fitting the frame.

Screw the flush mounting frame in the upper and bottom parts.

## 2-Module Installation



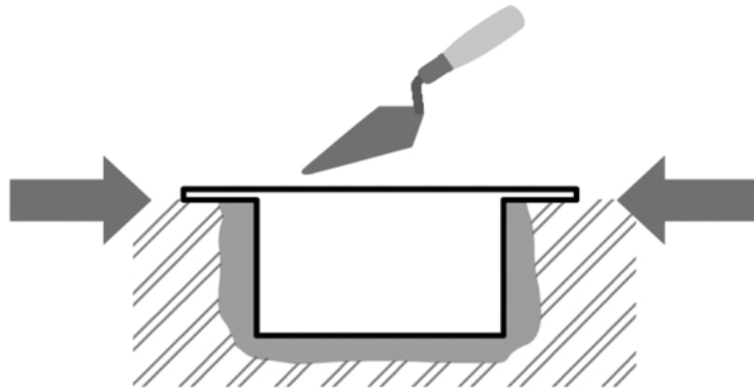
### Box Installation



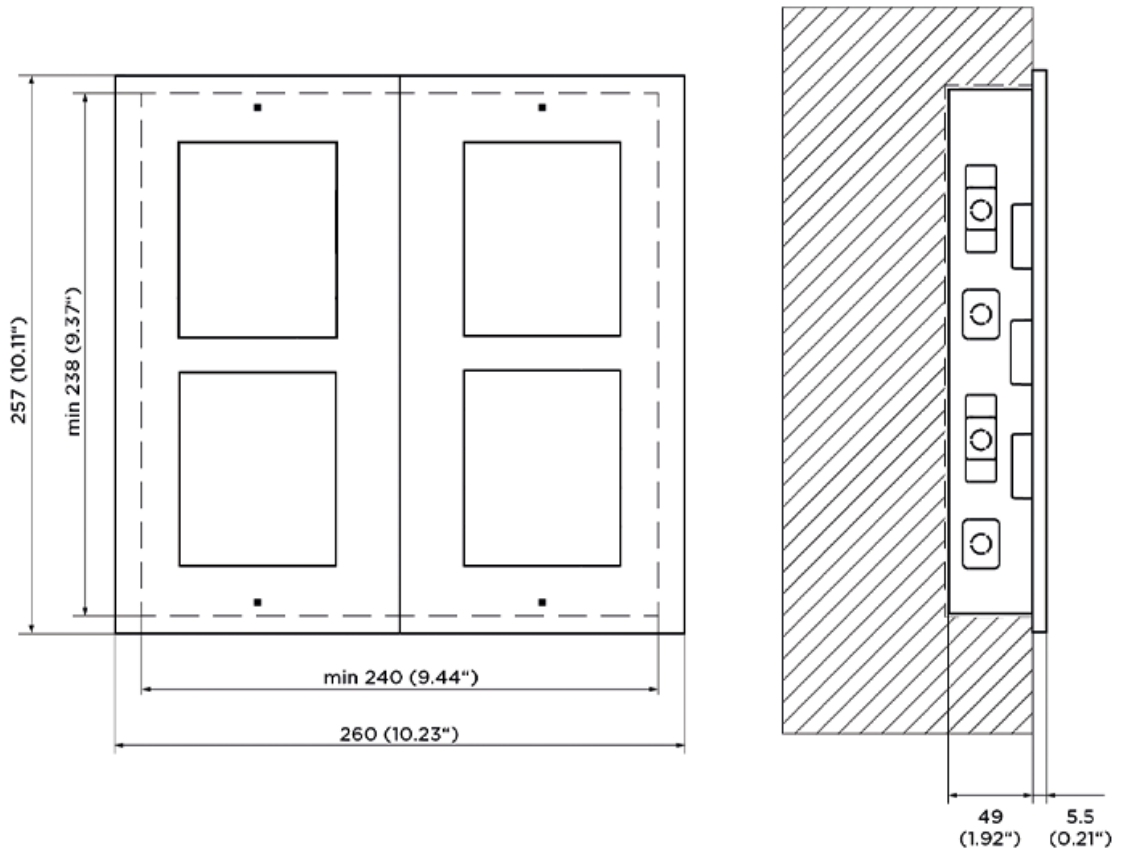


**WARNING**

Make sure that the flush mounting box edges are not aligned with the wall but overlap the wall surface. When the proper box installation instructions are not met, water might get in and destroy the device installed. Side stops are used for a correct wall position.

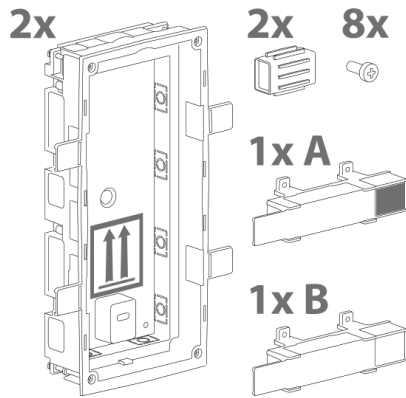


### Installation of Multiple 2-Module Boxes Next to Each Other

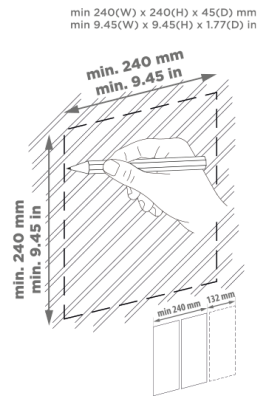




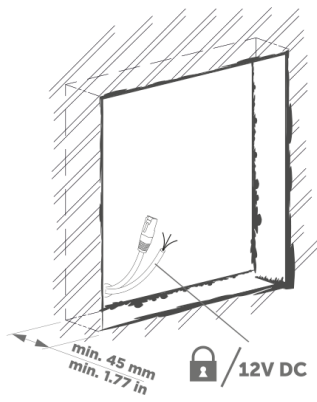
# Installation



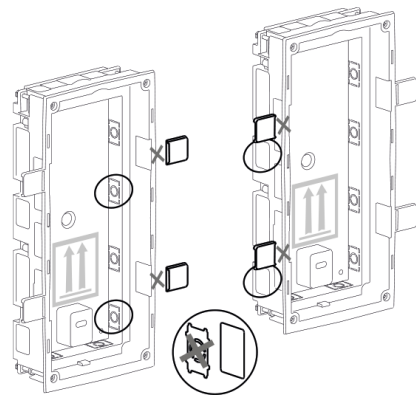
**1.**



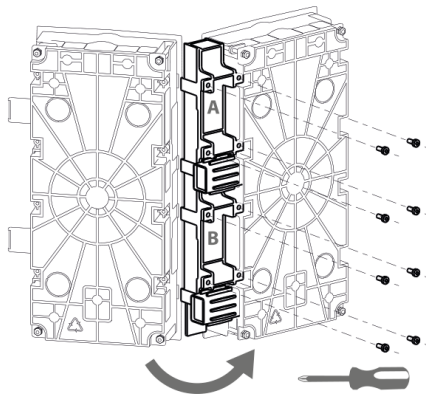
**2.**



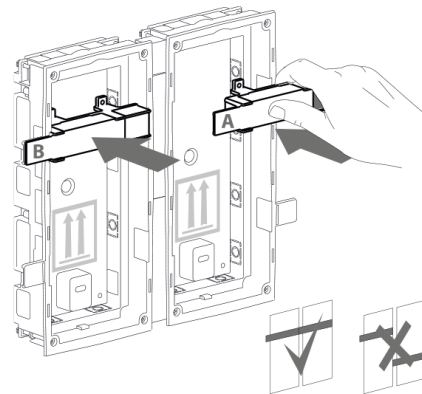
**3.**



**4.**

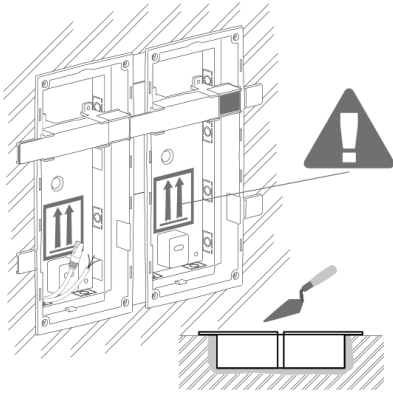


**5.**

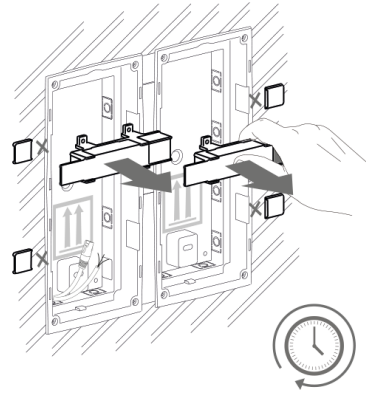


# Installation

6.

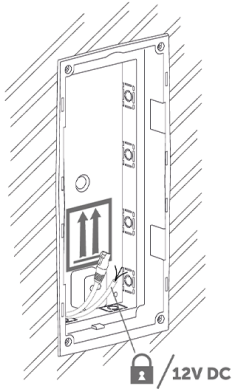


7.

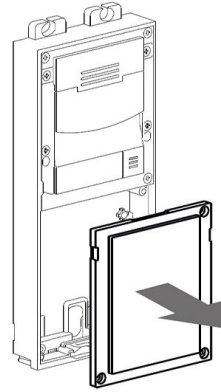


### 2-Module Installation into Box

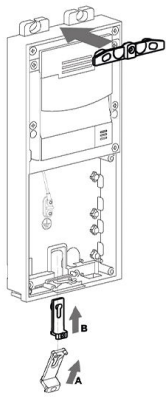
1.



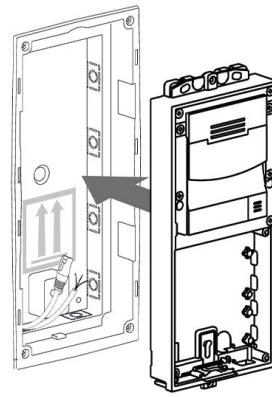
2.



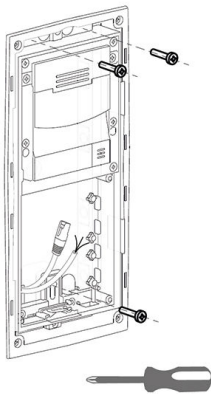
3.



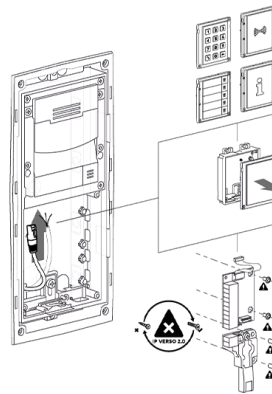
4.



5.

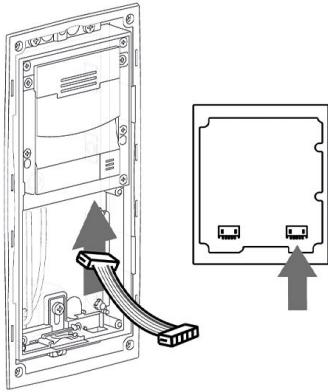


6.

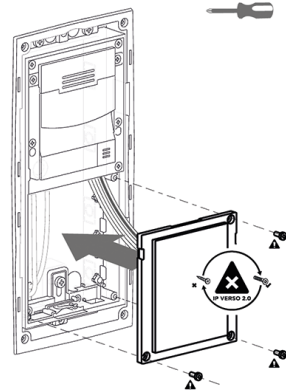


## Installation

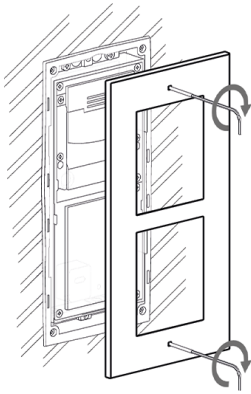
7.



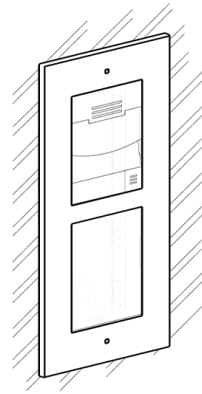
8.



9.



10.

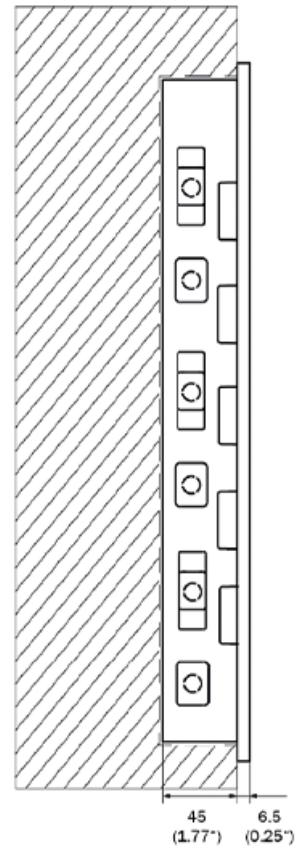
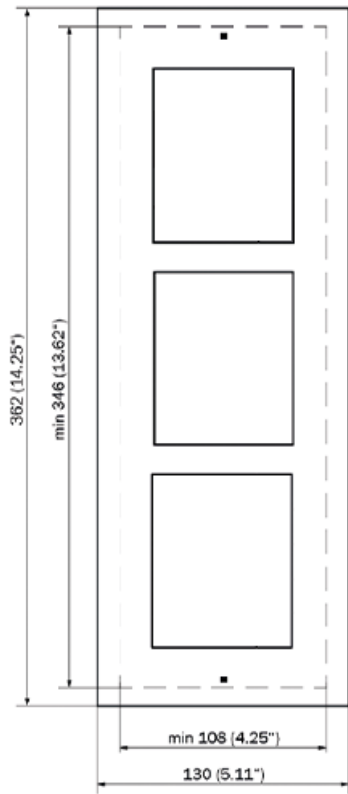


### Frame Attachment

Check the frame sealing before fitting the frame.

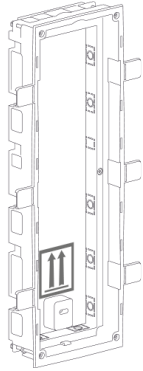
Screw the flush mounting frame in the upper and bottom parts.

### 3-Module Installation



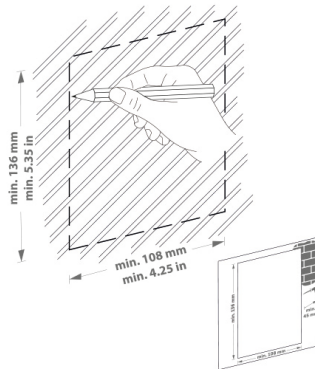
## Box Installation

1x

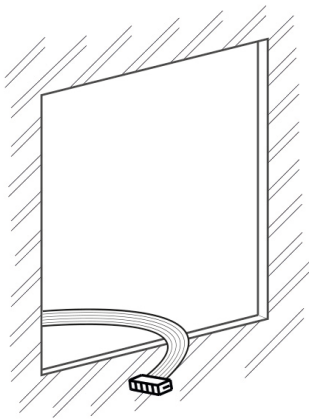


1.

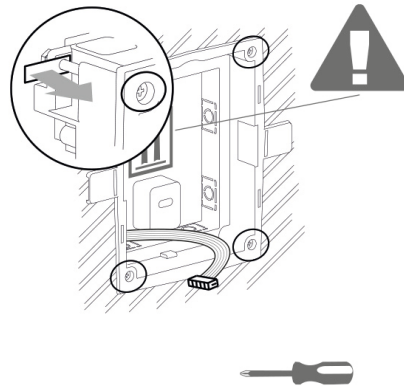
min 108(W) x 136(H) x 45(D) mm  
min 4.25(W) x 5.35(H) x 1.77(D) in



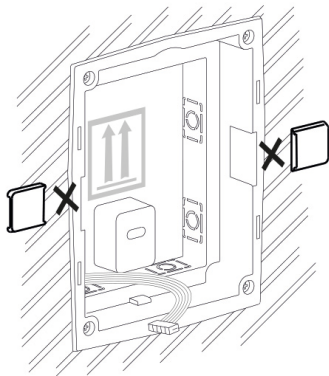
2.



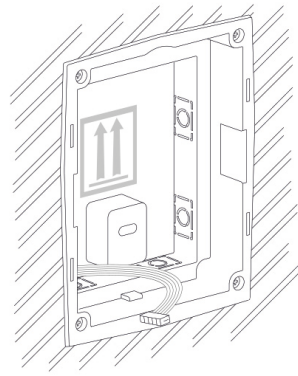
3.



4.



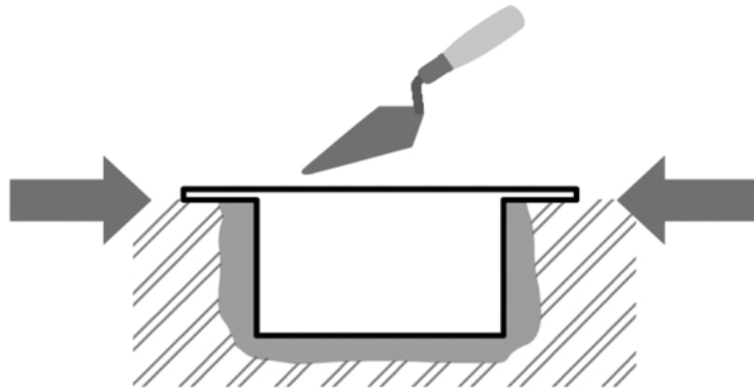
5.





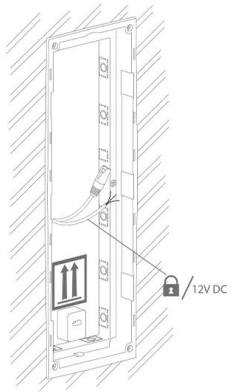
**WARNING**

Make sure that the flush mounting box edges are not aligned with the wall but overlap the wall surface. When the proper box installation instructions are not met, water might get in and destroy the device installed. Side stops are used for a correct wall position.

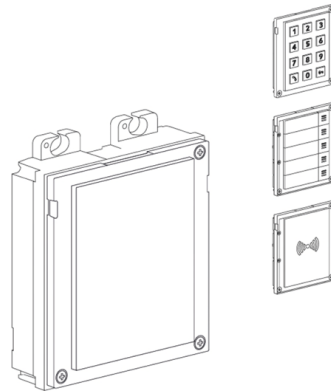


### 3-Module Installation into Box

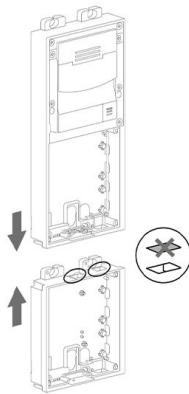
1.



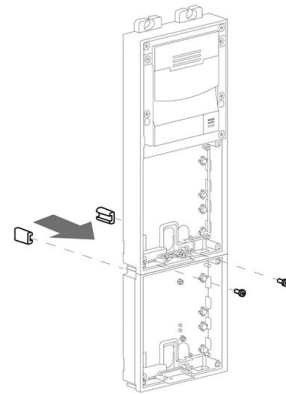
2.



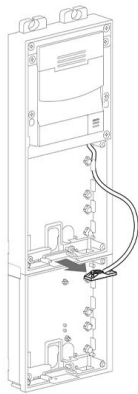
3.



4.



5.



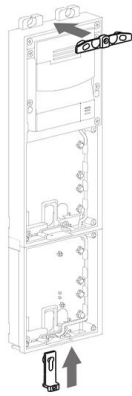
6.



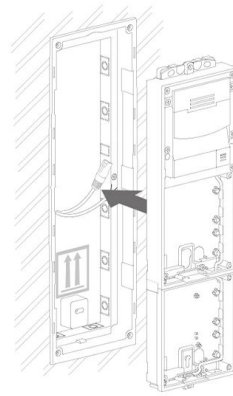


## Installation

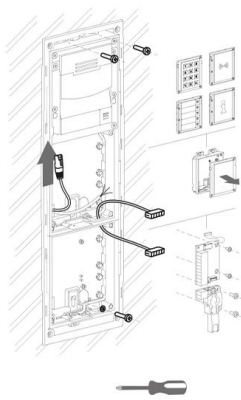
7.



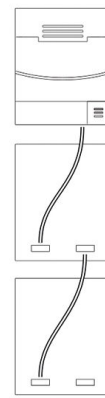
8.



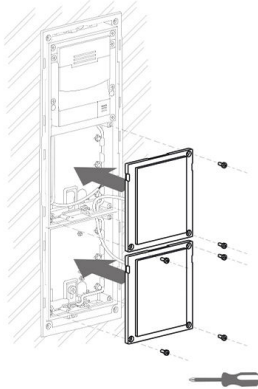
9.



10.



11.



12.

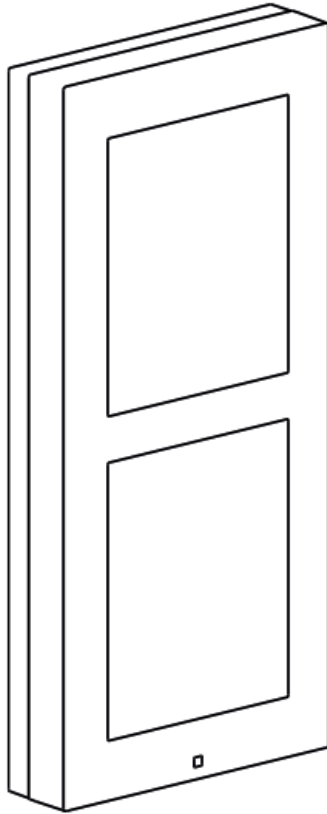


### Frame Attachment

Check the frame sealing before fitting the frame.

Screw the flush mounting frame in the upper and bottom parts.

## Surface Installation



What you need for mounting:

- **2N Access Unit QR,**
- a proper frame,
  - for 1-modules: frame (Part Nos. **9155021/9155021B**)
  - for 2-modules: frame (Part Nos. **9155022/9155022B**)
  - for 3-modules: frame (Part Nos. **9155023/9155023B**)



### NOTE

The one-module frame is designed for stand-alone installations of extending modules such as OUT readers, etc. A 2-module frame is required for the main unit installation.

For uneven surfaces, [use a backplate for the required count of modules](#) (Part No. **9155061–9155062**).



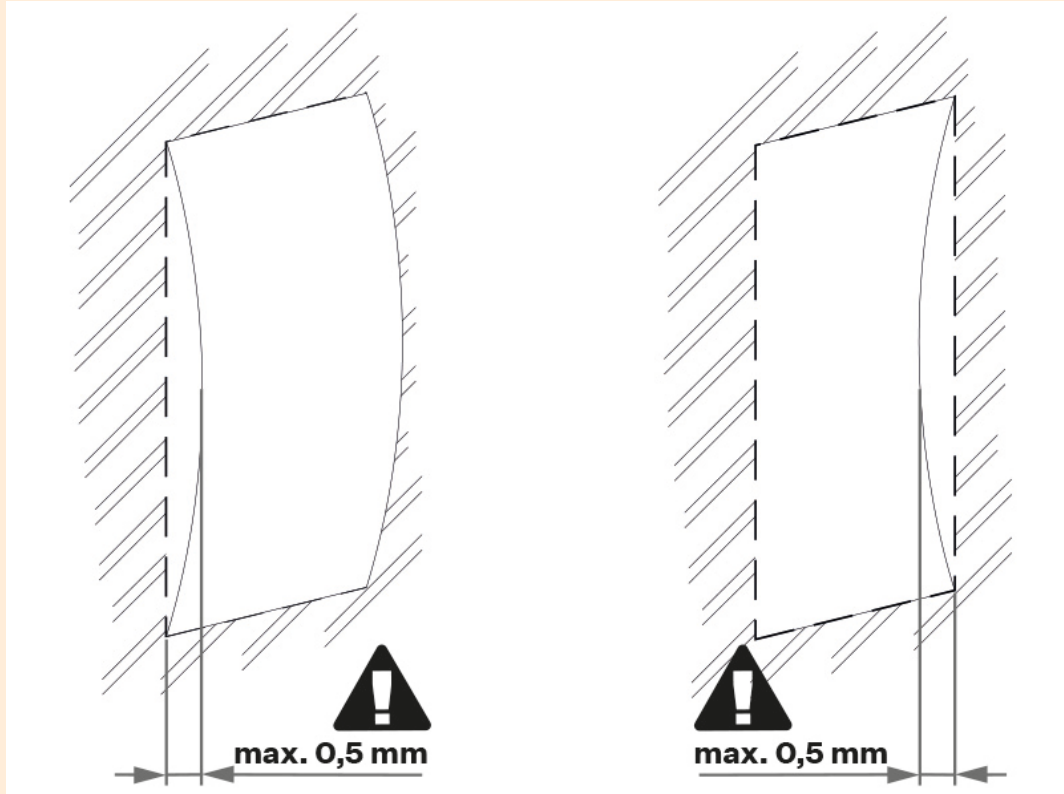
### DANGER

Eliminate the risk of personal injury! Surface installation is not recommended for narrow passages or places where people's attention is distracted by something else. The manufacturer shall not be liable for injuries in such cases!



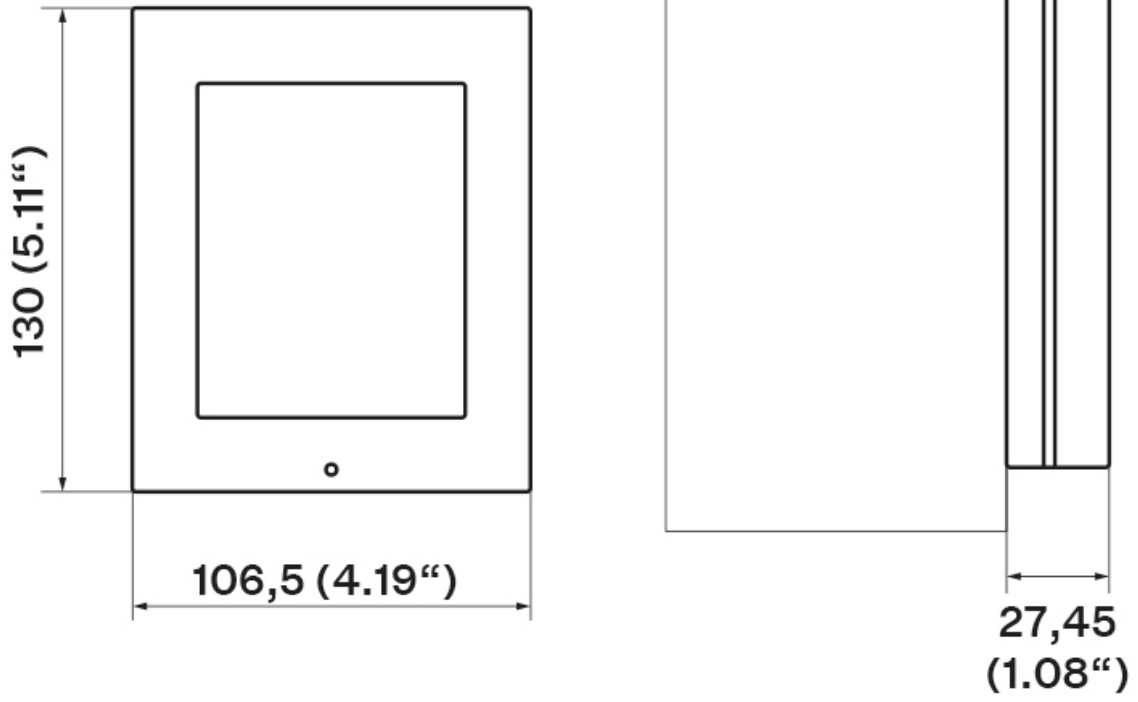
**WARNING**

- Make sure that the installation surface is flat with a maximum inequality of 0.5 mm. (e.g. prefabricated boards, glass, cut stone, etc.). If the installation surface is not even, use the flush mounting type or equalize the wall surface with a backplate (Part No. **9155061-9155062** or make the wall surface perfectly flat.

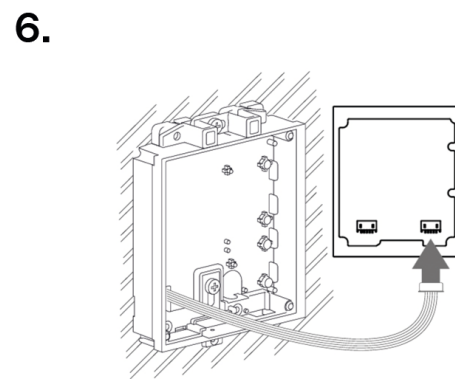
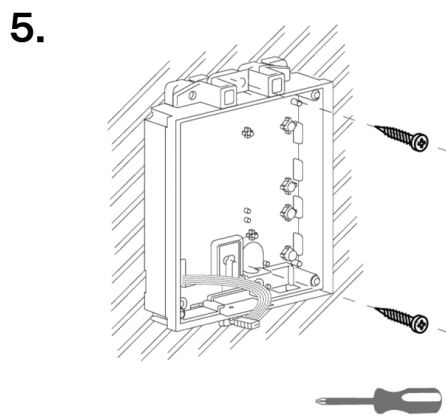
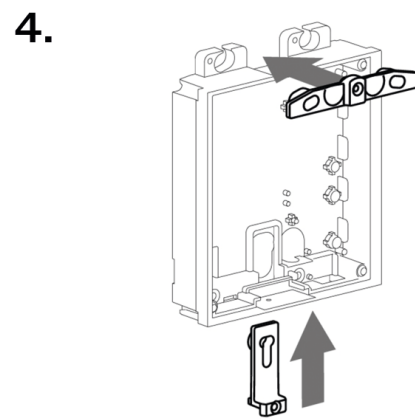
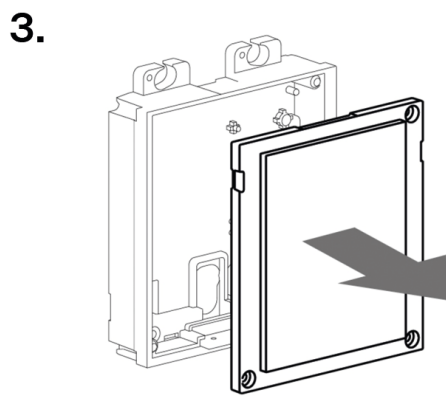
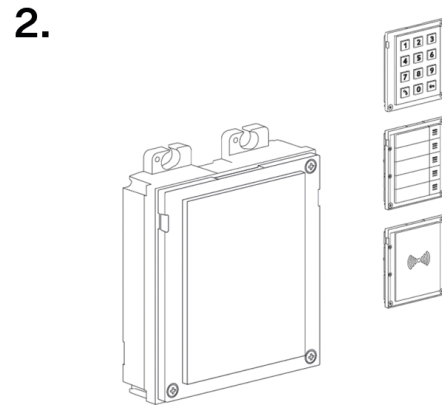
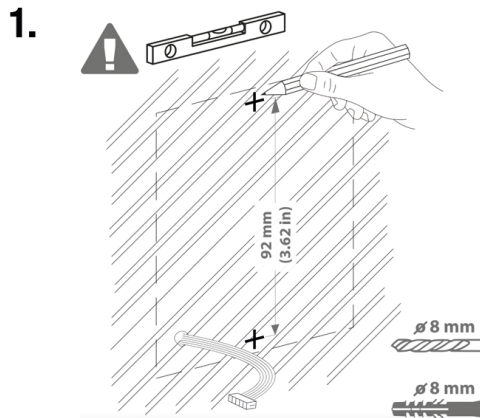


- Surface mounting always poses a problem where the installation is exposed to potential vandalism (such as public garages, etc.). In that case, use steel fixing elements instead of the dowels and screws included in the delivery.

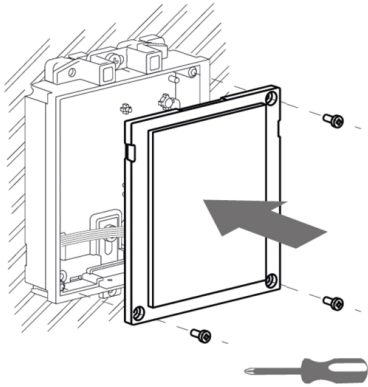
### 1-Module Installation



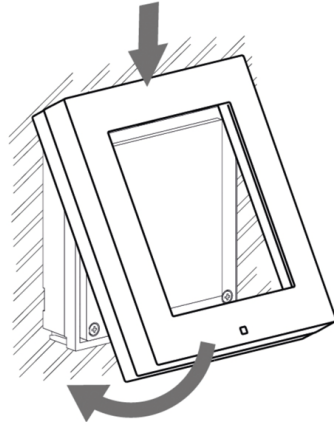
## Installation



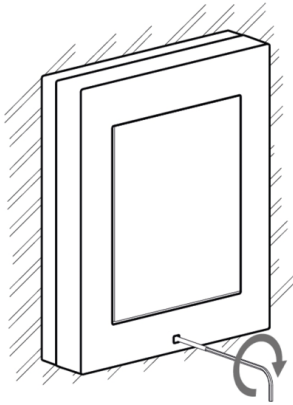
7.



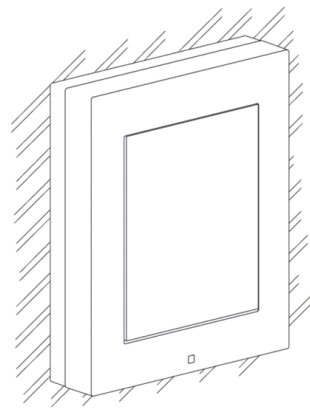
8.



9.



10.

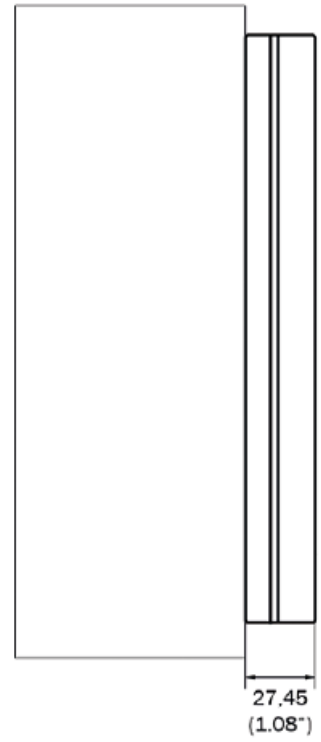
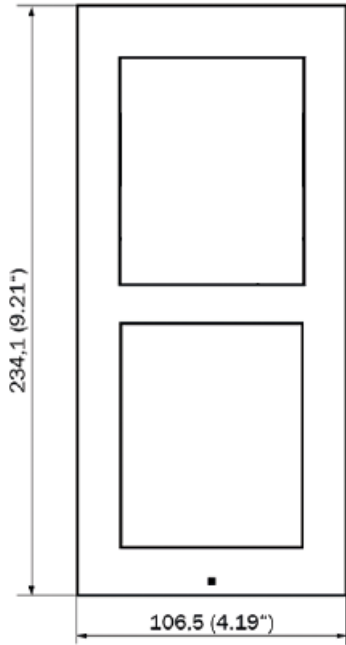


### Frame Attachment

Check the frame sealing before fitting the frame.

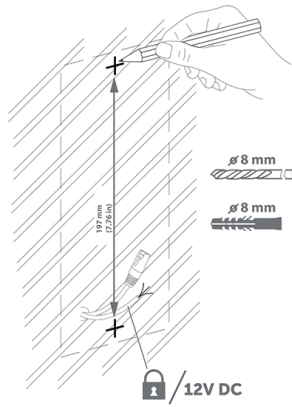
Screw the flush mounting frame in the upper and bottom parts.

## 2-Module Installation

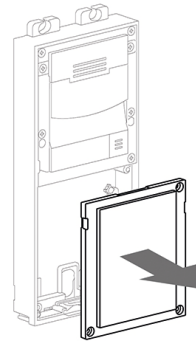


# Installation

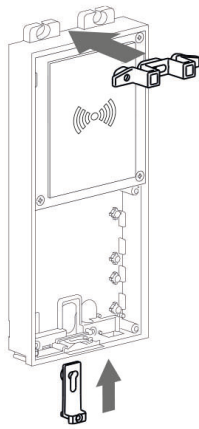
1.



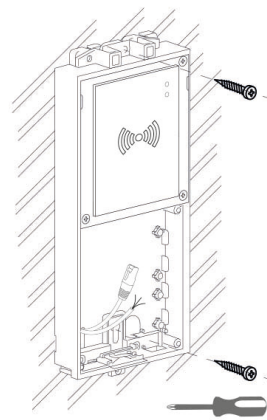
2.



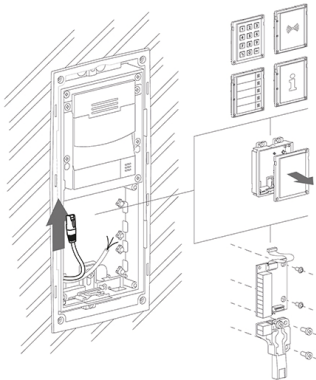
3.



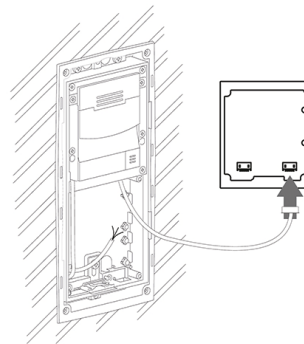
4.



5.



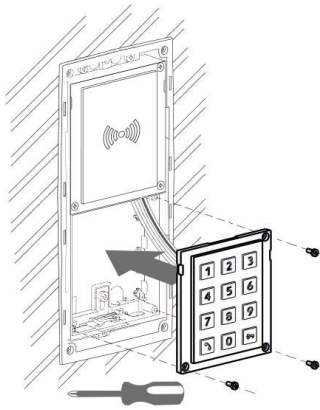
6.



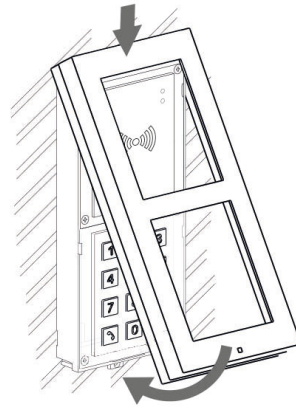


## Installation

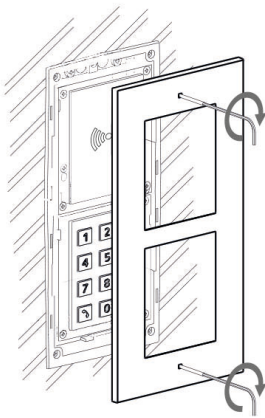
7.



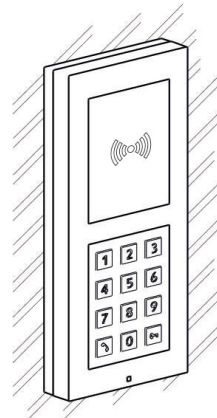
8.



9.



10.

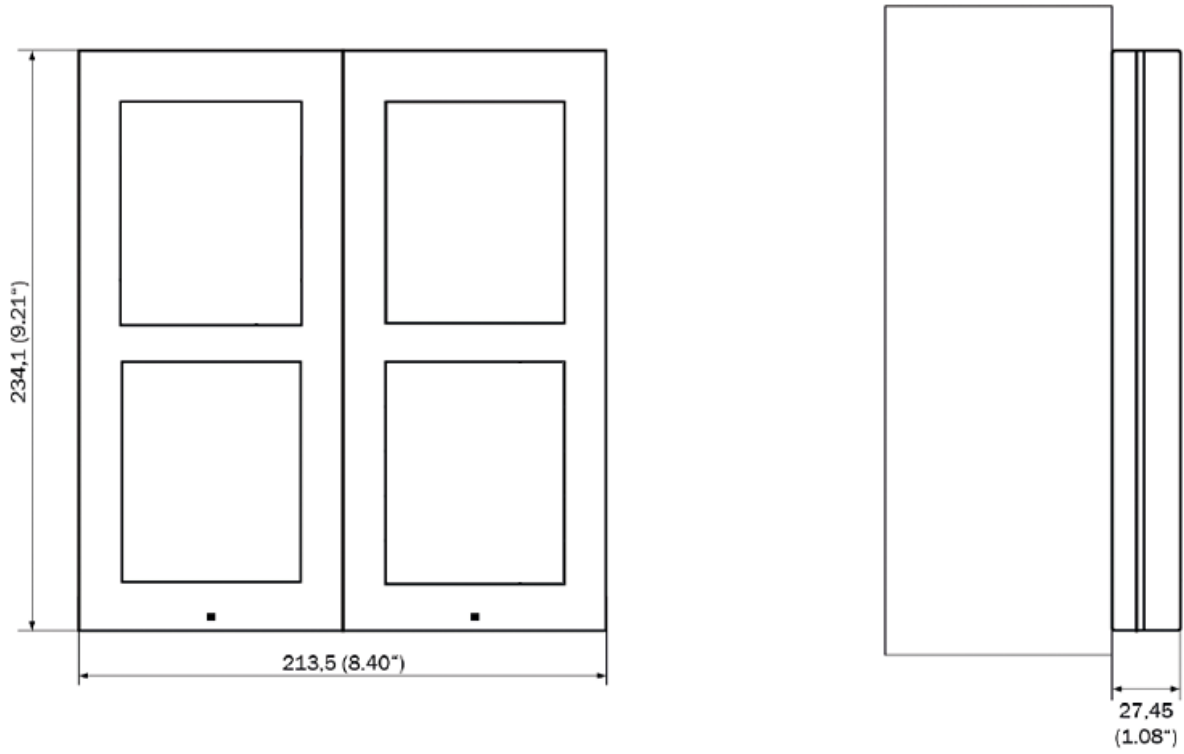


### Frame Attachment

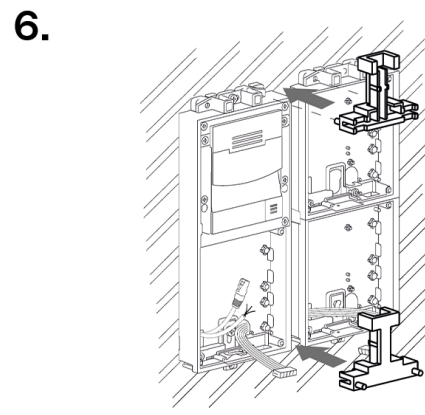
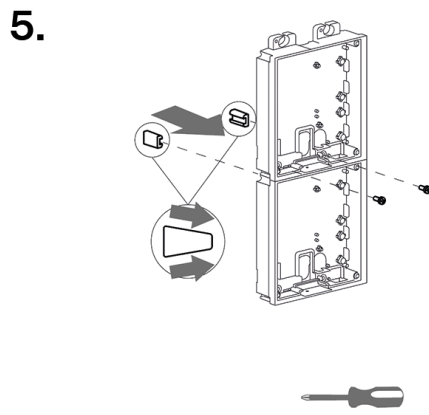
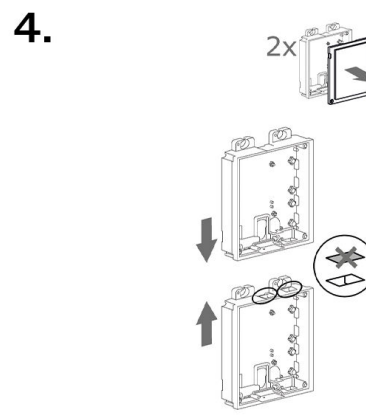
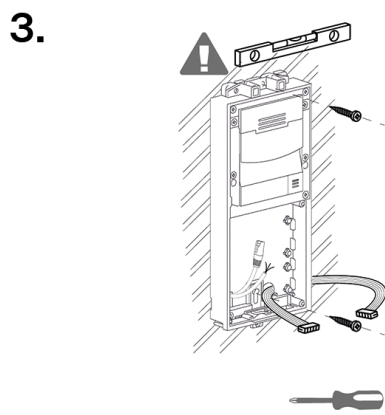
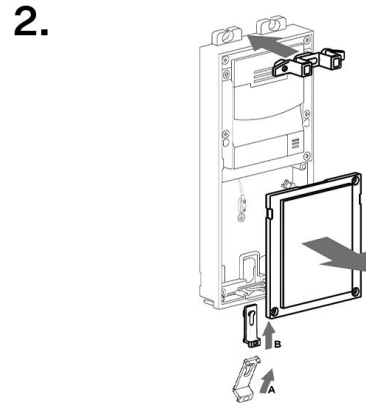
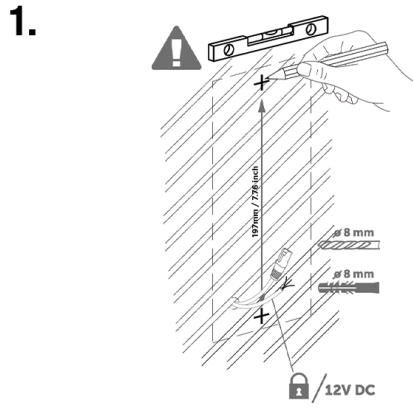
Check the frame sealing before fitting the frame.

Screw the flush mounting frame in the upper and bottom parts.

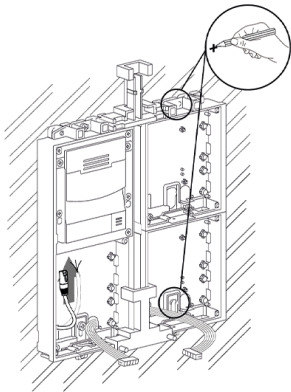
### Installation of Multiple 2-Modules Next to Each Other



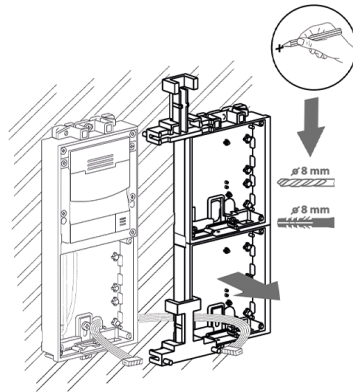
# Installation



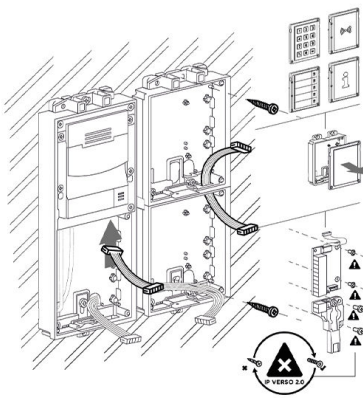
7.



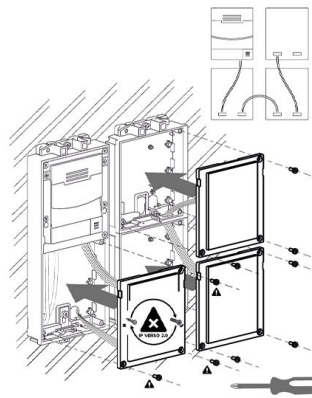
8.



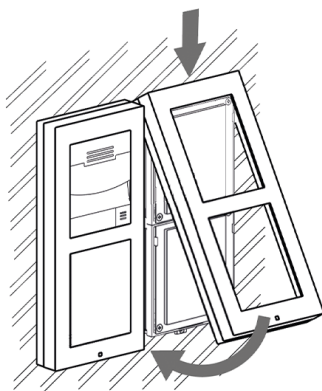
9.



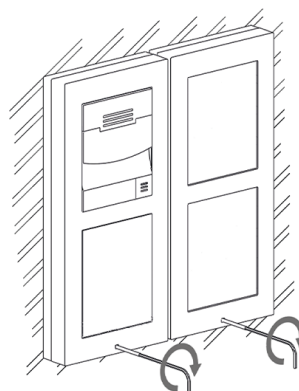
10.



11.



12.



### Frame Attachment

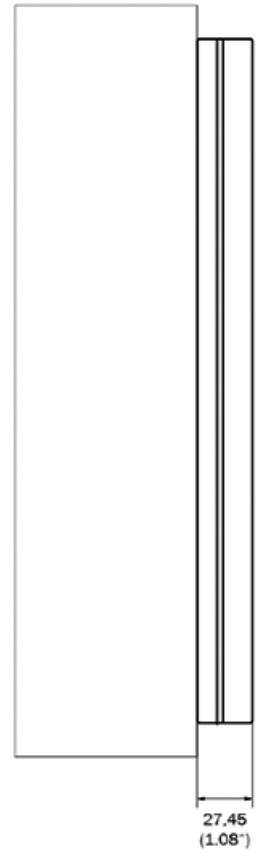
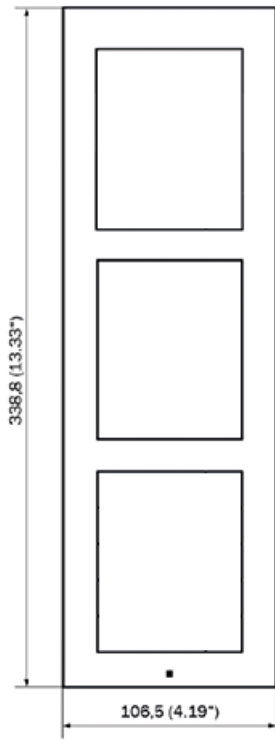
Check the frame sealing before fitting the frame.

Screw the flush mounting frame in the upper and bottom parts.

### 3-Module Installation

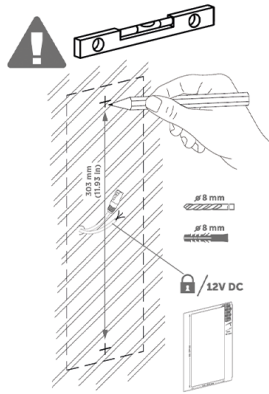
To install a 3-module, put a 2-module with a 1-module together.

# Installation

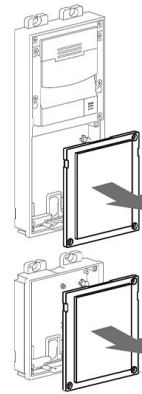


# Installation

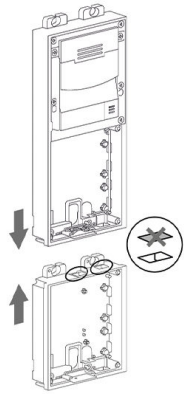
1.



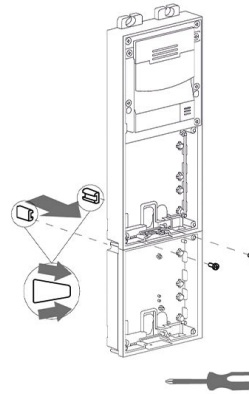
2.



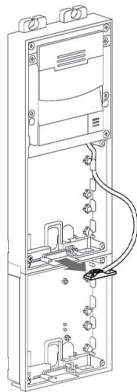
3.



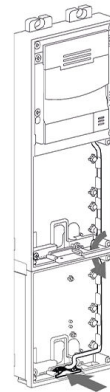
4.



5.

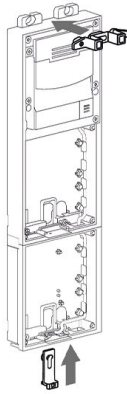


6.

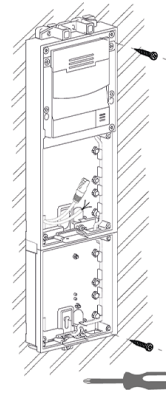


## Installation

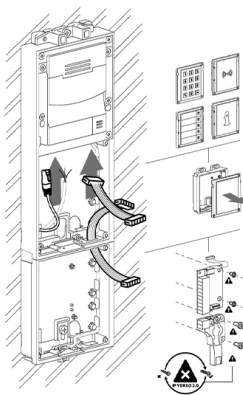
7.



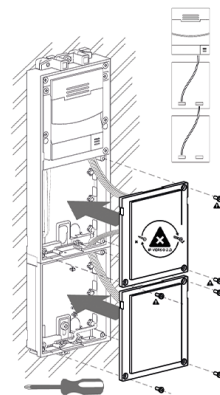
8.



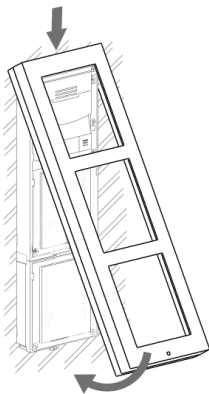
9.



10.



11.



12.

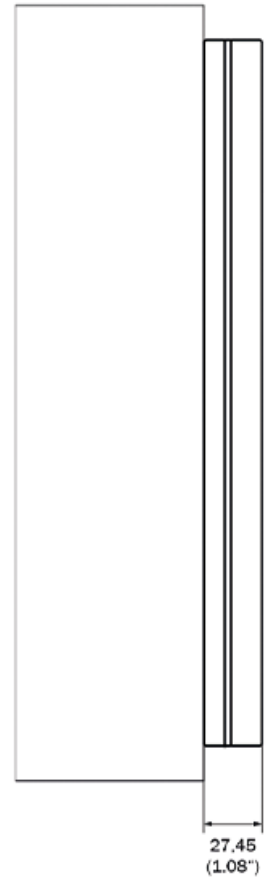
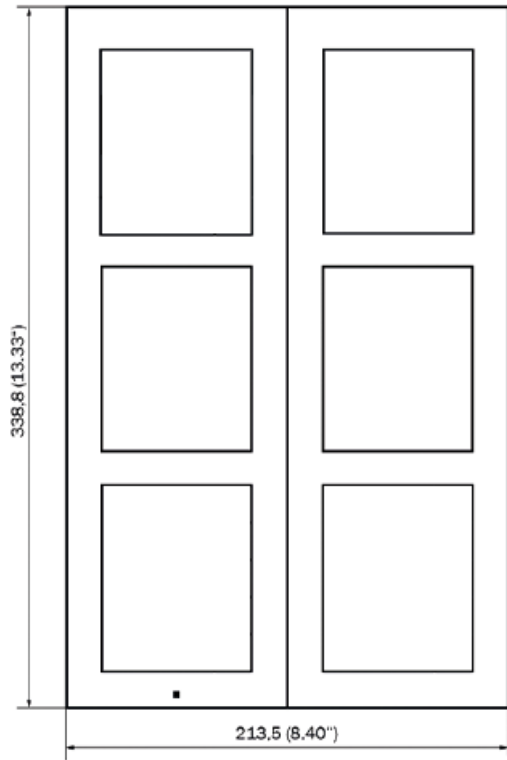


### Frame Attachment

Check the frame sealing before fitting the frame.

Screw the flush mounting frame in the upper and bottom parts.

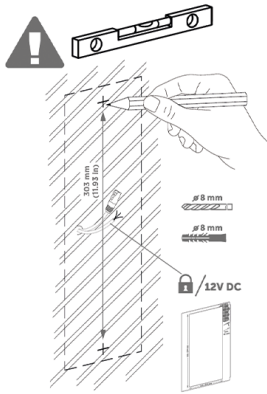
### Installation of Multiple 3-Modules Next to Each Other



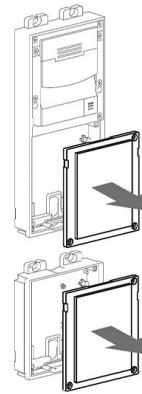


# Installation

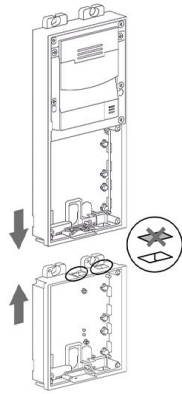
1.



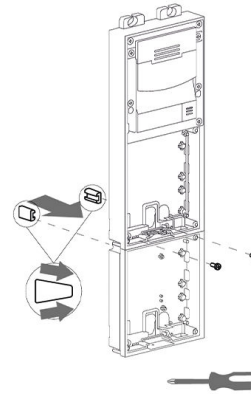
2.



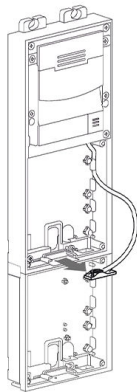
3.



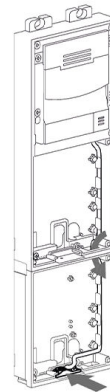
4.



5.

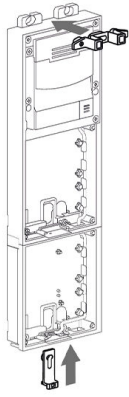


6.

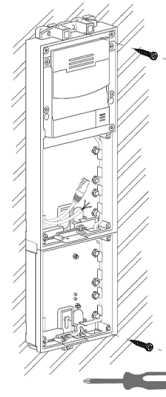


# Installation

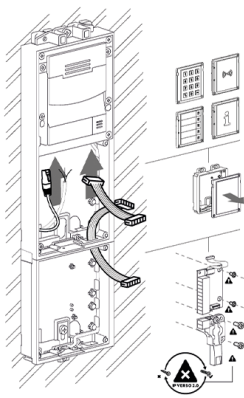
7.



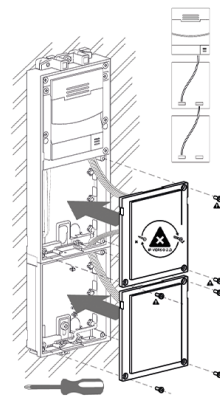
8.



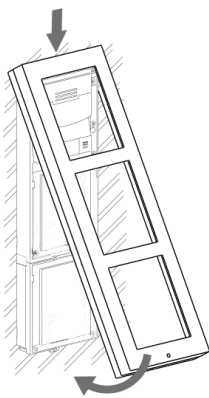
9.



10.



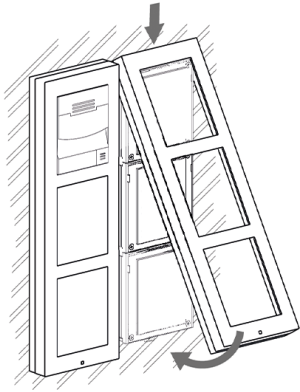
11.



12.



13.



14.



**Frame Attachment**

Check the frame sealing before fitting the frame.

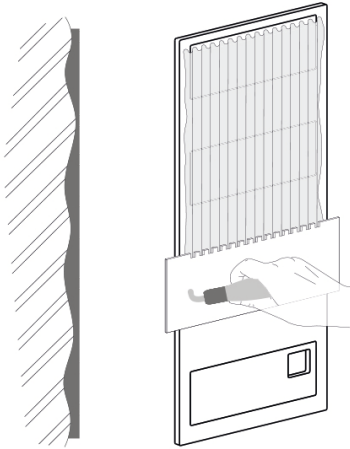
Screw the flush mounting frame in the upper and bottom parts.

**Backplate Use**

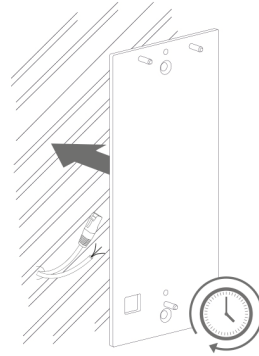
For uneven surfaces, use a backplate for the required count of modules (Part Nos. **9155061–9155063**).

On uneven wall

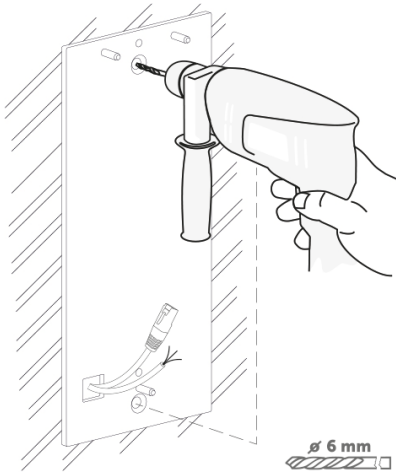
1.



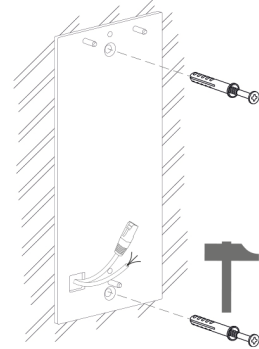
2.



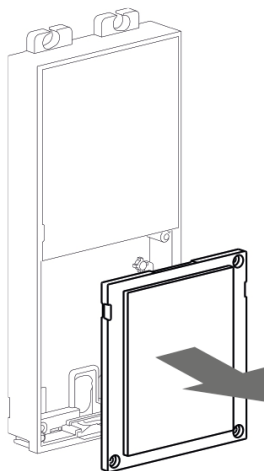
3.



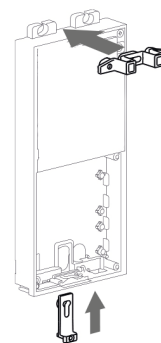
4.



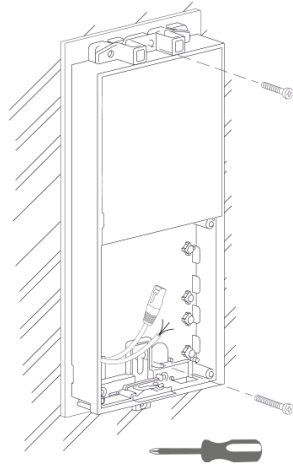
5.



6.



7.



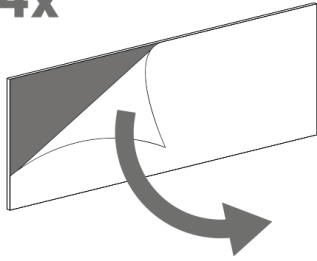
**On glass**

The backplate for uneven surfaces can also be used for installation on glass.

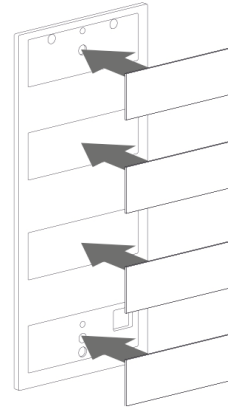
# Installation

1.

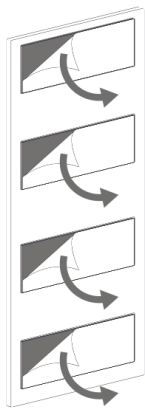
4x



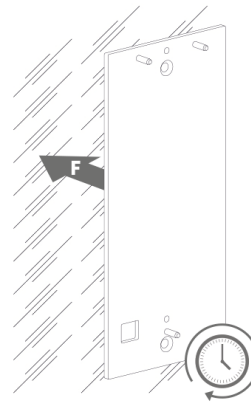
2.



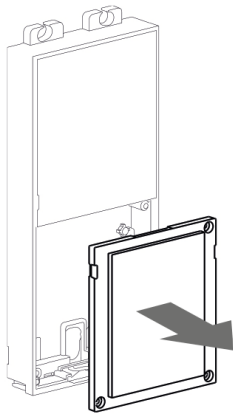
3.



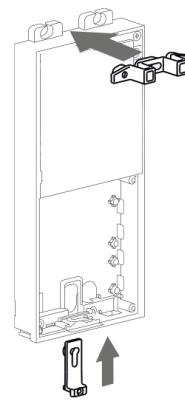
4.

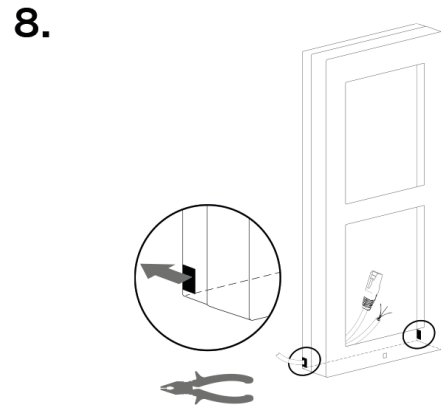
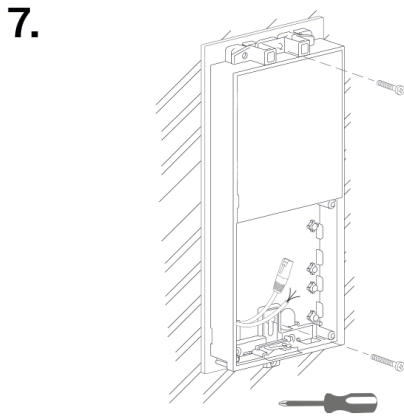


5.



6.





## Installation Completion

Check the connection of all wires and in the board connector.



### WARNING

- Make sure that all the terminals of the unused connectors are properly tightened to avoid vibrations caused by sound.
- An incorrectly made installation may compromise the device waterproofness. Water infiltration may damage the electronic part.
- Make sure that all the holes are filled with some waterproof material – the top part, around the cables and the screws.
- Use silicone or some other sealant to seal the box against an uneven wall. Thus, you prevent water leakage and wall damping.

## Most Frequent Installation Errors

Always mount the metal bolts and level the bases on an even surface **before** tightening the screws.



### WARNING

Make sure that the bases are levelled properly to avoid water leakage and electronic damage.



See the side view in the drawing above for the right/wrong connection of the bases. Pay particular attention to the base connection detail. You may have a situation especially when the instructions are neglected and the screws are tightened first.

## Electric Installation

### Power Supply

**2N Access Unit QR** can be fed either directly from the LAN if equipped with PoE 802.3af supporting network elements or from an external 12 V  $\pm 10\%$  / 3 A DC power supply.



#### CAUTION

The device must be part of the electrical system of the building.

### PoE Supply

**2N Access Unit QR** is compatible with the PoE 802.3af technology (Class 0–12.95 W) and can be supplied directly from the LAN via compatible network elements. If your LAN does not support this technology, insert a PoE injector, Part No. **91378100**, between **2N Access Unit QR** and the nearest network element. This power supply provides **2N Access Unit QR** with 12 W for its own feeding and for connected modules.

### External Power Supply

Use a SELV supply 12 V  $\pm 10\%$  dimensioned to the current consumption required for feeding the device to make your device work reliably.



Current consumption [A]	Available power output [W]
2	24
3	36

## Combined Power Supply

**2N Access Unit QR** can be fed from an external power supply and PoE at the same time. In this configuration, the maximum power for the connected modules is available.

## Power Supply Installation

### Stand-alone access unit power supply installation

1. Place the **2N Access Unit QR** on the flush mounting box / pre-drilled holes with dowels and pull the cables through the bottom holes. Pull the Ethernet cable through the bottom hole to the left if necessary.
2. Insert the metal fitting elements up and down and screw the access unit tight. You can level the unit slightly in this mounting type.

## Electric Installation Preparation

1. Unscrew the second module blind on the main unit base.
2. Use a flat screwdriver to take out the second module blind.

## 2-Module Electric Installation

1. Place the 2-module base on the flush mounting box / predrilled holes with dowels and pull the power cables through the bottom holes.
2. Insert the metal fitting elements up and down and screw the base plate tight. You can level the base slightly if you are mounting just one base.

## 3-Module Electric Installation

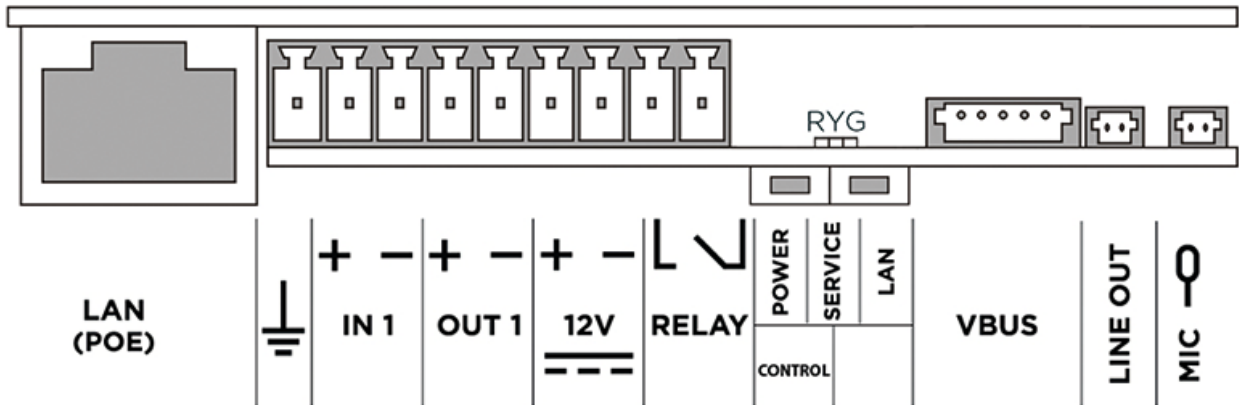
1. Unscrew the blind on the extending 1-module.
2. Use a flat screwdriver to take out the blind.
3. Slide the 1-module to the 2-module base and secure its position with small side wedges and screws.
4. Remove the microphone from the 2-module and loosen its cable.
5. Lead the microphone (as shown in the [mechanical installation \(p. 32\)](#) figures) into the 1-module base.
6. Place the joined bases on the flush mounting box / predrilled holes with dowels and pull the cables through the bottom holes. Feed the Ethernet cable without the connector from the extending base to the 2-module base if necessary.

## Electric Installation of Multiple Modules Next to Each Other

1. Unscrew the blinds of the extending bases and take them out using a flat screwdriver.
2. Slide the bases into each other as projected and secure their positions with small side wedges and screws.
3. Place the cover on the flush mounting box / predrilled holes with dowels and pull the cables if any through the bottom holes.
4. Pull the bus using the cable bushing available in the flush mounting box.

## Device Connectors

Figure 1. Main unit connector wiring



GROUND  
symbol      Grounding terminal



**CAUTION**

We recommend that a grounding cable of the cross-section of 1.5 mm<sup>2</sup> is used.

IN1      IN1 terminals for input in passive/ active mode (–30 V to +30 V DC)

- OFF = open contact or  $U_{IN} > 1.5 \text{ V}$
- ON = closed contact or  $U_{IN} < 1.5 \text{ V}$

OUT1      OUT1 terminals of active input for [Security Relay \(p. 109\)](#) or electric lock connection: 8 up to 12 V DC depending on power supply (PoE: 10 V; adapter: source voltage minus 2 V), up to mA

12 V      External 12 V supply terminals / 3 A DC

RELAY      RELAY1 terminals with accessible 30 V / 1 A AC/DC NO contact.

POWER/  
SERVICE/LAN      LED indicators (red/green/yellow).

CONTROL      Factory Reset button

BOOT      The buttons is used for advanced diagnostic operations but is irresponsive to common users.

LINE OUT      LINE OUT (1 V<sub>RMS</sub>) connector, type JST SHR-02V-S

MIC      Microphone (MIC) connector

### Relay Terminal Wiring Diagrams

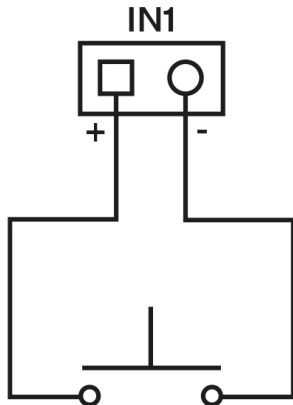
The elements are designated as follows in the diagrams below:

1. Device relay
2. Controlled device

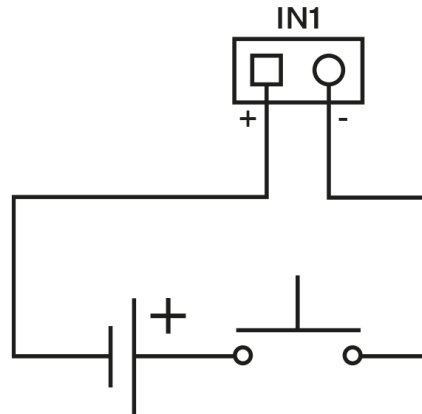
### Connection of IN1 inputs (or IN2)

The following wiring diagrams apply both to IN1 and IN2 .

**Figure 2. Wiring diagram of IN1 terminals in active mode**



**Figure 3. Wiring diagram of IN1 terminals in passive mode**



## LAN Connection

**2N Access Unit QR** is connected to the LAN by inserting a SSTP cable (category Cat-5e or higher) in the dedicated LAN connector on the device. As the device is equipped with the Auto-MDIX function, you can use either the straight or crossed cable version.



### CAUTION

- We recommend the use of a LAN surge protection.
- We recommend the use of a shielded SSTP Ethernet cable.

## Overvoltage Protection

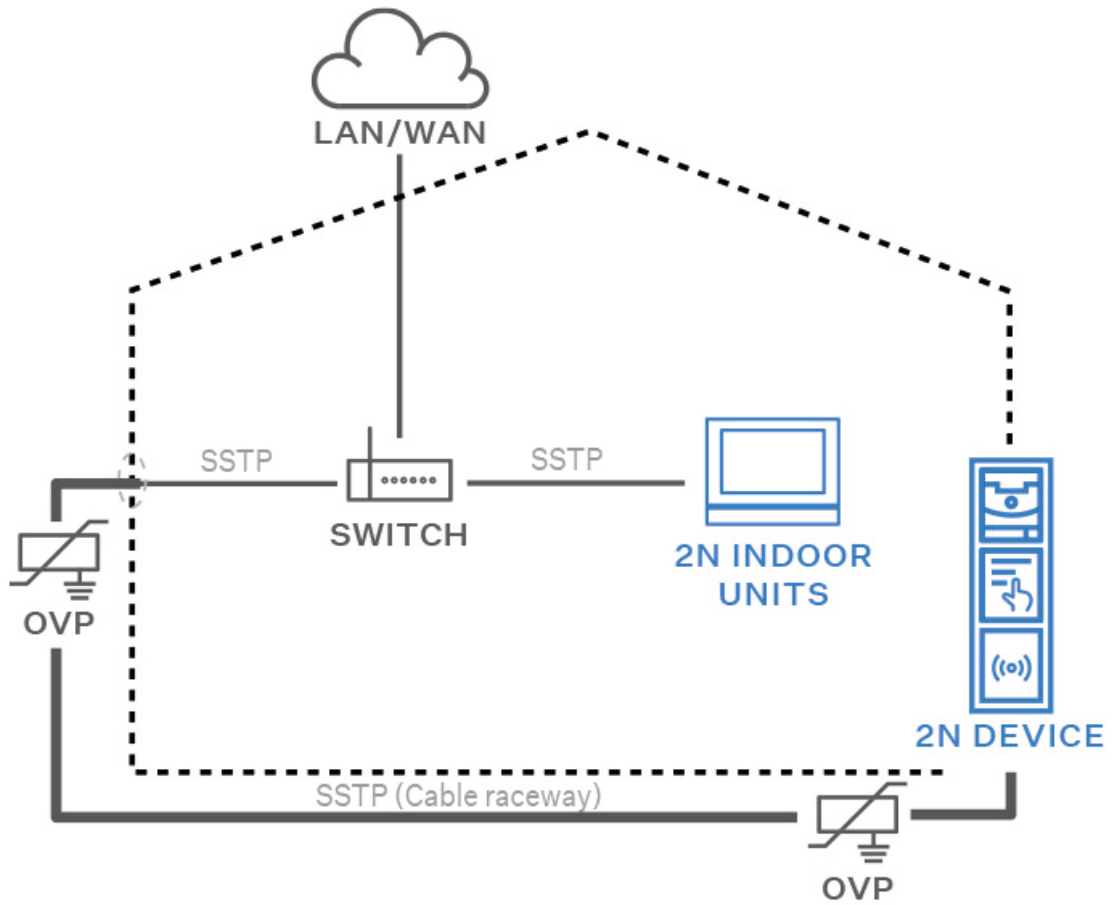
The 2N device cables have to be protected against atmospheric overvoltage caused by external causes (lightning, e.g.). A surge can damage a device installed outside/inside the building if the wires are unprotected.

Therefore, we recommend that additional overvoltage protectors (OVP) be installed on the outer walls or roof for all the wires leading outside the building. Keep the following instructions while installing overvoltage protectors:

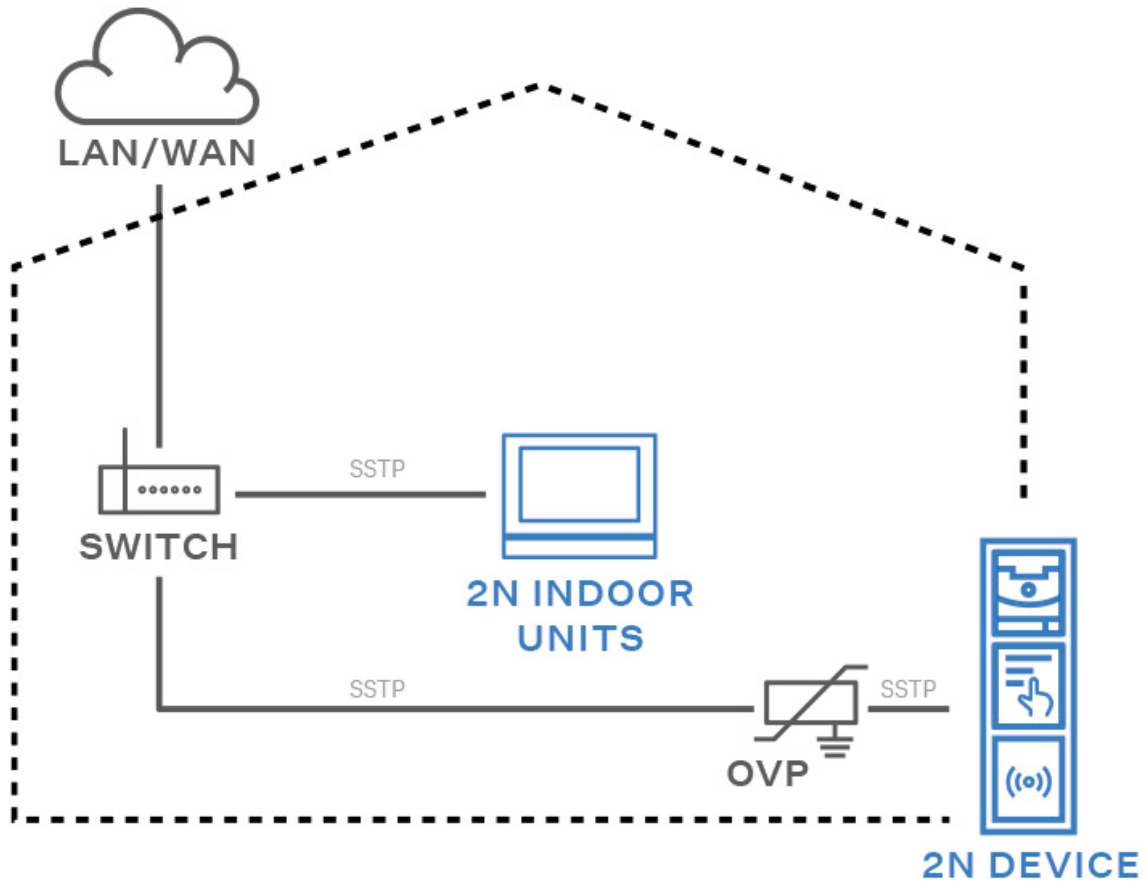
- Make sure that the overvoltage protector is installed as close as possible to the device installed outside the building.
- Make sure that the overvoltage protector is installed as close as possible to the device installed on an external part of the building.
- Make sure that the overvoltage protector is installed as close as possible to the point where the cabling leaves the building.

### Examples of Overvoltage Protection Installation

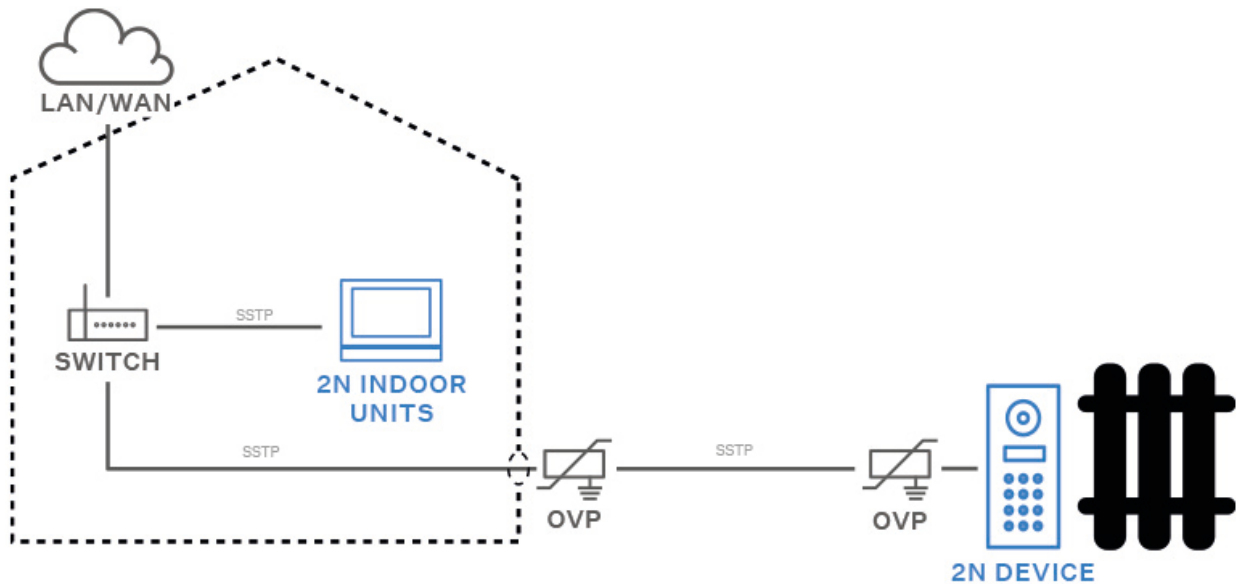
Figure 4. Overvoltage protection installation diagram for a device installed on the building facade and cables outside the building



**Figure 5. Overvoltage protection installation diagram for a device installed on the building facade and cables inside the building**



**Figure 6. Overvoltage protection installation diagram for a device and cables installed outside the building**



## Main and Extending Modules

To accelerate access card reading, we recommend that the used card types are only selected in the module settings.

**2N Access Unit QR** can be interconnected with the following modules:

- [Keypad \(p. 107\)](#)
- [Touch keypad \(p. 108\)](#)
- [Infopanel \(p. 108\)](#)



### NOTE

**2N Access Unit QR** also supports the **2N IP Verso** extending modules.

## Module Interconnection

All the modules that can be connected to the device are interconnected via a bus. The bus starts on the main unit and goes over all the modules. The order of the modules on the bus is irrelevant. And it is also irrelevant which bus connector is used as the input and which is used as the output on the module.

The modules include a 220 mm long bus interconnecting cable.

The Wiegand, OSDP and I/O modules include an 80 mm long bus cable. These two modules can be hidden inside one of the modules described below (Infopanel, Keypad, RFID card reader, Bluetooth) or can be freely placed behind the device (in a mounting box, e.g.). The Tamper Switch, which is not on the bus, is interconnected with one of these modules.

It is possible to order separate bus cables of the length of 1 m, 3 m or 5 m (**Part Nos. 9155050/9155054/9155055** respectively), which are intended for remote module installations. Typically, they help install an RFID card reader on the opposite side of the wall on which the device communicator is installed. This cable may only be used once on the bus. The total length of all the bus cables used in these extended installations may not exceed 7 m.

The modules can be combined in each base as follows:

### Module Power Supply

All the modules connected to the device, except for the Tamper Switch, are powered from the bus. The available bus power output depends on the power supply type.

The main unit allows an external power supply to be used to increase the available power output for the modules connected.

Power Supply	Specification	Available power output
External supply	12 V ±10 %	24 W (36 W)
PoE	802.3af (Class 0 – 12.95 W)	12 W
Combined	External supply + PoE	30 W (42 W)

The count of modules on the bus is limited by the available power supply output. The maximum count of the modules on the bus is 30.



## Installation

Main unit	Maximum consumption [W]
At relax	1,2
LED – lock	0,072
LED – secured	0,096
Unit backlight	0,072
Relay 1	0,132
OUT1	4,8
<b>Total</b>	<b>6,372</b>

## Installation

Module	Maximum idle consumption [W]	Full load [W]
Main unit with camera	2,36	11,57
Infopanel	0,17	0,35
Keypad	0,12	1,54
Touch keypad	0,12	1,54
Fingerprint reader	0,73	1,54
125 kHz RFID card reader	1,31	0,52
13.56 MHz RFID card reader	0,44	0,82
125 kHz, 13.56 MHz, NFC Bluetooth & RFID card reader	1,34	2,74
125kHz, 13.56MHz, NFC touch keypad & RFID card reader	1,38	2,52
Bluetooth module	0,2	0,67
I/O module	0.31 (+ 0.13 for relay activation)	0,65
Wiegand module	0,46	0,46

**Table 1. Specimen configuration consumption computation**

Module	Maximum consumption [W]	Maximum consumption [W]
Main unit with camera	2,36	11,57
13.56 MHz RFID card reader	0,44	0,82
I/O	0,31	0,65
Touch display	1,16	2,02
Tamper Switch	0,31	0,65
Wiegand	0,46	0,46
Bluetooth reader	0,2	0,67
<b>Total</b>	<b>2,41</b>	<b>7,93</b>
	<b>5,24</b>	<b>16,84</b>

It is obvious from the specimen configuration that all the modules have sufficient outputs when an external power supply is used. When a PoE supply is used, the power output is insufficient for all the modules, which results in automatic decrease in the backlight level, active output current supply, volume level and LED intensity.

Some modules need a specific power output for their specific activities: the I/O module, e.g., requires 0.13 W for relay activation (not included in the minimum consumption).

## Module Specifications

### Keypad Module

The Keypad module (Part No. **9155031/9155031B**) is used for numeric access to the system.

#### Features

- The module contains two bus connectors for the **2N Access Unit QR** bus.
- These two connectors are fully interchangeable and can be used either as inputs from the main unit or outputs to other modules.
- If this module is the last one on the bus, one of the connectors remains unconnected.
- The module package includes a 220 mm long interconnecting cable.

## Touch Keypad Module

The Touch Keypad module (Part Nos. ) is used for numeric access to the system. Also, it helps you control the lock and other functions via a numeric code. The keypad digits and symbols are backlit.

### Features

- The module contains two bus connectors for the **2N Access Unit QR** bus.
- These two connectors are fully interchangeable and can be used either as inputs from the main unit or outputs to other modules.
- If this module is the last one on the bus, one of the connectors remains unconnected.
- The module package includes a 220 mm long interconnecting cable.

## Bluetooth & 125 kHz, 13.56 MHz, NFC RFID Card Reader Module

The Bluetooth & 125 kHz and 13.56 MHz card reader module (Part Nos. ) is used for access control using a smartphone/tablet with **2N Mobile Key** or an access card, for making user calls and/or controlling other functions.

### Features

- NFC – for **2N Mobile Key** for Android only, a licensed function.
- The module contains two bus connectors for the **2N Access Unit QR** bus.
- These two connectors are fully interchangeable and can be used either as inputs from the main unit or outputs to other modules.
- If this module is the last one on the bus, one of the connectors remains unconnected.
- The module package includes a 220 mm long interconnecting cable.

The following RFID cards can be read:

Supported RFID cards 125 kHz:

- EM4x02
- NXP HiTag2

Supported RFID cards 13.56 MHz:

- **ISO14443A** (MIFARE Classic, MIFARE Plus, MIFARE Mini, MIFARE Ultralight, MIFARE DESFire CSN only)
- **PicoPass** (HID iClass CSN, Picopass)
- **FeliCa** (Standard, Lite)
- **ST SR** (SR, SRI, SRIX)
- **Mobile Key**

## Infopanel Module

The Infopanel module (Part No. **9155030**) is used for inserting and backlighting printed information. It helps place a company logo or opening hours, e.g., to the device. The Infopanel is backlit, the backlight is software controlled. Refer to [2N.com](http://2N.com) for the printing template.

### Features

- The module contains two bus connectors for the **2N Access Unit QR** bus.
- These two connectors are fully interchangeable and can be used either as inputs from the main unit or outputs to other modules.
- If this module is the last one on the bus, one of the connectors remains unconnected.
- The module package includes a 220 mm long interconnecting cable.

## Specification

Nametag dimensions (W x H) 69.2 x 86.7 mm (tolerance: +0; -0.5 mm)

## Security Relay

The Security Relay (Part No. **9159010**) is used for enhancing security between **2N Access Unit QR** and the connected electric lock. The Security Relay significantly enhances security of the connected electric lock by preventing unlocking due to device tampering.



### TIP

FAQ: [2N IP Security Relay – description of the device and use with the 2N intercoms](#)

## Specification

Passive switch NO/NC contact, up to 30 V / 1 A AC/DC

Switched output

- Where the Security Relay is fed from the device, 9 to 13 V DC is available on the output depending on the power supply (PoE: 9 V; adapter: source voltage of minus 1 V) / 400 mA DC.
- Where the Security Relay is fed from an external power supply, 12 V / 700 mA DC is available on the output.

Dimensions (w x h x d) 56 x 31 x 24 mm

Weight 20 g

## Connectors and Installation

The Security Relay is installed between the device (outside the secured area) and the electric lock (inside the secured area). The Security Relay includes a relay that can only be activated if a valid access card/code is detected on the unit.

The Security Relay is installed on a two-wire cable between the device and the electric lock inside the area to be secured (typically behind the door). The Security Relay is powered and controlled via this two-wire cable and can thus be added to an existing installation. Thanks to its compact dimensions, the device can be installed into a standard mounting box.

Connect the Security Relay to the access unit as follows:

- to the Active output.

Connect the electric lock to the Security Relay as follows:

- to the switched output,

- to the passive output in series with the external power supply.

The Security Relay also supports the Departure button connected to the ‘PB’ and ‘– HeliosIP/2N IP intercom’ terminals. Once the Departure button is pressed, the output is activated for 5 seconds.



**TIP**

Video: [Security Relay Installation and Setting](#)

**Status Signaling**

Green LED	Red LED	State
flashing	off	Operational mode
on	off	Activated output
flashing	flashing	Programming mode – waiting for initialization
on	flashing	Error – wrong code

**Configuration**

1. Connect the Security Relay to the properly set Security output of the device. Refer to the Configuration Manual for details. Make sure that one LED at least is on or flashing.
2. Press and hold the Relay RESET button for 5 seconds to switch the device in the programming mode (red and green LEDs flashing).
3. Activate the output switch using the keypad, telephone, etc. The first code sent from the access unit will be stored in the memory and considered valid. After code initialization, the Security Relay will pass into the operational mode (green LED flashing).



**CAUTION**

Having reset the factory defaults on a device with firmware 2.18 or higher, remember to reprogram Security Relay using the instructions above.

# Brief Guidelines

- [Device Configuration Interface Access \(p. 111\)](#)
- [IP Address Retrieval \(p. 112\)](#)
- [Firmware Update \(p. 113\)](#)
- [Device Restart \(p. 113\)](#)
- [Factory Default Reset \(p. 114\)](#)

## Device Configuration Interface Access

**2N Access Unit QR** is configured via the administration web interface. Connect the device to the LAN IP and make sure it is properly powered. You have to know the IP address for access.

### Domain Name

Enter the domain name as "hostname.local". The new device Hostname consists of the device name and serial number. See below for the device name formats in Hostname. The serial number is entered without hyphens. You can change Hostname in System > Network later.

**Default domain name 2N Access Unit QR:** 2NAccessUnitQR-{serial number without dashes}.local (e.g.: "2NAccessUnitQR-0000000001.local")

Login based on a domain name is advantageous if the dynamic IP address is used. While the dynamic IP address changes, the domain name remains the same. It is possible to generate certificates signed by a trusted certification authority for the domain name.

### IP address

To retrieve the device IP address, take the following steps, see [IP Address Retrieval \(p. 112\)](#):

- Use the freely accessible 2N Network Scanner.

## Web Configuration Interface Login

1. Fill in the **2N Access Unit QR** address or domain name into the internet browser.  
The login screen is now displayed.  
Should the login screen fail to appear, you must have typed a wrong IP address, port, domain name or the administration web server has been switched off. If you do not have a certificate generated for the IP address or domain name, an invalid security certificate warning may be displayed. In this case, you need to confirm that you want to go to the web configuration interface.
2. Enter the login data.  
The default login data are:  
Username: **Admin**  
Password: **2n**  
It is necessary to change the password immediately upon the first login.

**TIP**

It is recommended that a password is used that is difficult to break. It is not recommended that names, places or things, especially those closely related to the user, are used in the password.

For increased password security, it is recommended that:

- the random password generator is used,
- the password length is 12 characters at least,
- various characters from different character sets are combined (small/capital letters, digits, special characters, etc.).

## IP Address Retrieval

To retrieve the device IP address, take the following steps:

- Use the freely accessible 2N Network Scanner.

### IP Address Retrieval Using 2N Network Scanner

The application helps you find the IP addresses of all the 2N devices in the LAN. Download 2N Network Scanner from the [2N.com](http://2N.com) website. Make sure that Microsoft .NET Framework 2.0 is installed for successful app installation.

1. Run the 2N Network Scanner installer.
2. The Installation Wizard will help you with the installation.
3. Having installed 2N Network Scanner, start the application using the Microsoft Windows Start menu. Once started, the application begins to automatically search the LAN for all the 2N devices which have been DHCP/statically assigned IP addresses. These devices are then shown in a table.

2N® Network Scanner (version 3.0.4)

File Help

Filter

IP Address	Serial Number	Display Name	Version
10.0.24.69	54-1921-5022	2N IP Verso Mobile Team	2.29.0.38.6
10.0.24.73	52-1953-0073	2N Indoor Touch 2.0	4.0.0
10.0.24.74	54-0956-0004	2N Indoor Touch	3.4.0.1.0
10.0.24.75	52-1953-0064	2N Indoor Touch 2.0	999.4.3.0 (eng.378...
10.0.24.78	52-1953-0079	2N Indoor Touch 2.0	999.4.4.0 (eng.502...
10.0.24.79	52-2339-0077	2N Indoor Compact	2.30.0.39.0
10.0.24.87	52-2101-0046	2N Indoor Touch 2.0	4.3.0 (rc.4.3.x)
10.0.24.102	52-1953-0098	2N Indoor Touch 2.0	999.4.4.0 (eng.496...
10.0.24.105	52-2656-0067	2N Indoor View	2.29.0.38.6
10.0.24.108	52-2700-0559	2N Indoor Touch 2.0	999.4.4.0 (eng.494...
10.0.24.116	52-2667-0295	2N Indoor Touch 2.0	4.2.2 (release.4.2.2)
10.0.24.123	99-8888-0035	2N Indoor Touch 2.0	999.4.1.7 (eng.root...

Count: 15



4. Select the device to be configured and right-click it. Select *Browse...* to open the device administration web interface login box for configuration.



**TIP**

- Double click the selected row in the 2N Network Scannerlist to access the device web interface easily.
- To change the device IP address, select *Config* and enter the required static IP address or activate DHCP.

The default login data are:

Username: **Admin**

Password: **2n**

It is necessary to change the password immediately upon the first login.



**CAUTION**

If the found device is grey highlighted, its IP address cannot be configured using this application. In that case, click Refresh to find the device again and check whether multicast is enabled in your network.



**TIP**

It is recommended that a password is used that is difficult to break. It is not recommended that names, places or things, especially those closely related to the user, are used in the password.

For increased password security, it is recommended that:

- the random password generator is used,
- the password length is 12 characters at least,
- various characters from different character sets are combined (small/capital letters, digits, special characters, etc.).

## Firmware Update

We recommend that the firmware is also updated during the **2N Access Unit QR** installation. Refer to [2N.com](https://www.2n.com) for the latest FW version. Refer to [Maintenance](#) for the firmware upgrade procedure.



**TIP**

You can make bulk updates for multiple devices via 2N Access Commander.

## Device Restart

To restart the device choose one of the following options:

- using disconnection from the power supply,
- via the web configuration interface.



**NOTE**

The device restart does not result in any change in the configuration settings.

### **Restart Using Web Configuration Interface,**

You can restart the device via the web configuration interface. Refer to [Web Configuration Interface Login \(p. 111\)](#) for login details. Restart the device in System > [Maintenance](#) > System using [Restart](#).

### **Factory Default Reset**

Follow the instructions below **2N Access Unit QR** to reset the factory default values:

Located among the main unit connectors, the [CONTROL \(p. 98\)](#) button helps you reset the factory default values.

1. Disconnect the device from the power supply.
2. Press and hold the CONTROL button.
3. Connect the device to the power supply.
4. Keep holding the button for a few seconds and then release it.

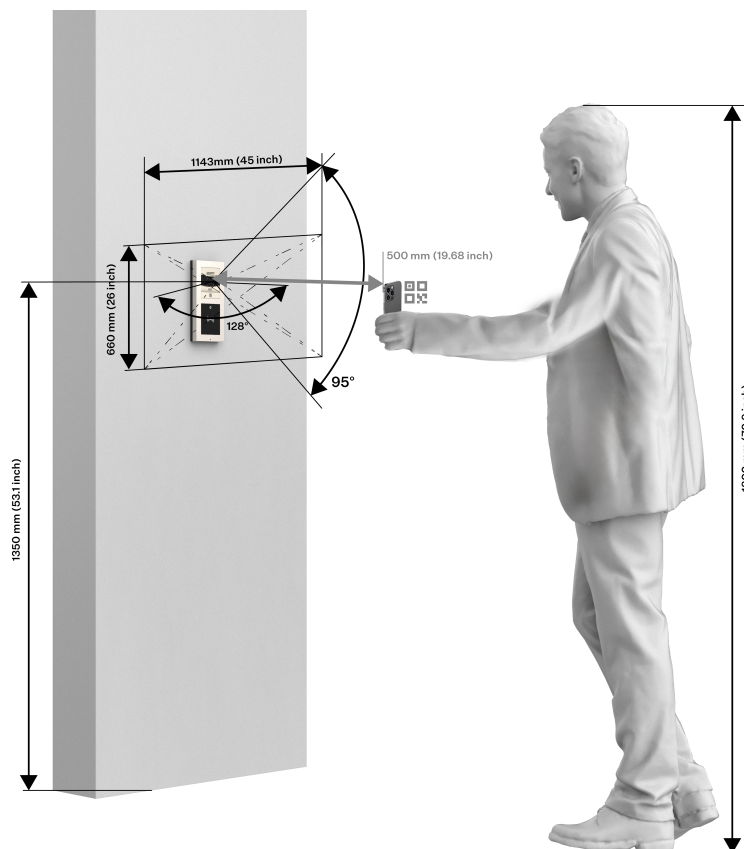
# Device Control

The device works as an authorization intermediary, which authenticates the user access rights and, if the user access is valid, activates the switch. The door lock, lifts etc. can be controlled by the switch.

The device control depends on the product version:

- using RFID cards and chips – by tapping a card/chip on the device,
- using the **2N Mobile Key** application – by pressing the device touchscreen in the vicinity of a mobile device with **2N Mobile Key** logged in,
- using NFC,
- using a QR code,
- using biometric data (fingerprint),
- by entering a numeric access code via a keypad.

The visualization below shows the (range of the) field of view and optimum installation height for the device camera. It is recommended that the QR code is placed 50 cm in front of the camera for optimum reading.



## Maintenance - Cleaning

If used frequently, the device surface gets dirty. Use a piece of soft cloth moistened with clean water to clean the device.

**It is recommended that the principles below are followed while cleaning:**

- Use appropriate cleaning agents suitable for glasses, optical devices, screens, etc.
- Alcohol-based cleaners may not be applied.
- We recommend that IT cleaning wipes are used.



### **CAUTION**

- Do not use aggressive detergents (such as abrasives or strong disinfectants).
- Prevent water from getting inside the device.

# Troubleshooting



Refer to [faq.2n.cz](http://faq.2n.cz) for the most frequently solved problems.

# Technical Parameters

## Power Supply Types

PoE, IEEE 802.3af, Class 0 (0,44–12,95 W)

12 V  $\pm$ 10 %

## Audio

Microphone

Integrated

Amplifier

5 W (class D)

Speaker

2 W / 8  $\Omega$

Sound pressure level (SPL max)

78 dB (for 1 kHz, distance 1 m)

LINE OUT

1 VRMS / 600  $\Omega$

Volume Control

Adjustable with automatic adaptive mode

## Audio stream

Protocols

RTP, SRTP

Codecs and Used Bandwidth

- G.711 (PCMA, PCMU) – 64 kbps (with 85.6 kbps headers)
- G.729 – 16 kbps (with 29.6 kbps headers)
- G.722 – 64 (with 85.6 kbps headers)
- L16/16kHz – 256 kbps (with 277.6 kbps headers)

## Technical Parameters

### Camera

Sensor	1/2.7" colour CMOS
JPEG resolution	Up to 1920 x 1440
Video resolution	640 x 480 1920 x 1440
Frame rate	up to 30 frames
Sensor sensitivity	5,6 V/lux-sec (550 nm)
Viewing angle	128° (H), 95° (V), 134° (D)
Infrared illumination	Su
Sensor sensitivity without IR light	0.1 Lux ± 20 %
Focal length	1,9 mm

### Video stream

Protocols	RTP, RTSP, RTCP, HTTP
ONVIF/RTSP streaming codecs	<ul style="list-style-type: none"><li>• H.264, H.265, MJPEG</li><li>• H.265</li><li>• MJPEG</li></ul>
IP Camera Function	Yes, ONVIF v2.4 Profile S and ONVIF Profile T compatible

## Technical Parameters

### Bandwidth used

Audio codecs	<ul style="list-style-type: none"><li>• PCMA, PCMU – 64 kbps (with 85.6 kbps headers)</li><li>• G.729 kbps – 16 bps (with 29.6 kbps headers)</li><li>• G.722 – 64 kbps (with 85.6 kbps headers)</li><li>• L16 / 16 kHz – 256 kbps (with 277.6 kbps headers)</li></ul>
--------------	---

Video Codecs	Set streaming in Services > Calls > RTSP. The set bit rate represents the value that the codec has to approach on a long-time average. The data flow can vary depending on the scene to be scanned.
--------------	---

### Interface

LAN	10/100BASE-TX s Auto-MDIX, RJ-45
Recommended cabling	Cat-5e or higher
Supported protocols	SIP2.0, DHCP opt. 66, SMTP, 802.1x, RTSP, RTP, TFTP, HTTP, HTTPS, Syslog, ONVIF
Passive switch	NO/NC contact, up to 30 V / 1 A AC/DC
Active switch output	8 to 12 V DC according to power supply, up to 600 mA <ul style="list-style-type: none"><li>• PoE: 10 V</li><li>• adapter: source voltage –2 V</li></ul>
LTE FFD	Cat.1, 3GPP



**Standard RFID card reader**

**Secured RFID card reader**

Supported RFID cards 125 kHz:

- EM4x02
- NXP HiTag2

Supported RFID cards 125 kHz:

- EM4x02
- NXP HiTag2
- HID Prox

Supported RFID cards 13.56 MHz:

- **ISO14443A** (MIFARE Classic, MIFARE Plus, MIFARE Mini, MIFARE Ultralight, MIFARE DESFire CSN only)
- **PicoPass** (HID iClass CSN, Picopass)
- **FeliCa** (Standard, Lite)
- **ST SR** (SR, SRI, SRIX)
- **Mobile Key**

Maximum magnetic field strength at 10 m:  
66 dB $\mu$ A/m

Supported RFID cards 13.56 MHz:

- **ISO14443A** (MIFARE Classic, MIFARE Plus, MIFARE Mini, MIFARE Ultralight, MIFARE DESFire CSN only)
- **PicoPass** (HID iClass CSN, Picopass)
- **FeliCa** (Standard, Lite)
- **ST SR** (SR, SRI, SRIX)
- **HID PAC** (HID SEOS, HID iClass SE, iClass SR, HID MIFARE DESFire with SIO, HID MIFARE Classic with SIO)
- **Mobile Key**
- **2N PICard**

Maximum magnetic field strength at 10 m: 60 dB $\mu$ A/m

**Bluetooth module**

Bluetooth	4.0 in compliance with BLE (Bluetooth Low Energy)
Security	Encoding: <ul style="list-style-type: none"> <li>• asymmetric RSA-1024</li> <li>• symmetric AES-128</li> </ul>
Range	Adjustable: <ul style="list-style-type: none"> <li>• short ~ 0.5 m</li> <li>• medium ~ 2 m</li> <li>• long ~ up to 10 m</li> </ul>
RX sensitivity	up to -93 dBm
Consumption	20 mA at 12 V DC
Operating temperature	-40 °C ~ +60 °C
Storing temperature	-40 °C ~ +70 °C
Dimensions	97 x 105 x 30 mm
Support of mobile applications	Android 6.0 Marshmallow and higher, iOS 12.0 and higher

## Technical Parameters

### Touch Display module

Resolution	320 x 214 px
Slideshow mode resolution	214 x 214 px
Contrast ratio	400
Brightness	350 cd/m <sup>2</sup>
Viewing angle	80° from any direction
Weight	280 g
Minimum consumption	1.36 W
Maximum consumption	2.40 W
Operating temperature	-20°C to 60°C
Resistance level	IK07

### I/O module, Wiegand module

Dimensions	43 x 31.5 x 1.5 mm
------------	--------------------

**Mechanical Parameters**

Cover

Robust zinc casting with surface finish (minor surface shade nuances are acceptable).

- Black version:
  - Material - Zamak 410 - Zn95Al4Cu1
  - Surface treatment – PUR Wet coating 15-25 µm, RAL 9005 Jet black, inner side - passivated zinc

Dimensions (w x h x d)

Wall (surface) mounting frame: – 1 module: 107 x 130 x 28 mm – 2 modules: 107 x 234 x 28 mm  
 Flush mounting frame: – 1 module: 130 x 153 x 5 mm – 2 modules: 130 x 257 x 5 mm  
 Flush mounting box (minimum hole dimensions): – 1 module: 108 x 131 x 45 mm – 2 modules: 108 x 238 x 45 mm

Weight

Max. net weight: 2 kg / max. gross weight: 2.5 kg (depending on configuration)

Operating temperature

-40°C to +60°C

Relative humidity

10 to 95 % (non-condensing)

Storing temperature

-40 °C to 70 °C

Protection class

IP54


Resistance level

IK08


# Directives, Laws and Regulations - General Instructions and Cautions

**2N Access Unit QR** conforms to the following directives and regulations:

เครื่องโทรคมนาคมและอุปกรณ์นี้  
ความสอดคล้องตามมาตรฐานหรือขอ  
กำหนดทางเทคนิคของ กสทช.

  
**nab.**

เครื่องวิทยุคมนาคมนี้ ได้รับยกเว้น ไม่ต้องได้  
รับใบอนุญาตให้มี ใช้ซึ่งเครื่องวิทยุคมนาคม  
หรือตั้งสถานีวิทยุคมนาคมตามประกาศ กสทช.  
เรื่อง เครื่องวิทยุคมนาคม และสถานีวิทยุ  
คมนาคมที่ได้รับยกเว้นไม่ต้องได้รับใบอนุญาต  
วิทยุคมนาคมตามพระราชบัญญัติวิทยุคมนาคม  
พ.ศ. 2498



**nab.** | โทรคมนาคม  
กำกับดูแลเพื่อประชาชน  
Call Center 1200 (InSW)

## Industry Canada

This Class B digital apparatus complies with Canadian ICES-003/NMB-003.

## FCC

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

NOTE: These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit other than that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.



**WARNING**

In order to ensure the full functionality and guaranteed performance, we strongly recommend that the topicality of the product / device version in use be verified as early as in the installation process. The customer hereby acknowledges that the product / device can achieve the guaranteed performance and full functionality pursuant to the manufacturer's instructions only if the latest product / device version is used after having been tested for full interoperability and not having been determined by the manufacturer as incompatible with certain versions of other products, and only in conformity with the manufacturer's instructions, guidelines or recommendations and in conjunction with suitable products and devices of other suppliers. The latest versions are available at [https://www.2n.com/cs\\_CZ/](https://www.2n.com/cs_CZ/) or can be updated via the configuration interface if the devices are adequately technically equipped. Should the customer use a product / device version other than the latest one or a version determined by the manufacturer as incompatible with certain versions of other products, or should the customer use the product / device in contradiction to the manufacturer's instructions, guidelines or recommendations or in conjunction with unsuitable products / devices of other suppliers, the customer is aware of and agrees with all functionality limitations of such a product / device if any as well as with all consequences incurred as a result thereof. Using a product / device version other than the latest one or a version determined by the manufacturer as incompatible with certain versions of other products, or using the product / device in contradiction to the manufacturer's instructions, guidelines or recommendations or in conjunction with unsuitable products / devices of other suppliers, the customer agrees that the 2N TELEKOMUNIKACE a.s. company shall not be held liable for any functionality limitation of such a product or any damage, loss or injury related to this potential functionality limitation.

Please read this User Manual carefully before using the product and follow the instructions and recommendations included therein.

Any use of the product that is in contradiction with the instructions provided herein may result in malfunction, damage or destruction of the product.

The manufacturer shall not be liable and responsible for any damage incurred as a result of a use of the product other than that included herein, namely undue application and disobedience of the recommendations and warnings.

Any use or connection of the product other than those included herein shall be considered undue and the manufacturer shall not be liable for any consequences arisen as a result of such misconduct.

Moreover, the manufacturer shall not be liable for any damage or destruction of the product incurred as a result of misplacement, incompetent installation and/or undue operation and use of the product in contradiction herewith.

The manufacturer assumes no responsibility for any malfunction, damage or destruction of the product caused by incompetent replacement of parts or due to the use of reproduction parts or components.

The manufacturer shall not be liable and responsible for any loss or damage incurred as a result of a natural disaster or any other unfavorable natural condition.

The manufacturer shall not be held liable for any damage of the product arising during the shipping thereof.

The manufacturer shall not make any warrant with regard to data loss or damage.

The manufacturer shall not be liable and responsible for any direct or indirect damage incurred as a result of a use of the product in contradiction herewith or a failure of the product due to a use in contradiction herewith.

All applicable legal regulations concerning the product installation and use as well as provisions of technical standards on electric installations have to be obeyed. The manufacturer shall not be liable and responsible for damage or destruction of the product or damage incurred by the consumer in case the product is used and handled contrary to the said regulations and provisions.

The consumer shall, at its own expense, procure software protection of the product. The manufacturer shall not be held liable for any damage incurred as a result of the use of deficient security software.

The consumer shall, without delay, change the access password for the product after installation. The manufacturer shall not be held liable or responsible for any damage incurred in connection with the use of the original password.

The manufacturer also assumes no responsibility for additional costs incurred by the consumer as a result of making calls to increased tariff lines.

## **Electric Waste and Used Battery Pack Handling**



Do not place used electric devices and battery packs into municipal waste containers. An undue disposal thereof might impair the environment!

Deliver your expired household electric appliances and battery packs removed from them to dedicated dumpsites or containers or give them back to the dealer or manufacturer for environmental-friendly disposal. The dealer or manufacturer shall take the product back free of charge and without requiring another purchase. Make sure that the devices to be disposed of are complete.

Do not throw battery packs into fire. Battery packs may not be taken into parts or short-circuited either.

# 2N



**[wiki.2n.com](https://wiki.2n.com)**

2N Access Unit QR – User Manual

© 2N Telekomunikace a. s., 2024

**2N.com**