

2N Access Unit M

User manual

Firmware 2.43.x.x

Manuals for previous firmware versions can be found at https://wiki.2n.com/auml/inst/.



Table of Contents

Symbols and Terms Used	3
Product Description	4
Basic Features	4
Product Versions	5
Accessories	6
Accessories for Installation	6
Extenders	7
Power Supply	8
Other accessories	8
Package Completeness Check	
Package Completeness Check for Installation Accessories	13
Installation	14
Mechanical Installation	14
Installation Conditions	
Surface Installation	15
Surface installation on mounting backplate	17
Flush mounting	
Electric Installation	
Power Supply	24
Cabling Description	
Cable Connection	27
LAN Connection	27
Overvoltage Protection	29
Brief Guidelines	33
Device Configuration Interface Access	
Domain Name	
IP address	
Web Configuration Interface Login	
Configuration via Hardware	
Device Restart	
Factory Default Reset	
IP Address Retrieval	
IP Address Retrieval Using 2N Network Scanner	
Firmware Update	
Device Restart	
Restart Using RESET Button	
Restart Using Web Configuration Interface,	
Factory Default Reset	
Factory Default Reset	
Device Control	38
Signaling of Operational Statuses	
Maintenance - Cleaning	
•	
Troubleshooting	
Technical Parameters	41
Directives I aws and Regulations - General Instructions and Cautions	44

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 M** product, outline its application options and highlight the advantages following from its use.

Basic Features

2N Access Unit M is an elegant and reliable IP system equipped with a number of useful functions. **2N Access Unit M** is designed as a robust, mechanically resistant access system, which withstands any weather conditions without requiring additional accessories.

2N Access Unit M is a single-module access system available in several versions. All the versions include an integrated card reader module, which helps control access using an RFID card. With additional software settings, functions other than the door lock switch can be RFID card controlled too.

The **2N Access Unit M** keypad version helps you control the electric lock switch by entering a valid numeric code via the numeric keypad. With additional software settings, functions other than the door lock can be RFID card controlled too.

The **2N Access Unit M** Bluetooth version helps you control the lock switch using the **2N Mobile Key** application installed in your smartphone. 2N Access Unit M is designed as a robust,

The installation of **2N Access Unit M** is very easy. All you have to do is connect the system to your LAN via a mains cable. Feed the device from a 12 V power supply or your PoE supporting LAN.

Use a PC equipped with any internet browser to configure **2N Access Unit M**. extensive access system installations easily.

Advantages of Use 2N Access Unit M:

- · Elegant mullion design,
- · Cover rating,
- Variable installation options (flush mounting into brick/plasterboard walls, surface installation, door frame mounting),
- · Integrated electric lock switches with wide setting options,
- · Integrated RFID card reader module,
- Bluetooth module version or backlit touch keypad,
- Configuration using web interface,
- · HTTP server for API configuration,
- · SNTP client for server time synchronization,
- · SMTP client for e-mail sending,
- TFTP/HTTP client for automated configuration and firmware update,
- · LAN (PoE) or external 12 V power supply.

Product Versions



Part No. 9161121

Axis Part No. 02909-001

2N Access Unit M 13.56 MHz, NFC ready

Combining an access reader and a controller, the device is used for access control inside and outside of buildings.

The device is used for reading RFID cards in the 13.56 MHz bandwidth with the NFC support.

It is a 3m LAN cable version.

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. 9161141

Axis Part No. 02910-001

2N Access Unit M RFID - 125 kHz, 13.56 MHz, NFC

Combining an access reader and a controller, the device is used for access control inside and outside of buildings.

The device is used for reading RFID cards in the 125 kHz and 13.56 MHz bandwidths with the NFC support.

It is a 3m LAN cable version.

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. 9161151

Axis Part No. 02911-001

2N Access Unit M Bluetooth & RFID - 125 kHz, 13.56 MHz, NFC

Combining an access reader, a touch keypad and a controller, the device is used for access control inside and outside of buildings.

The device is used for reading RFID cards in the 125 kHz and 13.56 MHz bandwidths with the NFC support.

It is a 3m LAN cable version.

Supported RFID cards 125 kHz:

- EM4x02
- NXP HiTag2



Part No. 9161161

Axis Part No. 02912-001

2N Access Unit M Touch keypad & RFID - 125 kHz, 13.56 MHz, NFC

Combining an access reader, a touch keypad and a controller, the device is used for access control inside and outside of buildings.

The device is used for reading RFID cards in the 125 kHz and 13.56 MHz bandwidths with the NFC support.

It is a 3m LAN cable version.

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

Accessories

Accessories for Installation

2N Access Unit M is designed for door frame mounting both outdoors and indoors.

Choose the proper frame and, if necessary, a mounting box depending on your particular installation needs.

Product Description



Part No. 916121

Axis Part No. 02940-001

Flush Mounting Box

The flush mounting box is used for connection and storage of cables below the device.



Part No. 916122

Axis Part No. 02932-001

Mounting backplate

The wall mounting backplate is used for connection and storage of cables below the device.

Extenders



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.

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.



Part No. 9159052

Axis Part No. 01393-001

12 V / 1 A power supply for 2N Induction Loop

The external induction loop power supply has 230 V AC input voltage and 12 V DC output voltage.

Other accessories



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.

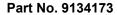


Part No. 9159012

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.



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.



Axis Part No. 01395-001

RFID chip card EM, 125 Hz

RFID chip card, type EM4100, 125 kHz.



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 theAccess 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 theAccess 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 DES-Fire with SIO, HID MIFARE Classic with SIO)

- Mobile Key
- 2N PICard

Part No. 9137410E



Axis Part No. 01397-001

External IP relay, 1 output

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



Part No. 9137411E

Axis Part No. 01398-001

External IP relay, 4 outputs, PoE

Stand-alone IP relay, which can be controlled from an 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. 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.

Package Completeness Check

Please check the product delivery before installation. Contents:

Product Description

1x	2N Access Unit M
1x	Certificate of ownership
1x	Quick Start manual
1x	Metal wall holder (screwed to the device)
2x	8 x 40 mm dowel
2x	4.5 x 40 mm flat head screw with washer
1x	M 3 x 8 mm stainless steel lens head screw for fitting device in holder (ISO 14583)
1x	T10 and T20 dual Torx key

Package Completeness Check for Installation Accessories

The flush mounting box package for 2N Access Unit M includes:

	Part No. 916121
2x	3.5 x 8 mm thread-forming lens head screw for plastic with integrated backplate (WN 1411)
1x	3 x 16 mm thread-forming lens head screw for plastic (WN 1412)

The backplate package for 2N Access Unit M includes:

Part No. 916122

2x 3.5 x 8 mm thread-forming lens head screw for plastic with integrated backplate (WN 1411)

Installation

Mechanical Installation

Installation Conditions

Make sure that the following 2N Access Unit M installation conditions are met.

- There must be enough space for the device installation.
- 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.
- Do not use low-quality dowels to avoid their falling out of the wall!
- · Make sure that the depths of the dowel holes are accurate!
- 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.
- 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.
- The device is not designed for environments with increased vibrations such as means of transport, machine rooms and so on.
- The device is not intended for dusty environments and places with unstable humidity and abrupt temperature changes.
- The device may not be exposed to aggressive gas, acid vapors, solvents, etc.
- The device is not intended for direct connection into the Internet/WAN. The device must be connected to the Internet/WAN via a separating active network element (switch/router).
- The device cannot be operated on places exposed to direct sunshine and near heat sources.
- Keep some free space above and below the device to allow air to flow and conduct heat away.
- · Avoid strong electromagnetic radiation on the installation site.
- Make sure that the VoIP connection is configured properly according to the SIP and other VoIP recommendations.

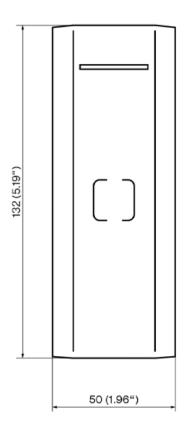


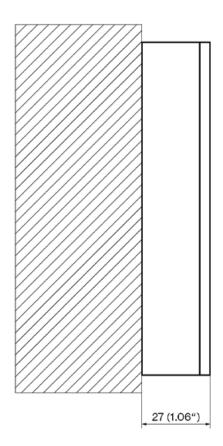
CAUTION

- 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!
- 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.
- Exceeding the allowed operating temperature may not affect the device immediately but leads to premature ageing and lower reliability. For the acceptable range of operating temperatures and relative humidity values refer to S. Technical Parameters.
- Any intentional mechanical damage to the device (drilling, main unit tampering, etc.) results in a loss of warranty.
- The device mounting and setting should only be performed by professionally qualified persons.

Surface Installation

2N Access Unit M is designed for surface mounting in its basic package without accessories (wall, plaster-board, door frames).





What you need for mounting:

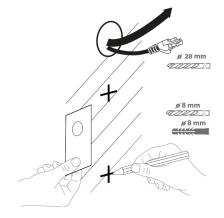
- 2N Access Unit M
- Metal wall holder (screwed to the device)



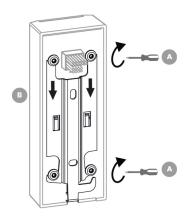
TIP

Download the drilling template from 2N.com.

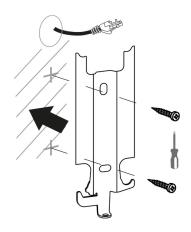
1.



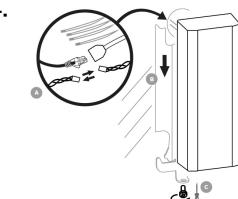
2.



3.



4.



- 1. Use the drilling template shown on the device box to prepare holes of the required sizes for cabling and dowels on the selected place in the required height. Feed the cables out of the pre-predrilled hole.
- 2. Pull the metal holder downwards to remove it from the device back side.



WARNING

Do not handle the screws on the device back side!

- 3. Then fit the holder through the dedicated holes using the screws enclosed.
- 4. Interconnect the accessible cables with the cabling 2N Access Unit M. Put the device carefully on the installed holder from above downwards and fix its position on the holder carrying elements by tightening the screw from the bottom through the holder hole.

Surface installation on mounting backplate

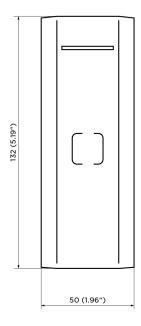
The mounting backplate is used for placing cables below the device **2N Access Unit M** during surface installation.

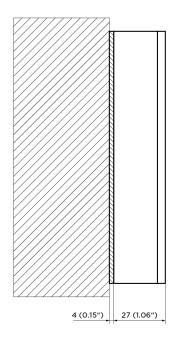


NOTE

Shortening the LAN cable in units Part No. **9161121**, **9161141**, **9161151** and **9161161** shall not render the warranty null and void.

Installation





What you need for mounting:

- 2N Access Unit M
- Mounting backplate (Part No. 916122)
- Metal wall holder (screwed to the device)



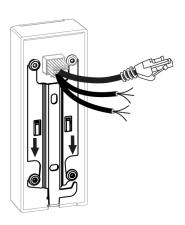
TIP

Download the drilling template from 2N.com.

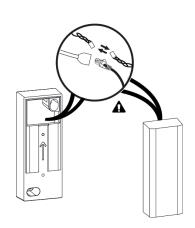
1.



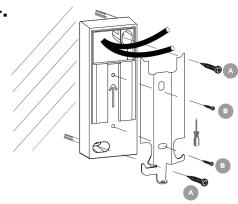
2.



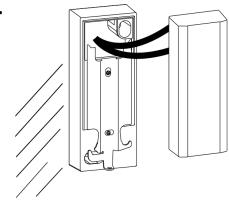
3.



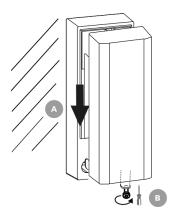
4.



5.



6.





WARNING

Do not handle the screws on the device back side!

1. Prepare dowel holes on a selected place and in a selected height using a drilling template shown on the package. Cut a cable installation hole in the backplate.

- 2. Pull the metal holder downwards on the device back side to remove it.
- **3.** Put the cables in the backplate and put the backplate against the wall. If you connect the device to installed cables, connect the wires.



WARNING

Insulate the wire joints with a shrink tube and glue to keep the cover rating as much as possible.

- **4.** Anchor the backplate to the base using screws and dowels. Screw the metal holder to the backplate.
- 5. Put the device on the backplate and insert the remaining cables carefully in the backplate.
- **6.** Insert the device on the holder by pulling it from top to bottom making sure that the holder stops drive under the screw heads on the device back side. When the device touches the holder carrying elements, fix the device position by tightening the screw through the holder hole from the bottom.

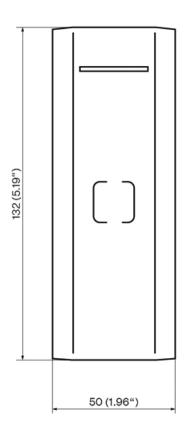
Flush mounting

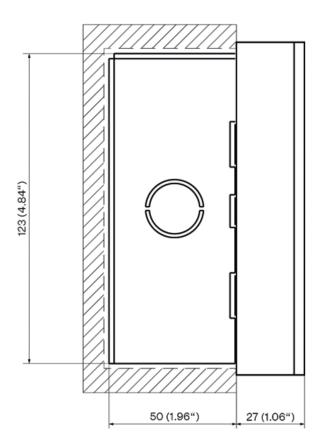
The flush mounting box allows you to place cables in the wall below 2N Access Unit M and mount the device.



NOTE

Shortening the LAN cable in units Part No. **9161121**, **9161141**, **9161151** and **9161161** shall not render the warranty null and void.





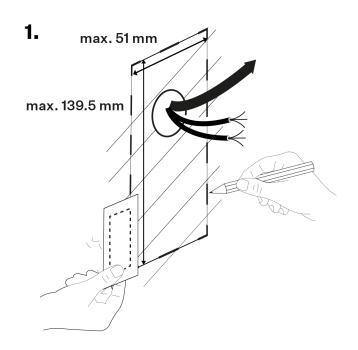
What you need for mounting:

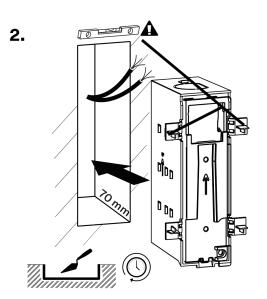
- 2N Access Unit M
- Flush mounting box (Part No. 916121)
- Metal wall holder (screwed to the device)



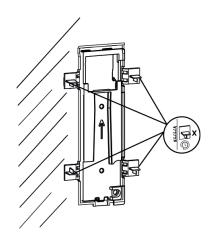
TIP

Download the drilling template from 2N.com.

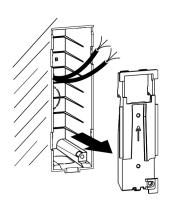




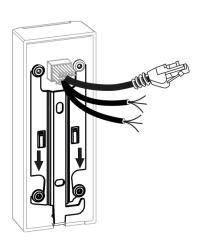
3.



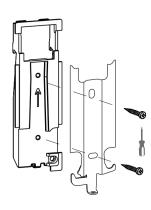
4.



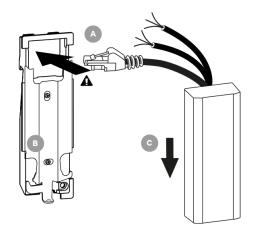
5.



6.



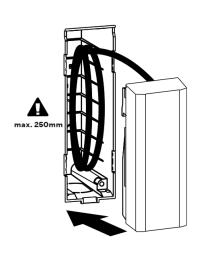
7.



8.



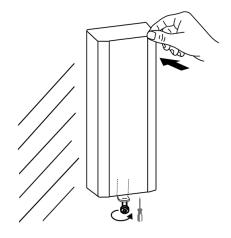
9.



10.



11.





WARNING

Do not handle the screws on the device back side!

- **1.** Make a hole of the size of 1300 (h) x 400 (w) x 650 (d) mm for the mounting box installation. Remove the box cover and the cable installation blank.
- 2. Replace the cover on the box to be used as a walling spacer. If the box location is convenient, wall the box in.
- 3. When the walling material has hardened, break off the side stops.



WARNING

Insulate the wire joints with a shrink tube and glue to keep the cover rating as much as possible!

- **4.** Remove the cover from the box.
- 5. Pull the metal holder downwards on the device back side to remove it.
- 6. Fit the holder to the box cover using the included screws.
- 7. Pull the cables leading from the device through the cover hole. Press the holder screwed to the cover to the device and move it upwards carefully to make the holder stops drive under the screw heads on the device back side.
- **8.** If you connect the device to accessible cables, hang the device on the cover with the cover hooks into the box bottom holes. Connect the wires.
- 9. Insert the wires in the box keeping in mind that the maximum cable length is 250 mm.
- **10.** Insert the cover with the device in the box. Pull the device carefully upwards to release it from the holder. Turn the device bottom part by approx. 30° to the left along the wall without moving it away from the wall. Tighten the screw into the hole on the right-hand bottom part of the box to anchor the box cover.
- **11.** Replace the device into the vertical position and put on the holder. When the device touches the holder carrying elements, fix the device position by tightening the screw through the holder hole from the bottom. Push the device upper part to fix the device in the final position.

Electric Installation

Power Supply

2N Access Unit M can be fed either directly from the LAN if equipped with PoE 802.3af supporting network elements or from an external $12 \text{ V} \pm 1 \text{ V} / 1 \text{ A DC}$ power supply.



CAUTION

Make sure that the external power supply meets the power supply class 2 (PS2/LPS) according to UL294, UL603 and UL2610.



WARNING

2N Access Unit M cannot be fed from an external power supply and PoE at the same time. A combined supply might result in a device damage.

PoE Supply

2N Access Unit M is compatible with the PoE 802.3af technology (Class 0, max.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 , between **2N Access Unit M** and the nearest network element. This power supply provides **2N Access Unit M** with 12 W for its own feeding .

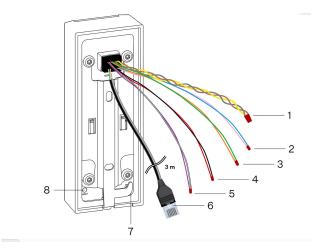
External Power Supply

Use a SELV supply 12 V \pm 1 V dimensioned to the current consumption required for feeding the device to make your device work reliably.

	Current consumption [A]		Available power output [W]
1		12	

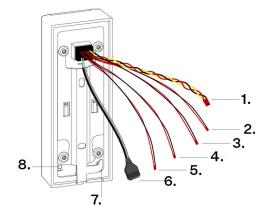
Cabling Description

Cable connection for Part Nos. 9161121, 9161141, 9161151, 9161161



The LAN cable is 3 m long and RJ-45 male terminated. All the other available cables are 35 cm long.

Cable connection for Part Nos. 916112, 916114, 916115, 916116



The LAN cable is RJ-45 female terminated. All the available cables are 35 cm long.

Installation

Legend to fig- ure	Component	Description
1	RELAY	Relay cable with a 30 V / 1 A AC/DC NO/NC contact. Used for connection of non-critical devices only (lights, e.g.).
2/3	Input 1/2	The terminals are used as inputs in the passive/active mode (-30 V to $+30 \text{ V}$ DC) for departure button, open door sensor, ESS etc. connection • OFF = open contact OR $U_{IN} > 1.5 \text{ V}$ • ON = closed contact OR $U_{IN} < 1.5 \text{ V}$
4	Ext. Power	For external power supply connection (12 V / 1 A).
5	Active output	An active output cable for the connection of the Security Relay or an electric lock: 8 to 12 V DC according to power supply (PoE: 10 V; adapter: power supply voltage minus 2 V), up to 600 mA.
6	LAN cable	For LAN connection (PoE 802.3af (Class 0, max. 12.95 W)).
7	Tamper Switch	A switch that helps detect the removal of a device from the holder installed.
8	RESET	RESET / FACTORY RESET button.

The table below includes the device cabling color marking. The colors are different for different device models:

Part No.	1	2	3	4	5
9161121, 9161141, 9161151, 9161161	yellow NO, brown NC, gray COM	pink "+", blue "–"	orange "+", green "-"	red "+", black "-"	white "+", violet "-"
916112, 916114, 916115, 916116	yellow NO, red NC, black COM	red "+", blad			



WARNING

The 12V output is used for lock connection. If the device is installed in a location where there is a danger of unauthorized access (building front, e.g.), we strongly recommend the use of the 2N Security Relay (9159010, 01386-001) to ensure the maximum installation security.



WARNING

If a coil containing device is connected, e.g. relays/electromagnetic locks, it is necessary to protect the device output against voltage peak while switching off the induction load. For this way of protection we recommend a 1 A / 1000 V diode (e.g., 1N4007, 1N5407, 1N5408) connected antiparallel to the device.



- 1. Terminals
- 2. Coil. e.g. relay or electromagnetic lock

Cable Connection

The **2N Access Unit M** signals are led out by insulated wires stripped 1 cm at the ends (this does not apply to the Ethernet cable with a connector). Choose any of the below mentioned methods to connect the wires:

- · by twisted pair,
- · using a terminal board,
- · by soldering,
- · screw connection,
- using WAGO terminals,
- · crimping using sockets.

LAN Connection

2N Access Unit M 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 (p. 29).
- · We recommend the use of a shielded SSTP Ethernet cable.

Power Consumption for Device Versions

	•			
State	Part Nos. 916112/9161121	Part Nos. 916114/9161141	Part Nos. 916115/9161151	Part Nos. 916116/9161161
	Axis Part No. 02393-001/02909-001	Axis Part No. 02394-001/02910-001	Axis Part No. 02395-001/02911-001	Axis Part No. 02396-001/02912-001
At re-	1.6 W	1.5 W	1.5 W	1.5 W
LED – white strip 100 %	0.12 W	0.12 W	0.12 W	0.12 W
LED – green strip 100 %	0.15 W	0.15 W	0.15 W	0.15 W
LED – red strip 100 %	0.20 W	0.20 W	0.20 W	0.20 W
LED – Blue- tooth 100 %	_	_	0.06 W	_
LED – key- pad back- light 100 %	_	_	_	0.15 W
Relay at stand- ard room tem- pera-	0.14 W	0.14 W	0.14 W	0.14 W

State	Part Nos. 916112/9161121 Axis Part No. 02393-001/02909-001	Part Nos. 916114/9161141 Axis Part No. 02394-001/02910-001	Part Nos. 916115/9161151 Axis Part No. 02395-001/02911-001	Part Nos. 916116/9161161 Axis Part No. 02396-001/02912-001
ture mode				
OUT1 at maxi- mum possi- ble load	6 W	6 W	6 W	6 W
Audio	0.7 W	0.7 W	0.7 W	0.7 W

Overvoltage Protection

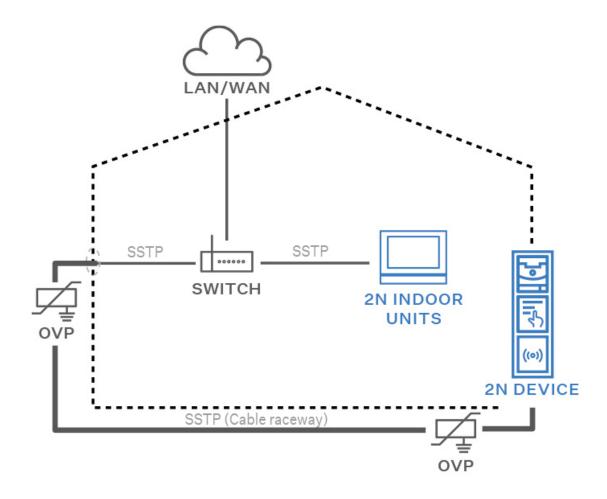
The 2N device cables have to be protected against atmospheric overvoltage caused by external causes (lightning, e.g.). A surge can damage a device installed outside/inside the building if the wires are unprotected.

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:

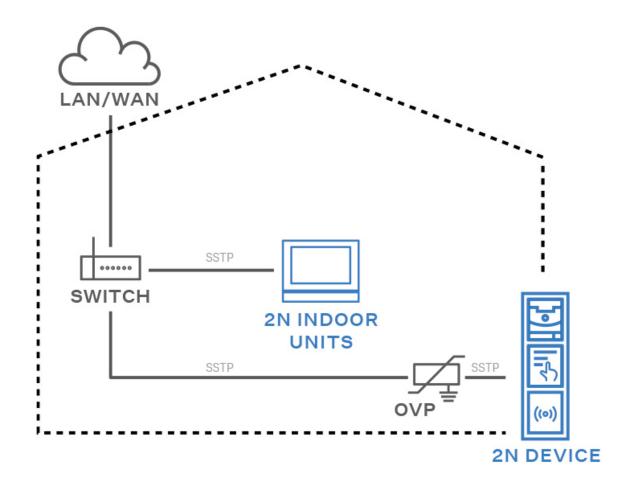
- Make sure that the overvoltage protector is installed as close as possible to the device installed outside the building.
- Make sure that the overvoltage protector is installed as close as possible to the device installed on an external part of the building.
- Make sure that the overvoltage protector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

Examples of Overvoltage Protection Installation

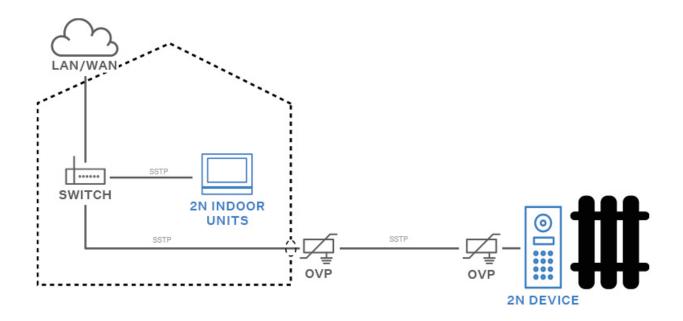
Overvoltage protection installation diagram for a device installed on the building facade and cables outside the building



Overvoltage protection installation diagram for a device installed on the building facade and cables inside the building



Overvoltage protection installation diagram for a device and cables installed outside the building



Brief Guidelines

- Device Configuration Interface Access (p. 33)
- Configuration via Hardware (p. 34)
- IP Address Retrieval (p. 34)
- Firmware Update (p. 36)
- Device Restart (p. 36)
- Factory Default Reset (p. 37)

Device Configuration Interface Access

2N Access Unit M is configured via the web configuration interface. You have to know the device IP address portal or the device domain name. Make sure that the device is connected to the local IP network and powered.

Domain Name

Enter the device domain name as "hostname.local" to connect to the device. The hostname of a new device consists of the device name and serial number. Enter the serial number into the domain name without dashes. Change the hostname anytime in System > Network.

Default domain name 2N Access Unit M: -{serial number without dashes}.local (e.g.: "-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 :

- · Use the freely accessible 2N Network Scanner.
- Use hardware (RESET button).

Web Configuration Interface Login

1. Fill in the 2N Access Unit M address or domain name into the internet browser.

The login screen is now displayed.

If the login screen is not displayed, check the IP address, port or domain name for validity. The login screen is not displayed if the web interface server is off. If no certificate has been generated for the IP address or domain name, a security certificate invalidity notification may appear. In that case, 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.

After login using the default password, the access to the web configuration interface functions is limited.



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.).

Configuration via Hardware

Where software configuration is unavailable, the basic settings can be made using the RESET button (for location see Subs.).

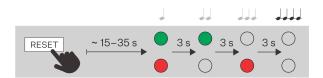
The RESET button helps you reset the factory default values, restart the device, retrieve the device IP address and switch the IP address static/dynamic mode.

Device Restart

Press the button shortly (< 1 s) to restart the system without changing configuration.

Factory Default Reset

- 1. Press and hold the RESET button.
- 2. Wait until the red and green LEDs go on simultaneously on the device and the acoustic signal can be heard (approx. 15–35 s).
- 3. Wait until the red LED goes off and the acoustic signal can be heard (approx. for another 3 s).
- 4. Wait until the green LED goes off and the red LED goes on again and the acoustic signal can be heard (approx. for another 3 s).
- 5. Wait until the red LED goes off and the acoustic signal can be heard (approx. for another 3 s).
- 6. Release the RESET button.



IP Address Retrieval

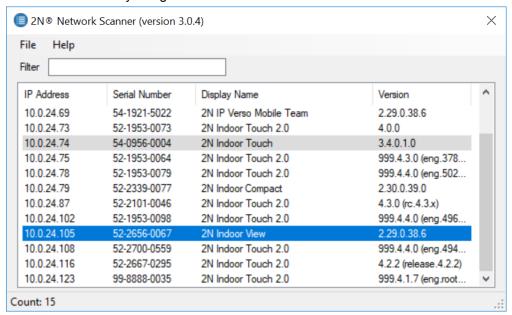
To retrieve the device IP address, take the following steps:

- Use the freely accessible 2N Network Scanner.
- Use hardware (RESET button).

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 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.



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



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

- Double click the selected row in the 2N Network Scanner list 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.



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 M** installation. Refer to **2N.com** for the latest FW version.

Update firmware via the web configuration interface in System > Maintenance, refer to the device Configuration Manual.

Once the firmware is uploaded successfully, the device is restarted automatically.



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 the RESET button,
- via the web configuration interface.



NOTE

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

Restart Using RESET Button

The RESET button helps you reset the factory default values, restart the device, retrieve the device IP address and switch the IP address static/dynamic mode. Press the button shortly (< 1 s) to restart the system without changing configuration.

Restart Using Web Configuration Interface,

You can restart the device via the web configuration interface. Refer to Web Configuration Interface Login (p. 33) for login details. Restart the device in System > Maintenance > System using Restart |.

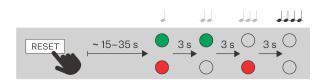
Factory Default Reset

Reset the device factory default values via software in System > Maintenance Default reset.

Follow the instructions below 2N Access Unit M to reset the factory default values via hardware:

Factory Default Reset

- 1. Press and hold the RESET button.
- 2. Wait until the red and green LEDs go on simultaneously on the device and the acoustic signal can be heard (approx. 15–35 s).
- 3. Wait until the red LED goes off and the acoustic signal can be heard (approx. for another 3 s).
- **4.** Wait until the green LED goes off and the red LED goes on again and the acoustic signal can be heard (approx. for another 3 s).
- 5. Wait until the red LED goes off and the acoustic signal can be heard (approx. for another 3 s).
- 6. Release the RESET button.





CAUTION

In case the factory default values are reset on the device with a firmware version 2.18 or higher, it is necessary to reprogram the 2N Security Relay using the instructions given in Security Relay.

Device Control

2N Access Unit M is a single-module access system available in several versions. All the versions include an integrated card reader module, which helps control access using an RFID card. With additional software settings, functions other than the door lock switch can be RFID card controlled too.

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,
- by entering a numeric access code via a keypad.

Signaling of Operational Statuses

The operational statuses **2N Access Unit M** are indicated by a light on the device front side. The light signal can be accompanied with an acoustic signal if set so. Refer to 5.3.3 Audio of the 2N Access Unit Configuration Manual for the setting options.

Operational Status Visual Indication	Operational Status Description
1 2 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	The white LED light indicates the power supply and operation states.
	The green LED light goes on whenever a valid PIN code in entered via the keypad or a valid RFID card is applied. Subsequently, the set switch is activated. A valid authentication is indicated by an acoustic signal if set so.
1 2 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	The red LED light goes on whenever an invalid PIN code is entered via the keypad or an invalid RFID card is applied. Subsequently, the set switch is not activated. An invalid authentication is indicated by an acoustic signal if set so.



TIP

Set the LED backlight level in Hardware > Backlight in the web configuration. Refer to Subs. 5.3.4 Backlight of the Configuration Manual for details.

Maintenance - Cleaning

2N Access Unit M contains no environmentally harmful components. Dispose of the device in accordance with the applicable legal regulations.

2N Access Unit M contains no environmentally harmful components. Dispose of the device in accordance with the applicable legal regulations.



CAUTION

Use the product for the purposes it was designed and manufactured for, in compliance herewith. The manufacturer reserves the right to modify the product in order to improve its qualities.

If used frequently, the device surface gets dirty. Use a piece of soft cloth moistened with clean water to clean the device. Use appropriate cleaning agents suitable for glasses, optical devices, screens, etc. We recommend that IT cleaning wipes are used.

- · Alcohol-based cleaners may not be applied.
- · Clean the device in dry weather in order to make waste water evaporate quickly.
- Do not use aggressive detergents (such as abrasives or strong disinfectants).
- Prevent water from getting inside the device.



TIP

To disinfect the surface of the device against bacteria and viruses (Anti-Covid) and maintain the hygienic conditions of critical surfaces and touch points, we recommend that you use the Zoono – Microbe Shield Surface Sanitiser spray.

Troubleshooting



Refer to faq.2n.com for the most frequently solved problems.

Technical Parameters

Power Supply Types:		
PoE	IEEE 802.3af (Class 0, max. 12.95 W)	
External supply	12 V ± 1 V / 1 A DC	



WARNING

2N Access Unit M cannot be fed from an external power supply and PoE at the same time. A combined supply might result in a device damage.

Audio		
Speaker	1 W / 8 Ω	

	Interface
LAN	10/100BASE-TX with Auto-MDIX, RJ-45 female (pigtail)
Recommended cabling	Cat-5e or higher
Supported protocols	DHCP opt. 66, SMTP, 802.1x, TFTP, HTTP, HTTPS, Syslog
Passive switch (relay)	make and break contact (NO/NC), up to 30 V / 1 A AC/DC
Active switch output	 9.8 to 13.8 V DC according to power supply, up to 600 mA PoE: 10 V adapter: source voltage –2 V

Tamper Switch

(part of the 2N Access Unit M main unit)

Inputs

Can be used in passive or active mode (-30 V to +30 V DC)

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

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 dBμA/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 dBµA/m

Bluetooth		
Bluetooth	in compliance with BLE (Bluetooth Low Energy)	
RX sensitivity	up to -98.9 dBm per 1 Mbps	
Support of mobile applications	Android 6.0 Marshmallow and higher, iOS 12.0 and higher	

Technical Parameters

Mechanical Parameters			
Cover	Robust ASA/PC construction material, which is also used for such car parts as lateral mirrors, radiator masks, etc. + chemically hardened 3 mm thick glass		
Dimensions (w x h x d)	132 x 50 x 27 mm		
Weight	460 g		
Operating temperature	−40 °C to 60 °C		
Relative humidity	10 to 95 % (non-condensing)		
Storing temperature	−40 °C to 70 °C		
Recommended altitude	0 to 2000 m		
Protection class	IP55		
Resistance level	IK07		

Directives, Laws and Regulations - General Instructions and Cautions

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

- 2014/53/EU for radio equipment
- 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment
- 2012/19/EU on waste electrical and electronic equipment

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/ 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.

Requirements for compliance with UL 294

This section contains information and instructions required for UL compliance. To make sure the installation is UL compliant, follow the instructions below in addition to the general information and instructions provided throughout this document. In cases where pieces of information contradict each other, the requirements for UL compliance always replace general information and instructions.

Performance levels for access control:

This section contains performance level information required for UL 294 compliance.

	Feature	Level
Destructive attack test		I
Security		I
Endurance		IV
Standby power		<u> </u>

Safety instructions:

- Shall be installed in accordance with Article 725.121 of the National Electrical Code, ANSI/NFPA 70.
- The 2N product shall be installed and serviced by a factory trained professional.
- All interconnecting devices shall be UL listed and Class 2 low-voltage power limited.
- · All power outputs are Class 2 outputs.
- All wiring methods shall be performed in accordance with ANSI/NFPA70, local codes and authorities having jurisdiction.
- The wiring of the door relay is limited only inside of the protected area.
- When the 2N product has reached the end of its useful life, dispose of it according to local laws and regulations. The product should not be disposed of together with household or commercial waste.

Specifications:

Operating conditions:

UL 294 -40 °C to +60 °C

Humidity: 10 - 95 % RH

(non-condensing)

- Wiring requirements:
 - UL listed or R/C AWM wires that have conductor range of AWG 24-14 shall be used for installation wiring.
 - UL listed or UL recognized connection terminals shall be used for connection of pigtail wires to the installation wiring. The terminal shall allow connection of AWG 24 wires (pigtail) and gauge of installation wiring.
 - The minimum conductor gauge for connection between the power sourcing equipment (PSE) or power injector and the powered device (PD) is 26 AWG.
 - Minimum PoE category 5e, shielded cable, required for PoE.
- · Connectors:
 - Power Sources For UL security applications, when ext. power supply is used the product shall be powered by a UL 294 or UL 603 listed Class 2 low-voltage power SELV and limited power supply with appropriate ratings.
 - External power to relays If the relays are connected to an external power source this must be UL 294 listed Class 2 low-voltage power SELV and limited power supply.
 - Network Connector Standard Ethernet wiring. Evaluated by UL when powered from. The 2N product
 was tested with the injector Axis 30 W MIDSPAN P/N: 02172-002. The midspan power injector can
 be located at any point within the defined structured cabling channel compliant to the Standard for
 Balanced Twisted-Pair Telecommunications Cabling and Components, ANSI/TIA-568-C.2, between the
 network switch and the powered device (PD).
- System considerations:
 - Monitoring software was not evaluated by UL, and is for supplemental use.
- Further information:
 - Card formats verified by UL: ISO 14443A, ISO 14443B, ISO 15693, ISO 18092
- Firmware version:
 - 2.x.x.x
- · Power in:
 - Ext. power source 12 V ± 1 V, max. 1 A DC
 - Power over Ethernet (PoE) IEEE 802.3af (Class 0, max. 12.95 W)
- Power out:
 - Active switch output 12 V DC, max. 600 mA
- I/O interface I/O functionality:
 - 2 Inputs:
 - In active mode short-circuited = ON, open = OFF
 - In passive mode external voltage in range of -30 V DC to +30 V DC may be applied, $U_{IN} < 1.5$ V = ON, $U_{IN} > 1.5$ = OFF
 - Relay:
 - 1x form C relay, NO/NC, max. 1 A, max. 30 V AC/DC
- Installation cable requirements:
 - Ext. power: AWG 20-16, qualified for up to 3 m (10 ft)
 - Active switch output: AWG 20-16, qualified for up to 3 m (10 ft)
 - Relay: AWG 20-16, qualified for up to 3 m (10 ft)
 - Inputs: AWG 20-16, qualified for up to 3 m (10 ft)
 - Ethernet and PoE: STP CAT 5e or higher, qualified for up to 100 m (328 ft)

Safety instructions



WARNING

The 2N product shall be installed by a trained professional, and in compliance with local laws and regulations.



NOTE

The 2N product shall be used in compliance with local laws and regulations.

- 2N Telekomunikace recommends using a shielded network cable (STP).
- To use the 2N product outdoors, or in similar environments, it shall be installed in an approved outdoor housing.
- Store the 2N product in a dry and ventilated environment.
- Avoid exposing the 2N product to shocks or heavy pressure.
- · Avoid exposing the 2N product to vibration.
- Install the product using screws and plugs appropriate for the material (e.g. wood, metal, sheet rock, stone).
- Do not install the product on unstable poles, brackets, surfaces or walls.
- Do not install the product on vibrating poles, brackets, surfaces or walls.
- Use only applicable tools when installing the 2N product. Using excessive force with power tools could cause damage to the product.
- · Do not use chemicals, caustic agents, or aerosol cleaners.
- Use a clean cloth dampened with pure water for cleaning.
- Use only accessories that comply with the technical specification of your product. These can be provided by 2N or a third party.
- Use only spare parts provided by or recommended by 2N.
- Do not attempt to repair the product yourself. Contact 2N support or your 2N reseller for service matters.
- The power supply shall be plugged in to a socket outlet installed near the product and shall be easily accessible.



NOTE

Transportation

Keep the protective packaging. When transporting the 2N product, the protective packaging shall be replaced in its original position. When transporting the 2N product, use the original packaging or equivalent to prevent damage to the product.

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.

Legislation of Thailand

เครื่องโทรคมนาคมและอุปกรณ์นี้มี ความสอดคล้องตามมาตรฐานหรือข้อ กำหนดทางเทคนิคของ กสทช.



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





Legislation of Japan

本製品は、特定無線設備の技術基準適合証明 を受けています。

この装置は、クラス B 機器です。この装置は、住宅環境で使用することを目的としていますが、この装置が ラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。 取扱説明 書に従って正しい取り扱いをして下さい。VCCI – B

本製品は、シールドネットワークケーブル(STP)を使用して接続してください。また適切に接地してください。

本製品は電気通信事業者(移動通信会社、固定通信会社、インターネットプロバイダ等)の通信回線(公衆 無線 LAN を含む)に直接接続することができません。本製品をインターネットに接続する場合は、必ずル ータ等を経由し接続してください。

20



wiki.2n.com

2N Access Unit M – User manual © 2N Telekomunikace a. s., 2024

2N.com