



2N[®] Helios IP Uni

Door Access Intercom



Brief Installation Manual

Version: 1.0.0

www.2n.cz

1.1 Before You Start

Product Completeness Check

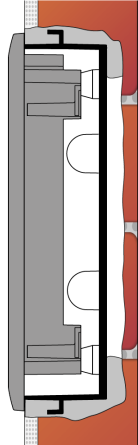
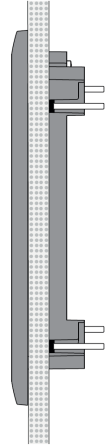
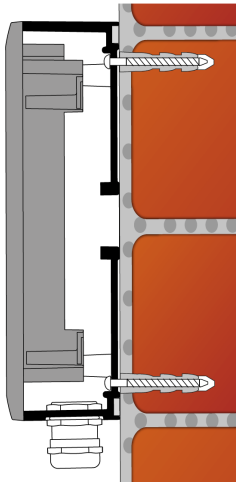
Please check the contents of your 2N[®] Helios IP Uni delivery:

- 1 2N[®] Helios IP Uni (selected model)
- 1 Torx 10 / Torx 20 double-ended wrench
- 1 2N[®] Helios IP Uni Installation Manual
- 1 mounting template
- 1 CD
- 1 A5 transparent name plate foil
- 1 spare name plate
- 1 brick flush mounting box
- 4 4x12 stainless steel, torx screws for plastics
- 2 cable ties

1.2 Mechanical Installation

Mounting Type Overview

Refer to the table below for a list of mounting types and necessary components.

| | |
|---|---|
| <p>Flush mounting – classic bricks (also hollow bricks, thermally insulated walls, etc.)</p> <p>What you need: A properly cut hole Plaster, mounting glue, mounting foam or mortar as necessary</p> |  |
| <p>Flush mounting – plasterboard</p> <p>What you need: Just a properly cut hole</p> |  |
| <p>Wall mounting (concrete and steel structures, entry barrier columns, etc.)</p> <p>What you need: Wall mounting box Part No. 9153003</p> |  |

**Caution**

- The warranty does not apply to the product defects and failures arisen as a result of improper mounting (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. 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 mounting instructions are not met, water might get in and destroy the electronics. It is because the intercom circuits are under continuous voltage and water infiltration causes an electro-chemical reaction. The manufacturer's warranty shall be void for products damaged in this way!

Common Mounting Principles

**Tip**

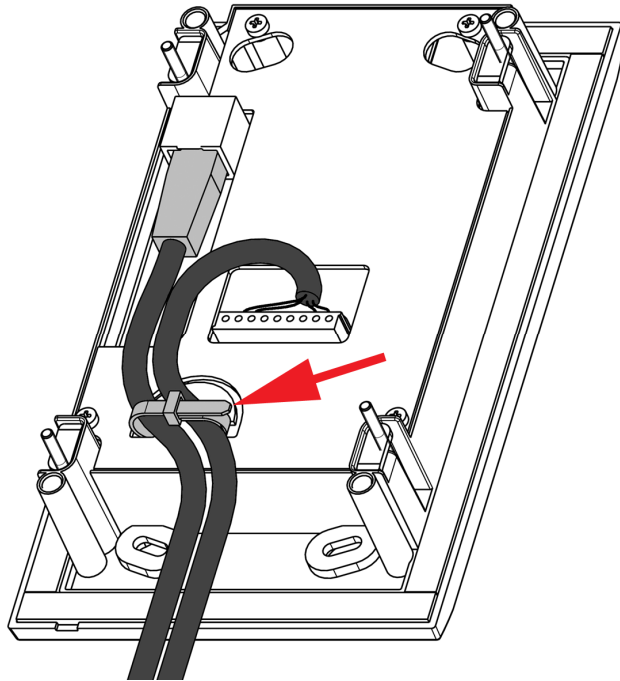
- Select flush mounting where possible to make your product elegant looking, more vandal resistant and more secure.

**Caution**

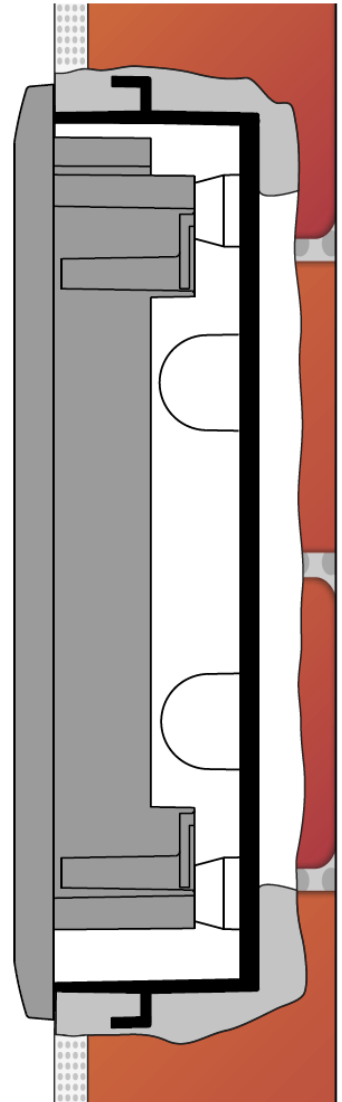
- Stainless steel screws are used for the 2N[®] Helios IP Uni assembly. Other screws than stainless steel ones corrode soon and may aesthetically deteriorate the surrounding environment!
- Having removed the front panel, make sure that no dirt gets inside the product (especially onto the sealing surface).

Flush Mounting – Classic Bricks

1. Cut a wall hole using the template enclosed. Make sure that all the required cables are available in the hole.
2. Unpack the plastic mounting box. Break out the cable holes as necessary and make sure that the wall hole is big enough for the box.
3. Wall up the mounting box making sure that the box is aligned with the wall surface. Wait until the plaster (mortar, mounting foam, etc.) sets.
4. Unscrew the front panel from the door intercom.
5. Connect the cables to the terminals or RJ connector as described in the **Electric Connection** subsection.
6. You can use the cable tie for connection as shown:



Suggested cable fixation



Mounting completion – after electric installation!

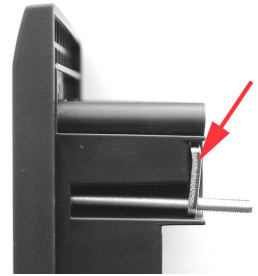
7. Insert the intercom in the mounting box in the wall.
8. Tighten the intercom with the stainless steel screws included in the delivery. As the screw holes are oval, you can perfect the vertical position before tightening.
9. We do not recommend you to insert the button tags now.
10. Replace the stainless steel front panel fixing it with the stainless steel screws you unscrewed in step 4 above.

Flush Mounting – Plasterboard



Tip

- If this is your first plasterboard installation, check the function of the intercom side clamps. Loosen and then re-tighten the clamp screw to see how it turns automatically and starts moving forwards in its slot. Remember to return the clamp into the original position after the check!



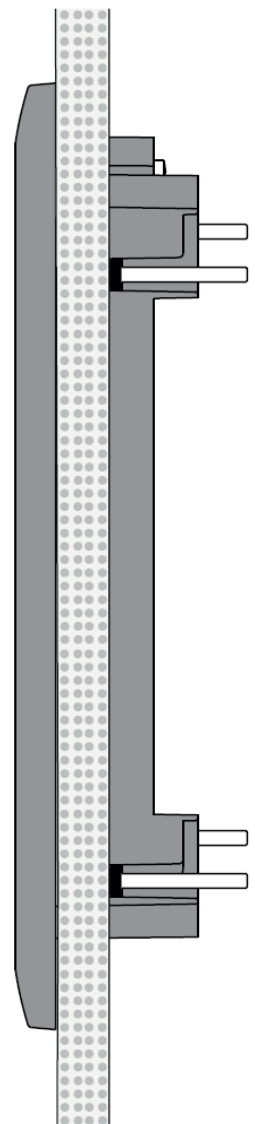
Caution

- Check the plasterboard wall and room interior pressure values (caused, e.g., by overpressure ventilation). If the difference between the values is too great, separate the intercom using, for example, the mounting box enclosed and seal the cable passage to avoid loudspeaker damage.

1. Cut a hole using the template enclosed (165 x 95 mm).
2. Unscrew the front panel from the door intercom.
3. Connect the cables in the hole to the terminals or RJ connector as described in the **Electric Connection** subsection.
4. You can use the cable tie for connection as shown on previous page.

Mounting completion – after electric installation!

5. Insert the intercom in the hole keeping it in the vertical position.
6. Loosen the four clamp screws one after another and then retighten them slowly. They will turn aside automatically and start moving forwards in their slots. You need about **10 turns** to tighten the clamps completely. You can perfect the vertical position before final tightening of the screws.
7. We do not recommend you to insert the button tags now.
8. Replace the stainless steel front panel fixing it with the stainless steel screws you unscrewed in step 2.



Wall Mounting

Use the wall (surface) mounting box, part No. **9153003**, and follow the instructions enclosed.

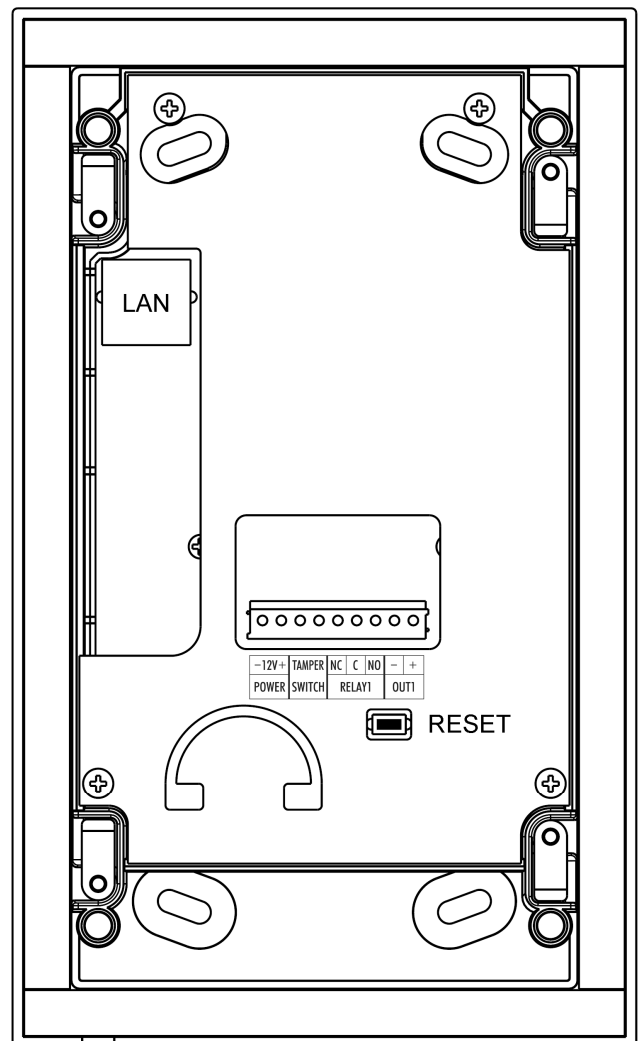
1.3 Electric Installation

This subsection describes how to connect 2N[®] Helios IP Uni into your Local Area Network (LAN) and how to connect supply voltage and the electric lock.

PCB Connectors

Description of Connectors

| | |
|--------|----------------------------|
| LAN | LAN connector |
| OUT1 | 12V/700 mA switched output |
| RELAY1 | Relay NO/NC contacts |
| TAMPER | Tamper switch |
| POWER | 12V/1A DC power input |
| RESET | RESET button |



LAN Connection

2N[®] Helios IP Uni is connected to the LAN via a RJ-45 terminated (connector X11) UTP/STP cable (of category Cat 5e or higher). The system is equipped with the Auto-MDIX function and so both the straight and crossed cable versions can be used

External Power Supply Connection

2N[®] Helios IP Uni can be fed either from an external 12V/1A DC power supply or from the LAN equipped with the PoE 802.3af supporting network elements.

External Power Supply

An external 12V power supply is connected to terminal block X19. Use a 12V +- 15% DC power source dimensioned to current intake of 1A at least (Part No. 91341481E) to ensure a reliable function of your device.

PoE Supply

2N[®] Helios IP Uni is compatible with the PoE 802.3af (Class 0 – 12.95W) technology and can be supplied directly from the LAN via compatible network elements. If your LAN is incompatible, insert the PoE injector, Part No. 91758100E, between 2N[®] Helios IP Uni and the nearest network element.

Electric Lock Connection

2N[®] Helios IP Uni is equipped with an electrically isolated relay switch with NO and NC contacts (terminal block X17) and 12V/700mA switched output (terminal block X18), to which a standard electric lock or another compatible electrical appliance can be connected.

Device Resetting

2N[®] Helios IP Uni is equipped with a RESET button. Push the button for more than 10s to reset the factory default values, deleting all the data stored in the device. Push the button shortly (< 1s) to restart the device without changing its configuration.

1.4 Button Tags – Insertion and Replacement

Tag Printing

1. Every name plate includes a piece of foil, which can be written over manually, using a waterproof permanent marker.



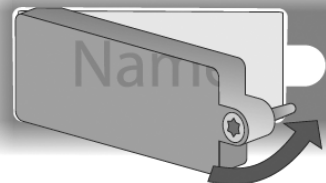
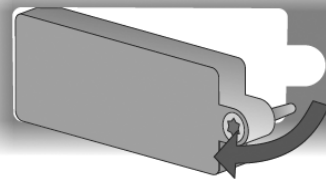
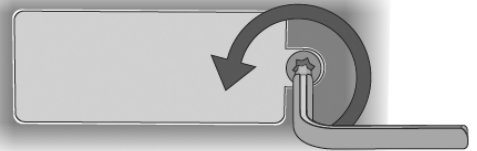
Note

- Always use waterproof foil (enclosed or other) for the tags. Never use paper or ink jet printing to avoid damage due to water leakage!

Tag Inserting / Replacing

2N[®] Helios IP Uni provides an intuitive, easy access to the name plates. The tags are easy to insert and replace even without a manual. You need not remove the front panel and thus are not exposed to the risk of loss of components while replacing the tags.

1. Loosen the name plate screw using the wrench enclosed, for example. You can open the name plate window like a door without losing the tightened screw.
2. Remove the used or blank name tag and insert a new tag.
3. Close the name plate window and tighten the screw appropriately.
4. Check the click effect of the buttons: if the button fails to click properly when pressed (when moved by approx. 0.5 mm), the tag is too thick or thin. Make sure that the button clicks when you press it on either end.



1.5 2N® Helios IP Uni Configuration

2N® Helios IP Uni Use a PC equipped with any web browser to configure:



- Launch your web browser (Internet Explorer, Firefox, etc.).
- Enter the IP address of your intercom (<http://192.168.1.100/>, e.g.).
- Log in using the **Admin** user name and **2n** password.

You have to know the IP address of your device to log in to the integrated web server. By default, 2N® Helios IP Uni is switched into the dynamic IP address mode, i.e. it obtains the IP address automatically if a properly set DHCP server is available in your LAN. If no such DHCP server is available, you can operate 2N® Helios IP Uni in the static IP address mode. Refer to the **2N® Helios IP Configuration Manual** for configuration details.

If your device remains inaccessible (you have forgotten the IP address, or the LAN configuration has changed, for example), change the LAN settings using the buttons on the device.

Static/Dynamic Address Setting Mode Switching

In case your 2N® Helios IP Uni device is equipped with 1 or 2 buttons, you can switch the modes using one button only.

- Connect 2N® Helios IP Uni to the power supply (or, disconnect and reconnect it if already connected).
- Wait for the first acoustic signal .
- Press button 1 fifteen times.
- The acoustic signal  indicates mode switching.
- Wait until the device is restarted automatically.

Note: The 15-times-1 sequence must be entered within 30 seconds after the first sound signal for security reasons. The inter-digit delay may be 2s at most

The static IP address mode will be switched into the dynamic IP address mode and vice versa upon restart.

1.6 Maintenance

Cleaning

If used frequently, 2N® Helios IP Uni gets dirty. To clean it, use a piece of soft cloth moistened with clean water. We recommend you to obey the following principles while cleaning:

- Never use aggressive detergents (such as abrasives or strong disinfectants).
- Alcohol-based cleaners may be applied.
- Clean the device in dry weather in order to make waste water evaporate quickly.

Future Tag Replacement, Programming Changes

For necessary steps refer to the preceding subsections. Keep the following for future changes:

- This manual
- Unused transparent foil strips for button tags

Always use the product for the purpose it was designed and manufactured for, in compliance herewith.

The manufacturer reserves the right to modify the product in order to improve its qualities.

2N® **Helios** contains no environmentally harmful components. When the product's service life is exhausted and you would like to dispose of it please do so in accordance with applicable legal regulations.

1.7 Technical Parameters

| | |
|------------------------------|---|
| Signalling protocol | SIP (UDP) |
| Buttons | |
| Button design | Transparent, white backlit buttons with easily replaceable name tags |
| Button count | 1 or 2 |
| Audio | |
| Microphone | 1 integrated microphone |
| Amplifier | 1W (class D) |
| Loudspeaker | 1W |
| Volume control | Adjustable with automatic adaptive mode |
| Full duplex | Yes (AEC) |
| Audio stream | |
| Protocols | RTP/RTSP |
| Codecs | G.711 |
| Interfaces | |
| Power supply | 12V+-15%/1A DC or PoE |
| PoE | PoE 802.3af (Class 0 - 12.95W) |
| LAN | 10/100BASE-TX s Auto-MDIX, RJ-45 |
| Recommended cabling | Cat-5e or higher |
| Passive switch | NO and NC contacts, up to 30V/1A AC/DC |
| Active switch output | 12V/700mA DC |
| Mechanical properties | |
| Cover | ABS plastic, high-quality stainless steel |
| Working temperature | -40°C to 55°C |
| Working relative humidity | 10% to 95% (non-condensing) |
| Storing temperature | -40°C to 70°C |
| Dimensions | 193 x 115 x 39 mm 197 x 119 x 47 mm with flush mounting box 193 x 115 x 57 mm for wall mounting |
| Weight | Product net weight..... 500 g Mounting box 135 g Total weight incl. package ... 800 g |
| Covering level | IP54 |



2N TELEKOMUNIKACE a.s.

Modřanská 621, 143 01 Prague 4, Czech Republic

Tel.: +420 261 301 500, Fax: +420 261 301 599

E-mail: sales@2n.cz

Web: www.2n.cz

DR1815v1.0