

Nokia HAIP Locator LD-7L

Installation Guide and Safety Information



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For your safety

Read these simple guidelines. Not following them may be dangerous or illegal.
Read the complete installation guide for further information.



SWITCH ON SAFETY

Do not switch the device on when the use of wireless devices is prohibited or when it may cause interference or danger



INTERFERENCE

All wireless devices may be susceptible to interference, which could affect performance



QUALIFIED SERVICE

Only qualified personnel may install, configure, or repair this product



ACCESSORIES

Use only approved accessories. Do not connect incompatible products

When connecting to any other device, read its user guide for detailed safety instructions. Do not connect incompatible products.

1. Introduction

Nokia HAIP Locator LD-7L is part of the Nokia HAIP system. Other parts of the HAIP system are HAIP Tag LD-6T and HAIP Positioning Software. The HAIP system allows you to locate and track any objects equipped with HAIP tags in indoor or outdoor environment equipped with HAIP locators.

Read this guide carefully before having the locator professionally installed. This product may contain small parts. Keep them out of reach of small children.

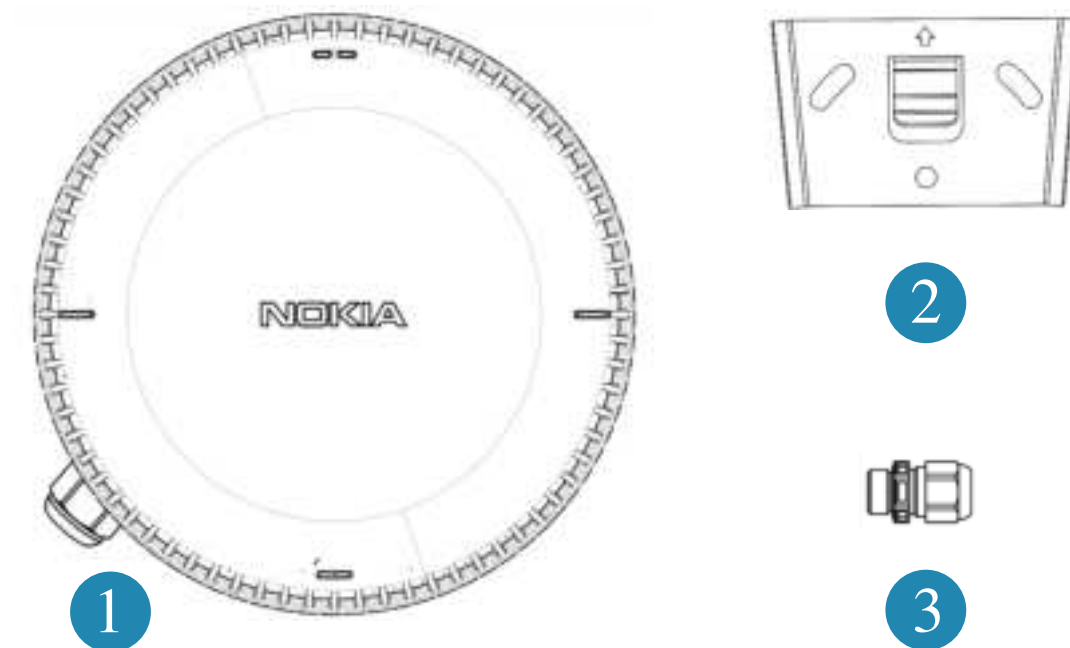
About this document

Main features and first use of the locator are described in “Get started” chapter. Installation is described in the “Installation” chapter. The locator should only be installed by a qualified service technician using the original Nokia parts supplied in the sales package.

2. Get started

■ Parts

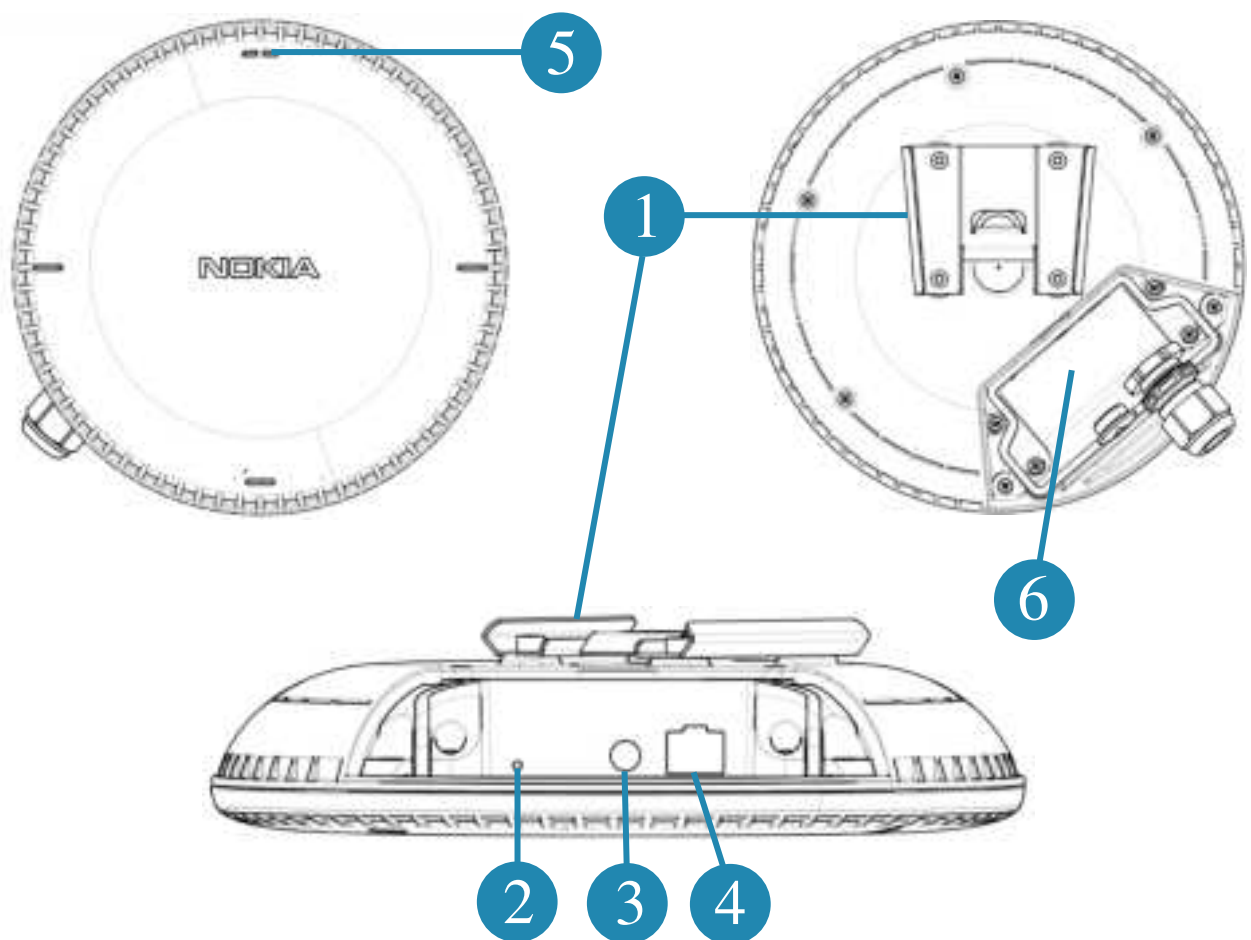
The locator contains the following parts:



1. Locator main unit
2. Locator mounting bracket
3. Cable gland for Aux. 12 V input (optional)

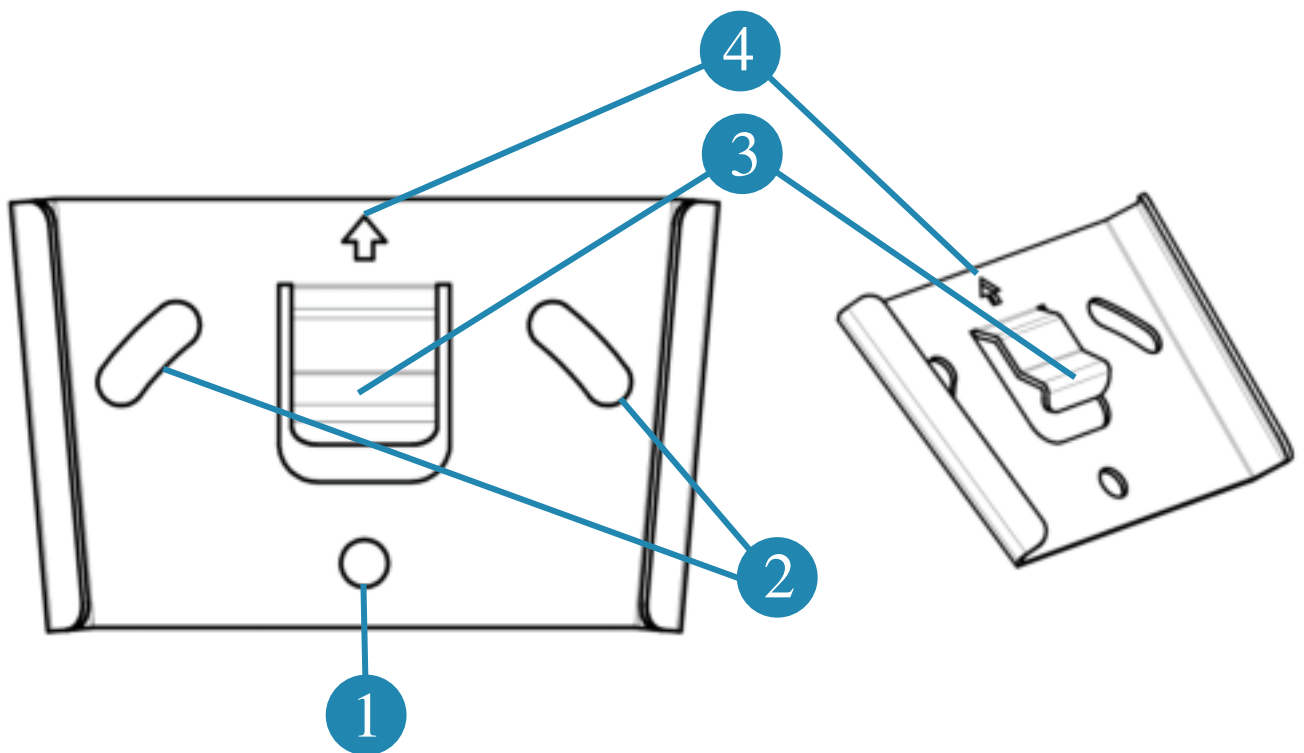
In addition, the sales package may include also other parts, such as screws for the mounting bracket.

■ Locator main unit



1. Bracket / The mounting points are 50 x 50 VESA compatible /
2. Reset button
3. 12V DC connector
4. Ethernet connector
5. Indicator lights
6. Watertight hatch with cable glands

■ Mounting bracket



1. Hole for ceiling/wall mounting screw
2. Holes for fine tuning of the mounting frame
3. Safety lock
4. Orientation indicator

■ Connect to power supply

Option 1: Use Power over Ethernet (PoE)

The locator supports the use of standard PoE (Power over Ethernet) Power Sourcing Equipment (PSE), e.g. PoE switch or power injector, as its power source. Only use standard certified PoE devices.

When using PoE, a separate DC power supply is not required.

Option 2: Use separate 12V DC power supply

If you are not using PoE Power Sourcing Equipment, connect the locator to an approved DC power supply using the DC connector. Only use compatible power supplies. Contact Nokia in case of any uncertainty regarding compatible power supplies.

When the power supply is connected, the locator automatically switches on. The blue indicator light flashes once, after which the red indicator light turns constantly on, until the locator is connected to the HAIP network.

■ Connect to HAIP network

Connect the locator to the HAIP network with Ethernet CAT5 or CAT6 cable using the RJ-45 Ethernet socket. For your safety and to prevent any damage to the locator, only connect the locator to standard certified network components.

In case if the locator is powered by PoE, the length of the Ethernet cable between the PoE switch and the locator must not exceed 100 meters.

The red indicator light is blinking when the locator is properly connected to the HAIP network but not yet configured by the HAIP system.

The blue indicator light is on when the locator is active and able to locate HAIP tags.

■ Reset factory settings

To restore the factory settings, press the reset button with a sharp needle while connecting to the power supply and keep it pressed for approximately five

seconds until the red indicator light stops flashing. After that the locator switches on with the default factory settings.

4. Installation

Safety information

Observe the following safety guidelines when installing the locator.

- Only a qualified service technician should install or service the locator using the approved original Nokia parts supplied in the sales package. Faulty installation or service may be dangerous and may invalidate any warranty which may apply to the locator.
End users should remember that the locator comprises of complex technical equipment that requires professional installation using special tools and expert know-how.
- Instructions given in this guide are general guidelines that apply to the installation of the locator. However, due to the wide variety of indoor and outdoor environments and mounting surfaces, this guide cannot take into consideration the individual technical requirements relevant for any particular installation. Consult Nokia in case you are uncertain about installation in a specific environment.
- The locator is designed to operate either with a compatible 12V DC power supply, or by using a standard PoE (Power over Ethernet) Power Sourcing Equipment connected at the Ethernet socket.
- For your safety, and to prevent any damage to the locator, only use a compatible power supply. Contact Nokia in case of any uncertainty regarding compatible power supplies. When using a PoE Power Sourcing Equipment as a power source, only use standard certified equipment.
- The locator has built-in protection for overvoltage, but a connection with wrong polarity might damage the unit.
- When installing the locator, make sure the installation surface can safely hold the weight of the locator.
- Your service technician or dealer may be able to provide you with information on alternatives for mounting the equipment suitably in different types of environments.
- Do not smoke when installing the equipment. Make sure there is no source of fire or flame nearby.

- Make sure cables are placed so that they will not be subject to mechanical wear and tear.

Install the locator

This section describes how to install the locator onto a ceiling or wall of an indoor environment or to an outdoor supporting structure deemed to fit for this purpose. The parts are described in “Parts”, p.5.

The locator can be installed onto any flat surface with an area at least equal to the size of the mounting bracket.

The installation begins with the installation of the mounting bracket.

Attach the mounting bracket to the ceiling/wall

- Use a drill and a 5 mm (1/5-inch) drill bit to drill three 30 mm (1.18 inch) deep holes where you want to mount it on the ceiling/wall, one hole for mounting and two holes for fine adjustment. in the middle of the slots. Be aware that the hole indicated as 1 in the drawing of the metal bracket will correspond to the center of the locator, and must be identified according to the locators’ network plan provided by Nokia.
- Insert plastic expansion tabs (5*30 mm) into the three newly drilled holes.
- Insert three screws (3*50 mm) into the holes of the expansion tabs.
- Mount the support bracket on the ceiling/wall and adjust its position if necessary.

The orientation indicator in the mounting bracket may be used to align the locator according to a defined orientation in the environment. In some installations it may be useful to align all locators similarly.

For alternative mounting, after removing the Locator bracket, 50 x 50 VESA compatible mounting points are obtained.

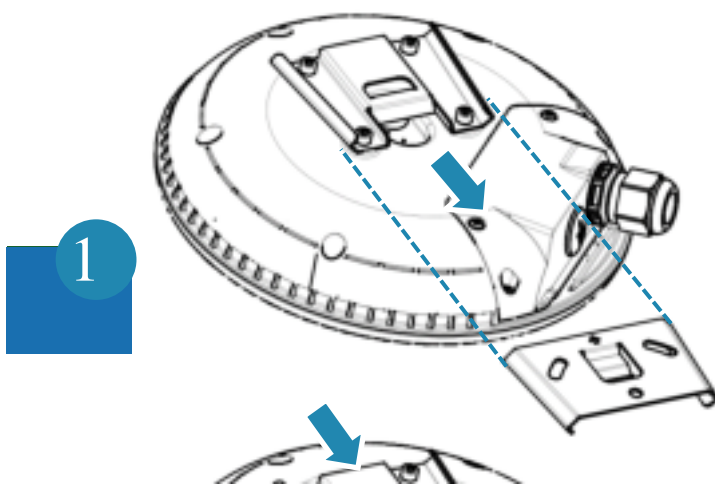


WARNING: Never attach, mount, or connect the mounting bracket to hot surfaces. Always make sure that the surface can hold the weight of the locator before installation.

Not following general safety regulation can cause damage to objects or injuries to people. Rely on qualified personnel for carrying out the installation of HAIP locators.

Install the locator to the mounting bracket

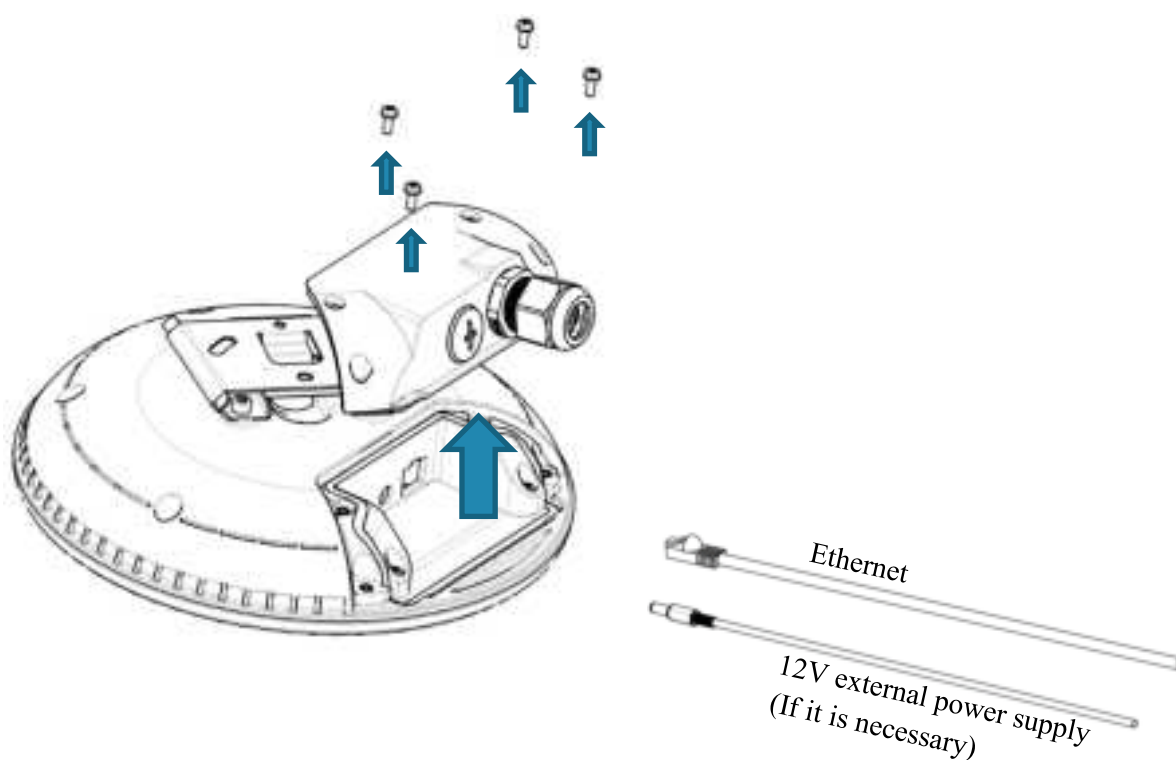
1. Align the locator with the bracket by ensuring the orientation mark in the mounting bracket is co-aligned with the indicator lights on the locator (1)
2. Slide the locator bracket into the wall bracket (2)
3. Then slide it in until it stops and you hear a "click". (3)



Cabling installation

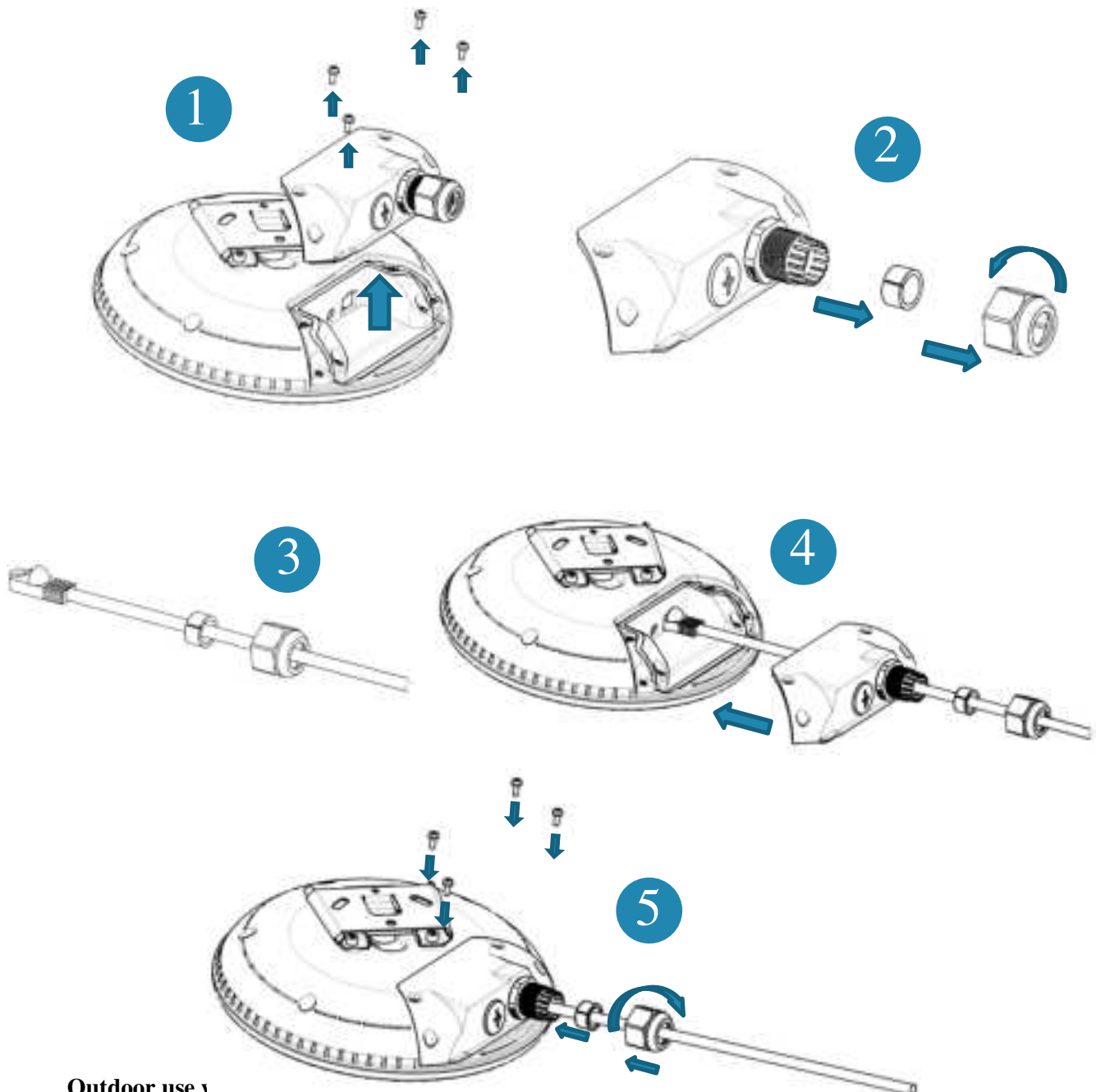
Indoor use

The hatch must be removed as shown in the picture and the cables must be connected to the locator by definition. The hatch is not necessary to reassembled.



Outdoor POE use

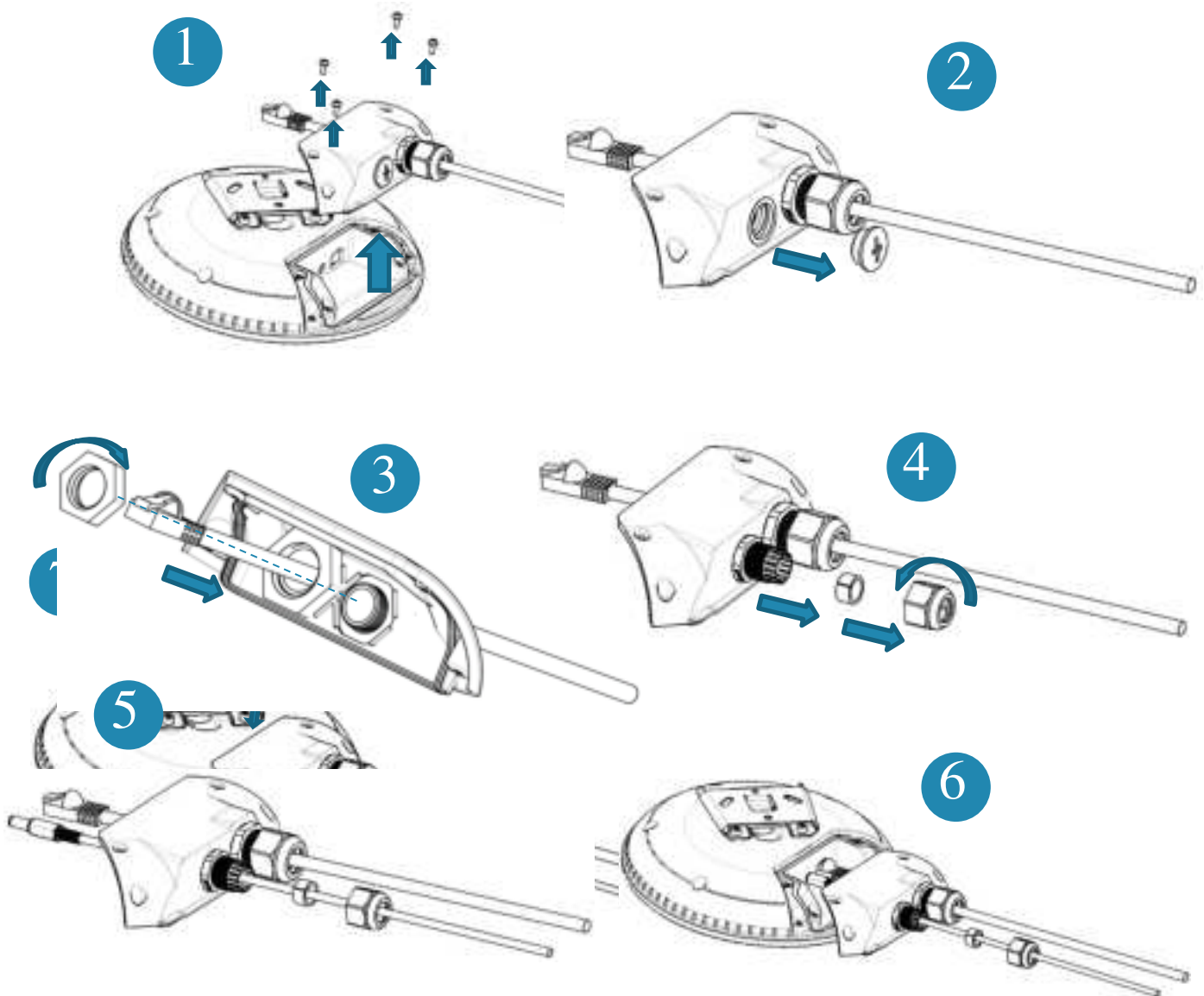
1. The hatch must be removed as shown in the Figure 1.
2. The M20 cable gland must be disassembled, as shown in Figure 2.
3. The nut of the cable gland and the rubber reduction insert must be placed on the ethernet cable, as shown in Figure 3.
4. The ethernet cable must be connected to the locator, as shown in Figure 4
5. After replacing the hatch, the screws must be screwed back and the cable gland must be assembled, as shown in Figure 5.



Outdoor use \

1. The ethernet cable must be connected as described above.
2. The hatch must be removed as shown in the Figure 1.
3. The plunking plug must be removed. Figure 2.

4. The separately packaged M16 cable gland must be fixed on the hatch panel with its nut Figure 3, then it must be disassembled, as shown in Figure 4.
5. The nut of the cable gland and the rubber reduction insert must be placed on the 12V power cable, as shown in Figure 5.
6. The power cable must be connected to the locator, as shown in Figure 6.
7. After replacing the hatch, the screws must be screwed back and the cable gland must be assembled, as shown in Figure 7.



Product information

Technical data

- Operating frequency range: 2400...2483.5 MHz

- Maximum transmit power: +4 dBm EIRP
- Operating temperature range: -20°C...+60°C
- Storage temperature range: -30°C...+70°C
- Input rating when using DC power supply: 12 V / 500 mA DC
- Operating voltage when using PoE: 48 V
- Typical power consumption: 2 W
- Dimensions: D: 205.6 mm, h: 43.95 mm (without mounting bracket)
- Weight (with mounting bracket): 700g

Care and Maintenance

Your locator is a product of superior design and craftsmanship and should be treated with care. The following suggestions will help you protect your warranty coverage.

- The locator has an IP65 rating and must be used accordingly. It can operate both in indoor and outdoor environments.
- Do not use or store the locator in dusty, dirty areas. Its moving parts and electronic components can be damaged.
- Do not attempt to open the locator.
- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the locator. Only use a soft, clean, dry cloth to clean the surface of the locator.
- Do not paint the locator.

Recycle

Always return your used electronic products, batteries, and packaging materials to dedicated collection points. This way you help prevent uncontrolled waste disposal and promote the recycling of materials.



The crossed-out wheeled-bin symbol on your product, battery, literature, or packaging reminds you that all electrical and electronic products, batteries, and accumulators must be taken to separate collection at the end of their working life. This requirement applies in the European Union. Do not dispose of these products as unsorted municipal waste.

Copyright and other notices

DECLARATION OF CONFORMITY

Hereby, Nokia Corporation declares that this LD-7L product is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

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FCC/INDUSTRY CANADA NOTICE

This device complies with Part 15 of the FCC Rules and Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: 1. This device may not cause

harmful interference; and 2. This device must accept any interference received, including interference that may cause undesired operation.

NOTE: 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. 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 different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE: FCC Radiation Exposure Statement: This device complies with FCC/ISED radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines and RSS-102 of the ISED radio frequency (RF) Exposure rules. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. The antenna should be installed and operated with minimum distance of 20 cm between the radiator and your body. According to this, the device is considered as a mobile device.

NOTE: Changes or modifications not expressly approved by Nokia could void the user's authority to operate the equipment.

REGULATORY INFORMATION NOTICES - ISED

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

This device complies with ISED license-exempt RSS(s). Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

RF EXPOSURE SAFETY

This device complies with ISED RF exposure limits.

CAN ICES-003

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

AVIS DE CONFORMITÉ RÉGLEMENTAIRE - ISED

Les changements ou modifications non expressément approuvés par la partie responsable de la conformité peuvent annuler le droit de l'utilisateur à utiliser l'équipement.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

SÉCURITÉ D'EXPOSITION AUX RF

Le présent appareil est conforme à l'exposition aux radiations FCC / ISED définies pour un environnement non contrôlé et répond aux directives d'exposition de la fréquence de la FCC radiofréquence (RF) et RSS-102 de la fréquence radio (RF) ISED règles d'exposition.

L'émetteur ne doit pas être colocalisé ni fonctionner conjointement avec à autre antenne ou autre émetteur. L'antenne doit être installée de façon à garder une distance minimale de 20 centimètres entre la source de rayonnements et votre corps. Selon cela, l'appareil est considéré comme un appareil mobile.

CAN NMB-003

Cet appareil numérique de classe B est conforme à la norme canadienne NMB-003.

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