



Nokē

Solar Repeater

Install Guide



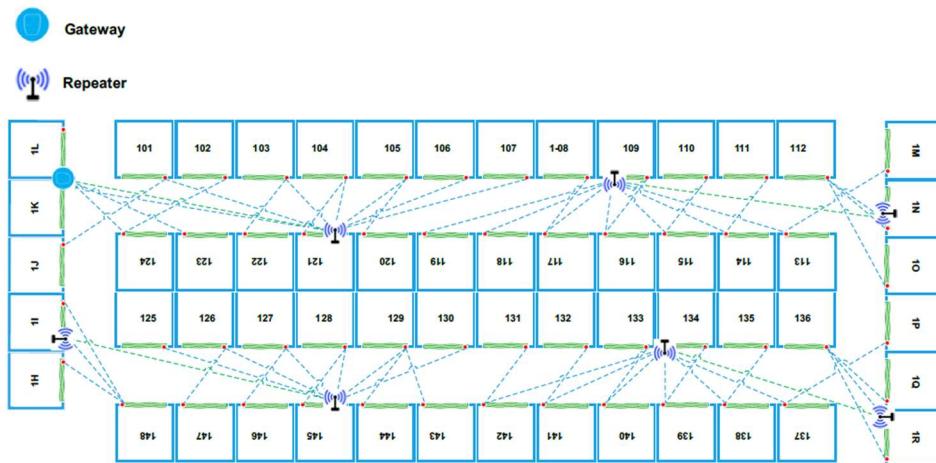
This guide provides instructions for installing a Solar Repeater at various locations to enhance the mesh network connectivity for locks and gateways throughout the NSE network system. The Solar Repeaters are strategically located to fill in the gaps where locks and gateways need additional LoS connectivity. Each site provides a diagram designed to place the Solar Repeaters where they are needed.

Make sure you have all the essential components listed below. If any parts are missing, contact your supplier for help. Additionally, the Solar Repeater includes a software application (app) that can be conveniently downloaded from noke.app.

Introduction

The Nokē Solar Repeater helps to maintain the mesh network connection throughout the NSE system. Repeaters are strategically placed, outdoor with the solar panel point to direct sunlight, throughout the mesh network where they enhance the network connectivity.

Additionally, the Solar Repeater requires a direct Line of Sight (LoS) connection to a Nokē gateway or another Nokē repeater for effectively relaying access codes and monitoring activity to the NSE system.



LoS connectivity between locks, repeaters, and gateways throughout the NSE mesh network.

When a tenant initiates an unlock command at a unit, the Nokē lock opens, that unlock activity is relayed to the repeaters and then to a gateway which sends it to the switch > router > cloud, and then to the NSE system and also the customer's property management software (PMS).

Installation Considerations

Nokē Solar Repeaters are used to bridge the gap between Nokē gateways, keypads, and locks. In most cases, the layout/ topography of the facility determines where and how repeaters are distributed throughout a facility. These repeaters can either be LV or PoE repeaters, depending upon which is the most feasible option.

- ❖ Ensure that all repeaters are mounted at a height between 8' and 12' when installing to their fixed locations.
- ❖ Ensure that the cover plate is tightened securely to prevent water intrusion.
- ❖ Ensure that the repeater is installed correctly. If it is installed upside down, the weep hole at the bottom of the repeater will gather water and destroy the unit.
- ❖ Repeaters require an LoS connection with a lock to communicate with one another in the mesh network.
- ❖ LoS means immediately in front of device with little to no degrees of variation and a maximum effective range of 75 ft.

Technical Specifications

- Connectivity: 2.4Ghz proprietary mesh technology
- Power: Solar Power
- Input: 25 mA Operational current
- Enclosure: Surface Cone with faceplate
- Operating Temperature: -40°C to 80°C

Compliance Statement

Nokē Solar Powered Repeater

FCC ID: 2BGPA-RPTSR1

IC: 32315-RPTSR1

FCC Interference Statement

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, 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 the 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.

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

This device may not cause harmful interference, and

This device must accept any interference received, including interference that may cause undesired operation.

Safety Information

Retain and follow all safety and operating instructions provided with your equipment. In the event of a conflict between the instructions in this guide and the instructions in equipment documentation, follow the guidelines in the equipment documentation.

Observe all warnings on the product and in the operating instructions. To reduce the risk of bodily injury, electric shock, fire, and damage to the equipment, observe all precautions included in this guide.

You must become familiar with the safety information in this guide before you install, operate, or service Nokē products.

Chassis

- Do not block or cover the openings to the equipment.
- Never push objects of any kind through openings in the equipment. Dangerous voltages might be present.
- Conductive foreign objects can produce a short circuit and cause fire, electric shock, or damage to your equipment.

Batteries

- The equipment battery contains lithium manganese dioxide. If the battery pack is not handled properly, there is risk of fire and burns.
- Do not disassemble, crush, puncture, short external contacts, or dispose of the battery in fire or water.
- Do not expose the battery to temperatures higher than 60°C (140°F).
- If the battery is replaced by an incorrect type, there is danger of explosion. Replace the battery only with a spare designated for your equipment.
- Do not attempt to recharge the battery.
- Dispose of used batteries according to the instructions of the manufacturer. Do not dispose of batteries with the general office waste.

Equipment Modifications

- Do not make mechanical modifications to the system. Riverbed is not responsible for the regulatory compliance of Nokē equipment that has been modified.

RF Warning Statement

This equipment should be installed and operated with a minimum distance of 20CM between the radiator and your body.

WARNING: Upon initialization, the radio within the device is dynamically assigned a specific country configuration based on the geographical location of the deployment. This process ensures that each radio's broadcast frequency bands, channels, and transmitted power levels are compliant with country-specific regulations when properly installed.

Only use the locality profile for the country in which you are using the device. Tempering or modification of assigned radio frequency parameters will render the operation of this device illegal. Wi-Fi or Wirepas devices for the United States are permanently locked to a fixed regulatory profile (FCC) and cannot be modified.

The use of software or firmware not supported/provided by the manufacturer may result that the equipment is no longer in compliance with regulatory requirements and may subject the end user to fines and equipment confiscation by Regulatory Agencies.

Antenna

WARNING: Only use the supplied or approved antennas. Unauthorized use, modification, or attachments including the use of third-party amplifiers with the radio module could cause damages and may violate local laws and regulations.

Regulatory Approval

WARNING: Operation of the device without regulatory approval is illegal.

ISED Compliance Statements

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device. This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment.

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. Cet équipement est conforme aux limites d'exposition aux radiations IC CNR-102 établies pour un environnement non contrôlé.

RF Warning Statement

RF Exposure Compliance-This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

Cet équipement est conforme aux limites d'exposition aux radiations IC CNR-102 établies pour un environnement non contrôlé. Cet émetteur ne doit pas être colocalisé ou fonctionner en conjonction avec une autre antenne ou un autre émetteur.

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:

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Waste Electrical and Electronic Equipment (WEEE) Compliance Statement

Do not discard a product. European Union Directive 2012/19/EU requires a product to be recycled at the end of its useful life. Follow all waste management actions defined by this directive. Directive requirements may be superseded by EU member nation law. Perform the following actions to identify pertinent information:

- Review the original purchase contract to determine a contact regarding waste management of a product

Restriction on Hazardous Substances (RoHS) Compliance Statement

The product complies with environmental requirements as set forth in European Union Directive 2011/65/EU with respect to the following hazardous substances:

- Cadmium
- Hexavalent chromium
- Lead
- Mercury
- Polybrominated biphenyl (PBB)
- Polybrominated diphenyl ether (PBDE)



Nokē Inc. here with declares that this unit complies with the fundamental requirements and relevant regulations set forth by Guideline 1999/5/EU. The declaration of conformity can be found at noke.com/ce or requested by e-mail: support@noke.com

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