

Wireless Router User Guide

Introduction

Your Nokia RoofTop Wireless Router is a revolutionary new product, providing you with broadband internet access using advanced wireless technology. Your wireless router is part of an interconnected wireless network, communicating with other wireless routers in your neighborhood using unlicensed 2.4 GHz radio spectrum.

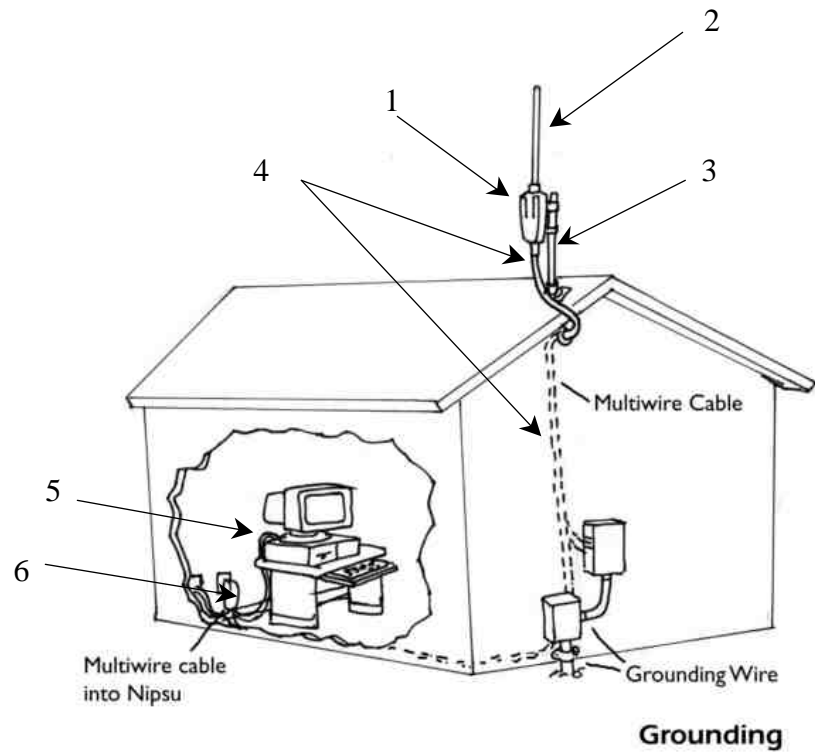
Your Nokia RoofTop Wireless Router not only provides you with fast “always-on” internet access, but is also an integral part of the network infrastructure. Some routers may rely on others to reach the internet. For this reason it is very important that you always keep your router powered ON, even if you are not using it. Your router may be forwarding and routing traffic for other routers in the network.

Components of your Nokia RoofTop Wireless Router system

Your wireless router system consists of:

1. Wireless router
2. Integral antenna
3. Antenna mount

4. Multiwire cable connecting the wireless router and the Network/Power Unit
5. Ethernet cable
6. Network/Power Unit



Warnings and Safety Instructions

Important User Information

The Nokia RoofTop Wireless Router was designed and manufactured to meet strict quality and safety standards. It complies with the FCC rules, Part 15, Part 68 and with 21 CFR 1040.10 and 1040.11.

Some routers may rely on others to reach the internet. It is very important that your wireless router is always powered ON, even when you are not using it, as it may be forwarding and routing traffic for other routers in the network. For this reason, do not unplug your Network/Power Unit unless someone requires access to the area within 20 cm of the rooftop Wireless Router Antenna.

Instructions

- Read and follow all safety and operating instructions
- Heed all precautions and warnings in the instructions and on the equipment
- Keep instructions for future use

Hazard Warnings

- **Environment** - Do not place the Network/Power Unit in a very cold, dusty, wet or high humidity environment. The unit should be situated away from all heat sources such as radiators, heat registers, stoves, amplifiers and other heat producing appliances.
- **Fire or Electric Shock** - Do not expose the Network/Power Unit to any type of moisture, including rain. Do not use or install near water-related environments such as sinks, bathtubs, laundry areas, spas, swimming pools, or in wet basements. Take care not to spill any liquids on the unit.
- **RF Exposure** To comply with RF safety requirements, do not go closer than 20 cm of the antenna on the roof when the Network/Power Unit is plugged in.

Grounding

- Be sure the wireless router and antenna system is grounded to provide protection from voltage surges and built-up static charges. Section 810 of the National Electrical Code ANSINFPA No 70-1984 provides information about proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, connection to grounding electrodes and requirements

for the grounding electrode. All grounding should be performed by a professional.

Accessories

- Use only Nokia approved accessories for all installations.

Cleaning the Unit

- Clean the Network/Power Unit with a dry cloth or paper towel. Do not use any liquids to clean the unit.

Mounting the Network/Power Unit

- Install the Network/Power Unit to a grounded AC-outlet.
- Place the cables so that they are not likely to be walked on or pinched by items placed on or against them. Pay particular attention to the point where cords and plugs exit the unit.

Interference

- The wireless router can cause interference to (and interfere with) other devices operating in the 2.4 to 2.4835 GHz radio spectrum.

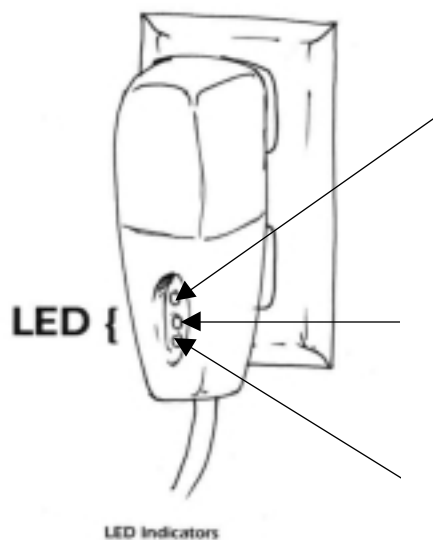
Service Only by Qualified Service Personnel

- Do not open the unit or reconfigure the software.
- Do not attempt to service the wireless router or the Network/Power Unit.
- The system should be serviced only by qualified service personnel.

Network/Power Unit

Front Panel

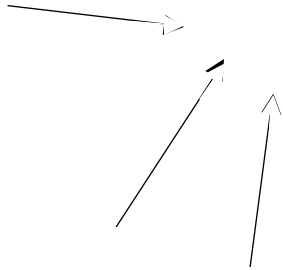
Your Network/Power Unit has LEDs which indicate the functioning of your unit. If you are experiencing problems with your wireless router, call your Internet Service Provider's service desk. The service personnel may ask you to refer to the LEDs on the Network/Power Unit. When you call, make sure you can see the LEDs to be able to give the information to the service personnel.



1. **PWR/ LAN** - shows the local area network activity and that the unit power is "ON"
2. **Anchor** - shows the status in the network and gives wireless link information; if this light is off you may not have a connection to the internet

3. Network

Bottom Panel Connections



Bottom Panel Connections

1. **HomePNA 2.0 interface:** A standard phone jack (RJ-11)
2. **Ethernet interface:** A standard 10/100 BaseT Ethernet jack (RJ-45)
3. **Router outdoor unit connection:** This connector connects directly to your outdoor wireless router.

Connecting the Wireless Router to Your PC, LAN or Home PNA

Your wireless router is capable of providing internet access for a single PC via a direct connection or to multiple PCs via Local Area Network (LAN) or via Home PNA.

Direct Connection: When you connect your wireless router to a single PC, connect the Ethernet port on the Network/Power Unit and the network interface on your PC “crossover” Ethernet cable.

LAN Connection: When you connect your wireless router to multiple PCs via a hub, router, or switch, use standard “straight-through” Ethernet cables throughout the entire network.

Home PNA Connection: When you connect your wireless router to multiple PCs via home PNA, use standard telephone cables between the Network/Power Unit’s home PNA connection and the RJ11 phone jack. You can also connect the cable directly to your PC’s home PNA adapter.

The router automatically activates the Ethernet or home PNA, depending upon which connector is used. If a cable is connected to both connectors, the Ethernet port is activated.

Technical Support

Nokia provides technical support only for network operators and authorized resellers. Your Internet Service Provider (ISP) provides technical support for subscribers to a Nokia network. If you experience problems with your service or have any questions regarding the performance of your wireless router, please contact the ISP that is providing your Internet service.

Disclaimer

Nokia is the manufacturer of the wireless router and provides no warranty service and repair. Nokia RoofTop wireless routers are provided "AS IS" with no warranty.

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If you experience any problems or malfunction of the wireless router, please contact the ISP that is providing your internet service.

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REGULATORY INFORMATION

Compliance in the United States

Emission Standards

UNINTENTIONAL EMISSIONS: FCC Part 15 CLASS B

INTENTIONAL EMISSIONS: FCC Part 15, Section 15.247

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

Connection to telephone network

FCC Part 68

This equipment complies with Part 68 of the FCC Rules. The FCC Part 68 Label is located on the rear panel of the Network/Power Unit. This label contains, among other information, the FCC Registration Number and Ringer Equivalency Number (REN) for this equipment. You must, upon request, provide this information to your telephone company. The REN is useful to determine the quantity of devices you may connect to your telephone line and still have all those devices ring when your telephone number is called. In most but not all areas, the sum of the RENs of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices you may connect to your line, as determined by the REN, you should contact your local telephone company to determine the maximum REN for your calling area.

Connection to the telephone network should be made by using standard modular telephone jacks, type RJ11. The plug and/or jacks used must comply with FCC Part 68 rules. If your telephone equipment causes harm to the telephone network, the telephone company may discontinue your service temporarily. If possible, they will notify you in advance, but if advance notice is not practical, you will be notified as soon as possible. You will be informed of your right to file a complaint with the FCC.

Your telephone company may make changes in its facilities, equipment, operations or procedures that could affect the proper functioning of your equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.

Nokia normally provides technical support only for network operators and authorized resellers. Your Internet Service Provider (ISP) provides technical support for subscribers to a Nokia network. If you experience problems with your service or have any questions regarding the performance of your wireless router, please contact the ISP that is providing your Internet service. If the ISP is not able to help, contact customer service at the address and phone listed below.

Nokia Customer Service
2020 South Tenth Street
San Jose, CA 95112

(408) 918-5000

Compliance in Canada

Emission Standards

Canadian compliance (Industry Canada) When tested with at least one intended host: This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the interference-causing equipment entitled "Digital Apparatus", ICES-003 of the Canadian Department of Communications.

Cet appareil numérique respecte les limites bruits radioélectriques applicables aux appareils numériques de Class B prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques", NMB-003 édictée par le Ministre Canadien des Communications.

Connection to telephone network

Notice: The Industry Canada (IC) label identifies certified equipment. This certification means that the equipment meets telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical document(s). The department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by a user to this equipment, or equipment malfunctions, may give the telephone communications company cause to request the user to disconnect the equipment.

Notice: The Ringer Equivalent Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

REN: See the equipment for REN information.