NETGEAR® Installation Guide

NETGEAR ProSafe Indoor/Outdoor 10 dBi 2x2 Directional Antenna ANT224D10

Package Contents
• NETGEAR ProSafe Indoor/Outdoor 10 dBi 2x2 Directional Antenna ANT224D10
• 2 lightning arrestors with 30 cm low-loss cables
• 2 reverse N/SMA adapters
• Wall mount and pole mounting hardware
• Installation Guide (this guide) and Warranty/Support card

Ground cable is not included but is required for outdoor installation. The grounding cable must be equivalent or better than: AWG 10, UL 1015, Stranded, 600 V, 105°C, green or green/yellow insulation, 2 clip of 5.5 mm inner diameter cramped at both ends, cable no longer than 5 meters. Antenna cables are not provided, but are required to connect to an access point (AP).

Note: For optimal results in extending wireless range, consult a qualified professional installer service.

Antenna Placement and Location
Antenna placement dramatically affects potential coverage. Follow these guidelines to maximize coverage:
• Place the antenna in a vertical position, connector toward the bottom.
• Minimize the obstructions in the front of the antenna. There should be a good visual line of sight and maximum open space between the antenna and the other antenna(s).
• Outdoor point-to-point applications are bridging, repeater mode, or building-to-building. Mount the antenna on the top of a building on a pole or on an external wall. For building-to-building transmission you can also install antennas indoors within 10 ft. of clean windows (no metal coating) in both buildings facing each other. Account for 30-70 % less range than outdoors.
• Indoor point to multipoint Warning: The antenna is not omnidirectional and is not suitable for low ceilings, partial obstructions, walls, cubicles, or when large metal objects are present.
• For best performance with indoor installation, use a short cable between the antenna and the wireless device. Install the antenna so that it is a minimum of 50 cm (20 in.) away from people.

First, Mount the Antenna

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Indoor Connection

1. Turn off your wireless access point.
2. This step is only for outdoor installation. For indoor installation, go to step 3.
   a. Connect a 30 cm cable (included) to the antenna and to an RF port on the lightning arrestor.
   b. Connect the grounding cable (not included) from the lightning arrestor to the ground of the building.
   Warning: The lightning arrestor and appropriate ground cable must be used for outdoor installation. NETGEAR does not assume any responsibility in case of hazard resulting of non-compliance.
   c. Screw the N/SMA reverse adapter onto the lightning arrestor RF port.
3. Connect a NETGEAR cable ACC-10314-01, 03, or 04 (sold separately) to the adapter.
4. Locate the primary detachable antennas on the wireless AP. Remove the antennas and connect the other end of the NETGEAR cable to this port.
5. Reconnect your wireless device to the network and turn it on.

Outdoor Connection

Then, Connect the Antenna

Wall Mounting

Pole Mounting

Outdoor Connection

Indoor Connection

Antenna faces coverage area. Indoors, put it 2M+ from the floor and above cubicles. Do not install in IT rooms or rooms with metal partitions.

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Access Point

N/SMA Adapter

Lightning Arrestor

Accessory Point

N/SMA Adapter

Grounding Cable

30 cm NETGEAR low-loss antenna cable
**Technical Support**

Thank you for selecting NETGEAR products. Locate the serial number on the label of your product and use it to register your product at www.NETGEAR.com/register. Registration is required before you can use our telephone support service. Registration via our website is strongly recommended.

Go to http://kbserver.netgear.com for product updates and Web support. For Warranty and Customer Support information see the Customer Support card that came with your product.

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**Statement of Conditions**

In the interest of improving internal design, operational function, and/or reliability, NETGEAR reserves the right to make changes to the products described in this document without notice. NETGEAR does not assume any liability that may occur due to the use or application of the product(s) or circuit layout(s) described herein.

**Federal Communications commission (FCC) Compliance Notice: Radio Frequency Notice**

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

1. This device may not cause harmful interference.

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

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For EU, use of any antenna requires careful planning and extra considerations to comply with EU emissions and health standards and regulations. Antenna installation must comply with the maximum levels authorized by each country.

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