

Smart-Reach AC Base Antenna Connection Guide



WARNING: Professional Installation Required

Before installing or using the Smart-Reach AC Base and antennas, consult with a certified, professional installer trained in RF installation and knowledgeable in local regulations including building and wiring codes, safety, channel, power, outdoor/indoor restrictions, and license requirements.

It is the responsibility of the end user to ensure that installation and use complies with local safety and radio regulations.

Package Contents (typical)

The contents of a typical installation package are shown below (actual contents of your installation package may vary):

- Smart-Reach AC Base (032-1025), including:
 - Mounting accessories
 - Ethernet connector accessories
 - Ground cable connection accessories
 - Access Point Installation Guide
- Antenna(s) and cable(s) as ordered
- Antenna Connection Guide (this document)

Model number and Antenna ID

Use the following table and images to identify the connector on the Smart-Reach AC Base to connect each antenna cable.

For example, consider model # **SRB2AC141010**:

Model #	SRB	2	AC	Antenna ID					
				1	4	1	0	1	0
Smart-Reach Base	1=	single radio, 2=dual radio	802.11ac	Connector #1	Connector #2	Connector #3	Connector #4	Connector #5	Connector #6

Description

Antenna IDs

0	Custom/no antenna
1	2.4 GHz 5dBi Omni
2	5.8 GHz 7dBi Omni
3	2.4 GHz 6dBi Omni
4	5 GHz Grid (Back Haul)
6	2.4 GHz Mini Panel
7	2.4 GHz 15 dBi High Gain Omni

Continuing with the example **SRB2AC141010**:

- **2** indicates dual radios
- **1** (in 3 places) means 3 x 2.4GHz 5dBi Omni antennas, attached to connectors #1, #3, and #5
- **4** means a 5 GHz grid antenna (for back haul) attached to connector #2.

Antenna Connectors

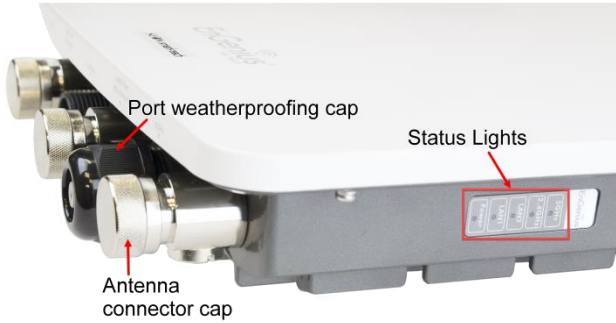


The image shows a top view of the access point. Connectors labeled 1, 3, and 5 are for 2.4 GHz antennas, while 2, 4, and 6 are 5 GHz.

Smart-Reach AC Base Installation

Follow the procedures in the included *Quick Installation Guide* and the supplied installation accessories to secure the Smart-Reach AC Base access point to the location identified by Seon engineering professional services.

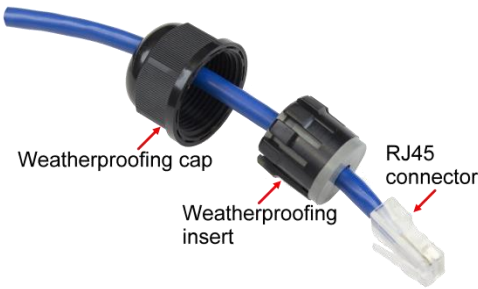
Ensure power, LAN, and antenna status lights are visible from the selected mounting location.



Connect the Ethernet cable:

Important: Use minimum Category 5e cable (outdoor-rated), and **ensure the RJ45 connector does not have a boot**, or it will not fit into the LAN port.

1. Remove the weatherproofing cap from the access point’s **LAN 1 port (PoE Input)**.
2. Remove the weatherproofing insert from the port and discard the center rubber plug.
3. Slide the weatherproofing cap over the cable (threaded side facing the connector).
4. Wrap the weatherproofing insert around the cable. Ensure the larger side of the insert (with the tabs) faces the weatherproofing cap, as shown in the following image:



5. Plug the RJ45 connector into the **LAN 1 port (PoE Input)**.
6. Push the weatherproofing insert into the port.
7. Thread the weatherproofing cap onto the port connector.

As an extra layer of security, it is best practice to encase the whole cap/cable assembly in rubber splicing or weatherproofing tape.

Ensure the ground cable is properly connected.

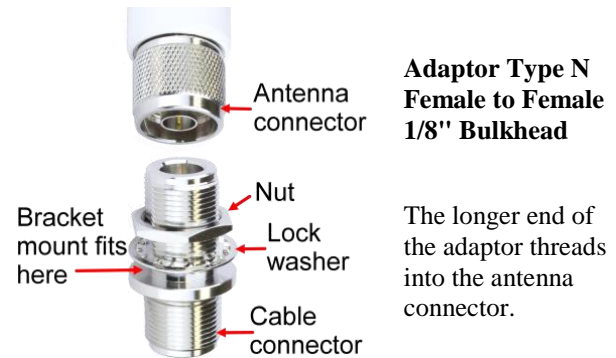
Antenna Installation

Ensure each antenna and its cabling is installed using the installation instructions provided with the antenna.

- Antennas should be located five to ten feet above the roof level of the buses.
- A lightning arrestor is integrated at each antenna port.

Cable Adaptors

2.4 GHz 5dBi Omni and 5.8 GHz 7dBi Omni antennas (Antenna IDs 1 and 2) require an adaptor between the cable connector and the antenna connector, in order to attach the mounting bracket:



Weatherproofing

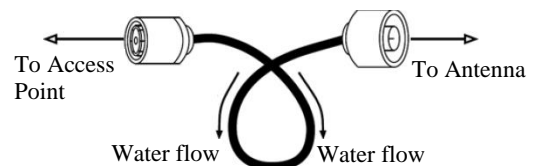
Weatherproof all outdoor connections: apply several layers of rubber splicing or vulcanizing tape over the connection.



Drainage is very important with unpressurized radomes. Ensure the drain hole is on the bottom, and it has not been blocked during installation.

Drip Loops

Add a small loop to antenna and Ethernet cables to direct rainwater flow away from the connector:







WARNING:
Equipment Damage Risk

Do not remove the metal sealing caps from any unused connectors.

If the connectors are uncovered, moisture will enter and damage the Smart-Reach AC Base. This will void the Seon product warranty.

Antenna Types

Use the following examples to help identify supported antennas as defined in the model number table above:

Number	Antenna Type
3	2.4 GHz antenna (ideal mounting style) 
4	5.8 GHz antenna (ideal mounting style) 

Antenna Cable Connections

The model number of the Smart-Reach AC Base you received indicates which antenna cables connect to specific base connectors. The following are connection steps for some common antenna and base configurations:

SRB1AC101010

1. Remove caps from antenna connector numbers 1, 3, and 5.
2. Securely attach cable connectors for the three 2.4 GHz Omni antennas to the three connectors.

SRB1AC020202

1. Remove caps from antenna connector numbers 2, 4, and 6.
2. Securely attach cable connectors for the three 5.8 GHz Omni antennas to the three connectors.

SRB1AC606060

1. Remove caps from antenna connector numbers 1, 3, and 5.
2. Securely attach cable connectors for the three 2.4 GHz Mini Panel antennas to the three connectors.

SRB1AC707070

1. Remove caps from antenna connector numbers 1, 3, and 5.
2. Securely attach cable connectors for the three 2.4 GHz High Gain Omni antennas to the three connectors.

SRB2AC141010

1. Remove caps from antenna connector numbers 1, 2, 3, and 5.
2. Securely attach cable connectors for the three 2.4 GHz antennas to connectors 1, 3, and 5.
3. Securely attach the cable connector for the 5 GHz grid antenna to connector number 2.

Customer Service Contact Information

Toll free telephone:
1-877-630-7366

Local telephone:
604-941-0880

Email: service@seon.com

Web: www.seon.com

Warranty

For full warranty information, go to <http://www.seon.com/documents/Seon-Warranty.pdf>.