



300 Mbps

GIGA1000 SERIES

AIR-BR1000ND-1G1A - AIR-BR1000ND-2G - GAIR-BR1000ND-2A

AIRNET GIGA MIMO 300 Mbps AP/Bridge Dual Radio Series



### Package Contents:

- Airnet Outdoor Access Point
- Mounting Bracket (Include: 2 Mounting Brackets and 4 screw nuts)
- PoE Injector
- Power Cable
- RJ45 Waterproof Connector System
- CD-ROM

Quick Installation Guide

## Warnings

- Do not work on the system or connect or disconnect cables during periods of lightning activity.
- **NETKROM shall not be liable for incidental or consequential damages resulting from the furnishing, performance, or use of this manual.**
- Do not locate the antenna near overhead power lines or other electric light or power circuits, or where it can come into contact with such circuits. When installing the antenna, take extreme care not to come into contact with such circuits, as they may cause serious injury or death.
- Only trained and qualified personnel should be allowed to install, replace, or service this equipment.
- To meet regulatory restrictions, the radio and the external antenna must be professionally installed. The network administrator or other IT professional responsible for installing and configuring the unit must be a suitable professional installer. Following installation, access to the unit should be password protected by the network administrator to maintain regulatory compliance.
- The Airnet outdoor access point and PoE injector can be damaged by incorrect power application. Read and carefully follow the installation instructions before connecting the system to its power source.

## Package contents

Take a moment to ensure you have all of the following parts in your Outdoor Waterproof Unit installation kit before you begin installing the product. If any parts are missing, please contact your local vendor or contact us, please see the contact information in *Section 6*.



## Setup Requirements

**Before starting, please verify that the following is available:**

- CAT5/5e or FTP Outdoor Ethernet cable (from the Outdoor AP to PoE Injector)
- At least one computer is installed with a Web browser and a wired or wireless network interface adapter
- TCP/IP protocol is installed and IP address parameters are properly configured on all your network's nodes

### Important!

- Configure and verify the outdoor access point operations first before you mount the unit in a remote location.
- You may need to install a lightning arrester to protect your outdoor access point from lightning.
- For choosing the best location for your outdoor access point choose an elevated location where trees, buildings and large steel structures will not obstruct the antenna signals and which offers maximum line-of-sight propagation with the users.
- Select an appropriate antenna to improve range and/or coverage. The access point also lets you fine-tune parameters such as the transmit power to achieve the best results.



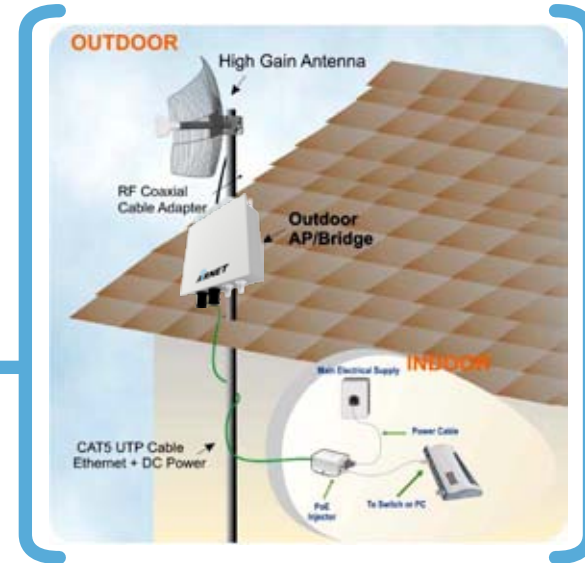
## Outdoor AP Installation

### Step 1:

Connect one end of your UTP or FTP Outdoor cat.5 Ethernet cable with waterproof connector to the RJ-45 connector located in the Outdoor Access Point. Then connect the other end of the cable to the PoE injector.

For the Netkrom PoE, the recommended length of the Category 5 cable is up to 260 feet or 80 meters.

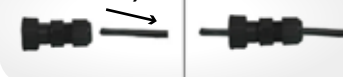
1. Remove the thin enclosure nut from the feedthru assembly. This can be discarded. Loosen the compression nut completely.
2. Insert the RJ45 connector thru the feedthru assembly.
3. Tighten the compression nut loosely to the feedthru assembly.



enclosure nut



feedthru assembly



compression nut



4. Screw the entire feedthru assembly into the RJ45- ECS housing which is already mounted in the enclosure. There should be a rubber gasket between the two assemblies. Tighten the feedthru assembly to create a seal.

5. The final step is to tighten the compression nut until the gaskets are tight around the Cat5 cable. Always push the cable toward the connector while tightening to ensure good strain relief of cable to connector.

## Step 2:

Connect the external antenna to the N Female connector of the Access Point.

Screw in the Coaxial cable connector correctly into the antenna connector (N-Female) located on the Outdoor Access Point case.

Make sure the former line is properly done and cover the N connectors with an insulating tape.

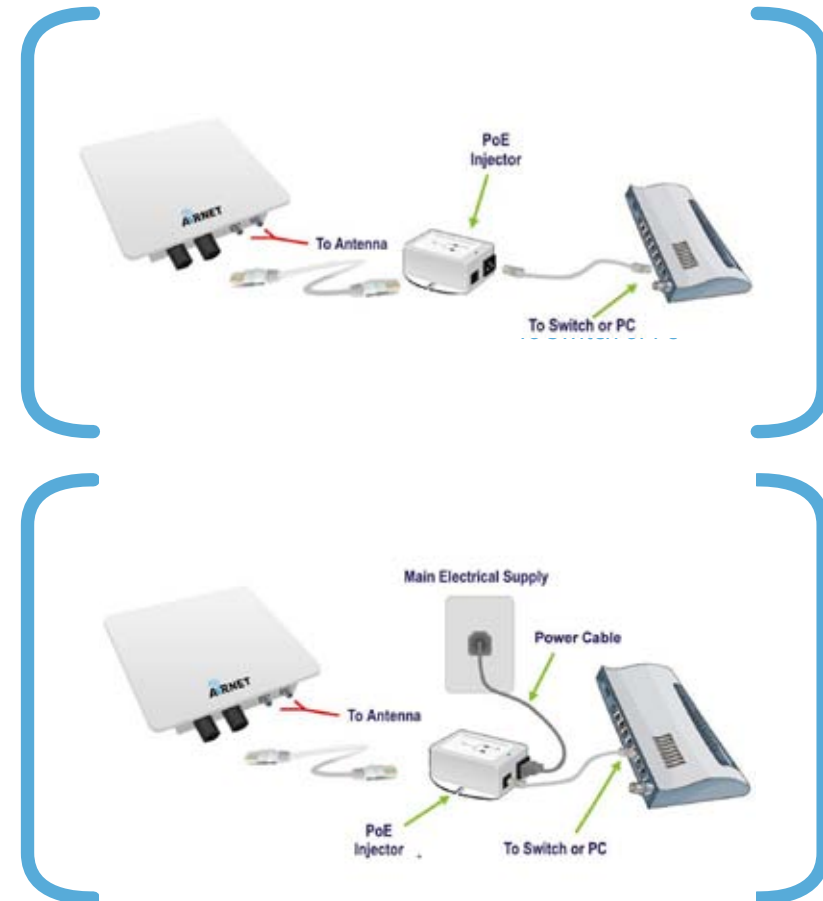


### Step 3:

From the PoE injector connect one cat.5 Ethernet cable to the radio and another cat.5 cable to a switch or PC.

Connect the power cable supplied in the Netkrom PoE kit to the main electrical supply and the power plug into the socket of the injector. Now, turn on your power supply. Notice that the POWER LED has lighted up. This indicates that the access point is receiving power through the Netkrom PoE Injector and that connection between your access point and your network has been established.

**Note** Please use the PoE injector provided in the package. Using a PoE with a different voltage rating will damage this product.



## Mounting Outdoor AP

Outdoor Access Point device can be mounted on the pole or tower as shown in following:

1. Mount the bracket to the pole.
2. Attach the radio to the bracket which was mounted on the pole with the supplied nuts and 4 screws.





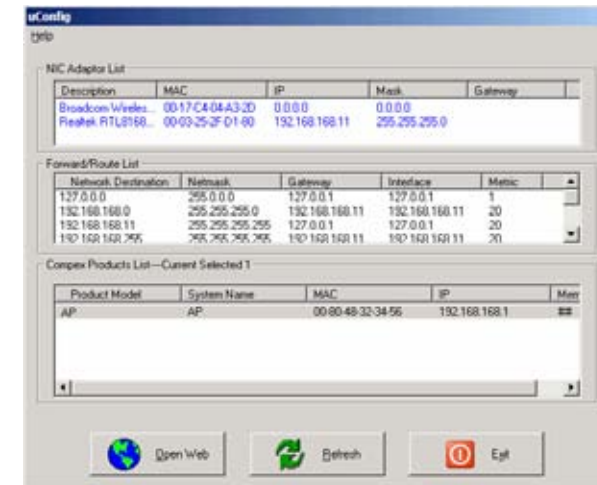
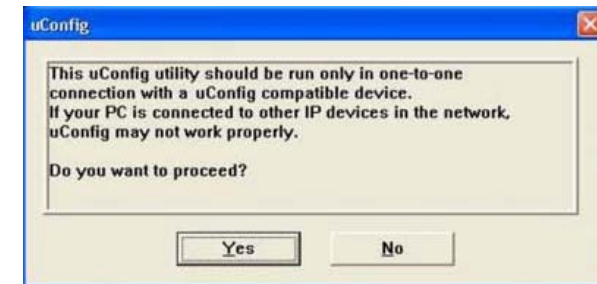
**uConfig** is a feature that provides the ability to directly access the AIRNET AP/BR 600 without the need to know absolutely its IP address. It may be run directly from the product CD or installed on the user's PC for later access.

## Using uConfig

When you execute the uConfig file you should see a window as it is shown on the right side. Click yes to continue

The screen is divided into three sections. The top section shows the Ethernet adapter that is accessing the network device and the middle portion shows the routing table associated with the Ethernet adapter. In the lower window, a list of all uConfig compatible devices on the network is shown.

Highlight the device you desire to configure. Then click on the "Open web" button.



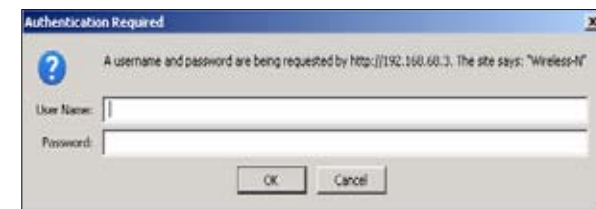
Click the OK button to continue

At the login prompt, enter the User name and Password.  
The default are:

**User name: admin**

**Password: password**

Click on **OK** and start configuring the radio.



If you don't use the uConfig Utility you need to establish Ethernet connection between your PC and the Outdoor AP, by default the Outdoor AP has the IP address 192.168.168.1. Therefore, your PC must be in the same network segment as the Outdoor AP is to get Ethernet connectivity. The steps shown below are for Windows XP.

### Step 1:

Go to Start button, then go to My Network Places and finally click on Network Connections.

Right Click over your network adapter and select Properties.

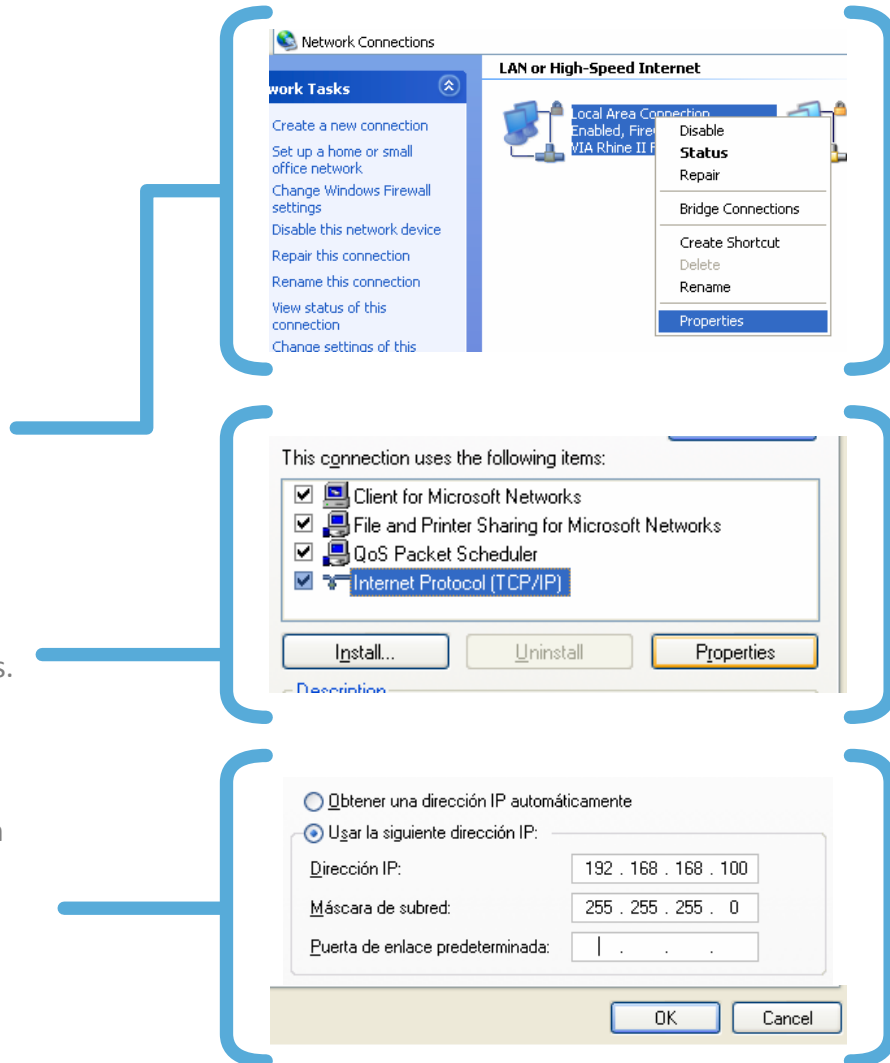
### Step 2:

Select the Internet Protocol Option and then click in Properties.

### Step 3:

Now configure the IP Address of your network adapter with an IP in the same Network segment as your Outdoor AP is as it is shown in the picture, you don't need to assign any gateway address.

Press **OK** and then press the Close button.



Find below typical and basic configurations using the AP/BR 600. For advanced features please refer to the user manual.

## Getting Started

You can start configuring your AP/BR 600 using either your Web Browser or the uConfig utility

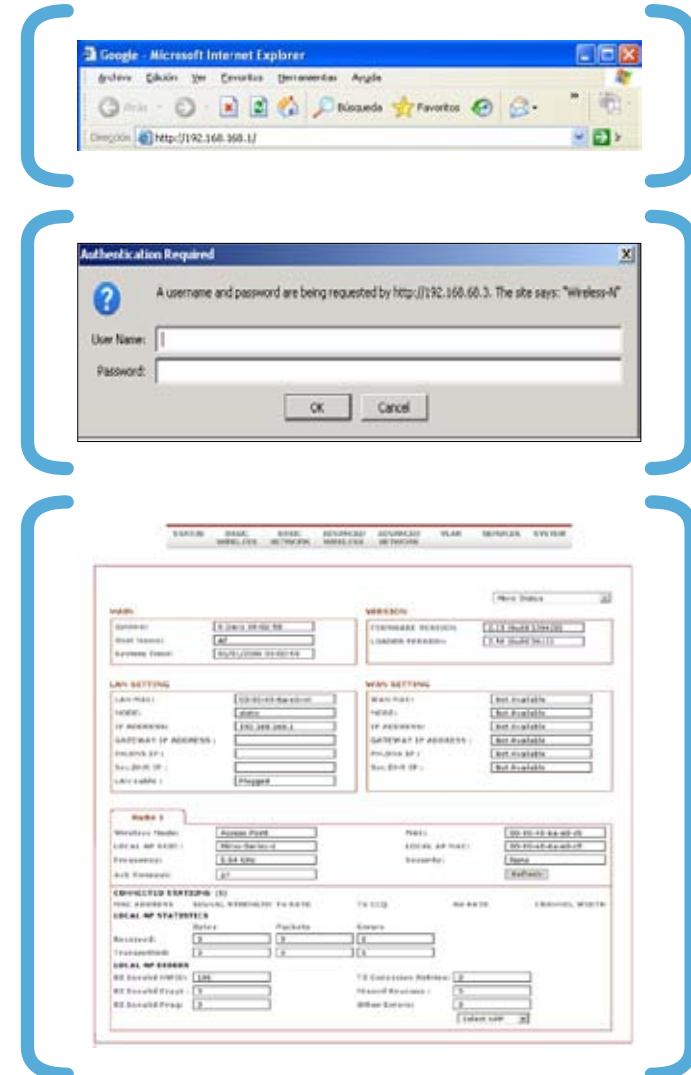
At the **Address** bar, enter **http://192.168.168.1** and press **Enter** on your keyboard.

At the login prompt, enter the Username and Password and then click on OK.

**User name: admin**

**Default Password: password**

You will then reach the home page of your radio's Web interface: the Status Page.

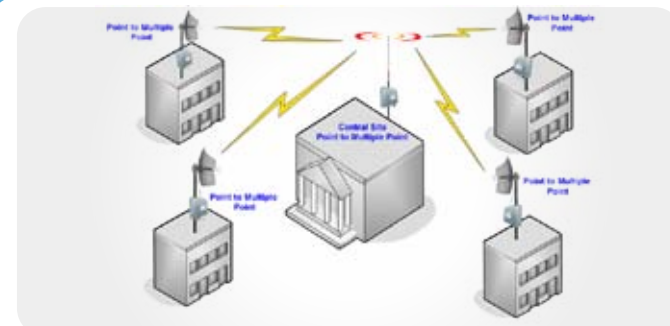
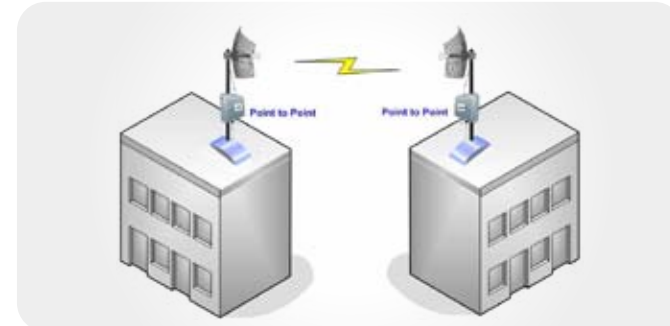


## Wireless Point to Point and Point to Multipoint Setup

You can implement a Point-to-Point connection by simply setting one access point as Access Point Mode and setting the other access point in Station mode (client).

### Follow these steps to setup Access Point Mode

1. Click on the Basic Wireless Tab.
2. In wireless mode choose Access Point.
3. Enter a name for the Local AP-ESSID.
4. Choose the wireless profile
  - NA: 5GHz, mix of a and n
  - NG: 2.4GHz, mix of a, b and n
5. Save the changes and reboot the device to let your changes take effect.



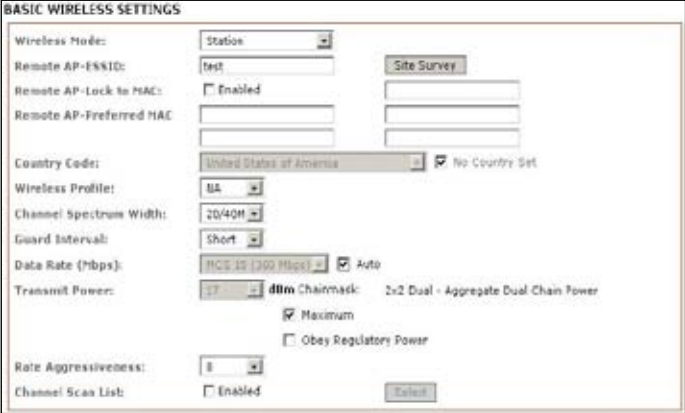
BASIC WIRELESS SETTINGS	
Wireless Mode:	Access Point
Local AP-ESSID:	test <input type="checkbox"/> Hide SSID
Country Code:	United States of America <input type="checkbox"/> Use Country Set
Wireless Profile:	NA
Channel Spectrum Width:	20/40MHz
Guard Interval:	Short
Channel Frequency:	5200MHz <input checked="" type="checkbox"/> Auto <input type="checkbox"/> Select
Data Rate (Mbps):	Performance/Aggrate <input checked="" type="checkbox"/> Auto
Transmit Power:	0dBm Channel: 2x2 Dual - Aggregate Dual Chan Power <input checked="" type="checkbox"/> Maximal <input type="checkbox"/> Use Regulator Power
Rate Aggressiveness:	0

## Follow these steps to setup Station Mode.

1. Click on the Basic Wireless Tab.
2. In wireless mode choose Station.
3. Enter the name of the Remote AP-ESSID.  
**Note:** this option must match with the ESSID configured in the Access point.
4. Enter the Access Point's MAC in Remote AP-Lock to MAC.
5. Choose the wireless profile  
NA: 5GHz, mix of a and n  
NG: 2.4GHz, mix of a, b and n  
**Note:** this option must match with the wireless profile configured in the Access point.
6. Save the changes and reboot the device to let your changes take effect.

### Note:

When using Remote **AP MAC**, the ESSID name must also match the AP's ESSID name, especially when Closed System is enabled on the AP.



**BASIC WIRELESS SETTINGS**

Wireless Mode: Station

Remote AP-ESSID: test

Remote AP-Lock to MAC:  Enabled

Remote AP-Preferred MAC:

Country Code: United States of America  No Country Set

Wireless Profile: NA

Channel Spectrum Width: 20/40M

Guard Interval: Short

Data Rate (Mbps): HTS 15 (300 Mbps)  Auto

Transmit Power: 17  dBM Channelmark: 2x2 Dual - Aggregate Dual Chain Power

Maximum

Obey Regulatory Power

Rate Aggressiveness: 8

Channel Scan List:  Enabled

### Note:

- Station Mode does not provide transparent bridging.
- Station WDS Mode does provide transparent bridging.

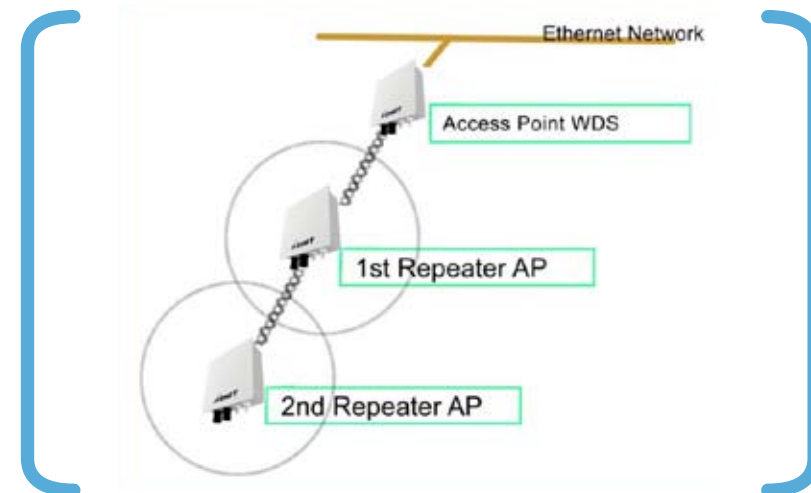
**Repeat the Station steps to add more Clients to the Point-to-Multipoint connection.**

## Repeater Setup

A Repeater AP can connect to an AP only if the option **Act as RootAP** is set or checked in the AP setup.

Follow these settings to setup the repeater.

1. Click on the Basic Wireless Tab.
2. In wireless mode choose Repeater WDS.
3. Enter the name of the Remote AP-ESSID.  
Note: this option must match with the ESSID configured in the Access point.
4. Enter the Access Point's MAC (BSSID) in Remote AP-Lock to MAC.
5. Choose the wireless profile  
NA: 5GHz, mix of a and n  
NG: 2.4GHz, mix of a, b and n  
Note: this option must match with the wireless profile configured in the Access point.
6. Save the changes and reboot the device to let your changes take effect.



**Advanced Routing Configuration:**

Please go to page 85 of User Manual.

**Remote Management:**

Please go to page 99 of User Manual.

**Wireless Security Setup:**

Please go to page 135 of User Manual.

**Bandwidth Control:**

Please go to page 95 of User Manual.

**Advanced Wireless Configuration:**

Please go to page 114 of User Manual.

**Security Configuration:**

Please go to page 143 of User Manual.

**Wireless Operation Modes:**

Please go to page 3 of User Manual.



## Congratulations

With these basics steps you can enjoy your wireless link without problems, please for more information about the capabilities and advance configuration of our product please see the user manual.

## Contact Information

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