

AirOS Quick Setup Guide

Quick Setup Guide describes the configuration steps for the AirOS powered subscriber station (wireless client - bridge) use case.

NanoStation2, LiteStation2 and PowerStation2 operate in IEEE 802.11b/g modes, while NanoStation5, LiteStation5 and PowerStation5 operate in IEEE 802.11a mode. All the devices can operate in Client (Station), Access Point/Repeater and WDS modes.

Note: the screenshots in this document represent PowerStation2 graphical user interface but they are also fully applicable for NanoStation2 and LiteStation2 series devices. The graphical user interface elements which are specific for the NanoStation5, LiteStation5 and PowerStation5 are described individually in the [AirOS User's Guide](#).

This document will guide you through quick and easy configuration of the subscriber station (client bridge) including:

- Changing of the IP settings (static or dynamic),
- Defining the ESSID to which the subscriber station will be associated,
- Defining the basic wireless settings, IEEE 802.11 mode,
- Defining the wireless security mode (None, WEP, WPA™ or WPA2™),
- Changing the administrator's password.

For detailed setup and configuration instructions, please refer to the [AirOS User's Guide](#). For subscriber station quick setup via web-browser interface, follow these steps.

Step 1 - Login to the web management

Open the web browser and type the default IP address of the AirOS powered device <http://192.168.1.20> into the browser address field. You will be prompted to enter the default administrator login credentials:

User Name: ubnt

Password: ubnt

After successful administrator log on you will see the **Main** page of the web management interface.

Note: your PC should have the pre-configured static IP address from the 192.168.1.0 subnet (with netmask 255.255.255.0) in order to establish the connection with the subscriber station on the same physical network segment.

Step 2 - Configure the network settings

| | |
|--------------------------------|--|
| Network Mode: | Bridge ▾ |
| NETWORK SETTINGS | |
| Bridge IP Address: | <input type="radio"/> DHCP <input checked="" type="radio"/> Static |
| IP Address: | <input type="text" value="192.168.1.20"/> |
| Netmask: | <input type="text" value="255.255.255.0"/> |
| Gateway IP: | <input type="text" value="192.168.1.1"/> |
| Primary DNS IP: | <input type="text" value="192.168.1.2"/> |
| Secondary DNS IP: | <input type="text"/> |
| DHCP Fallback IP: | <input type="text" value="192.168.1.20"/> |
| Spanning Tree Protocol: | <input type="checkbox"/> |

The IP configuration is required for device management purposes.

IP addresses can either be retrieved from a DHCP server or configured manually. Use the **Network** page for the IP settings configuration:

Network Mode: specify the Bridge operating mode (selected by default). Router operating mode configuration is described in the [AirOS User's Guide](#).

Bridge IP Address: specify the IP mode:

DHCP – choose this option to assign the dynamic IP address, Gateway and DNS address by the local DHCP server.

Static – choose this option to assign the static IP address for the device management.

IP Address: enter IP address of the device.

Netmask: enter a subnet mask of the device.

Gateway IP: enter a Gateway IP address.

Primary DNS IP: enter a DNS IP address.

Click the **Change** button to save the changes.

Step 3 - Configure the basic wireless settings

| | |
|--------------------------------|---|
| BASIC WIRELESS SETTINGS | |
| Wireless Mode: | Station ▾ <input type="checkbox"/> MAC Clone |
| ESSID: | <input type="text" value="UBNT_AP"/> <input type="button" value="Select..."/> |
| Lock to AP MAC: | <input type="text"/> |

Use **Link Setup** page to specify the ESSID of the Access Point to which the subscriber station will be associated:

Wireless Mode: specify the Station wireless mode (selected by default) for the subscriber station functionality.

ESSID: specify the ESSID of the Access Point which the subscriber station should associate to. There can be several Access Points with the same ESSID. The list of the available Access Points can be retrieved using the **Select** button, which activates Site Survey tool.

MAC Clone: this option makes the subscriber station transparent while acting as the PC which is connected to the LAN port (Ethernet interface). MAC Cloning option is effective for one and the only PC connected to the subscriber station's LAN port. Subscriber station will authenticate and associate to the chosen Access Point using the MAC address of the PC.

Lock to AP MAC: specify the MAC address of the one and the only wireless network device which the subscriber station will associate to (optional). Locking to one particular AP MAC will disable roaming between several Access Points with the same ESSID. Refer to the section *Basic Wireless Settings* in the [AirOS User's Guide](#) for more detailed configuration information.

Step 4 - Specify the IEEE 802.11 settings

| | |
|--------------------------------|--|
| Country Code: | United States of America |
| IEEE 802.11 Mode: | B/G mixed |
| Channel Spectrum Width: | 20MHz Max Datarate: 54Mbps |
| Channel Shifting: | Disabled |
| Channel Scan List: | <input type="checkbox"/> Enabled 37, 42 Edit... |
| Output Power: | <input type="checkbox"/> <input type="checkbox"/> 26 dBm <input checked="" type="checkbox"/> Obey Regulatory Power |
| Data Rate, Mbps: | 54 <input checked="" type="checkbox"/> Auto |

Select the subscriber station wireless network mode which defines the standard used for the communication with the Access Point. B/G mixed mode (compatible with both 802.11b and 802.11g) is selected by default:

Country Code: specify the country in which the subscriber station will be used. The channel list, output power limits, IEEE 802.11 and Channel Spectrum Width modes will be tuned according to the regulations of the selected country.

IEEE 802.11 Mode: select the IEEE 802.11 mode of your wireless network.

- PowerStation2/LiteStation2/Nano Station2 supported IEEE 802.11 modes:

B only – connect to a 802.11b only network.

B/G Mixed – connect to a 802.11b/g network (selected by default).

G only – connect to a 802.11g only network.

- PowerStation5/LiteStation5/Nano Station5 supported IEEE 802.11 modes:

A – connect to a 802.11a network (selected by default).

Channel Spectrum Width: select the wireless channel spectrum width of your wireless network:

5MHz – is the channel spectrum with the width of 5 MHz (also known as Quarter-Rate mode).

10MHz – is the channel spectrum with the width of 10 MHz (also known as Half-Rate mode).

20MHz – is the standard channel spectrum width (selected by default).

PowerStation5/LiteStation5/Nano Station5 additionally supports *40MHz* – the widest channel spectrum width required to connect to a 802.11a network which supports Static Turbo feature.

Step 5 - Specify the wireless security mode

WIRELESS SECURITY

Security: WPA2

Authentication Type: ☒ Open ☐ Shared Key

WEP Key Length: 64 bit

Key Type: HEX

WEP Key:

Key Index: 1

WPA Authentication: PSK EAP-TTLS MSCHAPV2

WPA Preshared Key: very-secret-key

Choose the security method according to the Access Point security policy. Subscriber station should be authorized by Access Point in order to get access to the network and all the user data transferred between subscriber station and Access Point will be encrypted if the wireless security methods are used:

Security: select the security mode of your wireless network:

WEP – enable WEP encryption.

WPA – enable WPA™ security mode.

WPA-TKIP – enable WPA™ security mode with TKIP support only.

WPA-AES – enable WPA™ security mode with AES support only.

WPA2 – enable WPA2™ security mode.

WPA2-TKIP – enable WPA2™ security mode with TKIP support only.

WPA2-AES – enable WPA2™ security mode with AES support only.

Authentication Type: one of the following authentication modes should be selected if WEP security method is used:

Open Authentication – station is authenticated automatically by AP (selected by default).

Shared Authentication – station is authenticated after the challenge, generated by AP.

WEP Key Length: 64-bit (selected by default) or 128-bit WEP Key length should be selected if WEP security method is used.

Key Type: HEX (selected by default) or ASCII option specifies the character format for the WEP key if WEP security method is used.

WEP Key: WEP encryption key for the wireless traffic encryption and decryption should be specified if WEP security method is used:

For *64-bit* – specify WEP key as 5 HEX (0-9, A-F or a-f) pairs (e.g. 00112233AA) or 5 ASCII characters.

For *128-bit* – specify WEP key as 13 HEX (0-9, A-F or a-f) pairs (e.g. 00112233445566778899AABBCC) or 13 ASCII characters.

Key Index: specify the Index of the WEP Key used.

WPA Authentication: one of the following WPA™ key selection methods should be specified if WPA™ or WPA2™ security method is used:

PSK – WPA™ or WPA2™ with Pre-shared Key method (selected by default).

EAP – WPA™ or WPA2™ with EAP (Extensible Authentication Protocol) IEEE 802.1x authentication method. This option is used in Enterprise networks.

WPA Pre-shared Key: the pass phrase for WPA™ or WPA2™ security method should be specified if the Pre-shared Key method is selected. The pre-shared key is an alpha-numeric password between 8 and 63 characters long.

Refer to the section Basic Wireless Settings in the [AirOS User's Guide](#) for more detailed configuration information.

Click the **Change** button to save the changes.

Step 6 - Change administrator password

The screenshot shows a web interface titled "ADMINISTRATIVE ACCOUNT". It contains four input fields: "Administrator Username" with the value "ubnt", "Current Password" with four dots, "New Password" with eight dots, and "Verify New Password" with eight dots. A "Change" button is located below the "Verify New Password" field.

For the security reasons the default administrator's password should be changed immediately.

Use the **System** menu and specify the parameters:

Current Password: enter a current administrator password ("ubnt" by default). Default administrator username is also "ubnt".

New Password: enter a new password used for administrator authentication.

Verify Password: re-enter the new password to verify its accuracy.

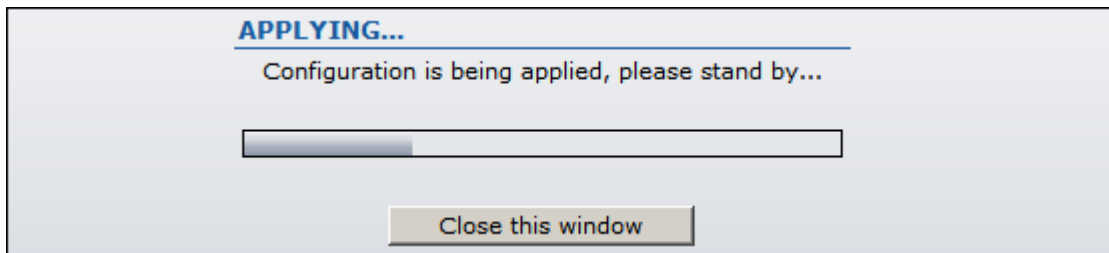
Click the **Change** button to save the changes.

Step7 - Apply the changes

After each configuration change the informational message suggesting you to apply changes and reboot the device will appear:

Click the **Apply** button to apply the changes and reboot the device.

Click the **Discard** button to discard the changes and start the configuration over again.



A pop-up progress window will appear during the Apply operation:

After the configuration of the general settings, the device is ready for basic operation. Web interface can be used for further device configuration. Please refer to the [AirOS User's Guide](#) for detailed configuration instructions.