

AirStation

## **WZR-1750DHP / WZR-1166DHP**

### **User Manual**



[www.buffalotech.com](http://www.buffalotech.com)

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# Chapter 1 - Setup

## Introduction

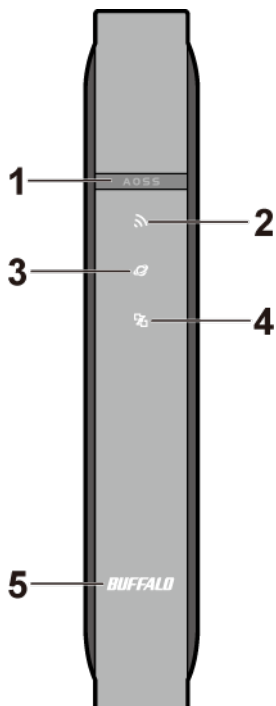
Thank you for buying a Buffalo AirStation. The WZR-1750DHP and WZR-1166DHP AirStations are dual-band wireless routers with outstanding performance and range. They combine high data transfer speeds with a robust set of extra features like QoS, wireless bridging, USB NAS, media server, and web filtering. This manual will help you set up and use your new wireless router. If you're new to wireless networking, turn to chapter 2 to start configuring your wireless network.

For advanced users, use a wired Ethernet connection to access the AirStation's settings:

- Default LAN-side IP address: 192.168.11.1
- Username: admin
- Default password: password

## Diagrams and Layout

### Front Panel



**1** AOSS button  
To initiate AOSS, hold down this button until the wireless LED flashes (about 1 second). Then, push or click the AOSS button on your wireless client device to complete the connection. Both devices must be powered on for this to work.

**2** Wireless LED  
(Access point/wireless bridge control switch set to "AP")

**On:**

Wireless LAN is enabled or transmitting.

**Double blinks:**

AirStation is waiting for an AOSS or WPS security key.

**Continuously blinking:**

AOSS/WPS error; failed to exchange security keys.

**Off:**

Wireless LAN is disabled.

(Access point/wireless bridge control switch set to "WB")

**On:**

Wireless LAN is enabled or transmitting.

**Blinking:**

Wireless LAN is enabled but not connected.

**Off:**

Wireless LAN is disabled.

**Note:** The wireless LED will be blue for 5 GHz wireless connections or amber for 2.4 GHz wireless connections.

**3** Internet access LED (Blue)

**On:**

Internet access is available.

**Off:**

Internet access is not available.

Router functionality is disabled.

**4** Router LED (Blue)

**On:**

Router functionality is enabled.

**Off:**

Router functionality is disabled.

**5** Buffalo LED (White or Red)

**On (White):**

Power is on.

**Off:**

Power is off.

**On (Red)\*:**

Booting.

**2 blinks (Red)\*\*:**

Flash ROM error.

**3 blinks (Red)\*\*:**

Wired Ethernet LAN error.

**4 blinks (Red)\*\*:**

Wireless LAN error.

**5 blinks (Red)\*\*:**

IP address error.  
**9 blinks (Red)\*\*:**  
System error.

**Continuously blinking\*:**  
Updating firmware, saving settings, or initializing settings.

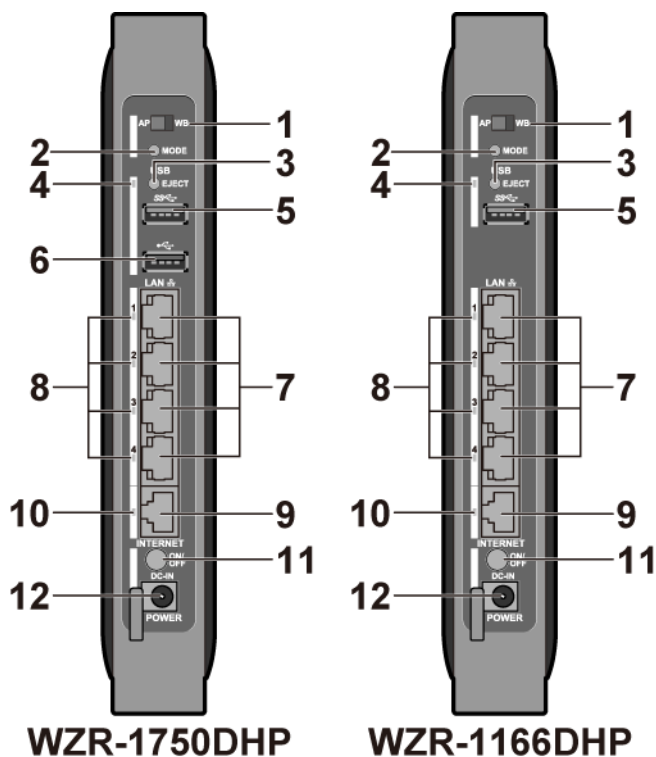
\* Never unplug the AC adapter while the Buffalo LED is blinking continuously.

\*\* Turn off AirStation, wait for a few seconds, then turn it back on.

\*\*\* Because the network addresses of both the Internet port (WAN port) and the LAN port are the same, it is not possible to establish communication. Change the LAN-side IP address of the AirStation.

## Back Panel

---



**1** Access Point/Wireless Bridge Control Switch  
This switch changes between access point mode and wireless bridge mode.  
**AP** - access point (or router)  
**WB** - wireless bridge

**2** Mode Button  
If the switch above is in the "AP" position, this button switches the AirStation between router and access point functionality. If the switch is in the "WB" position, the button has no effect.

**3** USB Eject button  
To dismount a USB hard drive, hold down this button until the USB LED flashes (about 3 seconds). The USB drive can then be unplugged safely.

#### **4** USB LED (Blue)

**On:**

A USB drive is connected.

**Blinking:**

The USB drive can be removed.

**Note:** When this LED is blinking, the connected USB drive cannot be used. Remove the connected USB drive. If the LED continues to blink even after the USB drive is removed, restart the AirStation. Do not remove the USB drive or turn off the AirStation while the USB LED is on.

#### **5** USB 3.0 Port

You can connect any USB 3.0 compatible devices (such as USB storage). Use the cable attached to the USB 3.0 device to connect.

#### **6** USB 2.0 Port

You can connect any USB 2.0 compatible devices (such as USB printers).

#### **7** LAN Port

Connect your computer, hub, or other Ethernet devices to these ports. This switching hub supports 10 Mbps, 100 Mbps, and 1000 Mbps connections.

#### **8** LAN LED (Green)

**On:**

An Ethernet device is connected.

**Blinking:**

An Ethernet device is communicating.

#### **9** Internet Port

10 Mbps, 100 Mbps, and 1000 Mbps connections are supported.

**Note:** In wireless bridge mode or access point mode, the Internet port becomes a regular LAN port, for a total of 5 usable LAN ports.

#### **10** Internet LED (Green)

**On:**

The Internet port is connected.

**Blinking:**

The Internet port is transmitting data.

#### **11** Power Button

This button turns the power on and off.

It may take 20 to 30 seconds to complete shutdown.

#### **12** DC Connector

Connect the included AC adapter here.

## Bottom

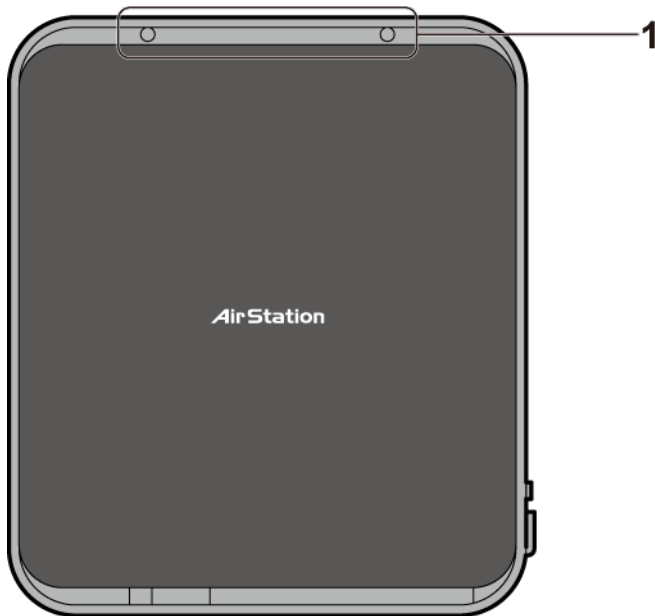
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- 1** Reset Button  
To reset all settings, hold down this button until the Buffalo LED turns red (about 3 seconds). The power must be on for this to work.
- 2** Setup Card Slot  
This is the slot where the AirStation setup card is stored. The initial settings for the username, password, SSID, and encryption type are provided on the card for logging in to Settings.

## Right Side

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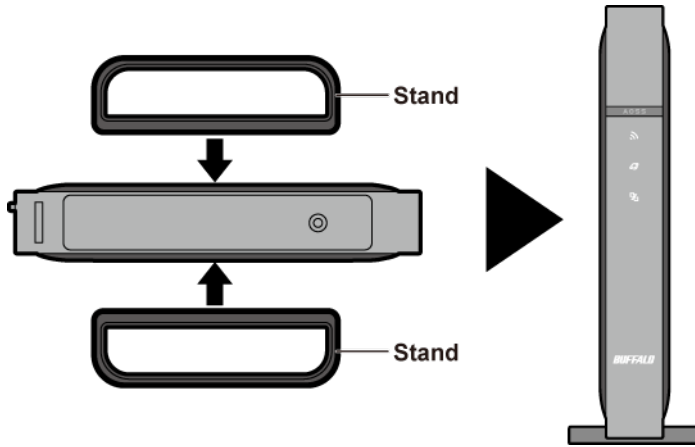


- 1** Mounting Holes  
Mounting holes are provided for mounting the AirStation to a wall. Use the supplied screws to mount to a wall.

# Installation

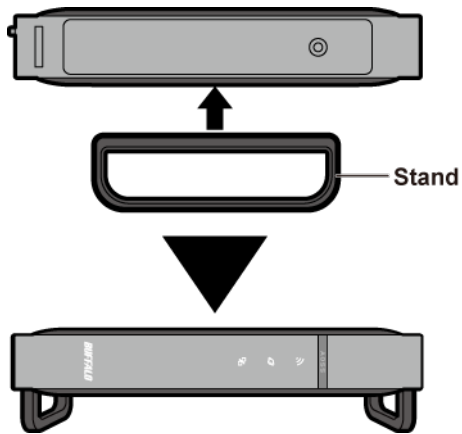
## Vertical Placement

Attach the stand as shown in the figure below.



## Horizontal Placement

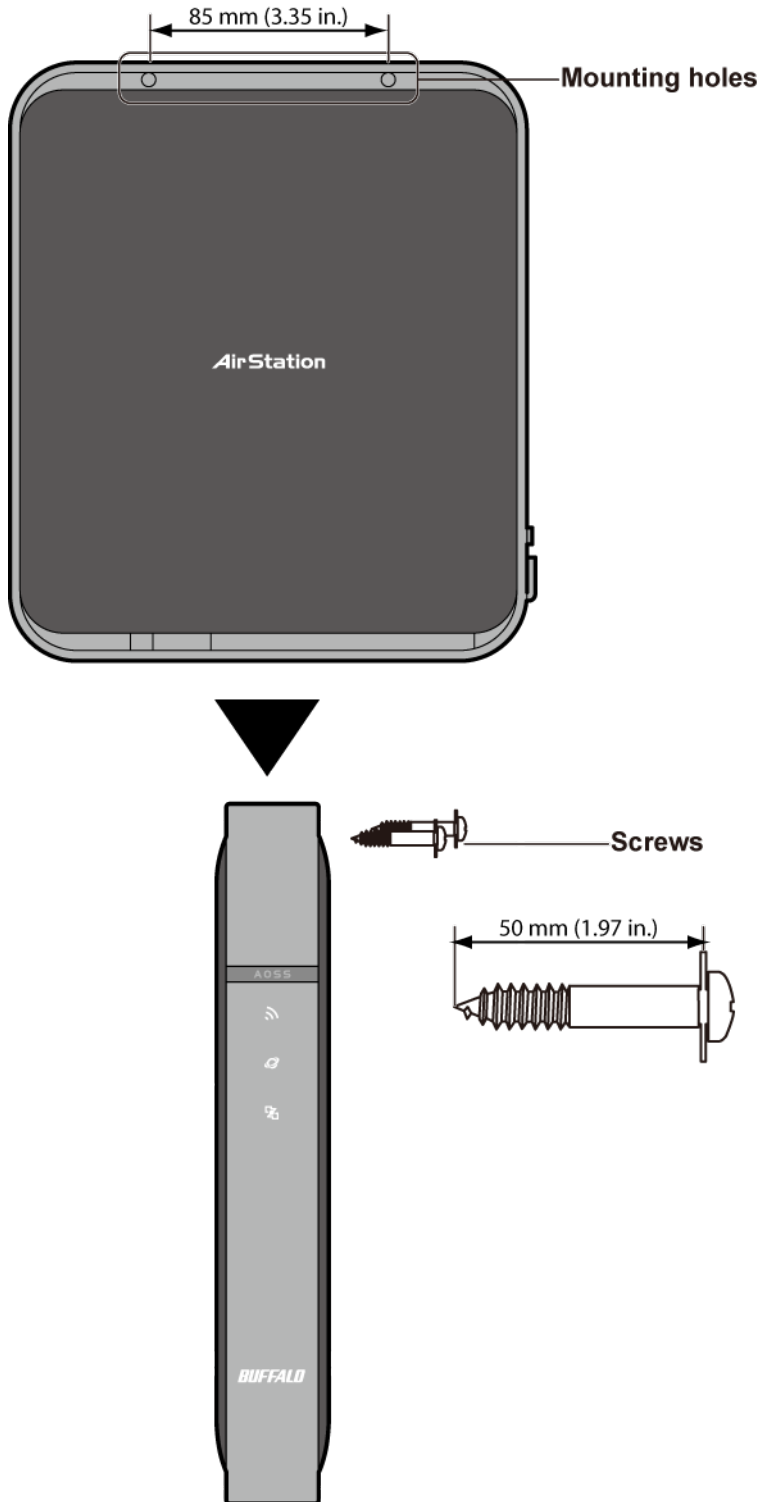
The same stand also allows horizontal placement. Install the stand as shown in the figure below.



# Wall-Mounting

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Attach to the wall with the supplied screws in the mounting holes as shown below.

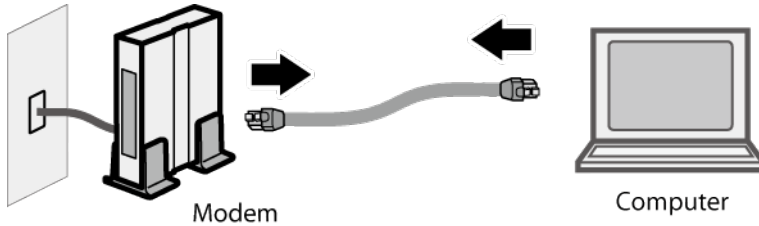


# How to Set Up AirStation for the First Time

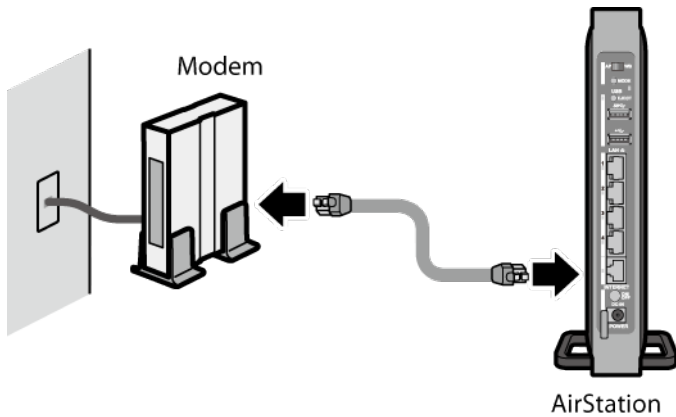
## Connect to a PC and Power On

To configure your AirStation, follow the procedure below.

- 1 Verify that you can connect to the Internet without the AirStation, then turn off your modem and computer.
- 2 Unplug the LAN cable which connects your computer and modem.

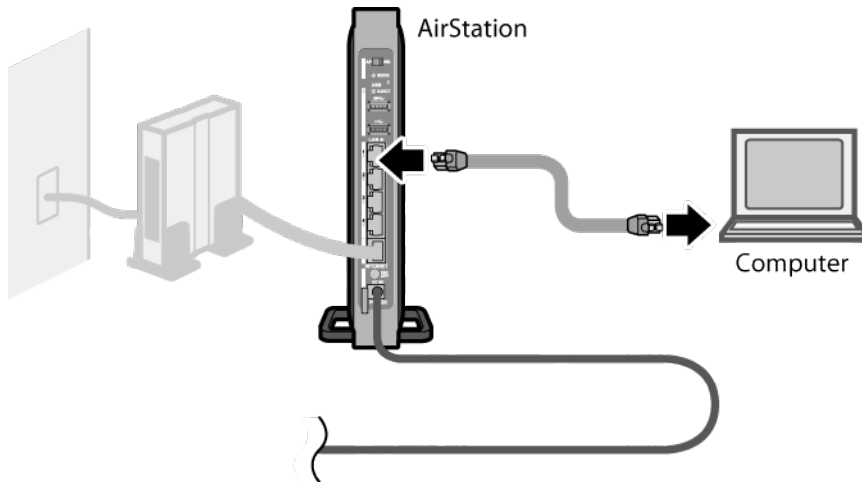


- 3 Plug one end of the LAN cable into your modem and the other end to the AirStation's Internet (WAN) port. Turn on the modem.



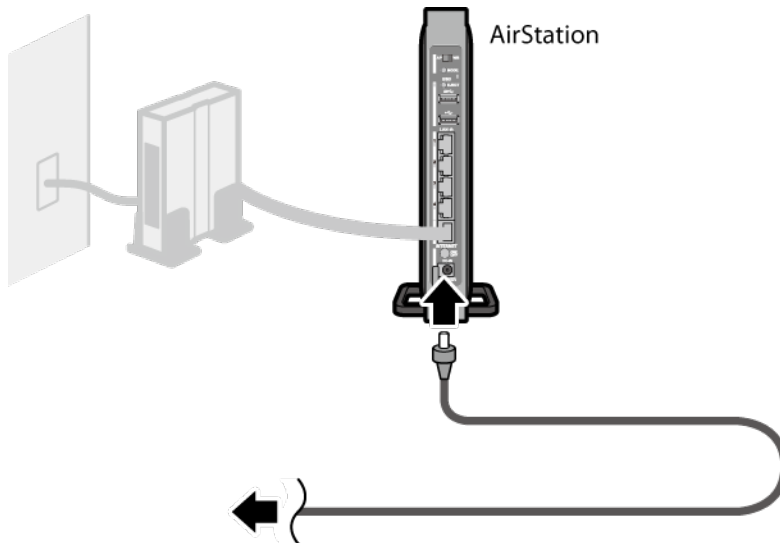


**4** Turn on the AirStation, then wait one minute.



**Note:** If the power does not turn on when the AC adapter is connected, press the power button on the rear of the AirStation.

**5** If using a wired LAN, connect the AirStation LAN port and computer using a LAN cable.  
If using a wireless LAN, connect the computer to the wireless LAN as described in Chapter 3.



**6** Once your computer has booted, the AirStation's LEDs should be lit as described below:

Wireless	On or blinking
Internet access	On
Router	On
Buffalo	White light on
LAN	On or blinking
Internet	On or blinking

**Note:** If the router LED is not lit, hold down the mode button for about 3 seconds to switch to router mode.

- 7 Launch a web browser. If the home screen is displayed, setup is complete. If username and password fields are displayed, enter “admin” for the username and “password” for the password, then click *Log In*. Step through the wizard to complete setup.

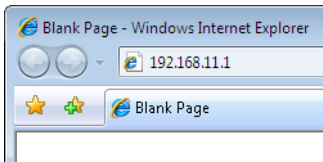
You’ve completed the initial setup of your AirStation.

## Opening Settings

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To configure the AirStation, log in to Settings as shown below.

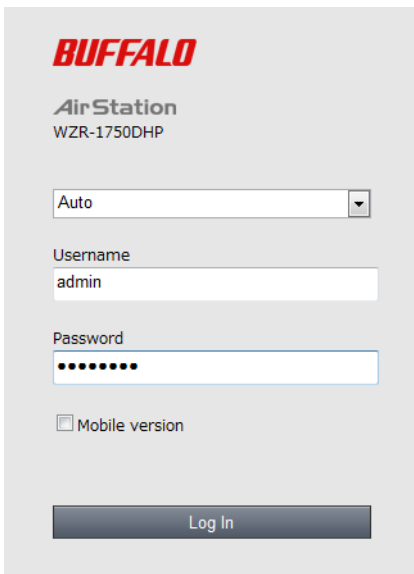
- 1 Launch a web browser.
- 2 Enter the AirStation’s LAN-side IP address in the address field and press the Enter key.



### Notes:

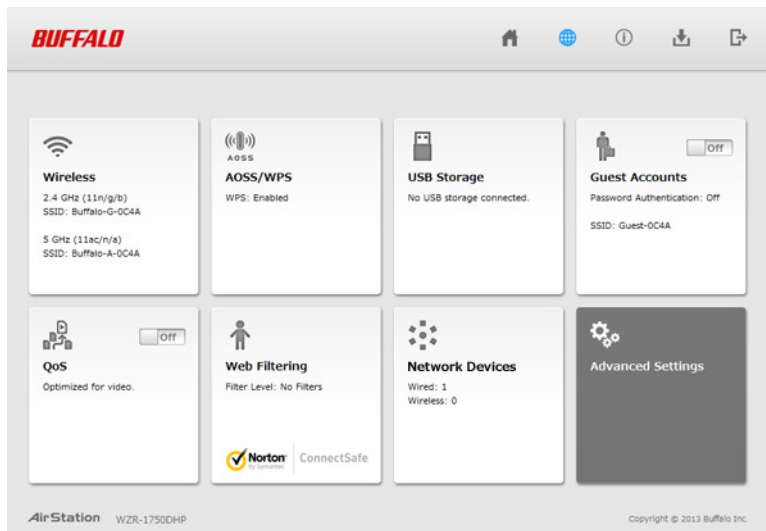
- The AirStation’s default LAN-side IP address depends on the mode.
- In router mode: 192.168.11.1
- In access point mode: 192.168.11.100
- In wireless bridge mode: 192.168.11.100
- If you changed the IP address of the AirStation, then use the new IP address.

- 3 Enter “admin” for the username and “password” for the password, then click *Log In*.



**Note:** If you forget your password, hold down the reset button to initialize all settings. Note that all other settings will also revert to their default values.

4 This is the home page of Settings, where most AirStation settings can be configured.

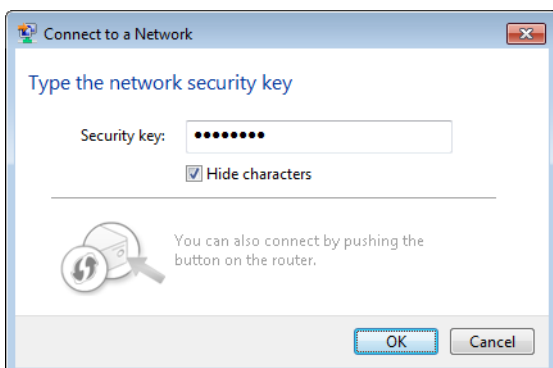


## Connect Your Wireless Devices

For each wireless device that you want to connect to the network, use the device's built-in software to search for available networks. Find your SSID (the name of your wireless network) on the list of detected networks and select it.



Enter the passphrase for the network and you'll be connected. Repeat for any additional wireless client devices that you want to connect.



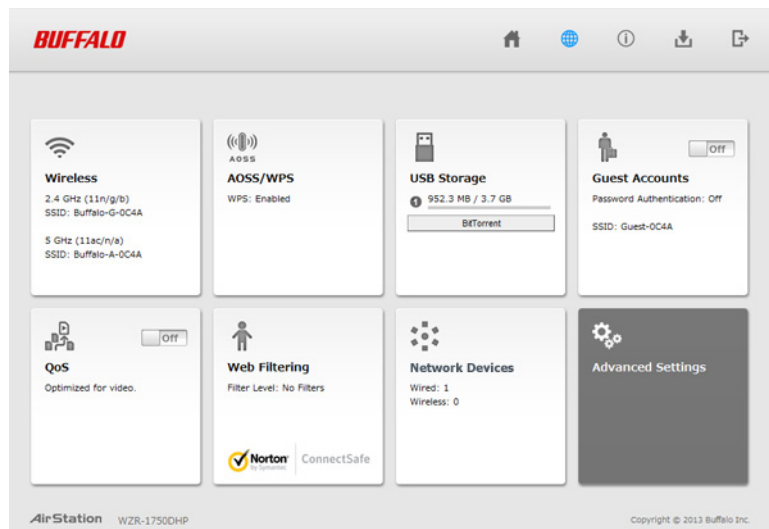
# Chapter 2 - Settings

Settings is the configuration GUI for the AirStation. You can configure all settings for the AirStation from here. This user manual shows examples from the WZR-1750DHP. If you have a WZR-1166DHP, your screens may be slightly different.

## Easy Admin

### Home

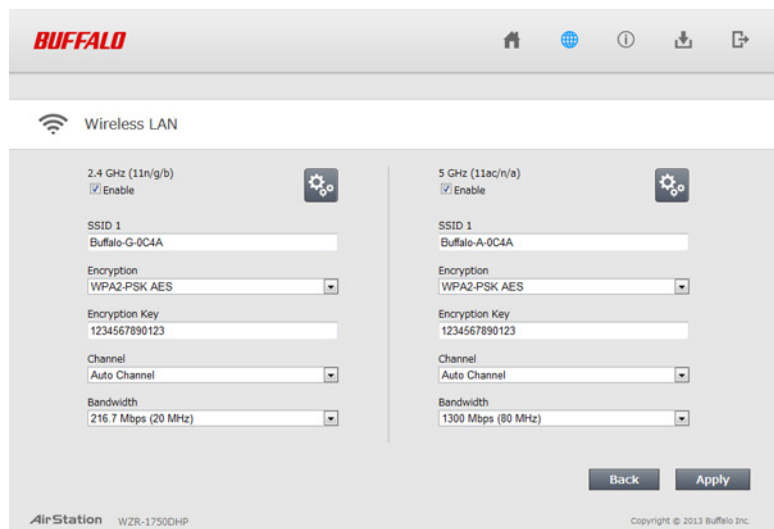
When you first open Settings, the Easy Admin page is shown. From this page you can easily configure common settings. The examples below assume the AirStation is in router mode.



<b>Wireless</b>	Displays current wireless status. Click the panel to configure wireless settings.
<b>AOSS/WPS</b>	Displays current AOSS/WPS status. Click the panel to run AOSS/WPS.
<b>USB Storage</b>	Displays the status of USB storage connected to this product. Click the panel to configure USB storage settings.
<b>Guest Accounts</b>	Displays current guest accounts status. Click the slider to turn guest accounts on or off. Click the panel to configure guest accounts settings.
<b>QoS</b>	Displays current QoS status. Click the slider to turn QoS on or off. Click the panel to configure priority control QoS.
<b>Web Filtering</b>	Displays current content filter status. Click the panel to configure web filtering.
<b>Network Devices</b>	Displays the number of devices connected to the network. Click the panel to check each device's status.
<b>Advanced Settings</b>	Click the panel to configure advanced settings.

# Wireless

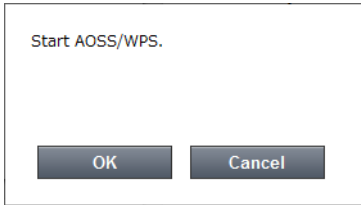
Configure basic wireless settings here. This is available in router and access point modes only.



<b>2.4 GHz (11n/g/b) 5 GHz (11ac/n/a)</b>	You may enable or disable either wireless frequency range independently. If both wireless radios are disabled, the AirStation will not communicate wirelessly.
<b>SSID 1</b>	Each SSID may contain up to 32 alphanumeric characters.
<b>Encryption</b>	<p>The following types of encryption are available:</p> <p><b>WPA2-PSK AES</b> WPA2 authentication with AES encryption is the best system available. Highly recommended if all your wireless clients support it.</p> <p><b>WPA-PSK AES (WZR-1166DHP only)</b> WPA authentication with AES encryption is an older system, but still secure.</p> <p><b>WPA/WPA2-mixed PSK TKIP+AES</b> For maximum compatibility, this system allows any combination of WPA, WPA2, TKIP, and AES. This encryption system works with most older clients but is not very secure.</p> <p><b>No Encryption</b> No encryption means that anyone can log in to your wireless network, snoop on your wireless traffic, and use your bandwidth. Not recommended for most users.</p>
<b>Encryption Key</b>	The encryption key is like the "password" for your wireless network. It may contain 8 to 63 case-sensitive alphanumeric characters (ASCII) or 64 hexadecimal characters (0-9 and a-f, not case-sensitive).
<b>Channel</b>	For best results, select <i>Auto Channel</i> . The AirStation will seek and use the clearest channel automatically. Alternately, you may choose a wireless channel manually.
<b>Bandwidth</b>	In rural areas with little wireless traffic, a larger bandwidth setting may improve wireless performance significantly. However, if you are in an urban area with much wireless traffic and interference, the default bandwidth is recommended.

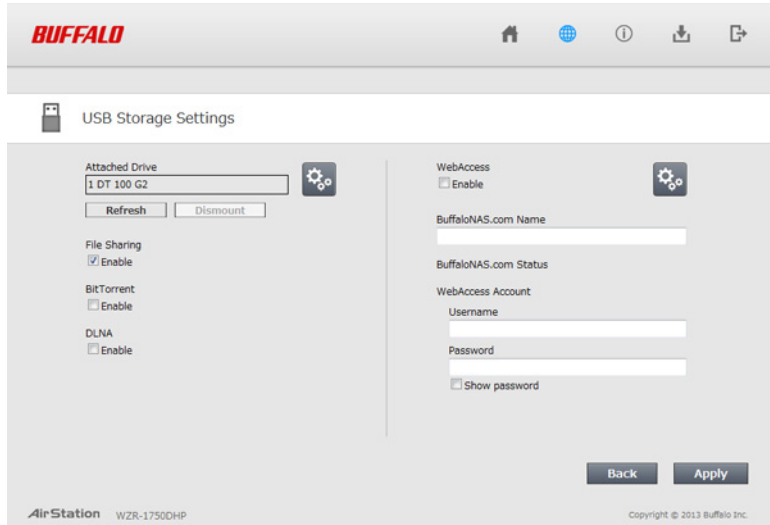
## AOSS/WPS

The following window appears when you click the panel. Click **OK** to start AOSS/WPS.



## USB Storage

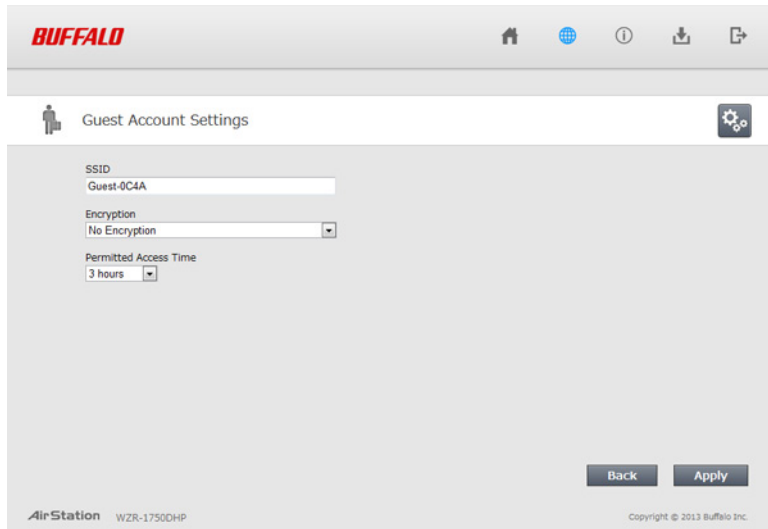
Configure USB storage settings here.



<b>Attached Drive</b>	The names of USB devices connected to this product.
<b>File Sharing</b>	Enable or disable file sharing.
<b>BitTorrent</b>	Enable or disable BitTorrent.
<b>DLNA</b>	Enable or disable the media server.
<b>WebAccess</b>	Enable or disable WebAccess.
<b>BuffaloNAS.com Name</b>	This name may contain 3 to 20 alphanumeric characters, hyphens (-), and underscores (_). The AirStation will be registered by this name at BuffaloNAS.com.
<b>BuffaloNAS.com Status</b>	If the status shows <i>Registration failure</i> , check your BuffaloNAS.com settings.
<b>Username</b>	The WebAccess username may contain up to 20 alphanumeric characters, hyphens (-), underscores (_), and periods (.). Don't use a symbol as the first character.
<b>Password</b>	The WebAccess password may contain up to 20 alphanumeric characters, hyphens (-), underscores (_), and periods (.). It should not be blank. Don't use a symbol as the first character.

# Guest Accounts

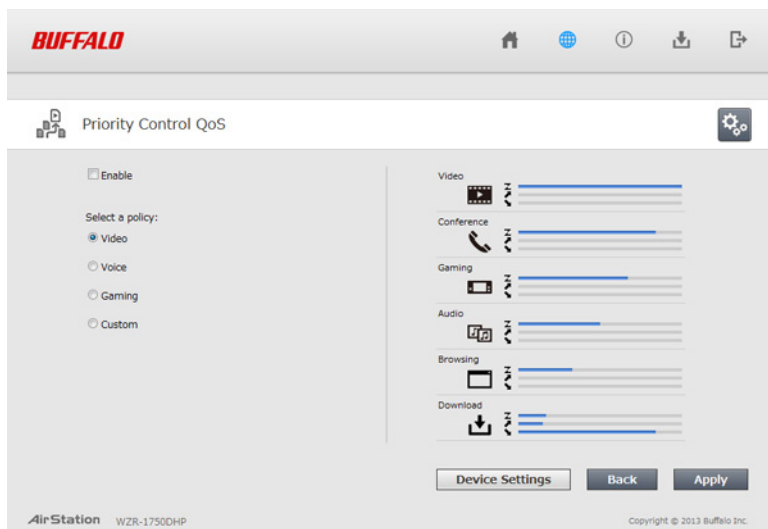
Configure guest account settings here. This is available in router and access point modes only.






<b>SSID</b>	The SSID for the guest accounts may contain up to 32 alphanumeric characters.
<b>Encryption</b>	Select an encryption mode for the guest accounts.
<b>Permitted Access Time</b>	This is the amount of time that guests will be permitted to access the Internet.

# QoS

Configure QoS settings here. This is available in router mode only.

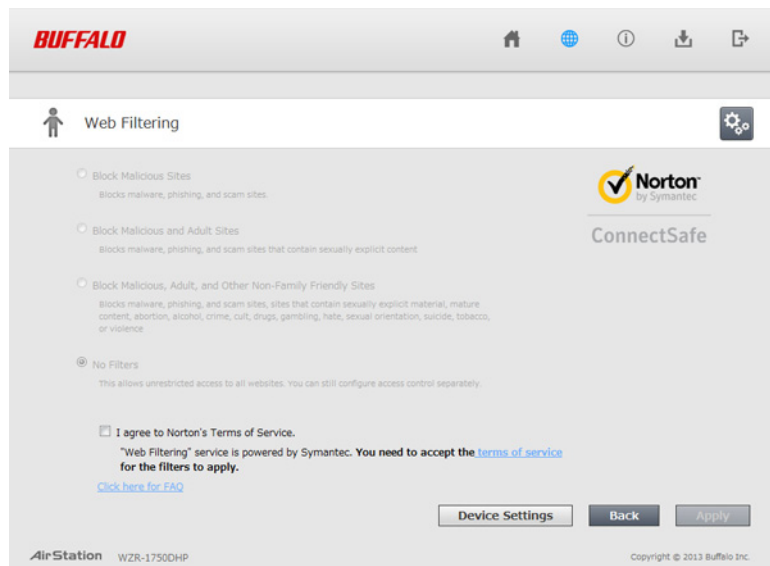


<b>Enable</b>	Enable or disable QoS.
---------------	------------------------

<b>Select a policy</b>	Select a policy for communication. Network bandwidth will be optimized for the selected item.
Traffic Monitor	<p>You can check each item's communication status.</p> <p> : Priority</p> <p> : Upload speed</p> <p> : Download speed</p>

## Web Filtering

Configure web filtering. This is available in router mode only.



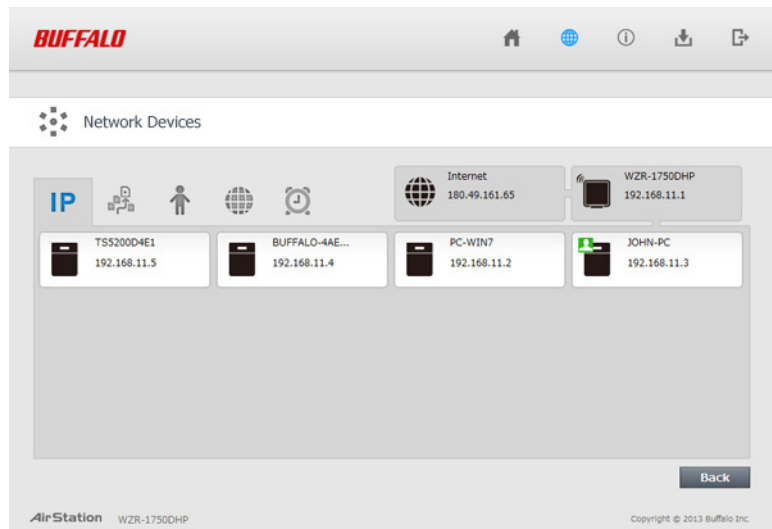
<b>Block Malicious Sites</b>	Blocks malware, phishing, and scam sites.
<b>Block Malicious and Adult Sites</b>	Blocks malware, phishing, and sites that contain sexually explicit content.
<b>Block Malicious, Adult, and Other Non-Family Friendly Sites</b>	Blocks malware, phishing, and scam sites, sites that contain sexually explicit material, mature content, abortion, alcohol, crime, cult, drugs, gambling, hate, sexual orientation, suicide, tobacco, and violence.
<b>No Filters</b>	This allows unrestricted access to all websites. You can still configure access control separately.
<b>I agree to Norton's Terms of Service</b>	Web filtering is provided by Symantec Corporation. To enable, you must accept the terms of service.






Norton ConnectSafe must be activated by the customer. Use of Norton ConnectSafe is subject to the terms of service found at <https://dns.norton.com/dnsweb/terms.do>



# Network Devices

Check the status of each device connected to the network. This is available in router mode only.



	<p>Displays the IP address of each device connected to this product.</p>
	<p>Displays uploading and downloading speed of each device connected to this product.</p>
	<p>Displays the devices connected to the AirStation.</p>
	<p>Click the appropriate icon to open each device's settings.</p>
	<p>Click the icon to send a Wake-on-LAN packet to the device.</p>

# Advanced Settings

## Internet

Configure the WAN-side port (“Internet port”) here.

### Internet - Internet (Router Mode Only)

Method of Acquiring IP Address	<input checked="" type="radio"/> Perform Internet Connection Wizard <input type="radio"/> Acquire an IP address automatically from a DHCP server <input type="radio"/> Use PPPoE client <input type="radio"/> Use IP unnumbered <input type="radio"/> Use this address Static IP Address <input type="text"/> Subnet Mask <input type="text" value="255.255.255.0"/>
--------------------------------	--

To set up PPPoE, [click here](#).

#### Advanced Settings

Default Gateway	<input type="text"/>
DNS Name Server Address	Primary: <input type="text"/> Secondary: <input type="text"/>
Internet MAC Address	<input checked="" type="radio"/> Use default MAC address(10:6F:3F:99:0C:4A) <input type="radio"/> Use this address <input type="text"/>
MTU Size of Internet Port	<input type="text" value="1500"/> Bytes

<b>Method of Acquiring IP Address</b>	Specify how the WAN-side IP address is obtained.
<b>Default Gateway</b>	Configure an IP address for the default gateway.
<b>DNS Name Server Address</b>	Specify an IP address for the DNS server.
<b>Internet MAC Address</b>	You may use the default MAC address or specify one manually. <b>Note:</b> Configuring an improper MAC address may make the AirStation unusable. Do not change the MAC address unless you know what you’re doing!
<b>MTU Size of Internet Port</b>	Configure the MTU value of the Internet port. Values of 578 to 1500 bytes may be entered.

# PPPoE

---

Configure PPPoE settings here.

## Internet - PPPoE (Router Mode Only)

Default PPPoE Connection	1 : Easy Setup ▾
IP Unnumbered PPPoE Connection	1 : Easy Setup ▾

### PPPoE Connection List

#	Name	Status
1	Easy Setup	Enable

Edit Connection List

### Preferred Connections

#	Name	Destination Address	Source Address
Route is not registered.			

Edit Preferred Connections

<b>Default PPPoE Connection</b>	If you have registered multiple connection destinations in the <i>PPPoE Connection List</i> , connection destinations selected here have priority.
<b>IP Unnumbered PPPoE Connection</b>	Select the destination from the <i>PPPoE Connection List</i> which is used when <i>Use IP Unnumbered</i> is chosen for the method of acquiring IP address.
<b>PPPoE Connection List</b>	Edit PPPoE destination. You can register up to 5 sessions.
<b>Edit Connection List</b>	Click this button to edit destination settings.

PPPoE Connection	<p>This is displayed when <i>Edit Connection List</i> is clicked.</p> <p><b>Name of Connection</b> Enter the name to identify the connected destination. You may enter up to 32 alphanumerical characters and symbols.</p> <p><b>Username</b> Enter the username specified by your ISP for PPPoE certification. You may enter up to 64 alphanumerical characters and symbols.</p> <p><b>Password</b> Enter the password specified by your ISP for PPPoE certification. You may enter up to 64 alphanumerical characters and symbols.</p> <p><b>Service Name</b> Fill in this field only if your ISP specifies a service name. Leave blank otherwise. You may enter up to 64 alphanumerical characters and symbols.</p> <p><b>Connection Type</b> Specifies the timing for the AirStation to connect to your provider.</p> <p><b>Automatic Disconnection</b> Set time to disconnect after communication is stopped when the connection method is set to <i>Connection on Demand</i> or <i>Manual</i>. You can enter up to 1440 minutes.</p> <p><b>Authentication</b> Configure an authentication method with a provider.</p> <p><b>MTU Size</b> Configure the MTU size for PPPoE. Values of 578 to 1492 bytes may be entered.</p> <p><b>MRU Size</b> Configure MRU (maximum receive unit) for PPPoE. Values of 578 to 1492 may be entered.</p> <p><b>Keepalive</b> If keepalive is enabled, the AirStation will issue an LCP echo request once a minute in order to maintain the connection with the PPPoE. If the server does not respond for more than 6 minutes, the line is recognized as disconnected and the AirStation will terminate the connection. Disabled by default.</p>
<b>Preferred Connections</b>	Displays information you have set regarding to the connection destination route.
<b>Edit Preferred Connections</b>	Click to edit the connection destination route settings.
Preferred PPPoE Connection	<p>Click <i>Edit Preferred Connections</i> to display.</p> <p><b>Name</b> The destination to connect by PPPoE if <i>Destination Address</i> and <i>Source Address</i> match. Select the destination registered to the PPPoE Connection List.</p> <p><b>Destination Address</b> When communicating to this address, the AirStation will communicate with <i>Name</i>.</p> <p><b>Source Address</b> When communicating from this address, the AirStation will communicate with <i>Name</i>.</p>

# Dynamic DNS

Configure dynamic DNS settings here. Many settings are only available when the appropriate dynamic DNS service is enabled.

## Internet - Dynamic DNS (Router Mode Only)

Dynamic DNS Service  ▾

### Current Dynamic DNS Settings

Internet-side IP Address	180.49.161.65
Domain Name	Disabled
Status	Disabled

<b>Dynamic DNS Service</b>	Select a provider (DynDNS or TZO) for dynamic DNS. "No-IP" can be also selected if you are using WZR-1750DHP.
<b>Username</b>	Enter the dynamic DNS username. You may enter up to 64 alphanumerical characters and symbols.
<b>Password</b>	Enter the dynamic DNS password. You may enter up to 64 alphanumerical characters and symbols.
<b>Hostname</b>	Enter the dynamic DNS hostname. You may enter up to 255 alphanumerical characters, hyphens, and periods.
<b>Email Address</b>	Enter the email address which is registered to the dynamic DNS service. You may enter up to 64 alphanumerical characters and symbols.
<b>TZO Key</b>	Enter the TZO Key which is registered to the dynamic DNS service. You may enter up to 64 alphanumerical characters and symbols.
<b>Domain Name</b>	Enter the domain name which is registered to the dynamic DNS service. You may enter up to 255 alphanumerical characters, hyphens, and periods.
<b>IP Address Update Period</b>	Specifies the period to notify the dynamic DNS service provider of the current IP address. For DynDNS, set it between 0 and 35 days. For TZO, set it between 0 and 99 days. If 0 (zero) days is set, no periodic update is performed.
<b>Forced Update</b>	Enable forced update to send an update even if your IP address has not changed.
<b>Internet-side IP Address</b>	The WAN-side IP address of the AirStation's Internet port. This address is sent to the dynamic DNS service provider.
<b>Domain Name</b>	The domain name assigned by the dynamic DNS service provider. The AirStation can be accessed from the Internet using this domain name.
<b>Status</b>	Displays the status of the dynamic DNS service.

# PPTP

Configure the VPN server here.

## Internet - PPTP (Router Mode Only)



PPTP Server	<input type="checkbox"/> Enable
Authentication Type	MS-CHAPv2 (40/128-bit Encryption) ▾

### Advanced Settings

Server IP Address	<input checked="" type="radio"/> Auto <input type="radio"/> Manual <input type="text"/>
Client IP Address	<input checked="" type="radio"/> Auto <input type="radio"/> Manual <input type="text"/> for up to 5 address(es)
DNS Server IP Address	<input checked="" type="radio"/> LAN-side IP address of the AirStation <input type="radio"/> Manual <input type="text"/> <input type="radio"/> Do not notify
WINS Server IP Address	<input type="text"/>
MTU/MRU Value	1396 <input type="text"/>

### PPTP User List

Username	Connection Condition	IP Address	Operation
No registered users			

[Edit PPTP User List](#)

[Refresh](#)

<b>PPTP Server</b>	Enable to use a PPTP server.
<b>Authentication Type</b>	Select the authentication method for PPTP connection.
<b>Server IP Address</b>	Select the server IP address.
<b>Client IP Address</b>	Select the IP address range.
<b>DNS Server IP Address</b>	Choose the IP address for the DNS server.
<b>WINS Server IP Address</b>	Choose the IP address for the WINS server.
<b>MTU/MRU Value</b>	Configure the MTU (maximum transmission unit) and MRU (maximum receive unit) to values between 578 and 1500.
<b>Edit PPTP User List</b>	Click to edit user information.
<b>Add New user</b> <b>Advanced Settings</b>	<p>Click <i>Edit PPTP User List</i> to display.</p> <p><b>Username</b> Enter the username to connect to the PPTP server. You may enter up to 16 alphanumeric characters and symbols.</p> <p><b>Password</b> Enter the password to connect to the PPTP server. You may enter up to 16 alphanumeric characters and symbols.</p> <p><b>Method of Acquiring IP Address</b> Select the method to be used to assign the IP address is assigned to the PPTP client.</p>
<b>PPTP User List</b>	Displays the PPTP users.

# NAT

Configure network address translation settings here. This enables LAN-side devices to communicate with the Internet.

## Internet - NAT (Router Mode Only)

Address Translation  Enable

<b>Address Translation</b>	Enable to use network address translation.
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# LAN

Configure LAN-side and DHCP server settings.

## LAN - LAN

LAN-side IP Address	IP Address	192.168.11.1
	Subnet Mask	255.255.255.0
DHCP Server	<input checked="" type="checkbox"/> Enable	
DHCP IP Address Pool	192.168.11.2	for up to 64 address(es)
	Excluded IP Addresses:	

LAN-side IP Address (For IP Unnumbered)	IP Address	
	Subnet Mask	255.255.255.0

### DHCP Server Settings

Advanced Settings  Display

<b>LAN-side IP Address</b>	By default, the LAN-side IP address is 192.168.11.1 with subnet mask 255.255.255.0. You may change it here.
<b>DHCP Server</b>	Enable or disable the DHCP server, which assigns LAN-side IP addresses automatically.
<b>DHCP IP Address Pool</b>	Configure the range of IP addresses to be assigned by the DHCP server and IP addresses to be excluded from that range. Values from 1-256 may be entered.
<b>LAN-side IP Address (For IP Unnumbered)</b>	Set an IP unnumbered LAN-side IP address. <b>Note:</b> A PC with a normal LAN-side IP address and a PC with an IP unnumbered IP address cannot communicate each other.
<b>Advanced Settings</b>	Check <i>Display</i> to display DHCP server advanced settings options.
<b>Lease Period</b>	Set the effective period for IP addresses assigned by the DHCP server. Up to 999 hours may be entered.
<b>Default Gateway</b>	Set the default gateway IP address for the DHCP server to issue to clients.
<b>DNS Servers</b>	Set the DNS server IP address for the DHCP server to issue to clients.
<b>WINS Server</b>	Set the WINS server IP address for the DHCP server to issue to clients.

<b>Domain Name</b>	Set the domain name for the DHCP server to issue to clients. You may enter up to 127 alphanumerical characters, hyphens, and periods.
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## DHCP Leases

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Configure DHCP exceptions here.

### LAN - DHCP Leases (Router Mode Only)

#### Current DHCP Clients

IP Address	MAC Address	Lease Period	Status	Customize
No IP addresses have been assigned.				

\* The IP address of this computer is 192.168.11.2.

Add Client

Refresh

<b>Current DHCP Clients</b>	Displays information for current leases. An IP address which is leased automatically can be changed to manual leasing by clicking <i>Add Client</i> .
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## Routing

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Configure the AirStation's IP communication route here.

### LAN - Routing

#### Routing

Destination Address	Subnet Mask	Gateway	Metric	Operation
No routes are registered.				

Add

<b>Routing</b>	Manual entries will appear here after being added.
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# IPTV

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Configure the AirStation to receive IPTV broadcasting through a set top box (STB)-attached TV here.

**Note:** This feature is only available to WZR-1750DHP users in Russia.

## LAN - IPTV

STB Ports	<input type="checkbox"/> Enable
Port Assignment	Port 4 ▼

<b>STB Ports</b>	When enabled, assigned LAN ports will allow STB devices to connect.
<b>Port Assignment</b>	Specify the LAN port(s) to only be used as the dedicated STB port(s). Select "Port 4" if connecting only one STB. Otherwise, select "Ports 3 and 4". Make sure that only STB devices connect to STB ports. Devices connected to STB ports cannot communicate with the AirStation.

## 2.4 GHz

Configure basic wireless settings from here.

### Wireless - 2.4 GHz

Wireless	<input checked="" type="checkbox"/> Enable
Wireless Channel	Auto Channel (Current Channel : 4)
High-Speed Mode	Bandwidth: 216.7 Mbps (20 MHz) (Current: 20 MHz) Extension Channel: 1
Broadcast SSID	<input checked="" type="checkbox"/> Allow

#### SSID1

SSID1	<input checked="" type="checkbox"/> Use
SSID Isolation	<input type="checkbox"/> Use
SSID	<input checked="" type="radio"/> Use AirStation's MAC address(Buffalo-G-0C4A) <input type="radio"/> Enter value: <input type="text"/>
Wireless Authentication	WPA2-PSK
Encrypt Wireless Data	AES
WPA-PSK (Pre-shared Keys)	1234567890123
Key Renewal Interval	0 minutes

<b>Wireless</b>	Determines whether to allow wireless communication. If this is unchecked, then no wireless connections will be allowed.
<b>Wireless Channel</b>	Sets a channel (a range of frequencies) for wireless connections. With <i>Auto Channel</i> selected, the AirStation will automatically use the best available channel.
<b>High-Speed Mode</b>	Configure the bandwidth for wireless communication. To increase communication rate, set the bandwidth to 40 MHz and configure extension channel.
<b>Broadcast SSID</b>	If <i>Allow</i> is checked, then the AirStation will respond to SSID searches from wireless devices by broadcasting its SSID. If <i>Allow</i> is unchecked, then the AirStation ignores SSID searches from wireless devices.
<b>SSID 1</b> <b>SSID 2</b>	Enable or disable the main SSID (SSID 1) and sub SSID (SSID 2).
<b>SSID Isolation</b>	Enable to make wireless devices connected to the specified SSID be able to communicate only with the Internet-side.
<b>Wireless Authentication</b>	Select an authentication method for SSID 1 from below: <b>WPA/WPA2-mixed mode PSK</b> Allows the authentication compatible with WPA-PSK and WPA2-PSK at the same time. <b>WPA2-PSK</b> Allows the authentication compatible with WPA2 (IEEE 802.11i). <b>WPA-PSK (WZR-1166DHP only)</b> Allows the authentication compatible with WPA (Wi-Fi Protected Access). <b>No Authentication</b> Connect to wireless clients without any authentication method.

<b>Encrypt Wireless Data</b>	<p>You may use any of the following types of encryption:</p> <p><b>TKIP/AES mixed mode</b>  <i>TKIP/AES mixed mode</i> allows both TKIP and AES authentication and communication. This is no more secure than TKIP alone, but more convenient for some users. <i>TKIP/AES mixed mode</i> can be selected only when <i>WPA/WPA2 mixed mode - PSK</i> is selected for wireless authentication.</p> <p><b>AES</b>  AES is more secure than TKIP, and faster. Use a pre-shared key to communicate with a wireless device. AES can be selected only when WPA-PSK or WPA2-PSK is selected for wireless authentication.</p> <p><b>No Encryption</b>  Data is transmitted without encryption. With this setting, anyone within range can connect to your wireless network and might be able to access data on the network. Not recommended for anyone with private data that needs to be kept secure. <i>No Encryption</i> can be selected only when <i>No Authentication</i> is selected for wireless authentication.</p>
<b>WPA-PSK (Pre-Shared Keys)</b>	<p>A pre-shared key or passphrase is the password for your wireless connections. There are two different formats for a pre-shared key. Use 8 to 63 alphanumeric characters (case-sensitive) for an ASCII passphrase, or use 64 alphanumeric characters (0 to 9 and a to f, not case-sensitive) for a hexadecimal passphrase.</p>
<b>Key Renewal Interval</b>	<p>Set the update interval for the encryption key between 0 and 1440 (minutes).</p>
<b>WEP Encryption Key Settings</b>	<p>A WEP encryption key (passphrase) may have any of four different formats. An ASCII passphrase may use either 5 or 13 alphanumeric characters (case-sensitive). A hexadecimal passphrase may use either 10 or 26 alphanumeric characters (0 to 9 and a to f, not case-sensitive).</p>
<b>BSS BasicRateSet</b>	<p>BSS (basic service set) configures the transmission rate of control communication frames for a wireless client. Setup choices may vary with different wireless clients.</p>
<b>Multicast Rate</b>	<p>Set the communication speed of multicast packets.</p>
<b>802.11n Protection</b>	<p>Enable to use 802.11n protection. 802.11n protection gives priority to 802.11n devices in mixed mode (11b/g or 11a) networks.</p>
<b>Frame Burst (WZR-1750DHP only)</b>	<p>We recommend leaving frame burst on to prevent any compatibility issues with Wi-Fi certified access point devices.</p>
<b>DTIM Period</b>	<p>Set the beacon responding interval (1 -255) for which the AirStation responds to a wireless device. This setting is effective only when power management is enabled for the wireless device.</p>
<b>Wireless Client Isolation</b>	<p>If enabled, the Wireless client isolation blocks communication between wireless devices connected to the AirStation. Wireless devices will be able to connect to the Internet but not with each other. Devices that are connected to the AirStation with wired connections will still be able to connect to wireless devices normally.</p>
<b>Output Power</b>	<p>This sets the output of the wireless signal. Because the wireless transmission output and signal distance range are nearly proportional, when the wireless transmission output is reduced, the signal distance range also becomes shorter.</p>
<b>WMM Settings</b>	<p>Check <i>Display</i> to set priorities only for a specific communication.</p>

<p><b>WMM-EDCA Parameters</b></p>	<p>You don't usually need to change these settings. Using the default settings is recommended.</p> <p><b>Priority</b></p> <p>The following priorities may be applied to individual transmission packets: (Highest) 8, (High) 4, (Normal) 2, and (Low) 1. From the queue, these packets are processed in order of priority.</p> <p><b>CWmin, CWmax</b></p> <p>The maximum and minimum value of the contention window. The contention window is used in the frame collision avoidance structure performed in IEEE802.11, and generally, the smaller the value in the window, the higher the probability that the queue obtains the right to send.</p> <p><b>AIFSN</b></p> <p>The interval to send frames. The unit of the AIFSN is a slot, just as the window defined by CWmin and CWmax is. The smaller the interval of sending frames, the faster the algorithm can restart. As a result, the priority of the queue is higher.</p> <p><b>TXOP Limit</b></p> <p>The period of time that the queue can use after obtaining the right to send. The unit is 32 ms. The longer this time, the more frames can be sent per right to send. However, the queue may interfere with other packet transmissions. If <i>TXOP Limit</i> is set to 0 (zero), only one frame can be sent per right to send.</p> <p><b>Admission Control</b></p> <p>Restricts new frames from interfering with a previous queue. New packets are prioritized lower until a queue of them is collected. As the new queue accumulates more packets, its priority increases.</p>
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## 5 GHz

Configure basic wireless settings from here.

### Wireless - 5 GHz

Wireless	<input checked="" type="checkbox"/> Enable
Wireless Channel	Auto Channel <input type="button" value="v"/> (Current Channel : 161)
High-Speed Mode	Bandwidth: 1300 Mbps (80 MHz) <input type="button" value="v"/> (Current: 80 MHz)
Broadcast SSID	<input checked="" type="checkbox"/> Allow

#### SSID1

SSID1	<input checked="" type="checkbox"/> Use
SSID Isolation	<input type="checkbox"/> Use
SSID	<input checked="" type="radio"/> Use AirStation's MAC address(Buffalo-A-0C4A) <input type="radio"/> Enter value: <input type="text"/>
Wireless Authentication	WPA2-PSK <input type="button" value="v"/>
Encrypt Wireless Data	AES <input type="button" value="v"/>
WPA-PSK (Pre-shared Keys)	<input type="text" value="1234567890123"/>
Key Renewal Interval	<input type="text" value="0"/> minutes

<b>Wireless</b>	Determines whether to allow wireless communication. If this is unchecked, then no wireless connections will be allowed.
<b>Wireless Channel</b>	Sets a channel (a range of frequencies) for wireless connections. With <i>Auto Channel</i> selected, the AirStation will automatically use the best available channel. If a channel compatible with DFS is selected, the channel will be changed automatically when a weather radar is detected.
<b>High-Speed Mode</b>	Configure the bandwidth for wireless communication. To increase communication rate, set the bandwidth to 80 MHz and configure extension channel.
<b>Broadcast SSID</b>	If <i>Allow</i> is checked, then the AirStation will respond to SSID searches from wireless devices by broadcasting its SSID. If <i>Allow</i> is unchecked, then the AirStation ignores SSID searches from wireless devices.
<b>SSID 1</b> <b>SSID 2</b>	Enable or disable the main SSID (SSID 1) and sub SSID (SSID 2).
<b>SSID Isolation</b>	Enable to make wireless devices connected to the specified SSID be able to communicate only with the WAN-side.

<b>Wireless Authentication</b>	<p>Select an authentication method for SSID 1 from below:</p> <p><b>WPA/WPA2-mixed mode PSK</b> Allows the authentication compatible with WPA-PSK and WPA2-PSK at the same time.</p> <p><b>WPA2-PSK</b> Allows the authentication compatible with WPA2 (IEEE 802.11i).</p> <p><b>WPA-PSK (WZR-1166DHP only)</b> Allows the authentication compatible with WPA (Wi-Fi Protected Access).</p> <p><b>No Authentication</b> Connect to wireless clients without any authentication method.</p>
<b>Encrypt Wireless Data</b>	<p>You may use any of the following types of encryption:</p> <p><b>TKIP/AES mixed mode</b> <i>TKIP/AES mixed mode</i> allows both TKIP and AES authentication and communication. This is no more secure than TKIP alone, but more convenient for some users. <i>TKIP/AES mixed mode</i> can be selected only when <i>WPA/WPA2 mixed mode - PSK</i> is selected for wireless authentication.</p> <p><b>AES</b> AES is more secure than TKIP, and faster. Use a pre-shared key to communicate with a wireless device. AES can be selected only when WPA-PSK or WPA2-PSK is selected for wireless authentication.</p> <p><b>No Encryption</b> Data is transmitted without encryption. With this setting, anyone within range can connect to your wireless network and might be able to access data on the network. Not recommended for anyone with private data that needs to be kept secure. <i>No Encryption</i> can be selected only when <i>No Authentication</i> is selected for wireless authentication.</p>
<b>WPA-PSK (Pre-Shared Keys)</b>	A pre-shared key or passphrase is the password for your wireless connections. There are two different formats for a pre-shared key. Use 8 to 63 alphanumeric characters (case-sensitive) for an ASCII passphrase, or use 64 alphanumeric characters (0 to 9 and a to f, not case-sensitive) for a hexadecimal passphrase.
<b>Key Renewal Interval</b>	Set the update interval for the encryption key between 0 and 1440 (minutes).
<b>WEP Encryption Key Settings</b>	A WEP encryption key (passphrase) may have any of four different formats. An ASCII passphrase may use either 5 or 13 alphanumeric characters (case-sensitive). A hexadecimal passphrase may use either 10 or 26 alphanumeric characters (0 to 9 and a to f, not case-sensitive).
<b>BSS BasicRateSet</b>	The BSS basic rate set is a set of rates at which the router can transmit.
<b>Multicast Rate</b>	Sets the communication speed of multicast packets.
<b>802.11n Protection</b>	Enable to use 802.11n protection. 802.11n protection gives priority to 802.11n devices in mixed mode (11b/g or 11a) networks.
<b>DTIM Period</b>	Set the beacon responding interval (1 -255) for which the AirStation responds to a wireless device. This setting is effective only when power management is enabled for the wireless device.
<b>Wireless Client Isolation</b>	If enabled, Wireless Client Isolation blocks communication between wireless devices connected to the AirStation. Wireless devices will be able to connect to the Internet but not with each other. Devices that are connected to the AirStation with wired connections will still be able to connect to wireless devices normally.
<b>Output Power</b>	This sets the power of the wireless signal. Because the wireless transmission output and signal distance range are nearly proportional, when the wireless transmission output is reduced, the signal distance range also becomes shorter.
<b>BeamformingEX (WZR-1750DHP only)</b>	If checked, the AirStation will detect the location of each device and optimize the wireless network's range.
<b>WMM Settings</b>	Check <i>Display</i> to set priorities.

<p><b>WMM-EDCA Parameters</b></p>	<p>You don't usually need to change these settings. Using the default settings is recommended.</p> <p><b>Priority</b></p> <p>The following priorities may be applied to individual transmission packets: (Highest) 8, (High) 4, (Normal) 2, and (Low) 1. From the queue, these packets are processed in order of priority.</p> <p><b>CWmin, CWmax</b></p> <p>The maximum and minimum value of the contention window. The contention window is used in the frame collision avoidance structure performed in IEEE802.11, and generally, the smaller the value in the window, the higher the probability that the queue obtains the right to send.</p> <p><b>AIFSN</b></p> <p>The interval to send frames. The unit of the AIFSN is a slot, just as the window defined by CWmin and CWmax is. The smaller the interval of sending frames, the faster the algorithm can restart. As a result, the priority of the queue is higher.</p> <p><b>TXOP Limit</b></p> <p>The period of time that the queue can use after obtaining the right to send. The unit is 32 ms. The longer this time, the more frames can be sent per right to send. However, the queue may interfere with other packet transmissions. If <i>TXOP Limit</i> is set to 0 (zero), only one frame can be sent per right to send.</p> <p><b>Admission Control</b></p> <p>Restricts new frames from interfering with a previous queue. New packets are prioritized lower until a queue of them is collected. As the new queue accumulates more packets, its priority increases.</p>
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# WPS

WPS is a computing standard that attempts to allow easy establishment of a secure wireless home network. It was created by the Wi-Fi Alliance.

## Wireless - WPS (Router and Access Point Modes Only)

WPS	<input checked="" type="checkbox"/> Enable
External Registrar	<input checked="" type="checkbox"/> Enable
AirStation PIN	12345670 <input type="button" value="Generate PIN"/>
WPS PIN	<input type="text"/> <input type="button" value="OK"/>

### WPS Security Settings

WPS Status	Configured	<input type="button" value="Release"/>
11ac/n/a	SSID	Buffalo-A-0C4A
	Security	WPA2-PSK AES
	Encryption Key	1234567890123
11n/g/b	SSID	Buffalo-G-0C4A
	Security	WPA2-PSK AES
	Encryption Key	1234567890123

<b>WPS</b>	Enable to use WPS automatic configuration.
<b>External Registrar</b>	Enable to accept configure requests from other WPS devices. <b>Note:</b> Configure requests will not be accepted if AOSS is in use.
<b>AirStation PIN</b>	Displays the PIN code of the AirStation. Clicking <i>Generate PIN</i> will generate a new PIN code. This code can be entered into other wireless devices that support WPS.
<b>WPS PIN</b>	Enter the PIN code for the other wireless device and click <i>OK</i> .
<b>WPS Status</b>	Displays <i>configured</i> if all available wireless bands are configured. Displays <i>unconfigured</i> if at least one wireless band is unconfigured.




# AOSS

AOSS is a system for easily configuring a secure wireless home network. It was developed by Buffalo.


## Wireless - AOSS (Router and Access Point Modes Only)

### AOSS Settings

AOSS Status	In use 
Allow WEP for Game Consoles Only	802.11ac/n/a <input type="checkbox"/> Enable 802.11n/g/b <input type="checkbox"/> Enable
AOSS Button on The AirStation Unit	<input checked="" type="checkbox"/> Enable

### AOSS Client Information

Name	MAC Address	Encryption Type	Wireless	AOSS
MacBook	90:27:E4:F1:2A:4B	WEP64/WEP128 WPA-PSK-TKIP (802.11ac/n/a) WPA-PSK-AES	-	AOSS
		WEP64/WEP128 WPA-PSK-TKIP (802.11n/g/b) WPA-PSK-AES		

<b>AOSS Status</b>	Displays current AOSS status. Click  to disconnect AOSS connection when it is enabled. (SSID and encryption key will return to the previous setting.)
<b>Allow WEP for Game Consoles Only</b>	This allows game consoles which only support WEP to connect to the network.
<b>AOSS Button on The AirStation Unit</b>	If <i>Enable</i> is unchecked, only WPS runs when you press the button.
<b>AOSS Client Information</b>	Displays the information of the clients connected to this product via AOSS and communicating with this product wirelessly. <b>Name</b> Displays the name of the clients. <b>MAC Address</b> Displays the MAC address of the clients. <b>Encryption Type</b> Displays the encryption type the clients can use. <b>Wireless</b> Displays current wireless method.

## MAC Filtering

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Restrict access to specific wireless devices here.

### Wireless - MAC Filtering

Enforce MAC Filtering(11ac/n/a)	<input type="checkbox"/> Enable
Enforce MAC Filtering(11n/g/b)	<input type="checkbox"/> Enable

#### Registration List

MAC Address	Connection Status
No Registered MAC addresses	

[Edit Registration List](#)

<b>Enforce MAC Filtering</b>	Enable to restrict wireless connections to devices with registered MAC addresses.
<b>Registration List</b>	Displays the MAC addresses of registered devices which are permitted to connect wirelessly.
<b>Edit Registration List</b>	Adds a wireless device to the list of permitted devices.
<b>Enter MAC Addresses</b>	Enter a MAC address of a wireless device to permit to connect to the AirStation. Click <i>Register</i> to add that MAC address to the list.
<b>Connected Client's List</b>	Display the list of all MAC addresses of wireless devices connected to the AirStation.

## Multicast Control

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Configure restrictions on unnecessary multicast packets sent to the wireless LAN port here.

### Wireless - Multicast Control

Snooping	<input checked="" type="checkbox"/> Enable
Multicast Aging Time	<input type="text" value="300"/> Sec.

<b>Snooping</b>	If enabled, snooping supervises multicast administrative packets such as IGMP and restricts unnecessary multicast transfers to wired or wireless ports.
<b>Multicast Aging Time</b>	Set the time to hold the data from multicast snooping in the range of 1 to 3600 (seconds). Enter a value bigger than the IGMP/MLD query interval.

# Guest Accounts

Configure the AirStation's guest accounts here.

## Wireless - Guest Accounts (Router and Access Point Modes Only)

### Guest Account Settings

Guest Accounts	<input type="checkbox"/> Enable
Guest User Authentication	<input type="checkbox"/> Enable
Guest Account LAN IP Address	<input checked="" type="radio"/> Auto <input type="radio"/> Manual Setting
Permitted Access Time	3 hours <input type="button" value="v"/>

### Wireless

SSID	<input checked="" type="radio"/> Use AirStation's MAC address(Guest-0C4A) <input type="radio"/> Enter value: <input type="text"/>
Wireless Authentication	No Authentication <input type="button" value="v"/>
Wireless Encryption	No Encryption <input type="button" value="v"/>

### Show Guests

Username	Connection MAC Address	Connection Status	Operation
No registered guest users.			

<b>Guest Accounts</b>	Enable or disable the guest accounts.
<b>Guest User Authentication</b>	Enable or disable authentication for guest users.
<b>Guest Account LAN IP Address</b>	This sets the LAN-side IP address for the guest accounts.
<b>Guest Account DHCP Server</b>	This sets whether IP addresses are automatically assigned for devices connected to the guest accounts.
<b>Permitted Access Time</b>	Set the time frame for Internet access for the guest accounts.
<b>SSID</b>	This sets the SSID for the guest accounts.
<b>Wireless Authentication</b>	This sets whether wireless authentication is performed for the guest accounts.
<b>Wireless Encryption</b>	This sets the wireless encryption system for the guest accounts.
<b>WPA-PSK(Pre-shared Key)</b>	This sets the wireless encryption key for the guest accounts.
<b>Key Renewal Interval</b>	Set the update interval for the encryption key for the guest accounts.
<b>Edit Guests</b>	Click to register a user to use the guest accounts.
<b>Username</b>	Enter a name for the guest user.
<b>Password</b>	Enter a password for the guest user.

# Wireless Bridge

Configure the AirStation's wireless bridge here.

## Wireless - Wireless Bridge (Wireless Bridge Mode Only)

### Wireless Bridge

Wireless Bridge Status	Not connected
SSID	-
Security	-
Select 5 GHz or 2.4 GHz	Auto (5 GHz priority) ▾
Repeater	<input checked="" type="checkbox"/> Use SSID and security settings from master
Physical AOSS Button	<input checked="" type="checkbox"/> Enable


To disable wireless LAN master settings, disable wireless from [5 GHz](#) and [2.4 GHz](#).


### Manual Connection

### WPS Connection

PIN Code Method	<input type="button" value="Start WPS (PIN)"/>
Pushbutton Method	<input type="button" value="Start WPS (PBC)"/>

### AOSS Connection



<b>Wireless Bridge Status</b>	Displays wireless bridge status.
<b>SSID</b>	Displays the master's SSID.
<b>Security</b>	Displays the type of security used by connection with the master.
<b>Select 5 GHz or 2.4 GHz</b>	Set the priority for the connection with the master.
<b>Repeater</b>	When checked, the AirStation will use the wireless settings of the master device.
<b>Physical AOSS Button</b>	Uncheck <i>Enable</i> to disable AOSS and WPS.
<b>Manual Settings</b>	Click to search master devices. Select a master device and enter the encryption key.
<b>PIN Code Method</b>	Click <i>Start WPS by PIN</i> to issue PIN code and search master devices. Select a master device and click <i>Run PIN</i> to start WPS. Register PIN code to the destination master device within 2 minutes.
<b>Pushbutton Method</b>	Click <i>Start WPS by pushbutton</i> to start WPS. Press master device's AOSS/WPS button within 2 minutes.
<b>Execute AOSS</b>	Click  to start AOSS. Press master device's AOSS/WPS button within 2 minutes.

# Firewall

Configure the AirStation's firewall here.

## Security - Firewall (Router Mode Only)

Enable	Basic Rules	Number of Packets
<input type="checkbox"/>	<b>Prohibit NBT and Microsoft-DS routing</b> <input type="checkbox"/> PPPoE1: Easy SetupProhibit	0
<input checked="" type="checkbox"/>	Reject ident requests	0
<input checked="" type="checkbox"/>	Block ping from Internet <input checked="" type="checkbox"/> PPPoE1: Easy SetupIgnore	0

<b>Basic Rules</b>	<p>Enable to use any of the quick filters. Preconfigured quick filters include:</p> <p><b>Prohibit NBT and Microsoft-DS routing</b>          Enabling this blocks communication using these protocols from the WAN side to the LAN side or from the LAN side to the Internet. You can configure this with PPPoE if you select <i>Use PPPoE client</i> or <i>Use IP Unnumbered</i> for the method of acquiring IP Address, or if Easy Setup identified a PPPoE connection during setup.</p> <p><b>Reject ident requests</b>          Enabling this option will answer ident requests from the Internet side with corresponding rejection packets. Enable this option if you experienced slow transfer speeds for network applications such as email, FTP, and web browsing. If you have configured transfer of ident requests to the LAN-side computer in the address translation settings (DMZ or TCP port 113), then that setting has higher priority, and overrides this setting.</p> <p><b>Block ping from Internet</b>          If this is enabled, the AirStation will not respond to pings from the Internet side. You can configure this with PPPoE if you select <i>Use PPPoE client</i> or <i>Use IP Unnumbered</i> for the method of acquiring an IP address, or if Easy Setup identified a PPPoE connection during setup.</p>
--------------------	--

# IP Filter

Create and edit IP filters here.

## Security - IP Filter (Router Mode Only)

### Add IP Address Based Filter

Action	Ignore	
Direction	Internet->LAN	
IP Address	Source Address: <input type="text"/>	-> Destination: <input type="text"/>
Protocol	<input type="radio"/> All	
	<input type="radio"/> ICMP	
	<input type="radio"/> Manual	Protocol Number: <input type="text"/>
	<input checked="" type="radio"/> TCP/UDP	TCP Port Manual Setting <input type="text"/> Port Number: <input type="text"/>

Add Rule

### IP Filter

Action	Direction	Source Address Destination Address	Protocol	Count	Customize
No IP filters have been configured yet.					

<b>Action</b>	Specify how to process target packets.
<b>Direction</b>	Specify the transmission direction of target packets.
<b>IP Address</b>	Specify the sender's IP address and receiver's IP address of the target packets.
<b>Protocol</b>	Select a protocol for target transmission packet.
<b>IP Filter</b>	Display the list of IP filters which have been registered.

# VPN Passthrough

Configure IPv6 passthrough, PPPoE passthrough, and PPTP passthrough here.

## Security - VPN Passthrough (Router Mode Only)

IPv6 Passthrough	<input type="checkbox"/> Enable
PPPoE Passthrough	<input type="checkbox"/> Enable
PPTP Passthrough	<input checked="" type="checkbox"/> Enable

<b>IPv6 Passthrough</b>	Enable to use IPv6 passthrough for address translation.
<b>PPPoE Passthrough</b>	Enable to use PPPoE bridging. PPPoE bridging lets you automatically obtain an IP address from your provider for your LAN-side computer using the PPPoE protocol because PPPoE packets can pass between the Internet and LAN.
<b>PPTP Passthrough</b>	Enable to use PPTP passthrough for address translation.

# Port Forwarding

Configure port translation here.

## Security - Port Forwarding (Router Mode Only)

### Forward a Port

Group	New Group ▾	Group Name: <input type="text"/>
Internet-side IP Address	AirStation's Internet-side IP Address ▾	Manual IP Address: <input type="text"/>
Protocol	<input type="radio"/> All	
	<input type="radio"/> ICMP	
	<input type="radio"/> Manual	Protocol Number: <input type="text"/>
	<input checked="" type="radio"/> TCP/UDP	TCP Port Manual Setting ▾ Port Number: <input type="text"/>
LAN-side IP Address	192.168.11.2	
LAN-side Port	TCP/UDP Port: <input type="text"/>	

Add

### Forwarded Ports

Group	Internet-side IP Address LAN-side IP Address	Protocol LAN-side Port	Customize
Port forwarding has not been set up yet.			

<b>Group</b>	Specify a group name for a new rule to belong to. Select <i>New Group</i> and enter the new group name in the Group Name field to create a new group. A group name can include up to 16 alphanumeric characters.
<b>Internet-side IP Address</b>	Enter the Internet-side IP address (before translation) for the port translation table entry.
<b>Protocol</b>	Select the Internet-side protocol (before translation) for the port translation table entry.
<b>LAN-side IP Address</b>	Enter the LAN-side IP address (after translation) for the port translation table entry.
<b>LAN-side Port</b>	Select the LAN-side (after translation) port number (1 - 65535) for the port translation table entry.
<b>Forwarded Ports</b>	Shows current entries in the port translation table.

## DMZ

---

Configure a destination for packets that don't have a LAN-side destination.

### Security - DMZ (Router Mode Only)

Add IP Address to DMZ

\* The IP address of this computer is 192.168.11.2.

<b>Add IP Address to DMZ</b>	Enter the IP address of the destination to which packets which are not routed by a port translation table are forwarded. <b>Note:</b> RIP protocol packets (UDP port number 520) will not be forwarded.
------------------------------	--

## UPnP

---

Configure UPnP (Universal Plug and Play) here.

### Security - UPnP (Router Mode Only)

UPnP  Enable

<b>UPnP</b>	Enable or disable Universal Plug and Play.
-------------	--



# Web Filtering

## Security - Web Filtering (Router Mode Only)

### Filter Level

**Block Malicious Sites**  
 Blocks malware, phishing, and scam sites.

**Block Malicious and Adult Sites**  
 Blocks malware, phishing, and scam sites that contain sexually explicit content

**Block Malicious, Adult, and Other Non-Family Friendly Sites**  
 Blocks malware, phishing, and scam sites, sites that contain sexually explicit material, mature content, abortion, alcohol, crime, cult, drugs, gambling, hate, sexual orientation, suicide, tobacco, or violence

**No Filters**  
 This allows unrestricted access to all websites. You can still configure access control separately.

I agree to Norton's Terms of Service.  
 "Web Filtering" service is powered by Symantec. You need to accept the [terms of service](#) for the filters to apply.

[Click here for FAQ](#)

### Websites Excluded from Filter

Excluded Websites    Operation  
 No excluded websites registered.

Add

### Computers Excluded from Filter

MAC Address    IP Address    Computer Name    Operation  
 No excluded computers registered.

Add

Norton ConnectSafe must be activated by the customer. Use of Norton ConnectSafe is subject to the Terms of Service found at

<https://dns.norton.com/dnsweb/terms.do> .

<b>Filter Level</b>	Select the filter level.
<b>Websites Excluded from Filter</b>	Specify a list of websites that will be unaffected by the web filter. Click <i>Add</i> and enter any website (up to 20 are allowed). You can edit or delete entered entries.
<b>Computers Excluded from Filter</b>	Set a list of computers on the network that will be unaffected by the web filter. Click <i>Add</i> and enter a computer's MAC address (up to 20 are allowed). You can edit or delete entered entries.

# Access Control

## Security - Access Control (Router Mode Only)

Access Control  Enable

MAC Address Status Operation

No registered MAC addresses.

Add

<b>Access Control</b>	Check to enable access control. Click <i>Add</i> to configure the schedule.
<b>Add Access Control</b>	Enter the computer's MAC address in the "Target Computer" field. You can add up to 20 network computers.
<b>Permitted Access Time</b>	Displays the time that the computer is allowed to access to the Internet.
<b>Register</b>	Configure and register the schedule.

# Disk Management

View the status of and configure attached USB drives here.

## Applications - Disk Management

Automatic USB Drive Assignment  Enable

Advanced Settings

Advanced  Display

DT 100 G2

- Disk1 (Automatic Assignment)
  - Partition1 (disk1\_pt1)

Refresh USB Devices

Current Users

#	Username	User Description	
--	guest	Built-in account for guest access to the system	----
No users registered.			

Add

<b>Automatic USB Drive Assignment</b>	Enable or disable automatic USB drive assignment.
<b>Advanced</b>	Check <i>Display</i> to display the advanced functionality.
<b>Character Code for FAT</b>	Specify the file name character code used for FAT-formatting.
<b>Sleep Mode</b>	Enable or disable sleep mode.

<b>Sleep Mode Interval</b>	When the drive is not used for a specified amount of time, it will be shut down automatically. You can choose a time from 1 to 300 minutes.
<b>Device</b>	Displays the manufacturer, product name and unit name of the connected USB devices.
<b>Disk Assignment</b>	Select a number of the drive or <i>Do not assign</i> .
<b>Partition Information</b>	Displays partition information.
<b>Refresh USB Devices</b>	Refreshes USB devices.
<b>Modify Shared Folder</b>	Displays when you select a partition and click <i>Setting Changes</i> . Restricts the access to the USB devices.
<b>Shared Folder Name</b>	The shared folder name may contain up to one-byte 18 alphanumeric characters, each region's characters, hyphens (-) and underscores (_). Do not use a symbol as the first character.
<b>Shared Folder Description</b>	The shared folder description may contain up to one-byte 75 alphanumeric characters, each region's characters, hyphens (-) and underscores (_).
<b>Drive Partition Area</b>	Displays <i>Select, Drive Partition Area, Format</i> and <i>Used/Available</i> of devices and partitions.
<b>Disclosed to</b>	Select the functions used by registered shared folder.
<b>Access Restrictions</b>	Configure access restriction settings by username.
<b>WebAccess</b>	If checked, WebAccess users will have the same permission via WebAccess that they do locally. If unchecked, WebAccess users will have read-only access permission.
<b>Current Users</b>	Displays registered users.
<b>Add</b>	Click to register a new user.
<b>Username</b>	Enter an username to access the shared folder. You can enter 1 to 20 alphanumeric characters, hyphens (-), underscores (_), and periods (.). Do not use a symbol as the first character.
<b>Password</b>	Enter the password to access the shared folder. You can enter 1 to 20 alphanumeric characters, hyphens (-), underscores (_), and periods (.). Do not use a symbol as the first character.
<b>User Description</b>	The user description may contain up to 75 alphanumeric characters, spaces, hyphens (-), and underscores (_). Two-byte characters count as two characters each.

# Sharing

---

Assign AirStation and workgroup names to access shared folders.

## Applications - Sharing

Shared Folder	<input checked="" type="checkbox"/> Enable
AirStation Name	AP106F3F990C4A
AirStation Description	
Workgroup Name	WORKGROUP
Windows Client Language	North America (CP437) ▾

### Shared Service

Shared Service Enabled

<b>Shared Folder</b>	Enable to make a USB drive available on your local network.
<b>AirStation Name</b>	Rename your AirStation if desired. Up to 15 alphanumeric characters, spaces, and hyphens (-) may be used. The AirStation name is also used as the hostname that will be used with the shared service. The shared service may not be available if you use over 15 alphanumeric characters in your AirStation's name.
<b>AirStation Description</b>	Describe the AirStation (optional). Up to 48 alphanumeric characters, space, hyphens (-), and underscores (_) may be used.
<b>Workgroup Name</b>	Enter your workgroup name. Up to 15 alphanumeric characters, space, hyphens (-), underscores (_), and periods (.) may be used.
<b>Windows Client Language</b>	Select the language to be used by the Windows client.
<b>Shared Service</b>	Displays the status of the USB drive that is used with the shared service.

# WebAccess

Configure WebAccess here.

## Applications - WebAccess

WebAccess	<input type="checkbox"/> Enable
Language	English ▾
HTTPS/SSL Encryption	<input type="checkbox"/> Enable
WebAccess External Port	Auto ▾ Port Number: 9000
DNS Service Hostname	Use BuffaloNAS.com registration ▾ BuffaloNAS.com Name BuffaloNAS.com Key

### WebAccess

WebAccess	Disabled
External Port Status	Not Available
BuffaloNAS.com	Not Registered

<b>WebAccess</b>	Check <i>Enable</i> to use WebAccess.
<b>Language</b>	Set the language to be used with WebAccess.
<b>HTTPS/SSL Encryption</b>	Check <i>Enable</i> to use SSL encryption for protected data transfer.
<b>WebAccess External Port</b>	Automatically sets the external port used for WebAccess. To select the port manually, select <i>Manual</i> .
<b>DNS Service Hostname</b>	Select <i>Use BuffaloNAS.com registration</i> to use WebAccess easily. Enter your registered <i>BuffaloNAS.com</i> name and <i>BuffaloNAS.com</i> key here. The name and key can each use 3 - 20 alphanumeric characters, spaces, hyphens (-), underscores (_), and periods (.). <b>Note:</b> The registered name is deleted from the server if the AirStation is disconnected from power, even for a moment.
<b>WebAccess</b>	Displays the status of WebAccess.
<b>External Port Status</b>	Displays the status of the external port.
<b>BuffaloNAS.com</b>	Displays the status of BuffaloNAS.com.

# Media Server

The media server can stream video, pictures, and music to media players on the network.

## Applications - Media Server

### Media Server Settings

Media Server  Enable

#### Status

Status Disabled

Refresh [Update Database](#)

<b>Media Server</b>	Enable to use the media server.
<b>Status</b>	Displays the status of the media server.

# BitTorrent

Configure the BitTorrent client here.

## Applications - BitTorrent

### BitTorrent Settings

BitTorrent  Enable

External Port Number Auto

#### Advanced Settings

Bandwidth Restriction  Enable

Maximum Download Speed  KB/s

Maximum Upload Speed  KB/s

[Download Manager](#) [Delete All Torrents](#)

#### BitTorrent Status

BitTorrent Status Enable BitTorrent to use.

BitTorrent External Port Status Disabled

<b>BitTorrent</b>	Enable to use the BitTorrent client. If the BitTorrent client is enabled, overall communication performance may decrease and settings screens may respond slower. If that happens, reformat the USB disk with XFS. That may help performance.
<b>External Port Number</b>	Select an external port number.
<b>Bandwidth Restriction</b>	Set a bandwidth limit for BitTorrent.
<b>Download Manager</b>	Displays the BitTorrent download manager screen. Add a torrent, then click <i>Add</i> to download the file(s).

<b>Delete All Torrents</b>	Deletes all files, including the torrent files and files which are currently downloading. Downloaded files are not deleted.
<b>BitTorrent Status</b>	Displays the status of the BitTorrent client.
<b>BitTorrent External Port Status</b>	Display the external port status of the BitTorrent client.

You can download the latest Windows BitTorrent client from [www.bittorrent.com](http://www.bittorrent.com).

## QoS

Configure priority control QoS settings here.

### Applications - QoS (Router Mode Only)

#### Priority Control QoS Settings

Priority Control QoS	<input type="checkbox"/> Enable
Optimize for	Video
Manual	Video : Ultra Premium - High Bandwidth
	Conference : Premium - Low Latency, Medium Bandwidth
	Gaming : Premium - Low Latency, 320 Kbps Bandwidth
	Audio : Above Average, 320 Kbps Bandwidth
	Browsing : Standard, Best Availability
	Download : Junk, Lowest Priority

#### Manual Entry

#	Registered Name	Priority
No custom QoS rules added.		
<input type="button" value="Add"/>		
<input type="button" value="Delete All"/>		

<b>Priority Control QoS</b>	Enable or disable QoS.
<b>Optimize for</b>	Select a policy for communication.
<b>Manual</b>	These settings will be used when <i>Manual</i> is selected from the <i>Optimize for</i> field above.
<b>Manual Entry</b>	Displays manually registered rule information.
<b>Add</b>	Click to register new user. You can register up to 20 users.
<b>Name</b>	Enter the name of the setting.
<b>Priority</b>	Select a priority for the setting.
<b>Protocol</b>	Select a target protocol.
<b>Remote Settings</b>	Specify the WAN-side server setting.
<b>Local Settings</b>	Specify the LAN-side device.

# eco Mode

Configure eco Mode from this screen.

## Applications - eco Mode

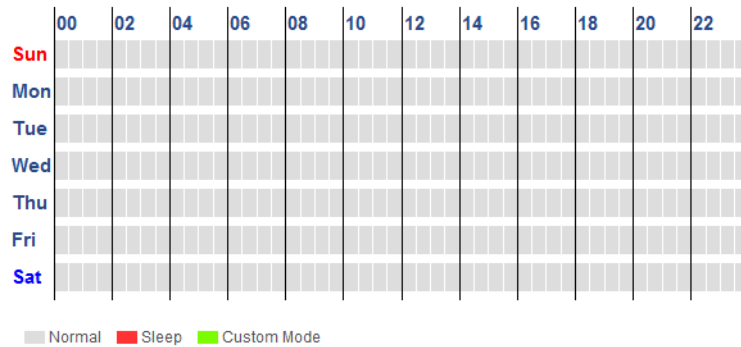
### Power Saving

Power Saving  Enable

### Custom Mode

LED	Off
Wired LAN	eco
Wireless LAN	Off

### Weekly Schedule



### Schedule Entry

Mode	Normal
Start Time	0:00
End Time	0:30
Day of Week	Sun Mon Tue Wed Thu Fri Sat

Add

<b>Power Saving</b>	Enable to schedule eco Mode. If eco Mode is enabled, AOSS will function only when the AirStation is in normal operating mode.
<b>Custom Mode</b>	Individual power saving elements may be configured for custom mode.
<b>Weekly Schedule</b>	Graphically displays the configured schedule.
<b>Schedule Entry</b>	Configure operational mode for time periods in the weekly schedule.



## Network USB

---

Network USB allows a computer on the wired or wireless LAN to connect to a USB device connected to the AirStation as though it were directly connected to the computer. Printers connected in this way support 2-way communication, so ink-level notifications and similar functions will work normally. Only one computer can connect to the USB device at a time.

**Note:** Network USB is recommended for printer use. Other USB devices are not supported at this time.

### Applications - Network USB

Network USB	<input checked="" type="checkbox"/> Enable
Use Multifunction Printer	<input checked="" type="checkbox"/> Enable

<b>Network USB</b>	Enable to allow a computer on the wired or wireless LAN to connect to a USB device connected to the AirStation as though it were directly connected to the computer. Disable to reduce the load on the NAS, improve performance, or for security reasons.
<b>Use Multifunction Printer</b>	This uses a multifunction printer supporting mass storage classes as a printer. Disable if using as a NAS instead.

# System

Configure basic AirStation settings here.

## Admin - System

### System Information

AirStation Name	<input type="text" value="AP106F3F990C4A"/>
Administrator	admin (fixed)
Administrator Password	<input type="password" value="••••••"/> <input type="checkbox"/> Show password

### Access

Enable	Management Access	Number of Packets
<input type="checkbox"/>	Prohibit configuration from wireless LAN	0
<input type="checkbox"/>	Prohibit configuration from wired LAN	0

### Internet-side Remote Access

Enable	Management Access
<input type="checkbox"/>	Permit configuration from wired Internet

### Network Scanning

Enable	Management Access
<input type="checkbox"/>	Limit network scanning

### Local Time

NTP Functionality	<input checked="" type="checkbox"/> Enable
NTP Server	<input type="text" value="time.nist.gov"/>
Update Interval	<input type="text" value="24"/> hours
Local Date	<input type="text" value="2013"/> Year <input type="text" value="1"/> Month <input type="text" value="1"/> Day
Local Time	<input type="text" value="0"/> Hour <input type="text" value="2"/> Minute <input type="text" value="29"/> Seconds
Time Zone	<input type="text" value="(GMT-06:00) Central Standard Time: CST"/>
DST (Daylight Saving Time)	<input type="text" value="USA (from second Sunday in Mar to first Sunday in Nov)"/>
<input type="button" value="Refresh"/> <input type="button" value="Get Current Time from Your PC"/>	

<b>AirStation Name</b>	Enter a name for the AirStation. Names may include up to 64 alphanumeric characters and hyphens (-).
<b>Administrator</b>	The name of the administrator account is "admin".
<b>Administrator Password</b>	The administrator password may contain up to 8 alphanumeric characters and underscores (_).
<b>Prohibit configuration from wireless LAN</b>	If enabled, prevents access to configuration interface from wirelessly connected devices (only wired devices may configure).
<b>Prohibit configuration from wired LAN</b>	If enabled, prevents access to configuration interface from wired devices (only wirelessly connected devices may configure).

<b>Permit configuration from wired Internet</b>	If enabled, allows access to configuration interface from network devices on the WAN (Internet) side.
<b>Permitted IP address</b>	Displayed only if Internet-side configuration is enabled. Enter the IP address of a device that is permitted to configure the AirStation remotely from the WAN (Internet) side.
<b>Permitted Port</b>	Displayed only if Internet-side configuration is enabled. Set a port number (1 - 65535) to configure the AirStation from the WAN (Internet) side.
<b>Limit network scanning</b>	If checked, network scanning will not be able to determine which devices have network settings GUIs available. You will have to open Settings for network devices directly.
<b>NTP Functionality</b>	Enable to use an NTP server.
<b>NTP Server</b>	Enter the name of the NTP server as a hostname, hostname with domain name, or IP address. Up to 255 alphanumeric characters, hyphens (-), and underscores (_) may be used. The default is <i>time.nist.gov</i> .
<b>Update Interval</b>	How often will the AirStation check the NTP server for the correct time? Intervals of 1 - 24 hours may be set. The default is 24 hours.
<b>Local Date</b>	You may manually set the date of the AirStation's internal clock.
<b>Local Time</b>	You may manually set the time of the AirStation's internal clock.
<b>Time Zone</b>	Specify the time zone (offset of greenwich mean time) of the AirStation's internal clock.
<b>DST (Daylight Saving Time)</b>	You may configure the AirStation to automatically use DST (daylight saving time). If selected, the AirStation will automatically adjust the time at the beginning and end of DST.

## Syslog Settings

You may transfer the AirStation's logs to a syslog server.

### Admin - Syslog Settings

#### Syslog Settings

Transfer Logs  Enable

Syslog Server

Logs

<input checked="" type="checkbox"/> Address Translation	<input checked="" type="checkbox"/> IP Filter
<input checked="" type="checkbox"/> Firewall	<input checked="" type="checkbox"/> PPP Client
<input checked="" type="checkbox"/> Dynamic DNS	<input checked="" type="checkbox"/> DHCP Client
<input checked="" type="checkbox"/> DHCP Server	<input checked="" type="checkbox"/> AOSS
<input checked="" type="checkbox"/> Wireless	<input checked="" type="checkbox"/> Authentication
<input checked="" type="checkbox"/> Setting Changes	<input checked="" type="checkbox"/> System Boot
<input checked="" type="checkbox"/> NTP Client	<input checked="" type="checkbox"/> Wired
<input checked="" type="checkbox"/> USB	<input checked="" type="checkbox"/> System

#### Advanced Settings

Detailed logs

<input type="checkbox"/> Address Translation	<input type="checkbox"/> IP Filter
<input type="checkbox"/> Firewall	<input type="checkbox"/> Access Filter

<b>Transfer Logs</b>	Enable to send logs to a syslog server.
<b>Syslog Server</b>	Identify the syslog server by hostname, hostname with domain name, or IP address. You may enter up to 255 alphanumeric characters and hyphens (-).
<b>Logs</b>	Choose which logs will be transferred to the syslog server.

<b>Detailed logs</b>	Choose which detailed logs will be transferred to the syslog server.
----------------------	--

## Reset / Reboot

From this page you can save and restore the AirStation's settings, initialize the AirStation, or reboot the AirStation.

### Admin - Reset / Reboot

#### Settings Management

Operation	<input checked="" type="radio"/> Back up settings <input type="radio"/> Restore settings <input type="radio"/> Initialize AirStation
Password	<input type="checkbox"/> Use Password <input type="text"/> <input type="checkbox"/> Show password

#### Restart

Restart	This reboots your AirStation.
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<b>Operation</b>	<p>Select an operation.</p> <p><b>Back up settings</b> Save this product's settings to a file. Click <i>Execute</i>. You can encrypt the setting file by checking <i>Use Password</i> and clicking <i>Execute</i>.</p> <p><b>Restore settings</b> Restore this product's settings from the setting file. Click <i>Browse...</i> and specify a setting file, then click <i>Execute</i>. If the setting file is encrypted, check <i>Use Password</i> and click <i>Execute</i>.</p> <p><b>Initialize AirStation</b> This will return the AirStation to its factory default settings.</p>
<b>Restart</b>	Click it to restart this product.

# Update

---

Update the AirStation's firmware here.

## Admin - Update Firmware

Firmware Version	WZR-1750DHP Ver.2.08
Update Method	<input checked="" type="radio"/> Specify a file on your PC <input type="radio"/> Automatic update
Firmware File Name	<input type="text"/> <input type="button" value="Browse..."/>

Get updated firmware files from the link below:

[Buffalo](#)

---

### Advanced Settings

Automatic Update Check	<input checked="" type="checkbox"/> Enable
Daily Check Time	Automatic <input type="button" value="v"/>

<b>Firmware Version</b>	Displays the current firmware version of the AirStation.
<b>Update Method</b>	<i>Specify a file on your PC</i> updates from a firmware file stored on your computer. <i>Automatic update</i> updates to the latest firmware automatically.
<b>Firmware File Name</b>	Click <i>Browse...</i> to navigate to the firmware file on your computer if <i>Specify a local file</i> is selected. You don't need to specify the firmware location if you're using <i>Automatic update</i> . Click <i>Update Firmware</i> to update the firmware.
<b>Automatic Update Check</b>	If enabled, you'll be notified in Settings when a new firmware is available.
<b>Daily Check Time</b>	This sets the interval for checking whether a new firmware version has been released.

# System Information

View system information for the AirStation.

## Status - System Information

Model	WZR-1750DHP Version 2.08 (R1.02/B6.30.163-1.00-1.00)	
AirStation Name	AP106F3F990C4A	
Mode	Router Mode	
Internet	Method of Acquiring IP Address	Auto Detect Mode- PPPoE
	Name of Connection	Easy Setup (Default Connection)
	Connection Status	Online
	Operation	<input type="button" value="Stop"/>
	IP Address	153.177.120.6
	PPP Server IP	118.23.61.140
	DNS1(Primary)	222.146.35.137 (Auto)
	DNS2(Secondary)	221.184.25.25 (Auto)
	MTU Size	1454
	Wired	1000Base-T (Full-duplex)
MAC Address	10:6F:3F:99:0C:4A	
LAN	IP Address	192.168.11.1
	Subnet Mask	255.255.255.0
	DHCP Server	Enabled
	MAC Address	10:6F:3F:99:0C:4A
Wireless(5 GHz)	Wireless Status	Enabled
	SSID1	Buffalo-A-0C4A
	Authentication	WPA2-PSK
	Encryption	AES
	Broadcast SSID	Enabled
	Wireless Client Isolation	Disabled
	Wireless Channel	161 (Auto)
	High-Speed Mode	80 MHz
	MAC Address	10:6F:3F:9A:0C:4A
	Wireless(2.4 GHz)	Wireless Status
SSID1		Buffalo-G-0C4A
Authentication		WPA2-PSK
Encryption		AES
Broadcast SSID		Enabled
Wireless Client Isolation		Disabled
Wireless Channel		4 (Auto)
High-Speed Mode		20 MHz
MAC Address		10:6F:3F:9B:0C:4A
Guest Accounts		Status
NAS	USB drive	Not connected
	Shared Folder	Enabled
	WebAccess	Disabled
	Media Server	Disabled
	BitTorrent	Disabled
Web Filtering	Disabled	
eco Mode	Status	Disabled

<b>Model</b>	Displays the product name of the AirStation and the firmware version.
<b>AirStation Name</b>	Displays the name of the AirStation.
<b>Mode</b>	Displays the AirStation's current operational mode.
<b>Internet</b>	Displays information about the Internet port.
<b>LAN</b>	Displays information about the LAN port.

<b>Wireless (5 GHz) Wireless (2.4 GHz)</b>	Displays the wireless status.
<b>Guest Accounts</b>	Displays information about the guest accounts.
<b>NAS</b>	Displays information about the USB drive.
<b>Web Filtering</b>	This indicates the operating status of the web filter.
<b>eco Mode</b>	This indicates the operating status of eco Mode.

## Logs

The AirStation's logs are recorded here.

### Status - Logs

Display logs

<input checked="" type="checkbox"/> Address Translation	<input checked="" type="checkbox"/> IP Filter
<input checked="" type="checkbox"/> Firewall	<input checked="" type="checkbox"/> PPP Client
<input checked="" type="checkbox"/> Dynamic DNS	<input checked="" type="checkbox"/> DHCP Client
<input checked="" type="checkbox"/> DHCP Server	<input checked="" type="checkbox"/> AOSS
<input checked="" type="checkbox"/> Wireless	<input checked="" type="checkbox"/> Authentication
<input checked="" type="checkbox"/> Setting Changes	<input checked="" type="checkbox"/> System Boot
<input checked="" type="checkbox"/> NTP Client	<input checked="" type="checkbox"/> Wired
<input checked="" type="checkbox"/> USB	<input checked="" type="checkbox"/> System

**Logs**

Date Time	Type	Log Content
2013/03/14 03:39:40	USB	mounted usb-device. DT 100 G2 0013729 3
2013/03/14 03:39:40	USB	usb-devices were un-mounted.
2013/03/14 03:38:40	DHCPS	Request incoming from John-PC(len:7)

<b>Display logs</b>	Choose the types of logs to display.
<b>Logs</b>	Displays the log information recorded in the AirStation.

## Packets

---

View packet transfer information.

### Status - Packets

Interface	Sent		Received	
	Normal	Errors	Normal	Errors
Wired LAN	2435	0	2308	0
PPPoE No.1: Easy Setup	1099	0	1277	0
Wired Internet	1126	0	1307	0
Wireless LAN (802.11ac/n/a)	1190	1	1331	0
Wireless LAN (802.11n/g/b)	1490	0	1231	0

Refresh

<b>Sent</b>	Displays the number of packets sent to the WAN, the LAN, and the wireless LAN.
<b>Received</b>	Displays the number of packets received from the WAN, the LAN, and the wireless LAN.

## Ping

---

A ping test checks whether the AirStation can communicate with a specific network device.

### Status - Ping

Destination Address

Execute

#### Result

Destination	192.168.11.2
Result	64 bytes from 192.168.11.2: icmp_seq=0 ttl=128 time=0.5 ms 64 bytes from 192.168.11.2: icmp_seq=1 ttl=128 time=0.4 ms 64 bytes from 192.168.11.2: icmp_seq=2 ttl=128 time=0.3 ms 64 bytes from 192.168.11.2: icmp_seq=3 ttl=128 time=0.4 ms

<b>Destination Address</b>	Enter the IP address or hostname of the device that you are testing communication with, then click <i>Execute</i> . The result will be displayed below.
----------------------------	---



# Chapter 3 - Wireless

## Wireless Options

You may use any of the following methods to connect devices to the AirStation wirelessly.

### Manual Configuration

On your device, search for available networks and find the AirStation. If a password is required, enter the AirStation's encryption key.

### WPS (Wi-Fi Protected Setup)

WPS is an automatic connection method created by the Wi-Fi Alliance. Two different versions of WPS are supported: pushbutton and PIN. For pushbutton, start WPS on your client device, then press the AOSS button on the AirStation. Alternately, if your wireless client has a WPS PIN, you may use the Client Manager to enter the PIN in the AirStation. With either of these methods, a wireless connection will be established automatically within a couple of minutes.

**Notes:**

- WPS supports Windows 8, Windows 7, and Windows Vista (SP 2).
- Mac OS is not supported.

### AOSS (AirStation One-Touch Secure System)

AOSS is a proprietary system by Buffalo that lets you set up a secure wireless connection with the push of a button. Press your device's and the AirStation's AOSS buttons and a secure wireless connection will be configured automatically.

**Notes:**

- To use AOSS with a Windows PC, install Client Manager.
- To use AOSS with Mac, install AOSS Assistant.

## Advanced Wireless Configuration

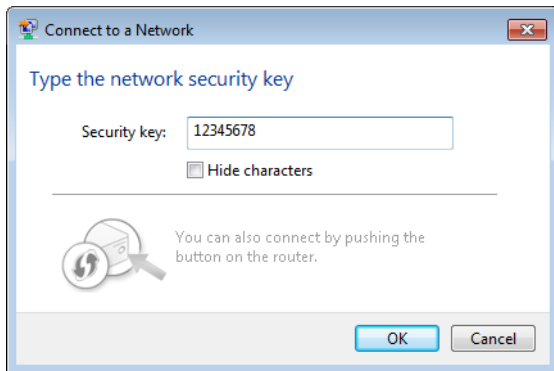
### Manual Configuration (SSID and Password)

---

- 1 Click the wireless icon.
- 2 Select your AirStation's SSID from the list.

**Note:** Your AirStation's default SSID and encryption key are on the setup card stored in the base of the AirStation.

- 3 Enter the AirStation's encryption key.



- 4 The connection will be established.

### Automatic Secure Setup (WPS)

---

- 1 Click the wireless icon.
- 2 Select your AirStation's SSID from the list.

**Note:** Your AirStation's default SSID is on the setup card stored in the base of the AirStation.

**3** Without entering a password, press the AOSS button on the AirStation.



**Notes:**

- WPS supports Windows 8, Windows 7, and Windows Vista Service Pack 2 only.
- Mac OS is not supported.

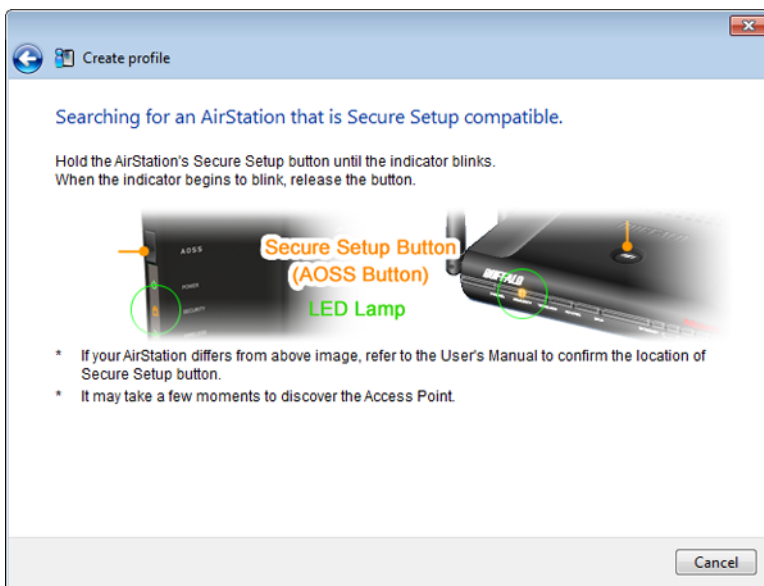
**4** The connection will be established.

## Automatic Secure Setup (AOSS)

---

**1** Windows users should download Client Manager from Buffalo's website and install it. Mac users should download AOSS Assistant and install it.

**2** Initiate AOSS from Client Manager or AOSS Assistant.



**3** Press your AirStation's AOSS button.

**4** The connection will be established.

## Adding an AirStation to an Existing Wireless Network as a Client

---

In a network that already has a wireless access point, the AirStation can serve as a wireless client. It can connect wirelessly to the existing wireless network and other devices can be connected to its Ethernet ports.

To configure the AirStation as a wireless client, navigate to *Wireless > Wireless Bridge* in Settings.

Under "Manual Connection", click *Configure*.

Select your access point from the list of detected wireless devices. Select settings for "Wireless Authentication" and "Encryption" to match the AP's settings, then click *OK*. The AirStation is now connected as a wireless client, and Ethernet devices connected to it can use the AP's Internet connection.

# Chapter 4 - Utilities

## How to Download Utilities

You can download utilities for your AirStation from Buffalo's website.

**WZR-1750DHP:** <http://d.buffalo.jp/wzr-1750dhp/>

**WZR-1166DHP:** <http://d.buffalo.jp/wzr-1166dhp/>

**BUFFALO** Language

Region Selection > WZR-1750DHP

### WZR-1750DHP Download

Type: all OS: Windows 8 Last updated: all

Show the latest version only displaying page 1 of 2 [Next](#)

Type	Name	Last updated	Version	
Manual	<a href="#">Quick Setup Guide</a>	May 11, 2013	01	<a href="#">Download</a>
Manual	<a href="#">User Manual</a>	May 11, 2013	01	<a href="#">Download</a>
Software	AirStation Configuration Tool	Feb. 25, 2013	2.0.15	<a href="#">Download</a>
Software	Network-USB Navigator	Feb. 25, 2013	2.00	<a href="#">Download</a>
Software	Client Manager V	Oct. 26, 2012	1.4.6	<a href="#">Download</a>

Please use the driver, software and firmware only if you accept the [License Agreement](#) after reading it carefully.

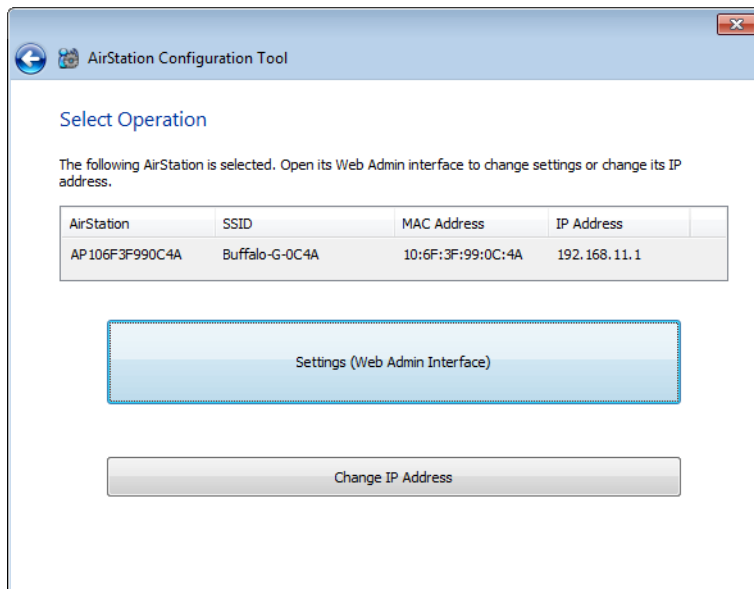
I accept the Software License Agreement

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## List of Utilities with Description of Each

### AirStation Configuration Tool

You can enter the AirStation's settings and change IP address with this tool.



#### Compatible with:

Windows 8, Windows 7, Windows Vista, Windows XP

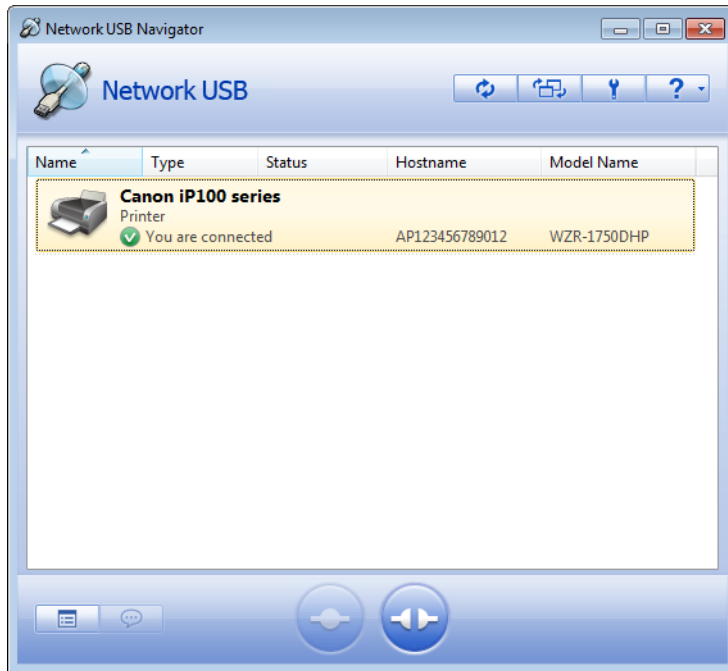
OS X 10.8, 10.7, 10.6, 10.5, 10.4

# Network USB Navigator

---

You can use a printer connected to the AirStation's USB port via any computer in your network with this software.

**Note:** Concurrent use by multiple computers is not supported.



## Compatible with:

Windows 8, Windows 7, Windows Vista, Windows XP

OS X 10.8, 10.7, 10.6, 10.5, 10.4

# Client Manager

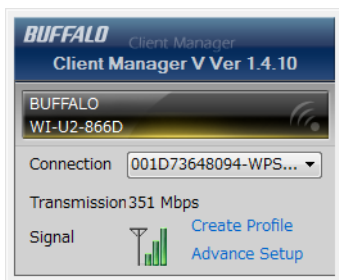
---

Use this software to let your Windows PC connect to the AirStation with AOSS.

Client Manager V supports Windows 8, Windows 7 and Windows Vista.

Client Manager 3 supports Windows XP.

**Note:** If Client Manager 3 is installed on your computer, Wireless Zero Config is disabled. Uninstall Client Manager 3 to use Wireless Zero Config, or just use Client Manager 3 to connect to the AirStation.



## Compatible with:

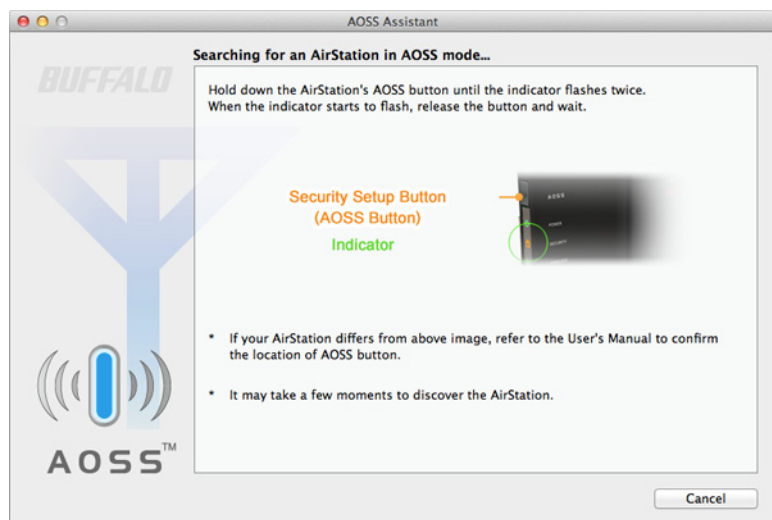
Windows 8, Windows 7, Windows Vista, Windows XP



## AOSS Assistant

---

Use this software to let your Mac connect to the AirStation with AOSS.



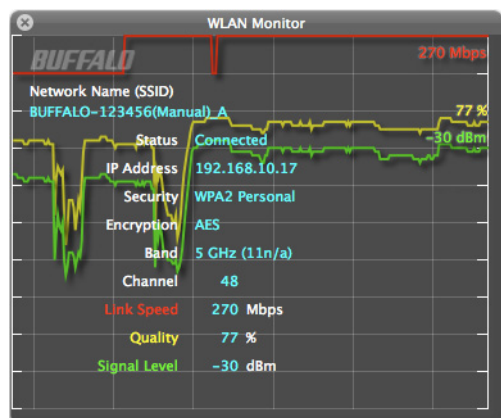
### Compatible with:

OS X 10.8, 10.7, 10.6, 10.5, 10.4

## WLAN Monitor

---

You can check the radio wave condition, connection speed, signal quality, and signal level with this tool.



### Compatible with:

OS X 10.8, 10.7, 10.6, 10.5, 10.4

# Chapter 5 - Troubleshooting

## Finding Your AirStation on the Network

By default, your AirStation is accessible on your local network at the IP address 192.168.11.1 with subnet mask 255.255.255.0. If this address has been changed and you don't know the new address, you can reset the AirStation to its default settings by holding down the reset button for 3 seconds.

You can also find your AirStation on the network with the AirStation Configuration Tool. This software will detect AirStations on your network and give you the IP address and MAC address of each.

## Eliminating Dead Spots in Wireless Coverage

If there are spots in your house with poor wireless coverage, try moving your AirStation. Sometimes even moving it a few feet can eliminate dead spots in the area. Also, in Settings, make sure that the wireless output power of the AirStation is set to 100% for maximum range.

## If Your Wireless Connection Is Not Stable

Many household devices such as microwaves and cordless phones can interfere with some channels of the spectrum available for the AirStation. If your wireless connection is unstable, change the wireless channel setting to *Auto Channel* for both the AirStation and your wireless client device. The AirStation will then choose the clearest channel automatically.

Make sure that the 5 GHz band is enabled. The AirStation is a dual band router, and either band will work well, but the 5 GHz band will usually have less interference.

## Basic Router Troubleshooting

If your router is not behaving normally, begin by using the resetting all settings. With the unit connected to power, hold down the reset button for 3 seconds. This will reset all settings to their defaults. The local IP address of the router will now be 192.168.11.1 with a 255.255.255.0 subnet mask.

Connect your PC to one of the Ethernet ports on the router. Give the computer a manual (fixed) IP address on the same subnet as the router such as 192.168.11.2. Set the subnet mask to 255.255.255.0.

Open a browser (such as Firefox) on your computer and type 192.168.11.1 into the URL window. Click Go. The router's settings page should open.

Enter the router's username and password ("admin" and "password" by default).

You should now be able to reconfigure your settings and change your password for the router.

## Basic Router Troubleshooting from a Mac

If your router is not behaving normally, begin by using the resetting all settings. With the unit connected to power, hold down the reset button for 3 seconds. This will reset all settings to their defaults. The local IP address of the router will now be 192.168.11.1 with a 255.255.255.0 subnet mask.

Connect your Mac to one of the Ethernet ports on the router. In System Preferences - Network - Ethernet, give the computer a manual (fixed) IP address on the same subnet as the router such as 192.168.11.2. Set the subnet mask to 255.255.255.0.

If your Mac doesn't have an Ethernet port, connect it to the AirStation wirelessly instead. The AirStation's default SSID and passphrase are printed on the setup card in the bottom of the router. Use this information to connect wirelessly. Then, give the computer a fixed IP address on the same subnet as the router such as 192.168.11.2 and set the subnet mask to 255.255.255.0.

Open a browser (such as Safari) on your computer and type 192.168.11.1 into the URL window. Click Go. The router's settings page should open.

Enter the router's username and password ("admin" and "password" by default).

You should now be able to reconfigure your settings and change your password for the router.

# Appendix A - Supplemental Information

## Package Contents

The following items are included in your AirStation package. If any of the items are missing, please contact your vender.

### WZR-1750DHP

AirStation.....	1
AirStation setup card.....	1
AC adapter.....	1
AC power cable.....	1
Stands.....	2
Screws for wall-mounting.....	2
Ethernet cable.....	1
Quick setup guide.....	1
Warranty statement.....	1

### WZR-1166DHP

AirStation.....	1
AirStation setup card.....	1
AC adapter.....	1
Stands.....	2
Screws for wall-mounting.....	2
Ethernet cable.....	1
Quick setup guide.....	1
Warranty statement.....	1

## Factory Default Settings

### WZR-1750DHP

Feature	Parameter	Default Setting
Internet	Method of Acquiring IP Address	Internet Connection Wizard
	Default Gateway	-
	DNS Name Server Address	-
	Internet MAC Address	Use default MAC address
	MTU Size of Internet Port	1500 Bytes
PPPoE	Default PPPoE Connection	No active session.
	IP Unnumbered PPPoE Connection	No active session.
	PPPoE Connection List	No connections registered.
	Preferred Connections	No connections registered.
Dynamic DNS	Dynamic DNS Service	Disabled
PPTP	PPTP Server	Disabled
	Authentication Type	MS-CHAPv2 (40/128-bit Encryption)
	Server IP Address	Auto
	Client IP Address	Auto
	DNS Server IP Address	LAN-side IP address of the AirStation
	WINS Server IP Address	-
	MTU/MRU Value	1396
	PPTP User List	No registered users.
NAT	Address Translation	Enabled
LAN	LAN-side IP Address	IP address: 192.168.11.1 Subnet mask: 255.255.255.0
	DHCP Server	Enabled
	DHCP IP Address Pool	From 192.168.11.2 to 192.168.11.65
	LAN-side IP Address (For IP Unnumbered)	-
	Advanced Settings	Not displayed
	Lease Period	48 hours
	Default Gateway	AirStation's IP address
	DNS Servers	AirStation's IP address
	WINS Server	Do not specify
	Domain Name	Assigned by DHCP
DHCP Leases	Current DHCP Clients	-
Routing	Routing	No routes registered.
IPTV	STB Ports	Disabled
	Port Assignment	Port 4

Feature	Parameter	Default Setting
<b>2.4 GHz 5 GHz</b>	<b>Wireless</b>	Enabled
	<b>Wireless Channel</b>	Auto Channel
	<b>High-Speed Mode</b>	2.4 GHz: 216.7 Mbps (20 MHz) 5 GHz: 1300 Mbps (80 MHz)
	<b>Broadcast SSID</b>	Allow
	<b>SSID 1</b>	Use
	<b>SSID Isolation</b>	Not used
	<b>SSID</b>	Use AirStation's MAC address
	<b>Wireless Authentication</b>	WPA2-PSK or No Authentication
	<b>Encrypt Wireless Data</b>	AES or No Encryption
	<b>WPA-PSK (Pre-shared Keys)</b>	An 8-digit random value or disabled (Printed on the setup card. Encryption is disabled in default settings on AirStation for Asia Pacific.)
	<b>Key Renewal Interval</b>	0 minutes
	<b>SSID 2</b>	Not used
	<b>SSID Isolation</b>	Not used
	<b>SSID</b>	Use AirStation's MAC address
	<b>WEP Encryption Key Settings</b>	-
	<b>BSS BasicRateSet</b>	2.4 GHz: 1, 2, 5.5, 11 Mbps 5 GHz: 6, 12, 24 Mbps
	<b>Multicast Rate</b>	Auto
	<b>802.11n Protection</b>	Not used
	<b>Frame Burst (2.4 GHz)</b>	Enabled
	<b>DTIM Period</b>	1
	<b>Wireless Client Isolation</b>	Not used
	<b>Output Power</b>	100%
<b>BeamformingEX (5 GHz)</b>	Use	

Feature	Parameter	Default Setting		
2.4 GHz 5 GHz	<b>WMM Settings</b>	Not displayed		
	<b>WMM-EDCA Parameters (Priority AC_BK (Low))</b>		<b>For AP</b>	<b>For STA</b>
		<b>CWmin</b>	15	15
		<b>CWmax</b>	1023	1023
		<b>AIFSN</b>	7	7
		<b>TXOP Limit</b>	0	0
		<b>Admission Control</b>	-----	Disabled
	<b>WMM-EDCA Parameters (Priority AC_BE (Normal))</b>		<b>For AP</b>	<b>For STA</b>
		<b>CWmin</b>	15	15
		<b>CWmax</b>	63	1023
		<b>AIFSN</b>	3	3
		<b>TXOP Limit</b>	0	0
		<b>Admission Control</b>	-----	Disabled
	<b>WMM-EDCA Parameters (Priority AC_VI (High))</b>		<b>For AP</b>	<b>For STA</b>
		<b>CWmin</b>	7	7
		<b>CWmax</b>	15	15
		<b>AIFSN</b>	1	2
		<b>TXOP Limit</b>	94	94
		<b>Admission Control</b>	-----	Disabled
	<b>WMM-EDCA Parameters (Priority AC_VO (Highest))</b>		<b>For AP</b>	<b>For STA</b>
		<b>CWmin</b>	3	3
<b>CWmax</b>		7	7	
<b>AIFSN</b>		1	2	
<b>TXOP Limit</b>		47	47	
<b>Admission Control</b>		-----	Disabled	
<b>WPS</b>	<b>WPS</b>	Enabled		
	<b>External Registrar</b>	Enabled		
	<b>AirStation PIN</b>	An 8-digit random value (Printed on the label of the AirStation)		
	<b>WPS PIN</b>	-		
	<b>WPS Security Settings</b>	<p><b>WPS Status:</b> Configured</p> <p><b>SSID:</b> BUFFALO-A-XXXX (where "XXXX" is the last 4 digits of the AirStation's MAC address). BUFFALO-G-XXXX (where "XXXX" is the last 4 digits of the AirStation's MAC address).</p> <p><b>Security:</b> WPA2-PSK AES or none</p> <p><b>Encryption Key:</b> Either an 8-digit random value or disabled. Printed on the setup card. Encryption is disabled by default settings on AirStation for Asia Pacific.</p>		

Feature	Parameter	Default Setting
AOSS	AOSS Status	Not in use
	Allow WEP for Game Consoles Only	Disabled
	AOSS Button on The AirStation Unit	Enabled
MAC Filtering	Enforce MAC Filtering	Disabled
	Registration List	No Registered MAC address
Multicast Control	Snooping	Enabled
	Multicast Aging Time	300 seconds
Guest Accounts	Guest Accounts	Disabled
	Guest User Authentication	Disabled
	Guest Account LAN IP Address	Auto
	Permitted Access Time	3 hours
	SSID	Use AirStation's MAC address
	Wireless Authentication	No Authentication
	Wireless Encryption	No Encryption
	Show Guests	No registered guest users.
Firewall	Basic Rules	<b>Prohibit NBT and Microsoft-DS routing:</b> Disabled <b>Reject ident requests:</b> Enabled <b>Block ping from Internet:</b> Enabled
IP Filter	IP Filter	No IP filters have been configured yet.
VPN Passthrough	IPv6 Passthrough	Disabled
	PPPoE Passthrough	Disabled
	PPTP Passthrough	Enabled
Port Forwarding	Forwarded Ports	Port forwarding has not been set up yet.
DMZ	Add IP Address to DMZ	-
UPnP	UPnP	Enabled
Web Filtering	Filter Level	No Filters
Access Control	Access Control	Disabled
Disk Management	Automatic USB Drive Assignment	Enabled
	Advanced	Not Displayed
	Character Code for FAT	North America (CP437)
	Sleep Mode	Disabled
	Current Users	No users registered.
Sharing	Shared Folder	Enabled
	AirStation Name	"AP" + AirStation's MAC Address
	AirStation Description	-
	Workgroup Name	WORKGROUP
	Windows Client Language	North America (CP437)
WebAccess	WebAccess	Disabled
	HTTPS/SSL Encryption	Disabled
	WebAccess External Port	Auto
	DNS Service Hostname	Use BuffaloNAS.com registration



Feature	Parameter	Default Setting
<b>Media Server</b>	<b>Media Server</b>	Disabled
<b>BitTorrent</b>	<b>BitTorrent</b>	Disabled
	<b>External Port Number</b>	Auto
	<b>Bandwidth Restriction</b>	Disabled
<b>QoS</b>	<b>Priority Control QoS</b>	Disabled
	<b>Optimize for</b>	Video
	<b>Manual</b>	<p><b>Video:</b> Ultra Premium - High Bandwidth</p> <p><b>Conference:</b> Premium - Low Latency, Medium Bandwidth</p> <p><b>Gaming:</b> Premium - Low Latency, 320 Kbps Bandwidth</p> <p><b>Audio:</b> Above Average, 320 Kbps Bandwidth</p> <p><b>Browsing:</b> Standard, Best Availability</p> <p><b>Download:</b> Junk, Lowest Priority</p>
	<b>Manual Entry</b>	No custom QoS rules added.
<b>eco Mode</b>	<b>Power Saving</b>	Disabled
	<b>LED</b>	Off
	<b>Wired LAN</b>	eco
	<b>Wireless LAN</b>	Off
	<b>Weekly Schedule</b>	-
	<b>Mode</b>	Normal
	<b>Start Time</b>	0:00
	<b>End Time</b>	0:30
<b>Network USB</b>	<b>Day of Week</b>	-
	<b>Network USB</b>	Enabled
	<b>Use Multifunction Printer</b>	Enabled

Feature	Parameter	Default Setting
System	<b>AirStation Name</b>	"AP" + AirStation's MAC Address
	<b>Administrator</b>	admin (fixed)
	<b>Administrator Password</b>	password
	<b>Access</b>	<b>Prohibit configuration from wireless LAN:</b> Disabled <b>Prohibit configuration from wired LAN:</b> Disabled <b>Permit configuration from wired Internet:</b> Disabled <b>Limit network scanning:</b> Disabled
	<b>NTP Functionality</b>	Enabled
	<b>NTP Server</b>	time.nist.gov
	<b>Update Interval</b>	24 hours
	<b>Local Date</b>	2013 Year 1 Month 1 Day
	<b>Local Time</b>	0 Hour 0 Minute 0 Seconds (12 midnight)
	<b>Time Zone</b>	(GMT - 06:00) Central Standard Time: CST
	<b>DST (Daylight Saving Time)</b>	USA (from second Sunday in Mar to first Sunday in Nov)
	Syslog Settings	<b>Transfer Logs</b>
<b>Syslog Server</b>		-
<b>Logs</b>		Address Translation, IP Filter, Firewall, PPP Client, Dynamic DNS, DHCP Client, DHCP Server, AOSS, Wireless, Authentication, Setting Changes, System Boot, NTP Client, Wired, USB, System
<b>Detailed logs</b>		-
Update Firmware	<b>Update Method</b>	Specify a file on your PC
	<b>Firmware File Name</b>	-
	<b>Automatic Update Check</b>	Enabled
	<b>Daily Check Time</b>	Automatic

## WZR-1166DHP

Feature	Parameter	Default Setting
Internet	Method of Acquiring IP Address	Internet Connection Wizard
	Default Gateway	-
	DNS Name Server Address	-
	Internet MAC Address	Use default MAC address
	MTU Size of Internet Port	1500 Bytes
PPPoE	Default PPPoE Connection	No active session.
	IP Unnumbered PPPoE Connection	No active session.
	PPPoE Connection List	No connections registered.
	Preferred Connections	No connections registered.
Dynamic DNS	Dynamic DNS Service	Disabled
PPTP	PPTP Server	Disabled
	Authentication Type	MS-CHAPv2 (40/128-bit Encryption)
	Server IP Address	Auto
	Client IP Address	Auto
	DNS Server IP Address	LAN-side IP address of the AirStation
	WINS Server IP Address	-
	MTU/MRU Value	1396
	PPTP User List	No registered users.
NAT	Address Translation	Enabled
LAN	LAN-side IP Address	IP address: 192.168.11.1 Subnet mask: 255.255.255.0
	DHCP Server	Enabled
	DHCP IP Address Pool	From 192.168.11.2 to 192.168.11.65
	LAN-side IP Address (For IP Unnumbered)	-
	Advanced Settings	Not displayed
	Lease Period	48 hours
	Default Gateway	AirStation's IP address
	DNS Servers	AirStation's IP address
	WINS Server	Do not specify
	Domain Name	Assigned by DHCP
DHCP Leases	Current DHCP Clients	-
Routing	Routing	No routes registered.

Feature	Parameter	Default Setting
2.4 GHz 5 GHz	<b>Wireless</b>	Enabled
	<b>Wireless Channel</b>	Auto Channel
	<b>High-Speed Mode</b>	2.4 GHz: 144 Mbps (20 MHz) 5 GHz: 866 Mbps (80 MHz)
	<b>Broadcast SSID</b>	Allow
	<b>SSID 1</b>	Use
	<b>SSID Isolation</b>	Not used
	<b>SSID</b>	Use AirStation's MAC address
	<b>Wireless Authentication</b>	WPA2-PSK or No Authentication
	<b>Encrypt Wireless Data</b>	AES or No Encryption
	<b>WPA-PSK (Pre-shared Keys)</b>	An 8-digit random value or disabled (Printed on the setup card. Encryption is disabled in default settings on AirStation for Asia Pacific.)
	<b>Key Renewal Interval</b>	0 minutes
	<b>SSID 2</b>	Not used
	<b>SSID Isolation</b>	Not used
	<b>SSID</b>	Use AirStation's MAC address
	<b>WEP Encryption Key Settings</b>	-
	<b>BSS BasicRateSet</b>	2.4 GHz: 1, 2, 5.5, 11 Mbps 5 GHz: 6, 12, 24 Mbps
	<b>Multicast Rate</b>	Auto
	<b>802.11n Protection</b>	Not used
	<b>DTIM Period</b>	1
	<b>Wireless Client Isolation</b>	Not used
<b>Output Power</b>	100%	

Feature	Parameter	Default Setting		
2.4 GHz 5 GHz	<b>WMM Settings</b>	Not displayed		
	<b>WMM-EDCA Parameters (Priority AC_BK (Low))</b>		<b>For AP</b>	<b>For STA</b>
		<b>CWmin</b>	15	15
		<b>CWmax</b>	1023	1023
		<b>AIFSN</b>	7	7
		<b>TXOP Limit</b>	0	0
		<b>Admission Control</b>	-----	Disabled
	<b>WMM-EDCA Parameters (Priority AC_BE (Nomal))</b>		<b>For AP</b>	<b>For STA</b>
		<b>CWmin</b>	15	15
		<b>CWmax</b>	63	1023
		<b>AIFSN</b>	3	3
		<b>TXOP Limit</b>	0	0
		<b>Admission Control</b>	-----	Disabled
	<b>WMM-EDCA Parameters (Priority AC_VI (High))</b>		<b>For AP</b>	<b>For STA</b>
		<b>CWmin</b>	7	7
		<b>CWmax</b>	15	15
		<b>AIFSN</b>	1	2
		<b>TXOP Limit</b>	94	94
		<b>Admission Control</b>	-----	Disabled
	<b>WMM-EDCA Parameters (Priority AC_VO (Highest))</b>		<b>For AP</b>	<b>For STA</b>
		<b>CWmin</b>	3	3
<b>CWmax</b>		7	7	
<b>AIFSN</b>		1	2	
<b>TXOP Limit</b>		47	47	
<b>Admission Control</b>		-----	Disabled	
<b>WPS</b>	<b>WPS</b>	Enabled		
	<b>External Registrar</b>	Enabled		
	<b>AirStation PIN</b>	An 8-digit random value (Printed on the label of the AirStation)		
	<b>WPS PIN</b>	-		
	<b>WPS Security Settings</b>	<p><b>WPS Status:</b> Configured</p> <p><b>SSID:</b> BUFFALO-A-XXXX (where "XXXX" is the last 4 digits of the AirStation's MAC address). BUFFALO-G-XXXX (where "XXXX" is the last 4 digits of the AirStation's MAC address).</p> <p><b>Security:</b> WPA2-PSK AES or none</p> <p><b>Encryption Key:</b> Either an 8-digit random value or disabled. Printed on the setup card. Encryption is disabled by default settings on AirStation for Asia Pacific.</p>		

Feature	Parameter	Default Setting
AOSS	AOSS Status	Not in use
	Allow WEP for Game Consoles Only	Disabled
	AOSS Button on The AirStation Unit	Enabled
MAC Filtering	Enforce MAC Filtering	Disabled
	Registration List	No Registered MAC address
Multicast Control	Snooping	Enabled
	Multicast Aging Time	300 seconds
Guest Accounts	Guest Accounts	Disabled
	Guest User Authentication	Disabled
	Guest Account LAN IP Address	Auto
	Permitted Access Time	3 hours
	SSID	Use AirStation's MAC address
	Wireless Authentication	No Authentication
	Wireless Encryption	No Encryption
	Show Guests	No registered guest users.
Firewall	Basic Rules	<b>Prohibit NBT and Microsoft-DS routing:</b> Disabled <b>Reject ident requests:</b> Enabled <b>Block ping from Internet:</b> Enabled
IP Filter	IP Filter	No IP filters have been configured yet.
VPN Passthrough	IPv6 Passthrough	Disabled
	PPPoE Passthrough	Disabled
	PPTP Passthrough	Enabled
Port Forwarding	Forwarded Ports	Port forwarding has not been set up yet.
DMZ	Add IP Address to DMZ	-
UPnP	UPnP	Enabled
Web Filtering	Filter Level	No Filters
Access Control	Access Control	Disabled
Disk Management	Automatic USB Drive Assignment	Enabled
	Advanced	Not Displayed
	Character Code for FAT	North America (CP437)
	Sleep Mode	Disabled
	Current Users	No users registered.
Sharing	Shared Folder	Enabled
	AirStation Name	"AP" + AirStation's MAC Address
	AirStation Description	-
	Workgroup Name	WORKGROUP
	Windows Client Language	North America (CP437)
WebAccess	WebAccess	Disabled
	HTTPS/SSL Encryption	Disabled
	WebAccess External Port	Auto
	DNS Service Hostname	Use BuffaloNAS.com registration

Feature	Parameter	Default Setting
<b>Media Server</b>	<b>Media Server</b>	Disabled
<b>BitTorrent</b>	<b>BitTorrent</b>	Disabled
	<b>External Port Number</b>	Auto
	<b>Bandwidth Restriction</b>	Disabled
<b>QoS</b>	<b>Priority Control QoS</b>	Disabled
	<b>Optimize for</b>	Video
	<b>Manual</b>	<p><b>Video:</b> Ultra Premium - High Bandwidth</p> <p><b>Conference:</b> Premium - Low Latency, Medium Bandwidth</p> <p><b>Gaming:</b> Premium - Low Latency, 320 Kbps Bandwidth</p> <p><b>Audio:</b> Above Average, 320 Kbps Bandwidth</p> <p><b>Browsing:</b> Standard, Best Availability</p> <p><b>Download:</b> Junk, Lowest Priority</p>
	<b>Manual Entry</b>	No custom QoS rules added.
<b>eco Mode</b>	<b>Power Saving</b>	Disabled
	<b>LED</b>	Off
	<b>Wired LAN</b>	eco
	<b>Wireless LAN</b>	Off
	<b>Weekly Schedule</b>	-
	<b>Mode</b>	Normal
	<b>Start Time</b>	0:00
	<b>End Time</b>	0:30
<b>Network USB</b>	<b>Day of Week</b>	-
	<b>Network USB</b>	Enabled
	<b>Use Multifunction Printer</b>	Enabled

Feature	Parameter	Default Setting
System	<b>AirStation Name</b>	"AP" + AirStation's MAC Address
	<b>Administrator</b>	admin (fixed)
	<b>Administrator Password</b>	password
	<b>Access</b>	<b>Prohibit configuration from wireless LAN:</b> Disabled <b>Prohibit configuration from wired LAN:</b> Disabled <b>Permit configuration from wired Internet:</b> Disabled <b>Limit network scanning:</b> Disabled
	<b>NTP Functionality</b>	Enabled
	<b>NTP Server</b>	time.nist.gov
	<b>Update Interval</b>	24 hours
	<b>Local Date</b>	2013 Year 1 Month 1 Day
	<b>Local Time</b>	0 Hour 0 Minute 0 Seconds (12 midnight)
	<b>Time Zone</b>	(GMT - 06:00) Central Standard Time: CST
	<b>DST (Daylight Saving Time)</b>	USA (from second Sunday in Mar to first Sunday in Nov)
	Syslog Settings	<b>Transfer Logs</b>
<b>Syslog Server</b>		-
<b>Logs</b>		Address Translation, IP Filter, Firewall, PPP Client, Dynamic DNS, DHCP Client, DHCP Server, AOSS, Wireless, Authentication, Setting Changes, System Boot, NTP Client, Wired, USB, System
<b>Detailed logs</b>		-
Update Firmware	<b>Update Method</b>	Specify a file on your PC
	<b>Firmware File Name</b>	-
	<b>Automatic Update Check</b>	Enabled
	<b>Daily Check Time</b>	Automatic



## Technical Specifications

### WZR-1750DHP

Wireless LAN Interface	
Standard Compliance	IEEE 802.11ac/IEEE 802.11n/IEEE 802.11a/IEEE 802.11g/IEEE 802.11b
Transmission Method	Direct sequence spread spectrum (DSSS), OFDM, MIMO
Frequency Range	Available frequencies depend on the country of purchase.
Transmission Rate 802.11ac	<p><b>IEEE 802.11ac 20 MHz BW &lt;Long GI&gt;:</b>            260/234/195/175.5/156/117/78/58.5/39/19.5 Mbps (3 streams)            156/130/117/104/78/52/39/26/13 Mbps (2 streams)            78/65/58.5/52/39/26/19.5/13/6.5 Mbps (1 stream)</p> <p><b>IEEE 802.11ac 20 MHz BW &lt;Short GI&gt;:</b>            288.9/260/216.7/195/173.3/130/86.7/65/43.3/21.7 Mbps (3 streams)            173.3/144.4/130/115.6/86.7/57.8/43.3/28.9/14.4 Mbps (2 streams)            86.7/72.2/65/57.8/43.3/28.9/21.7/14.4/7.2 Mbps (1 stream)</p> <p><b>IEEE 802.11ac 40 MHz BW &lt;Long GI&gt;:</b>            540/486/405/364.5/324/243/162/121.5/81/40.5 Mbps (3 streams)            360/324/270/243/216/162/108/81/54/27 Mbps (2 streams)            180/162/135/121.5/108/81/54/40.5/27/13.5 Mbps (1 stream)</p> <p><b>IEEE 802.11ac 40 MHz BW &lt;Short GI&gt;:</b>            600/540/450/405/360/270/180/135/90/45 Mbps (3 streams)            400/360/300/270/240/180/120/90/60/30 Mbps (2 streams)            200/180/150/135/120/90/60/45/30/15 Mbps (1 stream)</p> <p><b>IEEE 802.11ac 80 MHz BW &lt;Long GI&gt;:</b>            1170/1053/877.5/702/526.5/351/263.3/175.5/87.8 Mbps (3 streams)            780/702/585/526.5/468/351/234/175.5/117/58.5 Mbps (2 streams)            390/351/292.5/263.3/234/175.5/117/87.8/58.5/29.3 Mbps (1 stream)</p> <p><b>IEEE 802.11ac 80 MHz BW &lt;Short GI&gt;:</b>            1300/1170/975/780/585/390/292.5/195/97.5 Mbps (3 streams)            866.7/780/650/585/520/390/260/195/130/65 Mbps (2 streams)            433.3/390/325/292.5/260/195/130/97.5/65/32.5 Mbps (1 stream)</p>

Transmission Rate 802.11n/a/b/g	<p><b>IEEE 802.11n 20 MHz BW &lt;Long GI&gt;:</b>  195/175.5/156/117/78/58.5/39/19.5 Mbps (3 streams)  130/117/104/78/52/39/26/13 Mbps (2 streams)  65/58.5/52/39/26/19.5/13/6.5 Mbps (1 stream)</p> <p><b>IEEE 802.11n 20 MHz BW &lt;Short GI&gt;:</b>  216.7/195/173.3/130/86.7/65/43.3/21.7 Mbps (3 streams)  144.4/130/115.6/86.7/57.8/43.3/28.9/14.4 Mbps (2 streams)  72.2/65/57.8/43.3/28.9/21.7/14.4/7.2 Mbps (1 stream)</p> <p><b>IEEE 802.11n 40 MHz BW &lt;Long GI&gt;:</b>  405/364.5/324/243/162/121.5/81/40.5 Mbps (3 streams)  270/243/216/162/108/81/54/27 Mbps (2 streams)  135/121.5/108/81/54/40.5/27/13.5 Mbps (1 stream)</p> <p><b>IEEE 802.11n 40 MHz BW &lt;Short GI&gt;:</b>  450/405/360/270/180/135/90/45 Mbps (3 streams)  300/270/240/180/120/90/60/30 Mbps (2 streams)  150/135/120/90/60/45/30/15 Mbps (1 stream)</p> <p><b>IEEE 802.11a/IEEE 802.11g:</b>  54/48/36/24/18/12/9/6 Mbps</p> <p><b>IEEE 802.11b:</b>  11/5.5/2/1 Mbps</p>
Access Mode	Infrastructure Mode
Security	AOSS, WPA/WPA2 mixed PSK, WPA2-PSK (AES), 64-bit or 128-bit WEP, MAC address filter
<b>Wired LAN Interface</b>	
Standard Compliance	IEEE 802.3ab (1000BASE-T) / IEEE 802.3u (100BASE-TX) / IEEE 802.3 (10BASE-T)
Transmission Rate	10 / 100 / 1000 Mbps
Transmission Encoding	1000BASE-T 4DPAM5, 100BASE-TX 4B5B/MLT-3, 10BASE-T Manchester Coding
Access Method	CSMA/CD
Speed and Flow Control	10 / 100 / 1000 Mbps, Auto Sensing, Auto MDIX
Number of LAN Ports	4
<b>USB Interface</b>	
Interface	USB 3.0 USB 2.0
Connector Type	USB 3.0 x 1 USB 2.0 x 1
<b>Other</b>	
Power Supply	External AC 100-240 V Universal, 50/60 Hz (Asian Power Devices Inc. DA-48Q12)
Power Consumption	About 18.2 W (Max)
Dimensions	212.2 x 183.2 x 34 mm (8.4 x 7.2 x 1.3 in.)
Weight	580 g (20.5 oz.)
Operating Environment	0 - 40° C (32 - 104° F), 10 - 85% (non-condensing)

# WZR-1166DHP

Wireless LAN Interface	
Standard Compliance	IEEE 802.11ac/IEEE 802.11n/IEEE 802.11a/IEEE 802.11g/IEEE 802.11b
Transmission Method	Direct sequence spread spectrum (DSSS), OFDM, MIMO
Frequency Range	Available frequencies depend on the country of purchase.
Transmission Rate 802.11ac	<p><b>IEEE 802.11ac 20 MHz BW &lt;Long GI&gt;:</b>            156/130/117/104/78/52/39/26/13 Mbps (2 streams)            78/65/58.5/52/39/26/19.5/13/6.5 Mbps (1 stream)</p> <p><b>IEEE 802.11ac 20 MHz BW &lt;Short GI&gt;:</b>            173.3/144.4/130/115.6/86.7/57.8/43.3/28.9/14.4 Mbps (2 streams)            86.7/72.2/65/57.8/43.3/28.9/21.7/14.4/7.2 Mbps (1 stream)</p> <p><b>IEEE 802.11ac 40 MHz BW &lt;Long GI&gt;:</b>            360/324/270/243/216/162/108/81/54/27 Mbps (2 streams)            180/162/135/121.5/108/81/54/40.5/27/13.5 Mbps (1 stream)</p> <p><b>IEEE 802.11ac 40 MHz BW &lt;Short GI&gt;:</b>            400/360/300/270/240/180/120/90/60/30 Mbps (2 streams)            200/180/150/135/120/90/60/45/30/15 Mbps (1 stream)</p> <p><b>IEEE 802.11ac 80 MHz BW &lt;Long GI&gt;:</b>            780/702/585/526.5/468/351/234/175.5/117/58.5 Mbps (2 streams)            390/351/292.5/263.3/234/175.5/117/87.8/58.5/29.3 Mbps (1 stream)</p> <p><b>IEEE 802.11ac 80 MHz BW &lt;Short GI&gt;:</b>            866.7/780/650/585/520/390/260/195/130/65 Mbps (2 streams)            433.3/390/325/292.5/260/195/130/97.5/65/32.5 Mbps (1 stream)</p>
Transmission Rate 802.11n/a/b/g	<p><b>IEEE 802.11n 20 MHz BW &lt;Long GI&gt;:</b>            130/117/104/78/52/39/26/13 Mbps (2 streams)            65/58.5/52/39/26/19.5/13/6.5 Mbps (1 stream)</p> <p><b>IEEE 802.11n 20 MHz BW &lt;Short GI&gt;:</b>            144.4/130/115.6/86.7/57.8/43.3/28.9/14.4 Mbps (2 streams)            72.2/65/57.8/43.3/28.9/21.7/14.4/7.2 Mbps (1 stream)</p> <p><b>IEEE 802.11n 40 MHz BW &lt;Long GI&gt;:</b>            270/243/216/162/108/81/54/27 Mbps (2 streams)            135/121.5/108/81/54/40.5/27/13.5 Mbps (1 stream)</p> <p><b>IEEE 802.11n 40 MHz BW &lt;Short GI&gt;:</b>            300/270/240/180/120/90/60/30 Mbps (2 streams)            150/135/120/90/60/45/30/15 Mbps (1 stream)</p> <p><b>IEEE 802.11a/IEEE 802.11g:</b>            54/48/36/24/18/12/9/6 Mbps</p> <p><b>IEEE 802.11b:</b>            11/5.5/2/1 Mbps</p>
Access Mode	Infrastructure Mode
Security	AOSS, WPA/WPA2 mixed PSK, WPA2-PSK (AES), WPA-PSK (AES), 64-bit or 128-bit WEP, MAC address filter
Wired LAN Interface	
Standard Compliance	IEEE 802.3ab (1000BASE-T) / IEEE 802.3u (100BASE-TX) / IEEE 802.3 (10BASE-T)

Transmission Rate	10 / 100 / 1000 Mbps
Transmission Encoding	1000BASE-T 4DPAM5, 100BASE-TX 4B5B/MLT-3, 10BASE-T Manchester Coding
Access Method	CSMA/CD
Speed and Flow Control	10 / 100 / 1000 Mbps, Auto Sensing, Auto MDIX
Number of LAN Ports	4
<b>USB Interface</b>	
Interface	USB 3.0
Connector Type	USB 3.0 x 1
<b>Other</b>	
Power Supply	External AC 100-240 V Universal, 50/60 Hz (Asian Power Devices Inc. WA-36 A12)
Power Consumption	About 15.1 W (Max)
Dimensions	212.2 x 183.2 x 34 mm (8.4 x 7.2 x 1.3 in.)
Weight	590 g (20.8 oz.)
Operating Environment	0 - 40° C (32 - 104° F), 10 - 85% (non-condensing)

## Shared Folders and USB Ports

There are several restrictions on using the AirStation's USB port:

- When using two-byte characters (such as Japanese), keep folder and file names within 80 characters. You may not be able to copy a folder or a file whose name length is more than 80 characters.
- You cannot set attributes (hidden or read-only) for folders or files on the AirStation.
- When using access restrictions, you can register up to 16 users for the AirStation.
- Please note that you are not allowed to use any of the following words as a user or group name: adm, administrator, all, bin, daemon, disk, ftp, guest, halt, hdusers, kmen, lp, mail, man, news, nobody, nogroup, none, operator, root, shadow, shutdown, sshd, sync, sys, ttyusers, utmp, uucp, www.
- Please note that you are not allowed to use any of the following words as a shared folder name: global, homes, printers, bittorrent, disk1\_pt1, disk1\_pt2, disk1\_pt3, disk1\_pt4, disk2\_pt1, disk2\_pt2, disk2\_pt3, disk2\_pt4, disk3\_pt1, disk3\_pt2, disk3\_pt3, disk3\_pt4, disk4\_pt1, disk4\_pt2, disk4\_pt3, disk4\_pt4.
- If a file created on a Mac contains any of the following characters, it will not be displayed correctly under Windows. Also, you cannot copy or properly display a file when connecting via SMB from Mac OS if it contains any of these characters:  
? [ ] / ¥ = + < > ; : " , | \*
- Cancelling or aborting a file copy may leave the file incomplete, and you may no longer be able to delete the incomplete file. This can also happen during a power outage or if the LAN cable is suddenly disconnected. If it happens, restart the AirStation, delete the file, and try copying the file again.
- Use the same username and password for the AirStation as the user's Windows login. If they are different, the user may not be able to access shared folders with access restrictions on the AirStation.
- Date and time stamps stored on the USB hard drive may be updated by the OS accessing the AirStation. File creation or access dates may not be maintained.
- If you view the size of a hard drive from Settings, it shows a bigger value than when you see it in Windows' drive properties. This is because the browser shows the size of the drive in gigabytes but Windows shows it in gibibytes.
- If you have logged in using a "guest" account from Windows 8, Windows 7, Windows Vista, Windows XP, or Windows 2000, access restrictions may not work properly. A (different) guest account already exists on the AirStation.
- If you access a shared folder from a Mac, additional Mac OS information files may be automatically generated. Do not delete these files from a Windows computer. Otherwise, you may no longer be able to access folders from a Mac.
- Device types that can be connected to the AirStation's USB connector are USB hard drives, USB memory sticks, USB printer, or USB card readers. Card readers with 5 or more slots are not supported. USB devices such as digital cameras, CD/DVD drives, mice, and keyboards are not supported.
- Encrypted USB hard drives are not supported.
- If your hard drive has an Auto power mode switch, move the switch to the *manual* or *on* position. Leaving the switch set to *auto* may result in unpredictable behavior.
- Up to 4 partitions can be recognized on a USB hard drive.
- Available file systems for USB hard drives are FAT12, FAT16, FAT32, and XFS.

## GPL Information

The source code for Buffalo products that use GPL code is available at <http://opensource.buffalo.jp/>.

# Appendix B - Tutorials

## Configuring the AirStation for Optimal Performance and Security

Some basic configuration tips to help improve your router performance and security.

### Performance

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- Put the AirStation in an elevated spot near the center of your house or coverage area, but away from other devices that might cause interference.
- Experiment with strategic locations to improve signal strength. To reduce interference, keep the router away from cordless phones and microwaves.
- In populated areas, leave automatic channel selection enabled and use 20 MHz wide channels. In less crowded areas, 40 MHz wide channels may offer better performance.
- Use QoS (quality of service) to give priority to services that need the most data.

### Security

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- Use AES (Advanced Encryption Standard) as the encryption. WEP offers virtually no protection at all.
- Enable the built-in AirStation firewall to prevent certain types of network traffic from reaching your computer.
- Enable IP filtering to control what IP traffic to allow into and out of your network for further access control.
- If you are using an unsecure network (e.g. WEP) and you wish to keep that access point separate from the rest of the network, enable SSID isolation. The unsecure router will still be able to access the Internet, but will be kept separate from the rest of the network.

## Sharing a Printer

A USB printer attached to the AirStation can be made available to the network for wireless printing. You will need to download and install the Network USB Navigator application from the Buffalo website.

Before proceeding, make sure the printer is installed on your PC with the correct printer drivers/software. If the PC does not have the required drivers, even if Network USB Navigator detects the printer you will not be able to print to the device.

## Enabling Network USB on the AirStation

---

- 1** Open the AirStation's Settings page and navigate to *Applications - Network USB*.
- 2** Enable Network USB. If the printer has multiple functions (e.g. scanning), enable *Use Multifunction Printer* as well.

## Installing and Using Network USB Navigator

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- 1** Download the Network USB Navigator software from the Buffalo website.
- 2** Open the application and install it on your PC, following the directions on the screen.
- 3** Connect the USB printer to the AirStation. Make sure the printer is powered on.
- 4** Open Network USB Navigator. The printer should appear as a network device.
- 5** Select the printer and click *Connect*.

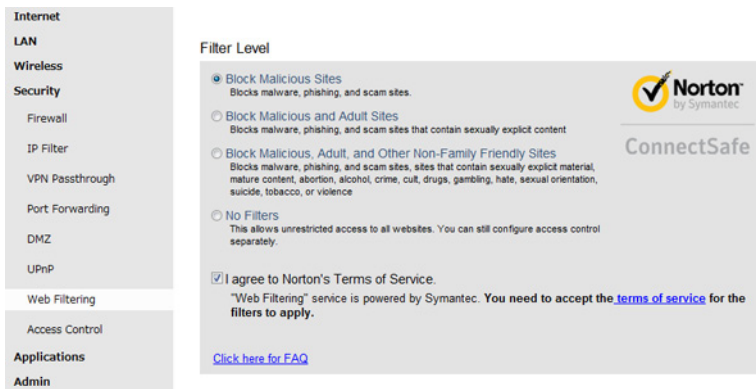
The printer should now be connected and available for wireless printing over the network.



## Configuring the Web Filter

You can apply a web content filter to prohibit access to sites that contain objectionable content. You can access the web filter settings from the Easy Admin page, or by navigating to *Security - Web Filtering*.

You must first accept the Symantec terms of use before you can use web filtering.



## Content Filter

You can select a filter level to set what kind of sites are blocked by the AirStation. To configure the content filter:

- 1 On the Web Filtering screen, enable content filtering.
- 2 Select the filter level.
- 3 Click *Apply*.

## Websites Excluded from Filter

Excluded websites can be accessed regardless of the content filter in place. You can register up to 20 excluded sites. To add a website:

- 1 On the Web Filtering screen, click *Add* under "Websites Excluded from Filter" to open the Exclude Website page.
- 2 Enter a website URL (e.g. [www.google.com](http://www.google.com)).
- 3 Click *Add*.

You will be returned to the Web Filtering page and the site will be displayed under "Websites Excluded from Filter". You can click *Edit* to make any changes, or *Delete* to remove the entry.

## Computers Excluded from Filter

---

Excluded computers can access any website without being affected by the content filter. You can register up to 20 excluded computers. To add a computer:

- 1 On the Web Filtering screen, click *Add* under “Computers Excluded from Filter” to open the Exclude Computer page.
- 2 Enter a computer’s MAC address. If you need help locating a computer’s MAC address, consult the computer’s manual, or visit the next section.
- 3 Click *Add*.

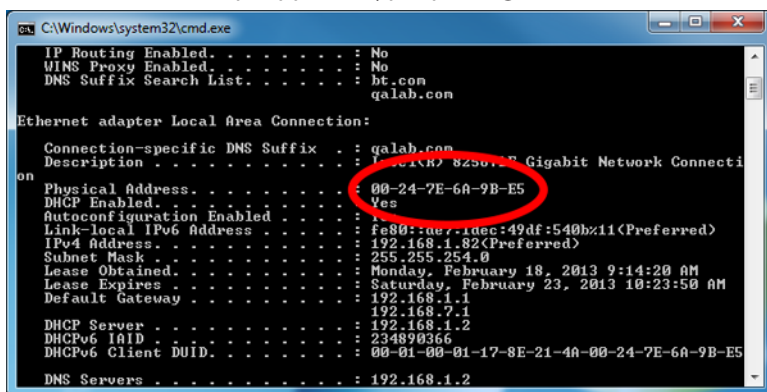
You will be returned to the Web Filtering screen and the computer will be displayed under “Computers Excluded from Filter”. You can click *Edit* to make any changes, or *Delete* to remove the entry.

## Finding a Computer’s MAC Address

---

Follow the steps below to locate a computer’s MAC address.

- 1 On your PC desktop, click on *Start* and type ‘cmd’ into the Search Bar.
- 2 The Command Prompt appears. Type ‘ipconfig /all’ and hit *Enter*.



- 3 Locate the Physical Address. This is the computer’s MAC address.

# Configuring Access Control

You can set up a schedule that dictates when a target computer on the network can (or cannot) access the Internet. To configure this, navigate to *Security - Access Control*.

## Add Access Control

Target Computer	<input type="text"/>
-----------------	----------------------

## Permitted Access Time

	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Sun																								
Mon																								
Tue																								
Wed																								
Thu																								
Fri																								
Sat																								

Internet Access  No Internet Access

## Register

Status	No Internet Access
Start Time	0:00
End Time	1:00
Day	Sun Mon Tue Wed Thu Fri Sat
	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Edit Permitted Access Time

Add Cancel

- 1 Open Access Control options by clicking *Enable*.
- 2 Under Target Computer, enter the computer's MAC address.
- 3 For the added computer, select *Internet Access* or *No Internet Access*.
- 4 Set the start time, end time, and day(s) for the computer's permitted access time. "0" refers to midnight. For example, if you set Computer A to have "Internet Access" from 7:00-10:00 on Thursday and Saturday, then Computer A can only access the Internet during those times and would not be able to get online during other times.
- 5 Click *Edit Permitted Access Time* to save the change.
- 6 You can make additional changes to the schedule if needed by repeating steps 3-5.

## 7 Click *Save*.

You will be returned to the Access Control screen, and the computer's access settings will be displayed. You can click *Edit* to modify the permitted access time or other settings, or *Delete* to remove the entry.

You can have up to 20 target computers under Access Control.

## Port Forwarding Basics

Port forwarding is a way of configuring the AirStation so that incoming data is automatically directed to specific IP addresses on the network based on the data type.

### Common Uses

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Port forwarding allows computers outside your network to access computers on your LAN.

Some applications require port forwarding. For example, if you set up a game server, people outside the network will need to join your server to play the game with you. But the AirStation will automatically block all outside attempts to connect to your LAN. By setting a port number (the port receiving all the connection requests) and the IP address of your game server, the AirStation can then automatically direct the connection requests to the game server, allowing others to join and play.

You will need to know specific ports and corresponding protocols to successfully configure port forwarding. Most network applications and services will have the required ports and protocols in their user documentation.

### Security

---

The risk of having a port "open" to the Internet depends entirely on the application using the open port. If no application is currently connected to the port, all communications to the port will be ignored. Enabling a firewall or other security application will also help reduce security risk.

### UPnP

---

For the most part, manually configuring port forwarding rules is unnecessary with the advent of UPnP (Universal Plug and Play). UPnP is a protocol that allows a connecting application or device to automatically request and configure a port for you.

Many applications require that UPnP be enabled both in the application's settings and on the router. You can enable UPnP for this AirStation in Settings at *Applications - UPnP*.

## Setting Up Port Forwarding Rules

If UPnP is enabled, most programs will configure this for you automatically. Otherwise, you can manually set rules for port forwarding. You can access port forwarding options by opening the AirStation's Settings page and then navigating to *Security - Port Forwarding*.

Group	New Group	Group Name:	<input type="text"/>
Internet-side IP Address	AirStation's Internet-side IP Address	Manual IP Address:	<input type="text"/>
Protocol	<input type="radio"/> All <input type="radio"/> ICMP <input type="radio"/> Manual <input checked="" type="radio"/> TCP/UDP	Protocol Number:	<input type="text"/>
		TCP Port Manual Setting	<input type="text"/>
		Port Number:	<input type="text"/>
LAN-side IP Address	192.168.11.2		
LAN-side Port	TCP/UDP Port: <input type="text"/>		

## Creating Port Forwarding Rules

The AirStation can register up to 32 rules. Rules can be managed using the group feature.

Once a group has been created, you can add additional port forwarding rules to that group. You can also turn the group of rules on or off as needed, or select a group of port forwarding rules to be disabled.

- 1** Create a new group name or add to an existing group.
- 2** Specify the WAN-side IP address the AirStation will forward ports from. Using the AirStation's Internet IP address is highly recommended, but you can manually enter an IP address.
- 3** Select a protocol and its corresponding port from the dropdown menu. For example, selecting HTTP will automatically select TCP port 80. If you select any other protocol, you must select a valid port (from 1-65535) as well. The default is TCP/UDP, along with a list of common protocols. If selected, the protocols will use a corresponding port. You can also select *Manual* to manually enter a protocol and its corresponding port.
- 4** Enter the LAN-side IP address of the network computer to receive the forwarded data.
- 5** Enter the LAN-side port. This port will usually be the same as the port set under Protocol. If the port is different, this port will be used to route traffic on the LAN rather than the WAN port. As before, you can select a port from 1-65535.

Once the rule has been added, it will be displayed under the "Forwarded Ports" section.

## Managing Port Forwarding Rules

Forwarded Ports			
Group	Internet-side IP Address LAN-side IP Address	Protocol LAN-side Port	Customize
Group	AirStation's Internet-side IP Address 192.168.11.2	FTP (TCP Port: 20-21) FTP (TCP Port: 20-21)	<input type="checkbox"/> Off <input type="button" value="Edit"/> <input type="button" value="Delete"/>
	AirStation's Internet-side IP Address 192.168.11.2	HTTPS (TCP Port: 443) HTTPS (TCP Port: 443)	<input type="checkbox"/> Off <input type="button" value="Edit"/> <input type="button" value="Delete"/>

Individual rules cannot be turned off. Only a rule group can be shut off. You can click *Edit* to make any changes to individual rules, or *Delete* to remove the rule entry.

## Configuring a USB Drive as a NAS

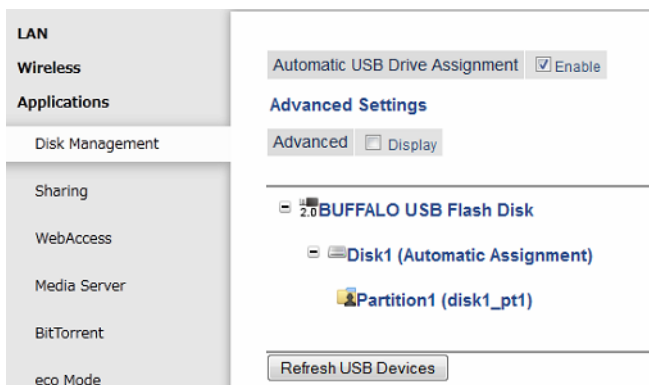
You can use a USB drive as a network-attached storage (NAS) device by plugging it into the AirStation. The files on the device can then be accessed from anywhere on the network.

**Note:** Not all USB drives are compatible with the AirStation.

## Setting Up the NAS

Make sure the USB drive is powered on.

- 1 Connect the USB drive to the AirStation.
- 2 On a computer, open a web browser and access the AirStation's Settings page.
- 3 Navigate to *Applications - Disk Management*.

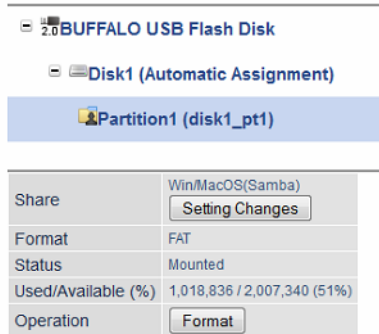


- 4 Enable *Automatic USB Disk Assignment*.

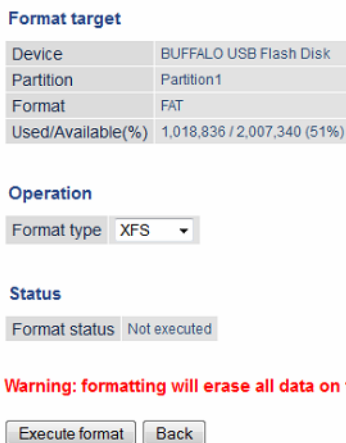
# Formatting the Drive

---

- 1 From the Disk Management page, click *Partition 1*.



- 2 AirStation does not support ext3 or NTFS format drives. If the USB drive is in one of those formats, click *Format* to open the Format Disk page.



- 3 Select a format type and click *Execute format* to format the drive. Formatting will erase all data on the drive, so back up any important data beforehand.

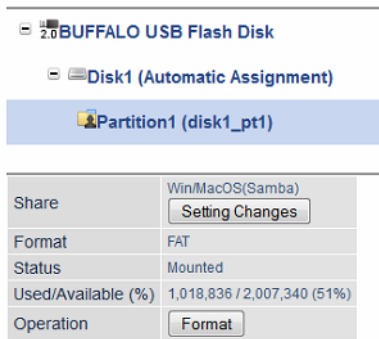
# User Access

---

Set user access restrictions for the drive.

- 1 From the Disk Management page, click *Partition 1*.

**2** Click *Setting Changes*.



**3** Select the type of access to be given to users and click *Save*.



To create new users, click *Add* from the Disk Management page.

## Enable Sharing

---

Enable sharing so the drive is accessible by other users on the network.

- 1** Navigate to *Applications - Sharing*.
- 2** Enable *Shared Folder* for the NAS.
- 3** Set the Workgroup name and click *Apply*.



## Adding the AirStation to a Wireless Network

If you have an existing wireless network, you can connect the AirStation to extend the wireless network range. Other client devices (wired and wireless) will be able to connect to the AirStation to use the Internet.

### Set Up the AirStation as an Extender

The AirStation can rebroadcast an existing wireless signal to extend the range. However, the AirStation will maintain its own SSID and security settings.



- 1 Set the mode switch on the back of the AirStation to “WB”.
- 2 Connect the AirStation to a computer with an Ethernet cable.
- 3 Move the AirStation next to the access point.
- 4 Open a web browser and enter the AirStation’s IP address (default is 192.168.11.100).
- 5 Enter the administrator password and log in.
- 6 Navigate to *Wireless - Wireless Bridge*.

The screenshot shows the web interface for configuring the AirStation's Wireless Bridge. On the left is a navigation menu with categories: Wireless (2.4 GHz, 5 GHz, MAC Filtering, Multicast Control), Wireless Bridge, Applications, Admin, and Status. The main content area is titled 'Wireless Bridge' and contains the following settings:

Wireless Bridge Status	Not connected
SSID	-
Security	-
Select 5 GHz or 2.4 GHz	Auto (5 GHz priority)
Repeater	<input checked="" type="checkbox"/> Use SSID and security settings from master
Physical AOSS Button	<input checked="" type="checkbox"/> Enable

Below the table, there is a note: "To disable wireless LAN master settings, disable wireless from [5 GHz](#) and [2.4 GHz](#)." This is followed by a 'Manual Connection' section with an 'Open' button, and a 'WPS Connection' section with 'Start WPS (PIN)' and 'Start WPS (PBC)' buttons. At the bottom is an 'AOSS Connection' section with an 'Execute AOSS' button.

- 7 If the access point supports WPS or AOSS, you can use either to connect the AirStation. Once the access point is connected and its settings are displayed on the page, click *Apply*.

- 8** You can also manually select the access point by opening the Manual Connection page. Select the access point from the available list of detected wireless access points. Set the wireless authentication and encryption to match that of the access point and click *OK*. If the access point is not displayed, click *Search Again* to refresh the list. After you are returned to the Wireless Bridge page, click *Apply*.

<b>Wireless</b>	2.4 GHz	SSID	Buffalo-A-0D7A			
	5 GHz	Wireless Authentication	WPA2-PSK			
	MAC Filtering	Wireless Encryption	AES			
	Multicast Control	WPA-PSK (Pre-shared key):				
Wireless Bridge						
<b>Applications</b>	<b>Select AP to connect to.</b>					
	Admin	Select	SSID	Signal	Encryption	Wireless Mode
	<b>Status</b>	<input type="radio"/>	7ED6D8A7128BD7042A3EEB3148EA1003	Excellent	On	n/g/b
		<input checked="" type="radio"/>	Buffalo-A-0D7A	Excellent	On	ac
		<input type="radio"/>	WAP-G	Weak	On	n/g/b
<input type="radio"/>		Buffalo-G-127A	Weak	On	n/g/b	

The AirStation should now be connected as a wireless extender. Configure the AirStation's SSID and security settings on *Wireless - 2.4 GHz (or 5 GHz)*. Once you are finished, you can disconnect the Ethernet cable and move the AirStation to another location that is within range of the access point. Other devices can now connect to the AirStation to use the Internet.

## Set Up the AirStation as a Repeater

If the AirStation is set as a repeater, it will rebroadcast an existing wireless signal and only use the access point's SSID and security settings. Devices within range of both the access point and the AirStation will automatically connect to the stronger signal.



- 1** Set the mode switch on the back of the AirStation to "WB".
- 2** Connect the AirStation to a computer with an Ethernet cable.
- 3** Move the AirStation next to the wireless access point.
- 4** Open a web browser and enter the AirStation's IP address (default is 192.168.11.100).
- 5** Enter the administrator password and log in.

## 6 Navigate to *Wireless - Wireless Bridge*.

**Wireless Bridge**

Wireless Bridge Status	Not connected
SSID	-
Security	-
Select 5 GHz or 2.4 GHz	Auto (5 GHz priority)
Repeater	<input checked="" type="checkbox"/> Use SSID and security settings from master
Physical AOSS Button	<input checked="" type="checkbox"/> Enable

To disable wireless LAN master settings, disable wireless from [5 GHz](#) and [2.4 GHz](#).

**Manual Connection**

**WPS Connection**

PIN Code Method

Pushbutton Method

**AOSS Connection**

7 If the access point supports WPS or AOSS, you can use either to connect the AirStation.

8 You can also manually select the access point by opening the Manual Connection page. Select the access point from the available list of detected wireless access points. Set the wireless authentication and encryption to match that of the access point device and click *OK*. If the access point is not displayed, click to *Search Again* to refresh the list.

**Manual Connection**

SSID	Buffalo-A-0D7A
Wireless Authentication	WPA2-PSK
Wireless Encryption	AES
WPA-PSK (Pre-shared key):	

**Select AP to connect to.**

Select	SSID	Signal	Encryption	Wireless Mode
<input type="radio"/>	7ED6D8A7126BD7042A3EEB3148EA1003	Excellent	On	n/g/b
<input checked="" type="radio"/>	Buffalo-A-0D7A	Excellent	On	ac
<input type="radio"/>	WAP-G	Weak	On	n/g/b
<input type="radio"/>	Buffalo-G-127A	Weak	On	n/g/b

9 Enable *Repeater* to automatically use the access point's SSID and security settings.

10 Click *Apply* to save your changes.

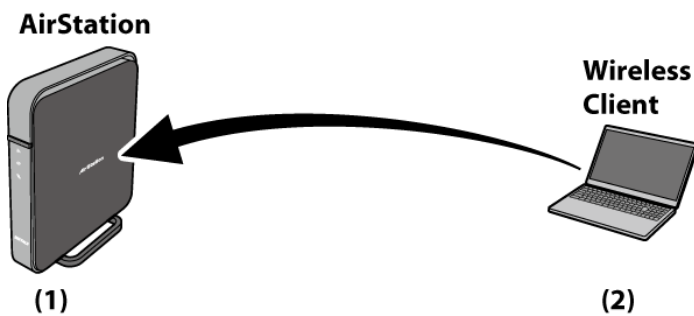
The AirStation should now be connected as a repeater. You can disconnect the Ethernet cable and move the AirStation to another location that is within range of the access point. Other devices can now connect to the AirStation to use the Internet.

## Connecting Wireless Bridge Clients with MAC Filtering Enabled

When MAC filtering is enabled on the AirStation, a wireless client cannot access the AirStation unless its MAC address is registered. However, if the wireless client is connected through a wireless bridge, you need to register the MAC addresses of both the client and the wireless bridge. Otherwise, the client will not be able to access the AirStation.

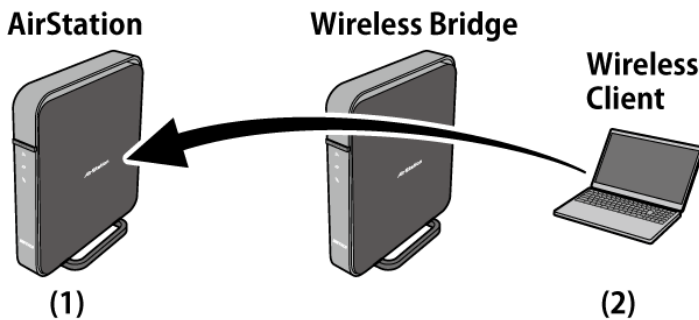
When a wireless client connects to the AirStation via the wireless bridge, the MAC address displayed from AirStation's Settings is different from the original MAC address. You can register both MAC addresses so the wireless client can both access the AirStation directly or through a wireless bridge while MAC filtering is enabled. See the example below for clarification.

### Connect to the AirStation Directly:



- (1) Detected MAC address: 00:24:A5:D5:01:06
- (2) Client's MAC address: 00:24:A5:D5:01:06

### Connect to the AirStation via the Wireless Bridge:



- (1) Detected MAC address: 02:24:A5:D5:01:06
- (2) Client's MAC address: 00:24:A5:D5:01:06

In Settings, the client's MAC address will have a different second digit than the original. Refer to the "Adding Devices" section for more information.

## Required Devices

---

- AirStation with Internet connection  
This tutorial uses WZR-1750DHP as an example.
- Wireless bridge  
This tutorial uses WZR-1750DHP as an example.
- PC with Ethernet port

We recommend downloading and installing AirStation Configuration Tool from the Buffalo website.

## Configuration

---

Configure each step by following the instructions below.

Step 1: Register wireless clients

Step 2: Connect the wireless bridge to the AirStation

Step 3: Register client MAC addresses through bridge

Step 4: Configure roaming

### Step 1: Register Wireless Clients

Unregistered devices will not be able to connect to the AirStation after MAC filtering is enabled.

- 1** If MAC filtering is enabled on the AirStation, disable it for now.
- 2** Connect all wireless clients to the AirStation.
- 3** Log in to AirStation's Settings.
- 4** Navigate to *Advanced Settings - Wireless - MAC Filtering*.
- 5** Click *Edit Registration List*.

Enforce MAC Filtering(11ac/n/a)	<input type="checkbox"/> Enable
Enforce MAC Filtering(11n/g/b)	<input type="checkbox"/> Enable

---

#### Registration List

MAC Address	Connection Status
No Registered MAC addresses	

[Edit Registration List](#)

- 6** Click *Register* in “Connected Client’s List”, then add all MAC addresses to the list.

---

**Client's MAC Address**

Enter MAC Addresses

---

**Registration List**

MAC Address Customize

No registered MAC addresses.

---

**Connected Client's List**

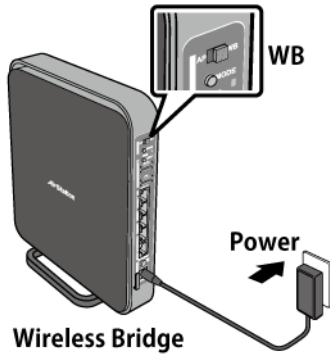
MAC Address Customize

68:79:ED:DD:F2:AD	<input type="button" value="Register"/>
B4:07:F9:EF:38:41	<input type="button" value="Register"/>

- 7** Click “Log out” button on the upper right.

## Step 2: Connect the Wireless Bridge to the AirStation

- 1 Set the mode switch on the back of the wireless bridge to "WB".

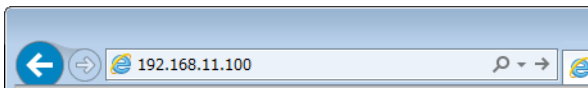


Confirm that the LEDs appear as below:

- Wireless LED: blinks blue
- Internet Access LED: off
- Router LED: off
- Buffalo LED: lit white

**Note:** If the LEDs do not appear as above, initialize the wireless bridge by holding the reset button down for 3 seconds.

- 2 Change the PC's IP address to "192.168.11.xxx" (e.g. 192.168.11.135).
- 3 Connect the wireless bridge to the PC with an Ethernet cable.
- 4 Open a web browser and enter "192.168.11.100".



- 5 Enter "admin" for the username and "password" for the password, then click *Log In*.

The screenshot shows the login page for the Buffalo AirStation WZR-1750DHP Version 2.10. The page features the Buffalo logo, the product name, and a dropdown menu set to "Auto". Below this are input fields for "Username" (containing "admin") and "Password" (containing "password"). There is also a checkbox for "Mobile version" and a "Log In" button at the bottom.

**6** Navigate to *Advanced Settings - Wireless - Wireless Bridge*.

**7** Click *Open*.

**Wireless Bridge**

Wireless Bridge Status	Not connected
SSID	-
Security	-
Select 2.4 GHz or 5 GHz	Auto (5 GHz priority) ▾
Repeater	<input checked="" type="checkbox"/> Use SSID and security settings from master
Physical AOSS Button	<input checked="" type="checkbox"/> Enable

To disable wireless LAN master settings, disable wireless from [2.4 GHz](#) and [5 GHz](#).

**Manual Connection**

**WPS Connection**

PIN Code Method	<input type="button" value="Start WPS (PIN)"/>
Pushbutton Method	<input type="button" value="Start WPS (PBC)"/>

**AOSS Connection**

**8** Select the AirStation to connect to, then click *Select*.

SSID	<input type="text"/>
Wireless Authentication	No Authentication ▾
Wireless Encryption	No Encryption ▾

**Select AP to connect to.**

Select	SSID	Signal	Encryption	Wireless Mode
<input type="radio"/>	001D738C0290	Excellent	On	n/g/b
<input type="radio"/>	001D73B14F66	Excellent	On	n/g/b
<input type="radio"/>	BBS_a	Good	On	n/a



**9** Enter the AirStation's encryption key and click *OK*.

SSID	Buffalo-G-0D7A
Wireless Authentication	WPA2-PSK
Wireless Encryption	AES
WPA-PSK (Pre-shared key):	xxxxxxxx

**Select AP to connect to.**

Select	SSID	Signal	Encryption	Wireless Mode
<input checked="" type="radio"/>	Buffalo-G-0D7A	Excellent	On	n/g/b
<input type="radio"/>	0024A5E94212_A	Good	Off	n/a

Select Search Again

OK Cancel

**10** Uncheck *Use SSID and security settings from master* in "Repeater" section, then click *Apply*.

**Wireless Bridge**

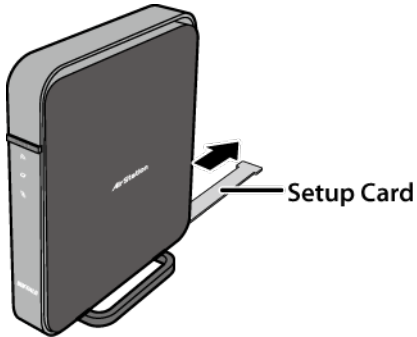
Wireless Bridge Status	Manual Connection
SSID	Buffalo-G-0D7A
Security	WPA2-PSK AES
Select 2.4 GHz or 5 GHz	Auto (5 GHz priority)
Repeater	<input type="checkbox"/> Use SSID and security settings from master
Physical AOSS Button	<input checked="" type="checkbox"/> Enable

**11** Click "Log out" button on the upper right.

**12** Disconnect the Ethernet cable from the PC.

### Step 3: Register Client MAC Addresses Through Bridge

- 1 Pull out the setup card from the bottom of the wireless bridge.



- 2 Verify the SSID on the setup card and connect all wireless clients (including the PC) to the wireless bridge.
- 3 Open Settings on the AirStation and log in.
- 4 Navigate to *Advanced Settings - Wireless - MAC Filtering*.
- 5 Click *Edit Registration List*.

Enforce MAC Filtering(11ac/n/a)  Enable  
Enforce MAC Filtering(11n/g/b)  Enable

#### Registration List

MAC Address	Connection Status
No Registered MAC addresses	

[Edit Registration List](#)

- 6 Click "Register" next to a client's MAC address, then click "Add". Repeat until all clients' MAC addresses appears under Registration List.

**Client's MAC Address**

Enter MAC Addresses

Add

**Registration List**

MAC Address	Customize
68:79:ED:DD:F2:AD	<a href="#">Edit</a> <a href="#">Delete</a>
9C:2A:70:4D:0D:D6	<a href="#">Edit</a> <a href="#">Delete</a>
B4:07:F9:EF:38:41	<a href="#">Edit</a> <a href="#">Delete</a>

**Connected Client's List**

MAC Address	Customize
9E:2A:70:4D:0D:D6	<a href="#">Register</a>
3C:97:0E:66:91:CF	<a href="#">Register</a>
10:6F:3F:D1:17:CA	<a href="#">Register</a>
10:6F:3F:D1:17:C0	<a href="#">Register</a>
68:79:ED:DD:F2:AD	---

Refresh

- 7 Click *Back*.

Back

**Client's MAC Address**

Enter MAC Addresses

Add

**Registration List**

MAC Address	Customize
10:6F:3F:D1:17:C0	<a href="#">Edit</a> <a href="#">Delete</a>
10:6F:3F:D1:17:CA	<a href="#">Edit</a> <a href="#">Delete</a>
3C:97:0E:66:91:CF	<a href="#">Edit</a> <a href="#">Delete</a>
68:79:ED:DD:F2:AD	<a href="#">Edit</a> <a href="#">Delete</a>
9C:2A:70:4D:0D:D6	<a href="#">Edit</a> <a href="#">Delete</a>
9E:2A:70:4D:0D:D6	<a href="#">Edit</a> <a href="#">Delete</a>
B4:07:F9:EF:38:41	<a href="#">Edit</a> <a href="#">Delete</a>

8 Enable "Enforce MAC Filtering" for both 11ac/n/a and 11n/g/b and click *Apply*.

Enforce MAC Filtering(11n/g/b)	<input checked="" type="checkbox"/> Enable
Enforce MAC Filtering(11ac/n/a)	<input checked="" type="checkbox"/> Enable

**Registration List**

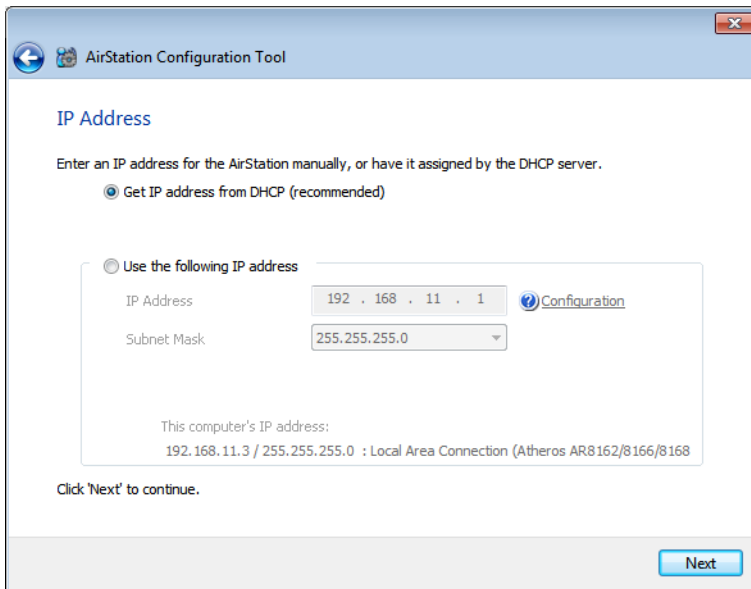
MAC Address	Connection Status
10:6F:3F:D1:17:C0	Enabled
10:6F:3F:D1:17:CA	Enabled
3C:97:0E:66:91:CF	Enabled
68:79:ED:DD:F2:AD	Enabled
9C:2A:70:4D:0D:D6	Disabled
9E:2A:70:4D:0D:D6	Enabled
B4:07:F9:EF:38:41	Disabled

[Edit Registration List](#)

9 Click "Log out" button on the upper right.

## Step 4: Configure Roaming

- 1 Run AirStation Configuration Tool from the PC and scan for all devices.
- 2 Select the wireless bridge and select "Change IP Address".
- 3 Select "Get IP Address from DHCP" and click "Next". You may be prompted for the wireless bridge's password as it is being configured.



- 4 After the wireless bridge's IP address is configured, open any web browser and log in to Settings.
- 5 Navigate to *Advanced Settings - Wireless - Wireless Bridge*.
- 6 Check "Use SSID and security settings from master" and click *Apply*.

### Wireless Bridge

Wireless Bridge Status	Manual Connection
SSID	Buffalo-G-0D7A
Security	WPA2-PSK AES
Select 2.4 GHz or 5 GHz	Auto (5 GHz priority) ▾
Repeater	<input checked="" type="checkbox"/> Use SSID and security settings from master
Physical AOSS Button	<input checked="" type="checkbox"/> Enable

# Adding Devices

---

To add additional wireless or wired clients to this environment, follow the steps below.

**1** Verify the MAC address of the device you want to add. If the device is using a wired connection, you may skip step 2 and go to step 3.

**2** Change the second digit of the MAC address according to the following.

0 -> 2

4 -> 6

8 -> A

C -> E

For example, if the original MAC address is "00:24:A5:D5:01:06", change it to "0**2**:24:A5:D5:01:06".

## Saving and Restoring Settings with a Backup File

Once you have finished configuring your AirStation to your needs, you can save the current configuration to a backup file. This file can be used to restore the AirStation's settings when needed. For example, the AirStation will initialize its settings after a hard reset. Instead of re-configuring the unit, simply use the backup file to restore its previous settings.

The backup file is not automatically updated when you make further AirStation configuration changes.

### Save Settings to a Backup File

You can access Save settings by navigating to the *Admin - Reset/Reboot*.

The screenshot shows a web interface with a left sidebar and a main content area. The sidebar lists menu items: LAN, Wireless, Security, Applications, Admin, System, Syslog Settings, and Reset / Reboot. The main content area is titled 'Settings Management' and contains two sections. The 'Operation' section has three radio buttons: 'Back up settings' (selected), 'Restore settings', and 'Initialize AirStation'. The 'Password' section has a checkbox for 'Use Password' (unchecked), a text input field, and a 'Show password' checkbox (unchecked). An 'Execute' button is located at the bottom of the main content area.

- 1 Select *Back up settings*.
- 2 Check *Use Password* if you want to encrypt the backup file with a password. If you do, the system will ask for the password when restoring settings with the backup file. The password may include up to 8 single-byte alphanumeric characters and underscores ( \_ ).
- 3 Click *Execute*. The Save As dialog appears.
- 4 Click *OK*.

Once the file has been saved to your system, do not rename the backup file. If needed, you can put the file into another folder.

# Restoring Settings with a Backup File

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Restore settings can be found on the same tab.

The screenshot shows a web interface with a left sidebar and a main content area. The sidebar contains the following menu items: LAN, Wireless, Security, Applications, Admin, System, Syslog Settings, Reset / Reboot, and Update Firmware. The main content area is titled "Settings Management" and contains the following fields:

- Operation:** Three radio buttons: "Back up settings" (unselected), "Restore settings" (selected), and "Initialize AirStation" (unselected).
- Backup File:** A text field containing "C:\Users\John\as\_setting." followed by a "Browse..." button.
- Password:** A checkbox labeled "Use Password" which is checked, followed by a password input field with four dots and a "Show password" checkbox which is unchecked.
- Execute:** A blue button labeled "Execute" located below the password field.

- 1 Select *Restore settings*.
- 2 The Browse field appears. Click *Browse...* to locate the backup file on the system.
- 3 Click *Execute*. The Restore dialog appears.
- 4 Enter the password if prompted. The password will be the one set when the backup file was created.

Please wait as the saved settings are restored to the AirStation. When settings are restored, all values (e.g. IP address, wireless encryption key, login, etc.) are changed to the ones saved in the backup file.

**Note:** The AirStation will not be able to restore settings if the backup file was created with a different version of the AirStation firmware or a different product.

## Replacing the AirStation

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If an AirStation is no longer functional, you can replace it with another unit of the same model and use a saved backup file to automatically populate settings on the new unit. The firmware on the new unit must be the same version as the old unit when the backup file was created. If need be, downgrade the current firmware version to the previous one before using the backup file.



## Setting Up WebAccess

WebAccess is a cloud service provided by Buffalo that allows you to access your NAS remotely over the Internet. You can share content with everyone or with specified users. You can set up WebAccess through the settings page of your NAS, or enable the service on your AirStation.

If you have a BuffaloNAS.com account, you can use its login to use WebAccess. You can also use your DDNS hostname or an external IP address along with the port used for WebAccess.

## WebAccess Settings

- 1 Make sure the NAS is connected and available, and that the AirStation is powered on and connected.
- 2 Open the AirStation's Settings page and navigate to *Security - UPnP*.
- 3 Enable UPnP and click *Apply*.
- 4 Navigate to *Applications - Disk Management*.
- 5 Click *Setting Changes*.
- 6 Check *WebAccess Access Restrictions* and click *Save*.

### Shared Folder Settings

	Read and Write		Read Only		No access
Access Restrictions		<-		<-	guest
		->		->	
WebAccess	<input checked="" type="checkbox"/> Access Restrictions				
Save Cancel					

- 7 If you need to create a new user for WebAccess, create one on the Disk Management page, under *Add User*.
- 8 Click *Applications > WebAccess*.
- 9 Check "Enable" for WebAccess.

WebAccess	<input checked="" type="checkbox"/> Enable
Language	English
HTTPS/SSL Encryption	<input type="checkbox"/> Enable
WebAccess External Port	Auto Port Number: 9000
DNS Service Hostname	Use BuffaloNAS.com registration BuffaloNAS.com Name BuffaloNAS.com Key

- 10 Leave the WebAccess External Port option as "Auto" so that UPnP will automatically configure a port for you.

- 11** Select the DNS Service Hostname used to access the service. If you have a BuffaloNAS.com account, select *Use BuffaloNAS.com Registration* and enter your BuffaloNAS.com username and password. You can also use an existing hostname, such as your dynamic DNS hostname.
- 12** Click *Apply* at the bottom of the page.

## Connecting Wireless Devices Using AOSS

You can use the physical AOSS button on your AirStation to easily connect wireless devices that support AOSS or WPS. Consult your wireless device's documentation for the location of its AOSS or WPS button.

If you already have a wireless network that was configured without using AOSS or WPS, connecting a new device with AOSS will change its settings, disconnecting any previously connected wireless devices.

### Pushbutton Method

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Easily connect other wireless devices using the physical AOSS button.

- 1** Power on the AirStation.
- 2** Hold the physical AOSS button down for two seconds, then release it.
- 3** For the next 2 minutes, the AOSS LED will flash and the AirStation will automatically search for a nearby AOSS/WPS device. The AirStation will automatically return to normal if a device isn't found after 2 minutes.
- 4** Push the AOSS/WPS button on the wireless device. It should be automatically connected within 2 minutes.

You can repeat this for all AOSS/WPS devices you are attempt to connect with. If setup doesn't work, open the AirStation's Settings page and ensure that the AOSS physical button is enabled.

## Setting Up a VPN Server

You can configure a PPTP (VPN) server with either a dynamic DNS hostname or a static IP address.

Currently the AirStation supports both DynDNS and TZO. If you have a DynDNS or TZO account, you can enter the login and hostname information under *Internet - Dynamic DNS*.

### PPTP Settings on the AirStation

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Your computer should be directly connected to the AirStation.

- 1** Open the AirStation's Settings page and navigate to *Internet - PPTP*.

## 2 Enable PPTP Server.

PPTP Server	<input checked="" type="checkbox"/> Enable
Authentication Type	MS-CHAPv2 (40/128-bit Encryption) ▾
<b>Advanced Settings</b>	
Server IP Address	<input checked="" type="radio"/> Auto <input type="radio"/> Manual <input type="text"/>
Client IP Address	<input checked="" type="radio"/> Auto <input type="radio"/> Manual <input type="text"/> for up to 5 address(es)
DNS Server IP Address	<input checked="" type="radio"/> LAN-side IP address of the AirStation <input type="radio"/> Manual <input type="text"/> <input type="radio"/> Do not notify
WINS Server IP Address	<input type="text"/>
MTU/MRU Value	1396

**3** Select the VPN authentication type. If you are unsure which one to use, leave it on the default selection.

**4** You can leave the Client IP Address on *Auto*. If client computers are within a specific IP address range, click *Manual* and enter the range into the field.

**5** You can leave the client IP address on “Auto”. If client computers are within a specific IP address range, click *Manual* and enter the range into the field.

**6** If you have a WINS server on the network, you can enter its IP address into the field.

**7** Leave the MTU value on its default setting.

## Editing Users

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You can create and edit users that will access your PPTP server.

**1** Click *Edit PPTP User List* to open the Edit Users page.

**2** Enter a username and password for a new user.

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**Add New User**

Username	<input type="text"/>
Password	<input type="password"/> <input type="checkbox"/> Show password
<b>Advanced Settings</b>	
Method of Acquiring IP Address	<input checked="" type="radio"/> Acquire automatically with DHCP <input type="radio"/> Obtain from PPTP server setting range <input type="radio"/> Fixed IP address IP address <input type="text"/>

**3** Select “Method of Acquiring IP Address”.

## 4 Click *Add*.

The user will appear under the PPTP User List section. You can click *Edit* to modify the user or click *Delete* to remove the entry.

## Using AirStations with 2Wire Residential Gateways

AT&T Internet services (U-verse or ADSL) will often assign a 2Wire residential gateway device that serves as both the modem and the router. To add an AirStation to this network, it is best to add the unit as a client device. This way the AirStation will not conflict with the existing residential gateway settings such as the firewall or port forwarding.

If you would like to set the 2Wire access point as the client device, or you need more information on its settings, contact AT&T technical support.

## How to Use QoS

QoS (quality of service) is a feature that allows the AirStation to prioritize traffic by type. QoS applies to both upstream and downstream data flow, and ensures consistent performance when using certain high-traffic applications, such as video streaming.

The higher the priority, the higher the allocated bandwidth will be. For example, if *Video* is selected, streaming video will be given the highest bandwidth priority.

## Setting a QoS Priority Policy

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When setting a custom policy, select the type of traffic to be given the highest priority and lower the priority of other traffic types accordingly.

- 1 Open the AirStation's Settings page.
- 2 Navigate to *Applications - QoS*.

### 3 Enable *Priority Control QoS*.

#### Priority Control QoS Settings

Priority Control QoS	<input checked="" type="checkbox"/> Enable
Optimize for	Video
Manual	Video : Ultra Premium - High Bandwidth
	Conference : Premium - Low Latency, Medium Bandwidth
	Gaming : Premium - Low Latency, 320 Kbps Bandwidth
	Audio : Above Average, 320 Kbps Bandwidth
	Browsing : Standard, Best Availability
	Download : Junk, Lowest Priority

#### Manual Entry

#	Registered Name	Priority
No custom QoS rules added.		
<input type="button" value="Add"/>		
<input type="button" value="Delete All"/>		

### 4 Choose an *Optimize for* selection.

**Video:** Prioritizes streaming video traffic.

**Voice:** Prioritizes voice chats and VoIP traffic.

**Gaming:** Prioritizes online gaming traffic.

**Manual:** Select this option to customize QoS priority for a selected operation.

### 5 To set a manual policy, select the operation to be prioritized and lower the priority for others. For example, if you set Video as *Ultra Premium - High Bandwidth*, the bandwidth priority of other operations should be lowered accordingly.

### 6 Click *Apply*.

## Manual Entry

Click *Manual Entry* to open the manual entry page, where you can create custom QoS priority settings for individual applications.

#### Add

Name	<input type="text"/>
Priority	Ultra Premium - High Bandwidth
Protocol	TCP
Remote Settings	Server : <input type="text"/>
	Port Number : <input type="text"/>
Local Settings	IP Address : <input type="text"/>
	Port Number : <input type="text"/>

### 1 Enter a name for the new manual entry.

### 2 Select a value from the dropdown menu to define the priority level for incoming packets.

- 3** Select a protocol for the application's incoming packets. For example, most VoIP and multimedia applications use UDP, while the Internet and emails use TCP.
- 4** Set the WAN-side server and port number under "Remote Settings".
- 5** If you need to use a specific port, most network applications and services will have their required protocols and ports listed in their documentation.
- 6** Enter the IP address or MAC address of the network device for QoS priority.
- 7** Click *Add*.

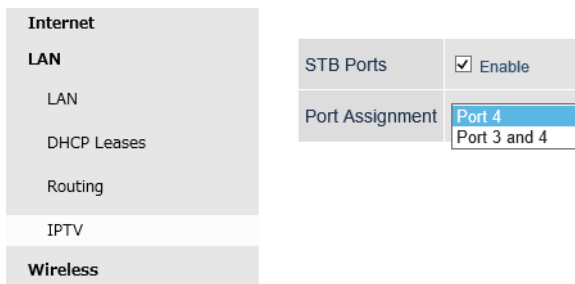
Once an entry has been saved, you can click *Edit* to change it or *Delete* to remove the entry. Click *Delete All* to remove all saved entries.

## Configuring IPTV Settings (Russia Only)

For IPTV users in Russia, follow the steps below to connect a STB to the AirStation.

**Note:** This feature can be used by WZR-1750DHP users only.

- 1** Log in to Settings.
- 2** Click *Advanced Settings*.
- 3** Navigate to *LAN - IPTV*.
- 4** Enable STB Ports; select the STB port(s) and click *Apply*.



**Note:** If you are connecting only one STB to the AirStation, select "Port 4". If connecting 2 STBs, select "Port 3 and 4".

- 5** Connect STB to the port(s) configured above.

**Note:** Other devices (e.g. NAS, PC) cannot communicate with AirStation through the STB port. If you terminate IPTV service, disable the STB port(s).

# How to Configure TCP/IP

## Windows 8

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To configure TCP/IP in Windows 8, follow the procedure below.

- 1** Open Control Panel.
- 2** Click *Network and Internet*.
- 3** Click *Network and Sharing Center*.
- 4** Click *Change Adapter Settings* on the left side menu.
- 5** Right-click the network adapter, then click *Properties*.
- 6** If the User Account Control screen opens, click *Yes* or *Continue*.
- 7** Select "Internet Protocol Version 4 (TCP/IPv4)" then click *Properties*.
- 8** To have DHCP set your IP address settings automatically, check "Obtain an IP address automatically" and "Obtain DNS server address automatically".  
Alternately, you can configure the settings manually. Example:  
If the router's IP address is 192.168.11.1,  
IP address: 192.168.11.80  
Subnet mask: 255.255.255.0  
Default gateway: 192.168.11.1  
Preferred DNS server: 192.168.11.1  
Alternate DNS server: blank
- 9** Click *OK*.

## Windows 7

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To configure TCP/IP in Windows 7, follow the procedure below.

- 1** Open Control Panel.
- 2** Click *Network and Sharing Center*.
- 3** Click *Change Adapter Settings* on the left side menu.
- 4** Right-click the network adapter, then click *Properties*.

- 5** If the “User Account Control” screen opens, click *Yes* or *Continue*.
- 6** Select “Internet Protocol Version 4 (TCP/IPv4)” then click *Properties*.
- 7** To have DHCP set your IP address settings automatically, check “Obtain an IP address automatically” and “Obtain DNS server address automatically”.  
Alternately, you can configure the settings manually. Example:  
If the router’s IP address is 192.168.11.1,  
IP address: 192.168.11.80  
Subnet mask: 255.255.255.0  
Default gateway: 192.168.11.1  
Preferred DNS server: 192.168.11.1  
Alternate DNS server: blank
- 8** Click *OK*.

## Windows Vista

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To configure TCP/IP in Windows Vista, follow the procedure below.

- 1** Open Control Panel.
- 2** Click *Network and Sharing Center*.
- 3** Click *Manage network connections* on the left side menu.
- 4** Right-click the network adapter, then click *Properties*.
- 5** If the “User Account Control” screen opens, click *Yes* or *Continue*.
- 6** Select “Internet Protocol Version 4 (TCP/IPv4)” then click *Properties*.
- 7** To have DHCP set your IP address settings automatically, check “Obtain an IP address automatically” and “Obtain DNS server address automatically”.  
Alternately, you can configure the settings manually. Example:  
If the router’s IP address is 192.168.11.1,  
IP address: 192.168.11.80  
Subnet mask: 255.255.255.0  
Default gateway: 192.168.11.1  
Preferred DNS server: 192.168.11.1  
Alternate DNS server: blank
- 8** Click *OK*.



## Windows XP

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To configure TCP/IP in Windows XP, follow the procedure below.

- 1** Open Control Panel.
- 2** Double-click *Network*.
- 3** Right-click the network adapter, then click *Properties*.
- 4** Select "Internet Protocol (TCP/IP)" then click *Properties*.
- 5** To have DHCP set your IP address settings automatically, check "Obtain an IP address automatically" and "Obtain DNS server address automatically".  
Alternately, you can configure the settings manually. Example:  
If the router's IP address is 192.168.11.1,  
IP address: 192.168.11.80  
Subnet mask: 255.255.255.0  
Default gateway: 192.168.11.1  
Preferred DNS server: 192.168.11.1  
Alternate DNS server: blank
- 6** Click *OK*.

## Mac OS

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To configure TCP/IP in Mac OS, follow the procedure below.

- 1** Click *Apple menu > System Preferences....*
- 2** Click *Network*.
- 3** Click the network adapter.
- 4** To have DHCP set your IP address settings automatically, select "Using DHCP" in the "Configure IPv4" field.  
Alternately, you can configure the settings manually. Example:  
If the router's IP address is 192.168.11.1,  
IP address: 192.168.11.80  
Subnet mask: 255.255.255.0  
Router: 192.168.11.1  
DNS server: 192.168.11.1
- 5** Click *Apply*.