

User Manual for User-friendly Firmware WHR-300HP

AirStation NFINITI HighPower Router and AccessPoint



www.buffalotech.com

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Chapter 1 - Introduction

Professional or User-friendly?

This AirStation wireless router comes with two different firmware packages. You may use either the dd-wrt-based professional firmware or the simple user-friendly firmware. By default, the professional firmware is preinstalled. Turn to page 19 for instructions on switching between the two firmware packages.

Note : Most of this manual documents the User-friendly firmware. For more information on the dd-wrt-based Professional firmware, consult the help files in its web-based configuration interface or go to ***www.dd-wrt.com/wiki***.

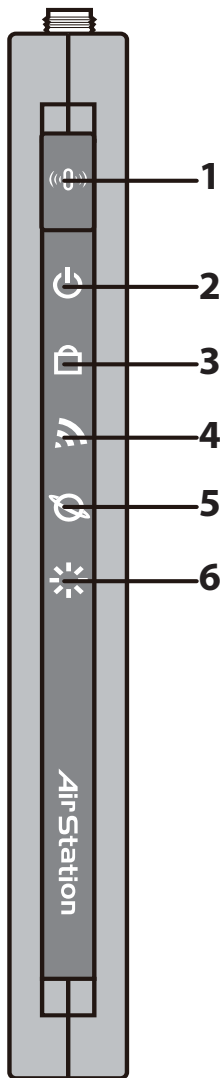
Package Contents

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

- Main unit.....1
- Detachable antennas2
- AC adapter.....1
- Stand for vertical/wall-mounting.....1
- Screws for wall-mounting.....2
- LAN cable.....1
- AirStation Utility CD.....1
- Quick Setup Guide.....1
- Setup Card.....1

Hardware Overview

Front Panel LED's



1 AOSS Button

Hold down this button until the Security LED flashes (approximately 1 second) to initiate AOSS or WPS mode, allowing the unit to exchange security keys with other AOSS or WPS compatible devices. Power must be on for this to work.

2 Power LED (Green)

On: The AC adapter is connected
Off: The AC adapter is not connected

3 Security LED (Amber)

Indicates security status.

Off: Encryption is not set

On: Encryption has been set

Double blink: The unit is waiting for an AOSS or WPS security key

Blinking: AOSS/WPS error; failed to exchange security keys

Note: When the Security LED is lit, an encryption key has been set. Wireless clients will need the same key to connect.

4 Wireless LED (Green)

Indicates wireless LAN status

Blinking: Wireless LAN is transmitting

On: Wireless LAN is enabled but not active

Off: Wireless LAN is disabled

5 Router LED (Green)

On: Router functionality is enabled

Off: Router functionality is disabled

6 Diag LED (Red)

This indicates the status of the unit by the number of blinks per cycle.

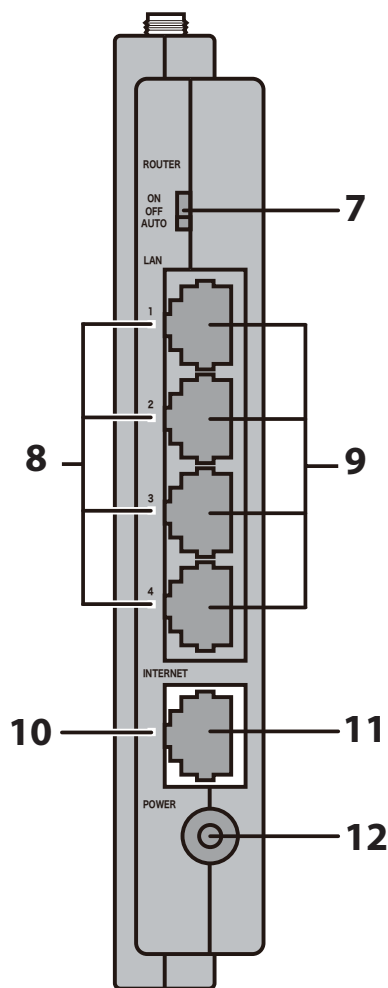
Note: When the unit is first turned on or restarted, the Diag LED will blink for almost a minute during boot. This is normal.

Diag LED status	Meaning	Status
2 blinks ^{*1}	Flash ROM error	Cannot read or write to the flash memory.
3 blinks ^{*1}	Ethernet (wired) LAN error	Ethernet LAN controller is malfunctioning.
4 blinks ^{*1}	Wireless LAN error	Wireless LAN controller is malfunctioning.
5 blinks	IP address setting error	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 this unit.
Continuously blinking ^{*2}	Updating the firmware Saving settings Initializing settings	Updating the firmware. Saving the settings. Initializing the settings.

*1 Unplug the AC adapter from the wall socket, wait for a few seconds, and then plug it again. If the light still flashes, please contact technical support.

*2 Never unplug the AC adapter while the Diag LED is blinking continuously.

Back Panel



7 Router Switch

Switches router mode between enabled, disabled, and auto.

On: Router is enabled (router mode).

Off: Router is disabled (bridge/AP mode).

Auto: This switches between modes automatically based on whether or not another router is detected on the Internet port. The default setting for this switch is Auto.

8 LAN LED (Green)

On: An Ethernet device is connected.

Flashing: An Ethernet device is communicating.

9 LAN Port

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

10 Internet LED (Green)

On: The Internet (WAN) port is connected.

Flashing: The Internet port is transmitting data.

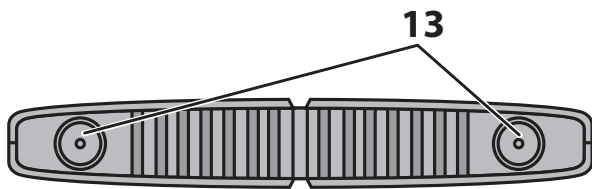
11 Internet Port

Connect your cable or DSL modem to this port. 10 Mbps and 100 Mbps connections are supported. In bridge/AP mode (router switch off), the Internet port becomes a regular LAN port, for a total of 5 usable LAN ports.

12 DC Connector

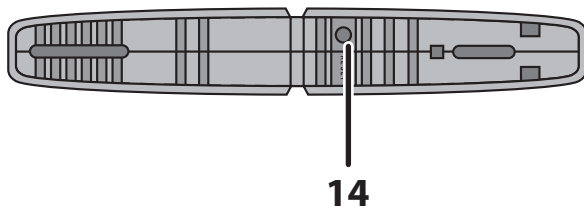
Connect the included AC adapter.

Top



13 Antenna connector Screw on the antennas here.

Bottom

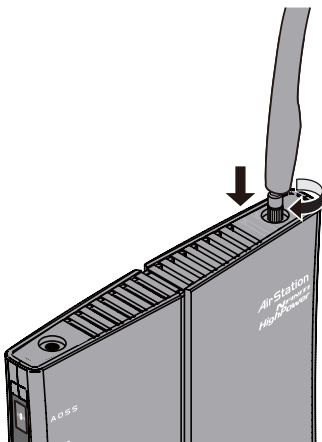


14 Reset Button Hold in this button until the Diag LED comes on to initialize the AirStation's settings. Power must be on for this to work.

Chapter 2 - Placing Your AirStation

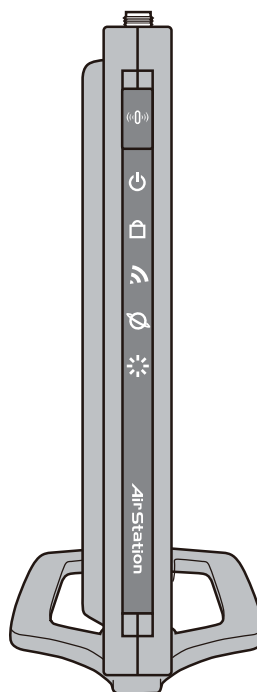
Antenna Placement

The antennas are included in the package. Screw the antennas clockwise to install.



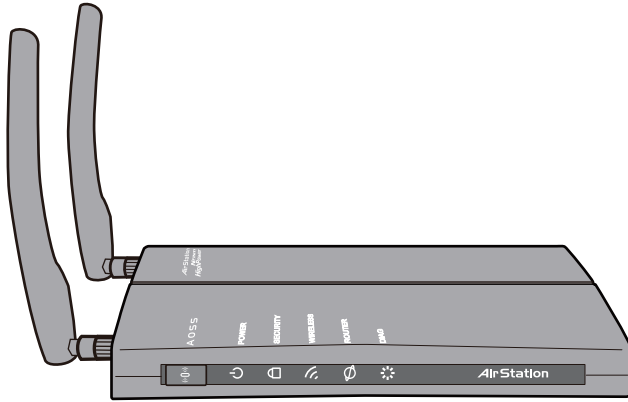
Vertical Placement

To stand the AirStation vertically, attach the base as shown.



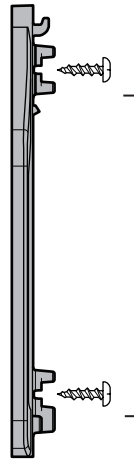
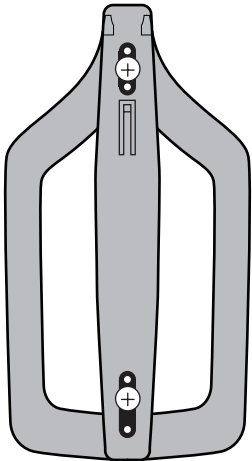
Horizontal Placement

To place the unit horizontally, adjust the antennas as shown.



Wall Mounting

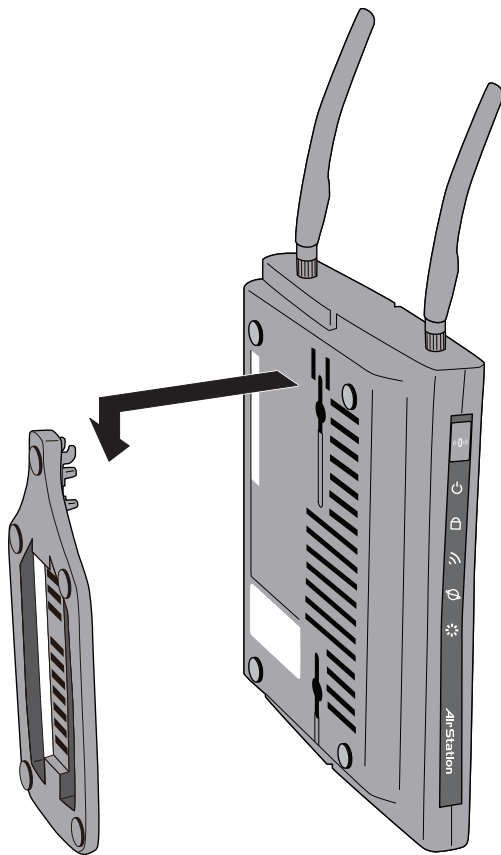
1



8.5 cm
(~3.3 inches)

To wall-mount, attach the stand with screws as shown.

2



Place the center of the AirStation on the center of the stand and slide downward to lock in place.

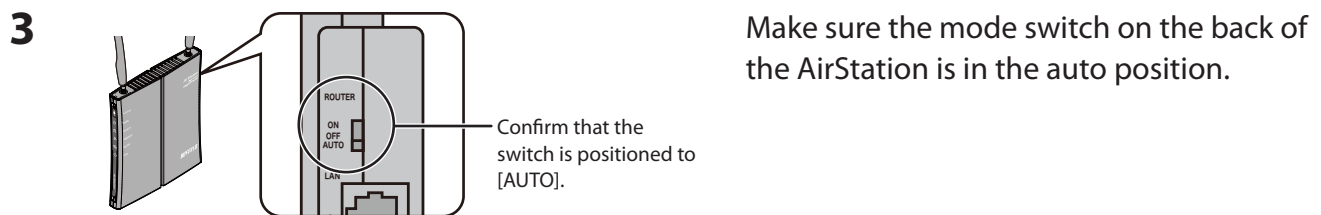
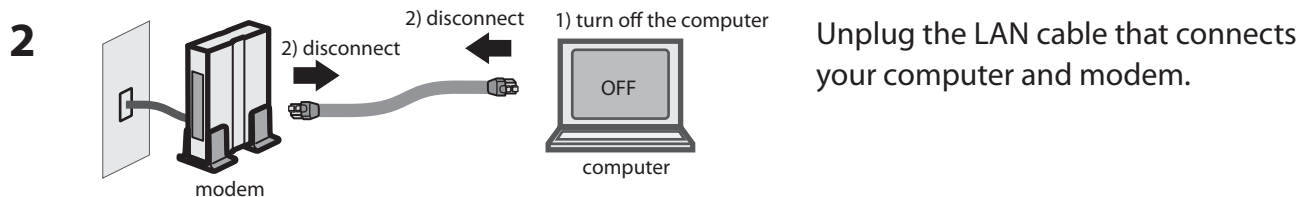
Chapter 3 - Installation

Initial Setup

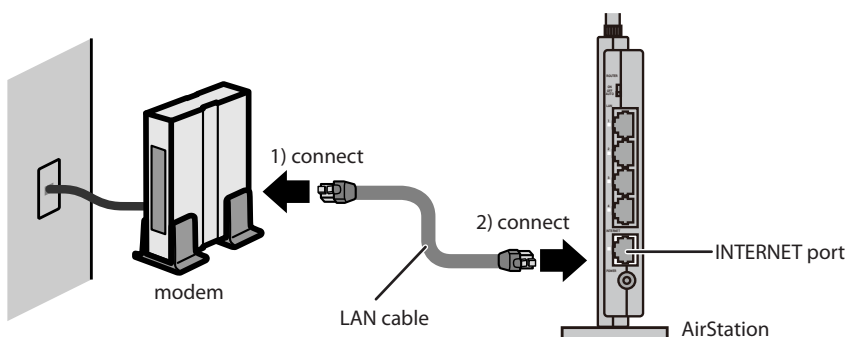
Using AirStation as a Router or an Access Point

To use the AirStation as a router or an access point, configure as below.

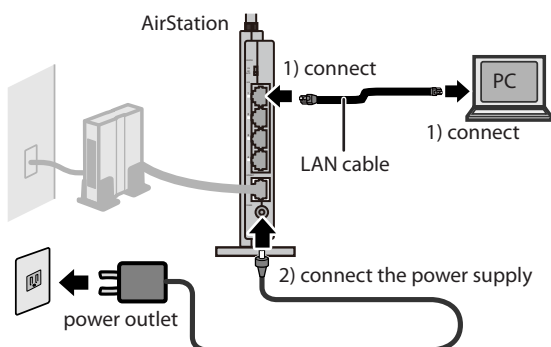
- 1 Turn off your computer and modem.



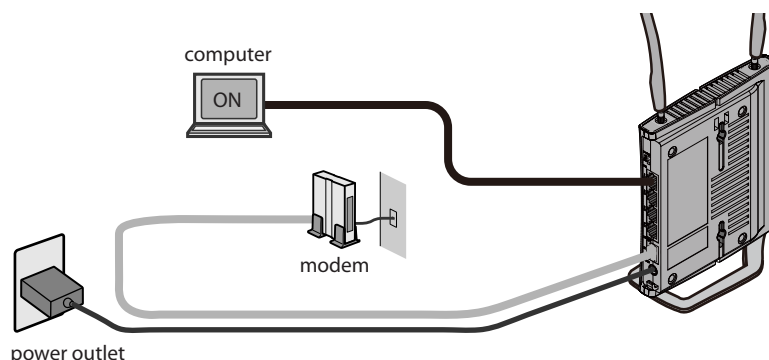
- 4 Connect one end of the LAN cable to the modem, and connect the other end to the Internet port of the AirStation. Turn on your modem.



- 5 Connect the AirStation's LAN port to your computer with another LAN cable. Turn on the AirStation, wait 60 seconds, and then turn on your computer.



- 6 Confirm that the devices are connected correctly as shown below.



- 7 After the computer has booted, the LEDs on the AirStation should be in the following condition:

Power	Green LED on
Wireless	Green LED on or blinking
Router	Green LED on or off depending on your network
Diag	Off
LAN	Green LED on or blinking
Internet	Green LED on or blinking

Refer to pages page 5 and page 7 for LED locations and other details.

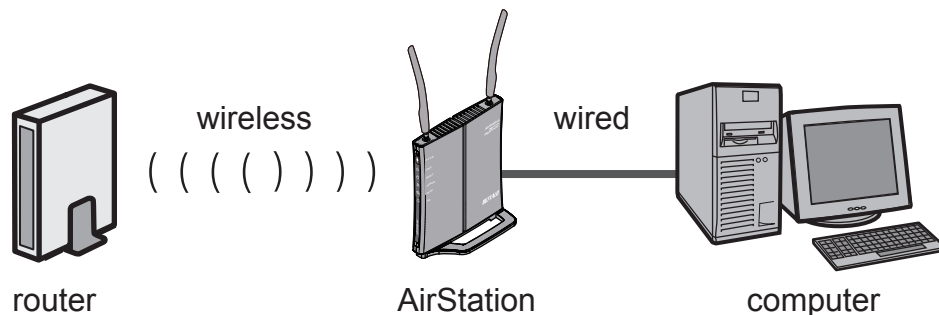
- 8 Launch a web browser. If the home page is displayed, setup is complete. If username and password fields are displayed, enter "admin" for the username and "password" for the password, then click [OK]. Follow the instructions on the screen to complete setup.

You've completed initial setup of your AirStation. Refer to Chapter 4 for advanced settings.

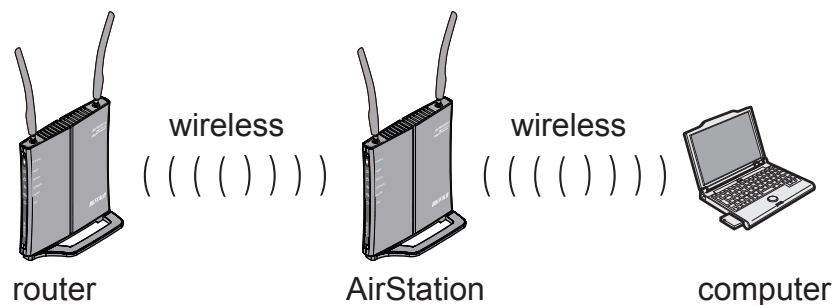
Using AirStation as an Ethernet Converter or a Repeater

To use the AirStation as an Ethernet converter or a repeater, follow the directions below.

Using as an Ethernet Converter:



Using as a repeater:

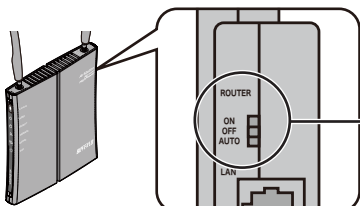


This section describes manual configuration. You can also use AOSS or WPS for automatic configuration.

- 1 Set your computer's IP address settings as follows (Appendix C).

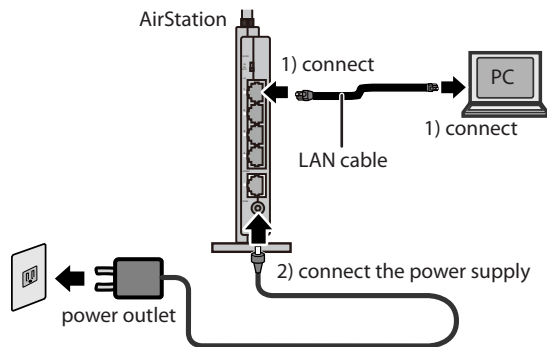
IP Address	192.168.11.80
Subnet mask	255.255.255.0
Default gateway	192.168.11.1
Preferred DNS server	192.168.11.1
Alternate DNS server	blank

- 2 Shut down your computer.

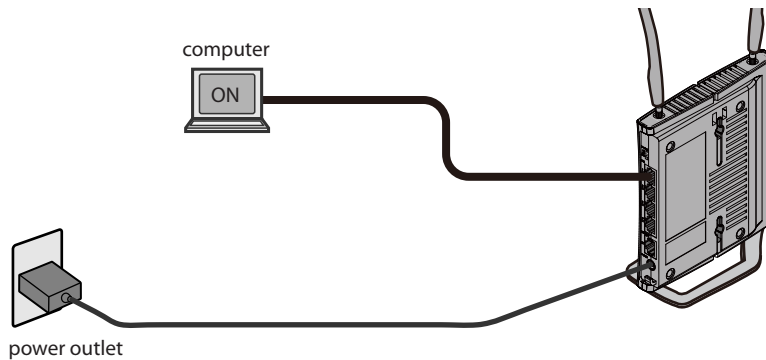
- 3  Move the switch from the auto position to off.
- The diagram shows a close-up of the AirStation's internal components. A circular inset highlights a switch labeled 'ROUTER'. The switch has three positions: 'ON', 'OFF', and 'AUTO'. An arrow points from the text 'Move the switch from the auto position to off.' to the 'OFF' position of the switch. Below the switch, the label 'LAN' is visible.

Move the switch from the auto position to off.

- 4** Connect the AirStation's LAN port to your computer with another LAN cable. Turn on the AirStation, wait 60 seconds, and then turn on your computer.



- 5** Confirm that the devices are connected correctly as shown below.



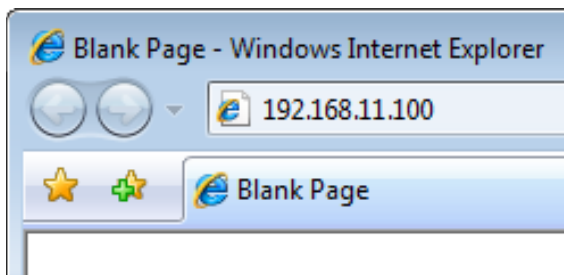
- 6** After the computer has booted, the LEDs on the AirStation should be in the following condition:

Power	Green LED on
Wireless	Green LED on or blinking
Router	Off
Diag	Off
LAN	Green LED on or blinking

Refer to pages page 5 and page 7 for LED locations and other details.

7 Launch a web browser.

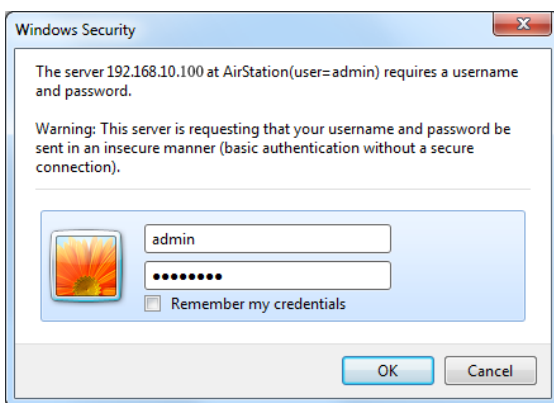
8



Enter the LAN IP address of the AirStation in the address field, then press the Enter key.

- Notes:
- The default IP address of the AirStation is 192.168.11.100 in access point mode.
 - If you have changed the IP address of the AirStation, enter that IP address.

9



Enter “admin” for the username and “password” for the password and click [OK].

- Note:
- If you forget your password, hold down the reset button (page 8) to initialize all settings. Note that all other settings will also revert to their default values.

10 Click [Wireless] > [WDS].



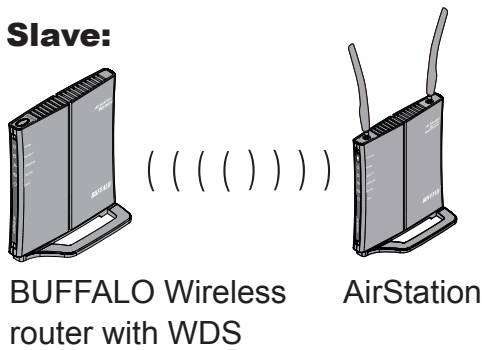
- 11** If the device you connect supports WDS such as the WHR-300HP, WZR-300HP and WZR-600DHP, select [Slave] from the [Specify Master/Slave] menu and click [Search].
If the device you connect doesn't support WDS, select [Slave(EC)] from the [Specify Master/Slave] menu and click [Search].

WDS ☒ Enable

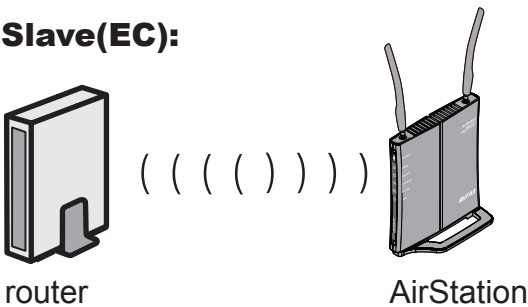
Specify Master/Slave	Slave(EC) ▼		
SSID	Auto		Search
Wireless Authentication	Slave	Authenticate ▼	
Encryption	Slave(EC)	Not encrypted ▼	

Apply

Slave:



Slave(EC):



- 12** Once the list of the access points is displayed, select the access point you are going to connect to, then click [Select].
If the access point you are going to connect to is not displayed, click [Search Again].

Select AP to connect to.

Select	SSID	Wireless ch	Signal	Encryption	Wireles
<input checked="" type="radio"/>	0024A5F573C9	6	Excellent	Yes	n/g
<input type="radio"/>	4CE6760E3EAD	9	Excellent	Yes	n/g
<input type="radio"/>	4CE676ADCC1B	4	Excellent	Yes	n/g

Select Search Again Cancel

- 13** Enter the encryption settings and password ("key") for the access point you are connecting to, then click [Apply].

WDS <input checked="" type="checkbox"/> Enable	
Specify Master/Slave	Slave(EC) ▼
SSID	0024A5F573C9 <input type="button" value="Search"/>
Wireless Authentication	WPA2-PSK ▼
Encryption	AES ▼
WPA-PSK (Pre-shared key)	●●●●●●●●●●
<input type="button" value="Apply"/>	

- 14** Change your computer's IP address settings back to their former values.

ex)	IP Address	Obtain an IP address automatically
	DNS server	Obtain DNS server address automatically

Note: If using the AirStation as a repeater, unplug the LAN cable from your computer. You're now connected to the AirStation wirelessly.

- 15** Launch a web browser. If your home page is displayed, setup is complete.

Changing Firmware

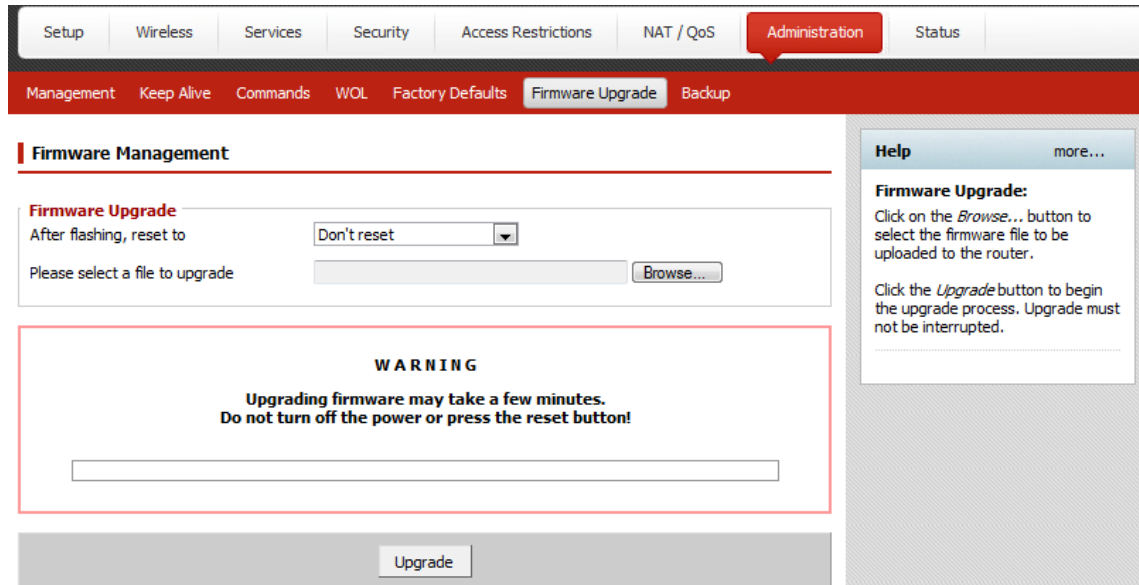
To change between the professional firmware (dd-wrt) and the user-friendly firmware, follow the steps below.

- 1** Open the configuration Interface of the AirStation.
- 2** To replace the professional firmware with the user-friendly firmware, click [Administration] > [Firmware Upgrade].
To replace the user-friendly firmware with the professional firmware, go to [Easy Setup] and click [Update AirStation Firmware].

3 Click [Browse...] to select the firmware file, and click [Upgrade] or [Apply].

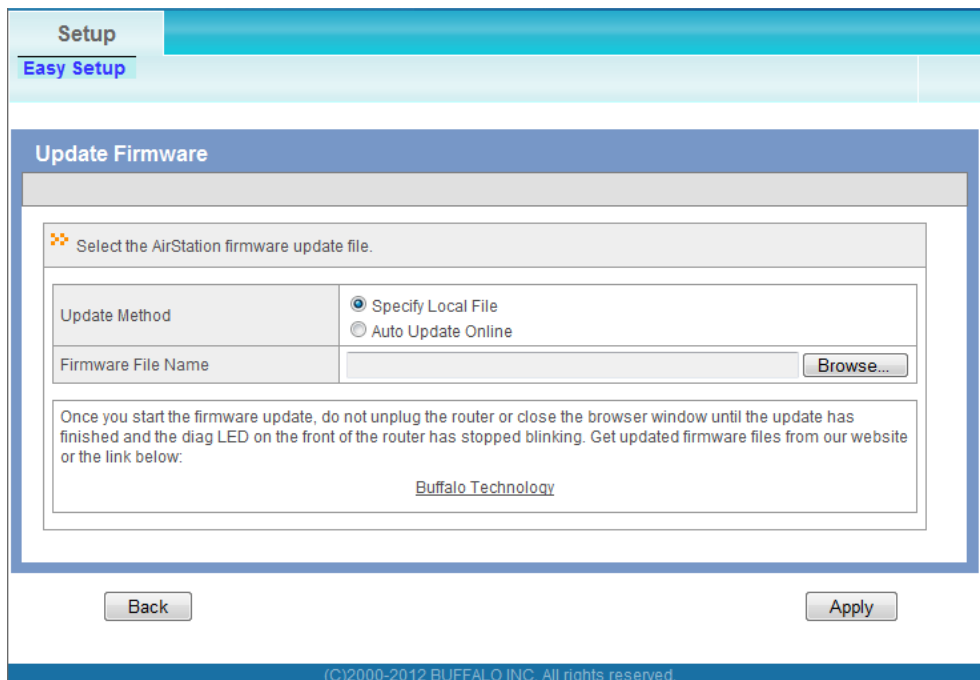
Note: The firmware files are contained in the “Firmware” folder of the utility CD.

Professional firmware (dd-wrt) update screen:



The screenshot shows the 'Firmware Upgrade' screen in a web interface. At the top, there are tabs for Setup, Wireless, Services, Security, Access Restrictions, NAT / QoS, Administration (selected), and Status. Below these are sub-tabs: Management, Keep Alive, Commands, WOL, Factory Defaults, Firmware Upgrade (selected), and Backup. The main content area is titled 'Firmware Management' and contains a 'Firmware Upgrade' section. This section has a dropdown menu for 'After flashing, reset to' set to 'Don't reset', and a text input field for 'Please select a file to upgrade' with a 'Browse...' button. A large red-bordered box contains a 'WARNING' message: 'Upgrading firmware may take a few minutes. Do not turn off the power or press the reset button!'. Below this is a progress bar and an 'Upgrade' button. On the right, a 'Help' sidebar provides instructions: 'Click on the Browse... button to select the firmware file to be uploaded to the router.' and 'Click the Upgrade button to begin the upgrade process. Upgrade must not be interrupted.'

User-friendly firmware update screen:



The screenshot shows the 'Update Firmware' screen in a web interface. At the top, there are tabs for Setup and Easy Setup (selected). The main content area is titled 'Update Firmware' and contains a section for selecting the AirStation firmware update file. This section has a dropdown menu for 'Update Method' with two options: 'Specify Local File' (selected) and 'Auto Update Online'. Below this is a text input field for 'Firmware File Name' with a 'Browse...' button. A large text box contains instructions: 'Once you start the firmware update, do not unplug the router or close the browser window until the update has finished and the diag LED on the front of the router has stopped blinking. Get updated firmware files from our website or the link below:'. Below this is a link to 'Buffalo Technology'. At the bottom, there are 'Back' and 'Apply' buttons. The footer contains the copyright notice: '(C)2000-2012 BUFFALO INC. All rights reserved.'

Chapter 4 - Configuration

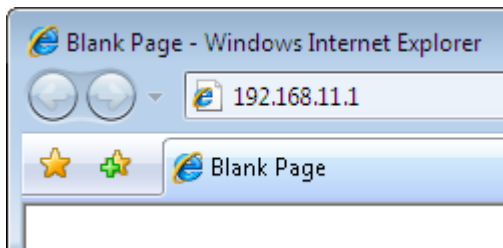
The web-based configuration interface lets you change AirStation settings. Don't change these settings unless you know what you're doing.

Accessing the Web-based Configuration Interface

To configure the AirStation's advanced settings manually, log in to the web-based configuration interface as shown below.

1 Launch a web browser.

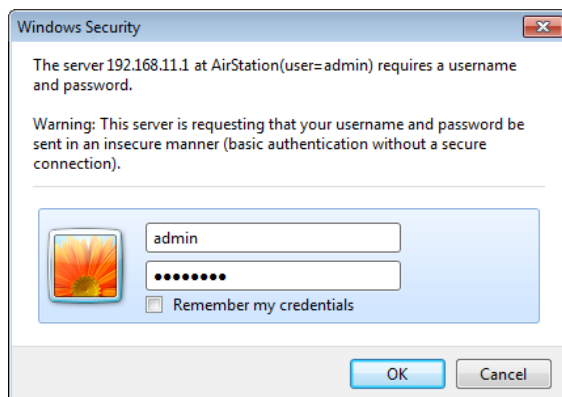
2



Enter the AirStation's LAN-side IP address in the address field, and press the enter key.

- Note:
- The AirStation's default LAN-side IP address depends on the position of the mode switch.
In router mode: 192.168.11.1
In bridge mode: 192.168.11.100
If the router switch is set to auto and the unit is in bridge mode, then the AirStation's IP address was assigned by an external DHCP server.
 - If you changed the IP address of the AirStation, then use the new IP address.

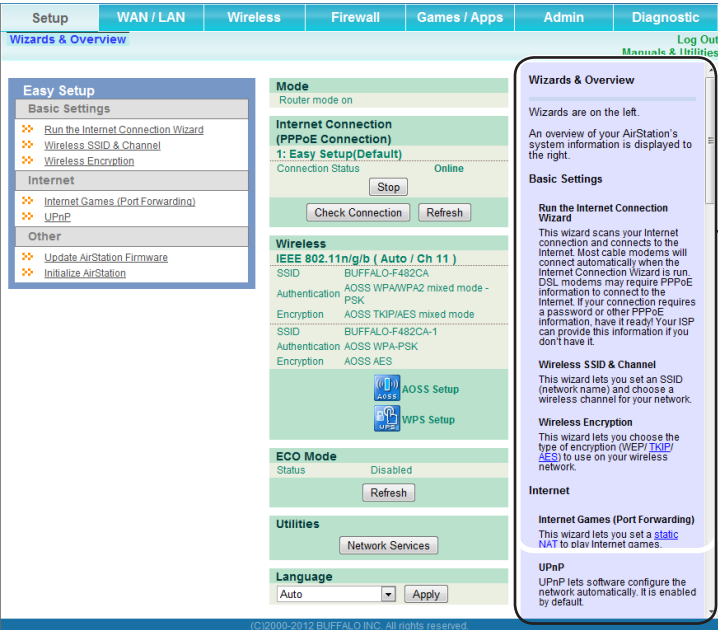
3



Enter "admin" for the username and "password" for the password and click [OK].

Note: If you forget your password, hold down the reset button (page 8) to initialize all settings. Note that all other settings will also revert to their default values.

4



The configuration interface is displayed.

Help is always displayed on the right side of the configuration utility. Refer to the help screens for more information on each page in the web-based configuration interface.

Configuration Menu (Router Mode)

In router mode, the AirStation's web-based configuration interface has the following menu screens. See the pages listed at right for more information about a menu screen.

Main screen	Descriptions	Page
WAN/LAN		
Internet	Configure Internet side port and settings	page 29
PPPoE	PPPoE settings (DSL login)	page 30
DDNS	DNS settings	page 33
VPN Server	VPN server settings	page 35
LAN	LAN side port and DHCP server configuration	page 37
DHCP	DHCP lease settings	page 39
NAT	Network address translation settings, used to connect LAN side devices to the Internet	page 40
Routing	Configure the IP communication route that the AirStation uses	page 41
Wireless		
WPS	WPS settings and status	page 42
Basic	Configure basic wireless settings	page 43
Advanced	Configure advanced wireless settings	page 46
WMM	Set priorities for Wireless Multimedia Extensions (Wi-Fi Multimedia)	page 47
MAC Filter	Limit access to specific devices	page 49
WDS	Configure communication among AirStation	page 50
AOSS	AOSS (AirStation One-touch Secure System) settings and status	page 52
Multicast Control	Configure limits on sending unnecessary multicast packets to the wireless LAN port	page 54
Firewall		
Firewall	Protect your computer from outside intruders	page 55
IP Filter	Edit IP filters which relates to the packets passing through the LAN side and the Internet side	page 57
VPN Passthrough	Configure IPv6 passthrough, PPPoE passthrough, and PPTP passthrough	page 58

Games/Apps		
Port Forwarding	Configure port translation and exceptions for games and other programs	page 59
DMZ	Configure a destination to transfer communication packets without a LAN side destination.	page 60
UPnP	Configure UPnP (Universal Plug and Play)	page 61
QoS	Configure priority for packets that require a certain data flow	page 62
Admin		
Name	Configure the AirStation's name	page 63
Password	Configure the AirStation's login password for access to configuration utilities	page 64
Time/Date	Configure the AirStation's internal clock	page 65
NTP	Configure the AirStation to synchronize with an NTP server to automatically set the AirStation's internal clock	page 66
ECO	Configure the AirStation's ECO Mode.	page 67
Access	Configure access restrictions to the AirStation's configuration utilities	page 69
Log	Configure a syslog server to manage the AirStation's logs	page 70
Save/Restore	Save or restore the AirStation's configuration from a configuration file	page 71
Initialize/Restart	Initialize the AirStation or reboot it	page 72
Update	Update the AirStation's firmware	page 73
Diagnostic		
System Info	View current system information for the AirStation	page 74
Logs	Check the AirStation's logs	page 76
Packet Info	View all packets transferred by the AirStation	page 77
Client Monitor	View all devices currently connected to the AirStation	page 78
Ping	Test the AirStation's connection to other devices on the network	page 79
Logout		
Click this to log out of the AirStation's web-based configuration interface.		
Manuals & Utilities		
Click this to display download pages for Manuals and Utilities.		

Configuration Menu (Bridge Mode)

In bridge mode, the AirStation's web-based configuration interface has the following menu screens. See the pages listed at right for more information about a menu screen.

Main screen	Descriptions	Page
LAN Config		
LAN	Configure LAN side ports and devices	page 37
Routing	Configure the IP communication route that the AirStation uses	page 41
Wireless		
WPS	WPS settings and status	page 42
Basic	Configure basic wireless settings	page 43
Advanced	Configure advanced wireless settings	page 46
WMM	Set priorities for Wireless Multimedia Extensions (Wi-Fi Multimedia)	page 47
MAC Filter	Limit access to specific devices	page 49
WDS	Configure communication among AirStation	page 50
AOSS	AOSS (AirStation One-touch Secure System) settings and status	page 52
Multicast Control	Configure limits on sending unnecessary multicast packets to the wireless LAN port	page 54
Admin		
Name	Configure the AirStation's name	page 63
Password	Configure the AirStation's login password for access to configuration utilities	page 64
Time/Date	Configure the AirStation's internal clock	page 65
NTP	Configure the AirStation to synchronize with an NTP server to automatically set the AirStation's internal clock	page 66
ECO	Configure the AirStation's ECO Mode.	page 67
Access	Configure access restrictions to the AirStation's configuration utilities	page 69
Log	Configure a syslog server to manage the AirStation's logs	page 70
Save/Restore	Save or restore the AirStation's configuration from a configuration file	page 71
Initialize/Restart	Initialize the AirStation or reboot it	page 72
Update	Update the AirStation's firmware	page 73
Diagnostic		
System Info	View current system information for the AirStation	page 74

Logs	Check the AirStation's logs	page 76
Packet Info	View all packets transferred by the AirStation	page 77
Client Monitor	View all devices currently connected to the AirStation	page 78
Ping	Test the AirStation's connection to other devices on the network	page 79
Logout		
Click this to log out of the AirStation's web-based configuration interface.		
Manuals & Utilities		
Click this to display download pages for Manuals and Utilities.		

Setup

This is the home page of the configuration interface. You can verify settings and the status of the AirStation here.

The screenshot displays the Buffalo AirStation configuration interface. At the top, there is a navigation bar with tabs: Setup, WAN / LAN, Wireless, Firewall, Games / Apps, Admin, and Diagnostic. Below this, a sub-header reads 'Wizards & Overview' with links for 'Log Out' and 'Manuals & Utilities'. The main content area is divided into several sections:

- Easy Setup:** A sidebar menu with categories: Basic Settings (Run the Internet Connection Wizard, Wireless SSID & Channel, Wireless Encryption), Internet (Internet Games (Port Forwarding), UPnP), and Other (Update AirStation Firmware, Initialize AirStation).
- Mode:** Router mode on.
- Internet Connection (PPPoE Connection):** Shows '1: Easy Setup(Default)' with a 'Connection Status' of 'Online'. It includes 'Stop', 'Check Connection', and 'Refresh' buttons.
- Wireless:** Configured for 'IEEE 802.11n/g/b (Auto / Ch 11)'. It lists SSID as 'BUFFALO-F482CA', Authentication as 'AOSS WPA/WPA2 mixed mode - PSK', and Encryption as 'AOSS TKIP/AES mixed mode'. It also shows a second SSID 'BUFFALO-F482CA-1' with 'AOSS WPA-PSK' authentication and 'AOSS AES' encryption. Below this are 'AOSS Setup' and 'WPS Setup' buttons.
- ECO Mode:** Status is 'Disabled' with a 'Refresh' button.
- Utilities:** Includes a 'Network Services' button.
- Language:** Set to 'Auto' with an 'Apply' button.
- Wizards & Overview:** A sidebar on the right containing:
 - Wizards & Overview:** States 'Wizards are on the left.' and provides an overview of the system information.
 - Basic Settings:**
 - Run the Internet Connection Wizard:** Explains that the wizard scans for internet connections and provides instructions for DSL modems requiring PPPoE information.
 - Wireless SSID & Channel:** Explains that the wizard sets the SSID and chooses a wireless channel.
 - Wireless Encryption:** Explains that the wizard chooses the type of encryption (WEP, TKIP, AES) to use on the wireless network.
 - Internet:**
 - Internet Games (Port Forwarding):** Explains that the wizard sets a static NAT to play internet games.
 - UPnP:** Explains that UPnP lets software configure the network automatically and is enabled by default.

At the bottom of the interface, a copyright notice reads: (C)2000-2012 BUFFALO INC. All rights reserved.

Parameter

Meaning

WAN/LAN	Configure WAN side network settings.
Wireless	Configure wireless settings.
Firewall	Configure security settings.
Games/Apps	Open ports for games and applications.
Admin	Open the Admin configuration screen.
Diagnostic	Gives information and tools for troubleshooting the network.

Parameter	Meaning
Easy Setup	Automatically configures the AirStation's internet connection.
Internet Connection	Displays the current internet connection.
Check Connection	Checks if the AirStation is connected to the Internet properly.
Refresh	Click to refresh the display.
Wireless	Displays current wireless settings.
AOSS Setup	Click to display the AOSS configuration screen.
WPS Setup	Click to display the WPS configuration screen.
ECO Mode	This indicates the operating status of ECO Mode.
Network Services	Shows a list of network services.
Language	Select the language you use.
Logout	Log out of the AirStation's web-based configuration interface. After 5 minutes of inactivity, the AirStation will log off automatically.
Manuals & Utilities	Click to display download pages for Manuals and Utilities.

WAN/LAN

Internet

The screen to configure a port of the Internet side.

Setup	WAN / LAN	Wireless	Firewall	Games / Apps	Admin	Diagnostic
Internet Routing	PPPoE DDNS VPN Server LAN DHCP NAT					Log Out Manuals & Utilities

IP address automatically acquired from DHCP server.

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 (00:E6:76:12:65:F8) <input type="radio"/> Use this address <input type="text"/>
MTU Size of Internet Port	1500 Bytes

Internet Ethernet Settings

Normally, you'll connect the [Internet](#) side port to an external network such as the Internet.

Method of Acquiring IP Address

Select one of the following methods to acquire an [Internet port IP address](#). Please ask your [provider](#) for any other information about your line format. If you're not sure which method to choose, try selecting Easy Setup. You can confirm the status of the current [Internet](#) side [IP address](#) on the system Information page. This setting can only be changed when the router mode switch on the AirStation is set to "on".

Perform Easy Setup (Internet Connection Wizard)

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Parameter	Meaning
Method of Acquiring IP Address	Specifies how the current WAN-side IP address was obtained.
Default Gateway	Specify an IP address for the default gateway.
DNS Name Server Address	Specify an IP address for the DNS server.
Internet MAC Address	Configure the Internet side MAC address. Note: Configuring an improper MAC address may make the AirStation unusable. Change this setting at your own risk.
MTU size of Internet Port	Values between 578 to 1500 bytes may be entered.

PPPoE

The screen to configure PPPoE settings.

Setup

WAN / LAN

Wireless

Firewall

Games / Apps

Admin

Diagnostic

Internet Routing

PPPoE

DDNS

VPN Server

LAN

DHCP

NAT

Log Out

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Default PPPoE Connection

1 : Easy Setup

IP Unnumbered PPPoE Connection

1 : Easy Setup

Apply

PPPoE Connection List

Number	Name	Status
1	Easy Setup	Enable

Edit Connection List

Preferred Connections

No.	Name	Destination Address	Source Address
No preferred connections are registered.			

Edit Preferred Connections

PPPoE Settings

If PPPoE is used, you'll have more detailed setup options on this page.

Note:

If [Acquire IP address automatically from DHCP server] or [Manual Setup] is set as the [Internet](#) side communication method, or if something besides PPPoE was detected when [Easy Setup] ran, it is not necessary to enter information on this page. (Even if it is set, it is not used.) Additionally, when [Easy Setup] is executed, information set on this page may be rewritten.

Default PPPoE Connection

If multiple destinations are registered to the [PPPoE destination list](#), the destination used for the Internet connection should be selected.

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Parameter	Meaning
Default PPPoE Connection	If you have registered multiple connection destinations in PPPoE Connection List, connection destinations selected here have priority. You need to configure the route to which PPPoE is connected to if you don't use the default setting.
IP Unnumbered PPPoE Connection	Select the destination from the PPPoE Connection List which is used when specifying [Use IP Unnumbered] in Method of Acquiring IP Address (page 29).
PPPoE Connection List	Edit PPPoE destination. You can register up to 5 sessions.
Edit Connection List	Click this button to display the screen to edit the settings of destination.

Parameter	Meaning
PPPoE Connection No.	<p>Click [Edit Connection List] to display.</p> <p>Name of Connection Enter a name to identify the connection. You may enter up to 32 alphanumerical characters and symbols.</p> <p>Username Enter the username specified by your provider for PPPoE. You may enter up to 64 alphanumerical characters and symbols.</p> <p>Password Enter the password specified by your provider for PPPoE. You may enter up to 64 alphanumerical characters and symbols.</p> <p>Service Name Fill in this field only when your provider specifies a Service Name. Leave blank otherwise. You may enter up to 64 alphanumerical characters and symbols.</p> <p>Connection Type Specifies the timing for the AirStation to connect to your provider.</p> <p>Automatic Disconnection Set time to disconnect after communication is stopped when the connection method is set to [Connection on Demand] or [Manual]. You can enter up to 1440 minutes.</p> <p>Authorization Configure an authorization method with a provider.</p> <p>MTU Size Configure the MTU value between 578 and 1492 bytes.</p> <p>MRU Size Configure the MRU (Maximum Receive Unit) value between 578 and 1492 bytes.</p> <p>Keep Alive If Keep Alive is enabled, the AirStation issues LCP echo requests to maintain the connection with the PPPoE server once a minute. If the server does not respond after 6 minutes, then the line is considered disconnected and the AirStation will terminate the connection. If your PPPoE connection is often disconnected, disable Keep Alive.</p>
Preferred Connections	Displays connections that you've added to the preferred connection list.

Parameter	Meaning
Edit Preferred Connections	Click this button to display the screen to edit the settings of connection destination route
Preferred PPPoE Connection	<p>This is displayed when clicking [Edit Preferred Connections].</p> <p>Name This will be the name of the connection in the PPPoE connection list.</p> <p>Destination Address The AirStation will always use this connection to send data to this address.</p> <p>Source Address The AirStation will always use this connection to receive data from this address.</p>

DDNS

Configure Dynamic DNS settings.

Setup WAN / LAN Wireless Firewall Games / Apps Admin Diagnostic

Internet PPPoE **DDNS** VPN Server LAN DHCP NAT

Log Out
Manuals & Utilities

Dynamic DNS Service: Disable

Apply

Current Dynamic DNS Settings

Internet-Side IP Address	180.25.185.114
Domain Name	Disabled
Status	Disabled

Refresh

Dynamic DNS Settings

Before configuring these settings, sign up for a dynamic DNS service.

Dynamic DNS Service

Select your dynamic DNS service provider. You can select "DynDNS" or "TZO".

- DynDNS
- TZO

Setup is different depending on which dynamic DNS service you use.

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Parameter	Meaning
Dynamic DNS Service	Select a provider (DynDNS or TZO) for dynamic DNS.
Username Only when DynDNS is selected	Enter the username for the dynamic DNS service. You may enter up to 64 alphanumerical characters and symbols.
Password Only when DynDNS is selected	Enter the password for the dynamic DNS service. You may enter up to 64 alphanumerical characters and symbols.
Hostname Only when DynDNS is selected	Enter the hostname for the dynamic DNS service. You may enter up to 255 alphanumerical characters, hyphens, and periods.
Email Address Only when selecting TZO	Enter the email address which is registered to the dynamic DNS service. You may enter up to 64 alphanumerical characters and symbols.
TZO Key Only when selecting TZO	Enter the TZO Key which is registered to the dynamic DNS service. You may enter up to 64 alphanumerical characters and symbols.
Domain Name Only when selecting TZO	Enter the domain name which is registered to the dynamic DNS service. You may enter up to 255 alphanumerical characters, hyphens, and periods.

Parameter	Meaning
IP Address Update Period	Specifies the period to notify the dynamic DNS service provider of the current IP address. When DynDNS is selected, set it between 0 and 35 days. When TZO is selected, set it between 0 and 99 days. If 0 (zero) day is set, no periodic update is performed.
Internet-Side IP Address	The WAN-side IP address of the AirStation's Internet port. This address is sent to the dynamic DNS service provider.
Domain Name	The domain name assigned by the dynamic DNS Service provider. The AirStation can be accessed from the Internet using this domain name.
Status	Displays the status of the dynamic DNS service.

VPN Server

Configure a VPN server.

SetupWAN / LANWirelessFirewallGames / AppsAdminDiagnostic

Internet RoutingPPPoEDDNSVPN ServerLANDHCPNAT

Log OutManuals & Utilities

If you are going to connect this subnet to a different network via VPN, make sure that the two different networks use different, non-overlapping IP address pools. If both AirStations are handing out addresses from the same default pool of addresses, there will be duplicate IP addresses, which may cause severe network problems.

Auto Input

Generate Recommended IP Address

LAN Side IP Address

IP Address192.168.11.1

Subnet Mask255.255.255.0

DHCP Server

☒ Enable

DHCP IP Address Pool

192.168.11.2

for up to 64

Address(es)

PPTP Server

☐ Enable

Authorization Type

MS-CHAPv2 (40/128-bit Encryption)

Advanced Settings

Server IP Address

☒ Auto

☐ Manual

Client IP Address

☒ Auto

☐ Manual

for up to 5 address(es)

DNS Server IP Address

☒ LAN IP address of the AirStation

☐ Manual

☐ Do Not Specify

WINS Server IP Address

MTU/MRU Value

1396

Apply

PPTP User List

Username

Connection Condition

IP Address

Operation

No registered users

Edit PPTP User List

Refresh

VPN Server Settings

With PPTP, you can access the AirStation from the Internet and the LAN from a Windows PPTP client.

Note

If using GRE protocol (protocol no.47) and the 1723 TCP port is filtered, then this function may not work correctly. Also, if these ports are blocked on your router, you cannot use the VPN server.

Auto Input

Click this button to generate a random IP address with a small possibility of overlapping with IP addresses of other Buffalo routers.

LAN Side IP Address

The AirStation's default LAN-side IP address is 192.168.11.1. If you want to connect the AirStation to an existing LAN, specify a unique, unused IP address from the LAN's range of IP addresses.

Subnet Mask

The AirStation's default LAN-side subnet mask is 255.255.255.0. To connect the AirStation to an existing LAN, specify a unique, unused IP address from the LAN's range of IP addresses.

DHCP Server

Enable the DHCP server here. It is enabled by default. If there is another DHCP server on the network, one DHCP server must be disabled or the IP ranges must be changed to avoid conflicts caused by overlapping DHCP scopes. If DHCP server is enabled, confirm that the DHCP IP address pool doesn't overlap existing LAN IP addresses.

DHCP IP Address Pool

This determines the IP address range from which IP addresses will be distributed to DHCP clients (between and windows). Enter

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Parameter	Meaning
Auto Input	Click to generate a random IP address.
LAN Side IP Address	Set a LAN side IP address and subnet mask.
DHCP Server	If enabled, the DHCP server will assign LAN-side IP addresses automatically.
DHCP IP Address Pool	You may choose the range of IP addresses assigned by the DHCP server and select IP addresses to be excluded from that range. Values from 1-256 may be entered.
PPTP Server	Enable to use a PPTP server.
Authorization Type	Select the authentication method for PPTP connection.
Server IP Address	Select the server IP address.
Client IP Address	Select the IP address range.
DNS Server IP Address	Set the DNS server IP address for the DNS server to issue to clients.
WINS Server IP Address	Set the WINS server IP address for the WINS server to issue to clients.
MTU/MRU Value	Configure MTU (Maximum Transmission Unit) / MRU (Maximum Receive Unit) between 578 and 1500 which is used during transmission on PPTP.
Edit PPTP User List	Click to edit user information.
Add new user	Click [Edit PPTP User List] to display.
Advanced Settings	Username Enter the username to connect to the PPTP server. You may enter up to 16 alphanumerical characters and symbols. Password Enter the password to connect to the PPTP server. You may enter up to 16 alphanumerical characters and symbols. Method of Acquiring IP Address Select the method to be used to assign the IP address is assigned to the PPTP client.
PPTP User List	Displays the PPTP connection user information.

LAN

Configure LAN-side IP address settings.

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LAN Side IP Address

IP Address

192.168.11.1

Subnet Mask

255.255.255.0

DHCP Server

☒ 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

Apply

LAN Side Ethernet Settings

Configure the AirStation's LAN [IP address](#), subnet mask, and local DHCP server settings here. Unless you're a networking expert, the default settings are recommended.

Note

If you have an existing LAN, the AirStation's configuration must be changed to connect to it. Please refer to [here](#) to set up your AirStation on an existing network.

LAN Side IP Address

The AirStation's default LAN-side [IP address](#) is 192.168.11.1. If you want to connect the AirStation to an existing LAN, specify a unique, unused [IP address](#) from the LAN's range of IP addresses.

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Parameter	Meaning
LAN Side IP Address	Set a LAN side IP address and subnet mask.
DHCP Server Router Mode only	Enable or disable the DHCP server, which assigns IP addresses automatically.
DHCP IP Address Pool Router Mode only	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.
LAN Side IP Address (For IP Unnumbered) Router Mode only	Set a LAN side IP address for IP unnumbered. Note: A PC with a normal LAN side IP address and a PC with an LAN side IP address for IP Unnumbered cannot communicate each other.
Advanced Settings Router Mode only	Select [Display] to display the advanced settings options for the DHCP server.
Lease Period Router Mode only	Set the effective period of an IP address assigned by the DHCP server. Up to 999 hours may be entered.

Parameter	Meaning
Default Gateway Router Mode only	Set the default gateway IP address for the DHCP server to issue to clients.
DNS Servers Router Mode only	Set the DNS server IP address for the DHCP server to issue to clients.
WINS Server Router Mode only	Set the WINS server IP address for the DHCP server to issue to clients.
Domain Name Router Mode only	Set the domain name for the DHCP server to issue to clients. You may enter up to 64 alphanumerical characters, hyphens, and periods.
Default Gateway Bridge Mode only	Set the default gateway IP address.
DNS Server Address Bridge Mode only	Set the DNS server IP address.

DHCP

Configure DHCP leases.

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Add Client

IP Address

MAC Address

Add

Current DHCP Clients

IP Address	MAC Address	Lease Period	Status	Customize
192.168.11.2(*)	E0:69:95:2E:1F:DB	47:59:48	Auto	Manual Assignment

The IP address of the client that is configuring this AirStation is (192.168.11.2)

Refresh

DHCP

Current DHCP clients are listed in the lower half of the window. To add a client manually, enter an IP address and its MAC address and click [Add]. Do not assign IP addresses that conflict with your DHCP range on the network. Up to 200 devices can be registered for manual assignment.

Add or Edit Clients

You may manually add or edit any entries.

IP Address

When adding IP addresses manually, make sure that they do not overlap addresses assigned by

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Parameter	Meaning
IP Address	Enter an IP address to lease manually. The IP address should be from the same subnet as the DHCP scope, but not be within the range that DHCP is assigning to other devices.
MAC Address	Enter the MAC address which identifies the client.
Current DHCP Clients	Displays information for current leases. An IP address which is leased automatically can be changed to be leased manually by clicking [Manual Assignment].

NAT

NAT (network address translation) allows your private LAN side network devices to communicate with the Internet.



Parameter	Meaning
Address Translation	Enable to use Network Address Translation.
Log Output of Deleted Packets	Enable to log deleted packets (such as errors) from address translation.

Routing

Configure the AirStation’s IP communication routes.

SetupWAN / LANWirelessFirewallGames / AppsAdminDiagnostic

InternetPPPoEDDNSVPN ServerLANDHCPNAT

Routing

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Add a Route

Destination Address

IP Address

Subnet Mask

255.255.255.0

Gateway

Metric

15

Add

Routing

Destination Address

Subnet Mask

Gateway

Metric

Operation

No routes are registered.

Routing

Configure [routing information](#).

Add or Edit a Route

You may manually add or edit any entries.

Destination Address

Specify the destination IP address or network address. If you're entering an IP address as destination, specify [Host 255.255.255.255] for the subnet mask. In case of entering a network address as destination, specify the network address and subnet mask.

Gateway

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Parameter	Meaning
Destination Address	Adds a destination IP address and subnet mask to a routing table.
Gateway	Adds a gateway address to a routing table.
Metric	The metric is the maximum number of router hops a packet may take on the way to its destination address. Values between 1 and 15 may be entered. The default value is 15.
Routing	Manual entries will appear here after being added.

Wireless

WPS

Configure WPS settings.

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WPS

Basic (11n/g/b)

Advanced (11n/g/b)

WMM (11n/g/b)

MAC Filter

WDS

Log Out

AOSS

Multicast Control

Manuals & Utilities

WPS

☒ Enable

External Registrar

Not allowed when AOSS is in use.

Apply

AirStation PIN

85588172

Generate PIN

Enrollee PIN

OK

WPS Security Settings

WPS Status

Configured (AOSS)

11n/g/b

SSID

BUFFALO-F482CA

Security

WPAWPA2 mixed mode - PSK TKIP/AES mixed mode

Encryption Key

kwhd1u08n9dr6

WPS (WiFi Protected Setup)

WPS

WPS (Wi-Fi Protected Setup) lets you automatically connect your wireless network. WPS is enabled by default.

Note

If the wireless radio is disabled, WPS will not work.

External Registrars

If external registrars are disabled, then the AirStation will not respond to wireless WPS requests. WPS can still be used with a wired link. External registrars are enabled by default.

Note

AOSS disables external registrars.

AirStation PIN

Display the AirStation's PIN code. When the [Generate PIN] button is clicked, the new PIN code is created.

Enrollee PIN

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

Basic

Configure basic wireless settings.

Setup

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Wireless

Firewall

Games / Apps

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WPS

Basic (11n/g/b)

Advanced (11n/g/b)

WMM (11n/g/b)

MAC Filter

WDS

Log Out

AOSS

Multicast Control

Manuals & Utilities

Wireless Radio

☒ Enable

Wireless Channel

Auto Channel (Current Channel: 11)

300 Mbps Mode

bandwidth : 20 MHz

extension channel : 1

Broadcast SSID

☒ Allow

Allow multiple SSIDs

Separate Feature

☐ Use

SSID

☒ Use AirStation's MAC address (BUFFALO-1265F8)

☐ Enter :

Wireless Authentication

WPA/WPA2 mixed mode - PSK

Wireless Encryption

TKIP/AES mixed mode

WPA-PSK (Pre-Shared Key):

.....

Rekey Interval

60 minutes

Apply

Basic Wireless Setting (11n/g/b)

You can set basic configuration information for your wireless LAN manually here. If encryption is not used, communication will be established just by this basic setup. Encryption is highly recommended, however.

Wireless Radio

Un-checking "Enable" will disable wireless LAN functionality. When disabled, all wireless functionality, including broadcasting, is halted. Default value is enabled.

Wireless Channel

You may specify a channel (frequency band) for your wireless communication. If there are other wireless clients near the AirStation, you may get interference. Change to a different (and preferably non-overlapping) channel in this case. Available channels vary with which wireless standard you're using. When auto-channel is selected, a vacant

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Parameter	Meaning
Wireless Radio	Determines whether to allow wireless communication. If this is unchecked, then no wireless connections will be allowed.
Wireless Channel	Sets a channel (a range of frequencies) used for wireless connections. Channels 1-11 are available. If auto-channel selected, the AirStation will automatically use the best available channel.
300 Mbps Mode	300 Mbps mode uses twice the normal frequency range, 40 MHz instead of 20 MHz. In uncongested areas this can increase performance. To use 300 Mbps mode, set the bandwidth to 40 MHz and choose an extension channel. Note: If auto-channel is selected, then the extension channel is set automatically.

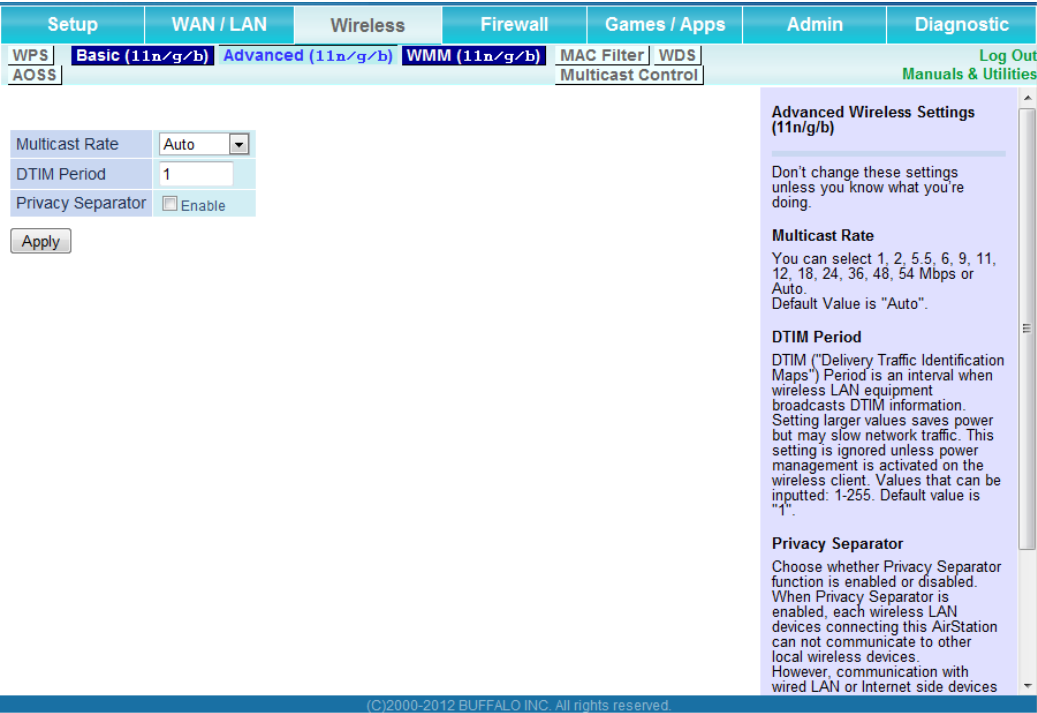
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Parameter	Meaning
Broadcast SSID	If [Allow] is checked, then the AirStation will respond to SSID searches from wireless devices by broadcasting its SSID. If [Allow] is unchecked, then the AirStation ignore SSID searches from wireless devices.
Allow multiple SSIDs Use Single SSID	Clicking [Allow multiple SSIDs] will enable Multi Security, allowing the use of multiple SSIDs, each with different wireless security settings. Clicking [Use Single SSID] will disable Multi Security. The AirStation will then allow one SSID and one type of wireless security. Note: When using Multi Security, enable at least one of the following: SSID1, SSID2, or SSID3.
SSID1	Multi Security SSID1 can use WPA-PSK-TKIP or WPA/WPA2-Mixed for wireless security.
SSID2	Multi Security SSID2 can use WPA-PSK-AES for wireless security.
SSID3	Multi Security SSID3 can use WEP for wireless security.
Separate	When [Use] is checked, wireless devices connected to the AirStation can communicate only with the Internet side, not with each other.
SSID	SSIDs may contain 1-32 alphanumeric characters.
Wireless Authentication	Choose an authentication method for wireless connections.

Parameter	Meaning
Wireless Encryption	<p>Select a type of data encryption for wireless communication from the following options:</p> <p>No encryption Data is transmitted without encryption. Avoid this option since any communication may be intercepted. [No encryption] can be selected only when [No authentication] is selected for wireless authentication.</p> <p>WEP WEP is a common encryption method supported by most devices. It uses an encryption key. WEP can only be selected when [No authentication] is selected for wireless authentication.</p> <p>TKIP TKIP is an encryption method which is more secure than WEP, but slower. TKIP can be selected only when WPA-PSK or WPA2-PSK is selected for wireless authentication.</p> <p>AES AES is more secure than TKIP, and faster. AES can be selected only when WPA-PSK or WPA2-PSK is selected for wireless authentication.</p> <p>TKIP/AES mixed mode TKIP/AES mixed mode allows both TKIP and AES authentication. TKIP/AES mixed mode can be selected only when WPA/WPA2 mixed mode - PSK is selected for wireless authentication.</p>
WPA-PSK (Pre-Shared Key)	<p>There are two different ways to enter pre-shared keys. Character keys may contain between 8 and 63 case-sensitive alphanumeric characters. Hexadecimal keys contain exactly 64 characters. Only 0 - 9 and a - f (not case-sensitive) should be used in hexadecimal keys.</p>
Rekey Interval	<p>The rekey interval determines how often an encryption key is updated. Values from 0 to 1440 minutes may be entered.</p>
WEP encryption key	<p>There are two different ways to enter WEP encryption keys. Character keys may contain either 5 or 13 case-sensitive alphanumeric characters. Hexadecimal keys may contain either 10 or 26 digits. Only 0 - 9 and a - f (not case-sensitive) should be used in hexadecimal keys.</p>

Advanced

Don't change advanced wireless settings unless you know what you're doing.



Parameter	Meaning
Multicast Rate	Set the communication speed of multi-cast packets.
DTIM Period	Set the interval (1 -255) for the beacon to respond to a wireless device. This setting is only effective when power management is enabled on the wireless device.
Privacy Separator	If enabled, the Privacy Separator 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.

WMM

Configure QoS priorities here.

Setup	WAN / LAN	Wireless	Firewall	Games / Apps	Admin	Diagnostic
WPS AOSS	Basic (11n/g/b)	Advanced (11n/g/b)	WMM (11n/g/b)	MAC Filter Multicast Control	WDS	Log Out Manuals & Utilities

WMM-EDCA Parameters

Priority	Parameter	For AP	For STA
AC_BK (Low)	CWmin:	15	15
	CWmax:	1023	1023
	AIFS N:	7	7
	TXOP Limit:	0	0
	Admission Control:	----	Disable ▾
AC_BE (Normal)	CWmin:	15	15
	CWmax:	63	1023
	AIFS N:	3	3
	TXOP Limit:	0	0
	Admission Control:	----	Disable ▾
AC_VI (High)	CWmin:	7	7
	CWmax:	15	15
	AIFS N:	1	2
	TXOP Limit:	94	94
	Admission Control:	----	Disable ▾
AC_VO (Highest)	CWmin:	3	3
	CWmax:	7	7
	AIFS N:	1	2
	TXOP Limit:	47	47
	Admission Control:	----	Disable ▾

Apply

WMM Settings (11n/g/b)

Prioritized AirStation communication for specific transactions. This settings provides some real time communication, which can help improve the quality of VOIP or other streaming protocols.

WMM-EDCA Parameters

Do not change these settings unless you know what you are doing.

Priority

The priority is ranked (Highest) 8, (High) 4, (Normal) 2, (Low) 1.

Parameter

CWmin, CWmax
The maximum and minimum value for the contention window. The contention window is used to control the frame collision avoidance system in IEEE802.11. Values that can be inputted: 1-32767.

AIFS N
Interval of the sending frame. The unit defines a time-slot (similar to the window value of CWmin, CWmax). Lower values define a higher priority as the back-off algorithm starts earlier. Values that can be inputted: 1-15.

TXOP Limit
The time for the queue to obtain send priority. The minimum value is 32ms. Large values can send

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Parameter	Meaning
WMM-EDCA Parameters	<p>You don't usually need to change these settings. Using the default settings is recommended.</p> <p>Priority</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>CWmin, CWmax</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>AIFSN</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>TXOP Limit</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 que may interfere with other packet transmissions. If TXOP Limit is set to 0 (zero), only one frame can be sent per right to send.</p> <p>Admission Control</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>

MAC Filter

This screen lets you restrict wireless access to wireless devices with specific MAC addresses.

Setup WAN / LAN Wireless Firewall Games / Apps Admin Diagnostic

WPS Basic (11n/g/b) Advanced (11n/g/b) WMM (11n/g/b) **MAC Filter** WDS Multicast Control Log Out Manuals & Utilities

Enforce MAC Filtering ☐ Enable

Apply

Registration List

MAC Address	Connection Status
No Registered MAC addresses	

Edit Registration List

Wireless MAC Filtering

Wireless connections to the AirStation can be limited to specific client MAC addresses to enhance security against unwanted network visitors. When enabled, only wireless client adapters with registered MAC addresses will be allowed to connect to the AirStation. The wireless MAC filter is ignored while AOSS is in use.

Enforce MAC Filtering

Check **Enable** to use MAC filtering. Then, only wireless clients with registered [MAC addresses](#) can connect to this AirStation. The default value for MAC filtering is disabled.

Caution

If connecting Slave AirStation on WDS using Wireless MAC Filtering, add the MAC address of the slave AirStation. The wireless MAC address of a slave AirStation may be different from its main MAC address. Check the configuration page of the slave AirStation for the wireless MAC address.

Registration List

The list of [MAC addresses](#) allowed to connect with this AirStation.

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Parameter	Meaning
Enforce MAC Filtering	Enable to restrict wireless connections to devices with registered MAC addresses.
Registration List	Displays the MAC addresses of registered devices which are permitted to connect wirelessly.
Edit Registration List	Click this button to add a MAC address of a wireless device to the list of permitted devices.
MAC Addresses to be Registered	Enter a MAC address of a wireless device you permit to connect to the AirStation. Click [Register] to add that MAC address to the list.
List of all clients that are associated with this AirStation	Display the list of all MAC addresses of wireless devices connected to the AirStation.

WDS

WDS bridging allows communication between AirStations.

Setup

WAN / LAN

Wireless

Firewall

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Admin

Diagnostic

WPS

Basic (11n/g/b)

Advanced (11n/g/b)

WMM (11n/g/b)

MAC Filter

WDS

AOSS

Multicast Control

Log Out

Manuals & Utilities

WDS

☒ Enable

Specify Master/Slave

Master

SSID

Search

Wireless Authentication

Do not authenticate

Encryption

Not encrypted

Apply

WDS

AirStations may be connected together wirelessly to provide a larger coverage area with WDS bridging. The example below will connect two AirStations together in a bridge. Multiple units can be added to the bridge later. Only one unit (the "master") should be in router mode (with DHCP enabled). All other AirStations ("slaves") should have their router mode switches turned off.

How to configure WDS

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Parameter	Meaning
WDS	Check to use WDS bridging.
Specify Master/Slave	Define this AirStation's role in a WDS bridge. <div>Master<p>This AirStation will be the master in a WDS bridge. It will have the Internet connection, and other AirStations in the bridge will be connected through this AirStation.</p>Slave<p>Set AirStation as a slave. This can be connected with the AirStation which is set as a master by using WDS feature only if the Master AirStation supports WDS.</p>Slave (EC)<p>Set AirStation as a slave. This uses Ethernet Converter to connect with the AirStation which is set as a master, so it can be connected even though Master AirStation does not support WDS.</p>Auto<p>Automatically switches between Master and Slave modes depending on the surrounding network. If an AirStation works as a router, it will automatically be set as a master. If the AirStation works as a bridge and a DHCP server exists in the network, it will automatically be set as a master. If the AirStation works as a bridge and no DHCP server is available, it will automatically be set as a slave.</p></div>

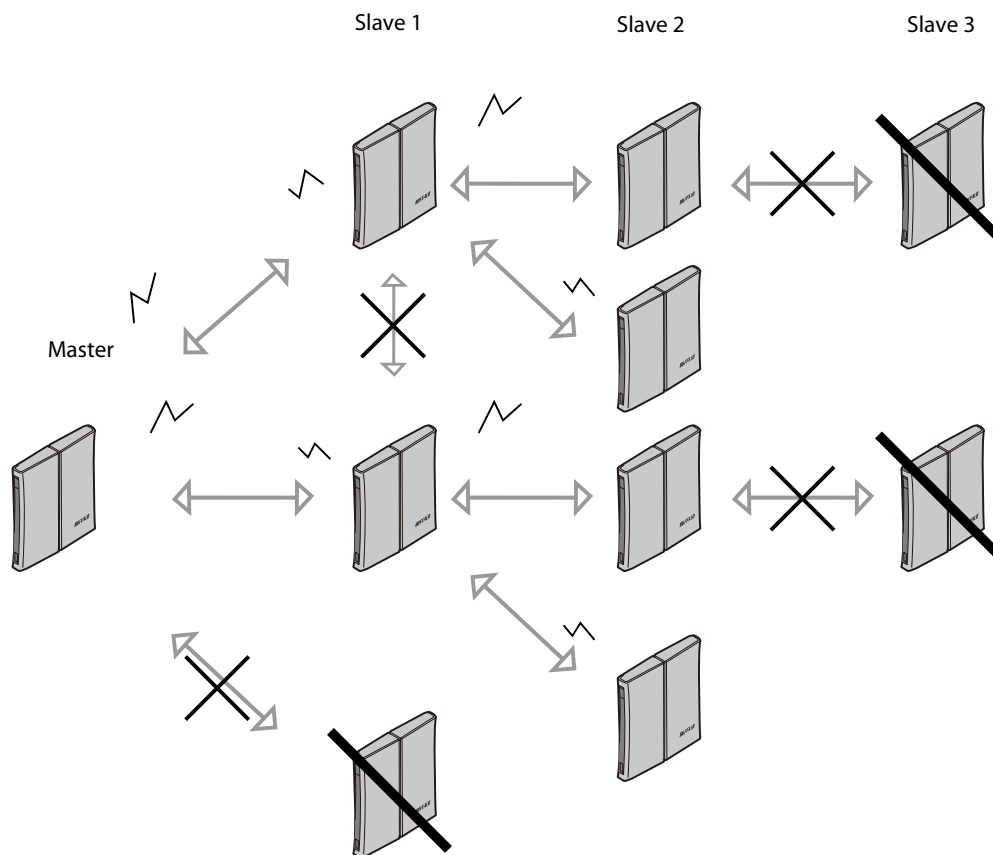
Parameter	Meaning
SSID	Configure the Master AirStation's SSID.
Search	Click to search for other AirStations' SSIDs.
Wireless Authentication	Configure authentication method for the master AirStation
Encryption for wireless	Choose encryption type for the master AirStation.
WPA-PSK (Pre-shared key)	Set the master AirStation's Encryption key.

Notes: Two AirStation can be connected per one master AirStation.

The slave AirStation is allowed to connect to another slave AirStation as lower slave AirStation.

The lower slave AirStation is not allowed to connect to another slave AirStation.


The slave AirStation is not allowed to communicate with the lower slave AirStation or client adapters when it is not connected to a master AirStation.



AOSS

Configure and use AirStation One-touch Secure System (AOSS).

Setup	WAN / LAN	Wireless	Firewall	Games / Apps	Admin	Diagnostic
WPS AOSS	Basic (11n/g/b)	Advanced (11n/g/b)	WMM (11n/g/b)	MAC Filter	WDS	Log Out
				Multicast Control	Manuals & Utilities	



AOSS Settings

Exclusive SSID for WEP	802.11n/g/b	Disabled
Encryption level expansion	802.11n/g/b	Enabled
Dedicated WEP SSID isolation	802.11n/g/b	Disabled
Allow WEP for Game Console Only	802.11n/g/b	<input type="checkbox"/> Enable
AOSS Button on the AirStation Unit	<input checked="" type="checkbox"/> Enable	

Current Encryption Information 802.11n/g/b

Encryption Type	WPA-PSK-AES (Now in use)		
SSID	BUFFALO-F482CA-1		
Encryption Key	kwhd1u08n9dr6		
Encryption Type	WPA/WPA2-PSK-mixed (Now in use)		
SSID	BUFFALO-F482CA		
Encryption Key	kwhd1u08n9dr6		
Encryption Type	WEP128		
SSID	BUFFALO-F482CA-3		
Encryption Key	2F8B4D268BA5E8A51487EC7030	(Sending Key)	
	AEA8807D59FBBD9725D3A3DDEB		
	B69BE00DC960A5A202CB3BF04D		
	2A098FB374DCB93670E90F1DBF		
Encryption Type	WEP64		
SSID	BUFFALO-F482CA-4		
Encryption Key	C5650D73F8	(Sending Key)	
	C221759E4F		
	F16F70C89F		
	70453E3717		

AOSS Client Information


Name	MAC Address	Encryption Type	Wireless	Connection Setting
WLAE-AG300N	00:24:A5:51:00:C8	WEP64/WEP128 WPA-PSK-TKIP/WPA-PSK-AES	802.11n/g/b	Allow
EC Devices / Non-AOSS Devices	0A:24:A5:51:00:C8	----	802.11n/g/b	Allow

AOSS Ethernet Converter Information


Name	MAC Address	Encryption Type
------	-------------	-----------------

AOSS (AirStation One-Touch Secure System)

AOSS is Buffalo's unique technology for quickly forming a secure wireless connection. You can see AOSS's configuration and status from this screen.

 **Start AOSS**

Click this button to start AOSS. The AOSS button on top of the router works the same as this button. Refer to [how to use AOSS](#) for more details.

 **Disable AOSS**

This button appears when AOSS is enabled. Click this button to disable AOSS. Connections to wireless clients will be terminated, AOSS information removed, and Encryption Type reset to its default value, AES. Current Encryption Information will also be removed. Wireless Setting and Wireless Security are enabled in Advanced Settings when AOSS is disabled.

How to use AOSS

How to use AOSS:

(1) First
Power on or reboot the AirStation and a wireless client that supports AOSS.

(2) Press AOSS buttons
After rebooting, press both product's AOSS buttons, the router's first, then the client's. The AirStation and the wireless client will exchange security information to set up the most secure encryption type automatically and are ready to communicate.

Note:



- Once the AOSS button is pressed, other operations can't be started until AOSS is finished. If the AirStation can't find a wireless client after three minutes, the AirStation's status returns to its previous state.
- Up to 24 wireless clients may be connected through AOSS.
- By default, AOSS is functional but does not initiate a connection unless started manually by pushing the AOSS button, either here or on the top of the router.
- Use AirStation's System Information page to manually configure a wireless client that doesn't support AOSS.
- When wireless security is configured, it's security information is succeeded.

If Wireless Authorization is "WPA/WPA2 mixed mode - PSK" AOSS passes encryption key to WPA-PSK-TKIP and configures initial level to WPA-PSK-TKIP.

AOSS

Configure AOSS.

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Parameter	Meaning
	Initiates AOSS automatic wireless configuration. Click this, then press or click the AOSS button on your AOSS-compatible wireless client. Repeat for additional AOSS clients.
	Click this button to disconnect all AOSS connections. Note: If AOSS connections are disconnected, the SSID and encryption keys will be restored to their most recent settings before using AOSS.
Exclusive SSID for WEP	You may allow a separate SSID specifically for WEP connections. If [disabled] is selected, then clients will not be able to connect with WEP.
Encryption level expansion	Expands security method from TKIP to WPA/WPA2-PSK-mixed mode.
Dedicated WEP SSID isolation	Set a separate SSID and network segment specifically for WEP connections. Devices connected with WEP will not be able to communicate with devices connected using AES/TKIP. All connected devices will be able to communicate with the internet.
Allow WEP for Game Console Only	When enabled, the AirStation allows wireless devices to connect with 64-bit or 128-bit WEP.
AOSS Button on the AirStation Unit	Uncheck to disable the physical AOSS button on the AirStation.
Current Encryption Information AOSS Connection only	Displays the encryption type, SSID, and encryption key that AOSS has configured.
Random	Click to enter random values for SSID, encryption key, and other settings.
KEY base	Click to return the SSID, encryption key, and other wireless settings to the values on the Setup Card.
Reset	Click to return the SSID, encryption key, and other wireless settings to their previous values.
AOSS Client Information AOSS Connection only	Displays basic information for AOSS clients connected to the AirStation.
AOSS Ethernet Converter Information AOSS Connection only	Displays basic information for Ethernet converters connected to the AirStation via AOSS.

Multicast Control

Restrict unnecessary multicast packets from wireless LAN ports.

Setup

WAN / LAN

Wireless

Firewall

Games / Apps

Admin

Diagnostic

WPS

Basic (11n/g/b)

Advanced (11n/g/b)

WMM (11n/g/b)

MAC Filter

WDS

Log Out

AOSS

Multicast Control

Manuals & Utilities

Snooping

☒ Enable

Multicast Aging Time

300

Sec.

Apply

Multicast Control

IGMP snooping allows the router to only sent packets to the links that have solicited them.

Snooping

IGMP snooping is designed to prevent hosts on a local network from receiving traffic for a multicast group they have not explicitly joined. It provides switches with a mechanism to prune multicast traffic from links that do not contain a multicast listener. Check enable to use multicast snooping. Multicast tunnel transfer mode is used if your clients support it.

Multicast Aging Time

The holding time is the period that multicast snooping information is held. This value should be larger than the IGMP/MLD query interval. Enter a time from 1 to 3600 seconds.

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

Firewall

Firewall

SetupWAN / LANWirelessFirewallGames / AppsAdminDiagnostic

FirewallIP FilterVPN Passthrough

Log OutManuals & Utilities

Log Output☐ Enable

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

Apply

Firewall

Limits the type of packets allowed to pass between the Internet and LAN. When packets reach the AirStation, the firewall evaluates the packets, and forwards packets that don't match any filter to their destination. The firewall blocks unnecessary packets from the Internet side and prevents leaking secure information from the LAN side.

Log Output
Checking this box will record firewall events to a log.
Disabled by default.

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Parameter	Meaning
Log Output	Enable to output a log of firewall activity.
Basic Rules	Enable to use any of the quick filters. Preconfigured quick filters include: Prohibit NBT and Microsoft-DS routing When enabled, this prevents Microsoft networking from communicating between the LAN side and the WAN side. You can configure this with PPPoE if you select [Use PPPoE client] or [Use IP unnumbered] in Method of Acquiring IP address, or if Easy Setup identified a PPPoE connection during setup.

Parameter	Meaning
	Reject ident requests Enabling this option will answer IDENT requests from the Internet side with corresponding rejection packets. Enable this option if you experience slow transfer speeds for network applications such as email, ftp, or browsing. If you have configured transfer of IDENT requests to the LAN side in the address translation settings (DMZ or TCP port:113), that setting has higher priority, and overrides this setting.
	Block ping from Internet If this is enabled, the AirStation will not respond to pings from the Internet side. You can configure this with PPPoE if you select [Use PPPoE client] or [Use IP unnumbered] in Method of Acquiring IP address (page 29), or if Easy Setup identified a PPPoE connection during setup.

IP Filter

Create and edit IP filters.

SetupWAN / LANWirelessFirewallGames / AppsAdminDiagnostic

FirewallIP FilterVPN Passthrough

Log OutManuals & Utilities

Log Output☐ Enable

Apply

Add IP address based filter

OperationIgnored

DirectionInternet→LAN

IP AddressSource Address: → Destination:

All

ICMP

Manual

TCP/UDP

Protocol Number:

TCP Port Manual Setup

Port Number:

Add Rule

IP Filter

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

IP Filter Settings

Limits the type of packets allowed to pass between the Internet and LAN. The maximum number of rules is 32. If the packet meets one of the monitoring conditions (see below) before it is routed, the specified action will be taken. If multiple conditions (see below) are met, the appropriate action will be performed once the packet meets the condition.

Log Output

Checking this box will record IP filtering events to a log. Disabled by default. Accepted packets are not logged.

Add/Edit IP address based filter

You may manually add or edit any entries.

Operation

Select the action to be performed on packets that meet filter criteria

Ignored

Stop the packet and do not route it.

Rejected

Return the rejected packet to the

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Parameter	Meaning
Log Output	If enabled, IP filter activity is saved to a log.
Operation	Specify how to process target packets.
Direction	Specify the transmission direction of target packets.
IP Address	Specify the sender's IP address and receiver's IP address of the target packets.
Protocol	Select a protocol for target transmission packet.
IP Filter	Display the list of IP filters which have been registered.

VPN Passthrough

Configure IPv6 passthrough, PPPoE passthrough, and PPTP passthrough.



Parameter	Meaning
IPv6 Passthrough	Enable to use IPv6 Passthrough for address translation.
PPPoE Passthrough	Enable to use PPPoE bridge. Using PPPoE bridge lets you automatically obtain an IP address from your provider using the PPPoE protocol from your computer connected to the LAN side because all PPPoE packets can pass through between the Internet and LAN.
PPTP Passthrough	Enable to use PPTP Passthrough for address translation.

Games/Apps

Port Forwarding

Configure port translation.

SetupWAN / LANWirelessFirewallGames / AppsAdminDiagnostic

Port ForwardingDMZUPnPQoSLog OutManuals & Utilities

Forward a Port

GroupNew GroupGroup Name:

Internet-Side IP AddressAirStation's Internet IP AddressManual IP Address:

ProtocolAllICMPManualTCP/UDP

Protocol Number:TCP Port Manual SettingPort Number:

LAN Side IP Address192.168.11.2

LAN Side PortTCP/UDP Port:

Add

Forwarded Ports

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

Port Forwarding

Although the AirStation performs address translation only for communication which begins from the LAN side, certain applications, such as network games, require that you allow communications from the Internet side via (static NAT). Edit the rules for communicating from outside the internal network to the LAN side network device (static NAT) carefully, consulting your internet game's documentation as necessary. Up to 32 rules can be registered.

Add or Edit a Forwarded Port

You can add a new forwarded port or edit an existing forwarded port entry.

Group

You can give a name (group name) to configured static NATs and give multiple static NATs one name and manage them together. After naming groups, you may enable or disable each separately. To add a static NAT rule to an existing group, select the group

Parameter	Meaning
Group	Specify a group name for a new rule to belong to. Select [New Group] 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 letters.
Internet-Side IP Address	Enter the Internet side IP address (before translation) for the port translation table entry.
Protocol	Select the Internet side protocol (before translation) for the port translation table entry.

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Parameter	Meaning
LAN Side IP Address	Enter the LAN side IP address (after translation) for the port translation table entry.
LAN Side Port	Select the LAN side (after translation) port number (1 - 65535) for the port translation table entry.
Forwarded Ports	Shows current entries in the port translation table.

DMZ

Configure a destination to transfer communication packets without a LAN side destination.

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

UPnP

Configure Universal Plug and Play.



Parameter	Meaning
UPnP	Enable or disable Universal Plug and Play (UPnP) functionality.

QoS

Configure the priority of packets sent to the Internet.

SetupWAN / LANWirelessFirewallGames / AppsAdminDiagnostic

Port ForwardingDMZUPnPQoSLog OutManuals & Utilities

QoS for transmission to the Internet☒ Enable

Uplink Bandwidth1000Kbps

No.	Enable	Application Name	Protocol	Destination Port	Priority
1	<input type="checkbox"/>	VoIP	UDP		high
2	<input type="checkbox"/>	ssh	TCP	22	medium
3	<input type="checkbox"/>	telnet	TCP	23	medium
4	<input type="checkbox"/>	ftp	TCP	21	low
5	<input type="checkbox"/>		TCP		low
6	<input type="checkbox"/>		TCP		low
7	<input type="checkbox"/>		TCP		low
8	<input type="checkbox"/>		TCP		low

Apply

QoS Settings

QoS (quality of service) allows network devices to prioritize traffic by type. This can be used to give priority to traffic that requires a consistent data flow, such as VOIP.

QoS for transmission to the Internet

If checked, this gives priority to packets being transmitted to the Internet. When enabled, you will be able to add four levels of increased priority for specific applications. By default, this is disabled.

Uplink Bandwidth

Specify the bandwidth transferred from this unit to the Internet in kbps. The real uplink bandwidth should be entered. If a bandwidth value larger than the real line speed is entered, the uplink bandwidth will be limited by

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Parameter	Meaning
QoS for transmission to the Internet	Enable to give priority to specific types of Internet traffic.
Uplink Bandwidth	Specify the upstream bandwidth in kbps from the AirStation to the Internet side. Set the actual value for the upstream bandwidth.
Enable	Check to enable desired entries, then click [apply].
Application Name	Enter an application name. Names may use up to 32 alpha numerical characters, double or single tick marks (""), quotation marks ("), and semicolons (;).
Protocol	Select either TCP or UDP.

Parameter	Meaning
Destination Port	Specify a destination port with the value of 1 - 65535. If this field is empty, a random port is selected.
Priority	Select high, medium or low. If packets do not qualify for classification as a type on the list, then their priority is treated as a level between medium and low.

Admin

Name

Configure the AirStation's name.

The screenshot shows the 'Admin' configuration page. At the top, there are tabs for Setup, WAN / LAN, Wireless, Firewall, Games / Apps, Admin (selected), and Diagnostic. Below the tabs are links for Name, Password, Time/Date, NTP, ECO, Access, Log, Save/Restore, Initialize/Restart, and Update. On the right, there are links for Log Out and Manuals & Utilities. The main content area shows the 'AirStation Name' field with the value 'AP00E6761265F8'. Below it, the 'Network Services' checkbox is checked and labeled 'Enable'. An 'Apply' button is at the bottom left. A sidebar on the right contains the following text:

AirStation Name

This can be used to assign a name for the AirStation.

The AirStation name may include up to 64 alphanumeric characters and hyphens (-). Don't use a hyphen as the first or last

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Parameter	Meaning
AirStation Name	Enter a name for the AirStation. Names may include up to 64 alphanumeric characters and hyphens (-).
Network Services	Enable or disable this to display the computers and devices on your network with their supported services.

Password

Configure the login password for the AirStation’s configuration interface.

Setup

WAN / LAN

Wireless

Firewall

Games / Apps

Admin

Diagnostics

Name

Password

Time/Date

NTP

ECO

Access

Log

Save/Restore

Log Out

Manuals & Utilities

Initialize/Restart

Update

Administrator

admin (fixed)

Administrator Password

••••••••

••••••••

(Confirm)

Apply

AirStation Administrator Password

Administrator

The administrator account "admin" is used to configure the AirStation. It cannot be deleted or renamed.

Administrator Password

The administrator password is

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Parameter	Meaning
Administrator	“admin” is the configuration interface’s username for login. This name is fixed.
Administrator Password	Enter a password for logging in to the AirStation’s configuration interface. The password may contain up to 8 alphanumeric characters and underscores (_).

Time/Date

Configure the AirStation’s internal clock.

SetupWAN / LANWirelessFirewallGames / AppsAdminDiagnostic

NamePasswordTime/DateNTPECOAccessLogSave/Restore

Initialize/RestartUpdate

Log OutManuals & Utilities

NTP is enabled. Changes made to time and date settings may be overwritten by the NTP server when it syncs.

Local Date2012Year 6Month 25Day

Local Time20Hour 18Minute 17Seconds

Time Zone(GMT-06:00) Central Standard Time: CST

DST (Daylight Saving Time)USA (from second Sunday in Mar to first Sunday in Nov)

ApplyRefreshGet Current Time from your PC

Time and Date

For best results, all network devices on your LAN should be configured with the correct time. The AirStation is no exception. You may use an NTP server to set the time automatically for all devices, or you may set the time and date manually.

Note:
The AirStation’s internal clock is reset to its default setting whenever power is lost because it doesn’t have a battery.

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Parameter	Meaning
Local Date	You may manually set the date of the AirStation’s internal clock.
Local Time	You may manually set the time of the AirStation’s internal clock.
Time Zone	Specify the time zone (offset of Greenwich Mean Time) of the AirStation's internal clock.

NTP

Configure the AirStation’s internal clock to automatically synchronize with an NTP server.

Setup

WAN / LAN

Wireless

Firewall

Games / Apps

Admin

Diagnostics

Name

Password

Time/Date

NTP

ECO

Access

Log

Save/Restore

Log Out

Manuals & Utilities

Initialize/Restart

Update

NTP Functionality

☒ Enable

NTP Server

time.nist.gov

Update Interval

24

hours

Apply

NTP

Most network devices can automatically update their time settings from an NTP server. This lets you easily keep all network devices set correctly. NTP is an acronym of Network Time Protocol.

NTP Functionality

Check / Enable to use an NTP

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Parameter	Meaning
NTP Functionality	Enable to use an NTP server to automatically set the AirStation's internal clock.
NTP Server	Enter the name of the NTP server as a hostname, hostname with domain name, or IP address. Up to 255 alphanumeric characters, hyphens (-), and periods (.) may be used.
Update Interval	How often should the AirStation submit a time request to the NTP server? Intervals of 1 - 24 hours may be set.

ECO

Configure Eco mode from this screen.

SetupWAN / LANWirelessFirewallGames / AppsAdminDiagnostic

NamePasswordTime/DateNTP

Initialize/RestartUpdate

ECOAccessLogSave/Restore

Log OutManuals & Utilities

Scheduling☐ Enable

Apply

Weekly Schedule

	00	02	04	06	08	10	12	14	16	18	20	22
Sun												
Mon												
Tue												
Wed												
Thu												
Fri												
Sat												

Normal Sleep User Defined

Schedule Entry

Operational Mode

Normal

Start Time

0:00

End Time

0:30

Day of Week

Sun

Mon

Tue

Wed

Thu

Fri

Sat

Add

User Defined Mode

LED

Off

Wired LAN

ECO

Wireless LAN

Off

Apply

ECO

ECO mode lets you slow or shut down the AirStation during periods of inactivity to save energy.

Scheduling

Enable to use ECO mode. ECO mode is disabled by default.

Weekly Schedule

To change operational mode, select a period of time for your change.

Schedule Entry

Operational Mode

Select an operational mode.

Start Time

Select the time to change into the selected operational mode. Times from 0:00 to 23:30 in 30 minute increments may be selected.

End Time

Specify the time to change out of the selected operational mode. Times from 0:00 to 24:00 in 30 minute increments may be selected.

Day of Week

Specify which days the change in operational mode will be used.

User Defined Mode

LED

LEDs work normally in "normal" mode. They are disabled if "off" is selected.

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Parameter	Meaning
Scheduling	Enable to schedule Eco Mode. If Eco Mode is enabled, AOSS will function only when the AirStation is in Normal operating mode.
Weekly Schedule	Graphically displays the configured schedule.
Schedule Entry	Configure operational mode for time periods in the weekly schedule. If User Defined mode is chosen, configure it below.
User Defined Mode	Individual power saving elements may be configured for User Defined mode.

Access

You may restrict access to the AirStation's settings screens.

The screenshot shows the 'Access' configuration page. At the top, there are tabs for Setup, WAN / LAN, Wireless, Firewall, Games / Apps, Admin, and Diagnostic. The 'Admin' tab is selected, and the 'Access' sub-tab is active. The main content area includes a 'Log Output' section with an 'Enable' checkbox. Below this is a table for 'Management Access' with columns 'Enable', 'Management Access', and 'Number of Packets'. The table has two rows: 'Prohibit configuration from wireless LAN' and 'Prohibit configuration from wired LAN', both with '0' packets. There is also an 'Internet Side Remote Access' section with an 'Enable' checkbox and a 'Permit configuration from wired Internet' option. An 'Apply' button is at the bottom. The right sidebar contains a 'Management Access' section explaining that enabling limitations prevents changes from PCs and that checking all boxes makes future changes difficult. It also has a 'Log Output' section stating that checking the box will record 'Management Access' information to a log, which is disabled by default. The footer indicates '(C)2000-2012 BUFFALO INC. All rights reserved.'

Parameter	Meaning
Log Output	Enabling outputs a log of changes to access settings.
Prohibit configuration from wireless LAN	If enabled, prevents access to settings screens from wirelessly connected devices (only wired devices may configure).
Prohibit configuration from wired LAN	If enabled, prevents access to settings screens from wired devices (only wirelessly connected devices may configure).
Permit configuration from wired Internet	If enabled, allows access to settings screens from network devices on the Internet side.
Permitted IP Address	Displayed only if Internet side configuration is enabled. Enter the IP address of the device that is permitted to configure the AirStation remotely from the Internet side.
Permitted Port	Displayed only if Internet side configuration is enabled. Set a port number (1 - 65535) if configuring the AirStation from the Internet side.

Log

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

SetupWAN / LANWirelessFirewallGames / AppsAdminDiagnostic

NamePasswordTime/DateNTPECOAcessLogSave/Restore

Initialize/RestartUpdate

Transfer Logs

☐ Enable

Syslog Server

Logs

☒ Address Translation

☒ Firewall

☒ Dynamic DNS

☒ DHCP Server

☒ Wireless Client

☒ Setting Changes

☒ NTP Client

☒ IP Filter

☒ PPPoE Client

☒ DHCP Client

☒ AOSS

☒ Authentication

☒ System Boot

☒ Wired Link

Apply

Select All

Clear All

Syslog Setup

Syslog transfers the AirStation's logs to a syslog server.

Transfer Logs

Enable to transmit the AirStation's logs to a Syslog server. Disabled by default.

Syslog Server

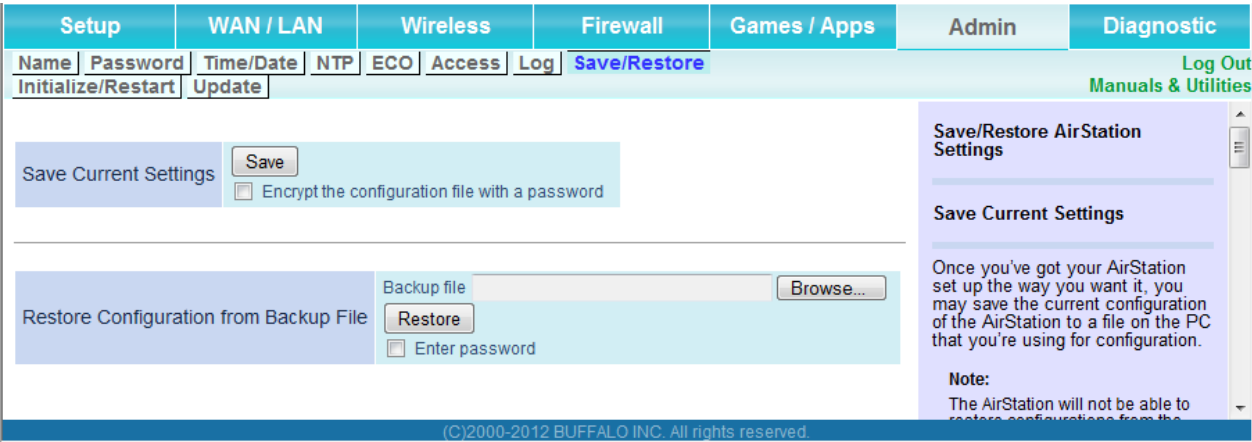
The Syslog server may be specified by DNS name or IP address. The string may include up to 255 alphanumeric characters, hyphens (-), and periods (.). It should not begin or end with a period or hyphen. Strings may

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

Save/Restore

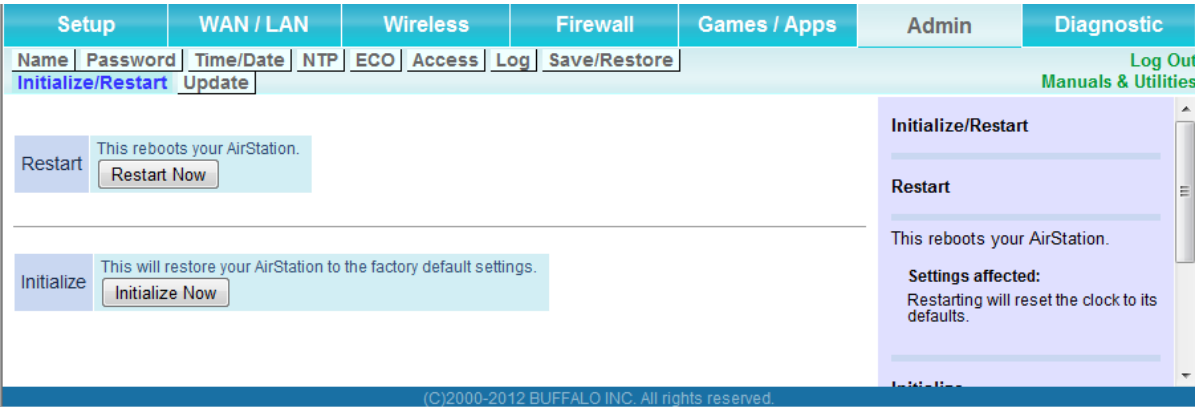
You may save your AirStation’s settings as a file and restore settings from that file later.



Parameter	Meaning
Save Current Settings	Clicking [Save] will save the current configuration of the AirStation to a file. If the [Encrypt the configuration file with a password] option is checked, then the configuration file will be password protected with the password.
Restore Configuration from Backup File	Restore the configuration of the AirStation from a saved configuration file by clicking the [Browse...] button, navigating to the configuration file, and then clicking Restore. If the configuration file was password protected, then put a check next to [Enter password], enter the password, and click [Restore].

Initialize/Restart

Reboot or initialize the AirStation.



Parameter	Meaning
Restart	Click [Restart Now] to restart the AirStation.
Initialize	Click [Initialize Now] to initialize and restart the AirStation.

Update

Update the AirStation’s firmware.

Setup	WAN / LAN	Wireless	Firewall	Games / Apps	Admin	Diagnostic
Name	Password	Time/Date	NTP	ECO	Access	Log
Initialize/Restart	Update					Save/Restore
						Log Out Manuals & Utilities
Firmware Version	WHR-300HP Ver.1.85					
Update Method	<input checked="" type="radio"/> Specify Local File <input type="radio"/> Auto Update Online					
Firmware File Name	<input type="text"/> <input data-bbox="732 617 824 642" type="button" value="Browse..."/>					
<input data-bbox="164 667 306 690" type="button" value="Update Firmware"/>						
Get updated firmware files from the link below: Download Service						
Firmware Update						
Updated firmware often includes bug fixes, new features, and better performance.						
Firmware Version Displays the firmware version of the AirStation.						
Update Method Please select firmware update method.						
Specify Local File Update the firmware with a file from your PC.						

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Parameter	Meaning
Firmware Version	Displays the current firmware version of the AirStation.
Update Method	Specify Local File Updates from a firmware file stored on your computer. Auto Update Online Automatically updates to the latest firmware available.
Firmware File Name	Click [Browse...] to navigate to the firmware file on your computer if [Specify Local File] was selected. You don't need to specify the firmware location if you're using [Auto Update Online]. Click [Update Firmware] to update the firmware.

Diagnostic

System Info

This screen displays the AirStation's system information.

Setup	WAN / LAN	Wireless	Firewall	Games / Apps	Admin	Diagnostic	
System Info Logs Packet Info Client Monitor	Log Out Manuals & Utilities						
<div> <div> <div>Model</div> <div>WHR-300HP Ver.1.85 (R1.28/B1.00)</div> </div> <div> <div>AirStation Name</div> <div>AP00E6761265F8</div> </div> <div> <div>Mode Switch Status</div> <div>Automatic Mode</div> </div> <div> <div>Operational Mode</div> <div>Router mode on</div> </div> <div> <div>Internet</div> <div> <div>Method of Acquiring IP Address</div> <div>Auto Detect Mode - PPPoE</div> </div> <div> <div>Name of Connection</div> <div>Easy Setup (Default Connection)</div> </div> <div> <div>Connection Status</div> <div>Online</div> </div> <div> <div>Operation</div> <div> <input type="button" value="Stop"/> </div> </div> <div> <div>IP Address</div> <div>114.161.250.89</div> </div> <div> <div>PPP Server IP</div> <div>118.23.61.10</div> </div> <div> <div>DNS1(Primary)</div> <div>222.146.35.137 (Auto)</div> </div> <div> <div>DNS2(Secondary)</div> <div>221.184.25.25 (Auto)</div> </div> <div> <div>MTU Size</div> <div>1454</div> </div> </div> <div> <div>LAN</div> <div> <div>Wired Link</div> <div>100Base-TX (Full-duplex)</div> </div> <div> <div>MAC Address</div> <div>00:E6:76:12:65:F8</div> </div> <div> <div>IP Address</div> <div>192.168.11.1</div> </div> <div> <div>Subnet Mask</div> <div>255.255.255.0</div> </div> <div> <div>DHCP Server</div> <div>Enabled</div> </div> <div> <div>MAC Address</div> <div>00:E6:76:12:65:F8</div> </div> </div> <div> <div>Wireless (802.11n/g/b)</div> <div> <div>Wireless Status</div> <div>Enabled</div> </div> <div> <div>SSID</div> <div>BUFFALO-1265F8</div> </div> <div> <div>Authentication</div> <div>WPA/WPA2 mixed mode - PSK</div> </div> <div> <div>Encryption</div> <div>TKIP/AES mixed mode</div> </div> <div> <div>Broadcast SSID</div> <div>Enabled</div> </div> <div> <div>Privacy Separator</div> <div>Disabled</div> </div> <div> <div>Wireless Channel</div> <div>11 (Auto)</div> </div> <div> <div>300 Mbps Mode</div> <div>20 MHz</div> </div> <div> <div>MAC Address</div> <div>00:E6:76:12:65:F8</div> </div> </div> <div> <div>WDS</div> <div> <div>Connection Status</div> <div>Activated as master</div> </div> <div> <div>Status</div> <div>-</div> </div> </div> <div> <div>ECO Mode</div> <div> <div>Status</div> <div>Disabled</div> </div> </div> </div>							<div> <div>System Information</div> <div>Displays the AirStation's main settings.</div> </div> <div> <div>Model</div> <div>Displays the model name and firmware version of the AirStation.</div> </div> <div> <div>AirStation Name</div> <div>Displays the AirStation's hostname.</div> </div> <div> <div>Mode Switch Status</div> <div>Displays the status of the ROUTER switch.</div> </div> <div> <div>Operational Mode</div> <div>Displays the current mode of operation.</div> </div> <div> <div>Internet</div> <div>AirStation's Internet port side information.</div> </div> <div> <div>Method of Acquiring IP Address</div> <div>Acquiring a Internet IP address.</div> </div> <div> <div>Name of the Connection</div> <div>The name of the PPPoE connection specified in the configuration.</div> </div> <div> <div>Connection Status</div> <div>Displays the current Internet side status.</div> </div> <div> <div>Operational Mode</div> <div> The Operational Mode will show if any DHCP or PPPoE configuration is active. If DHCP is in use, the following commands can be executed. <ul style="list-style-type: none"> [Release] : Releases the IP address assigned by the DHCP Server. [Renew] : Renews the IP address from the DHCP Server. </div> </div>

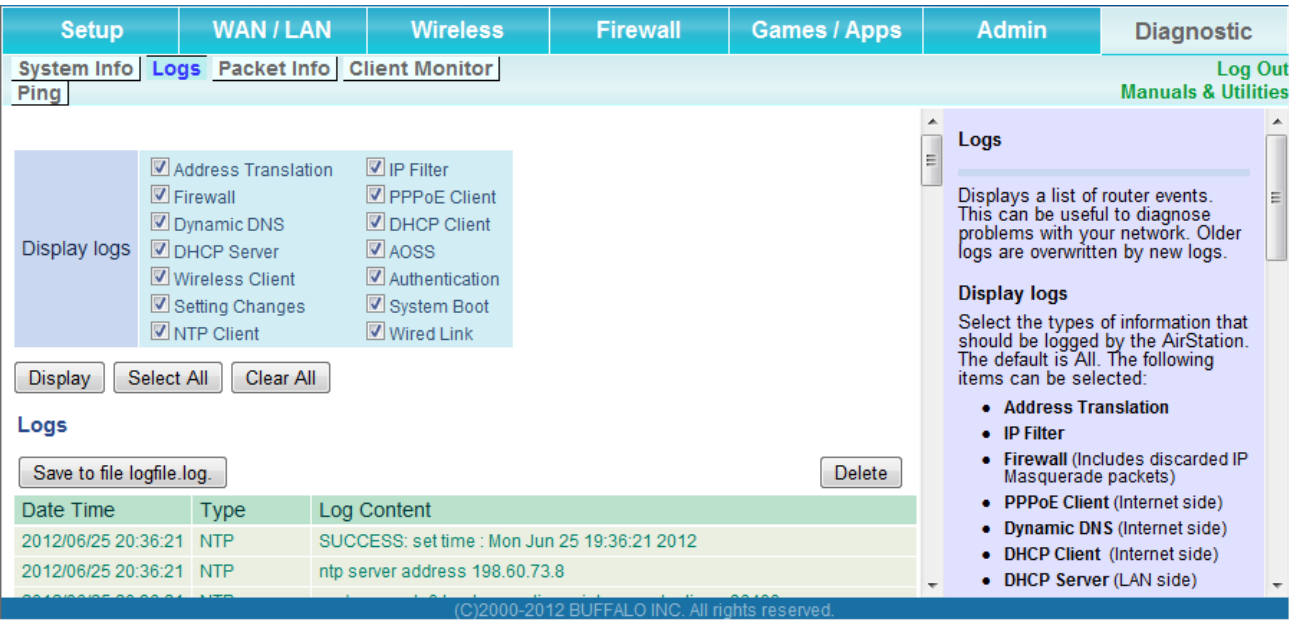
Refresh

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Parameter	Meaning
Model	Displays the product name of the AirStation and the firmware version.
AirStation Name	Displays the AirStation's Name.
Mode Switch Status	Displays the status of the mode switch on the back of the AirStation.
Operational Mode	Displays the current operational mode of the AirStation.
Internet	Displays the information about the Internet port.
LAN	Displays the information about the LAN port.
Wireless	Displays the wireless status.
WDS	Displays the current WDS status.
ECO Mode	Displays the operating status of ECO Mode.

Logs

Check the AirStation’s logs.



Parameter	Meaning
Display logs	Choose the logs to display.
Logs	Displays the logs.

Packet Info

Verify transferred packets.

Setup	WAN / LAN	Wireless	Firewall	Games / Apps	Admin	Diagnostic																													
System Info	Logs	Packet Info	Client Monitor			Log Out Manuals & Utilities																													
<table border="1"> <thead> <tr> <th rowspan="2">Interface</th> <th colspan="2">Sent</th> <th colspan="2">Received</th> </tr> <tr> <th>Normal</th> <th>Errors</th> <th>Normal</th> <th>Errors</th> </tr> </thead> <tbody> <tr> <td>Wired Internet</td> <td>48</td> <td>0</td> <td>45</td> <td>0</td> </tr> <tr> <td>Wired LAN</td> <td>706</td> <td>0</td> <td>748</td> <td>0</td> </tr> <tr> <td>PPPoE No.1: Easy Setup</td> <td>29</td> <td>0</td> <td>26</td> <td>0</td> </tr> <tr> <td>Wireless LAN (802.11n/g/b)</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table>							Interface	Sent		Received		Normal	Errors	Normal	Errors	Wired Internet	48	0	45	0	Wired LAN	706	0	748	0	PPPoE No.1: Easy Setup	29	0	26	0	Wireless LAN (802.11n/g/b)	0	0	0	0
Interface	Sent		Received																																
	Normal	Errors	Normal	Errors																															
Wired Internet	48	0	45	0																															
Wired LAN	706	0	748	0																															
PPPoE No.1: Easy Setup	29	0	26	0																															
Wireless LAN (802.11n/g/b)	0	0	0	0																															
<div>Refresh</div>																																			
<div> Packet Traffic The total numbers of packets sent and received by the AirStation, as well as the errors sending and receiving, are displayed. Refresh Displayed packet information is renewed with current information when this button is clicked. </div>																																			
(C)2000-2012 BUFFALO INC. All rights reserved.																																			

Parameter	Meaning
Sent	Displays the number of packets sent to the Internet side of Ethernet, the LAN side of the Ethernet, and the LAN side of the wireless connection.
Received	Displays the number of packet received from the Internet side of Ethernet, the LAN side of the Ethernet, and the LAN side of the wireless connection.

Client Monitor

This screen list connected devices.

SetupWAN / LANWirelessFirewallGames / AppsAdminDiagnostic

System InfoLogsPacket InfoClient MonitorLog OutManuals & Utilities

MAC AddressLease IP AddressHostnameCommunication MethodWireless Authentication802.11n

E0:69:95:2E:1F:DB192.168.11.2John-PCWired- -

Refresh

Client Monitor

Displays the LAN-side clients (such as PCs) that are accessing the AirStation.

The following information is displayed:

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Parameter	Meaning
Client Monitor	Displays information (MAC address, lease IP address, hostname, communication method, wireless authentication, and 802.11n) for devices that are connected to the AirStation.

Ping

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

SetupWAN / LANWirelessFirewallGames / AppsAdminDiagnostic

System InfoLogsPacket InfoClient MonitorPing

Log OutManuals & Utilities

Destination Address

Execute

Result

Destination	192.168.11.1
Result	64 bytes from 192.168.11.1: icmp_seq=0 ttl=64 time=0.3 ms 64 bytes from 192.168.11.1: icmp_seq=1 ttl=64 time=0.2 ms 64 bytes from 192.168.11.1: icmp_seq=2 ttl=64 time=0.2 ms

Ping

A Ping test can be performed from the AirStation. With a ping test, you can determine whether the AirStation can communicate with a specific network device.

Destination Address

Enter the network IP address or DNS name that you want to ping; e.g. 192.168.11.3 or www.buffalotech.com.

Execute

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Parameter	Meaning
Destination Address	Enter the IP address or hostname of the device that you are testing communication with, then click [Execute]. The AirStation will attempt to communicate with that device and the result will be displayed in the [Result] field.

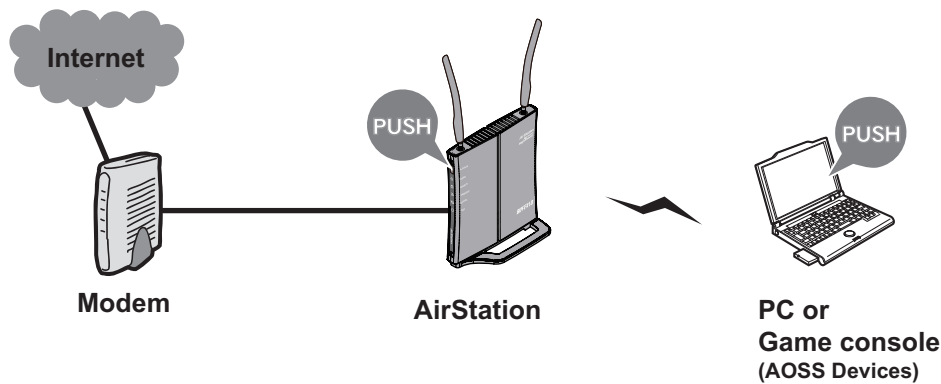
Chapter 5 - Connect to a Wireless Network

Automatic Secure Setup (AOSS/WPS)

AOSS and WPS are systems which enable you to automatically configure wireless LAN settings. Just pressing the buttons will connect wireless devices and complete security settings. Easily connect to any wireless devices, computers, or game machines which support AOSS or WPS.



AOSS (AirStation One-Touch Secure System) was developed by Buffalo Technology. WPS was created by the Wi-Fi Alliance.



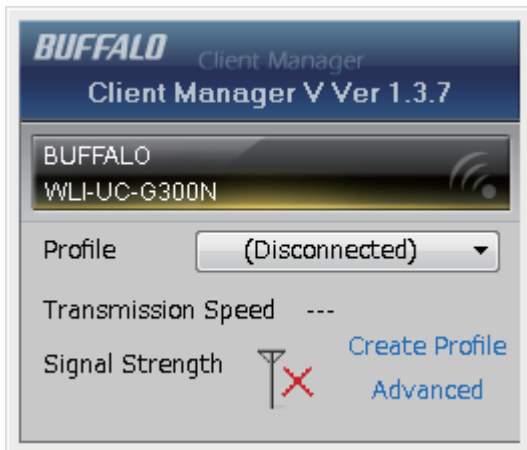
- Before using AOSS or WPS to connect to a Buffalo wireless client, install Client Manager software from the included utility CD. Consult your wireless client's documentation for more information.
- Buffalo's Client Manager software can be used with the wireless LAN devices built into your computer. However, it is not guaranteed to work with all wireless LAN devices available. Some wireless clients may require manual setup.

Windows 7/Vista (Client Manager V)

If you are using Windows 7 or Windows Vista, use the included Client Manager V software to connect wirelessly with AOSS/WPS.

1 Click [Start] > [All Programs] > [BUFFALO] > [AirStation Utility] > [Client Manager V].

2

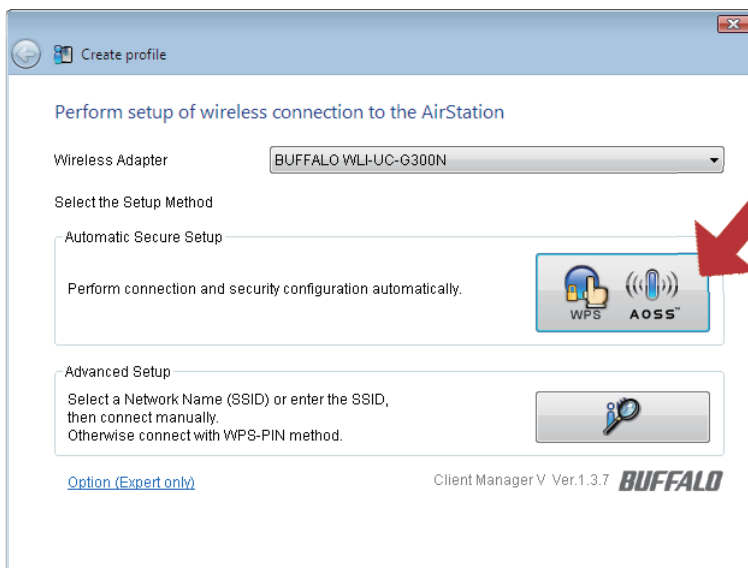


Click [Create Profile].

3

If the User Account Control screen opens, click [Yes] or [Continue].

4




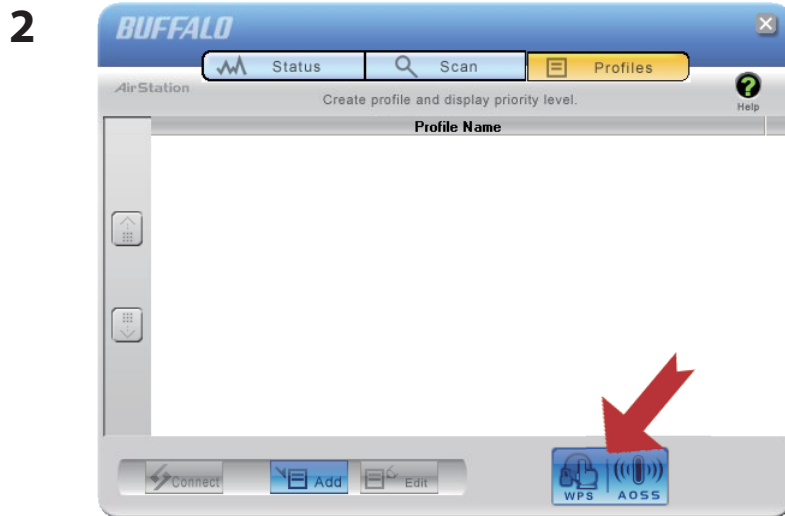
Click the [WPS AOSS] button.

Follow any instructions displayed on the screen. When the Security LED on the front of the AirStation stops flashing and is lit steadily, the connection is complete.

Windows XP (Client Manager 3)

If you are using Windows XP, use Client Manager 3 to connect wirelessly with AOSS/WPS.

1 Right click on the  icon in the system tray, and select [Profile].



Click the [WPS AOSS] button.

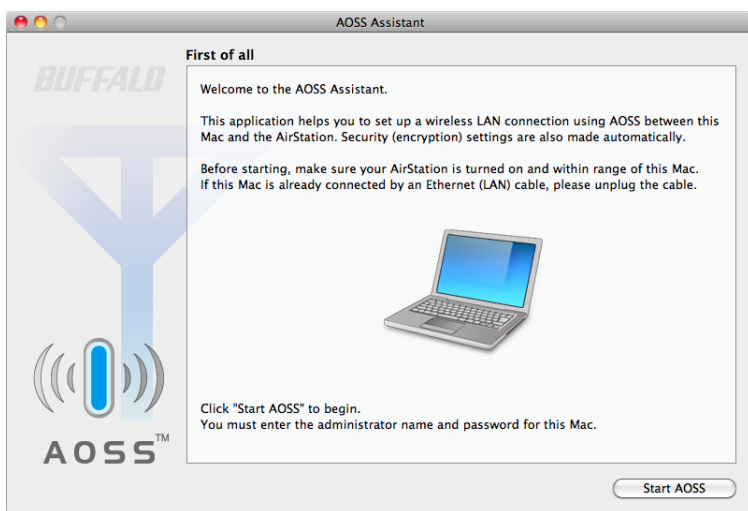
Follow any instructions displayed on the screen. When the Security LED on the front of the AirStation stops flashing and is lit steadily, the connection is complete.

Mac OS X (AOSS Assistant)

If you are using Mac OS X 10.7 / 10.6 / 10.5 / 10.4, use the included AOSS Assistant software to connect wirelessly with AOSS.

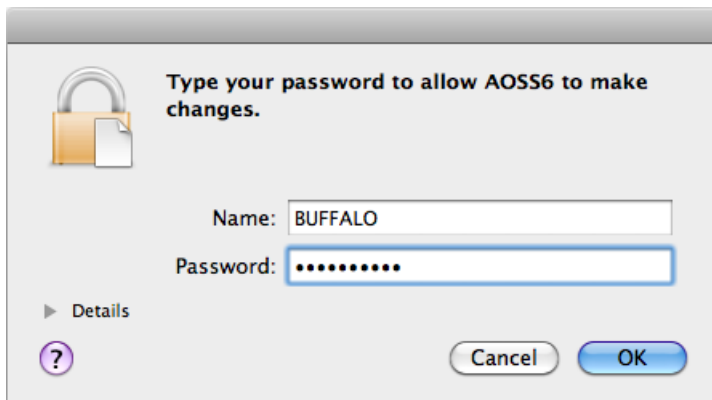
- 1 Load the utility CD in your Macintosh.
- 2 From the menu bar, click [Go] > [Computer].
- 3 Double-click the CD icon, and then double-click [AOSS Assistant] in the “Mac” folder.
- 4 The software license screen is displayed. Click [Agree] to proceed.

5



Click [Start AOSS].

6



Enter the Mac’s username and password and click [OK].

It will take several seconds for your wireless connection to be configured. When the Security LED on the front of the AirStation stop flashing and glows steadily, the connection is complete.

Other Devices (e.g. Game Console)

If you are using a game machine which supports AOSS or WPS, refer to that device's manual to initiate AOSS/WPS. When instructed, hold down the AOSS button on the AirStation for 1 second.

When the Security LED on the front of the AirStation stop flashing and glows steadily, the connection is complete.

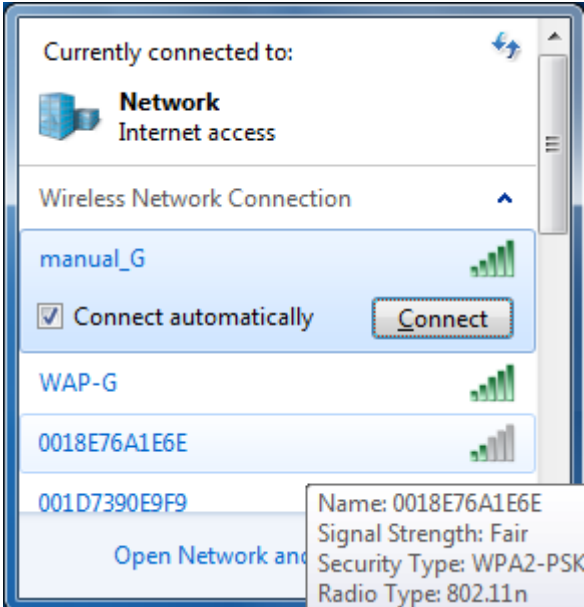
Manual Setup

You can also connect to the AirStation without installing Client Manager V or Client Manager 3 by using the utility built-in to Windows. The procedure varies depending on which version of Windows you are using.

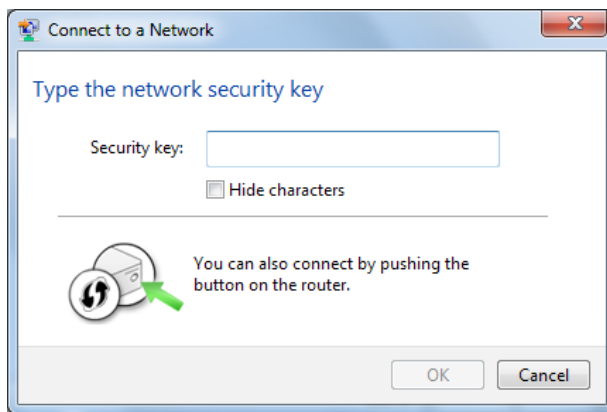
Windows 7 (WLAN AutoConfig)

With Windows 7, use WLAN AutoConfig to connect to the AirStation.

- 1 Click on the network icon  in the system tray.

- 2  Select the target AirStation's name and click [Connect]. If you will be connecting to this device in the future, checking [Connect automatically] is recommended.

3



Enter the encryption key and click [OK].

Windows Vista (WLAN AutoConfig)

With Windows Vista, use WLAN AutoConfig to connect to the AirStation.

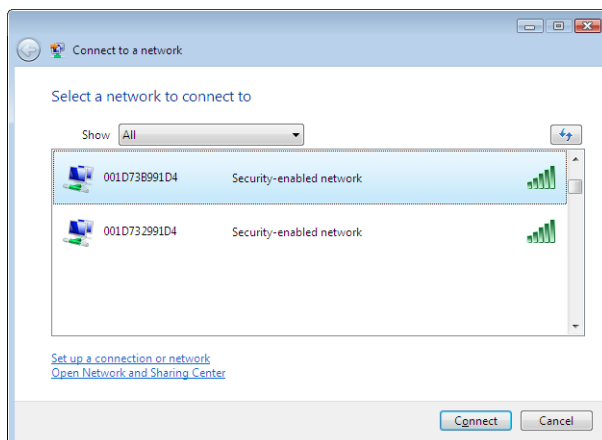
1

Right click on the wireless network icon  in the system tray.

2

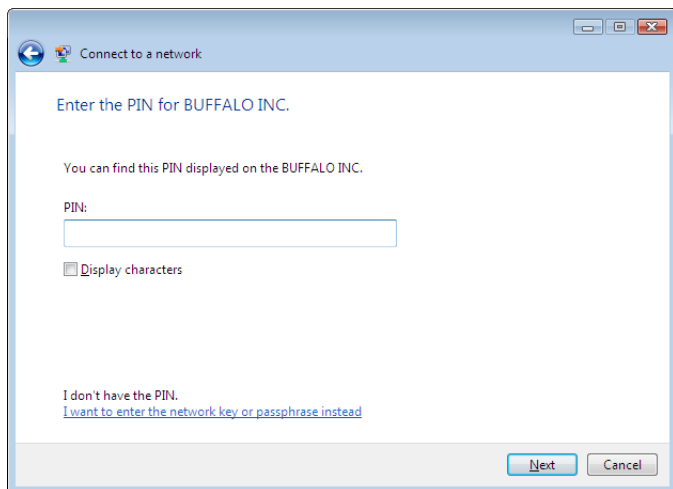
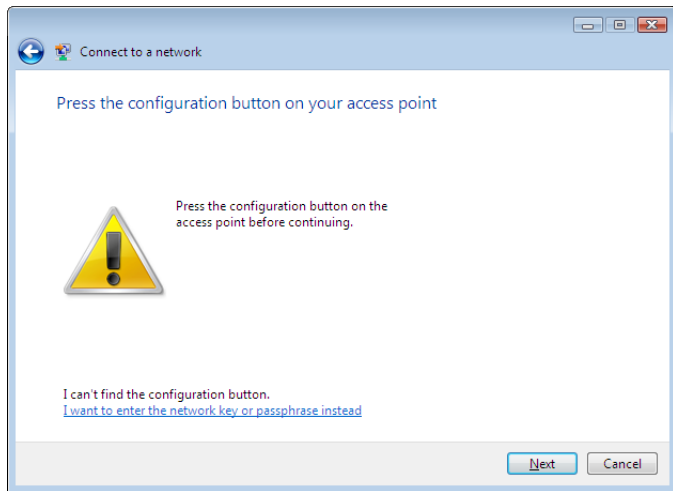
Click [Connect to a network].

3

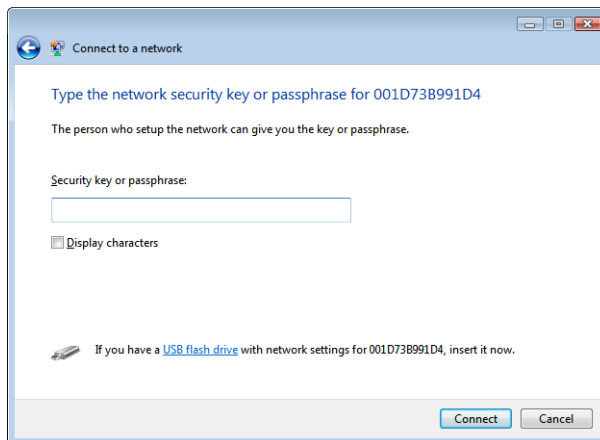


When the screen at left is displayed, select the network to connect to and click [Connect].

If the screen below is displayed, click [I want to enter the network key or passphrase instead]. Otherwise, go to step 4.



4




Enter the encryption key and click [Connect].

Step through the wizard to finish configuration. If the Set Network Location screen is displayed, select [Home], [Work], or [Public location] depending where you're using the AirStation.

Windows XP (Wireless Zero Configuration)

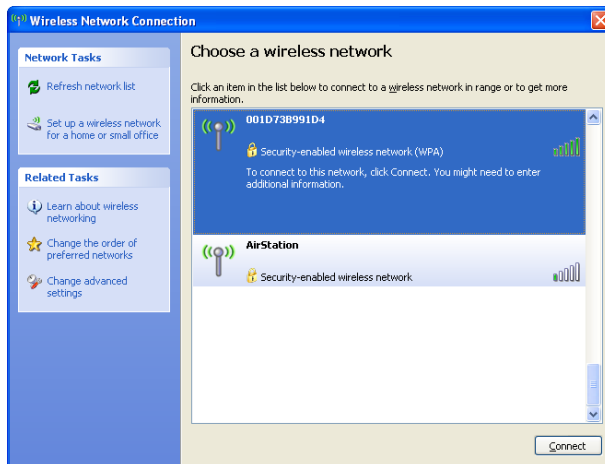
Windows XP includes a built-in utility to connect to your AirStation.

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

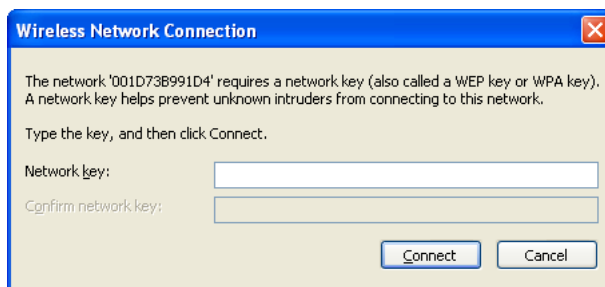
1 Right click on the wireless network icon  displayed in the system tray.

2 Click [View Available Wireless Networks].

3 Select the network to connect to and click [Connect].



4 Enter the encryption key (twice) and click [Connect].



Follow the instructions displayed on the screen to finish configuration.

Mac OS X (Wi-Fi)

Use Wi-Fi on a Mac to connect to the AirStation.

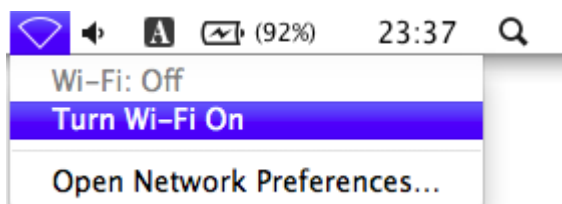
Note: In Mac OS X 10.6 and earlier, “Wi-Fi” appears as “AirPort”.


1



Refer to the Setup Card. Make a note of the SSID and Key printed on the Setup Card.

2



Click the  icon in the top section of the screen and select [Turn Wi-Fi On].

3



Find the SSID from step 1 on the list. Click it to highlight it.

4



Enter the KEY from step 1 into the Password entry box, check [Remember this network], and click [Join].

It will take several seconds for configuration to complete.

Chapter 6 - Troubleshooting

Cannot connect to the Internet over wired connection.

- Make sure that your AirStation is plugged in!
- Check that the status LEDs of your AirStation are lit as below:

Power	Green LED on
Wireless	Green LED on or flashing
Router	Green LED may be on or off depending on your network
Diag	off
LAN	Green LED on or flashing
Internet	Green LED on or flashing
- Make sure that your computer is set to obtain an IP address automatically (see appendix C).
- Restart your AirStation.

Cannot access the web-based configuration interface.

- See chapter 4 for instructions to open the AirStation's configuration interface.
- Enter the correct username and password to log in to the configuration interface. If you are using AirStation with factory default settings, enter "admin" for the username and "password" for the password.
- Verify that your web browser is not set to use proxies.
- Make sure that your computer is configured to obtain an IP address automatically (see appendix C).
- Restart your AirStation.

Cannot connect to the network wirelessly.

- Configure your wireless client with the same SSID, encryption type, and encryption key as set on the AirStation.

The factory defaults are:

SSID -	BUFFALO-XXXXXX (the last 6 digits of the AirStation's MAC address)
Encryption Type -	WPA/WPA2 mixed mode - PSK (Connect with either WPA-PSK TKIP or WPA2-PSK AES).
Encryption Key -	Printed on the Setup Card.

Note: For details, refer to the Setup Card.

- Place your AirStation and wireless devices 2 - 10 feet apart.
- Restart your AirStation.

You forgot the AirStation's SSID, Encryption Key, or Password.

Hold down the reset button on the base of your AirStation for 3 seconds to initialize its settings. All settings, including your password, SSID, and encryption key will be initialized to their defaults.

The link speed is slower than 300 Mbps (Maximum link speed is only 130 Mbps).

By default, the AirStation's 300 Mbps mode is not enabled. You may enable it with the following procedure:

1. Open the configuration utility (chapter 4).
2. Click [Wireless SSID & Channel] in Easy Setup.
3. Change the value in [300 Mbps Mode] - [Band Width] to 40 MHz and click [Apply].

If you still cannot connect at 300 Mbps, check the settings of your wireless client device.

Other Tips

Issue:

I reset my wireless router to factory settings and forgot how to log in to the configuration utility.

Answer:

Open your browser, enter 192.168.11.1 as the browser address, and hit Enter. You will be prompted to log in. Enter "admin" for the username and "password" for the password. Click [OK] to log in. The option to reset your password will be available on the first page.

Issue:

How do I forward ports on my wireless router for my gaming console?

Answer:

Log in to the router's configuration utility. From the home page, go to the Internet Games/Apps section. Enter the port that needs to be forwarded, and the IP address of the gaming console.

Issue:

How do I enable or modify security encryption settings on the wireless router?

Answer:

Log in to the configuration utility with your browser. Go to [Wireless] - [Basic]. Buffalo recommends WPA for wireless encryption. The passphrase/key should be at least 8 characters in length.

Issue:

How do I change my wireless router's broadcasted network name (SSID)?

Answer:

Log in to the wireless router with your browser. Navigate to [Wireless] - [Basic]. Find the SSID setting. Select [Use] and enter the new name for your network. Click [Apply]. Once the wireless router has rebooted, you will need reconnect any wireless clients to the AirStation using the new network name. The encryption key will still be the same.

Issue:

What can I do if my wireless connection drops randomly or seems slow?

Answer:

There are many environmental factors that may cause this. First, ensure the issue is not range related by moving the wireless router and the client device closer together. If the the connection drops continue, then range is probably not the issue.

Other 2.4 GHz devices such as microwaves, other wireless networks, and 2.4 GHz wireless phones may impact performance. Try a different wireless channel for your wireless router. Log in to the wireless router with your browser. Click on [Wireless] - [Basic]. Wireless channels from 1 - 11 may be selected. Try the Auto-Channel option if available. Otherwise, manually select an alternate channel and click [Apply].

Issue:

Though I am able to successfully make a connection with my wireless router, I am unable to access the Internet with my web browser.

Answer:

First, power off the Cable or DSL modem, the wireless router, and your computer. Move the router's mode switch to the ON position. Verify that the modem is connected to the wireless router with an Ethernet cable to the WAN port. Power on the modem and wait one minute. Power on the wireless router and wait another minute. Power on the computer. Open a browser on the computer and navigate to a familiar website to verify whether the Internet connection is functioning normally. If after these steps, an Internet connection is still unavailable, power off the Cable or DSL modem and computer again and directly connect your computer to the Cable or DSL modem with a cable between the computer and the port on the modem. Power on the modem and wait one minute. Power on the computer and again check for an Internet connection.

If an Internet connection IS NOT available with a direct connection to the computer, please call the Internet Service Provider who installed the modem.

If an Internet connection IS available with a direct connection to the computer, please call our customer support.

Issue:

Where can I download the latest drivers, firmware and instructions for my Buffalo wireless products?

Answer:

The latest drivers and firmware are available online at
www.buffalotech.com

Chapter 7 - Default Configuration Settings

Feature	Parameter	Default Setting
Internet (Router Mode only)	Method of Acquiring IP Address	Easy Setup (Internet Connection Wizard)
	Default Gateway	None
	DNS Name Server Address	None
	Internet MAC Address	Use default MAC address
	MTU Size of Internet Port	1500 Bytes
PPPoE (Router Mode only)	Default PPPoE Connection	No Active Session
	IP Unnumbered PPPoE Connection	No Active Session
	PPPoE Connection List	None
	Preferred Connections	None
DDNS (Router Mode only)	Dynamic DNS Service	Disabled
	Current Dynamic DNS Settings	None
VPN Server (Router Mode only)	LAN Side IP Address	192.168.11.1 (255.255.255.0)
	DHCP Server	Enabled
	DHCP IP Address Pool	192.168.11.2 for up to 64 Address(es)
	PPTP Server	Disabled
	Authorization Type	MS-CHAPv2 (40/128-bit Encryption)
	Server IP Address	Auto
	Client IP Address	Auto
	DNS Server IP Address	LAN IP address of the AirStation
	WINS Server IP Address	None
	MTU/MRU Value	1396
	PPTP User List	None
LAN	LAN Side IP Address	Router Mode: 192.168.11.1 (255.255.255.0) Bridge Mode (Router Switch off): 192.168.11.100 (255.255.255.0) Bridge Mode (Router Switch set to Auto): Obtain automatically from DHCP Server

Feature	Parameter	Default Setting
	DHCP Server (Router Mode only)	Enabled
	DHCP IP Address Pool (Router Mode only)	192.168.11.2 - 192.168.11.65
	LAN Side IP Address (IP Unnumbered) (Router Mode only)	None
	Lease Period (Router Mode only)	48 Hours
	Default Gateway (Router Mode only)	AirStation's IP Address
	DNS Servers (Router Mode only)	AirStation's IP Address
	WINS Server (Router Mode only)	Do Not Specify
	Domain Name (Router Mode only)	Assigned Domain Name
	Default Gateway (Bridge Mode only)	None
	DNS Server Address (Bridge Mode only)	None
DHCP (Router Mode only)	Current DHCP Clients	None
NAT (Router Mode only)	Address Translation	Enabled
	Log Output of Deleted Packets	Disabled
Routing	Routing	None
WPS	WPS	Enabled
	External Registrar	Enabled
	AirStation PIN	An 8-digit random value (Printed on the label of the AirStation)
	WPS Security Settings	WPS status: Configured SSID: BUFFALO-XXXXXX (the last 6 digits of the AirStation's MAC address) Security: WPA/WPA2 mixedmode - PSK TKIP/AES mixedmode Encryption key: An 8-digit random value (Printed on the Setup Card)

Feature	Parameter	Default Setting		
Basic	Wireless Radio	Enabled		
	Wireless Channel	Auto Channel		
	300 Mbps Mode	Band Width: 20 MHz Extension Channel: -		
	Broadcast SSID	Allowed		
	Separate feature	Not used		
	SSID	BUFFALO-XXXXXX		
	Wireless Authentication	WPA/WPA2 mixedmode - PSK		
	Wireless Encryption	TKIP/AES mixedmode		
	WPA-PSK (Pre-Shared Key)	An 8-digit random value (Printed on the Setup Card)		
	Rekey Interval	60 minutes		
Advanced	Multicast Rate	Auto		
	DTIM Period	1		
	Privacy Separator	Disabled		
WMM	WMM-EDCA Parameters (Priority AC_BK (Low))		For AP	For STA
		CWmin	15	15
		CWmax	1023	1023
		AIFSN	7	7
		TXOP Limit	0	0
		Admission Control	-----	Disabled
	WMM-EDCA Parameters (Priority AC_BE (Normal))		For AP	For STA
		CWmin	15	15
		CWmax	63	1023
		AIFSN	3	3
		TXOP Limit	0	0
		Admission Control	-----	Disabled

Feature	Parameter	Default Setting		
	WMM-EDCA Parameters (Priority AC_VI (High))		For AP	For STA
		CWmin	7	7
		CWmax	15	15
		AIFSN	1	2
		TXOP Limit	94	94
		Admission Control	-----	Disabled
	WMM-EDCA Parameters (Priority AC_VO (Highest))		For AP	For STA
		CWmin	3	3
		CWmax	7	7
		AIFSN	1	2
		TXOP Limit	47	47
		Admission Control	-----	Disabled
MAC Filter	Enforce MAC Filtering	Disabled		
	Registration List	None		
WDS	WDS	Enabled		
	Specify Master/Slave	Master		
AOSS	Exclusive SSID for WEP	None		
	Encryption level expansion	Enabled		
	Dedicated WEP SSID isolation	Disabled		
	Allow WEP for Game Console Only	Disabled		
	AOSS Button on the AirStation Unit	Enabled		
Multicast Control	Snooping	Enabled		
	Multicast Aging Time	300 Sec.		
Firewall (Router Mode only)	Log Output	Disabled		
	Basic Rules	Prohibit NBT and Microsoft-DS routing	Disabled	
		Reject ident requests	Enabled	
		Block ping from Internet	Enabled	
IP Filter (Router Mode only)	Log Output	Disabled		
	IP Filter	None		
VPN Passthrough (Router Mode only)	IPv6 Passthrough	Disabled		
	PPPoE Passthrough	Disabled		
	PPTP Passthrough	Enabled		

Feature	Parameter	Default Setting
Port Forwarding (Router Mode only)	Forwarded Ports	None
DMZ (Router Mode only)	IP Address of DMZ	None
UPnP (Router Mode only)	UPnP	Enabled
QoS (Router Mode only)	QoS for transmission to the Internet	Disabled
Name	AirStation Name	AP + AirStation's MAC Address
	Network Services	Enabled
Password	Administrator	admin (fixed)
	Administrator Password	password
Time/Date	Local Date	2012 Year 1 Month 1 Day
	Local Time	0 Hour 0 Minute 0 Seconds
	Time Zone	(GMT-06:00) Central Standard Time: CST or (GMT+00:00) Greenwich Mean Time,London
NTP	NTP Functionality	Enabled
	NTP Server	time.nist.gov
	Update Interval	24 hours
Access	Log Output	Disabled
	Management Access	Prohibit configuration from wireless LAN Disabled Prohibit configuration from wired LAN Disabled Permit configuration from wired Internet Disabled
Log	Transfer Logs	Disabled
	Syslog Server	None
	Logs	Router Mode: Address Translation, IP Filter, Firewall, PPPoE Client, Dynamic DNS, DHCP Client, DHCP Server, AOSS, Wireless Client, Authentication, Setting Changes, System Boot, NTP Client, and Wired Link Bridge Mode: IP Filter, DHCP Client, AOSS, Wireless Client, Authentication, Setting Changes, System Boot, NTP Client, and Wired Link