User Manual

Wireless N150 COMPACT USB 2.0 Adapter

WLI-UC-GNM

www.buffalotech.com

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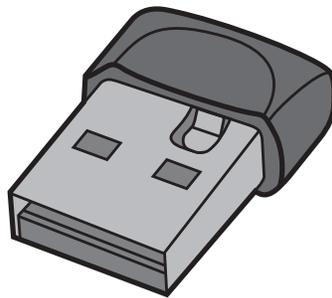
Chapter 1 - Product Overview

Features

With support for current Wireless-N, Wireless-G, and Wireless-B standards, the AirStation wireless client can transfer data to and from all standard 2.4 GHz wireless network devices.

This device includes support for AOSS (AirStation One-touch Secure System) and WPS (Wi-Fi Protected Setup), making connection with other wireless devices easier.

AirStation is equipped with following security features.

- WPA-PSK (TKIP/AES)
- WPA2-PSK (TKIP/AES)
- WEP (128/64bit)

150 Mbps High Speed Mode

150 Mbps is the link speed when using 2 channel Wireless-N mode. It represents actual wireless data speeds, including overhead. Because the overhead is not available for user data transfer, usable wireless throughput will be substantially slower.

System Requirements

Computer should be IBM/PC compatible (OADG specification) with a USB 2.0 port and a CD-ROM drive. [*]

    * This product does not support computers equipped with dual processors (computers with two physical CPUs). Computers with dual core CPUs are supported.

    * AirStation does not support Windows' standby mode.

Compatible OS: Windows 7 (32 bit / 64 bit), Vista (32 bit / 64 bit), XP (32 bit)*

    * Service Pack 2 or later is required for Windows XP.

Package Contents

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

- WLI-UC-GNM 1
- Air Navigator CD... 1
- Quick Setup Guide.. 1

Hardware Overview
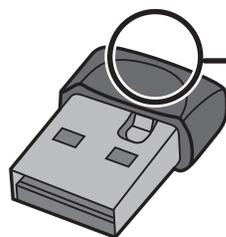
ACT LED
Flashes when sending or receiving data

Chapter 2 - Installation

Installing Wireless Drivers

Follow the instruction below to install drivers. Do not connect the unit to your computer yet.

1   Boot your computer and insert AirNavigator CD. The AirNavigator Setup Wizard will launch automatically.

      Note: If the AirNavigator Setup Wizard doesn't launch, double click [My Computer] > CD-ROM drive icon > [AirNavi.exe] to launch manually.

2   Click [Begin Installation].
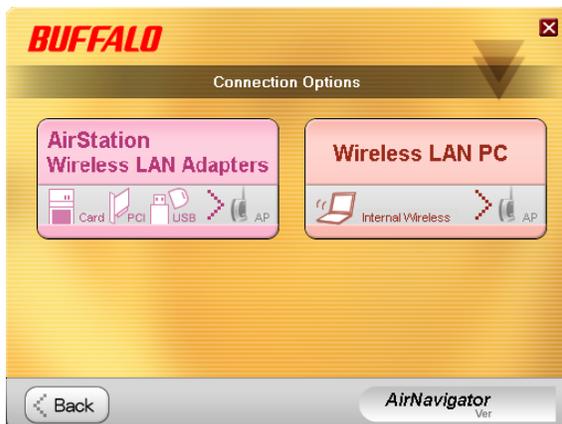
3   Click [AirStation Wireless LAN Adapters].

4 Disable any firewalls, and click [Next].

5 Click [Install].

Note: • If you insert the check mark into the check box for Install Wireless Client Manager, you can install Client Manager as well as drivers.

• Refer to the instructions on page 10 to install Client Manager after installing drivers.
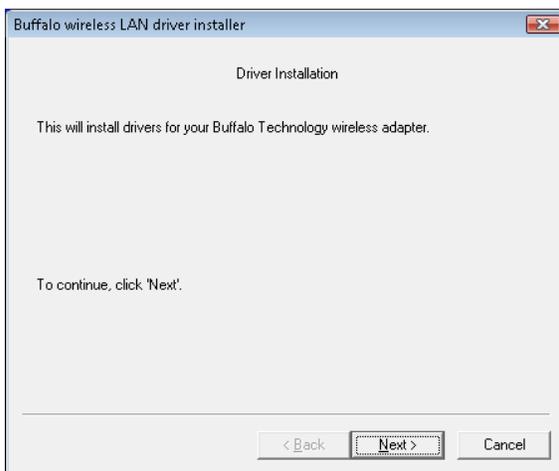
6 Click [Next].

7
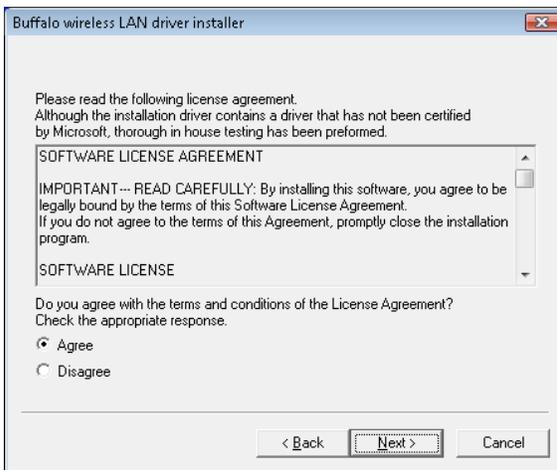
Read the license agreement, select [Agree], then click [Next].

8

When the screen to the left is displayed, put a check mark next to "Always trust software from BUFFALO INC.", and click [Install].

9
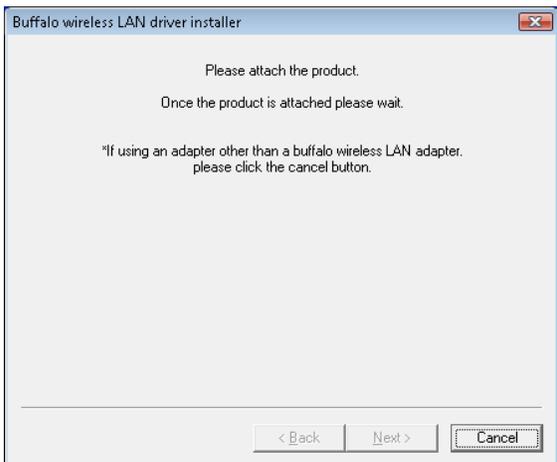
When the screen to the left is displayed, attach the AirStation to your computer. Drivers will be installed automatically.

10
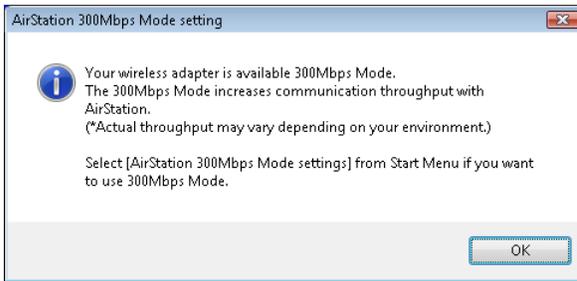
Click [OK].

11
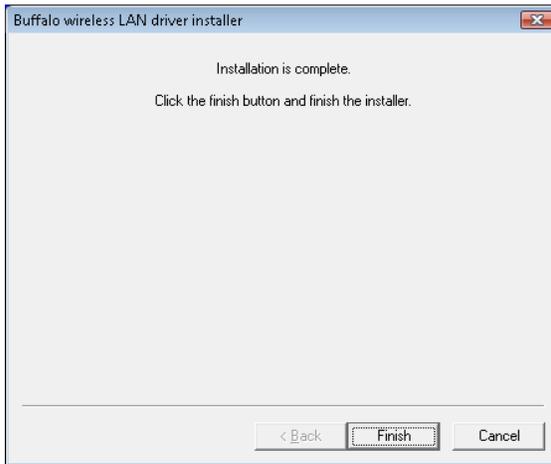
After the drivers are installed, the screen at left will be displayed. Click [Finish].

Note: If you checked the box to Install Wireless Client Manager (page 10), then the installation screen for Client Manager will be displayed after this screen. Follow the instructions on the screen to install Client Manager.

Drivers are now installed.

Installing Client Manager

Follow the procedure below to install Client Manager.

1   Boot your computer and insert the AirNavigator CD. The AirNavigator Setup Wizard will
launch automatically.

Note: If AirNavigator Setup Wizard is not displayed, double click [My Computer] icon > CD-ROM drive icon >
[AirNavi.exe].

2   Click [Options].

3   Click [Advanced Installation].

4

Check the box for [Install Wireless Client Manager] and click [Install].

Note: Use Client Manager V with Windows Vista or Client Manager 3 with Windows XP.

5
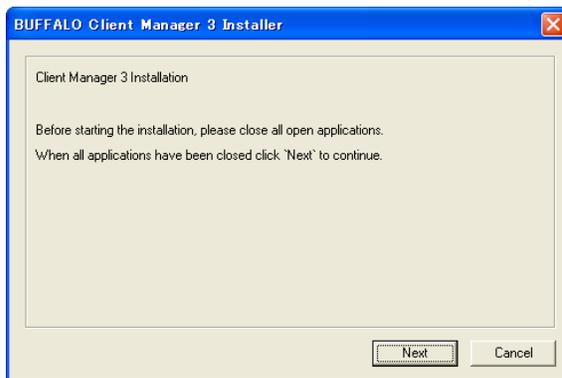
Click [Next].

6
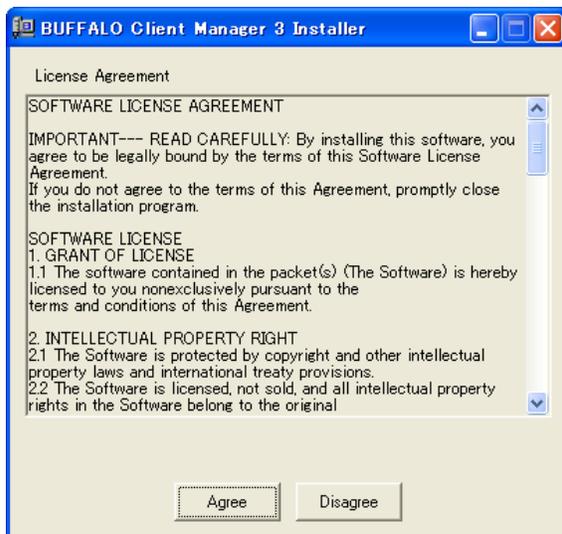
Read the license agreement and select [Agree].
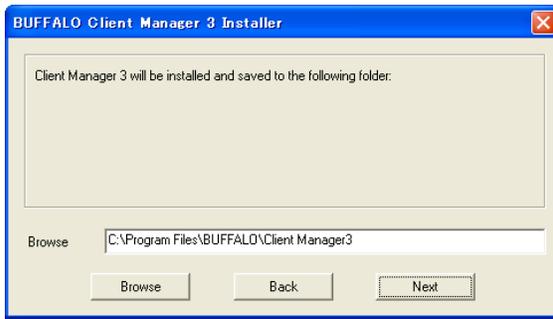
7   Click [Next].

8   Click [OK].
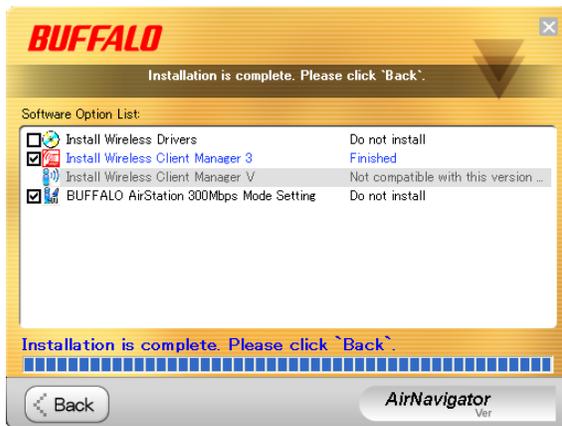
9   Click [Back].

10   Click [X] at the top right corner of the window to close it.

Client Manager is now installed.

Chapter 3 - 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 your wireless devices securely. Use these systems to connect to computers, game machines, or any wireless devices which support AOSS or WPS.

AOSS (AirStation One-Touch Secure System) is technology developed by Buffalo Technology. WPS was created by the Wi-Fi Alliance.
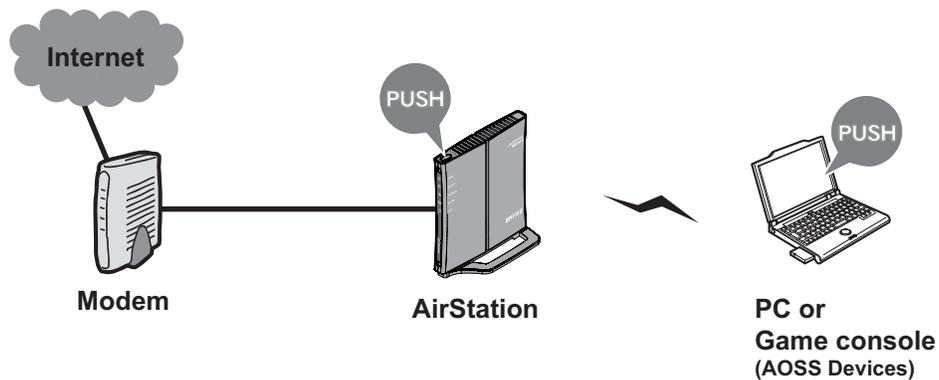
Before using AOSS or WPS, install Client Manager software from the CD. See chapter 2 for instructions on installing Client Manager software.

Windows 7 or Vista (Client Manager V)

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

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

2　Click [Create Profile].

3　The User Account Control screen is displayed. Click [Yes] or [Continue].

4　Click the [WPS AOSS] button.
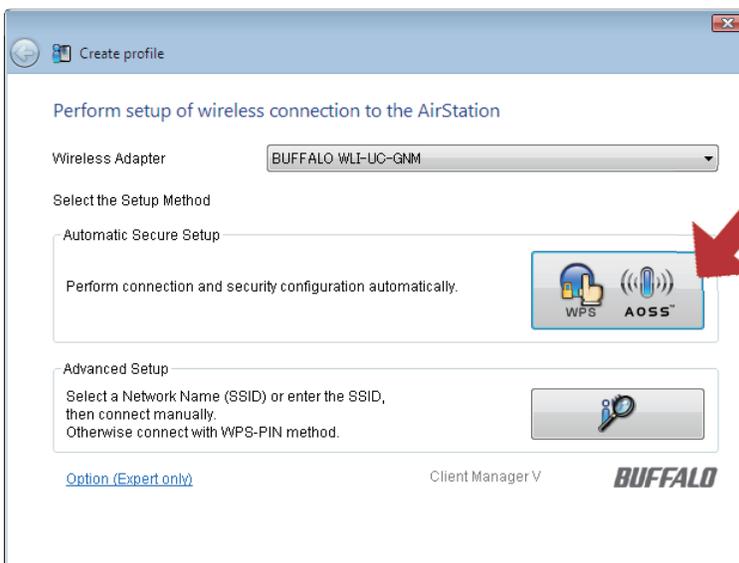
When "Connection has been Completed" is displayed in Client Manager V, your connection is complete. If "Set Network Location" is displayed, select "Home", "Work", or "Public location" depending on the environment in which the AirStation will be used.

Windows XP (Client Manager 3)

If you are using Windows XP, use the included Client Manager 3 software to connect wirelessly with AOSS or WPS.

1   Right-click the ![icon] icon in the system tray and select [Profile].

2
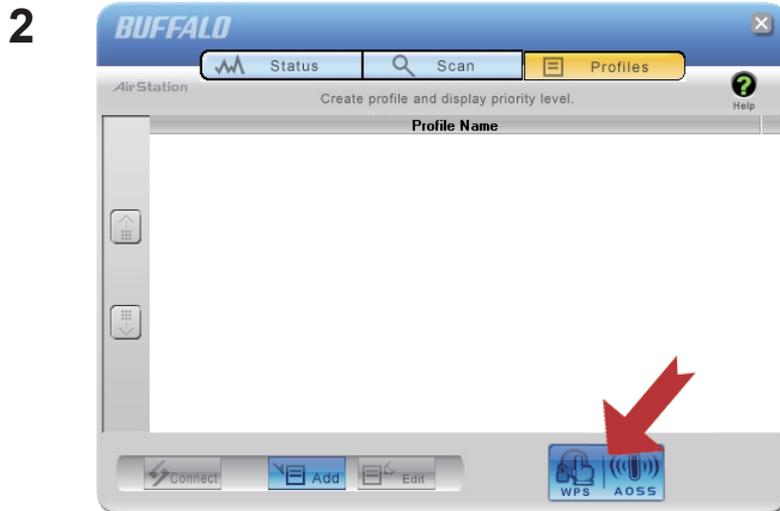
Click the [WPS AOSS] button.

Your connection is complete when the message "Security setup and connection have been completed" is displayed.

Automatic Secure Setup (WPS PIN)

WPS can use a PIN generated by the Client Manager utility to easily connect to an access point that supports WPS PIN.

To use WPS PIN, first install Client Manager software on your computer. See chapter 2 for instructions on installing Buffalo Client Manager software.

Windows 7 or Vista (Client Manager V)

If you are using Windows 7 or Vista, use your Client Manager V software to connect wirelessly with WPS PIN.

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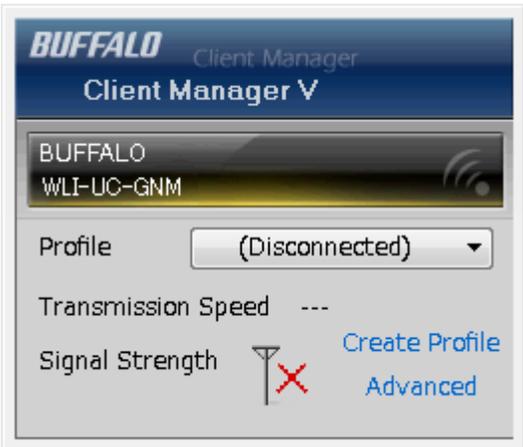
2   Click [Create Profile].

3   The User Account Control screen is displayed. Click [Yes] or [Continue].

4
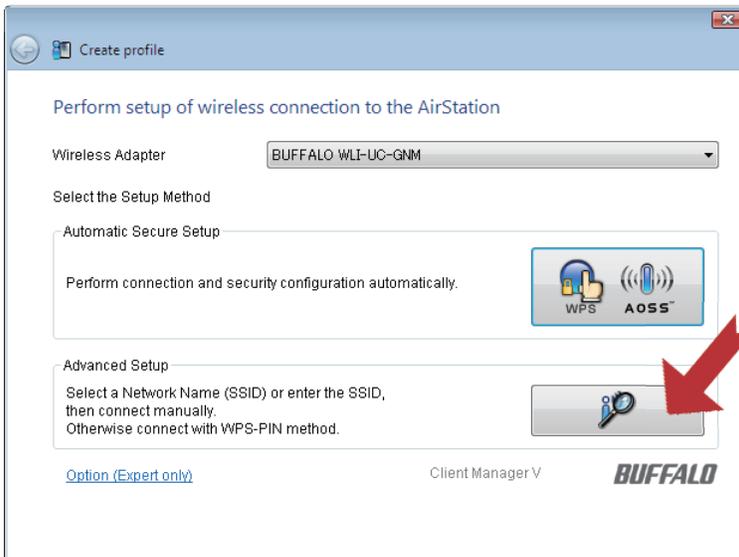
Click the [Advanced Setup] button.

5
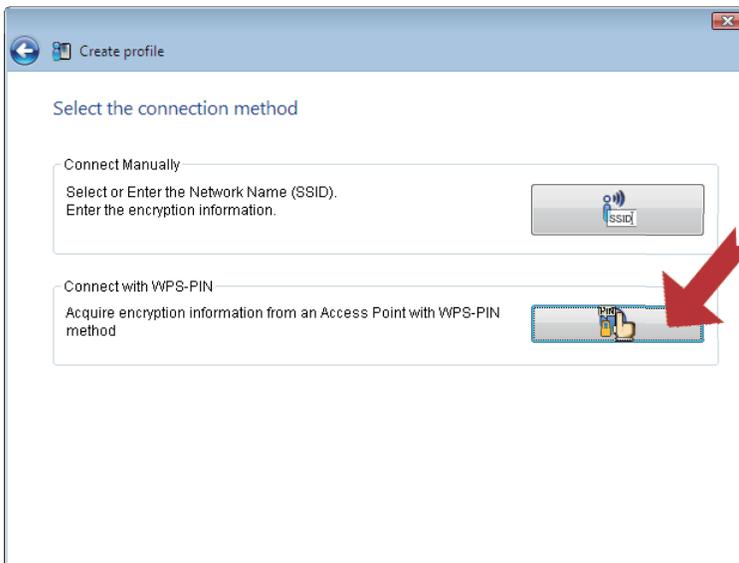
Click the [WPS-PIN] button.

6
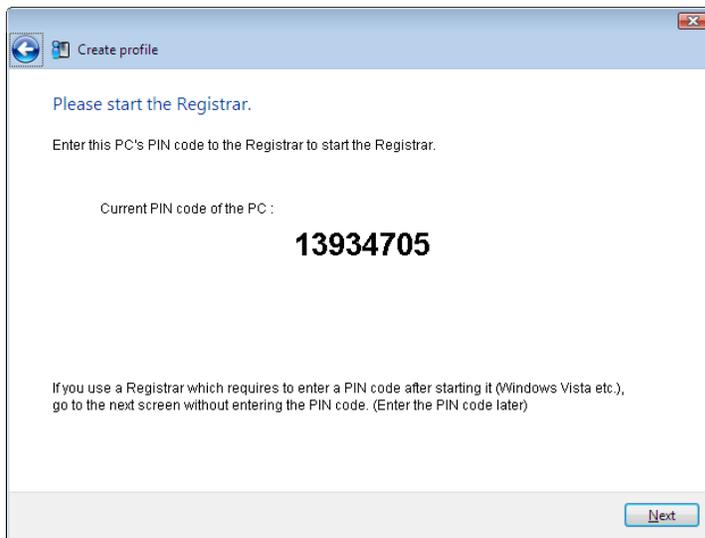
Carefully copy the PIN code to a piece of paper, then click [Next].

7
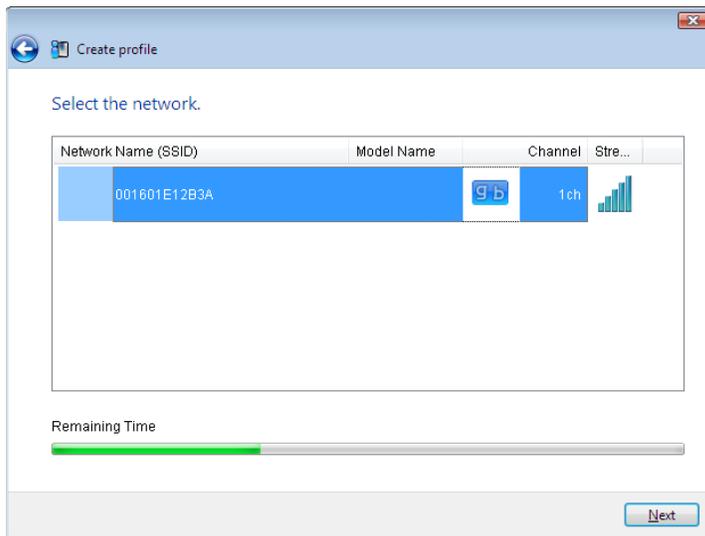
Select the access point to connect to, then click [Next].
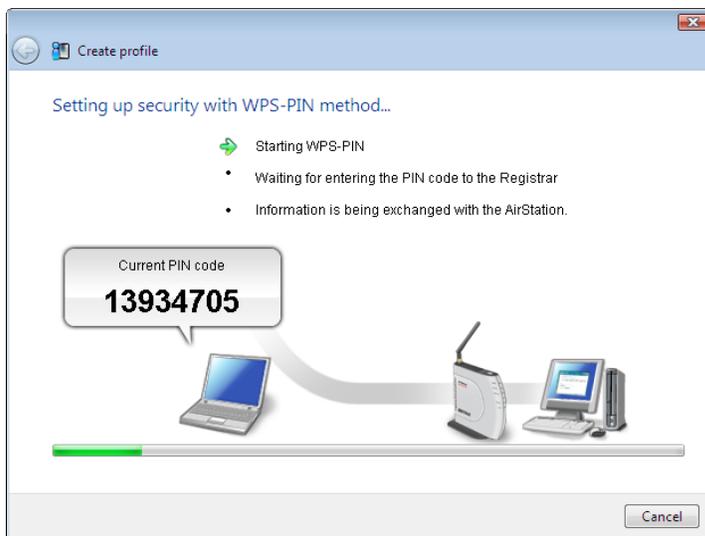
This screen will be displayed.

8   Use a PC with a wired Ethernet connection to log in to the access point's management utility.

> Note: If the access point you are trying to connect is a Buffalo AirStation, click Wireless Config > WPS from the
> home page of the configuration interface. The screen to enter the PIN code will be displayed.

9

Navigate to the WPS PIN configuration screen, then enter the PIN code you write down in step 6.

> Note: If the access point you are trying to connect is a Buffalo AirStation, enter the PIN code in [Enrollee PIN] and click [OK].

When "Connection has been Completed" is displayed in Client Manager V, your connection is complete. If "Set Network Location" is displayed, select "Home", "Work", or "Public location" depending on the environment in which the AirStation will be used.

Windows XP (Client Manager 3)

If you are using Windows XP, use your Client Manager 3 software to connect wirelessly with WPS PIN.

1 Right click on the icon in the system tray and select [Easy Connection] > [WPS PIN Code type].

2
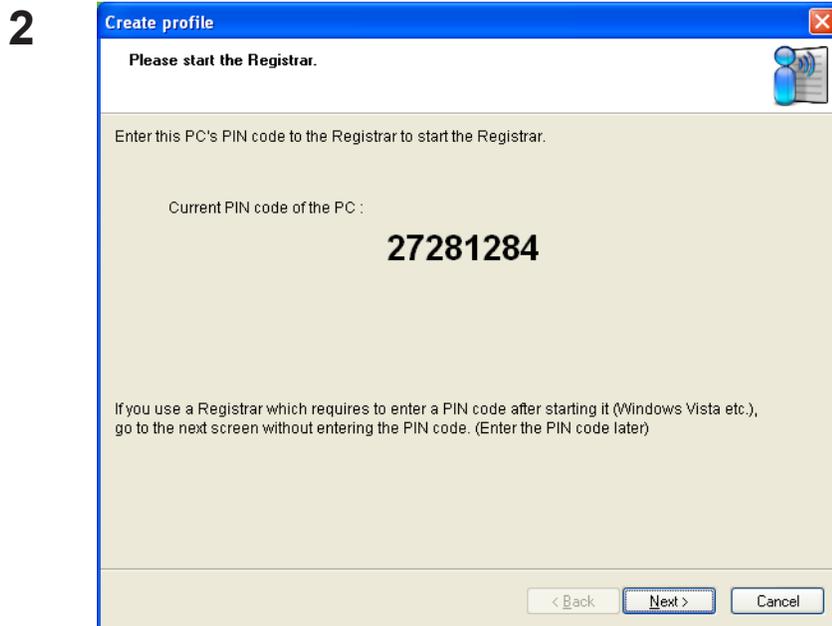
When the PIN code is displayed, write it down. Then, click [Next].

3
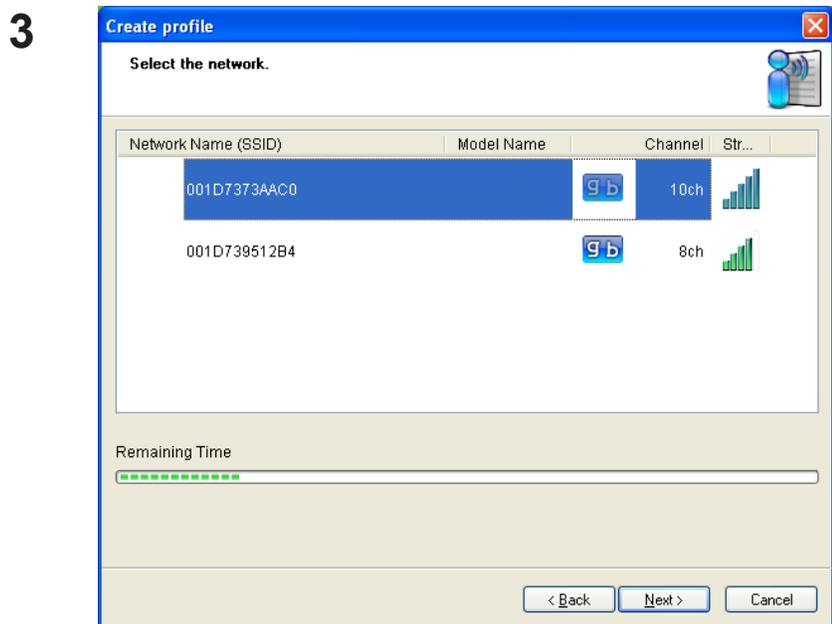
Select the access point you are going to connect to, then click [Next].
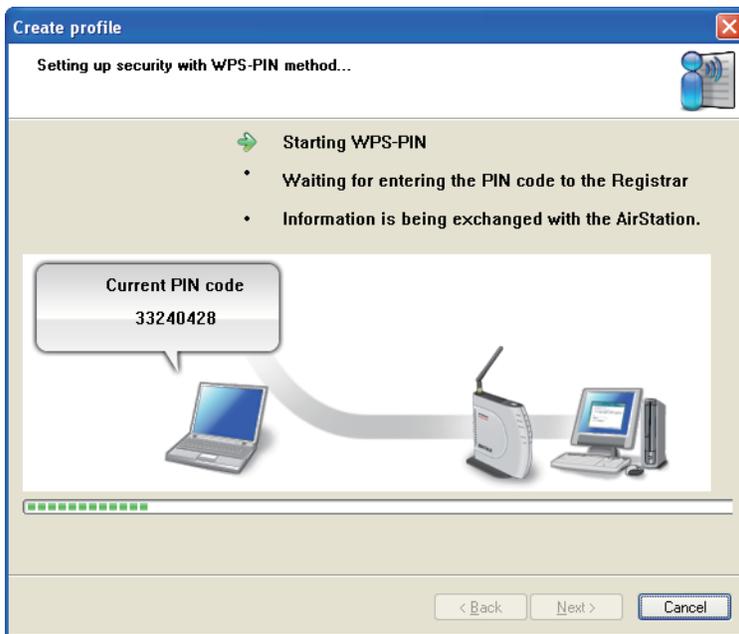
This screen will be displayed.

4   Use a computer with a wired Ethernet connection to log in to the access point. The screen to enter the PIN code will be displayed.

> Note: If the access point you are trying to connect is a Buffalo AirStation, click Wireless Config > WPS from the home page configuration interface. The screen to enter the PIN code will be displayed.

5

On the configuration screen of the access point, enter the PIN code you wrote down in step 2.

> Note: If the access point you are trying to connect is a Buffalo AirStation, enter the PIN code in [Enrollee PIN] and click [OK].

Your connection is complete when the message "Security setup and connection have been completed" is displayed.

Manual Setup (Client Manager)

You may also connect to an access point manually, without using AOSS or WPS. The procedure varies depending on the version of Windows used.

First, install Client Manager from the included CD. See chapter 2 for instructions on installing Client Manager.

Windows 7 or Vista (Client Manager V)

With Windows 7 or Vista, use Client Manager V to connect wirelessly.

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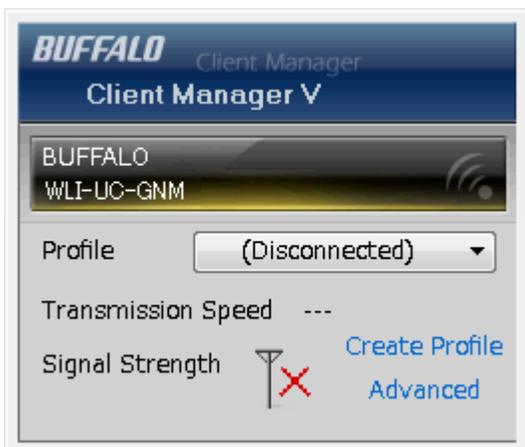
2 Click [Create Profile].

**3** The User Account Control screen is displayed. Click [Yes] or [Continue].

4
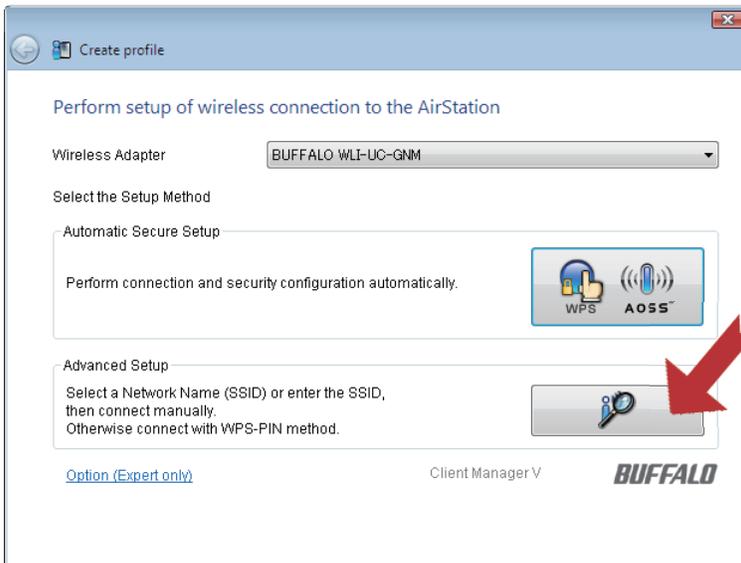
Click the [Advanced Setup] button.

5
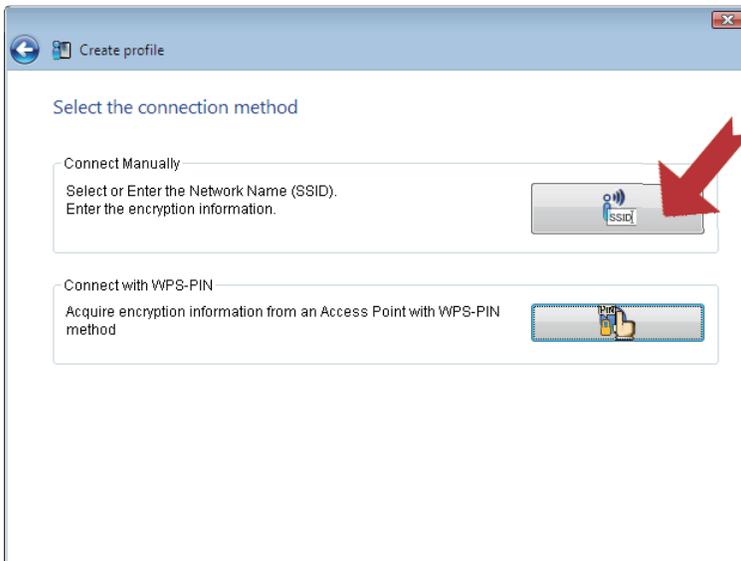
Click the [Connect Manually] button.

6
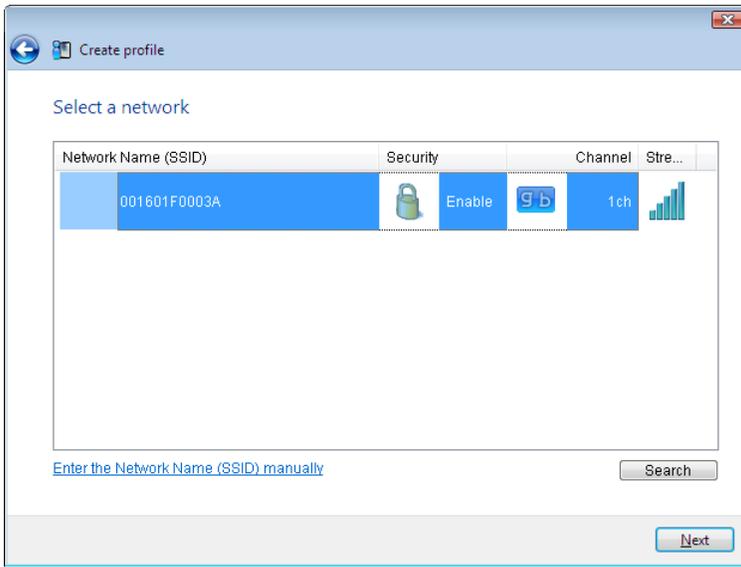
Select your access point, then click [Next].

7

Enter your Network Type, Security Type, Encryption Method, and Encryption Key (passphrase), then click [Connect].

When "Connection has been completed" is displayed, your connection is complete. If "Set Network Location" is displayed, select "Home", "Work", or "Public location", depending on the environment in which the AirStation will be used.

Windows XP (Client Manager 3)

Client Manager 3 is a wireless connection utility for Windows XP.

1 Right click on the icon in the system tray, then select [Scan].

2
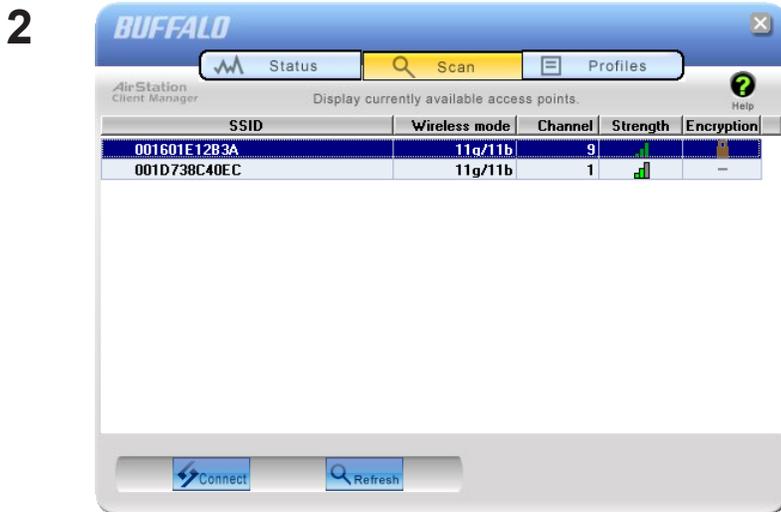
Select the access point to connect to and click [Next].

3

Choose your Encryption Method and enter an Encryption Key. Click [Connect].

Follow the instructions on the screen to connect.

Manual Setup (Windows Utility)

You can connect to an access point without installing or using Client Manager. Windows includes a built-in wireless utility. The procedure varies depending on the version of Windows used.

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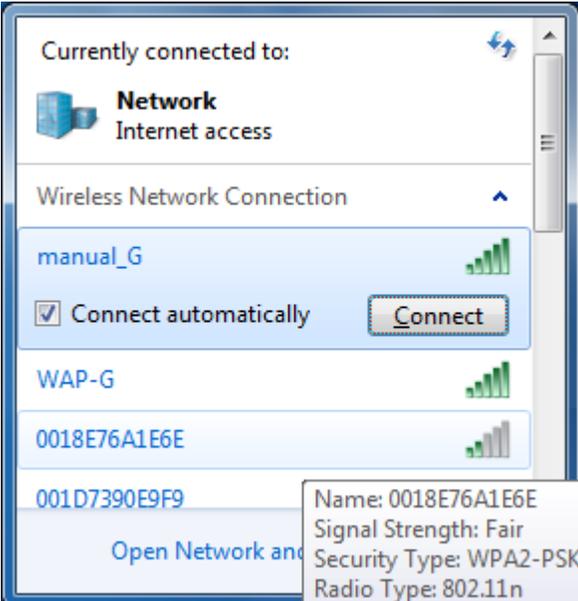
2 Select the target AirStation's name and click [Connect]. If you will be connecting to this device in the future, checking [Connect automatically] is recommended.

3 Enter the encryption key and click [OK].

Follow the instructions on the screen to connect.

Windows Vista (WLAN AutoConfig)

You can use WLAN AutoConfig to connect to a wireless Access Point:

1   Right click on the [icon] network icon in the system tray.

2   Click [Connect to a network].

3   Select your wireless network and click [Connect].
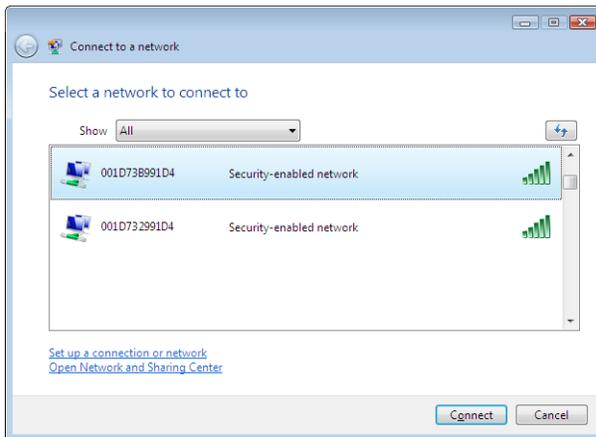
If the screen below is displayed, click [I want to enter the network key or passphrase instead]. Go to step 4.

4
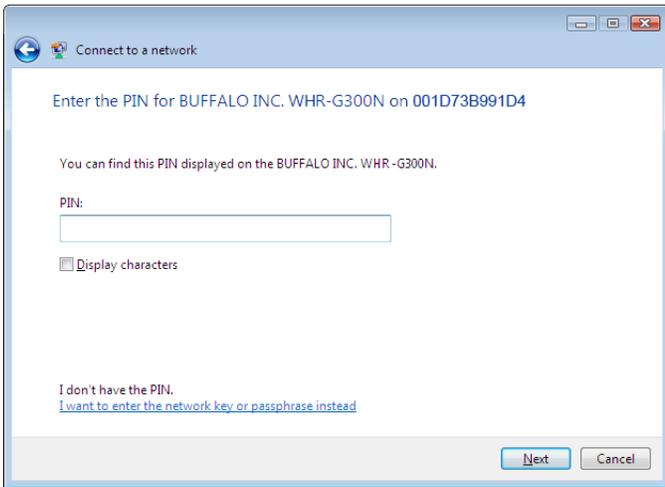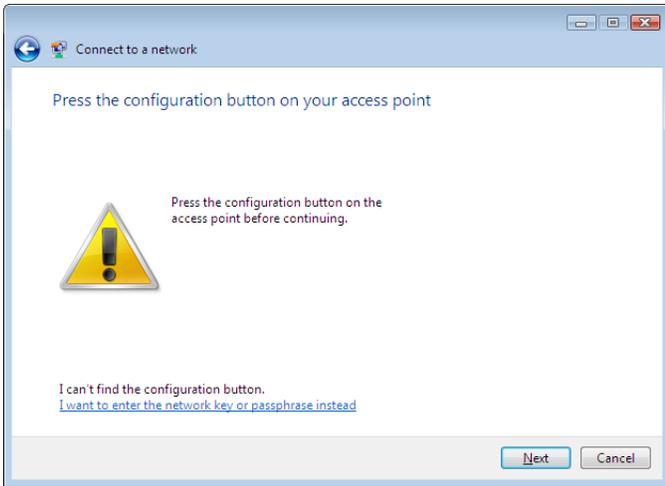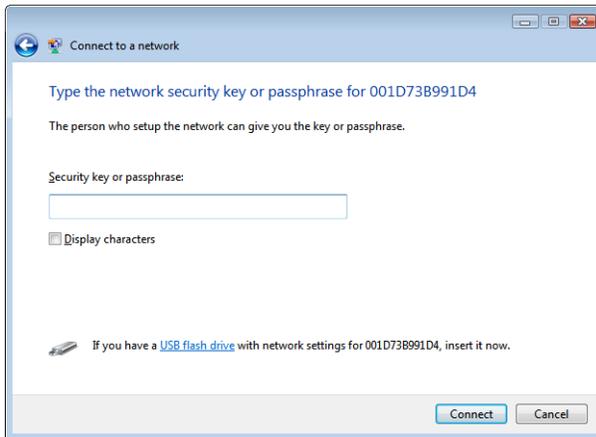
Enter the encryption key and click [Connect].

Step through the wizard to complete 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 wireless access point.

Note: If Client Manager 3 is installed on your computer, then Wireles 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 [icon] in the system tray.

2   Click [View Available Wireless Networks].

3   Select a wireless network, then click [Connect].
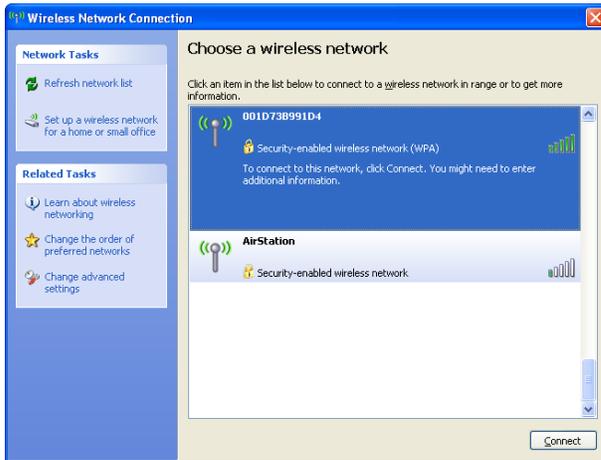
4   Enter the encryption key (passphrase) twice, then click [Connect].

When the connection is complete, the word "Connected" will be displayed to the right of the network's SSID. Click the "X" in the top right corner of the window to close the utility.

Chapter 4 - Client Manager

Software Overview

Client Manager is utility software used to connect to an access point on the network or to verify the connection between an access point and your computer. It is included with your AirStation.

Note: Two versions of Client Manager are included on your AirNavigator CD. Client Manager V supports Windows 7 and Vista. Client Manager 3 supports Windows XP. The installation program will install the correct version for your operating system.

Using Client Manager V with Windows 7 and Vista

- When you install Client Manager, it will be added to your Startup folder and will automatically launch with Windows. If Client Manager does not launch automatically, click [Start] > [All Programs]> [BUFFALO] > [AirStation Utility] > [ClientManager V] to launch it.

- To close Client Manager, right-click on its icon in the system tray and choose [Exit].

- The appearance of the Client Manager icon varies according to its connection status:

    :   No wireless connection.

        Communicating via an access point.

Main Screen

The Main screen displays the current connection status. You can perform the following operations from this screen.
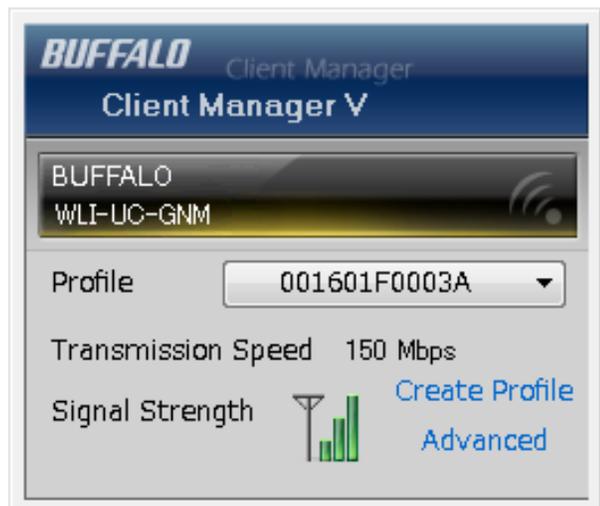
Parameter	Meaning
Profile	Displays information about the current connection points. If you have multiple connection points, you can switch among them.
Transmission Speed	Displays the current connection speed.
Signal Strength	Displays the current signal strength.
Create Profile	Click this to display the Automatic Secure Setup and Advanced Setup screen (next page).
Advanced	Click this to display the Wireless Status screen.

Automatic Secure Setup and Advanced Setup

There are two ways to connect to an access point: automatic or manual. In the following wizard, automatic setup will be referred to as "AOSS/WPS" and manual setup will be referred to as "Advanced Setup".
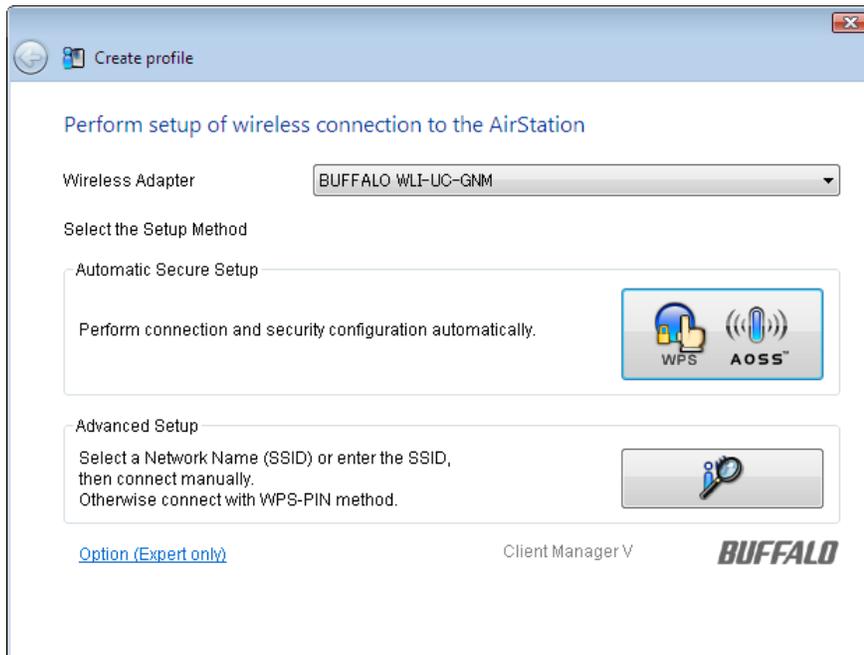
Parameter	Meaning
Wireless Adapter	Displays the names of currently used wireless devices.
Automatic Secure Setup	Clicking this will search for an AOSS or WPS compatable access point to connect to automatically.
Advanced Setup	Click this to display the SSID/WPS-PIN selection screen (next page).
Option (Expert only)	Click this to specify whether you use AOSS or WPS (PBC) for connection in Automatic Secure Setup. It displays the WPS-PBC/ AOSS selection screen.

SSID / WPS-PIN selection

This screen lets you select whether to connect to an access point by specifying the SSID or by entering a WPS PIN.
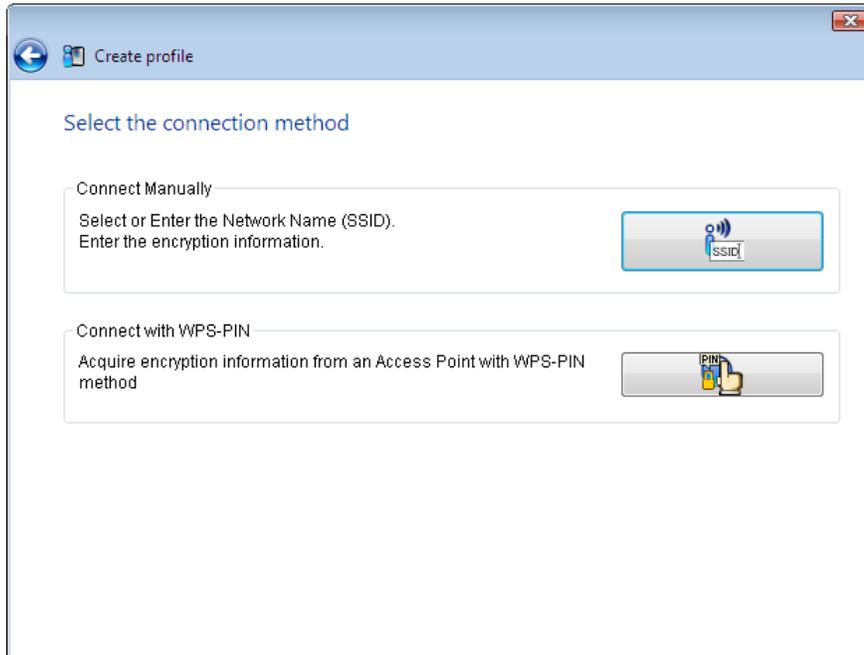
Parameter	Meaning
Connect Manually	Displays the "Searching Wireless Access Points" screen and lets you enter connection settings manually.
Connect with WPS-PIN	Click this to connect to a wireless access point by entering its WPS PIN.

Searching Wireless Access Points

This screen lists available wireless access points in your area. You can select an access point and enter network information manually to connect.
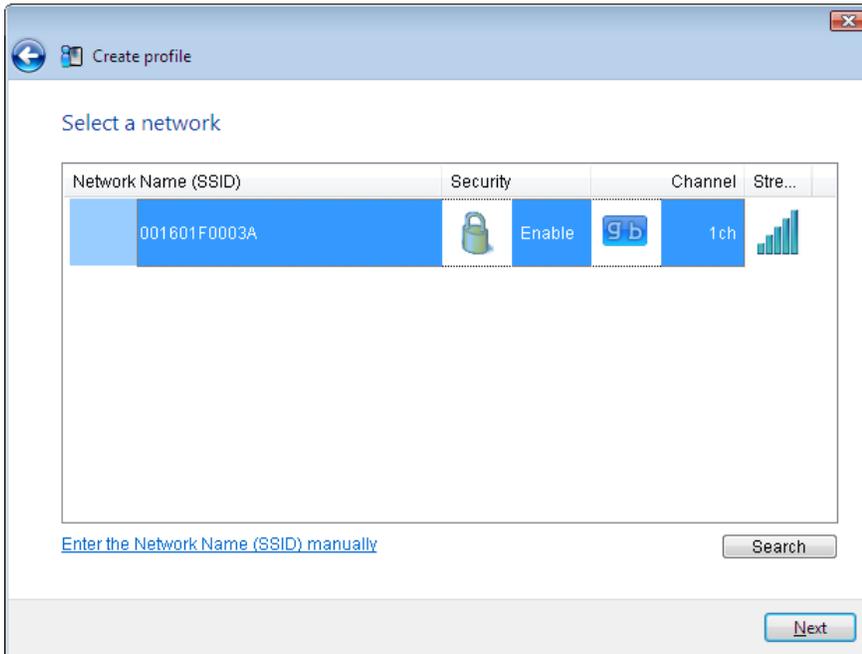
Parameter	Meaning
Network Name (SSID)	Displays the SSID of each available access point.
Security	Displays whether or not the access point uses encryption.
Channel	Displays the wireless channel used by an access point.
Strength	Displays the signal strength of an access point.
Enter the Network Name (SSID) manually	Click this to display the Wireless Network Information screen, where you can enter an SSID manually.
[Search]	Click here to search for available access points again.
[Next]	Click this to display the Wireless Network Information screen.

Wireless Network Information

Configure wireless connection settings.

Parameter	Meaning
Network Type	Select a type of connection.
Network Name (SSID)	Enter the SSID of an access point.
Security Type	Select the security type of the selected access point.
Encryption Method	Select the encryption method of the selected access point.
Encryption Key or Passphrase	Enter the encryption key for the access point.
Connect to a network which does not broadcast the SSID	Check this box to connect to a hidden SSID that is not broadcast.
Connect	Connect to the access point.

WPS-PBC / AOSS selection

You may automatically connect to an access point by just pushing or clicking two buttons with WPS or AOSS.
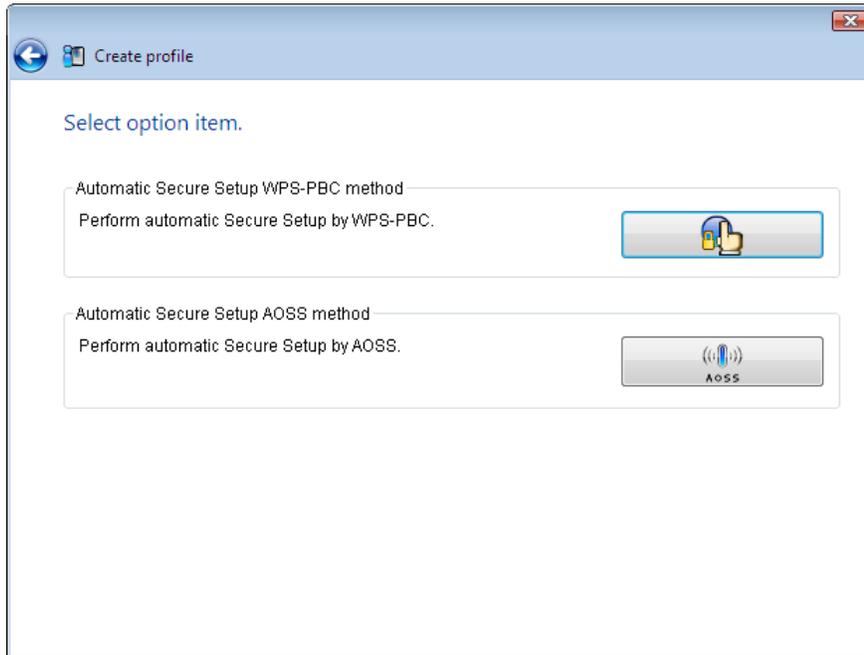
Parameter	Meaning
Automatic Secure Setup WPS-PBC method	Click this to automatically connect to an access point that supports WPS.
Automatic Secure Setup AOSS method	Click this to automatically connect to an access point that supports AOSS.

Wireless Status

This screen displays the current connection status.
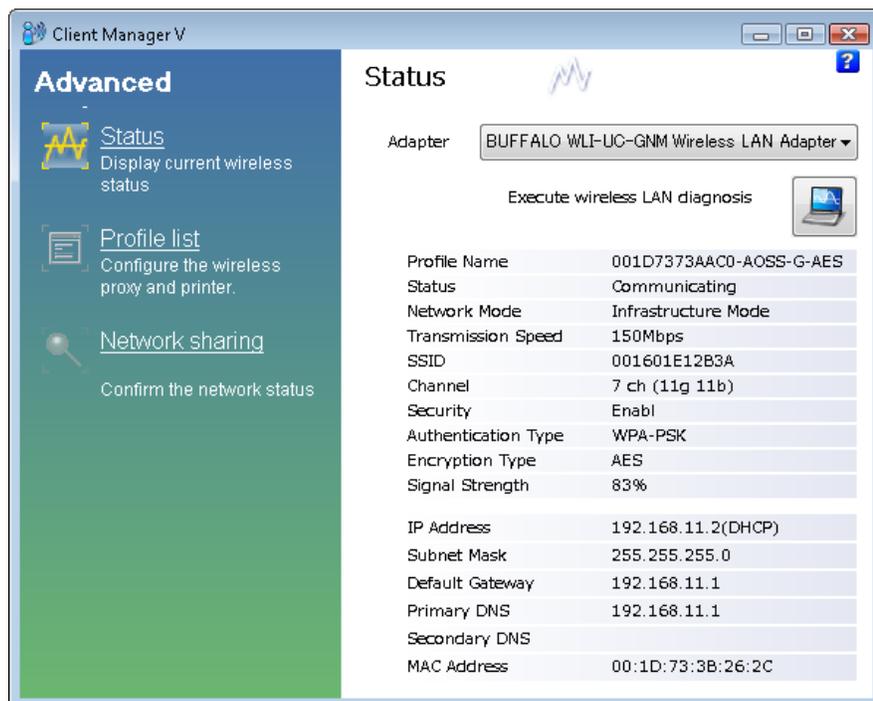
Parameter	Meaning
Adapter	Displays the name of the current wireless client.
Execute wireless LAN diagnostics	Opens the Wireless LAN Diagnostics wizard.
Profile Name	Displays the current profile name.
Status	Displays the current transmission status.
Network Mode	Displays the current network mode.
Transmission Speed	Displays the current transmission speed.
SSID	Displays the SSID of the currently connected access point.
Channel	Displays the wireless channel currently used.

Parameter	Meaning
Security	Displays whether encryption is currently enabled or not.
Authentication Type	Displays the type of authenticaltion currently used.
Encryption Type	Displays the type of encryption currently used.
Signal Strength	Displays the current signal strength.
IP Address	Displays the IP address assigned to your wireless client.
Subnet Mask	Displays the subnet mask assigned to your wireless client.
Default Gateway	Displays the default gateway address.
Primary DNS	Displays the primary DNS address.
Secondary DNS	Displays the secondary DNS address.
MAC Address	Displays the MAC address of your wireless client.

Wireless LAN Diagnostic

On the Wireless LAN Diagnostic screen, you can check signal strength and quality.

Parameter	Meaning
Adapter	Displays the name of the wireless client currently in use.
Connection status	Displays signal strength (dBm), link rate (Mbps), and signal quality (%) at 1 minute intervals. Possible restrictions: • Some wireless devices may not be displayed. • Signal strength and quality displays may vary. These graphs should not be used to compare different wireless devices. Only use them to compare information for the same wireless device.
Usage of each channel	The 11b/11g displays usage of each channel on 2.4 GHz. This unit does not display 11a usage, as it does not support 5 GHz. The color expresses the signal strength of an access point. Redder means a stronger signal, bluer means a weaker signal.

Profile List

Create a new profile or edit an existing profile.
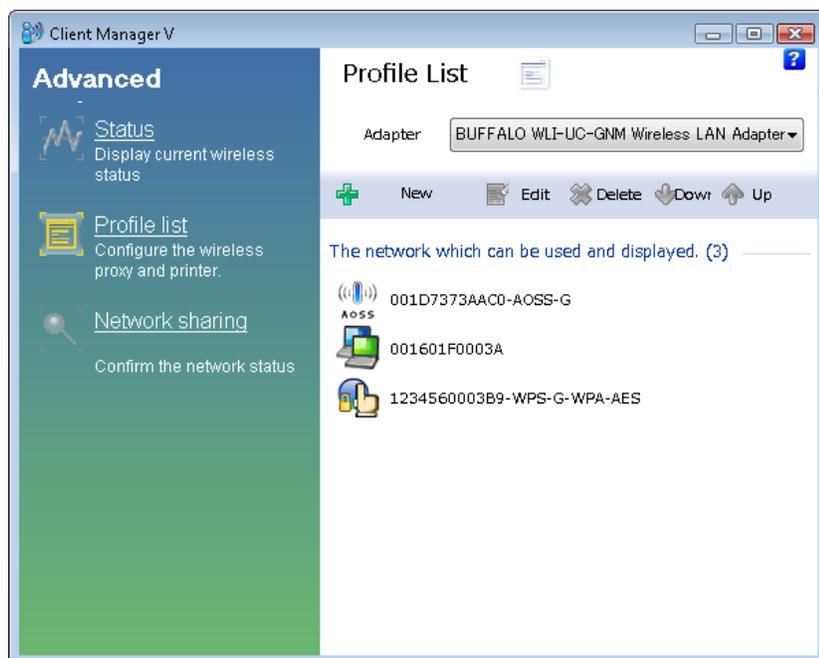
Parameter	Meaning
Adapter	Displays the name of the current wireless client.
New	Create a new profile. This displays the Automatic Secure Setup and Advanced Setup screen.
Edit	Edit the selected profile. This displays the Extended properties (Wireless) screen.
Delete	Delete the selected profile.
Down	Lower the priority of the selected profile.
Up	Raise the priority of the selected profile.

Wireless Properties

Current wireless settings.
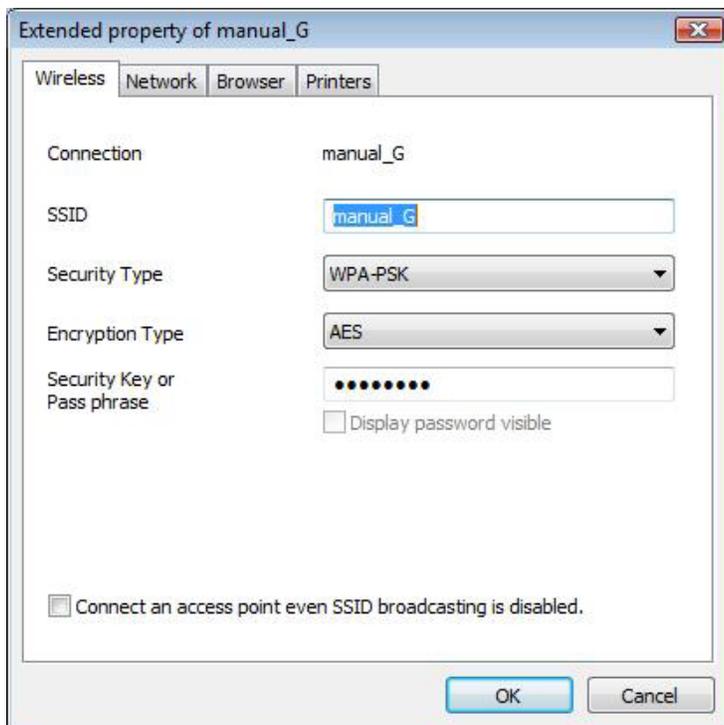
Parameter	Meaning
Connection	Displays the current profile name.
SSID	Displays the SSID of the current connection.
Security Type	Displays the security type you are using for the current connection.
Encryption Type	Displays the encryption type you are using for the current connection.
Security key or Pass phrase	Displays the security key or pass phrase if [Display password visible] is checked.
Connect an access point even SSID broadcasting is disabled.	Check to connect to a wireless network that doesn't broadcast its SSID.

Network Properties

By default, your client's IP address is set automatically by DHCP. You may configure it manually from this screen.
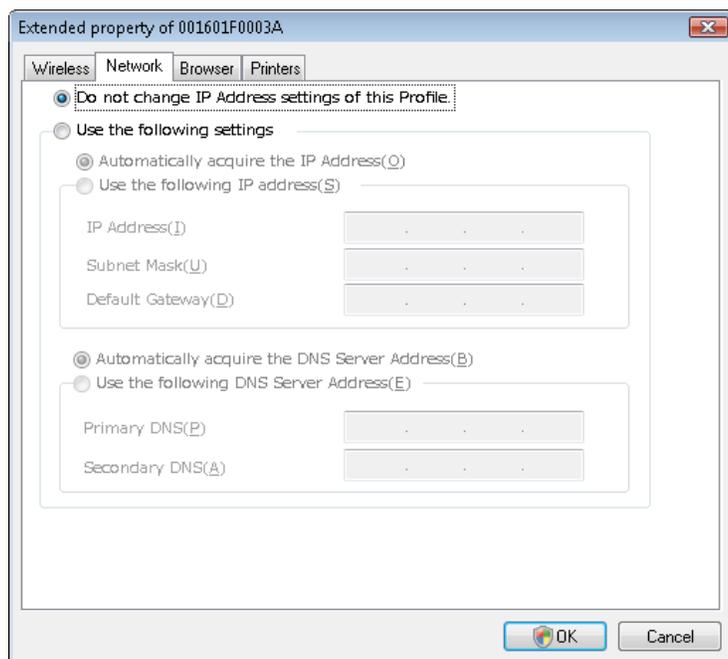
Parameter	Meaning
Do not change IP Address settings of this Profile	Select to keep your current TCP/IP network setting without any changes. This is the recommended setting.
Use the following settings	Select this option to change your TCP/IP network settings. For expert users only.

Browser Properties

Configure Internet Explorer settings for wireless connections.
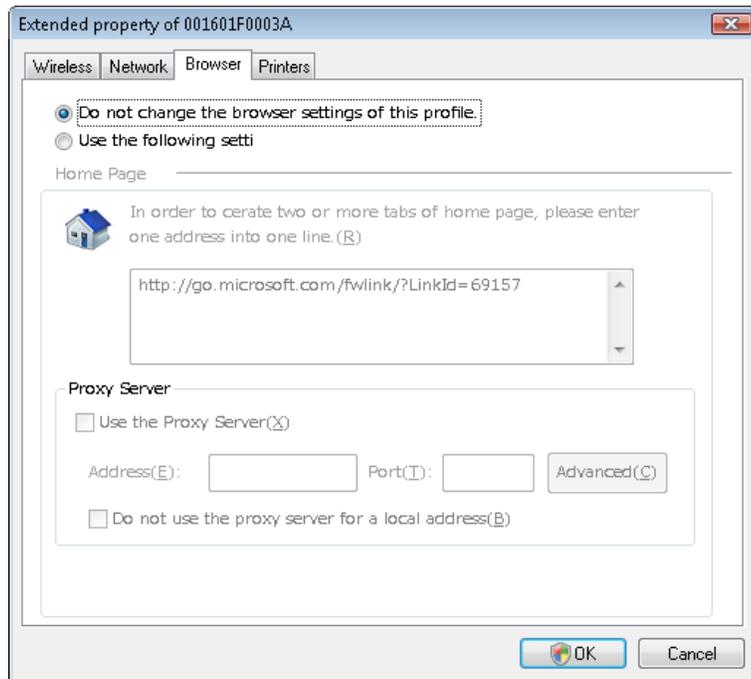
Parameter	Meaning
Do not change the browser settings of this Profile	Select to keep the current Internet Explorer settings.
Use the following settings	Select this option to use different Internet Explorer Home Page and Proxy Server settings while connected wirelessly.

Printer Properties

Configure the printer used while connected to an access point wirelessly.
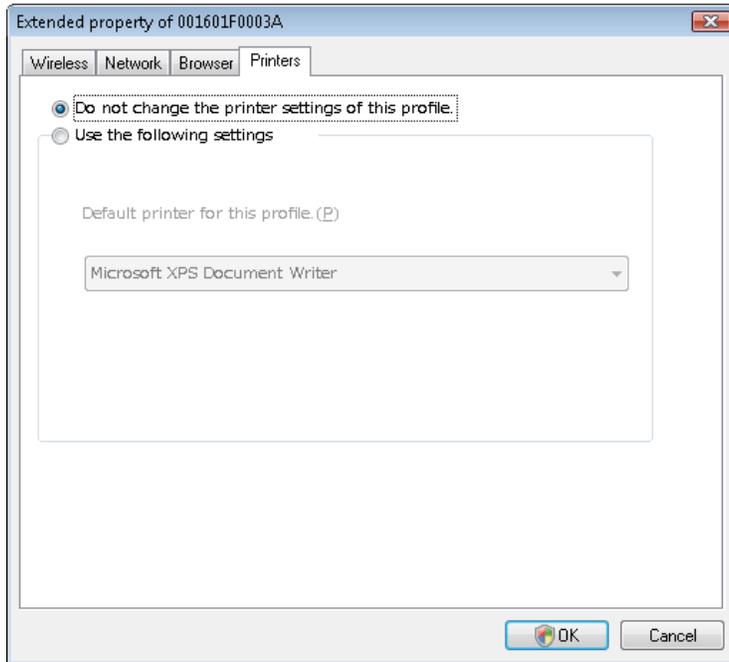
Parameter	Meaning
Do not change the printer settings of this Profile	Select to keep your current printer settings.
Use the following settings	Select to use a different default printer while connected wirelessly.

Using Client Manager 3 with Windows XP

- When you install Client Manager, it will be added to your Startup folder and will automatically start with Windows. To launch Client Manager manually, click [Start] > [All Programs] > [BUFFALO] > [AirStation Utility] > [ClientManager3].

- Right click on the Client Manager icon in the system tray and click [Exit] to close Client Manager. The Client Manager icon will change appearance according to its connection status:

  : No wireless client installed

  : Not connected to an access point

  : Transmitting to an access point with TKIP/AES encryption

  : Transmitting to an access point with WEP, or not encrypted

  : Transmitting in ad-hoc mode (not supported with this wireless client)

  : Authenticating

Status

The Status screen displays the status of the current connection.

Parameter	Meaning
Profile	Current connection profile name.
SSID	SSID of the currently connected access point.
Adapter Name	Name of the wireless client currently in use.
Network Type	Current network mode.
Transmission Speed	Current transmission speed.
Channel	Current wireless channel.
Security	Displays whether security is currently enabled or not.
IP Address	The IP address assigned to this unit.

Parameter	Meaning
MAC Address	MAC address of this unit.
Duration	Elapsed duration of the current wireless connection.
Signal Strength	Current signal strength.
Reconnect	Click to reconnect to the most recent connection.

Scan

Scan and display nearby access points.
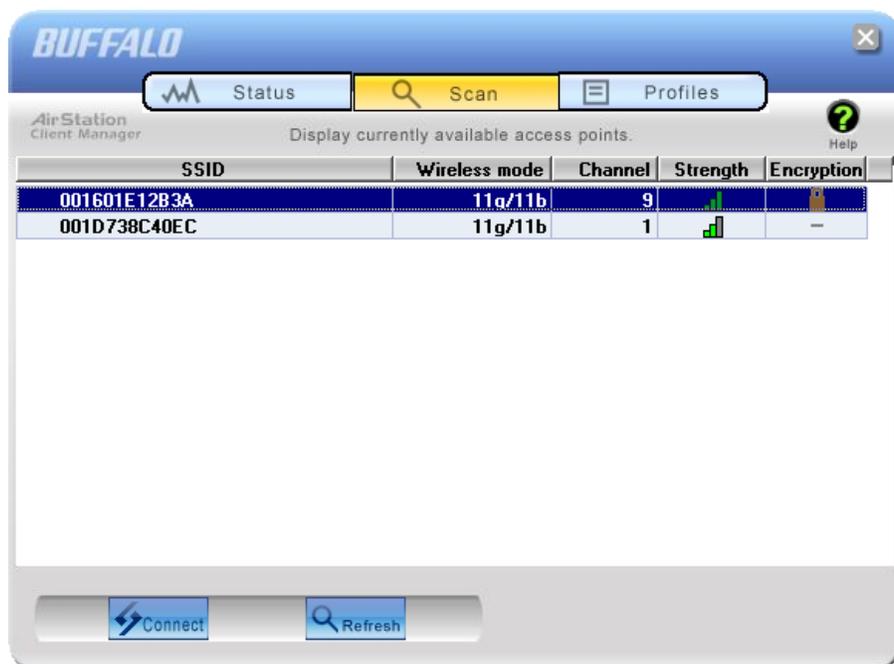
Parameter	Meaning
SSID	SSID of access point.
Wireless mode	Type of access point (11a or 11g).
Channel	Wireless channel of the access point.
Strength	Reception strength of each access point.
Encryption	Lock symbol is shown if the access point uses encryption.
Connect	Click to display the Connect page.
Refresh	Click to refresh the list of available access points.

Connect

Configure connection to an access point.

Parameter	Meaning
Encryption Method	Type of encryption used by the access point.
Encryption Key	Enter one or more encryption keys.
Register Profile	Check to register this connection as a profile.

Profiles

Connect to an access point or edit a profile.
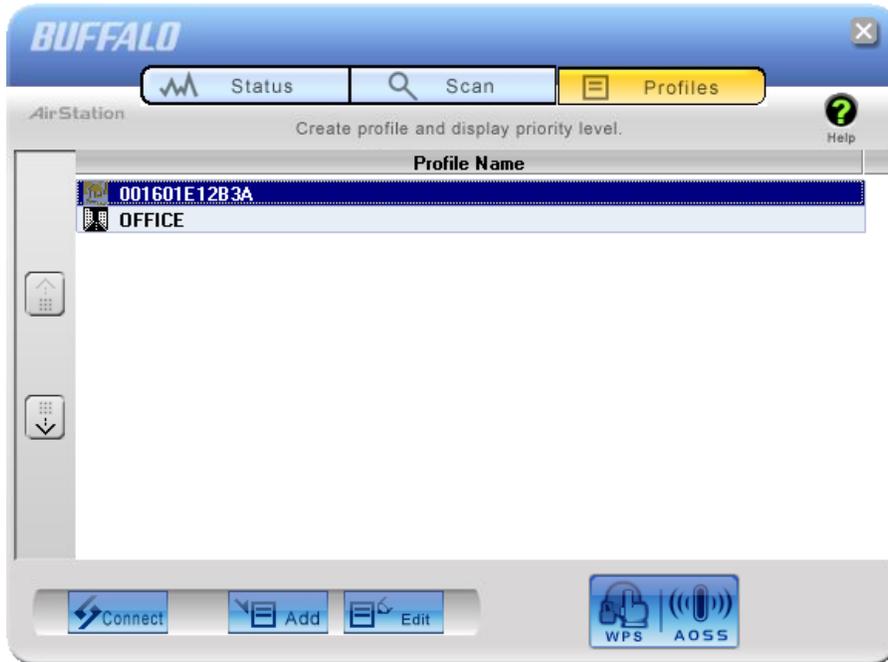
Parameter	Meaning
Connect	Selecting a profile and clicking this button will connect to an access point using its stored profile information.
Add	Click to add a new profile.
Edit	Click to edit or delete information in a profile.
WPS AOSS	Click to have AOSS/WPS (PBC) automatically set security. After connection, a profile based on these settings will be created.
802.1x Profiles	This button is displayed when Client Manager is operating in Business Mode. Click to configure 802.1x authentication.

Profile Information (Basic)

Configure your profile settings.
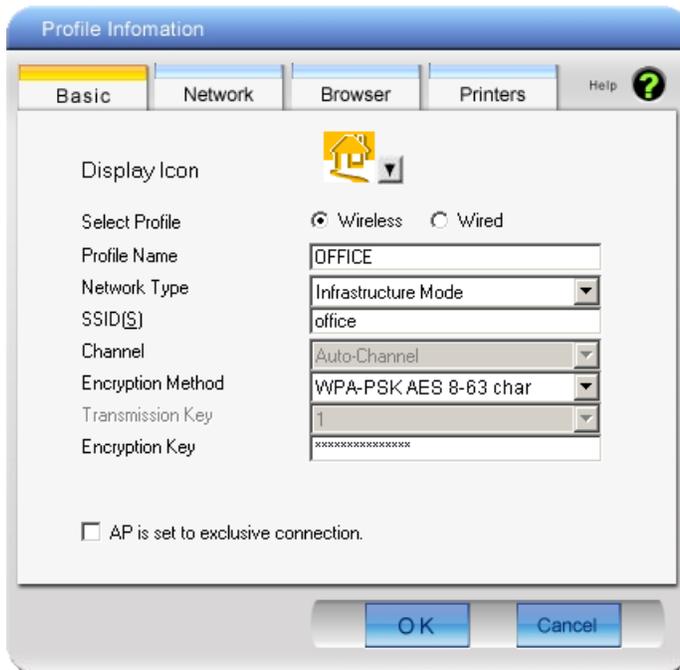
Parameter	Meaning
Display Icon	Select an icon to display for this profile.
Select Profile	Connection may be wireless or wired (Ethernet). For use with the AirStation, select Wireless.
Profile Name	Enter a name for the profile.
Network Type	Select infrastructure mode to connect to an access point (recommended), or ad-hoc mode to connect directly to another wireless client.
SSID	Select the SSID of the wireless access point that the profile will connect to.
Channnel	Choose the wireless channel. In Infrastructure Mode, the channel is automatically configured.

Parameter	Meaning
Encryption Method	Select the encryption method used by the wireless access point.
Transmission Key	If WEP is used for the Encryption Method, up to 4 passphrases may be entered. Choose the number of passphrases.
Encryption Key	Enter the encryption key(s) for the access point.
AP is set to exclusive connection	Check if the access point's SSID is not broadcast.

Profile Information (Network)

The profile's IP address and subnet mask may be manually assigned.
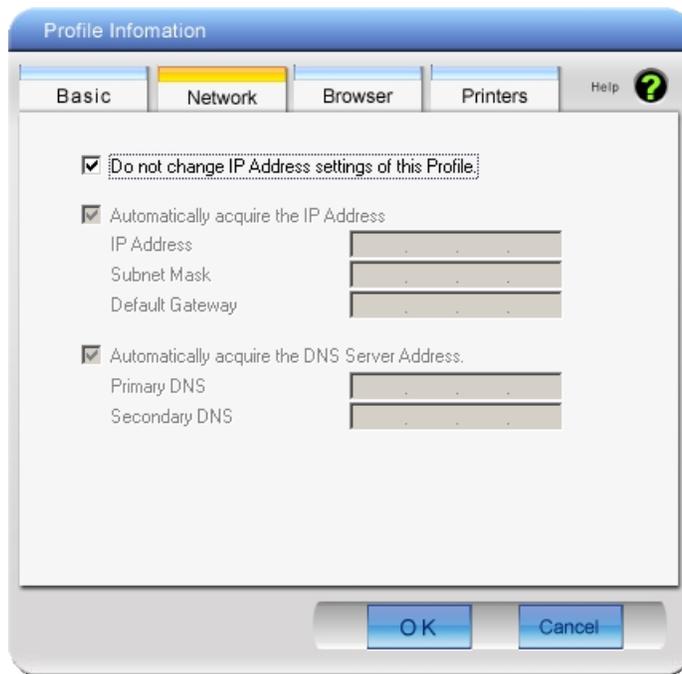
Parameter	Meaning
Do not change IP Address settings of this Profile	Check to keep using current TCP/IP network settings.
Automatically acquire the IP Address	Check to automatically acquire the IP address from a DHCP server when connecting wirelessly.
Automatically acquire the DNS Server Address	Check to automatically aquire the DNS server address from a DHCP server when connecting wirelessly.

Profile Information (Browser)

Configure your Internet Explorer settings when connecting wirelessly.
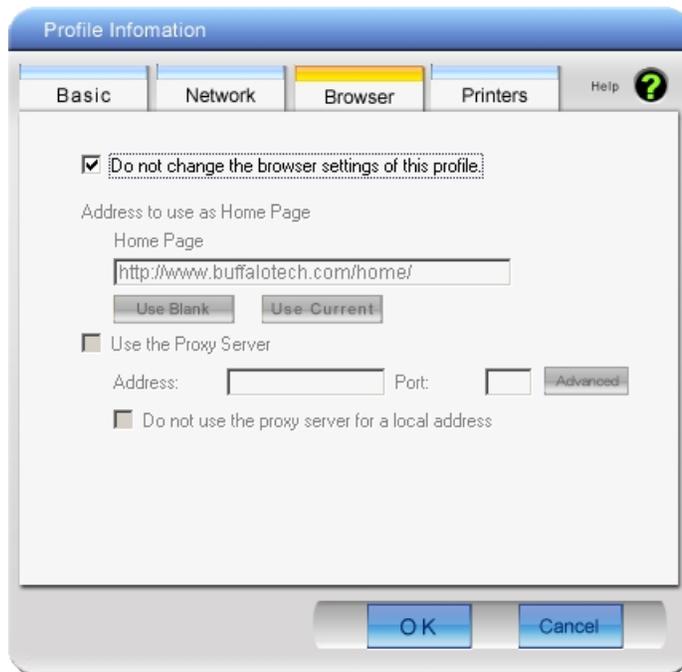
Parameter	Meaning
Do not change the browser settings of this Profile	Check to use current Internet Explorer settings when connecting wirelessly. Uncheck to use any of the settings below.
Address to use as Home Page	To use a different home page in Internet Explorer when connecting wirelessly, enter it here.
Use the Proxy Server	To use a proxy server for Internet Explorer when connecting wirelessly, enter its IP address and a port number and check the box.
Do not use the proxy server for a local address	If checked, the proxy server will not be used for local addresses.

Profile Information (Printers)

Configure the printer that your computer uses when connected wirelessly.
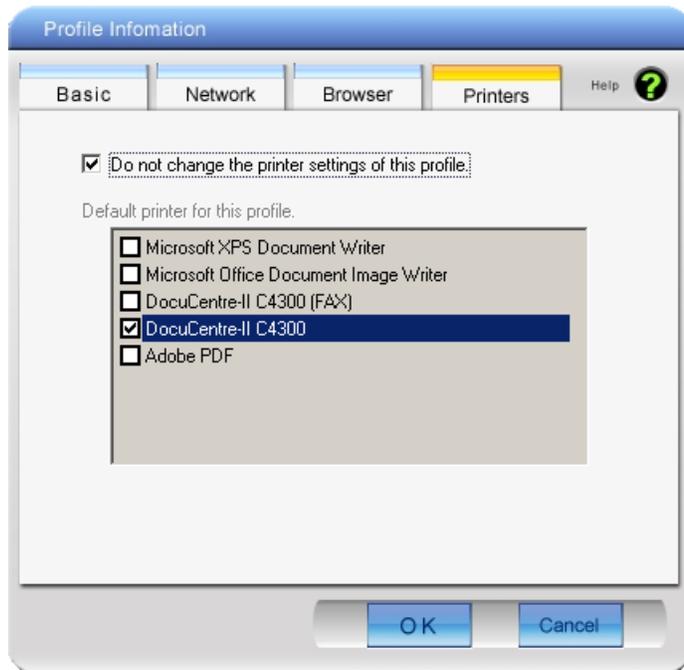
Parameter	Meaning
Do not change the printer settings of this Profile	Select this option to use a different printer when connecting wirelessly.

System Tray Menu

Right-click on the Client Manager icon in the system tray to display the following choices.
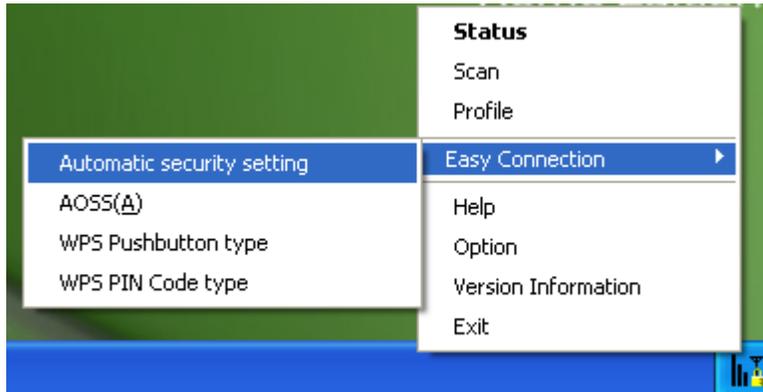
Parameter	Meaning
Status	Displays the Status screen.
Scan	Displays the Scan screen.
Profile	Displays the Profiles screen.
Easy Connection	Runs Automatic Secure Setup, using one of the following connection methods: AOSS, WPS(PBC), or WPS(PIN).
Help	Displays Client Manager Help.
Option	Displays the Options menu screen.
Version Information	Displays Client Manager version information.
Exit	Exits Client Manager.

Option Menu

Configure Client Manager options.
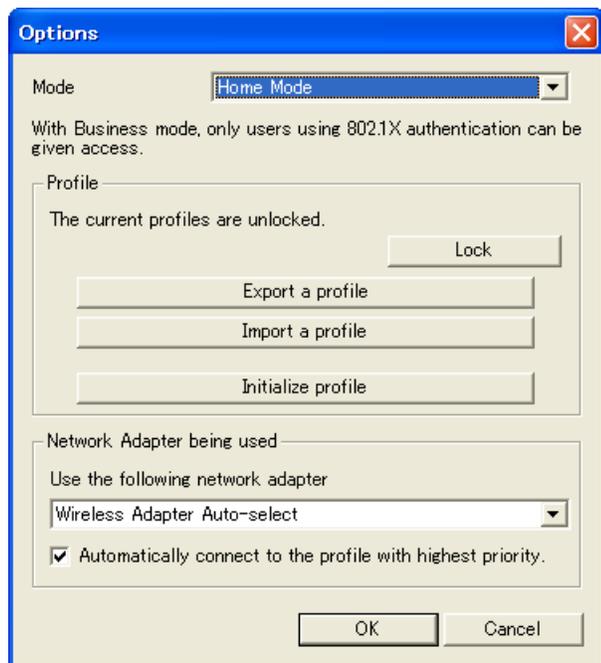
Parameter	Meaning
Mode	Switch between Client Manager's operating modes. If you select [Business Mode], the button to configure 802.1x authentication appears on the Profiles screen. [Home Mode] is recommended for most users.
Lock	If you click this, a password will be required to add new profiles or edit existing profiles. To lock or unlock, enter the password (8 - 63 characters).
Export a profile	Click this to save the currently registered profile information. To save profile information, enter the password (8 - 63 characters).
Import a profile	Click this to import a saved profile into Client Manager. You'll need to enter the password for the profile to continue.

Parameter	Meaning
Initialize profile	Click this to initialize profile information. Before initializing profile information, unlock the unit.
Use the following network adapter	Select a network adaptor to use in Client Manager. [Wireless Adapter Auto-select] is recommended for most users.
Automatically connect to the profile with highest priority	If checked, it will attempt to connect to the profile with highest priority as assigned on the Profile screen (page 51). Checked is recommended for most users.

Chapter 5 - Troubleshooting Common Problems

The Computer does not recognize the Wireless Adapter.

- Make sure the wireless adapter is connected to a USB port on your computer.

- If your computer has multiple USB ports, try connectting to a different USB port.

- Refer to Chapter 2 to reinstall drivers for this unit.

Cannot connect to the network wirelessly.

- Refer to chapter 3 for several different ways to connect this unit to an access point wirelessly.

- Configure the same SSID, encryption method, and encryption key for each wireless device. These settings must match those of your wireless access point.

- Move your wireless devices closer to the access point.

- Restart your access point.

You forgot the AP's SSID, Encryption KEY, or Password.

- Ask your network administrator about your SSID and encryption settings. These settings must match the SSID and encryption settings of the access point.

- If your access point supports AOSS or WPS, try using them to connect to the access point. Instructions for connecting with AOSS or WPS are in chapter 3.

The link speed is slower than 150 Mbps.

The default setting for 150 Mbps mode on the AirStation is off. Refer to "150 Mbps Mode settings" in page 64 to turn on 150 Mbps mode.

Other Tips

Issue:

When using the Windows wireless connection manager, I cannot connect to my wireless router. I receive a "Cannot configure wireless network" error message when scanning for available wireless networks.

Answer:

Another wireless client software may be installed on your computer that is taking control of the wireless client adapter away from the Windows connection manager. Either switch to the other software or use Add/Remove Programs to remove the conflicting client software. Then the Windows connection manager should be able to connect to any available wireless networks.

Issue:

When I attempt to connect to my wireless router, I receive an error message indicating that security settings on my computer do not match the settings on the router.

Answer:

Manually enter the correct security key and encryption type into the Windows connection manager.

To enter the security key in Windows XP:

Go to Wireless Networks Connection Status and click on View Wireless Networks. There will be a list of networks to which you have previously connected. Highlight the network name (SSID) of the wireless router and click on Connect. Enter the correct encryption key and click on Connect.

Issue:

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

Answer:

There are many environmental factors that may affect this behavior. First, ensure the issue is not range related by moving the access point and the wireless client closer together. Check whether the connection drops continue.

In some cases, interference from other wireless networks or sources such as 2.4 GHz wireless phones may impact performance. Try changing the wireless channel used by your wireless router.

Log in to the wireless router with your browser. Click on the [Wireless Configuration]. If an Auto-Channel option is available, use it. Otherwise, manually select an alternate channel.

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 then your computer. Pressing the power button or simply unplugging the devices can power off the modem and wireless router devices. Then after verifying that the modem is connected to the wireless router with a cable to the WAN port, power on the modem and wait two minutes. Turn on the wireless router and then the computer. Verify whether an Internet connection is available.

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 two minutes. 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 line.

Issue:

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

Answer:

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

Appendix

150 Mbps Mode settings

By default, the AirStation's 150 Mbps mode is disabled. To enable it:

1. Click [Start] > [All Programs] > [BUFFALO] > [AirStation Utility] > [AirStation Bandwidth 20 or 40MHz Select Tool] and launch the utility software.
   If you are using Windows 7 or Vista and see the message "A program needs your permission to continue", click [Yes] or [Continue].
2. When the message "Now start the setup wizard of Bandwidth Select Tool" is displayed, click [Next].
3. Click [Next].
4. When the message "Select wireless adapter" appears, select this unit and click [Next].
5. Select [Use 150Mbps Mode (40MHz)], and click [Next].
6. When the message "Wireless adapter setting is completed" is displayed, click [Exit to setup].

If you still cannot establish a 150 Mbps connection, check the settings for your access point.

Specifications

Wireless LAN Interface	
Standard Compliance	IEEE802.11b / IEEE802.11g / IEEE802.11n
Transmission Method	Direct Sequence Spread Spectrum (DSSS), OFDM, SISO
Frequency Range	2,412 - 2,462 MHz (Channels 1 - 11)

Transmission Rate	802.11b/g:
	
	    54, 48, 36, 24, 18, 12, 9, 6, 11, 5.5, 2, 1 Mbps
	802.11n
	  20 MHz BW
	    (Long GI) 65, 58.5, 52, 39, 26, 19.5, 13, 6.5 Mbps (1 stream)
	    (Short GI) 72.2, 65, 57.8, 43.3, 28.9, 21.7, 14.4, 7.2 Mbps (1 stream)
	  40 MHz BW
	    (Long GI) 135, 121.5, 108, 81, 54, 40.5, 27, 13.5 Mbps (1 stream)
	    (Short GI) 150, 135, 120, 90, 60, 45, 30, 15 Mbps (1 stream)

Access Mode	Infrastructure Mode, Adhoc Mode
Security	WPA2-PSK (TKIP/AES), WPA-PSK (TKIP/AES), 128/64bit WEP
Other	
Power Supply	5.0 V Bus-powered
Power Consumption	2500 mW (Max)
Dimensions	15 mm x 8 mm x 20 mm (0.59 x 0.31 x 0.79 in.)
Weight	3 g (~0.1 ounces)
Operating Environment	0 - 40° C (32 - 104° F) , 20 - 80% (non-condensing)

Uninstalling the Software

To uninstall the software, follow the procedure described below.

1. Insert AirNavigator CD.
   When you insert CD, AirNavigator Setup Wizard will launch automatically. To launch it manually, double click [My Computer], then your CD-ROM, then [AirNavi.exe].
2. Click [Options].
3. Click [Uninstall software].
4. Step through the wizard to uninstall the software.

Uninstalling the Drivers

To remove the AirStation wireless client drivers, follow the procedure described below.

1. Insert your AirNavigator CD.
   When you insert CD, AirNavigator Setup Wizard will launch automatically. To launch it manually, double click [My Computer], then your CD-ROM, then [AirNavi.exe].
2. Click [Options].
3. Click [Remove Drivers].
4. Follow the instructions on the screen to remove drivers.

TCP/IP Settings in Windows

Windows 7

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

1   Click [Start] > [Control Panel] > [Network and Internet].

2   Click [Network and Sharing Center].

3   Click [Change Adapter Settings] on the left side menu.

4   Right click on [Local Area Connection], then click [Properties].

5   If the message "Windows needs your permission to continue" appears, click [Continue].

6   Select [Internet Protocol Version 4 (TCP/IPv4)] then click [Properties].

7   To have DHCP set your IP address settings automatically, check [Obtain an IP address automatically] and [Obtain DNS server address automatically].

To set your IP address settings manually, enter values for each settings. Example:
If the router's IP address is 192.168.11.1,
IP address   192.168.11.80
Subnet mask   255.255.255.0
Default gateway   192.168.11.1
Preferred DNS server   192.168.11.1
Alternate DNS server   blank

8   Click [OK].

Windows Vista

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

1   Click [Start] > [Settings] > [Control Panel].

2   Double click [Network and Sharing Center].

3   Click [Manage network connections] on the left side menu.

4   Right click on [Local Area Connection], then click [Properties].

5   When the message [Windows needs your permission to continue], click [Continue].

6   Select [Internet Protocol Version 4 (TCP/IPv4)], then click [Properties].

7   To have DHCP set your IP address settings automatically, check [Obtain an IP address automatically] and [Obtain DNS server address automatically].

   To set your IP address settings manually, enter values for each setting. Example:

         If the router's IP address is 192.168.11.1,
         IP address   192.168.11.80
         Subnet mask   255.255.255.0
         Default gateway   192.168.11.1
         Preferred DNS server   192.168.11.1
         Alternate DNS server   blank

8   Click [Close].

Windows XP

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

1   Click [Start] > [Settings] > [Control Panel].

2   Double click [Network].

3   Right click on [Local Area Connection], then click [Properties].

4   Select [Internet Protocol (TCP/IP)], then click [Properties].

5   To have DHCP set your IP address settings automatically, check [Obtain an IP address automatically] and [Obtain DNS server address automatically].

    To set your IP address settings manually, enter values for each setting. Example:.

        If the router's IP address is 192.168.11.1,

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

6   Click [Close].

Compliance Information

Federal Communication Commission Interference Statement:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Important Note - FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. To maintain compliance with FCC RF exposure compliance requirements, please follow operation instructions as documented in this manual. This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

SAR compliance has been established in typical laptop computers with USB slot, and product could be used in typical laptop computer with USB slot. Other applications like handheld PCs or similar devices have not been verified and may not comply with related RF exposure rule and such use shall be prohibited.

The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. This firmware setting is not accessible by the end user.

Industry Canada Statement:

This device complies with RSS-210 of the Industry Canada Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

Important Note - Radiation Exposure Statement:

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. To maintain compliance with Canada RF exposure compliance requirements, please follow operation instruction as documented in this manual.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

CE Notification:

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

Europe - EU Declaration of Conformity:

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. The follow-ing test methods have been applied in order to prove presumption of conformity with the essential requirements of the R&TTE Directive 1999/5/EC.
A copy of the Declaration of Conformity can be downloaded by selecting this product from the list at http://www.buffalo-technology.com/support/downloads/

• EN60950-1:2006
Safety of Information Technology Equipment

• EN 62311:2008
Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz-300 GHz).

• EN 300 328 V1.7.1 (2006-10)
Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband Transmission systems; Data transmission equipment operating in the 2.4 GHz ISM band and using spread spectrum modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive.

• EN 301 489-1 V1.8.1: (2008-04)

Electromagnetic compatibility and Radio spectrum Matters (ERM) — ElectroMagnetic Compatibility (EMC) standard for radio equipment and services — Part 1: Common technical requirements.

• EN 301 489-17 V2.1.1 (2009-05)

Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment; Part 17: Specific conditions for Broadband Data Transmission Systems

Intended use:

This device is a 2.4 GHz wireless LAN transceiver, intended for indoor home and office use in all EU and EFTA member states.
EU Countries intended for use
This device is intended for indoor home and office use in the following countries: Austria, Belgium, Germany, Denmark, Spain, Greece, France, Finland, Italy, Ireland, Luxembourg, The Netherlands, Portugal, Sweden, United Kingdom, Cyprus, Czech Republic, Estonia, Hungry, Latvia, Lithuania, Malta, Poland, Slovak Republic and Slovenia. The device is also authorised for use in all EFTA member states Iceland, Liechtenstein, Norway and Switzerland.

EU countries not intended for use:

None

Potential restrictive use:

This device is a 2.4 GHz wideband transmission system (transceiver), intended for use in all EU member states and EFTA countries, except in France and Italy where restrictive use applies.
In Italy the end-user should apply for a license at the national spectrum authorities in order to obtain an authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services.
In Belgium there is a restriction in outdoor use. The frequency range in which outdoor operation in Belgium is permitted is 2460 – 2483.5 MHz.
This device may not be used for setting up outdoor radio links in France and in some areas the RF ourput power may be limited to 10 mW EIRP in the frequency range of 2454 - 2483.5 MHz. For detailed information the end-user should contact the national spectrum authority in France.

Taiwan:

SAR compliance has been established in typical laptop computer(s) with CardBus slot, and product could be used in typical laptop computer with CardBus slot. Other application like handheld PC or similar device has not been verified, may not comply with related RF exposure rules, and such use shall be prohibited.

根據 NCC 低功率電波輻射性電機管制辦法：

第十二條：
經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條：
低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

이 기기는 가정용으로 전자파적합등록을 한 기기로서 주거지역에서는 물론 모든 지역에서 사용할 수 있습니다 .

해당 무선설비는 전파혼신 가능성이 있으므로 인명안전과 관련된 서비스는 할 수 없음

[United States] FCC Tested to comply
With FCC Standards
FOR HOME OR OFFICE USE
FCC ID:FDI-09102085-0

[Australia] N32
Z068

[Canada] 6102A-032

[Korea] 인증번호:
BUF-WLIUCGNM01

[Singapore]

Complies with
IDA Standards
DA103412

CE 0560 ⚠

Česky[Czech]
Buffalo Technology Inc. tímto prohlašuje, že tento AirStation WLI-UC-GNM je ve shodě se základními
požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.

Dansk[Danish]
Undertegnede Buffalo Technology Inc. erklærer herved, at følgende udstyr AirStation WLI-UC-GNM
overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.

Deutsch[German]
Hiermit erklärt Buffalo Technology Inc. dass sich das Gerät AirStation WLI-UC-GNM in
Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen
Bestimmungen der Richtlinie 1999/5/EG befindet.

Eesti[Estonian]
Käesolevaga kinnitab Buffalo Technology Inc. seadme AirStation WLI-UC-GNM vastavust direktiivi
1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.

English
Hereby, Buffalo Technology Inc. declares that this AirStation WLI-UC-GNM is in compliance with the
essential requirements and other relevant provisions of Directive 1999/5/EC.

Español[Spanish]
Por medio de la presente Buffalo Technology Inc. declara que el AirStation WLI-UC-GNM cumple
con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva
1999/5/CE.

Ελληνική[Greek]
ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Buffalo Technology Inc. ΔΗΛΩΝΕΙ ΟΤΙ AirStation WLI-UC-GNM ΣΥΜΜΟΡΦΩΝΕΤΑΙ
ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.

Français[French]
Par la présente Buffalo Technology Inc. déclare que l'appareil AirStation WLI-UC-GNM est conforme
aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.

Italiano[Italian]
Con la presente Buffalo Technology Inc. dichiara che questo AirStation WLI-UC-GNM è conforme ai
requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.

Latviski[Latvian]
Ar šo Buffalo Technology Inc. deklarē, ka AirStation WLI-UC-GNM atbilst Direktīvas 1999/5/EK
būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.

Lietuvių[Lithuanian]
Šiuo Buffalo Technology Inc. deklaruoja, kad šis AirStation WLI-UC-GNM atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.

Nederlands[Dutch]
Hierbij verklaart Buffalo Technology Inc. dat het toestel AirStation WLI-UC-GNM in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.

Malti[Maltese]
Hawnhekk, Buffalo Technology Inc. , jiddikjara li dan AirStation WLI-UC-GNM jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.

Magyar[Hungarian]
Alulírott, Buffalo Technology Inc. nyilatkozom, hogy a AirStation WLI-UC-GNM megfelel a vonatkozó alapvetõ követelményeknek és az 1999/5/EC irányelv egyéb elõírásainak.

Polski[Polish]
Niniejszym, Buffalo Technology Inc. , deklaruję, że AirStation WLI-UC-GNM spełnia wymagania zasadnicze oraz stosowne postanowienia zawarte Dyrektywie 1999/5/EC.

Português[Portuguese]
Buffalo Technology Inc. declara que este AirStation WLI-UC-GNM está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.

Slovensko[Slovenian]
Buffalo Technology Inc. izjavlja, da je ta AirStation WLI-UC-GNM v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.

Slovensky[Slovak]
Buffalo Technology Inc. týmto vyhlasuje, že AirStation WLI-UC-GNM spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.

Suomi[Finnish]
Buffalo Technology Inc. vakuuttaa täten että AirStation WLI-UC-GNM tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.

Svensk[Swedish]
Härmed intygar Buffalo Technology Inc. att denna AirStation WLI-UC-GNM står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.

Environmental Information

- The equipment that you have purchased has required the extraction and use of natural resources for its production.
- The equipment may contain hazardous substances that could impact health and the environment.
- In order to avoid the dissemination of those substances in our environment and to diminish the pressure on the natural resources, we encourage you to use the appropriate take-back systems.
- The take-back systems will reuse or recycle most of the materials of your end life equipment in a sound way.
- The crossed-out wheeled bin symbol invites you to use those systems.

- If you need more information on the collection, reuse and recycling systems, please contact your local or regional waste administration.

Warranty Information

This Buffalo Technology (Buffalo Inc.) product comes with a two-year limited warranty from the date of purchase. Buffalo Technology (Buffalo Inc.) warrants to the original purchaser the product; good operating condition for the warranty period. This warranty does not include non-Buffalo Technology (Buffalo Inc.) installed components. If the Buffalo product malfunctions during the warranty period, Buffalo Technology/(Buffalo Inc.) will replace the unit, provided the unit has not been subjected to misuse, abuse, or non-Buffalo Technology/(Buffalo Inc.) authorized alteration, modifications or repair.

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In no event shall Buffalo Technology/(Buffalo Inc.) liability exceed the price paid for the product from direct, indirect, special, incidental, or consequential damages resulting from the use of the product, its accompanying software, or its documentation. Buffalo Technology (Buffalo Inc.) does not offer refunds for any product.

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