

User Manual
AirStation Dual A&G
Wireless Notebook Adapter
WLI-CB-AG108HP

Welcome!

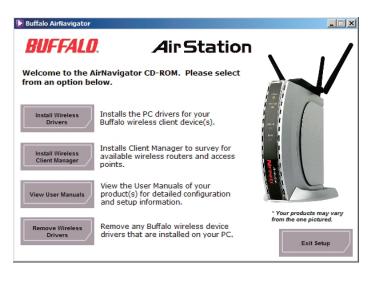
Thanks for buying the WLI-CB-AG108HP Wireless CardBus Client. This wireless notebook adaptor lets you connect your notebook PC to wireless networks that follow the wireless a, wireless b, or wireless g standards.

Getting Started



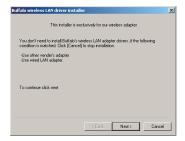
- Insert the AirNavigator CD into the CD-ROM drive of your computer. The AirNavigator Setup Wizard should launch automatically.
- To launch the AirNavigator Setup Wizard manually, click *Start*, then *Run*. Type "*D*:\ *Setup.exe*", where D is the drive letter assigned to your CDrom.
- Click OK to launch the wizard.

Installing Wireless Drivers

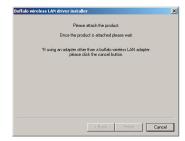


• Select Install Wireless Drivers.

Installing Wireless Drivers







- Click Next to install a driver for the CardBus.
- Select Agree and click Next.
- A window will appear prompting the insertion of the Wireless CardBus Adapter. Firmly insert the AirStation Card into a CardBus slot on your notebook.

Installing Wireless Drivers







- When the 'Found New Hardware Wizard' launches, click Next to run the wizard.
- If the 'Digital Signature Not Found' page opens, click Yes.
- When the Wireless CardBus Adapter is successfully installed, click *Finish*. Restart your computer if prompted.

Connecting Wireless Clients to your Network



Buffalo supports three different methods for connecting your wireless client device to your network.

If your AP supports it, use the simple, utterly secure AOSS to connect. Install the Client Manager from your AirNavigator CD (page 7) and turn to page 10.

You may also use the Client Manager software from your AirNavigator CD to configure your network manually. See page 15 for more on Client Manager.

If you're running Windows XP on your PC, you may use its built-in Zero Configuration tool to connect to your router/AP. See page 20 for more on Zero Configuration.

Client Manager

Client Manager can be used to survey and connect to available access points, configure WPA/WEP encryption, and create connection profiles.

Note: When Client Manager is installed, Windows XP Wireless Zero Configuration is automatically disabled.

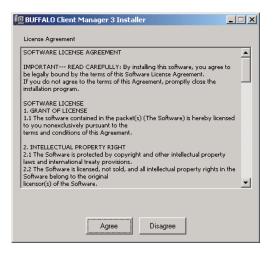


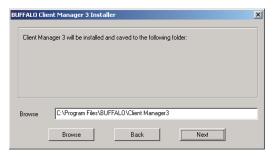
Installing Client Manager

Insert the AirNavigator CD into the CD-ROM drive of you computer. If the Air Navigator Setup Wizard does not launch automatically, launch it manually by clicking *Start* and then *Run*. Enter *D*:\ *Setup.exe* in the dialog box that appears.

Click OK. Select Install Wireless Client Manager.

Client Manager





- Once the Client Manager Installer launches, click Next.
- Press Agree to accept the license agreement and continue installation.

Client Manager



• Click *OK* when Client Manager installation is complete.



• Press *Exit Setup* to exit AirNavigator.

 Client Manager is now installed and running. Right-click on its icon (the black antenna) to use it.





AOSS (AirStation One-Touch Secure System) is a simple, one-touch setup for connecting wireless clients to an access point while enforcing the most secure possible connection encryption type. Users no longer need to worry about choosing the proper security protocols, IP addresses, or SSID. AOSS determines the optimal connection and configures itself in seconds. If your router doesn't support AOSS, turn to page 6 to configure your connection manually with Client Manager or Wireless Zero Config.

The AOSS button for this wireless client is in its Client Manager software. Start Client Manager by right clicking on the black antenna icon in your System Tray, or by launching the Client Manager from your Start Menu: Programs >> Buffalo >> AirStation Utility >> Client Manager.





- From the Status Screen, select the Profiles tab.
- Initiate AOSS by clicking the blue AOSS button on the Client Manager's screen. The AOSS wizard will appear.
- Now, press the AOSS button on the Access Point. Hold it down until the AOSS LED begins to flash.







Once AOSS is complete (about 30 seconds), the connection is archived as a profile for later use. To minimize Client Manager to the system tray, click the 'X' in the top right corner.

Notes:

AOSS will scan for an AOSS partner for about two minutes. If it times out before finding one, just press the AOSS buttons again.

Output power is reduced to 25% of normal during AOSS for security reasons. If you're having trouble making an AOSS connection, temporarily move the devices closer together.

AOSS will automatically use the highest level of security available for all currently connected wireless devices.

If you have trouble connecting with AOSS, temorarily disable all personal firewalls on your PC, such as ZoneAlarm or Microsoft Personal Firewall. These programs may be re-enabled after AOSS has finished.

You may use Client Manager to configure your wireless network. Client Manager consists of the Status page, the Survey page, and the Profiles page. You can access each page by clicking the corresponding button on Client Manager. In addition to these pages, several dialog boxes are also available. You can access the Edit Profile dialog box, New Profile dialog box, IP Configuration dialog box, or WEP Configuration dialog box using the Client Manager pages. You may also initiate AOSS.

Status Page



Click *Status* to open this page. By default, this page is displayed when you start Client Manager. Details of connection status are displayed.

This page only displays connection information; no changes to settings are made here.

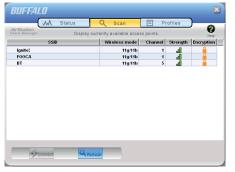
This page includes the following components:

 Adapter Name – Displays the part number of the wireless adaptor that is being used.

- **Network Type** Displays whether network is in Ad-Hoc or Infrastructure mode.
- Rate The speed of communication between wireless devices. If the Client Manager is not connected to a remote wireless device (access point or another client), no rate will be displayed.
- **Channel** The channel that the two wireless clients are using for communication. If the Client Manager is not connected to a remote wireless device, no channel will be displayed. Channels 1-11 may be used.
- **Security** The type of encryption in use. If the Client Manager is not connected to a remote wireless device, then 'No Encryption' will be displayed.
- IP Address The IP address of the machine the Client Manager is installed on. If the Client Manager is not connected to a network with DHCP, then no IP address will be displayed.
- MAC Address The MAC address of the wireless client device inside the computer
 Client Manager is installed on. If no wireless device is present in the computer, then no
 MAC Address will be displayed.
- **Signal Strength** Displays the signal strength of the peak signal level the wireless adapter receives from the wireless device to which it is connected. Next to the signal level is the wireless hardware being used for this measurement.

Click the *Scan* tab to open this page. Here, you can survey the area, display available access points, and connect to available access points.

This page includes the following components:



- Wireless SSID The SSID is the "name" of a wireless network. Each wireless device on a network must use identical SSIDs to successfully communicate.
- Wireless Mode Displays available modes for each available remote wireless device.
- Strength Displays the relative signal strength of the wireless networks.
- **Encryption** Displays whether the wireless network is using any sort of encryption.

Click *Connect* to connect to a highlighted SSID, or *Refresh* to update the list of available wireless devices.

This dialog will open for you to enter any necessary encryption information.



The correct encryption type should already be selected automatically in the *Encryption Method* drop down list. Only change this setting if necessary.

The *Encryption Key* is where the actual key for the wireless network should be entered. Some wireless networks allow you to enter multiple keys; four separate fields are available for this. If your network only uses one encryption key, then please use the first field (#1) to enter your key.

The *Register Profile* option will store this wireless network in your profiles. You will then automatically connect to this network when inside its range. This is recommended if you plan

on using this wireless network again.

Press the Connect button once you have completed entering encryption information.

Profiles Page



Click the *Profiles* tab to open this page. Use this page to access your profiles. Profiles allow you to save the information associated with a specific wireless network so you can quickly and easily connect to that network when you are in that location. The Profiles page allows you to add, delete, and edit your profiles, as well as import and export data.

- **Connect** Click the *Connect* button to connect to the selected profile and return to the Status page.
- **Edit** Click the *Edit* button to edit the selected profile's settings. The Edit button also allows you to delete profiles that are no longer used or required.
- **Add** Click the *Add* button to add a profile manually. You will need important information such as SSID, encryption settings, and network type.

New Profile Dialog Box



- **Select Profile** Select whether the profile is for a wireless or wired connection.
- **Profile Name** Enter the name you want to associate with the new profile.
- Network Type Select the network mode you want to associate with the new profile. Select *Infrastructure* if your network consists of both wired and wireless devices that communicate through a central device, such as an access point. Select *Ad-hoc* if your network consists of only wireless devices that communicate with each other directly.
- **Network Name SSID** Enter the *SSID* of your network. The SSID is the name of your wireless network. All wireless

devices on a network must use identical SSIDs to successfully associate with other devices on the network. MYSSID is an example of a valid SSID.

- **Channel** The channel setting is only used for Ad-hoc connections. When using an Ad-hoc connection, select a channel and make sure the other Ad-hoc devices are configured to use the same channel. Otherwise, use *Auto-Channel*.
- **Encryption Method** Displays the types of encryption available. Once encryption is selected, you will be required to enter an Encryption Key. For the Transmission Key Number, 1 is recommended.
- **OK** Click *OK* to save your specifications and return to the Profiles page.

Advanced Profile Options

- **Network Tab** Displays the network information tab. A static IP can be specified for this wireless profile here. It is not recommended to change any of these settings unless specified by an administrator.
- **Browser Tab** Displays settings to change your browser preferences for this wireless profile. A specific home page can be specified when connected to this wireless profile as can specific proxy server addresses.
- **Printers Tab** Displays the printers tab. A specific default printer can be associated to this profile. Thus, when connected to this profile, a specific printer will be used as the default printer.
- **OK** Click the *OK* button to save your specifications and return to the Profiles page.

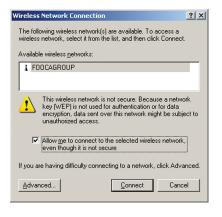


 AOSS Icon – To automatically add the USB wireless client to your network, just click this icon and then hold down the AOSS button on your wireless router for a few seconds.

Check your package for an AOSS Manual, which will give more information on using AOSS.

Zero Configuration Service

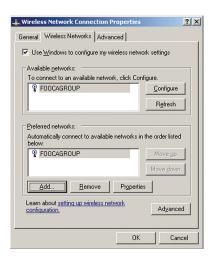


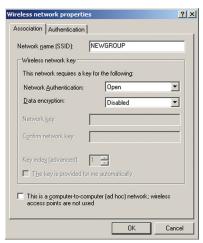


Windows XP includes the Zero Configuration Service, a built in service to configure your wireless clients from within Windows. Turn to page 7 if you would rather use Buffalo's Client Manager to configure your wireless client.

- If the Wireless Zero Configuration Service is activated, Windows will scan for available wireless access points once the Wireless CardBus Adapter is properly installed. If Windows detects one or more access points, a networking icon appears within the system tray. "One or more wireless networks are available" will appear as a caption accompanying the icon.
- To start Wireless Zero Configuration manually, click Start >> Control Panel >> Administrative Tools >> Services. Select Automatic in the Startup Type field of Wireless Zero Configuration Service.
- Right click the networking icon in the taskbar and select *View Available Wireless Networks*. Select an SSID and click *Connect*. You may need to check the box indicating you are connecting to an unsecured network. See page 21 if you need to enter an SSID network name or WEP/WPA encryption key.

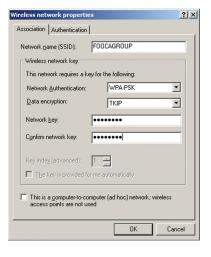
Iero Configuration Service





• Click the *Advanced* tab to enter an SSID network name or WEP/WPA encryption key if necessary. To add an SSID network name that is not listed, click *Add*.

Iero Configuration Service



- To configure a WEP/WPA encryption key, select the wireless network and click *Configure*.
- From the pull down menu, select the Network
 Authentication and Data Encryption types for the
 wireless network. Enter and confirm the Network
 Key and Key Index. Click OK when finished.

Wireless Zero Configuration

Wireless Zero Configuration Service (Windows XP)

Windows XP offers the Wireless Zero Configuration Service to support 802.11b and 802.11g wireless networking. This service automatically polls the area for available wireless access points. If an available wireless access point is found, Windows attempts to connect to the access point. If no available wireless access points are found, you must manually add the access point information to connect (for example when the SSID is not broadcasted).

Note: The Wireless Zero Configuration Service and Client Manager do not function properly together. If you want to use Client Manager, you must disable the Wireless Zero Configuration Service.

Enabling the Wireless Zero Configuration Service

Click Start >> Control Panel >> Administrative Tools >> Services to open the Services configuration window. Select Automatic in the Startup Type field of Wireless Zero Configuration Service to enable the Wireless Zero Configuration Service and click apply.

Note: The default Startup Type value of Wireless Zero Configuration Service is Automatic.

Disabling the Wireless Zero Configuration Service

Click Start >> Control Panel >> Administrative Tools >> Services to open the Services configuration window. Select Disabled in the Startup Type field of Wireless Zero Configuration Service to disable the Wireless Zero Configuration Service.

Antenna Information



The WLI-CB-AG108HP includes builtin antennas that allow it to connect to 802.11a, 802.11b, or 802.11g networks. External antennas cannot be attached to the WLI-CB-AG108HP.

Specifications

Wireless LAN Interface

Standards Compliance	IEEE 802.11a IEEE 802.11g IEEE 802.11b
Communication Protocol	Direct Sequence Spread Spectrum (DSSS)
(OFDM)	Orthogonal Frequency Division Multiplexing
Frequency Range	2.412 - 2.462 Mhz
Transmission Rate	802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps (Auto)
	802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps (Auto)
	802.11b: 1, 2, 5.5, 11 Mbps (Auto)
Access Mode	Infrastructure Mode
Security	128/64 Bit WEP, WPA-PSK (TKIP & AES)

Other

Interface	CardBus
Environmental Operation	0 - 130° Fahrenheit 0 - 55° Celsius
	Relative Humidity 20 - 80 % (non-condensing)

Troubleshooting / FAQ

What should I do if I already have a version of Client Manager on my PC?

Update your Client Manager to the version on the CD. If you do not update your Client Manager, there could be a loss of functionally, as some older versions of Client Manager will not work properly with the G300N Wireless Notebook Adapter. Before updating Client Manager, uninstall any previous versions of Client Manager. To update your Client Manager, load the Air Navigator CD and select *Install Client Manager*. Profiles can first be exported from the *Profiles* tab of Client Manager and then imported back into Client Manager after installation.

Why won't Client Manager function properly?

The Wireless Zero Configuration Service in Windows XP conflicts with Client Manager. If you use Windows XP, make sure that the Wireless Zero Configuration Service is disabled.

Click Start >> Control Panel >> Administrative Tools >> Services. Select Disabled in the Startup Type field of Wireless Zero Configuration Service to enable the Wireless Zero Configuration Service. The default value of Wireless Zero Configuration Service is Automatic.

I have more than one Air Navigator CD. Do I need more than one CD?

No. The same Air Navagator CD works with all Buffalo Technology access points and wireless adapters. Please use the newest CD you have, with the highest revision number on it.

10BaseT or 100BaseTx: 802.3 based Ethernet network that uses UTP (Unshielded twisted pair) cable and a star topology. 10 is 10 Mbps and 100 is 100 Mbps.

802.1x: The standard for wireless LAN authentication used between an AP and a client. 802.1x with EAP will initiate key handling.

Ad-Hoc Network: The wireless network based on a peer-to-peer communications session. Also referred to as Adhoc.

Bandwidth: The transmission capacity of a computer or a communication channel, stated in Megabits per second (Mbps).

BSS (Basic Service Set): An 802.11 networking framework that includes an Access Point.

Bus Mastering: A system in which the specified Input/Output device (e.g. NIC Card) can perform tasks without the intervention of the CPU.

Client: A PC or workstation on a network.

Cross-Over Wiring: A UTP cable that has its transmit and receive pair crossed to allow communications between two devices.

DCE (Data Communications Equipment): Hardware used for communication with a Data Terminal Equipment (DTE) device.

Default Gateway: The IP Address of either the nearest router or server for the LAN.

Default Parameter: Parameter set by the manufacturer.

Destination Address: The address portion of a packet that identifies the intended recipient station.

Protocol): Based on BOOTP, it uses a pool of IP addresses, which it assigns to each device connected to it, and retrieves the address when the device becomes dormant for a period of time.

DNS (Domain Name System): System used to map readable machine names into IP addresses

Driver: Software that interfaces a computer with a specific hardware device.

DSSS (Direct Sequence Spread Spectrum): Method of spreading a wireless signal into wide frequency bandwidth.

DTE (Data Terminal Equipment): Device that con10BaseT or 100BaseTx: 802.3 based Ethernet network that uses UTP (Unshielded twisted pair) cable and a star topology. 10 is 10 Mbps and 100 is 100 Mbps.

802.1x: The standard for wireless LAN authentication used between an AP and a client. 802.1x with EAP will initiate key handling.

Ad-Hoc Network: The wireless network based on a peer-to-peer communications session. Also referred to as AdHoc.

Bandwidth: The transmission capacity of a computer or a communication channel, stated in Megabits per second (Mbps).

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DSSS (Direct Sequence Spread Spectrum): Method of spreading a wireless signal into wide frequency bandwidth.

DTE (Data Terminal Equipment): Device that controls data flowing to and from a computer.

Dynamic IP Address: An IP address that is automatically assigned to a client station in a TCP/IP network, typically by a DHCP server.

ESS (Extended Service Set): A set of two or more BSSs that form a single sub-network. ESS-ID is user identification used in the ESS LAN configuration.

Ethernet: The most widely used architecture for Local Area Networks (LANs). It is a shared-media network architecture. The IEEE 802.3 standard details its functionality.

Ethernet cable: A wire similar to telephone cable that carries signals between Ethernet devices.

File and Print Sharing: A Microsoft application that allows computers on a network to share files and printers.

Firmware: Programming inserted into programmable read-only memory, thus becoming a permanent part of a computing device.

Frame: A fixed block of data, transmitted as a single entity. Also referred to as packet.

Full-Duplex: To transmit on the same channel in both directions simultaneously.

Gbps (Giga Bits per second): One billion bits per second.

Half-duplex: To transmit on the same channel in both directions, one direction at a time.

Hub: A device which allows connection of computers and other devices to form a LAN.

IEEE (Institute of Electrical and Electronics Engineers): The professional organization which promotes development of electronics technology.

IP (Internet Protocol) Address: A unique 32-binary-digit number that identifies each sender or receiver of information sent in packets.

Infrastructure: A wireless network or other small network in which the wireless network devices are made a part of the network through the Access Point.

ISP (Internet Service Provider): A company that provides access to the Internet and other related services.

IV (Initialization Vector): The header section of a message packet.

LAN (Local Area Network): A group of computers and peripheral devices connected to share resources.

LED (Light Emitting Diode): The lights on a hardware device representing the activity through the ports.

MAC (Medium Access Control) Address: A unique number that distinguishes network cards.

Mbps (Mega Bits Per Second): A measurement of millions of bits per second.

MDI/X (Media Dependent Interface/Crossover): Port on a network hub or switch that crosses the incoming transmit lines with the outgoing receive lines.

MHz (MegaHertz): One million cycles per second.

MIB II: A database containing performance information and statistics on each device in a network.

MIPS (Million Instructions Per Second): A measurement of processing speed.

NAT (Network Address Translation): An internet standard that enables a LAN to use one set of IP addresses for internal traffic and a second set for external traffic.

NIC (Network Interface Card): An expansion card connected to a computer so the computer can be connected to a network.

Packet: A block of data that is transferred as a single unit, also called a frame or a block.

Packet Filtering: Discarding unwanted network traffic based on its originating address or its type.

PCI (Peripheral Component Interconnect): A bus that is connected directly to the CPU.

PCMCIA (Personal Computer Memory Card International Association) Card: Removable module that adds features to a portable computer.

Ping (Packet Internet Groper): An Internet utility used to determine whether a particular IP address is online.

Plug and Play: Hardware that, once installed ("plugged in"), can immediately be used ("played"), as opposed to hardware that requires manual configuration.

PoE (Power over Ethernet): A mechanism to send DC power to a device using a CAT5 Ethernet cable.

PPPOE (Point-to-Point Protocol over **Ethernet**): A specification for connecting users on an Ethernet line to the Internet through a common broadband medium.

Protocol: A standard way of exchanging information between computers.

RADIUS (Remote Authentication Dial In User Service): A server that issues authentication key to clients.

RAM (Random Access Memory): Non-permanent memory.

Repeater Hub: A device that collects, strengthens and transmits information to all connected devices, allowing the network to be extended to accommodate additional workstations.

RC4: The encryption algorithm that is used in WEP.

RJ-45 connector: An 8-pin connector used between a twisted pair cable and a data transmission device.

ROM (Read Only Memory): Permanent memory.

Router: Device that can connect individual LANs and remote sites to a server.

Roaming: The ability to use a wireless device while moving from one access point to another without losing the connection.

Script: A macro or batch file containing instructions and used by a computer to perform a task.

Server: Any computer that makes files or peripheral devices available to users of the network and has a resident Network OS.

SMTP (Simple Mail Transfer Protocol):

The protocol used to define and deliver electronic mail (E-mail) from one location to another.

SNMP (Simple Network Management Protocol: An application layer protocol that outlines the formal structure for communication among network devices.

Static IP Address: A permanent IP address is assigned to a node in a TCP/IP network. Also known as global IP.

STP (Shielded Twisted Pair): Twisted Pair cable wrapped in a metal sheath to provide extra protection from external interfering signals.

Subnet Mask: An eight-byte address divided into 4 parts separated by periods.

TCP/IP (Transmission Control Protocol/ Internet Protocol: Protocol used by computers when communicating across the Internet or Intranet.

IFTP (Trivial File Transfer Protocol): Simple form of FTP (File Transfer Protocol), which Uses UDP (User Datagram Protocol), rather than TCP/IP for data transport and provides no security features.

TKIP (Temporal Key Integrity Protocol): An encryption method replacing WEP. TKIP uses random IV and frequent key exchanges.

Topology: The shape of a LAN (Local Area Network) or other communications system.

Twisted Pair: Cable that comprises 2 or more pair of insulated wires twisted together.

UDP (User Datagram Protocol): A communication method (protocol) that offers a limited amount of service when messages are exchanged between computers in a network. UDP is used as an alternative to TCP/IP.

Uplink: Link to the next level up in a communication hierarchy.

UTP (Unshielded Twisted Pair) cable: Two or more unshielded wires twisted together to form a cable.

WAN (Wide Area Network): A networking system covering a wide geographical area.

WEP (Wired Equivalent Privacy): An encryption method based on 64 or 128-bit algorithm.

Web Browser: A software program that allows viewing of web pages.

Wi-Fi (Wireless Fidelity): An organization that tests and assures interoperability among WLAN devices.

Wire Speed: The maximum speed at which a given packet can be transferred using Ethernet and Fast Ethernet standard specifications.

WLAN (Wireless LAN): A LAN topology using wireless devices.

VPN (Virtual Private Network): A security method to connect remote LAN users to a corporate LAN system.



Federal Communication Commission Declaration of Conformity (DoC) Statement

Model No: WLI-CB-AG108HP

AirStation Dual A&G Wireless Network Adapter

Buffalo Inc.

15, Shibata Hondori 4-chrome Minami-ku, Nagoya 457-8520 Japan 01181-52-241-7980

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 or more 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.

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.

Caution:

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

Within the 5.15-to-5.25-GHz band, UNII devices are restricted to indoor operations to reduce any potential for harmful interference to co-channel Mobile Satellite Systems (MSS) operations Caution:

Exposure to radio frequency radiation (below is for mobile device)

To comply with FCC RF exposure compliance requirements, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons. This device must not be co-located or operating in conjunction with any other antenna or transmitter.

Caution Exposure to radio frequency radiation (below is for portable device)

To comply with FCC RF exposure compliance requirements, this device must not be colocated or operating in conjunction with any other antenna or transmitter.

b. Industry Canada Portion

Canada Regulatory Compliance Statement

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numériqué de la classe B est conformé à la norme NMB-003 du Canada.

For Customers in Canada

This device complies with RSS 210 of Industry Canada (IC).

Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of this device.

L'utilisation de ce dispositif est autorisée seulement aux conditions suivantes :

- (1) il ne doit pas produire de brouillage et
- (2) l' utilisateur du dispositif doit étre prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

Caution: Within the 5.15-to-5.25-GHz band, UNII devices are restricted to indoor operations to reduce any potential for harmful interference to co-channel Mobile Satellite Systems (MSS) operations Exposure to radio frequency radiation (below statement applied to mobile or portable device) The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website at www.hc-sc.gc.ca/rpb.

c. EU Portion

European Community Declaration of Conformity with Regard to the R&TTE Directive 1999/5/EC

The following standards were applied:

- Radio: EN 300-328 v1.6.1 (2.4-GHz operation)
- EN 301-893 v1.2.3 (5-GHz operation)
- EMC: EN 301.489-1 v1.4.1, EN 301.489-17 v1.2.1
- Safety: IEC 60950 (1999 3rd Edition with Amend. 1,2,3,4) & EN 60950 (2000)

The following CE mark is affixed to the device:

C€ 0984 **①**

Note: This equipment is intended to be used in all EU and EFTA countries. Outdoor use may be restricted to certain frequencies and/or may require a license for operation. For more details, contact your customer service representative.

To comply with RF exposure compliance requirements, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons. This device must not be co-located or operating in conjunction with any other antenna or transmitter. Member States shall ensure that the manufacturer or the person responsible for placing the apparatus on the market provides information for the user on the intended use of the apparatus, together with the declaration of conformity to the essential requirements. Where it concerns radio equipment, such information shall be sufficient to identify on the packaging and the instructions for use of the apparatus the Member States or the geographical area within a Member State where the equipment is intended to be used and shall alert the user by the marking on the apparatus referred to in Annex VII, paragraph 5, to potential restrictions or requirements for authorization of use of the radio equipment in certain Member States.

Declaration of Conformity with Regard to the R&TTE Directive 1999/5/EC

Česky

[Czech]

Buffalo Technology Inc. tímto prohlašuje, že tento AirStation WHR-HP-AG108 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 WHR-HP-AG108 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 WHR-HP-AG108 in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.

Festi

[Estonian]

Käesolevaga kinnitab Buffalo Technology Inc. seadme AirStation WHR-HP-AG108 vastavust direktiivi 1999/5/ EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.

English Hereby, Buffalo Technology Inc. declares that this AirStation WHR-HP-AG108 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 WHR-HP-AG108 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 WHR-HP-AG108 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 WHR-HP-AG108 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 WHR-HP-AG108 è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.

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 WHR-HP-AG108 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 WHR-HP-AG108 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 WHR-HP-AG108 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 WHR-HP-AG108 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 WHR-HP-AG108 atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.

Lietuvių

[Lithuanian]

Šiuo Buffalo Technology Inc. deklaruoja, kad šis AirStation WHR-HP-AG108 atitinka esminius reikalavimus ir kitas

1999/5/EB Direktyvos nuostatas.

Nederlands

[Dutch]

Hierbij verklaart Buffalo Technology Inc. dat het toestel AirStation WHR-HP-AG108 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 WHR-HP-AG108 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 WHR-HP-AG108 megfelel a vonatkozó

alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.

Polski

[Polish]

Niniejszym, Buffalo Technology Inc., deklaruję, że AirStation WHR-HP-AG108 spełnia wymagania zasadnicze oraz stosowne postanowienia zawarte Dyrektywie 1999/5/EC.

Português

[Portuguese]

Buffalo Technology Inc. declara que este AirStation WHR-HP-AG108 está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.

Slovensko

[Slovenian]

Buffalo Technology Inc. izjavlja, da je ta AirStation WHR-HP-AG108 v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.

Slovensky

[Slovak]

Buffalo Technology Inc. týmto vyhlasuje, že AirStation WHR-HP-AG108 spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.

Suomi

[Finnish]

Buffalo Technology Inc. vakuuttaa täten että AirStation WHR-HP-AG108 tyyppinen laite on direktiivin

1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.

Svenska

[Swedish]

Härmed intygar Buffalo Technology Inc. att denna AirStation WHR-HP-AG108 står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.

Taiwan Regulatory Compliance Statement

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,指依電信規定作業之無線電信。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。

在 5.25-5.35 秭赫頻帶內操作之無線資訊傳輸設備,限於室內使用。

Safety

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this manual and of the computer manufacturer must therefore be allowed at all times to ensure the safe use of the equipment.

Intended use

This device is a 2.4 GHz wireless LAN transceiver, intended for indoor home and office use in USA, Canada, 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 wireless LAN transceiver, intended for indoor home and office use in all EU and EFTA member states, except in France, Belgium 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.

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.

In France only channels 10,11,12 and 13 are available.

This device may not be used for setting up outdoor radio links in France. For more information see http://www.anfr.fr/ and/or http://www.art-telecom.fr

Warranty Information

Buffalo products come with a 2-year limited warranty from the date of purchase. Buffalo Technology warrants products in good operating condition for the warranty period. This warranty does not include non-Buffalo Technology installed components. If the Buffalo product malfunctions during the warranty period, Buffalo Technology will, at its discretion, repair or replace the product at no charge, provided the product has not been subjected to misuse, abuse or non-Buffalo Technology authorized alterations, modifications, or repairs. When returning a product, include your original proof of purchase. Return requests cannot be processed without proof of purchase. Shipment of returned product to Buffalo Technology is the responsibility of the purchaser. All expressed and implied warranties for the Buffalo product line including, but not limited to, the warranties of merchantability and fitness for a particular purpose, are limited in duration to the above period.

Under no circumstances shall Buffalo Technology be liable in any way to the user for damages, including any lost profits, lost savings or other incidental or consequential damages arising out of the use of, or inability to use, the Buffalo products.

Buffalo Technology reserves the right to revise or update its products, software, or documentation without obligation to notify any individual or entity.

Please have your proof of purchase receipt to get warranty support. All defective products shall be returned with a copy of proof of purchase.

In no event shall Buffalo Technology's 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 does not offer refunds for any product.

Contact Information

North America (USA / Canada)

ADDRESS

Buffalo Technology (USA), Inc. 4030 West Braker Lane, Suite 120 Austin, TX 78759-5319

GENERAL INQUIRIES

Monday through Friday 8:30am-5:30pm CST **Direct**: 512-794-8533 **Toll-free**: 800-456-9799

Fax: 512-794-8520

Email: sales@buffalotech.com

TECHNICAL SUPPORT

North American Technical Support by phone is available 24 hours a day, 7 days a

week. (USA and Canada). Toll-free: (866) 752-6210 Email: info@buffalotech.com

Europe

ADDRESS

Buffalo Technology UK LTD 176, Buckingham Avenue, Slough, Berkshire, SL1 4RD United Kingdom

GENERAL INQUIRIES

Tel: +44 (0) 1753 555000 **Fax**: +44 (0) 1753 535420

E-mail: sales@buffalo-technology.com

TECHNICAL SUPPORT

European Technical Support is available between the hours of 9am-6pm (GMT) Monday to Thursday and 9am-4:30pm (GMT) Friday for this product. Customers in Europe can obtain Technical Support using the following information:

• **Telephone** UK only: 08712 50 12 60

Elsewhere: +353 61 708 050

Email: helpdesk@buffalo-technology.ie Web www.buffalo-technology.com

• Online Help Available on the enclosed AirNavigator CD.

Contact Information

At Buffalo Technology, we constantly update our software and firmware. For the most recent software, firmware, driver, and technical whitepaper releases available, please visit the Buffalo Technology website: **www.buffalotech.com**.