

AirStation WXR-1900DHP User Manual

www.buffalotech.com

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Chapter 1 - Setup

Introduction

Thank you for purchasing a Buffalo AirStation. The WXR-1900DHP AirStations are dual-band wireless routers with outstanding performance and range. They combine high data transfer speeds with a robust set of extra features like QoS, USB NAS, media server, and web filtering. This manual will help you set up and use your new wireless router. If you're new to wireless networking, turn to chapter 2 to start configuring your wireless network.

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

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

Diagrams and Layout

Front Panel



1 AOSS button

To initiate AOSS, hold down this button until the wireless LED flashes (about 1 second). Then, push or click the AOSS button on your wireless client device to complete the connection. Both devices must be powered on. Press and hold the AOSS button for about 10 seconds to start Wi-Fi settings transfer.

2 Power LED (white or amber)

On (white): Power is on. Blinking (white): Booting. Off: Power is off. Blinking (amber): An error occurred. If it happened, turn the power off and restart AirStation.

3 Wireless LED (white or amber)

On: Wireless LAN is enabled or transmitting. **Double blinks:** AirStation is waiting for an AOSS or WPS security key. Blinking (white): AOSS/WPS error; failed to exchange security keys. Blinking (amber): The AirStation is in wireless bridge mode and not connect to an access point. Off: Wireless LAN is disabled.



Internet Access LED (white) On: Internet access is available. Off: No Internet access.



5 Router LED (white) On: Router functionality is enabled. Off: Router functionality is disabled.

6 USB 3.0 Port You can connect a USB 3.0 drive.

Back Panel



1 **USB** Eject Button

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

2 USB LED (green) On:

A USB drive is connected.

Blinking:

The USB drive is being dismounted; do not unplug.

Off:

The USB drive has been dismounted and safely unplugged or no USB drive is connected.

Note: Do not remove the USB drive or turn off the AirStation while LED is blinking.

3 USB 2.0 Port

You can connect a USB 2.0 drive.

Note: USB 3.0 hubs are not supported. Use USB 2.0 hubs only.



4 LAN Ports and LAN LEDs (green) Connect your computer, hub, or other Ethernet devices to these ports. This switching hub supports 10 Mbps, 100 Mbps, and 1000 Mbps connections. On:

An Ethernet device is connected.

Blinking:

An Ethernet device is communicating.

5 Internet Port and Internet LED (green) 10 Mbps, 100 Mbps, and 1000 Mbps connections are supported.

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

On:

The Internet port is connected. Blinking: The Internet port is transmitting data.

- 6 Power Button This button turns the power on and off.
- 7 DC Connector Connect the included AC adapter here.

Side Panel



1 Setup Card Panel

This is the panel where the AirStation setup card is stored. The initial settings for the username, password, SSID, and encryption type are provided on the card for logging in to Settings.

Bottom



1 Reset Button

To reset all settings, hold down this button until the power LED starts blinking (about 3 seconds). The power must be on for this to work.

2 Mode Switch

This switches between router mode, access point mode, and wireless bridge mode.

How to Set Up AirStation for the First Time

Connect to a PC and Power On

To configure your AirStation, follow the procedure below.

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



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



4 Turn on the AirStation and wait one minute.



AirStation

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

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



 Once your computer has booted, the AirStation's LEDs should be lit as described below: Power/Diag: Lit green.
Wireless: Lit green.
Internet access: Lit green.
Router: Lit green.
LAN: Lit or blinking green.
Internet: Lit or blinking green.

8

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

You've completed the initial setup of your AirStation.

Opening Settings

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

1 Launch a web browser.

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



Notes:

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

3 Enter "admin" for the username and "password" for the password, then click [Log In].

Username	
admin	
Password	
•••••	
Mobile version	
Log In	

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

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



Connect Your Wireless Devices

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

Not connected	4g -
Connections are available	
Wireless Network Connection 2	
106F3F273792_G	the.
Buffalo-G-00A8-1	lite.
Connect automatically	onnect
VERISERVE-Priter	lite.
omoidetest	lite.
L04D	Ine
WAP-G	itte.
	al -

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



Appendix A - Supplemental Information

Package Contents

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

AirStation	1
AirStation setup card	1
Antennas	3
USB cap	1
AC adapter	1
Ethernet cable	1
Quick setup guide	1
Warranty statement	1

Factory Default Settings

Feature	Parameter	Default Setting	
	Method of Acquiring IP Address	Internet Connection Wizard	
	Default Gateway	-	
Internet	DNS Name Server Address	-	
	Internet MAC Address	Use default MAC address	
	MTU Size of Internet Port	1500 Bytes	
	Default PPPoE Connection	No active session.	
	IP Unnumbered PPPoE	No active session	
PPPoE	Connection		
	PPPoE Connection List	No connections registered.	
	Preferred Connections	No connections registered.	
Dynamic DNS	Dynamic DNS Service	Disabled	
	PPTP Server	Disabled	
	Authentication Type	MS-CHAPv2 (40/128-bit Encryption)	
	Server IP Address	Auto	
DOTO	Client IP Address	Auto	
PFIF	DNS Server IP Address	LAN-side IP address of the AirStation	
	WINS Server IP Address	-	
	MTU/MRU Value	1362	
	PPTP User List	No registered users.	
NAT	Address Translation	Enabled	

Feature	Parameter	Default Setting	
IPv6	IPv6 Connection Method	Internet Connection Wizard	
		IP address: 192.168.11.1	
	LAN-SIDE IP Address	Subnet mask: 255.255.255.0	
	DHCP Server	Enabled	
	DHCP IP Address Pool	From 192.168.11.2 to 192.168.11.65	
	LAN-side IP Address (For IP		
	Unnumbered)	-	
	Advanced Settings	Not displayed	
	Lease Period	48 hours	
	Default Gateway	AirStation's IP address	
	DNS Servers	AirStation's IP address	
	WINS Server	Do not specify	
	Domain Name	Assigned by DHCP	
DHCP Leases	Current DHCP Clients	-	
Routing	Routing	No routes registered.	

Feature	Parameter	Default Setting		
	Wireless	Enabled		
	Wireless Channel	Auto Channel		
		2.4 GHz: 288.9 Mbps (20 MHz)		
	High-Speed Mode	5 GHz: 1300 Mbps (80 MHz)		
	Broadcast SSID	Allow		
	SSID 1	Use		
	SSID Isolation	Not used		
	SSID	Use AirStation's MAC address		
	Wireless Authentication	WPA2-PSK		
	Encrypt Wireless Data	AES		
		An 8-digit random number		
	WPA-PSK (Pre-shared Keys)	(Printed on the setup card)		
	Key Renewal Interval	0 minutes		
	SSID 2	Not used		
	SSID Isolation	Not used		
	SSID	Use AirStation's MAC address		
	WEP Encryption Key Settings	-		
		2.4 GHz: 1, 2, 5.5, 11 Mbps		
	BSS Basic Rate Set	5 GHz: 6, 12, 24 Mbps		
	Multicast Rate	Auto		
	802.11n Protection	Not used		
	DTIM Period	1		
2.4 GHZ	Wireless Client Isolation	Not used		
5 GHZ	Output Power	100%		
	11bg-256QAM (2.4 GHz only)	Use		
	BeamformingEX (5 GHz only)	Use		
	WMM Settings	Not displayed		
			For AP	For STA
		CWmin	15	15
	WMM-EDCA Parameters	CWmax	1023	1023
	(Priority AC_BK (Low))	AIFSN	7	7
		TXOP Limit	0	0
		Admission Control		Disabled
			For AP	For STA
		CWmin	15	15
	WMM-EDCA Parameters	CWmax	63	1023
	(Priority AC_BE (Normal))	AIFSN	3	3
		TXOP Limit	0	0
		Admission Control		Disabled
			For AP	For STA
		CWmin	7	7
	WMM-EDCA Parameters	CWmax	15	15
	(Priority AC_VI (High))	AIFSN	1	2
		TXOP Limit	94	94
		Admission Control		Disabled

Feature	Parameter	Default Setting		
	WMM-EDCA Parameters (Priority AC_VO (Highest))		For AP	For STA
		CWmin	3	3
		CWmax	7	7
		AIFSN	1	2
		TXOP Limit	47	47
		Admission Control		Disabled
	WPS	Enabled		
	External Registrar	Enabled		
	AirStation DIN	An 8-digit random value		
	AirStation Pin	(Printed on the label of the AirStation)		
	WPS PIN	-		
		WPS Status:		
		Configured		
WDC		SSID:		
WPS		Buffalo-A-XXXX (where "XXXX	" is the last 4 dig	gits of the
		AirStation's MAC address).		
	WPS Security Settings	Buffalo-G-XXXX (where "XXXX	" is the last 4 dig	gits of the
		AirStation's MAC address).		
		Security:		
		WPA2-PSK AES		
		Encryption Key:		
		An 8-digit random number (Printed on the setup card)		
	AOSS Status	Not in use		
AOSS	Allow WEP for Game Consoles Only	Disabled		
	AOSS Button on The AirStation Unit	Enabled		
	Enforce MAC Filtering	Disabled		
MAC Filtering	Registration List	No Registered MAC addresses		
Multicast	Snooping	Enabled		
Control	Multicast Aging Time	300 seconds		
	Guest Accounts	Disabled		
	Guest User Authentication	Disabled		
	Guest Account LAN IP Address	Auto		
Guest Accounts	Permitted Access Time	3 hours		
	SSID	Use AirStation's MAC address		
	Wireless Authentication	No Authentication		
	Wireless Encryption	No Encryption		
Show Guests No registered guest users.				
Wi-Fi Settings Transfer	Settings Transfer Status	No transfers		

Feature	Parameter	Default Setting	
		Prohibit NBT and Microsoft-DS routing:	
		Disabled	
		Reject ident requests:	
	Firewall Settings (IPv4)	Enabled	
		Block ping from Internet:	
		Enabled	
		Prohibit NBT and Microsoft-DS/SMB 2.0 routing:	
Firewall		Enabled	
		Reject ident requests:	
		Enabled	
	Firewall Settings (IPv6)	Block ning from Internet	
		Disabled	
		Plack TCP connection requests from Internet:	
		Enabled	
ID Filtor	IBv/ Filtor	No IP filters have been configured yet	
IP FILLEI IPv6 Filter	IPv6 Filter	No IP filters have been configured yet.	
	PPPoE Passtbrough	Disabled	
Passthrough	PPTP Passthrough	Enabled	
Port Forwarding	Forwarded Ports	Port forwarding has not been set up vet.	
DMZ	Add IP Address to DMZ		
UPnP	UPnP	Enabled	
Web Filtering	Filter Level	No Filters	
Access Control	Access Control	Disabled	
	Automatic USB Drive	Enabled	
	Assignment		
Disk	Advanced	Not Displayed	
Management	Character Code for FAT	North America (CP437)	
	Sleep Mode	Disabled	
	Current Users	No users registered.	
	Shared Folder	Enabled	
	AirStation Name	"AP" + AirStation's MAC Address	
Sharing	AirStation Description	-	
	Workgroup Name	WORKGROUP	
	Windows Client Language	North America (CP437)	
	WebAccess	Disabled	
WebAccess	HTTPS/SSL Encryption	Disabled	
	WebAccess External Port	Auto	
	DNS Service Hostname	Use ButtaloNAS.com registration	
Media Server	Media Server	Disabled	
	Bitlorrent	Disabled	
DUT	External Port Number	Auto	
Bitlorrent	Bandwidth Restriction		
	Wiaximum Download Speed		
	Maximum Upload Speed	200 KB/s	

Feature	Parameter	Default Setting	
	Priority Control QoS	Disabled	
	Optimize for	Video	
		Video:	
		Ultra Premium - High Bandwidth	
		Conference:	
		Premium - Low Latency, Medium Bandwidth	
		Gaming:	
QoS		Premium - Low Latency, 320 Kbps Bandwidth	
	Manual	Audio:	
		Above Average, 320 Kbps Bandwidth	
		Browsing:	
		Standard Best Availability	
		Download:	
		Junk Lowest Priority	
	Manual Entry	No custom OoS rules added	
	Power Saving	Disabled	
		Off	
	Wired I AN		
	Wireless I AN	Off	
eco Mode	Weekly Schedule	-	
	Mode	Normal	
	Start Time	0:00	
	End Time	0:30	
	Day of Week	-	
	Network USB	Enabled	
Network USB	Use Multifunction Printer	Enabled	
	AirStation Name	"AP" + AirStation's MAC Address	
	Administrator	admin (fixed)	
	Administrator Password	password	
		Prohibit configuration from wireless LAN:	
		Disabled	
		Prohibit configuration from wired LAN:	
		Disabled	
	Access	Permit configuration from wired Internet:	
		Disabled	
System		Limit network scanning:	
		Disabled	
	NTP Functionality	Enabled	
	NTP Server	time.nist.gov	
	Update Interval	24 hours	
	Local Date	2014 Year 1 Month 1 Day	
	Local Time	0 Hour 0 Minute 0 Seconds (12 midnight)	
	Time Zone	(GMT - 06:00) Central Standard Time: CST	
	DST (Daylight Saving Time)	USA (from second Sunday in Mar to first Sunday in Nov)	

Feature	Parameter	Default Setting
Syslog Settings	Transfer Logs	Disabled
	Syslog Server	-
	Logs	Address Translation, IP Filter, Firewall, PPP Client, Dynami DNS, DHCP Client, DHCP Server, AOSS, Wireless Client, Authentication, Setting Changes, System Boot, NTP Clien Wired, USB, System
	Detailed logs	-
	Update Method	Specify a file on your PC
Update Firmware	Firmware File Name	-
	Automatic Update Check	Enabled
	Daily Check Time	Automatic

Technical Specifications

Wireless LAN Interface	
Standard Compliance	IEEE 802.11ac / IEEE 802.11n / IEEE 802.11a / IEEE 802.11g / IEEE 802.11b
Transmission Method	Direct sequence spread spectrum (DSSS), OFDM, MIMO
Frequency Range	Available frequencies depend on the country of purchase.
	IEEE 802.11ac 20 MHz BW <long gi="">:</long>
	260/234/195/175.5/156/117/78/58.5/39/19.5 Mbps (3 streams)
	156/130/117/104/78/52/39/26/13 Mbps (2 streams)
	78/65/58.5/52/39/26/19.5/13/6.5 Mbps (1 stream)
	IEEE 802.11ac 20 MHz BW <short gi="">:</short>
	288.9/260/216.7/195/173.3/130/86.7/65/43.3/21.7 Mbps (3 streams)
	173.3/144.4/130/115.6/86.7/57.8/43.3/28.9/14.4 Mbps (2 streams)
	86.7/72.2/65/57.8/43.3/28.9/21.7/14.4/7.2 Mbps (1 stream)
	IEEE 802.11ac 40 MHz BW <long gl="">:</long>
	540/486/405/364.5/324/243/162/121.5/81/40.5 Mbps (3 streams)
	360/324/270/243/216/162/108/81/54/27 Mbps (2 streams)
Transmission Data 002 11a a	180/162/135/121.5/108/81/54/40.5/27/13.5 Mbps (1 stream)
Transmission Rate 802.1 Tac	IEEE 802.11ac 40 MHz BW <short gi="">:</short>
	600/540/450/405/360/270/180/135/90/45 Mbps (3 streams)
	400/360/300/270/240/180/120/90/60/30 Mbps (2 streams)
	200/180/150/135/120/90/60/45/30/15 Mbps (1 stream)
	IEEE 802.11ac 80 MHz BW <long gl="">:</long>
	1170/1053/877.5/702/526.5/351/263.3/175.5/87.8 Mbps (3 streams)
	780/702/585/526.5/468/351/234/175.5/117/58.5 Mbps (2 streams)
	390/351/292.5/263.3/234/175.5/117/87.8/58.5/29.3 Mbps (1 stream)
	IEEE 802.11ac 80 MHz BW <short gi="">:</short>
	1300/1170/975/780/585/390/292.5/195/97.5 Mbps (3 streams)
	866.7/780/650/585/520/390/260/195/130/65 Mbps (2 streams)
	433.3/390/325/292.5/260/195/130/97.5/65/32.5 Mbps (1 stream)

	IEEE 802.11n 20 MHz BW <long gi="">:</long>
	260/234/195/175.5/156/117/78/58.5/39/19.5 Mbps (3 streams)
	156/130/117/104/78/52/39/26/13 Mbps (2 streams)
	78/65/58.5/52/39/26/19.5/13/6.5 Mbps (1 stream)
	IEEE 802.11n 20 MHz BW <short gi="">:</short>
	288.9/260/216.7/195/173.3/130/86.7/65/43.3/21.7 Mbps (3 streams)
	173.3/144.4/130/115.6/86.7/57.8/43.3/28.9/14.4 Mbps (2 streams)
	86.7/72.2/65/57.8/43.3/28.9/21.7/14.4/7.2 Mbps (1 stream)
	IEEE 802.11n 40 MHz BW <long gi="">:</long>
Transmission Rate 802.11	540/486/405/364.5/324/243/162/121.5/81/40.5 Mbps (3 streams)
n/a/b/g	360/324/270/243/216/162/108/81/54/27 Mbps (2 streams)
	180/162/135/121.5/108/81/54/40.5/27/13.5 Mbps (1 stream)
	IEEE 802.11n 40 MHz BW <short gi="">:</short>
	600/540/450/405/360/270/180/135/90/45 Mbps (3 stream)
	400/360/300/270/240/180/120/90/60/30 Mbps (2 stream)
	200/180/150/135/120/90/60/45/30/15 Mbps (1 stream)
	IEEE 802.11a / IEEE 802.11g:
	54/48/36/24/18/12/9/6 Mbps
	IFEE 802.11b:
	11/5 5/2/1 Mbps
Access Mode	Infrastructure Mode
	AOSS, WPA/WPA2 mixed PSK, WPA2-PSK (AES), WPA-PSK (AES), 64-bit or 128-bit WEP,
Security	MAC address filter
Wired LAN Interface	
Standard Compliance	IEEE 802.3ab (1000BASE-T) / IEEE 802.3u (100BASE-TX) / IEEE 802.3 (10BASE-T)
Transmission Rate	10 / 100 / 1000 Mbps
Transmission Encoding	1000BASE-T 4DPAM5, 100BASE-TX 4B5B/MLT-3, 10BASE-T Manchester Coding
Access Method	CSMA/CD
Speed and Flow Control	10 / 100 / 1000 Mbps, Auto Sensing, Auto MDIX
Number of LAN Ports	4
USB Interface	
Interface	USB 3.0 / USB 2.0
Connector lype	USB 3.0 x 1, USB 2.0 x 1
Other	
	External AC 100-240 V Universal, 50/60 Hz
Power Supply	AC Adapter Type: WA-36A12 or WA-36A12U
	Manufacturer: Asian Power Devices Inc.
Power Consumption	27.8 W (Max)
Dimensions	$185 (H) \times 41 (D) \times 185 (W) mm (7.28 x 1.61 x 7.28 in.)$
Weight	549 g (19.3 / oz.)
Operating Environment	0 - 40° C (32 - 104° F), 10 - 85% (non-condensing)

Shared Folders and USB Ports

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

- When using two-byte characters (such as Japanese), keep folder and file names within 80 characters. You may not be able to copy a folder or a file whose name length is more than 80 characters.
- You cannot set attributes (hidden or read-only) for folders or files on the AirStation.
- When using access restrictions, you can register up to 16 users for the AirStation.
- Please note that you are not allowed to use any of the following words as a user or group name: adm, administrator, all, bin, daemon, disk, ftp, guest, halt, hdusers, kmen, lp, mail, man, news, nobody, nogroup, none, operator, root, shadow, shutdown, sshd, sync, sys, ttyusers, utmp, uucp, www.
- Please note that you are not allowed to use any of the following words as a shared folder name: global, homes, printers, bittorrent, disk1_pt1, disk1_pt2, disk1_pt3, disk1_pt4, disk2_pt1, disk2_pt2, disk2_pt3, disk2_pt4, disk3_pt1, disk3_pt2, disk3_pt4, disk4_pt1, disk4_pt2, disk4_pt3, disk4_pt4.
- If a file created on a Mac contains any of the following characters, it will not be displayed correctly under Windows. Also, you cannot copy or properly display a file when connecting via SMB from Mac OS if it contains any of these characters:

?[]/¥=+<>;:", |*

- Cancelling or aborting a file copy may leave the file incomplete, and you may no longer be able to delete the incomplete file. This can also happen during a power outage or if the LAN cable is suddenly disconnected. If it happens, restart the AirStation, delete the file, and try copying the file again.
- Use the same username and password for the AirStation as the user's Windows login. If they are different, the user may not be able to access shared folders with access restrictions on the AirStation.
- Date and time stamps stored on the USB hard drive may be updated by the OS accessing the AirStation. File creation or access dates may not be maintained.
- If you view the size of a hard drive from Settings, it shows a bigger value than when you see it in Windows' drive properties. This is because Settings shows the size of the drive in gigabytes but Windows shows it in gibibytes.
- If you have logged in using a "guest" account from Windows 8, Windows 7, Windows Vista, Windows XP, or Windows 2000, access restrictions may not work properly. A (different) guest account already exists on the AirStation.
- If you access a shared folder from a Mac, additional Mac OS information files may be automatically generated. Do not delete these files from a Windows computer. Otherwise, you may no longer be able to access folders from a Mac.
- Device types that can be connected to the AirStation's USB connector are USB hard drives, USB memory sticks, USB printer, or USB card readers. Card readers with 5 or more slots are not supported. USB devices such as digital cameras, CD/DVD drives, mice, and keyboards are not supported.
- Encrypted USB hard drives are not supported.
- If your hard drive has an auto power mode switch, move the switch to [manual] or [on] position. Leaving the switch set to [auto] may result in unpredictable behavior.
- Up to 4 partitions can be recognized on a USB hard drive.
- Available file systems for USB hard drives are FAT12, FAT16, FAT32, and XFS.

GPL Information

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

Appendix C - Regulatory Compliance Information

Only use the cables and accessories that are included in the package. Don't use other accessories or cables unless specifically instructed to in the documentation.

Company Information

Buffalo Americas, Inc. 11100 Metric Boulevard suite 750 Austin Texas 78758 +1-512-349-1500

FCC Statement

The information below is only for US region.

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.

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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

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

IC statement (IC déclaration)

The information below is only for Canada region.

This device complies with Industry Canada license-exempt RSS standard(s). 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 the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

(i) The device for the band 5150-5250 MHz is only for indoor usage to reduce potential for harmful interference to cochannel mobile satellite systems.

(ii) The maximum antenna gain permitted for devices in the band 5725-5825 MHz shall comply with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate.

High-power radars are allocated as primary users (i.e., priority users) of the bands 5250–5350 MHz and 5650–5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

(i) Le dispositif fonctionnant dans la bande 5150-5250 MHz est réservé uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.

(ii) le gain maximal d'antenne permis (pour les dispositifs utilisant la bande 5 725-5 825 MHz) doit se conformer à la limite de p.i.r.e. spécifiée pour l'exploitation point à point et non point à point, selon le cas.

De plus, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à.d., qu'ils ont la priorité) pour les bandes 5250–5350 MHz et 5650–5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Under Industry Canada regulations, this radio transmitter may only operate using an

antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry

Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

L'antenne utilisée pour ce transmetteur ne doit pas être co-localisés en conjonction avec toute autre antenne ou transmetteur.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

This radio transmitter (WXR-1900DHP) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Le présent émetteur radio (WXR-1900DHP) aété approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

Antenna Type	Peak Gain	Required Impedance
Omnidirectional antenna	2.4GHz 2dBi / 5GHz 3dBi	50ohms