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Compliance

For the current EU Declaration of Conformity, visit
http://support.netgear.com/app/answers/detail/a_id/11621/.

For regulatory compliance information, visit
http://www.netgear.com/about/regulatory/.

See the regulatory compliance document before connecting the power supply.

NETGEAR, Inc.
350 East Plumeria Drive
San Jose, CA 95134 USA

201-17857-01
May 2014

Installation

Nighthawk
AC2300 Smart WiFi Router

Model **R6900P**

NETGEAR®

Package Contents

The box contains the following items.

In some regions, a resource CD is included in the package.

You can use this diagram to connect your router or follow the detailed instructions in this booklet.

1. **Remove the antenna caps.**

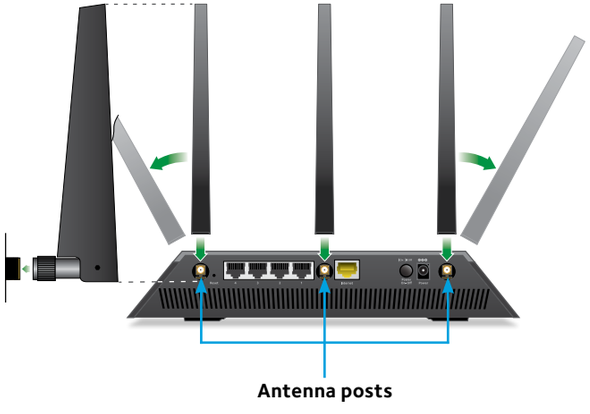
   Remove the antenna caps from the antenna posts on the router.

2. **Attach the antennas.**

   Attach the antennas on the threaded antenna posts.

   Position the antennas for the best WiFi performance.

   NETGEAR recommends that the center antenna be vertical and that you aim the others outward at 45-degree angles as shown.



3. **Prepare your modem.**

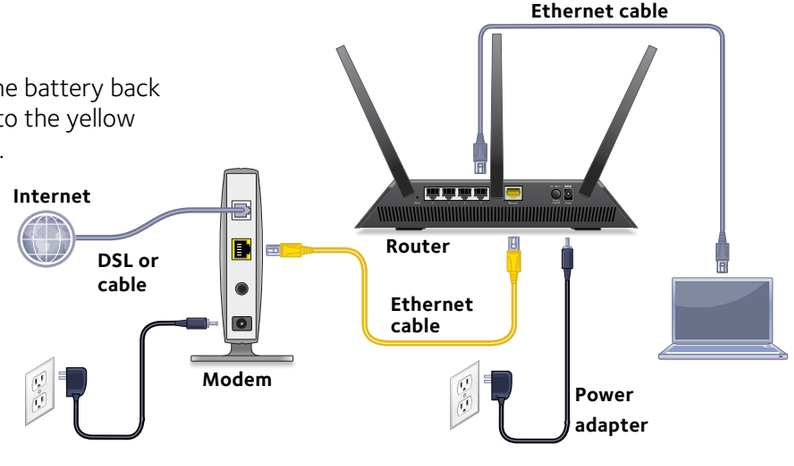
   Unplug your modem's power. If it has a battery backup, remove the battery.

4. **Connect your modem.**

   Plug in your modem. Put the battery back in. Then cable the modem to the yellow Internet port on the router.

5. **Power on the router.**

   The Power LED lights amber and then turns white when the router is ready.



6. **Connect a computer.**

   You can use an Ethernet cable or connect with WiFi.

   To connect with WiFi, use the WiFi network name and password on the product label.

7. **Log in to the router.**

   Launch a web browser.
   NETGEAR genie displays.

   If you do not see genie, enter **www.routerlogin.net** in the address field of the web browser. When prompted, enter **admin** for the user name and **password** for the password.

   Follow the genie steps to connect to the Internet.

8. **Get the genie app.**

   Download the free genie app from *www.NETGEAR.com/genie*.

   Easily share media, files, and printers on the network from your smartphone, tablet, or laptop.

9. **Get the user manual.**

   You can get the user manual online at *http://downloadcenter.netgear.com* or through a link in the product's user interface.

Support

Thank you for purchasing this NETGEAR product.

After installing your device, locate the serial number on the label of your product and use it to register your product at *https://my.netgear.com*.

You must register your product before you can use NETGEAR telephone support. NETGEAR recommends registering your product through the NETGEAR website.

For product updates and web support, visit *http://support.netgear.com*.

NETGEAR recommends that you use only the official NETGEAR support resources.

You can get the user manual online at *http://downloadcenter.netgear.com* or through a link in the product's user interface.

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Install Your Router

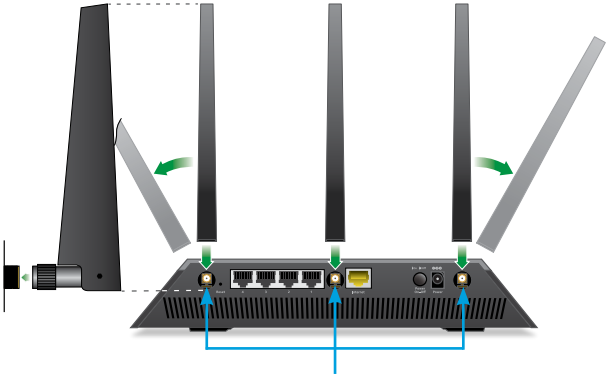
Make sure that your Internet service is active before you install your router.

➢ To install your router:

1. Remove the antenna caps.

   Remove the antenna caps from the antenna posts on the router.

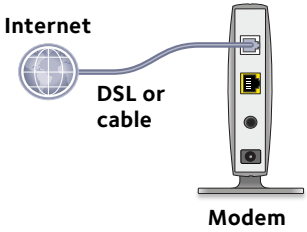
2. Attach the antennas.



   a. Align the antennas with the antenna posts on the router.
   b. Attach the antennas on the threaded antenna posts.
   c. Position the antennas for the best WiFi performance.

      NETGEAR recommends that the center antenna be vertical and that you aim the others outward at 45-degree angles, as shown.

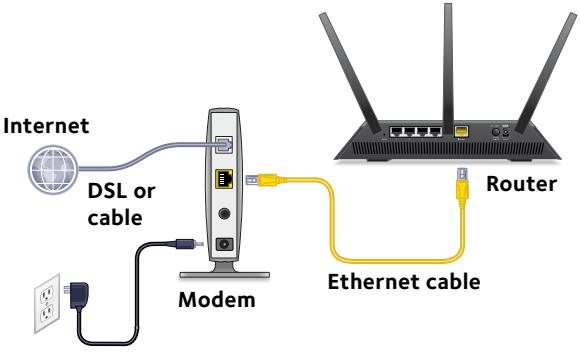
3. Prepare your modem.



   a. Unplug your modem's power.
   b. If the modem has a battery backup, remove its batteries.
   c. If your modem was already connected to another router, disconnect the cable between your modem and that router.

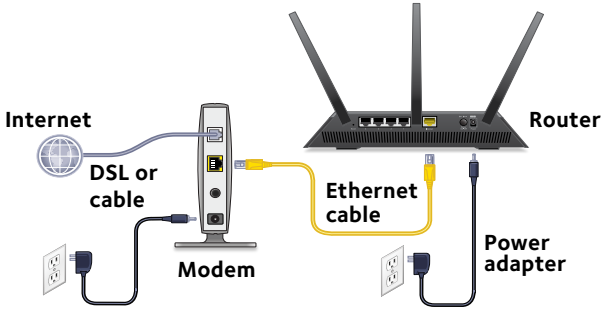
   Make sure that your modem is turned off and is cabled only to the wall jack for your Internet service.

4. Connect your modem.



   a. Plug in, then turn on your modem.
   b. If you removed the batteries, replace them.
   c. With the yellow Ethernet cable that came with the router, connect your modem to the yellow Internet port on your router.

5. Add power to the router.

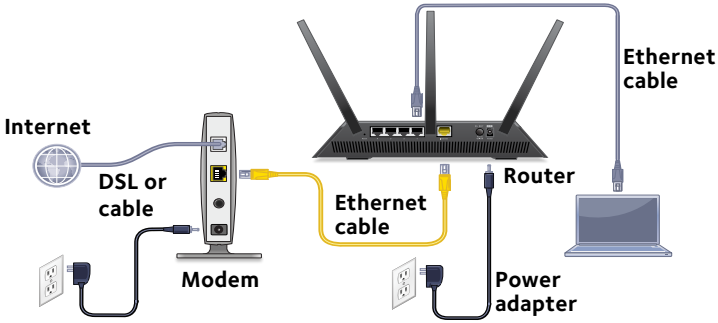


a. Connect the power adapter to the router and plug the power adapter into an outlet.

b. Wait for the Power LED on the front panel to light amber and turn white.

   If no LEDs are lit, press the **Power On/Off** button on the rear panel of the router.

6. Connect a computer.



You can use an Ethernet cable or connect with WiFi:

- For a wired connection, use an Ethernet cable (not included) to connect your computer to a black Ethernet port on your router.
- To connect with WiFi, use the WiFi settings on the product label.

7. Launch a web browser.

   The first time that you connect to the router, the genie screen displays. Follow the genie steps to connect to the Internet.

   If the genie screen does not display, try the following:

   - Close and reopen the browser.
   - Make sure that your computer is connected to one of the four black LAN Ethernet ports on the router or that you are connected to your WiFi network.
   - Make sure that the router has full power and that its Power LED ⏻ is lit.
   - If your computer is set to a static or fixed IP address (this is uncommon), change it to obtain an IP address from the router automatically.

   If you still do not see the genie screen, log in to the router so that genie can detect your Internet connection.

➢ To log in to the router:

1. Launch a web browser.
2. Enter **www.routerlogin.net** in the address field of the browser.

   A login screen displays.

3. Enter **admin** for the user name and **password** for the password.

   The BASIC Home screen displays. If your Internet connection is not set up yet, genie automatically detects your Internet connection.

LEDs

The LEDs on the top of the router light to indicate router activity:

Power

Internet

2.4 GHz WiFi

5 GHz WiFi

Guest WiFi

USB 3.0 port

1 2 3 4 Ethernet ports 1–4

WiFi On/Off button with LED

WPS button with LED

Join the WiFi Network

You can either use Wi-Fi Protected Setup (WPS) or select your WiFi network and type its password. For help with the WPS button on your computer or WiFi device, check the instructions or online help that came with that computer or device. Some older equipment cannot use WPS.

➢ To join the network using WPS:

1. Press the **WPS** button on the router for three to five seconds.

   The WPS LED on the router blinks white.

2. Within two minutes, on your computer or WiFi device, press its **WPS** button or click its onscreen **WPS** button.

   The WPS LED on the router lights solid white when the computer or WiFi device connects to your router.

3. Repeat this process to add other computers or WiFi devices.

➢ To select your network and enter its password:

1. Open the software utility that manages your WiFi connections on the computer or WiFi device that you want to connect to your router.

   This utility scans for WiFi networks in your area.

2. Find and select your router's WiFi network name (SSID).

   The SSID is on the product label.

3. Enter the router's password (or your custom password if you changed it) and click the **Connect** button.

   The password is on the product label.

4. Repeat Step 1 through Step 3 to add other computers or WiFi devices.

View or Change the Router Settings

After you use genie to set up the router, you can log in to the router to view or change its settings.

Log In to the Router

➢ **To log in to the router:**

1. Connect a computer or WiFi device to the router.

   You can use an Ethernet cable or connect with WiFi.

   - For a wired connection, use an Ethernet cable (not included) to connect your computer to a black Ethernet port on your router.
   - To connect with WiFi, select and join your WiFi network.
2. Launch a web browser.
3. Enter **www.routerlogin.net** in the address field of the browser.

   A login screen displays.
4. Enter **admin** for the user name and **password** for the password.

   The BASIC Home screen displays.

Change the admin Password

➢ **To change the admin password:**

1. Launch a web browser.
2. Enter **www.routerlogin.net** in the address field of the browser.

   A login screen displays.

3. Enter **admin** for the user name and **password** for the password.

   The BASIC Home screen displays.

4. Select **ADVANCED > Administration > Set Password**.
5. Type your old password and type the new password twice.
6. To be able to recover the password, select the **Enable Password Recovery** check box.

   NETGEAR recommends that you enable password recovery.

7. Select two security questions and provide answers to them.
8. Click the **Apply** button.

   Your changes are saved.

Recover a Forgotten admin Password

The default password for the admin user name is password. If you changed the password and enabled the password recovery feature, you can retrieve this password.

➢ To retrieve a forgotten admin password:

1. Launch a web browser.
2. Enter **www.routerlogin.net** in the address field of the browser.

   A login screen displays.

3. Click the **Cancel** button.

   If password recovery is enabled, you are prompted to enter the serial number of the router. The serial number is on the product label.

4. Enter the serial number of the router.

   The serial number is on the product label.

5. Click the **Continue** button.

A screen displays requesting the answers to your security questions.

6. Enter the saved answers to your security questions.
7. Click the **Continue** button.

   A screen displays your recovered password.

8. Click the **Login again** button.

   A login screen displays.

9. With your recovered password, log in to the router.

Find a Forgotten WiFi Security Password

The preset WiFi password is on the product label. If you changed your WiFi password and forgot what it is, log in to the router to view its current WiFi password.

➢ To connect to the router and view its WiFi password:

1. Use an Ethernet cable to connect your computer to a black Ethernet port on the router.
2. Launch a web browser.
3. Enter **www.routerlogin.net** in the address field.

   A login screen displays.

4. Enter the router user name and password.

   The default user name is **admin** and the default password is **password**. You can use the default credentials if you did not change them.

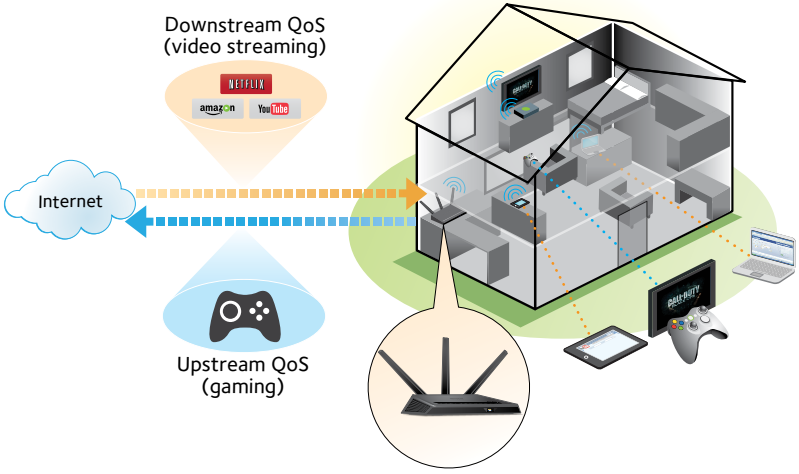
   The BASIC Home screen displays.

5. Select **Wireless Settings**.

   The Security Options section of the screen displays your WiFi password.

Prioritize with Quality of Service

You can use Quality of Service (QoS) to assign a high priority to gaming and streaming videos from the Internet.



To set up QoS, log in to the router and enable Downstream QoS and Upstream QoS.

Downstream QoS prioritizes Internet traffic from the Internet to your network. This delivers better performance when you stream Internet video, such as when you watch YouTube videos.

Upstream QoS prioritizes network traffic from local devices like your Xbox to the Internet. This provides for a lag-free online gaming experience.

Prioritize Internet Video Streaming

To set up QoS to assign a high priority to Internet video streaming, log in to the router and enable Downstream QoS.

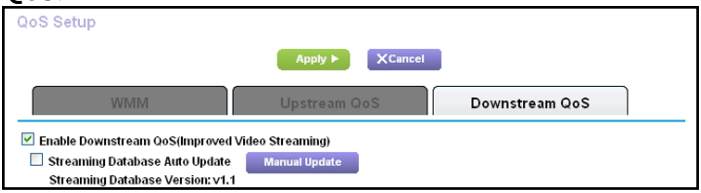
➢ To enable Downstream QoS:

1. Launch a web browser.
2. Enter **www.routerlogin.net** in the address field of the browser.

   A login screen displays.
3. Enter the router user name and password.

   The default user name is **admin** and the default password is **password**. You can use the default credentials if you did not change them.

   The BASIC Home screen displays.
4. Select **ADVANCED > Setup > QoS Setup > Downstream QoS**.



5. Select the **Enable Downstream QoS (Improved Video Streaming)** check box.
6. (Optional) Select the **Streaming Database Auto Upgrade** check box.

   The router automatically checks for updates for the streaming database and downloads and installs them.
7. Click the **Apply** button.

   The router assigns a high priority to video streaming from the Internet.

Prioritize Internet Gaming

To set up QoS to assign a high priority to Internet traffic from your gaming system, log in to the router and enable Upstream QoS.

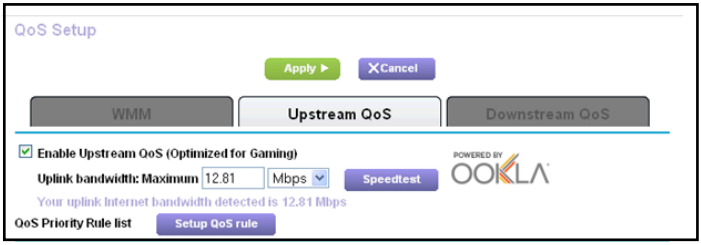
➢ To enable Upstream QoS:

1. Launch a web browser.
2. Enter **www.routerlogin.net** in the address field of the browser.

   A login screen displays.
3. Enter the router user name and password.

   The default user name is **admin** and the default password is **password**. You can use the default credentials if you did not change them.

   The BASIC Home screen displays.
4. Select **ADVANCED > Setup > QoS Setup > Upstream QoS**.



5. Select the **Enable Upstream QoS (Optimized for Gaming)** check box.
6. Specify the maximum uplink bandwidth for your Internet connection:
   - If you know what your uplink bandwidth is, type it in the **Uplink bandwidth Maximum** field.

- If you are not sure, click the **Speedtest** button.

  Speedtest verifies the upstream speed of your Internet connection. The **Uplink bandwidth Maximum** field displays the result of the test.

7. Click the **Apply** button.

   The router assigns a high priority to Internet traffic from your gaming devices to the Internet.

Share a USB Drive on the Network

ReadySHARE lets you access and share a USB drive connected to the router USB port. (If your USB drive has special drivers, it is not compatible.)

➢ To access the USB drive from a Windows computer:

1. Insert your USB storage drive into the blue USB 3.0 port on the front of the router.

   If your USB drive has a power supply, you must use it when you connect the USB drive to the router.

   When you connect the USB drive to the router USB port, it might take up to two minutes before it is ready for sharing. By default, the USB drive is available to all computers on your local area network (LAN).

2. Select **Start > Run**.
3. Enter **\\readyshare** in the dialog box.
4. Click the **OK** button.

➢ To access the USB drive from a Mac:

1. Insert your USB storage drive into a blue USB 3.0 port on the router.

   If your USB drive has a power supply, you must use it when you connect the USB drive to the router.

   When you connect the USB drive to the router USB port, it might take up to two minutes before it is ready for sharing. By default, the USB drive is available to all computers on your local area network (LAN).
2. Select **Go > Connect to Server**.
3. Enter **smb://readyshare** as the server address.
4. Click the **Connect** button.

ReadySHARE Vault Backup App

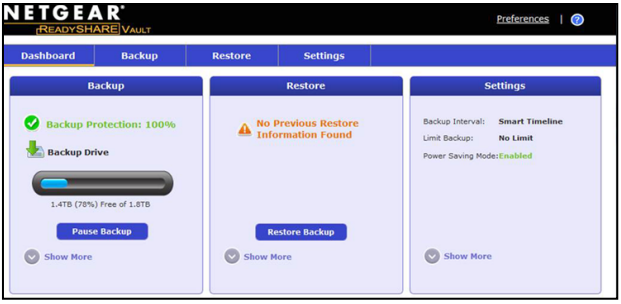
Your router comes with free backup software for all the Windows computers in your home. Connect a USB hard disk drive (HDD) to the USB port on your router for centralized, continuous, and automatic backup.

➢ To back up your Windows computer:

1. Connect a USB HDD to a USB port on the router.

   For best performance, connect a USB 3.0 HDD to a blue USB 3.0 port on the router.
2. Install the genie app on each Windows computer.
3. Download ReadySHARE Vault from *www.netgear.com/readyshare* and install it on each Windows computer.

4. Launch ReadySHARE Vault.



5. To set up and run your backup, click the **Dashboard** or the **Backup** tab.

Share a USB Printer

You can connect a USB printer to a USB port on the router and print wirelessly.

➢ To set up ReadySHARE Printer:

1. Connect the USB printer to a USB port on the router with a USB printer cable.
2. On each computer that will share the printer, do the following:
   a. Install the current USB printer driver software (available from the printer manufacturer).
   b. Download the NETGEAR USB Control Center utility from *www.netgear.com/readyshare*.
   c. Select the language.
3. If prompted, select the printer and click the **Connect** button for each computer.

   When the first computer connects, the status changes to Manually connected by xxx.

   For each computer, when you complete Step 3, the printer status displays as Available.

More Premium Features

Your router lets you do the following and more:

- Play music from a USB drive with iTunes Server.
- Set up a secure VPN service connection to your home network.
- Create a personal FTP server with a custom URL.

iTunes Server

iTunes Server lets you play music with your Windows or Mac iTunes app from a USB drive that is connected to the router USB port. You can also use the Apple Remote app from an iPhone and iPad to play music on any AirPlay devices, such as Apple TV or AirPlay-supported receivers.

➢ To specify iTunes Server settings:

1. On your iPhone or iPad, find and connect to the WiFi network.
2. Launch the Remote app.
3. Click the **Add a Device** button.

   A passcode displays.
4. Specify the passcode in the router.
   a. Launch a web browser.
   b. Enter **www.routerlogin.net** in the address field of the browser.

      A login screen displays.
   c. Enter the router user name and password.

      The default user name is **admin** and the default password is **password**. You can use the default credentials if you did not change them.

      The BASIC Home screen displays.

d. Select **ADVANCED > USB Storage > Media Server**.
e. Make sure that the **Enable iTunes Media Server (Music Only)** check box is selected.
f. Enter the passcode and click the **Allow Control** button.
g. Click the **Apply** button.

   Your changes are saved.

On your iPhone or iPad, the ReadySHARE music library displays in the Remote app. You can play this music on any Airplay devices.

VPN Service

VPN service allows remote access to your home network with a secure connection. After you set up VPN service, you can use VPN to access the router's USB drive and media and to access your Internet service at home. To set up VPN service, follow these high-level steps:

1. Specify the VPN service.
2. Install OpenVPN software on your computer.
3. Use a VPN tunnel.

These steps are explained in detail in the user manual, which is available online at *http://downloadcenter.netgear.com* or through a link in the router's user interface.

Personal FTP Server

With your customized free URL, you can use FTP to access your network when you aren't home through Dynamic DNS. To set up your FTP server, follow these high-level steps:

1. Register for a free NETGEAR Dynamic DNS (DDNS) service account.

2. Provide the account settings to your router.
3. Connect a USB hard disk to your router and set up FTP access through the Internet.

These steps are explained in detail in the user manual, which is available online at *http://downloadcenter.netgear.com* or through a link in the router's user interface.

NETGEAR genie App

The free NETGEAR genie app lets you easily monitor, connect, and control your home network from a Windows or Mac computer, tablet, or smartphone. You can share and stream music or videos, diagnose and repair network issues, set up parental controls, and more:

- Access your router and change its settings or diagnose and repair network issues.
- Make a printer AirPrint compatible so that you can print from an iPad or iPhone.
- Use MyMedia to find and play media files in your network.
- Use Turbo Transfer to quickly send files from your computer or smartphone to another device on the network.
- Set up parental controls.
- Connect your smartphones and tablets to your home WiFi by scanning the WiFi QR code from genie.

Download the free genie app from *www.NETGEAR.com/genie*.

Federal Communication Commission Interference Statement

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

For operation within 5.15 ~ 5.25GHz / 5.47 ~5.725GHz frequency range, it is restricted to indoor environment. This device meets all the other requirements specified in Part 15E, Section 15.407 of the FCC Rules.

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 24cm between the radiator & your body.

Industry Canada statement:

This device complies with ISED's licence-exempt RSSs. 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.

Le présent appareil est conforme aux CNR d' ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Caution :

(i) the device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;

(ii) the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall be such that the equipment still complies with the e.i.r.p. limit;

(iii) the maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specified for point-to-point and non-point-to-point operation as appropriate; and

(iv) the worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in Section 6.2.2(3) shall be clearly indicated.

(v) Users should also be advised that 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.

Avertissement:

Le guide d'utilisation des dispositifs pour réseaux locaux doit inclure des instructions précises sur les restrictions susmentionnées, notamment :

(i) les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés 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 les bandes de 5250 à 5 350 MHz et de 5470 à 5725 MHz doit être conforme à la limite de la p.i.r.e;

(iii) le gain maximal d'antenne permis (pour les dispositifs utilisant la bande de 5 725 à 5 850 MHz) doit être conforme à la limite de la p.i.r.e. spécifiée pour l'exploitation point à point et l'exploitation non point à point, selon le cas;

(iv) les pires angles d'inclinaison nécessaires pour rester conforme à l'exigence de la

p.i.r.e. applicable au masque d'élévation, et énoncée à la section 6.2.2 3), doivent être clairement indiqués.
(v) 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.

Radiation Exposure Statement:
This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 28cm between the radiator & your body.

Déclaration d'exposition aux radiations:
Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 28cm de distance entre la source de rayonnement et votre corps.

This radio transmitter (IC: 4054A-16200351/ Model: R6900P) has been approved by ISED to operate with the antenna type listed below with maximum permissible gain 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 (IC: 4054A-16200351/ Model: R6900P) a été approuvé par ISED pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

Antenna	Antenna Gain(dBi)	Frequency range	Antenna Type	Connecter Type
Ant 1	0.5dBi	2.4~2.4835GHz	Dipole	Re-SMA
	1.8dBi	5.15~5.85GHz		
Ant 2	0.5dBi	2.4~2.4835GHz	Dipole	Re-SMA
	1.8dBi	5.15~5.85GHz		
Ant 3	0.5dBi	2.4~2.4835GHz	Dipole	Re-SMA
	1.8dBi	5.15~5.85GHz		