

# WF-180 Wireless Access Point



Thank you for buying this product. The following information aims to give you general information about product introduction, product overview and installation procedure and so on.

## 1. Introduction

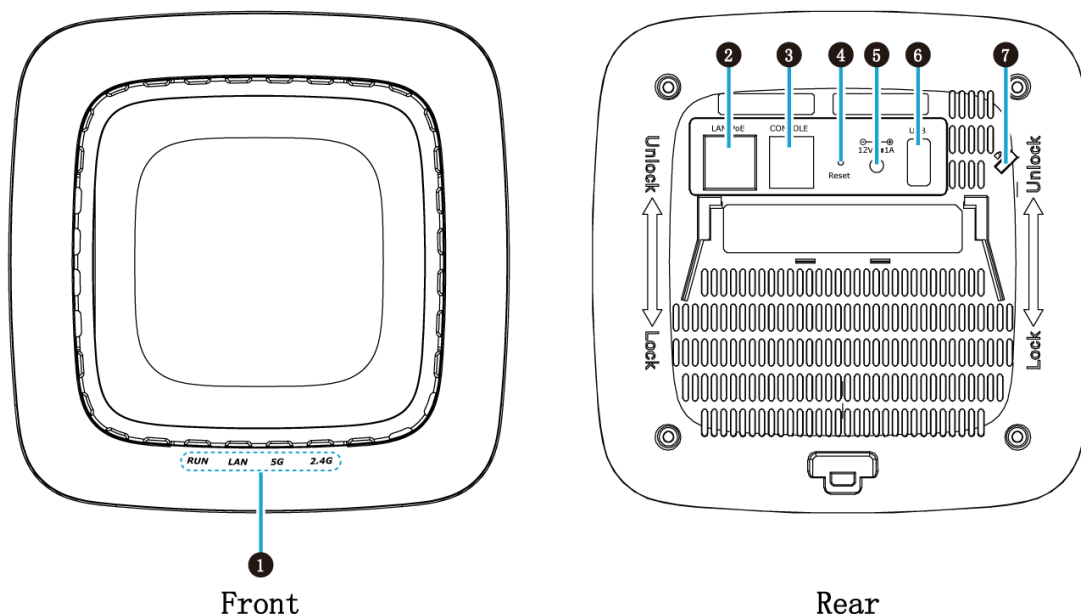
WF-180 is a dual-band 2x2streams and chains indoor Wi-Fi AP, which is complied with the IEEE802.11n standard and designed for high-density deployments in offices, schools, hospitals and hotels that require premium performance.

Having together MIMO (Multiple-in&Multiple-out) technology with high-throughput mode techniques, WF-180 works with most wireless terminals to builds a high capacity Wi-Fi network.

## 2. Package List

- AP x1
- Wall bracket x1
- Ceiling bracket x 1
- Screw x1
- Cable tie x1

## 3. Product Overview




No.	Name	Function
①	LEDs	See LED Definition
②	LAN Port	10/100/1000M Base-T Ethernet ports (RJ-45), used as a WAN port and used for being powered by PoE function.


③	Console port	Also names as RJ-11, used to manage WF-180 software.
④	Reset button	Pressing the button longer than 5s to restore the device to factory defaults and reset the device.
⑤	DC power connector	used for connecting the power adapter
⑥	USB port	supports a USB 2.0 connector(Support up to 0.5A)
⑦	Kensington Lock Slot	For additional security

## 4. Installation

To reduce the risk of bodily injury, electrical shock, fire, and equipment Damage, read all warnings and precautions in this guide before Installing or maintaining product.

### Caution

 To avoid risk of injury from electrical shock or energy hazard, installation and service of this product must be performed by qualified service personnel.

 Make sure the AP fits securely on the ceiling rail when hanging the device in the ceiling, because poor installation could cause it to fall and make body injury and equipment damage.

### Safety Statement

- To avoid the abnormal work, do not install the device near the power line, electric lamp, power grid, or in any forceful power grid place
- Ensure the power adapter is grounded well if install the device indoor.
- Install other lightning protection equipment near the device if necessary, because the lightning protection module inside the device is basic.
- Use the steady power grid to provide the power to the device, which is to avoid the abnormal work.
- Use a less than 50m network cable to connect the PoE port, which is to acquire the steady power. The network cable complies with the DC resistance definition in the YD/926.2 protocol.

### Installation Environment

- Operating ambient temperature: 0°C ~ 45°C
- Operating ambient humidity: 5% ~ 95% non-condensing

### Installation mode:

- Wall mounting and Cliling mounting.

## Installation tool:

- Screws and screw-driver

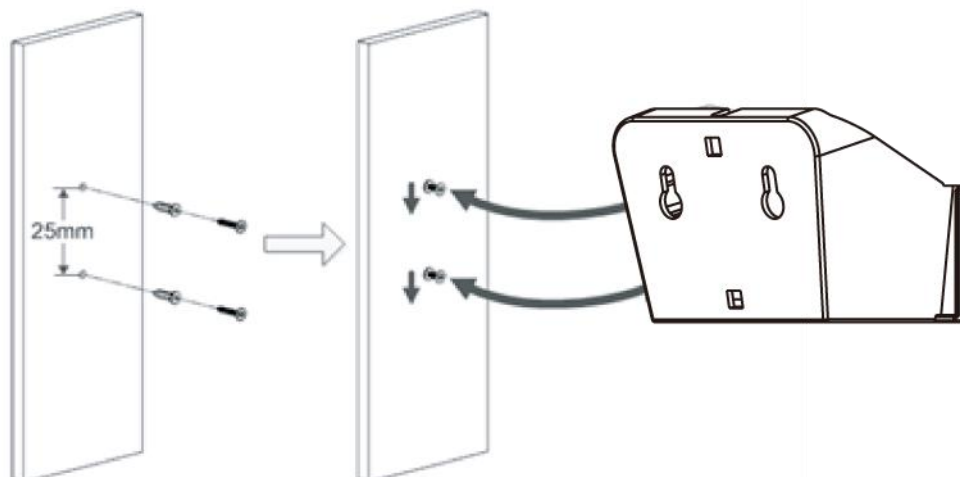
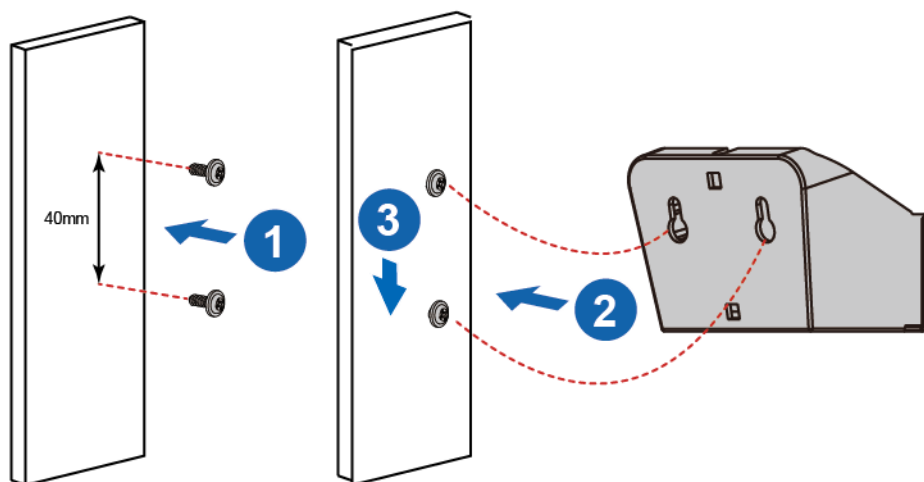
## Installation site:

Please ensure the visibility of product and no tall buildings and woods block between them.

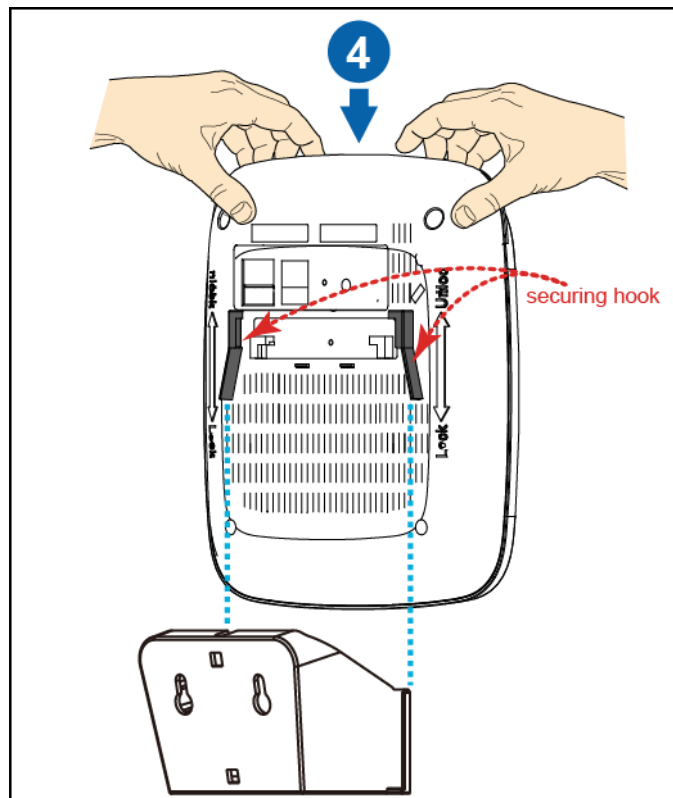
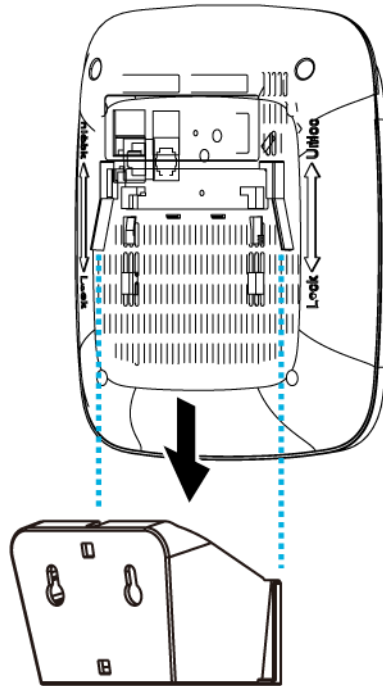
## Installation procedure

### Wall mounting

1. Drive two screws first in the wall. The distance between two screws mounted on the wall is 40mm.
2. Align bracket with the screw, and then pull down the bracket with up to down direction until it has been fixed tightly.

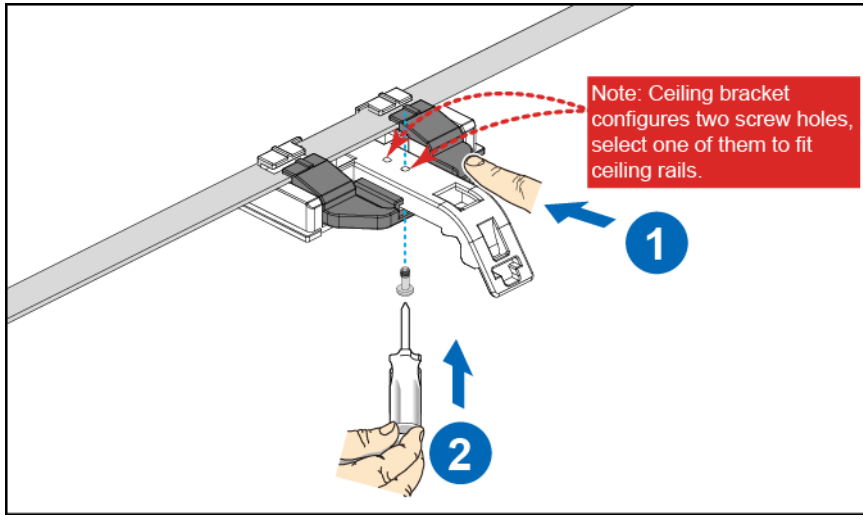


3. Align the securing hook of AP with bracket, and push AP from up to down until it has been locked fully.

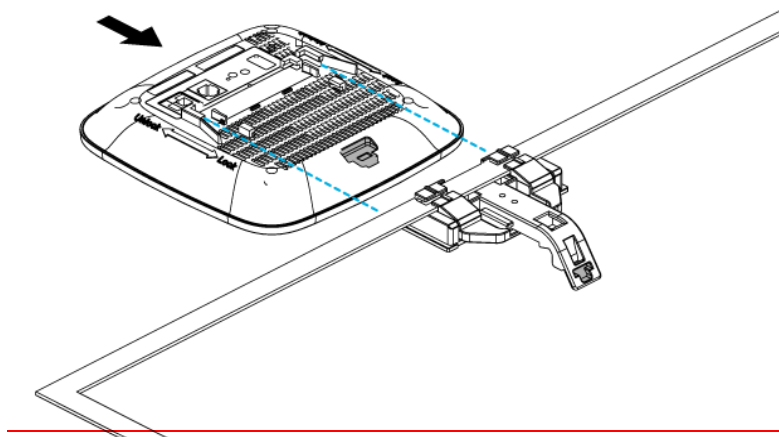
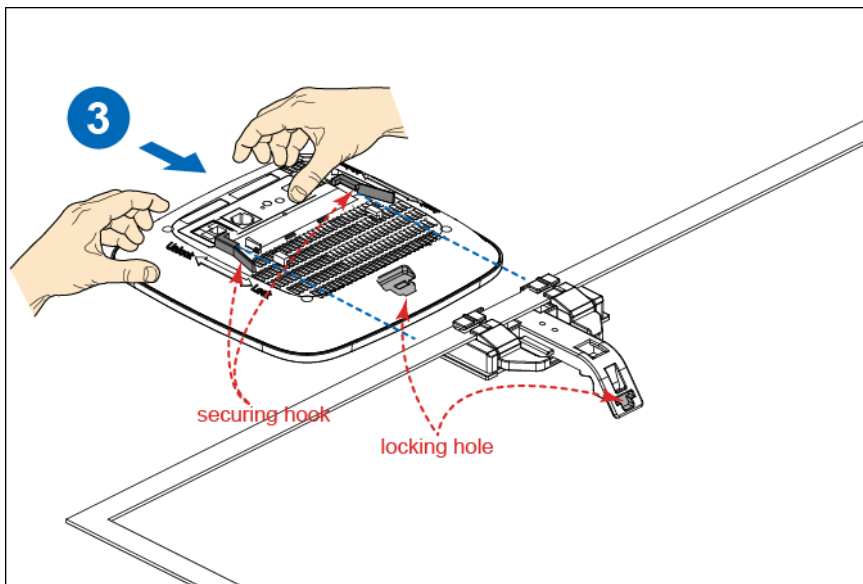


Ceiling mounting:

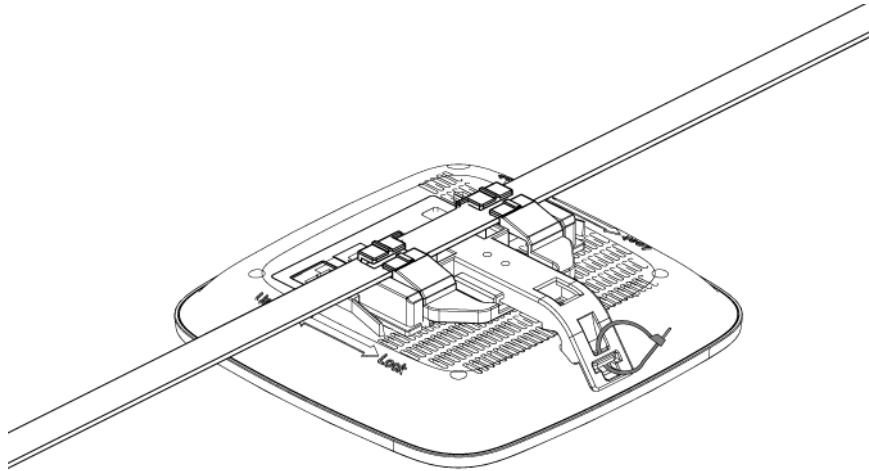
1. Fasten ceiling rails by pushing bracket as the indicated direction
2. Secure the screw to fasten bracket assembly.



2-3. Align securing hook of AP with bracket (see dotted line), and then push AP close to bracket until AP has been fully Locked



3.4. Go through locking holes by cable\_tie to safely content AP with bracket



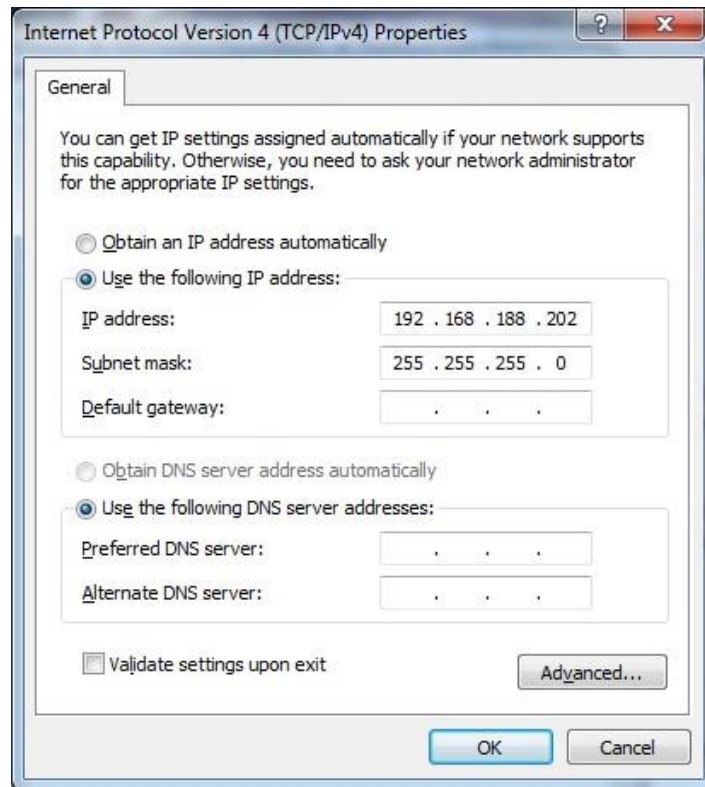
## 5. LED Definition

LED	Function	State-Color	Indication
RUN	AP power / ready status	Steady - Green	AP is ready
		Flashing - Green	AP is managed by controller
		Red	AP hardware failure
		Off	No power to AP
LAN	Network Link Status	Steady - Green	1000Mbps Ethernet link negotiated
		Steady- Yellow	Reserved for link speed (NIB in PCB)
		Flashing	Ethernet link activity
		Off	Ethernet link unavailable
5G	5G Hz Radio Status	Steady- Green	5G Hz radio enabled in HT WLAN mode
		Off	5G Hz radio disabled
2.4G	2.4G Hz Radio Status	Steady - Green	2.4G Hz radio enabled in HT WLAN mode
		Off	2.4G Hz radio disabled

## 6. Software Installation

Logging in to the Web Page

1. To configure PC IP address, fill 192.168.188.x in "IP address" and 255.255.255.0 in "Subnet mask"(set Window7 as an example to show the properties)



2. Input the default IP address 192.168.188.251 in the address bar of the web browser and press Enter.
3. Enter username and password (username: admin, password: password), after password authentication is successful, the web page is displayed.

## 7. Product Specification

### Physical specification

<b>Dimensions</b>	160 mm x 160 mm x 40mm(Width x Length x Height)
<b>Weight</b>	Less than 1kg
<b>LEDs</b>	RUN,LAN,5GHz,2.4GHz
<b>Ethernet interface</b>	RJ-45 connector

### Electrical specification

<b>Power input</b>	+12V/1A
<b>Power consumption</b>	≤ 12W

### Environmental specification

<b>Working temperature</b>	0°C ~ 45°C
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<b>Working humidity</b>	5% ~ 95% non-condensing
<b>Elevations</b>	86kPa~106kPa
<b>Dustproof and waterproof</b>	IP30
<b>Lightning protection</b>	4KV common mode surge

## 8. Product Proper Disposal

Waste of Electrical and Electronic Equipment



Directive 2002/96/EC on Waste of Electrical and Electronic Equipment are designed to tackle the fast increasing waste stream of electrical and electronic equipment and complements European Union measures on landfill and incineration of waste. CIG products at end of life are subject to separate collection and treatment in the EU Member States and therefore are marked with the symbol.

European Union RoHS



EU Restriction and Hazardous Substances Directive 2011/65/EC (RoHS) restricts the use of specific hazardous materials in manufacture of electrical and electronic equipment. Specially, restricted materials are Lead, Cadmium, Mercury, Hexavalent Chromium, and Bromine. CIG products comply with this requirement and all marked with "RoHS" shown at the left.

China RoHS

WF-180 AP complies with China environmental declaration requirements and is labeled with "EFUP 20" label shown as follows.

有毒有害物质声明  
Hazardous Materials Declaration

部件名称 (Parts)	有毒有害物质或元素 (Hazardous Substance)					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr6+)	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
电路模块 (circuit modules)	x	○	○	○	○	○
电缆及电缆组件 (Mechanical assembly)	x	○	○	○	○	○

es)							
金属部件 (Metal Parts)	○	○	○	○	○	○	○
塑料和聚合物部件 (Plastic and Polymeric Parts)	○	○	○	○	○	○	○
<b>O:</b>	<p>表示该有毒有害物质在该部件所有均质材料中的含量在 SJ/T11363 — 2006标准规定的限量要求下。 Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T11363-2006 standard.</p>						
<b>X:</b>	<p>表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006标准规定的限量要求。 Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the SJ/T11363-2006 standard.</p> <p>对销售之日的所售产品，本表显示剑桥公司供应链的电子信息产品可能包含这些物质。注意：在所售产品中可能会也可能不会含有所有所列的部件。 This table shows where these substances may be found in the supply chain of CIG electronic information products, as of the date of sale of the enclosed product. Note that some of the component types listed above may or may not be a part of the enclosed product.</p>						



除非另外特别的标注，此标志为针对所涉及产品的环保使用期标志。某些零部件会有一个不同的环保使用期贴在其产品上。此环保使用期限只适用于产品是在产品手册中规定的条件下工作。  
The Environment-Friendly Use Period (EFUP) for all enclosed products and their parts are per the symbol shown here, unless otherwise marked. Certain parts may have a different EFUP and so are marked to reflect such. The Environment-Friendly Use Period is valid only when the product is operated under the conditions defined in the product manual.

## 9. Safety and Regulatory compliance

WF-180 AP has been tested and complied with the standards as follows:

- FCC Part 15 Subpart C 15.247 (US)
- FCC Part 15 Subpart E 15.407 (US)
- CE marked with NB letter of opinion for:
- ETSI EN 300 328 (2.4GHz)
- ETSI EN 301 893 (5GHz)
- CB with IEC/EN 60950-1 (Basic safety certificate for worldwide marketing)

## 11.10. FAQs

FAQ	Solution
The RUN indicator is off.	Check that the power adapter is plugged into a live AC outlet.
	Check the power cable for shorts or breaks.
	Check whether the connection between the <b>LAN/POE</b> port of the combiner and the <b>LAN/POE</b> port is correct.
The LAN port indicator is off.	Check whether the connection between the <b>LAN/POE</b> port of the combiner and the <b>LAN/POE</b> port is correct.

## 12.11. Technical Support

CIG offers technical support 24 hours a day, 7 days a week. Use one of the following methods to contact CIG technical assistance center:

Hotline: +86 21 6192 1930

Email: [support@cambridgeig.com](mailto:support@cambridgeig.com)

## 13.12. Contact Information

### Hong Kong

25th Floor, Jar dine House, 1 Connaught Place

Hong Kong, PRC

Phone: +852 2827 1778

### Shanghai

22F, Iliabuilding

889Yichang Road

Shanghai 200233, China

Phone: +86 21 61921930

Fax: +86 21 6192 1929

### USA

Cambridge Industries Group

Techmart Center 5201 Great

America Parkway, Suite 320

Santa Clara CA 95054.

Tel: +1 408.730.6888

## **14.13. Legal declaration**

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## **Federal Communications Commission (FCC) Interference Statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generate, 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.

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.

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.

### **RF exposure warning**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter.

## IC Radiation Exposure Statement for Canada

This device complies with Industry Canada licence-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.

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.

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.

User manuals for transmitters equipped with detachable antennas shall also contain the following notice in a conspicuous location:

This radio transmitter (identify the device by certification number, or model number if Category II) 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 (identifier le dispositif par son numéro de certification ou son numéro de modèle s'il fait partie du matériel de catégorie I) a été 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.

### IMPORTANT NOTE:

Radiation Exposure Statement:

This equipment complies with "Industry Canada RSS-102 for 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.