



Teacher: Part #2000-00049

Student: Part #2000-00050

# Microphone User Guide

AP Receiver

AP Pendant Microphone

AP Pass-Around Microphone

AP Microphone Charger

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## Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, hear registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of this polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



## Electrical Warnings

### 1. Avoid Abuse to the Power Supply

To reduce risk of electric shock, unplug the power supply from outlet before attempting any maintenance or cleaning. Turning off controls will not reduce this risk.

**WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

**DO NOT** disassemble the power supply. Return the apparatus to Frontrow for qualified service and repair if required. Incorrect reassembly may result in a risk of electric shock or fire.

**DO NOT** expose the power supply to rain, snow, water, gas, oil, etc.

**DO NOT** operate this power supply if it has received a sharp blow, been dropped, or otherwise damaged in any way; return the apparatus to FrontRow for qualified service and repair.

**DO NOT** block or cover the apparatus and impede ventilation.

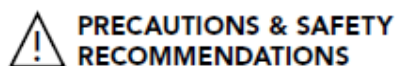
**DO NOT** expose batteries (battery pack or batteries installed) to excessive heat such as sunshine, fire, or the link or excessive cold.

### 2. Proper Use of the Power Supply and Wiring

An extension cord should not be used unless absolutely necessary. Use of improper extension cord could result in a risk of fire and electric shock. The cord **MUST** be plugged into a grounded outlet. Make sure it is properly wired, in good electrical condition, and wire size is large enough for AC ampere rating of the power supply or charger. To reduce risk of damage to plug and cord when disconnecting the power supply or charger, **ALWAYS** pull on the plug – **NEVER** on cord.

Locate cord so that it will not be stepped on, tripped over, or otherwise subject to damage or stress. **DO NOT** lay extension cord on charger. **DO NOT** operate the power supply with damaged cord or plug – replace them immediately.

## Electrical Safety Information:



### *Follow Manufacturer's Recommendations*

Before using the system and power supply, read all instructions for, and caution markings on the receiver and power supply and in this user guide.

## AP Pendant Microphone

### 1 Amazing Sound Quality and Superior Comfort

With FrontRow's digital synthesis technology, the AP Pendant microphone uses a single cardioid microphone element to deliver superb pickup and audio quality. And combined with a high-isolation, low-noise, open air microphone suspension this lightweight (54g/1.9 oz) compact (69mmx36mm/ 2.7"x 1.4") microphone with soft backing minimizes noise from friction against clothing, buttons or jewelry.

### 2 Mute Button

Tap the button to Mute / Un-mute.

### Smart Buttons

Customize the button functions for your specific needs with these programmable buttons:

#### 3 Up Arrow

#### 4 Down Arrow

#### 5 Diamond

#### 6 Circle

#### 7 Alert (simultaneously press both side buttons to activate)

### 8 Portable Audio Interface

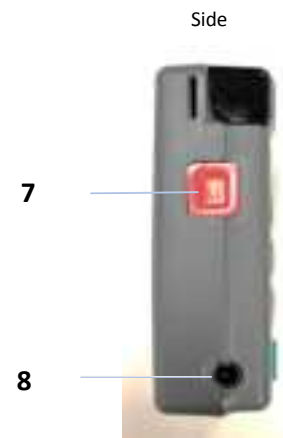
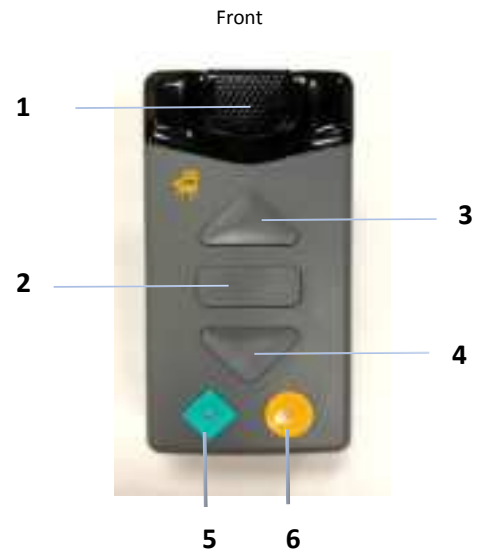
3.5mm audio input jack lets you use the microphone to transmit audio wirelessly from any secondary source such as a computer or MP3 player or external microphone.

### 9 Charge Contacts

For use with the microphone charger.

### 10 Charging Jack

For charging via USB cable.



## 11 Battery Indicator

### In Use

OFF.....Battery Charged or in hibernation mode  
GREEN FAST FLASH.....Registration in Process  
RED SLOW FLASH .....Battery Low  
RED FAST FLASH .....Battery Critically Low  
RED DOUBLE FLASH.....Battery Fault  
YELLOW DOUBLE FLASH...Registration/Connection Fault

### When Charging

GREEN SOLID.....Battery charging  
GREEN SLOW FLASH.....Battery fully charged

Top

11 12



## 12 Wireless Indicator

GREEN SOLID ..... Connected and Unmuted  
ORANGE FADE IN/OUT..... Connected and Muted  
GREEN FAST FLASH..... Registration in Process  
GREEN DOUBLE FLASH.....Registered, In-range, Disconnected  
YELLOW SLOW FLASH.....Registered, Out-of-range, Disconnected  
YELLOW FAST FLASH.....PrivaSee Disconnect  
YELLOW DOUBLE FLASH.....Registration/Connection Fault

## 13 Lithium Ion Battery

3-year life expectancy, lightweight, rechargeable lithium-ion battery.

## 14 Region Select

Select US or EU DECT switch position.  
Be sure the microphone and AP Receiver have the same region selected.  
(example: mics and AP Receiver set to 'US'.)

14 15 13

Rear cover removed



## 15 PrivaSEE Mode

Select PrivaSEE mode switch position.

## AP Pass-Around Microphone

### 1 Amazing Sound Quality

With FrontRow's digital synthesis technology, the AP Pass-Around microphone uses a single cardioid microphone element to deliver superb pickup and audio quality. And combined with a high-isolation, low-noise, open air microphone suspension, the AP Pass-Around microphone minimizes handling noise.

### 2 Photo Diodes

Photo diodes sense when microphone is within room coverage range.

### 3 Mute Button

Tap the bottom of the button to Mute / Un-mute.

### 4 Small and Lightweight

At less than xx cm/xx in tall and just 80 g/2.8 oz the microphone is much easier for even the young students to use than a standard-sized mic.

### 5 Lithium Ion Battery

3-year life expectancy, lightweight, rechargeable lithium ion battery.

### 6 Portable Audio Interface

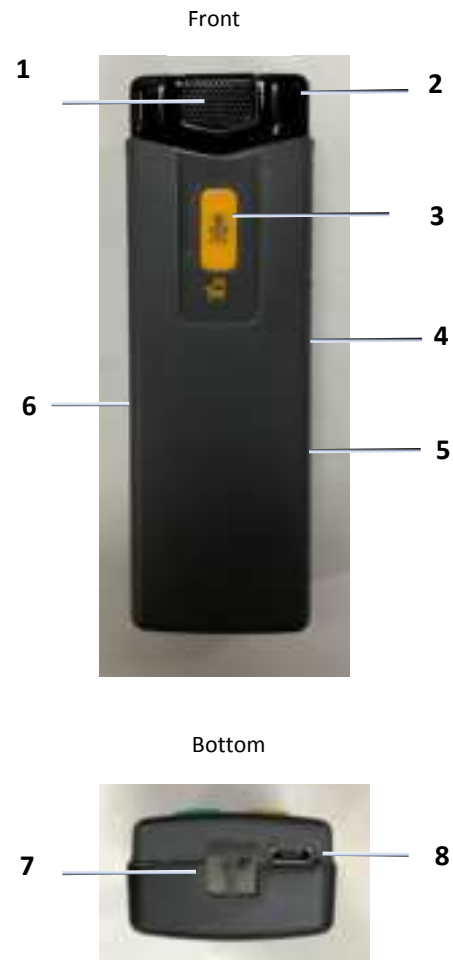
3.5mm audio input jack lets you use the microphone to transmit audio wirelessly from any secondary source such as a computer or MP3 player.

### 7 Charge Contacts

For use with the microphone charger.

### 8 Charging Jack

For charging via USB cable.



## 9 Battery Indicator

### In Use

OFF.....Battery Charged or in hibernation mode  
GREEN FAST FLASH.....Registration in Process  
RED SLOW FLASH .....Battery Low  
RED FAST FLASH .....Battery Critically Low  
RED DOUBLE FLASH.....Battery Fault  
YELLOW DOUBLE FLASH.. Registration/Connection Fault

### When Charging

GREEN SOLID.....Battery charging  
GREEN SLOW FLASH.....Battery fully charged



## 10 Wireless Indicator

GREEN SOLID .....Connected and Unmuted  
ORANGE FADE IN/OUT.....Connected and Muted  
GREEN FAST FLASH.....Registration in Process  
GREEN DOUBLE FLASH.....Registered, In-range, Disconnected  
YELLOW SLOW FLASH.....Registered, Out-of-range, Disconnected  
YELLOW FAST FLASH.....PrivaSee Disconnect  
YELLOW DOUBLE FLASH.....Registration/Connection Fault



## 11 Lithium Ion Battery

3-year life expectancy, lightweight, rechargeable lithium-ion battery.

## 12 Region Select

Select US or EU DECT switch position. Be sure the microphone and AP Receiver have the same region selected. (example: mics and AP Receiver set to 'US'.)

## 13 PrivaSEE Mode

Select PrivaSEE mode switch position.



## Volume

Your ezRoom is equipped with a powerful feedback suppression engine that helps avoid harsh squealing noise that would normally occur when a microphone gets too close to a speaker. Nevertheless, try to use volume settings for daily use that give good audibility without constantly activating the feedback suppression engine.

If more volume is required for a large or noisy room, you may notice the feedback suppression engine activating and at a high volume or short distance from the speaker and the engine may not be able to maintain a pleasant audio quality. If feedback occurs, move away from the speaker or lower either the master volume or the volume for the microphone that is causing the feedback.

Control the volume of connected audio devices or individual microphones via a Frontrow wall controller (if programmed).

### **Master Volume**

Your ezRoom system has a master volume control that increases or decreases the mixed volume of all devices and microphones.

### **Device Volume**

Control the individual volume of each device connected to your ezRoom.

\*For best results, the volume of each device itself should be at least 75% of its maximum volume.

### **Microphone Volume**

You can separately control the volume of each microphone used with you ezRoom.

NOTE: The ezRoom comes standard with the ability to use 4 microphones simultaneously.

## Settings

### **OptiVoice**

A powerful tool for test taking, directions and ELL instruction. Fragile consonant sounds carry 75% of the meaning in speech but are easily destroyed by background noise. OptiVoice strengthens these critical sounds, doing the work of a 12-band equalizer with a single switch.

For low background noise environments and for a more natural reproduction of your voice, use the low setting. For environments with higher background noise, use the mid or high setting. Experiment with the right mix of microphone volume and OptiVoice setting to find the optimal solution for your environment.

NOTE: OptiVoice affects microphone audio only.

OptiVoice settings can be changed using a FrontRow controller (if programmed).

### **PrioriTeach**

Use PrioriTeach to have the ezRoom automatically reduce the volume of all other audio sources including Pass-Around Microphones when you speak into a Pendant Microphone.

Settings for PrioriTeach are available through a FrontRow controller (if programmed)

NOTE: The PrioriTeach feature can be activated by a Pendant microphone button press (if programmed).

## Registering your Microphone with the AP Receiver

Both Pendant and Pass-Around microphones must be registered with the ezRoom's AP Receiver (the 'receiver') to become operational. You will need:

- Access to the receiver's registration button (i.e. wall controller with programmed button, receiver's *Mic Registration* button or CM-900's webpage.)
- Unscrew microphone battery door with supplied Phillips head screwdriver.
- Supplied registration pin or straightened paper clip

Registration setup:

1. Press the receiver's Registration button. Beacon (if present) will flash blue for the duration of the registration process.
2. Insert the registration pin into the hole next to the battery connection. Press and release. You will hear a low-high tone. Both LEDs will flash.
3. Registration is complete when the microphone's wireless indicator double flashes green, another tone is heard and the beacon turns white.
4. Your microphone is now ready for use with this ezRoom receiver. Unmute the microphone and speak.

NOTE:

- You only need to register a microphone once with the ezRoom's receiver.
- You can register up to 7 microphones to a single receiver.
- If you go out of range, re-connect by pressing the microphone mute button.
- To de-register a microphone from receiver, place the microphone in the charger, access the CM-900's 'Mic Info' webpage and press the corresponding 'Delete' button.



## Beacon LED Status Indicator

Your ezRoom is equipped with a status indicator Beacon which helps you know the status of your device. The color of the Beacon will change based on what is happening with your system. It is also possible for your system to be configured to turn the Beacon off.

Color	Beacon	Status	Notes
No light		Power off/asleep	
White		Power on	
Yellow - solid		Solo On	
Magenta		Paging	When used with FrontRow Conductor
Magenta		Intercom	When used with FrontRow Conductor
Orange		Alert Delivered	
Orange		Alert Acknowledged	
Orange		Campus Attention	
Orange		Priority Alert, mode 1	
Red		Priority Alert, mode 2	
Blue		Priority Alert, mode 3	
Magenta		Priority Alert, mode 4	
White		Priority Alert, mode 5	
Blue - flashing		Microphone registration in process	

## AP Pendant Microphone

### Using

1. Wake or remove the microphone from the charger, wait 10 seconds for the tone.

2. Place the lanyard around your neck, position the microphone 5 inches from your mouth by holding the adjuster and pulling the lanyard ends. To remove, tug the mic to release the magnet clasp.

3. Press the Mute button. The Wireless indicator should be solid green.

NOTE: Your microphone will go into standby mode (off) automatically after 10 minutes in mute mode or 10 minutes of silence. Shake the mic to wake it, wait 10 seconds for the tone.

4. Momentarily press the Mute button as needed for private conversations. The Wireless indicator light will turn orange.

5. When the battery in your microphone gets low, the battery indicator will flash red.

6. At the end of the day, charge your microphone.

5in/14cm



Battery  
Indicator

Wireless  
Indicator

Mute  
Button



## Battery

### Installing the battery

1. Unscrew the battery door on the back of the microphone using the supplied Phillips screwdriver.
2. Fit silicone cushions on each end of the battery.
3. Insert the battery's connector into the receptacle.
4. Insert the battery into the case.
5. Replace battery door.
6. For best performance, charge the battery in the microphone overnight before initial use.

### Battery Safety

Warning: To reduce risk of fire or burns:

- Do not use batteries that have been dropped or otherwise damaged.
- Do not attempt to open, disassemble or service the battery pack.
- Do not crush, puncture or short external contacts or dispose of in fire or water.
- Do not use the battery if exposed to moisture.
- Do not expose to temperatures above 40 degrees C (104 degrees F).
- Replace only with the battery pack designed for this product.
- Batteries shall not be exposed to excessive heat such as sunshine, fire or the like, or excessive cold.



## Charging

Charge your battery in one of 3 ways:

- Microphone charger – recommended.
- USB cable connected to your computer's USB port\*.
- USB cable connected to a USB to SC power adapter.

**\*NOTE – When charging from a computer USB port:**

If using laptop on battery power and the battery is low, the microphone will not charge. We recommend that you always have your laptop plugged in to a power source when attempting to charge your microphone.

The microphone will not charge from a low-power USB port. If you are having trouble charging from a USB port on a computer that is plugged in to a power source, try using a different USB port on your computer.

**IMPORTANT!** To maintain proper charging when using the microphone charger, occasionally clean the charge contacts on the bottom of the microphone using a cotton swab dipped in rubbing alcohol.

**IMPORTANT!** To ensure top performance and avoid equipment damage, batteries should be charged at room temperature.

**IMPORTANT!** To ensure top performance, FrontRow recommends replacing rechargeable batteries every 3 years.

**IMPORTANT!** Store the battery properly if it will be unused for a period of more than 2 weeks.

1. Charge the battery in the microphone for at least 2 hours.
2. Remove battery from microphone, place it in its own bag or envelope and store in a cool dry place.
3. Recharge battery before next use.



## AP Pass-Around Microphone

### Using

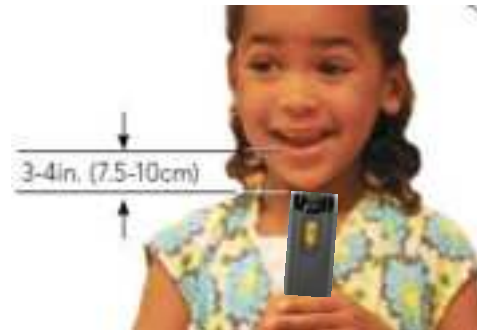
1. Wake or remove the microphone from the charger, wait 10 seconds for the tone.
2. Press the mute button, be sure to press on the lower section of the button. Note the mute button is lit.

Mute button LED On – On and transmitting

Mute button LED Off – In sleep mode

NOTE: In order to conserve battery life, your microphone will automatically go into Standby Mode (off) after 10 minutes of silence. To wake the mic, press the Mute button again.

3. Keep the top of the microphone approximately 3-4 in. (7.5 – 10cm) from the mouth when using as a hand-held microphone.
4. Do not block photo diodes.
5. To allow hands-free use, (for example, when reading aloud and turning pages, attach the lanyard. Adjust the lanyard to position the microphone approximately 4-5in. (10-13cm) from the mouth.
6. When the battery in your microphone gets low (approximately ½ hour of use time left) the battery indicator will flash red.
7. At the end of the day, charge your microphone.



## Battery

### Installing the battery

1. Unscrew the battery door on the back of the microphone using the supplied Phillips screwdriver.
2. Fit silicone cushions on each end of the battery.
3. Insert the battery's connector into the receptacle.
4. Insert the battery into the case.
5. Replace battery door.
6. For best performance, charge the battery in the microphone overnight before initial use.

### Battery Safety

Warning: To reduce risk of fire or burns:

- Do not use batteries that have been dripped or otherwise damaged.
- Do not attempt to open, disassemble or service the battery pack.
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- Do not use the battery if exposed to moisture.
- Do not expose to temperatures above 40 degrees C (104 degrees F).
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## Charging

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**\*NOTE – When charging from a computer USB port:**

If using laptop on battery power and the battery is low, the microphone will not charge. We recommend that you always have your laptop plugged in to a power source when attempting to charge your microphone.

The microphone will not charge from a low-power USB port. If you are having trouble charging from a USB port on a computer that is plugged in to a power source, try using a different USB port on your computer.

**IMPORTANT!** To maintain proper charging when using the microphone charger, occasionally clean the charge contacts on the bottom of the microphone using a cotton swab dipped in rubbing alcohol.

**IMPORTANT!** To ensure top performance and avoid equipment damage, batteries should be charged at room temperature.

**IMPORTANT!** To ensure top performance, FrontRow recommends replacing rechargeable batteries every 3 years.

**IMPORTANT!** Store the battery properly if it will be unused for a period of more than 2 weeks.

1. Charge the battery in the microphone for at least 2 hours.
2. Remove battery from microphone, place it in its own bag or envelope and store in a cool dry place.
3. Recharge battery before next use.



## Using Multiple Microphones

Your ezRoom system is designed to support up to 7 registered microphones and receive up to 4 microphone signals at once. A combination of Pass-Around and Pendant Microphones is possible. For example, use two Pendant Microphones (one for a teacher and one for a teacher's aide) and two Pass-Around Microphones for students, or one Pendant Microphone and three Pass-Around Microphones for students.

## Microphone Charger

### Charger setup

1. Plug the power supply into the power outlet and into the cable channel of the charger base.
2. Insert the microphones in either of the two charge pockets.

Charger base bottom



## Regulatory

*Put regulatory notes here similar to: (change ICR, ITM, ISM naming)*

### Declaration of Conformity

Update this section when available. Update similar to:

TBD

## Batteries

Batteries contain substances that can be harmful to human health and the environment if not handled correctly.

Batteries are marked with the WEEE symbol. This symbolizes that exhausted batteries must not be disposed of together with unsorted rubbish, but are to be collected separately.

Some batteries are also marked with the chemical symbol Hg (mercury), Cd (cadmium) or Pb (lead). These substances are particularly harmful, so it is important that they are collected and disposed of via an established recycling scheme. This ensures that your batteries are re-used in compliance with regulations and do not damage the environment. Therefore, when disposing of exhausted batteries, make sure that you use an established recycling scheme. This might involve delivering them to a designated collection point or recycling center.

Installer Assistance: [www.gofrontrow.com](http://www.gofrontrow.com)

### **USA/Global**

1690 Corporate Circle  
Petaluma, CA 94954-6712  
United States  
Toll-free: 800.227.0735  
Tel: 707.769.1110  
Fax: 707.769.9624  
[www.gofrontrow.com](http://www.gofrontrow.com)

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## FCC Warning

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.

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

**Note:** 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.

### RF Exposure Information and Statement

The SAR limit of USA/Canada is 1.6 W/kg averaged over one gram of tissue. Device types: Teacher: Part #2000-00049, Student: Part #2000-00050 (FCC ID: 2AM2V2000-00049/IC: 22997-200000049) has also been tested against this SAR limit. The highest SAR value reported under this standard during product certification for use at the ear is 0.253W/kg and when properly worn on the body is 0.234W/kg. This device was tested for typical body-worn operations with the back of the handset kept 0mm from the body. To maintain compliance with FCC RF exposure requirements, use accessories that maintain a 10mm separation distance between the user's body and the back of the handset. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements, and should be avoided.

#### Body-worn Operation

This device was tested for typical body-worn operations. To comply with RF exposure requirements, a minimum separation distance of 10mm must be maintained between the user's body and the handset, including the antenna. Third-party belt-clips, holsters, and similar accessories used by this device should not contain any metallic components. Body-worn accessories that do not meet these requirements may not comply with RF exposure requirements and should be avoided. Use only the supplied or an approved antenna.

## IC Warning

This device complies with Industry Canada's licence-exempt RSSs. 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.

Cet appareil est conforme aux CNR exemptes de licence d'Industrie Canada. Son fonctionnement est soumis aux deux conditions suivantes :

- ( 1 ) Ce dispositif ne peut causer d'interférences ; et
- ( 2 ) Ce dispositif doit accepter toute interférence , y compris les interférences qui peuvent causer un mauvais fonctionnement de l'appareil.