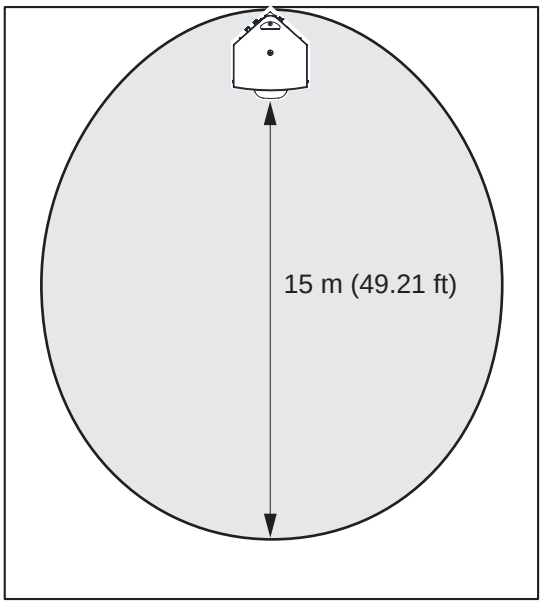
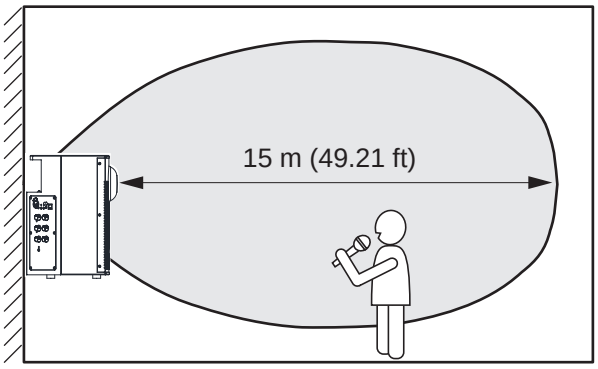
8. INFRARED WIRELESS RECEIVER COVERAGE AREA

8.1. IR-842PMU-AM or IR-842PSU

[Horizontal direction]

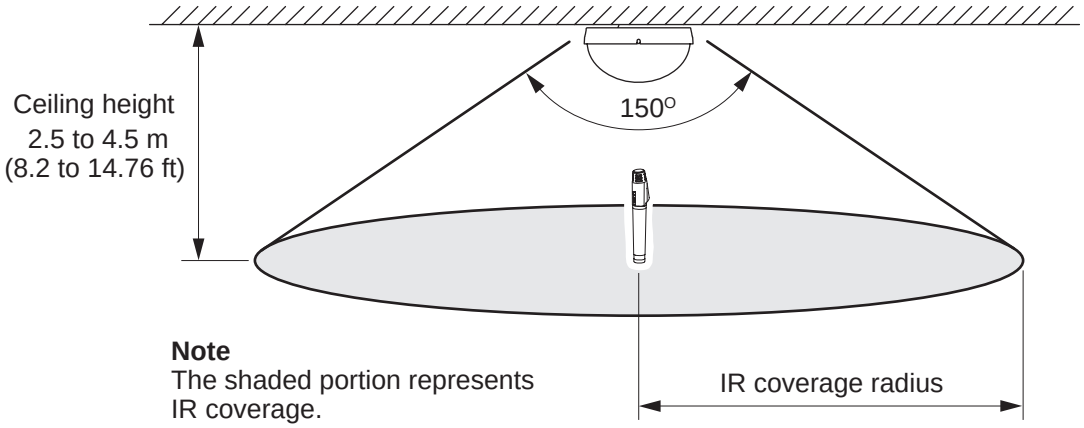


[Vertical direction]



Note
The shaded portion represents the IR coverage.

8.2. IR-842R (Ceiling-mounted type)



Note
The shaded portion represents IR coverage.

Applicable model	Ceiling height	IR coverage radius
IR-842R	2.5 m (8.20 ft)	About 7 m (23 ft)
	3.0 m (9.84 ft)	
	3.5 m (11.48 ft)	About 6.5 m (21.5 ft)
	4.0 m (13.12 ft)	
	4.5 m (14.76 ft)	About 6 m (20 ft)

9. INSTALLING THE INFRARED WIRELESS RECEIVER

Installation Precautions

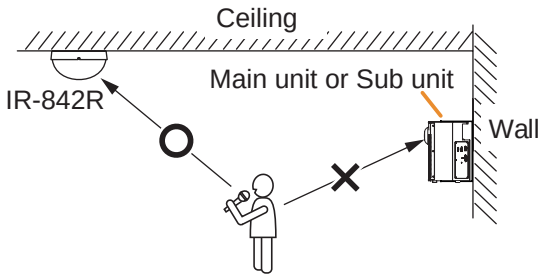
Because the infrared wireless microphone and receiver have their own directivity for infrared transmission and reception, take care that they are installed and operated under stable communication conditions.

• Number of infrared wireless receivers
Use up to two receivers per system.

• Installation Position

· The infrared beam can be blocked by a physical object leading to loss of reception. To avoid this, install multiple infrared wireless receivers to allow for redundant receivers.

· Install multiple infrared wireless receivers so as to allow constant communications between the infrared microphone and at least one infrared wireless receiver in any specific situation. When installing the infrared wireless receivers, take care that they can sufficiently cover the communications area from different angles. If the infrared wireless microphone is used in the communications area where only one infrared wireless receiver is installed, communications may be interrupted when the infrared beam is blocked by a human body or other objects.



Note
In this figure, the **IR-842R** receives a signal from the infrared wireless microphone because there is no obstruction between the microphone transmitter and the receiver.
However, communication to the **MAIN UNIT** or **SUB UNIT** could be interrupted if the user's body blocks the beam.

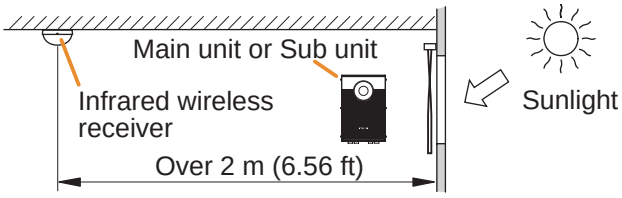
· Install the infrared wireless receivers above user height wherever possible.
· Install the infrared wireless receivers at a height that protects them from damage that could result from being hit by an object.

• Distance between the infrared wireless microphone and receiver
Malfunctions or noise could result from the infrared wireless microphone and receiver being too close to each other. Keep the infrared wireless microphone at least 2 m (6.56 ft) away from the receiver.

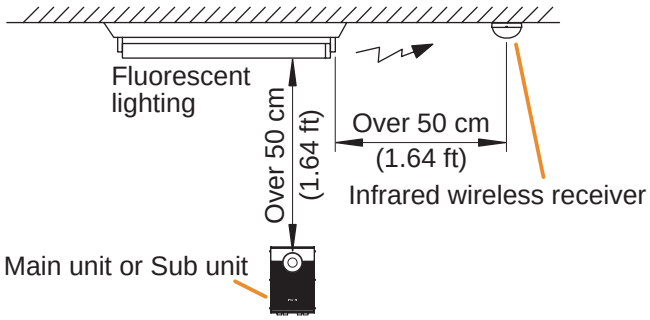
• Radio Noise
Do not install the infrared wireless receiver and cables close to devices that can generate radio noise, such as: Inverter-powered equipment (fluorescent lights, air-conditioners, etc.), digital equipment, PCs and other computer equipment.

• Sunlight and Fluorescent Lighting
System malfunctions or noise could result from installing the infrared wireless receiver in locations exposed to sunlight, fluorescent lighting or other infrared generating sources. When installing the receiver, make the following arrangements so that it is not exposed to infrared sources:

[Avoid Sunlight]
· To prevent equipment from being directly exposed to sunlight, block the sunlight using curtains or window shades.
· When mounting the receiver to a ceiling, keep it at least 2 m (6.56 ft) away from the window.



[Install Away From Fluorescent Lighting]
When installing the receiver, keep it at least 50 cm (1.64 ft) away from the fluorescent lighting.



[Avoid installing close to other infrared sources shown below]
· Lighting device
· Liquid crystal projectors, overhead projectors and incandescent lights
· Plasma displays
· Remote control units, infrared LAN and other infrared devices
· Dimmers

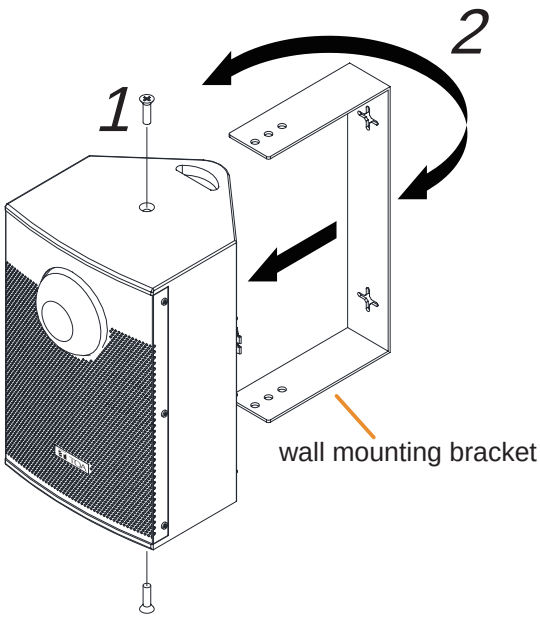
10. INSTALLING THE MAIN UNIT OR SUB UNIT

10.1. Wall Mounting

Step 1. Loosen the 2 screws used to fixing the wall mounting bracket for the main unit or sub unit.

Step 2. Adjust the size and angle of the wall mounting bracket and retighten it with screws.

Note
If the foot pads hinder the angle adjustment of the wall mounting bracket, you can remove the foot pads first.



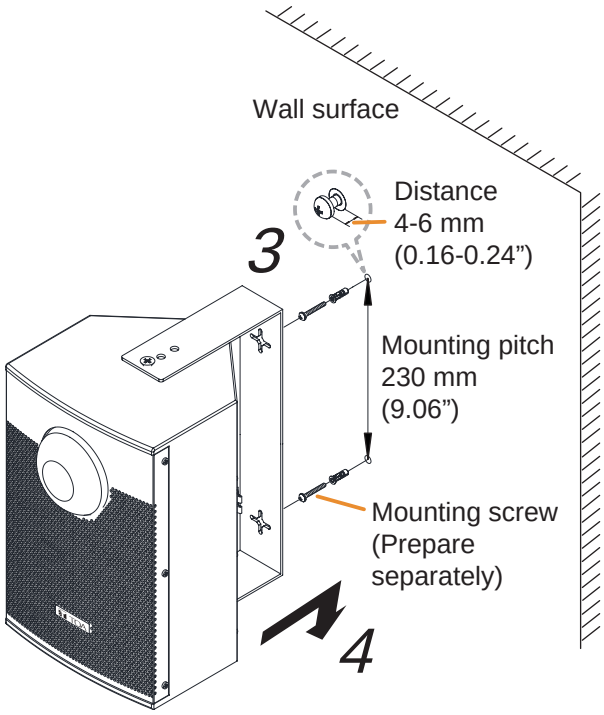
Step 3. Secure the 2 mounting screws to the wall with the head of the mounting screws exposed to the wall by 4-6mm.

Note
Since no mounting screws are supplied with the **MAIN UNIT** or **SUB UNIT**, separately prepare screws that are appropriate for the construction of wall.

Install the speaker only in a location that can structurally support the weight of the speaker and the mounting bracket. Doing otherwise may result in the speaker falling down and causing personal injury and/or property damage.

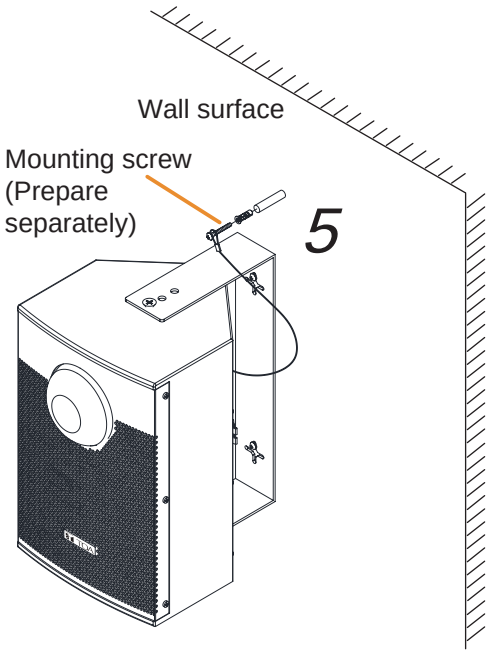
Step 4. Hook the **MAIN UNIT** or **SUB UNIT** with the wall mounting bracket installed to the wall mounting screws.

Note
Ensure that the unit has no loose joints after installation to prevent accidents that could result in personal injury.



Step 5. Finally, secure the safety rope of the **MAIN UNIT** or **SUB UNIT** to the wall with mounting screw.

Note
Since no mounting screws are supplied with the **MAIN UNIT** or **SUB UNIT**, separately prepare screws that are appropriate for the construction of wall.



10.2. Mounting Main Unit or Sub Unit on the Speaker Stand

Note

- Avoid installing or mounting the unit in unstable locations, such as on a rickety table or a slanted surface. Doing so may result in the unit falling down and causing personal injury and/or property damage.
- Avoid placing the unit in a doorway or other high traffic area as people may trip on the equipment and cords, or be injured by falling objects.

10.2.1. Installation with IR-842HY speaker stand adapter

Step 1. Loosen the 2 screws on the bottom of the **MAIN UNIT** or **SUB UNIT** that are used to fix the speaker bracket adapter.

Step 2. Lock the speaker bracket adapter with the screws.

Step 3. Install the speaker stand adapter onto the speaker stand and tighten the bracket fixing screw.

10.2.2. Installation with ST-34B speaker stand

Step 1. Loosen the 2 screws on the bottom of the **MAIN UNIT** or **SUB UNIT** that are used to fix the speaker bracket adapter.

Step 2. Lock the speaker bracket adapter with the screws.

Step 3. Loosen the knob B, and spread the legs pulling up the outer pipe until the stays extend horizontally.
Then, retighten the knob B.

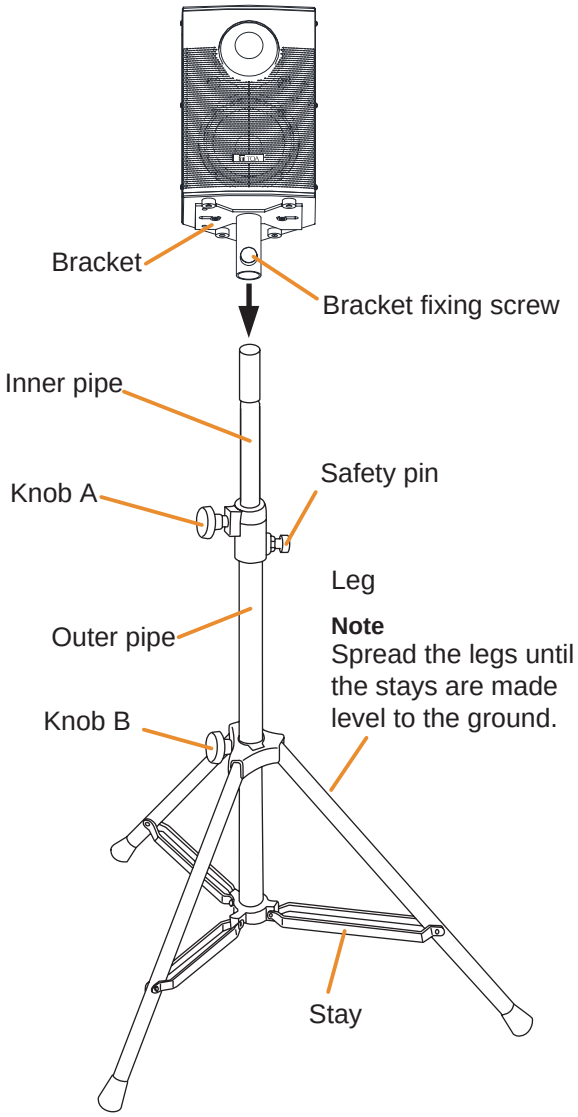
Step 4. Mount the speaker (with the bracket mounted) onto the stand.
Loosen the bracket fixing screw enough for the bracket to fit onto the inner pipe.

Step 5. Determine the speaker direction, and tighten the bracket fixing screw.
Speaker horizontal angle is adjustable in 90° steps.

Step 6. Adjust the stand height.
Loosen the knob A. Extend the inner pipe to the desired position while pulling the safety pin.
The inner pipe has stopper holes to catch the safety pin at about 15 cm intervals along the pipe length. Ensure that the safety pin is securely inserted into one of the holes after adjusting the stand height.

Caution
Never pull the inner pipe beyond the red mark on the pipe.

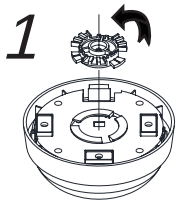
Step 7. Tighten the knob A.



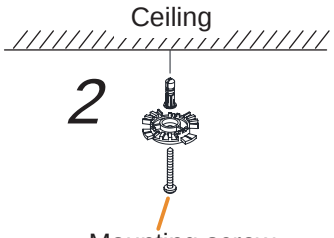
11. INSTALLING THE IR-842R INFRARED WIRELESS RECEIVER

11.1. Ceiling Mounting Method 1

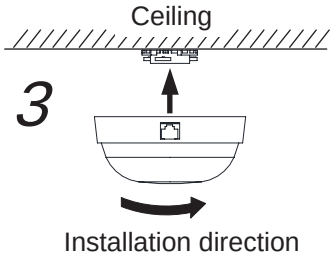
Step 1. Loosen the mounting bracket in the center of the back of the infrared wireless receiver by rotating it counterclockwise.



Step 2. Lock the mounting bracket to the ceiling with screws.



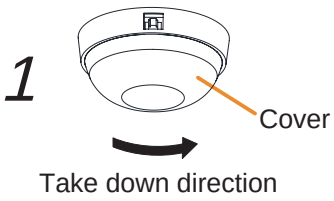
Step 3. Align the infrared wireless receiver with the mounting bracket and turn it clockwise until you hear a "click".



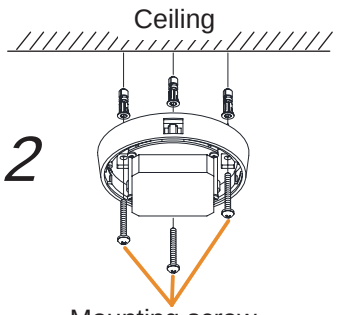
Step 4. Connect the signal output cable of the infrared wireless receiver.

11.2. Ceiling Mounting Method 2

Step 1. Remove the cover of the infrared wireless receiver by turning it counterclockwise.

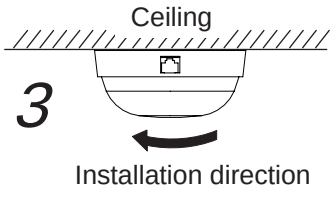


Step 2. Lock the infrared wireless receiver to the ceiling with screws.



Step 3. Turn the cover back clockwise.

Step 4. Connect the signal output cable of the infrared wireless receiver.



12. SPECIFICATIONS

12.1. IR-842PMU-AM IR Audio System - Main

Power Source	100 - 240 V AC, 50/60 Hz (use of the supplied AC adapter)
Rated Output	40 W (80 W max. including sub unit speaker output)
Power Consumption	60 W (120 W max. including sub unit speaker output)
Audio Input	MIC: -42 dBV, 2.2 kΩ, electronic balanced, female XLR connector AUX: -10 dBV, 10 kΩ, stereo pair, unbalanced, headphone jack Bluetooth input: Ver. 5.0, Max. 10m IR-CHA: -42dBV, receiving frequency 3.100 MHz IR-CHB: -42dBV, receiving frequency 3.350 MHz
Audio Output	Sub unit speaker OUT: 23.8 dBV, unbalanced, lever terminal AUX OUT: -10 dBV, 10 kΩ, stereo pair, unbalanced, headphone jack
Frequency Response	20 - 20,000 Hz, ±3 dB
Total Harmonic Distortion	0.1% (LPF 20 kHz)
S/N Ratio	Over 70 dB (A weighted)
Phantom Power	+24 VDC, switchable, MIC input
EXT. IR Receiver	RJ-45 Connector
Indicators	Power(green) ...1, IR CH-A(green) ...1, IR CH-B(green)...1, IR CH-A Priority(red) ...1, Bluetooth(blue) ...1, Phantom power(green) ...1
Operation	IR CH-A volume control, IR CH-B volume control, MIC volume control AUX IN volume control, AUX OUT volume control, Bluetooth volume control
Operating Temperature	0 °C to +40 °C (32 °F to 104 °F)
Operating Humidity	90 % RH or less (no condensation)
Finish	Enclosure: MDF, white, paint Punched net: Surface-treated steel plate, white, paint
Dimensions	218 (W) x 339.6 (H) x 254 (D) mm (8.60" x 13.37" x 9.99")
Weight	4.97 kg (10.96 lbs)
Accessory	AC Power Adapter ...1, Wall Mounting Bracket ...1

Note: The design and specifications are subject to change without notice for improvement.

12.2. IR-842PSU-AM IR Audio System - Sub

IR Receiving Frequency	IR-CHA: 3.100 MHz IR-CHB: 3.350 MHz
EXT. IR Receiver	IN: RJ-45 Connector OUT: RJ-45 Connector
Audio Input	Main unit speaker OUT: 23.8 dBV, unbalanced, 40W/6Ω, lever terminal
Operating Temperature	0 °C to +40 °C (32 °F to 104 °F)
Operating Humidity	90 % RH or less (no condensation)
Finish	Enclosure: MDF, white, paint Punched net: Surface-treated steel plate, white, paint
Dimensions	218 (W) x 339.6 (H) x 254 (D) mm (8.60" x 13.37" x 9.99")
Weight	4.52 kg (9.96 lbs)
Accessory	Wall Mounting Bracket ...1

Note: The design and specifications are subject to change without notice for improvement.

12.3. IR-842R-AM External IR Receiver

IR Receiving Frequency	IR-CHA: 3.100 MHz IR-CHB: 3.350 MHz
EXT. IR Receiver	RJ-45 Connector
Operating Temperature	0 °C to +40 °C (32 °F to 104 °F)
Operating Humidity	Under 90% RH (no condensation)
Finish	Enclosure: ABS, black
Dimensions	110.4 (W) x 110.4 (H) x 49 (D) mm (4.35" x 4.35" x 1.92")
Weight	138 g (0.3 lbs)

Note: The design and specifications are subject to change without notice for improvement.

12.4. IR-842HY-AM Speaker Stand Adapter

Compatible Stand	The generic speaker stand with a Ø35 pipe
Finish	Steel plate, black, paint
Dimensions	176 (W) x 52.4 (H) x 80 (D) mm (6.94" x 2.06" x 3.15")
Weight	0.31 kg (0.68 lbs)

Note: The design and specifications are subject to change without notice for improvement.

12.5. IR-842BAG-AM Bag

Portability	Hand-carry/adjustable shoulder strap two ways
Finish	Polyester, black/orange
Dimensions	520 (W) x 300 (H) x 250 (D) mm (20.49" x 11.81" x 9.85")
Weight	1.38 kg (3.04 lbs)

Note: The design and specifications are subject to change without notice for improvement.

EMC PRECAUTIONS

Warning: Operation of this equipment in a residential environment could cause radio interference.

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.
To maintain compliance with FCC's RF Exposure guidelines. This equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.

Note: This equipment 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.
The device should be installed and used within a distance of at least 20 cm between the radiator and the body.
Cet appareil est conforme aux CNR exempts de licence d'Industrie Canada. Son fonctionnement est soumis aux deux conditions suivantes:
(1) Ce dispositif ne peut causer des interférences; et
(2) Ce dispositif doit accepter toute interférence, y compris les interférences qui peuvent causer un mauvais fonctionnement de l'appareil.
Déclaration d'exposition aux radiations Cetéquipementestconforme Canada.
limitesd'exposition aux radiations dans un environnement non contrôlé. Cetéquipementdoitê treinstallé et utilisé
à distance minimum de 20cm entre le radiateur et votre corps.

Manufacturer:
TOA Corporation
7-2-1, Minatojima-Nakamachi, Chuo-ku, Kobe, Hyogo, Japan

Traceability Information for Americas
Authorized representative:
TOA Canada Corporation
3670 Odyssey Drive, Unit 1, Mississauga, ON L5M 0Y9, Canada
TEL: +1-800-263-7639