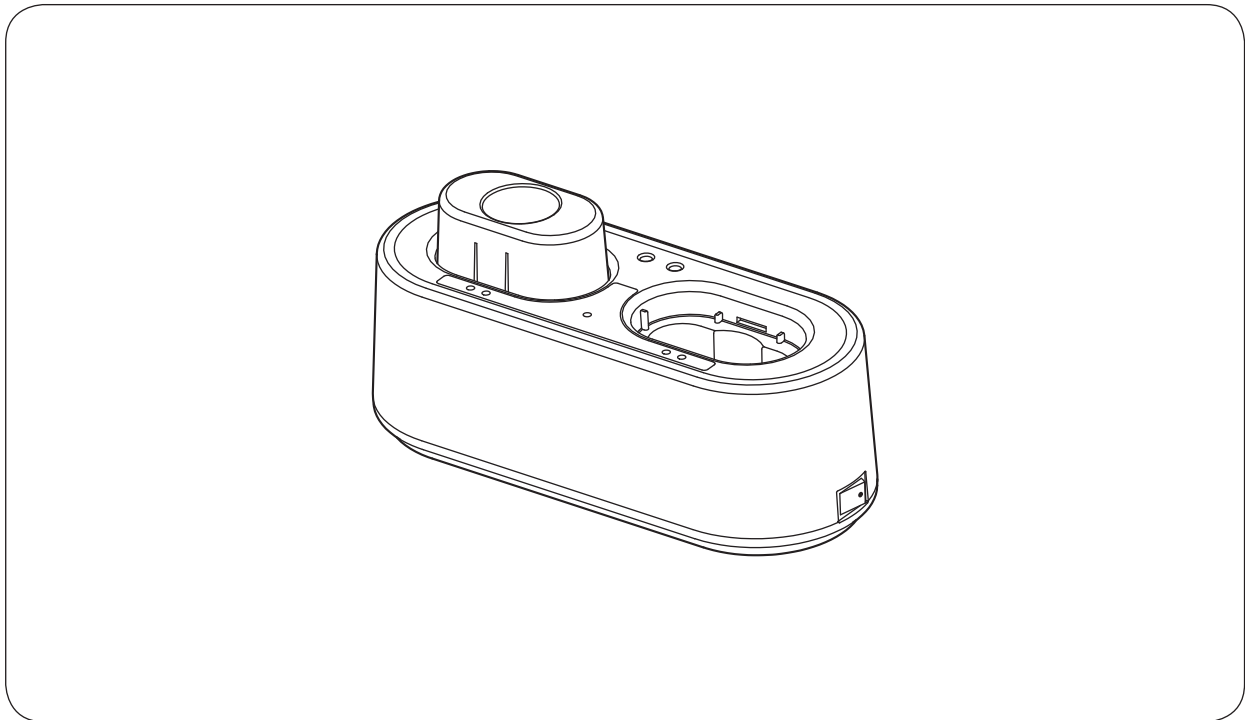


BATTERY CHARGER

IR-200BC



For use with non-consumer equipment only

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Thank you for purchasing TOA's Battery Charger.
Please carefully follow the instructions in this manual to ensure long, trouble-free use of your equipment.

1. SAFETY PRECAUTIONS

- Before installation or use, be sure to carefully read all the instructions in this section for correct and safe operation.
- Be sure to follow all the precautionary instructions in this section, which contain important warnings and/or cautions regarding safety.
- After reading, keep this manual handy for future reference.



WARNING

Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.



CAUTION

Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.



WARNING

When Installing the Unit

- Do not expose the unit to rain or an environment where it may be splashed by water or other liquids, as doing so may result in fire or electric shock.
- Use the unit only with the voltage specified on the unit. Using a voltage higher than that which is specified may result in fire or electric shock.
- Do not cut, kink, otherwise damage nor modify the power supply cord. In addition, avoid using the power cord in close proximity to heaters, and never place heavy objects -- including the unit itself -- on the power cord, as doing so may result in fire or electric shock.
- 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.

When the Unit is in Use

- Should the following irregularity be found during use, immediately switch off the power, disconnect the power supply plug from the AC outlet and contact your nearest TOA dealer. Make no further attempt to operate the unit in this condition as this may cause fire or electric shock.
- If you detect smoke or a strange smell coming from the unit
- If water or any metallic object gets into the unit
- If the unit falls, or the unit case breaks
- If the power supply cord is damaged (exposure of the core, disconnection, etc.)
- To prevent a fire or electric shock, never open nor remove the unit case as there are high voltage components inside the unit. Refer all servicing to your nearest TOA dealer.

- Do not place cups, bowls, or other containers of liquid or metallic objects on top of the unit. If they accidentally spill into the unit, this may cause a fire or electric shock.

- Do not insert nor drop metallic objects or flammable materials inside the battery charger or its infrared microphone receptacle, as this may result in fire or electric shock.

- Do not touch a power supply plug during thunder and lightning, as this may result in electric shock.

- Stop charging if the batteries are not fully charged within 3 hours. Failure to do so may cause the batteries to fire, explode, leak, or heat.



CAUTION

When Installing the Unit

- Never plug in nor remove the power supply plug with wet hands, as doing so may cause electric shock.
- When unplugging the power supply cord, be sure to grasp the power supply plug; never pull on the cord itself. Operating the unit with a damaged power supply cord may cause a fire or electric shock.

- When moving the unit, be sure to remove its power supply cord from the wall outlet. Moving the unit with the power supply cord connected to the outlet may cause damage to the power supply cord, resulting in fire or electric shock.

- Avoid installing the unit in humid or dusty locations, in locations exposed to the direct sunlight, near the heaters, or in locations generating sooty smoke or steam as doing otherwise may result in fire or electric shock.

When the Unit is in Use

- If dust accumulates on the power supply plug or in the wall AC outlet, a fire may result. Clean it periodically. In addition, insert the plug in the wall outlet securely.

- Switch off the power, and unplug the power supply plug from the AC outlet for safety purposes when cleaning or leaving the unit unused for 10 days or more. Doing otherwise may cause a fire or electric shock.
- Use the dedicated AC adapter for the unit. Note that the use of other adapter may cause a fire.
- Avoid charging microphones installed with rechargeable batteries other than the dedicated IR-210BT/200BT battery. Charging any other than the specified battery could result in fire or personal injury due to battery rupture.
- When the infrared wireless microphone is not in use for 2 weeks or more, be sure to take the batteries out of the microphone because battery leakage may cause a fire, personal injury, or contamination of environment.
- Make sure to observe the following handling precautions so that a fire or personal injury does not result from leakage or explosion of the battery.
 - Be sure to use only the rechargeable battery designed for use with the infrared wireless microphone
 - Avoid mixed use of new and old batteries, batteries of different types, or fully charged and discharged batteries in the same microphone.
 - Even if the product numbers of the rechargeable batteries to be used are the same, avoid mixing new and old batteries, or using together those of different charging conditions.
 - Do not short, disassemble, heat nor put the battery into a fire.
 - Do not solder a battery directly.
 - Note correct polarity (positive and negative orientation) when inserting a battery in the unit.
 - Avoid locations exposed to the direct sunlight, high temperature and high humidity when storing batteries.

FCC Compliance

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 modifications made to this device that are not approved by TOA Corporation may void the authority granted the user by the FCC to operate this equipment.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required correct the interference at his own expense.

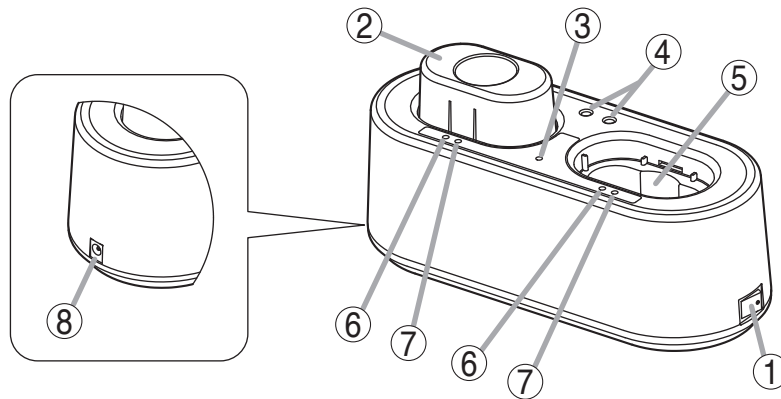
2. GENERAL DESCRIPTION

The TOA IR-200BC is a dedicated battery charger for the IR-200M and IR-300M Infrared Wireless Microphones. It employs a quick charging system for nickel metal hydride (NiMH) batteries, allowing up to 2 infrared wireless microphones to be fully charged within 3 hours.

3. HANDLING PRECAUTIONS

- Since the supplied power cord is designed for use specifically with the IR-200BC charger, do not use it with equipment other than the IR-200BC.
- Use the IR-200BC in locations where an ambient temperature ranges from 0 to 40 °C (32 to 104 °F).
- When cleaning the case, be sure to first switch off the power, then wipe with a dry cloth. Never use benzene, thinner, alcohol or chemically processed towels, as these may damage the charger's components and parts.
- Clean the charging terminals on a regular basis using a dry cotton swab. Dirty terminals can cause poor electrical contact and cause batteries to be charged incorrectly.

4. NOMENCLATURE AND FUNCTIONS



1. Power switch

To turn on the power, set this switch to the [●] position. To turn off the power, shift this switch back.

2. Mounting Adapter (factory-attached to the charger)

Used when charging the IR-200M handheld infrared wireless microphone.

Remove this adapter when charging the IR-300M hands-free infrared wireless microphone. (Refer to p. 5 "CHARGING.")

3. Power indicator

Lights when the power is switched on.

4. Screwdriver inlet

Insert the setting screwdriver supplied with the infrared wireless microphone into this inlet when storing it.

5. Infrared wireless microphone receptacle

- Use the mounting adapter when charging the IR-200M microphone.
- When charging the IR-300M microphone, remove the mounting adapter and insert the microphone directly into the receptacle.

6. Full-charge indicator

Lights green once the battery is fully charged.

7. Charging indicator

Lights red continuously while charging is in progress.

8. Power input terminal

Connect the supplied AC adapter to this terminal.

[Indicator status table]

Charging indicator (red)	Full-charge indicator (green)	Status
Lit	Unlit	Charging in progress
Unlit	Lit	Charging completed
Flashing	Unlit	Outside the operating temperature range (refer to p. 7 "TROUBLESHOOTING.")
Both indicators light alternately		Charging failure (refer to p. 7 "TROUBLESHOOTING.")

5. CHARGING



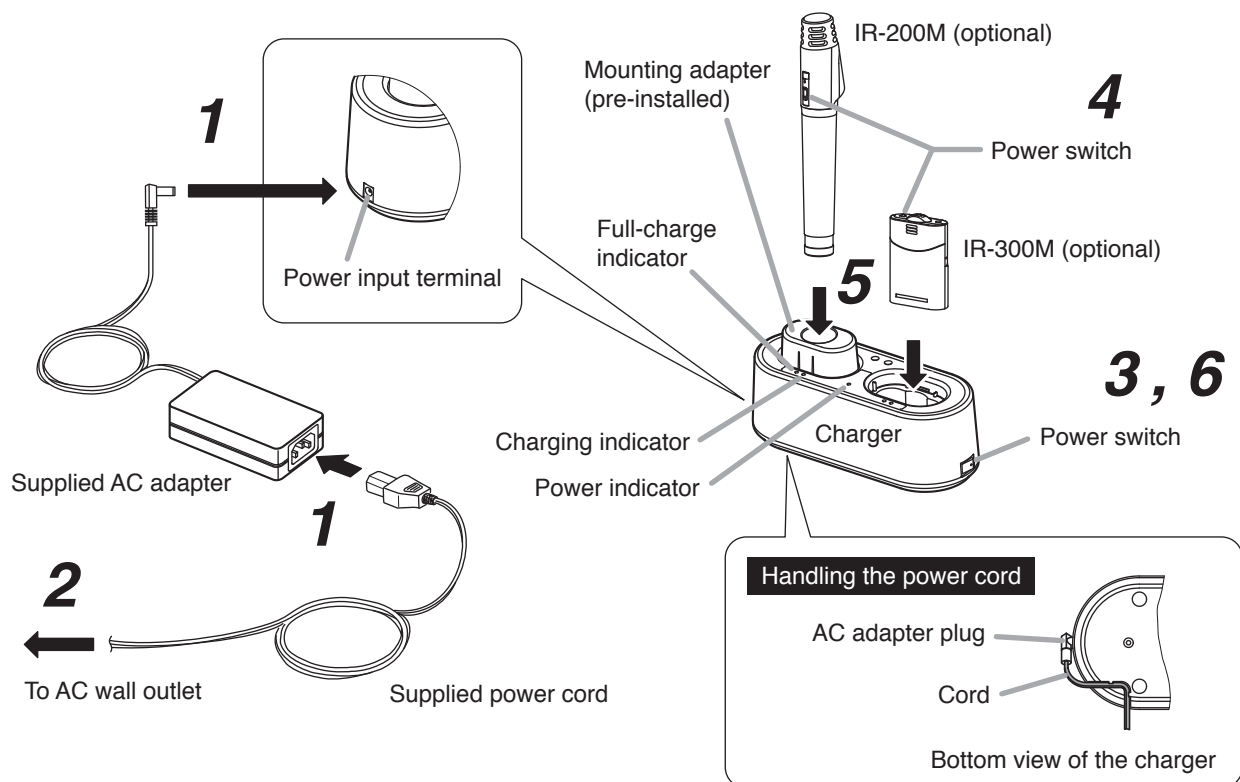
CAUTION

Avoid charging microphones installed with rechargeable batteries other than the dedicated IR-210BT/200BT battery. Charging any other than the specified battery could result in fire or personal injury due to battery rupture.

Notes

- Use the charger in locations where the ambient temperature range is between 0 and 40 °C (32 to 104 °F).
- Charge the IR-210BT/200BT battery before using it.
- If an infrared wireless microphone containing an IR-210BT/200BT battery has been stored for a long period of time, it is recommended that the microphone be charged before use.
- Avoid using the charger in locations subject to strong vibrations, as the resulting poor electrical contact may prevent correct charging.
- Do not frequently insert and remove the microphone from the charger during charging, as this could reduce the number of times that the IR-210BT/200BT can be effectively charged and discharged.
- Rechargeable batteries are consumables and do not last indefinitely. If the battery operating time becomes extremely short even when it has been fully charged, the battery has reached the end of its life and must be replaced. Be sure to replace the battery with one designated for use with the microphone (IR-210BT/200BT).

Tip: Under normal use conditions, the battery can cycle through approximately 500 charges and discharges, after which it will usually need to be replaced.



Step 1. Connect the power cord to the AC adapter, then connect the AC adapter to the charger. Once connected, push the cord into the slot in the charger's bottom surface to prevent the AC adapter plug from accidentally slipping out of place. (Refer to "Handling the power cord" in the figure above.)

Step 2. Insert the AC power plug into an AC wall outlet.

Step 3. Set the charger's power switch to ON. Confirm that the power indicator is lit.

Step 4. Turn off the power of the infrared wireless microphone to be charged, then insert the 2 IR-210BT/200BT rechargeable batteries into the microphone. For proper battery insertion, refer to the instruction manual enclosed with the infrared wireless microphone.

Note

Charging cannot be correctly performed if the infrared wireless microphone's power switch is set to the ON position.

Step 5. Insert the infrared wireless microphone fully into the charger's microphone receptacle and confirm that the charging indicator (red) is lit.

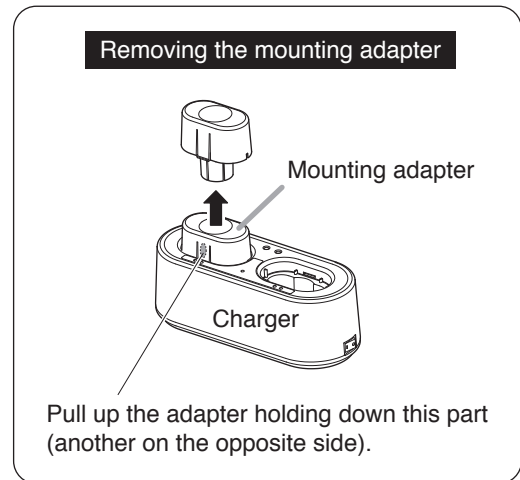
[For the IR-200M microphone]

- Leave the mounting adapter attached.
- Insert the microphone into the hole in the adapter to charge.

[For the IR-300M microphone]

Remove the mounting adapter to charge.
(Refer to the figure at right.)

Charging takes approximately 3 hours, after which the full-charge indicator lights green.



Step 6. Turn off the charger's power once charging is complete.

Notes

- Be sure to turn off the charger's power after charging is complete in order to save standby power.
- The infrared wireless microphone becomes warm after charging completion, however this is not a failure.
- Hold the charger when detaching the infrared wireless microphone from the charger.

6. TROUBLESHOOTING

Symptom	Possible cause	Remedy
Power indicator does not light even if the power switch is turned on.	<ul style="list-style-type: none"> • The AC adapter is not plugged into a working AC outlet, or is not plugged in correctly. • AC adapter plug is not connected to the charger. 	<ul style="list-style-type: none"> • Make sure the AC adapter is plugged in to a working AC wall outlet correctly. • Connect the plug to the charger's power input terminal.
Charging indicator (red) does not light even when the infrared wireless microphone is inserted into the microphone receptacle.	<ul style="list-style-type: none"> • The batteries used in the microphone may not be dedicated IR-210BT/200BT rechargeable batteries. • The infrared wireless microphone may not be seated correctly in the microphone receptacle. [For the IR-200M] • The mounting adapter may not be installed correctly. 	<ul style="list-style-type: none"> • Install the appropriate dedicated IR-210BT/200BT rechargeable battery in the microphone. • Make sure that the microphone is inserted fully into charger as far as it will go. • Install the mounting adapter correctly.
Inserting the infrared wireless microphone into the microphone receptacle causes the charging indicator (red) to flash.	<ul style="list-style-type: none"> • The ambient temperature may exceed the permissible operating temperature range (0 to 40 °C, or 32 to 104 °F), preventing charging. 	<ul style="list-style-type: none"> • Perform charging within the operating temperature range (0 to 40 °C, or 32 to 104 °F).
Full-charge indicator (green) always lights soon.	<ul style="list-style-type: none"> • The dedicated IR-210BT/200BT rechargeable battery has probably reached the end of its life cycle (usually after about 500 charges and discharges). 	<ul style="list-style-type: none"> • Replace the rechargeable battery with a new one.
Full-charge indicator does not light even 3 hours after charging has been started (maximum charging time: 3 hours).	<ul style="list-style-type: none"> • The infrared wireless microphone's power switch may be set to ON. • The battery may be at the end of its life. 	<ul style="list-style-type: none"> • Set the infrared wireless microphone's power switch to OFF. • Replace the rechargeable battery with a new one.
Both the charging indicator (red) and the full-charge indicator (green) light alternately.	<ul style="list-style-type: none"> • The microphone may have been installed with a non-IR-210BT/200BT rechargeable battery. • There may be foreign objects (such as metals) in the microphone receptacle. • The battery may be at the end of its life. • The infrared wireless microphone's power switch may be set to ON. 	<ul style="list-style-type: none"> • Use a dedicated IR-210BT/200BT rechargeable battery in the infrared wireless microphone. • Remove such foreign objects. • Replace the rechargeable battery with a new one. • Detach the infrared wireless microphone from the charger and set the microphone power switch to the OFF position, then reinsert the microphone into the charger.

7. SPECIFICATIONS

Power Source	AC mains, 50/60 Hz (Power is supplied from the enclosed AC adapter.)
Current Consumption	Max. 2 A
Charging Time	Max. 3 hours
Number of wireless microphones to be charged simultaneously	2 pieces* ¹
Operating Temperature	0 to 40 °C (32 to 104 °F)
Finish	Case: ABS resin, metallic gray, 50% glossy, paint Microphone receptacle section: PPE resin, black
Operating Humidity	30 to 85%RH
Dimensions	238 (w) x 83 (h* ²) x 98 (d) mm (9.37" x 3.27" x 3.86")
Weight	635 g or 1.4 lb (charger with the mounting adapters attached)

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

• Accessories

Power cord (2 m or 6.56 ft)* ³	1
AC adapter (DC cord length: 1.3 m or 4.27 ft)* ³	1
Mounting adapter (pre-installed)	2

• Optional products

Rechargeable battery: IR-210BT-2 (containing 2 pieces)

*¹ Using the mounting adapter allows one each of the IR-200M and IR-300M to be charged in combination.

*² Height is 109.5 mm (4.31") when the mounting adapter is installed.

*³ Not supplied with the IR-200BC KR. For the usable power supply cord and AC adapter, contact your nearest TOA dealer.