TOA

OPERATING INSTRUCTIONS

BATTERY CHARGER BC-920

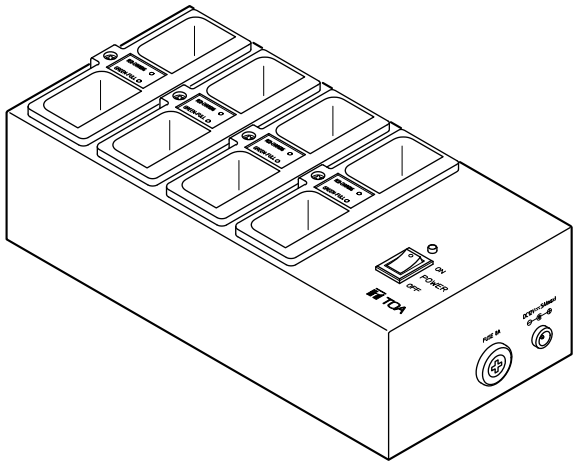


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Thank you for purchasing TOA's Battery Charger.
Please carefully follow the instructions in this manual to ensure long, trouble-free use of your equipment.

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.

Safety Symbol and Message Conventions

Safety symbols and messages described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating your product, read this manual first and understand the safety symbols and messages so you are thoroughly aware of the potential safety hazards.

⚠ **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.
- Avoid inserting or dropping metal or combustible objects or other foreign objects in the Charger's interior or battery receptacles, as this could result in fire or electric shock.
- Do not touch a power cord plug during thunder and lightning, as this may result in electric shock.
- Stop charging if batteries are not fully charged within 5 hours.
  Continuously charging over 5 hours may cause 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 cord connected to the outlet may cause damage to the power cord, resulting in fire or electric shock. When removing the power cord, be sure to hold its plug to pull.

- 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

- Do not place heavy objects on the unit as this may cause it to fall or break which may result in personal injury and/or property damage. In addition, the object itself may fall off and cause injury and/or damage.

- 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.

- Remove the power supply plug of charger from the AC outlet after charging completion, as doing otherwise may cause a fire.

- Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

FCC REQUIREMENTS

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.

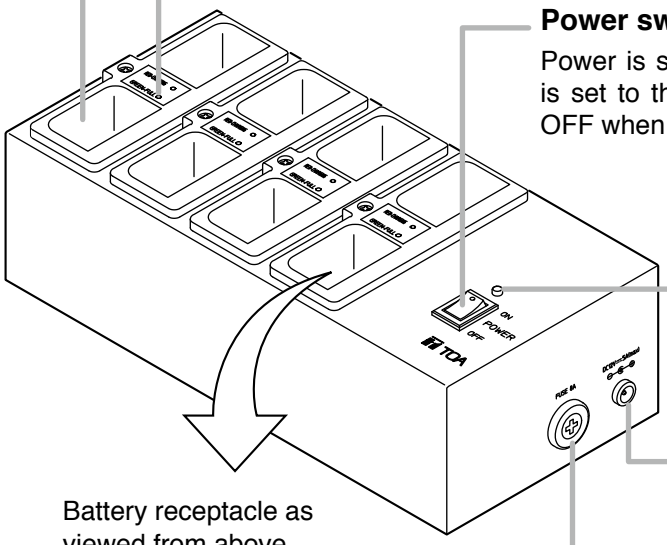
2. GENERAL DESCRIPTION

The TOA BC-920 is a dedicated battery charger for BP-920 and BP-900A lithium-ion batteries used in the TS-821 and TS-921 Chairman units, and TS-822 and TS-922 Delegate units of TOA's Infrared conference system. The BC-920 features an exclusive charging system for lithium-ion batteries, and permits up to 8 batteries to be simultaneously charged within up to 5 hours.

3. HANDLING PRECAUTIONS

- Use the unit in locations where the temperature is between 0 and 40°C.
- Avoid installing the Battery charger in locations exposed to vibration. Batteries may not be correctly charged due to poor contact.
- To clean, be sure to first switch off the unit's power, then wipe with a dry cloth. When the unit gets very dirty, use a cloth damped in a neutral cleanser. Never use benzene, thinner or chemically-treated cleaning cloth because such volatile liquids could deform or discolor the unit.
- Clean the charging terminals periodically with a dry cotton swab. Dirty terminals could cause bad contact, thus preventing batteries from being correctly charged.

4. NOMENCLATURE AND FUNCTIONS



Battery receptacle

Insert the lithium ion battery into this receptacle.

Charging status indicator [RED-CHARGING, GREEN-FULL]

Continuously lights red during charging.
Lights green after charging is completed.

Power switch [POWER, ON/OFF]

Power is switched ON when this switch is set to the ON position, and switched OFF when set to the OFF position.

Power indicator

Lights green when the Power switch is set to the ON position.

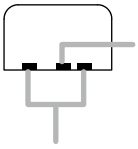
Power input terminal [DC12 V 5 A (max)]

Connect the supplied AC adapter to this terminal.

AC fuse [FUSE 8 A]

Maximum current capacity: 8 A

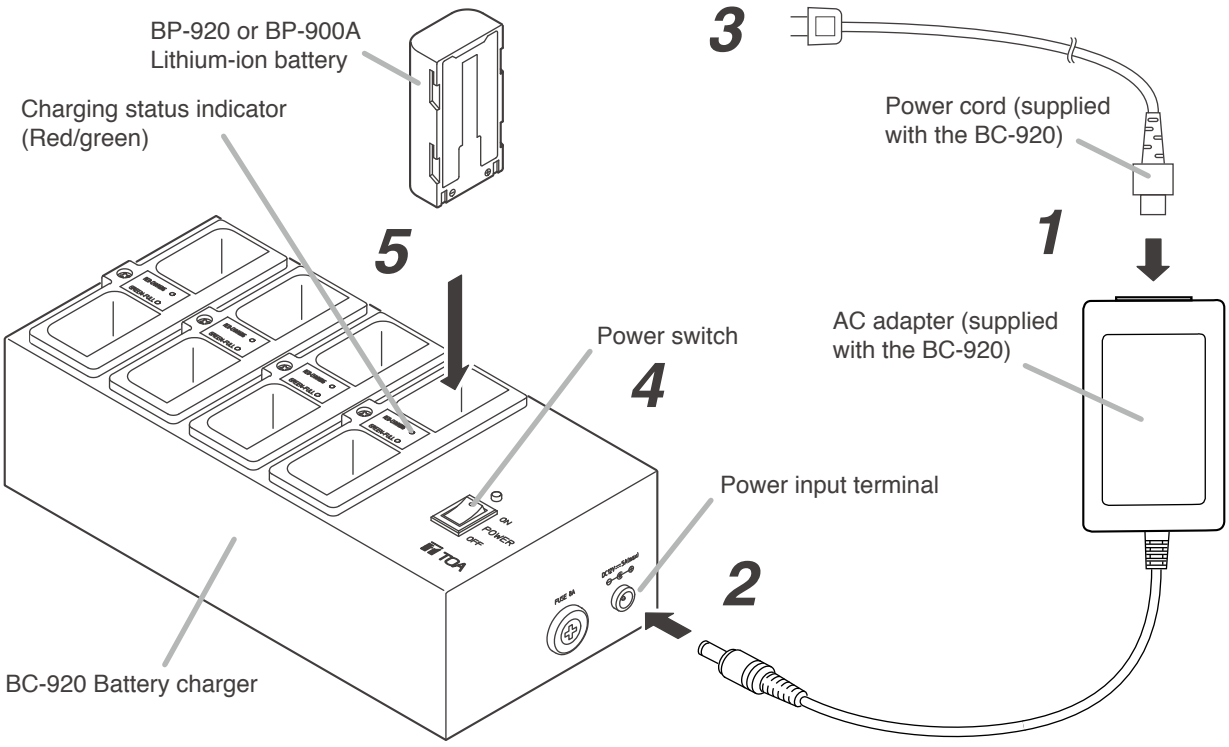
Battery receptacle as viewed from above



Thermistor terminal

Charging terminals

5. CHARGING



Step 1. Connect the power cord to the supplied AC adapter.

Step 2. Connect the AC adapter to the Charger's power input terminal.

Step 3. Insert the AC plug into the AC wall outlet.

Step 4. Turn on the power switch.
The Power indicator lights green.

Step 5. Insert the battery fully into one of the Charger's battery receptacles with the battery oriented to the proper direction.
Ensure that the charging status indicator lights red. If it does not light, check to see if the battery is correctly inserted.

Charging is completed within 5 hours and the charging status indicator lights green.

⚠ WARNING Stop charging if batteries are not fully charged within 5 hours. Continuously charging over 5 hours may cause batteries to fire, explode, leak, or heat.

⚠ CAUTION Remove the power supply plug of charger from the AC outlet after charging completion, as doing otherwise may cause a fire.

Note
Switching the Charger's power OFF and back ON again with fully-charged (charging completed) batteries inserted will result in repeated recharge of the batteries. Battery life could deteriorate from this repetitive charging.

6. TROUBLESHOOTING

Symptom	Possible Cause	Remedy
The power indicator (green) does not light even when the power switch is set to ON.	The AC plug is not inserted into the wall outlet.	Insert the AC plug into the wall outlet.
	The fuse has blown off.	Have the fuse replaced. Contact your TOA dealer for replacement.
The charging status indicator (red) does not light even if the lithium-ion battery is inserted into the battery receptacle.	The lithium-ion battery is not correctly inserted into the battery receptacle.	Insert the lithium-ion battery fully into the battery receptacle.
	The charging terminals are dirty.	Clean the terminals with a dry cotton swab.
The charging status indicator alternately flashes between red and green when the lithium-ion battery is inserted into the battery receptacle.	The lithium-ion battery is not correctly inserted into the battery receptacle.	Insert the lithium-ion battery fully into the battery receptacle.
	The charging terminals are dirty.	Clean the terminals with a dry cotton swab.
	(The lithium-ion battery life has deteriorated.)	Replace with a new lithium-ion battery.
Charged battery operating durations are short.	(The lithium-ion battery life has deteriorated.)	Replace with a new lithium-ion battery.

7. SPECIFICATIONS

Power Source	100 – 240 V AC, 50/60 Hz (use of the supplied AC adapter)
Current Consumption	Max. 1.4 A
Charging Time	Approx. 5 hours
Charging Capacity	8 BP-920 or BP-900A batteries (option)
LED Indicator	Charging status (Green: Full charge, Red: On charge), Power indicator
Operating Temperature	0 to 40 ºC (32 to 104 ºF)
Operating Humidity	90%RH or less (no condensation)
Finish	Case: Steel, black, paint Battery receptacles: PPO resin, black
Dimensions	240 (w) x 70 (h) x 115 (d) mm (9.45" x 2.76" x 4.53")
Weight	1.1 kg or 2.43 lb (unit only)

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

• **Accessory**
AC adapter (DC cord: 1 m or 3.28 ft, Detachable AC cord: 2 m or 6.56 ft) 1

Traceability Information for USA

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

Authorized representative:
TOA Electronics, Inc.
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USA

Traceability Information for Europe

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

Authorized representative:
TOA Electronics Europe GmbH
Suederstrasse 282, 20537 Hamburg,
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