



Lithium Ion Battery



User's manuals in other languages are available at :
<https://si.shimano.com>

IMPORTANT NOTICE

- Contact the place of purchase or a bicycle dealer for information on installation and adjustment of the products which are not found in the user's manual. A dealer's manual for professional and experienced bicycle mechanics is available on our website (<https://si.shimano.com>).
- Do not disassemble or alter this product.

For safety, be sure to read this user's manual thoroughly before use, and follow it for correct use.

Important Safety Information

For replacement information, contact the place of purchase or a bicycle dealer.

Be sure to observe the following in order to avoid burns or other injury from fluid leakages, overheating, fire or explosions.

DANGER

- Use the dedicated charger to charge the battery. If any non-specified items are used, fire, overheating or leakages may occur.
- Use an AC adapter with a USB port with a voltage of 5.0 Vdc and with a current equal to or higher than 1.0 Adc. If the one with a current lower than 1.0 A is used, the AC adapter may heat up, potentially causing a fire, smoke, heating, destruction, electric shock, or burns.
- Do not heat the battery or throw it into fire. If this is not observed, fire or bursting may occur.
- Do not use or leave the battery in hot and humid places such as where the battery is exposed to direct sunlight, in a closed vehicle on a hot day, or near a heater. If this is not observed, leakages, overheating or bursting may cause fire, burns or other injury to occur.
- Do not disassemble or modify the battery or apply solder directly to the battery terminals. If this is not observed, leakages, overheating or bursting may cause fire, burns or other injury to occur.
- Do not connect the (+) and (-) terminals with metallic objects. Do not carry or store the battery together with metallic objects such as necklaces or hairpins. If this is not observed, short-circuits, overheating, burns or other injury may occur.
- If any liquid leaking from the battery gets into the eyes, immediately wash the affected area with clean water without rubbing the eyes, and then seek medical advice. If this is not done, blindness may occur.

WARNING

- If the battery does not become fully charged after 4 hours of charging, stop charging.
- Do not place the battery into fresh water or sea water, and do not allow the battery terminals to get wet. If this is not observed, fire, bursting or overheating may occur.
- The operating temperature ranges for the battery are given below. Do not use the battery in temperatures outside these ranges. If the battery is used or stored in temperatures which are outside these ranges, fire, injury or problems with operation may occur.
 1. During discharge: -10 °C - 50 °C
 2. During charging: 0 °C - 45 °C

- Do not use the battery if it has any noticeable scratching or other external damage. If this is not observed, bursting, overheating or problems with operation may occur.
- Do not subject the battery to strong shocks or throw it. If this is not observed, bursting, overheating or problems with operation may occur.
- Do not use the battery if leakages, discoloration, deformation or any other abnormalities occur. If this is not observed, bursting, overheating or problems with operation may occur.
- If any leaked fluid gets on your skin or clothes, wash it off immediately with clean water. The leaked fluid may damage the skin.
- After reading the user's manual carefully, keep it in a safe place for later reference.

CAUTION

- Keep away from children.

Notice

- If the unit will not be used for an extended period, store it after charging in cool indoor places (approx. 10 to 20 °C) where the battery will not be exposed to direct sunlight or rain.
- Also read the user's manual included with the battery charger.
- Products are not guaranteed against natural wear and deterioration from normal use and aging.
- For maximum performance we highly recommend Shimano lubricants and maintenance products.

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.

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.

Main specifications

Battery	Lithium ion
Nominal capacity	SM-BTR2 / BT-DN110 / BT-DN110-A : 500mAh
Weight	50 g standard
Operating temperature range	During discharge: -10 °C - 50 °C During charging: 0 °C - 45 °C
Nominal voltage	7.4 V

Regular inspections before riding the bicycle

Before riding the bicycle, check the following items. If any problems are found with the following items, contact the place of purchase or a bicycle dealer.

- Does the battery require charging?
- Is the battery securely installed to the frame?

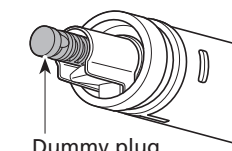
Operation

Guide to charging time

The charging time of an AC adapter with a USB port is about 1.5 hours, and that of computer USB port type about 3 hours. (Note that the actual time will vary depending on the amount of charge remaining in the battery. Depending on the specifications of the AC adapter, recharging via the AC adapter requires as many hours (about 3 hours) as recharging via PC.) This battery is of lithium ion type. Use the designated charger (SM-BCR2). For information on how to charge the battery, follow the user's manual included with the charger.

Storing the battery

- Dummy plugs are installed at the time of shipment from the factory. Do not remove them except when necessary.



Dummy plug

- If storing the battery away for a long period, remove it when the battery level is 50% or higher (the indicator is illuminated green) in order to prolong its useful life. It is recommended that you charge the battery about once every half a year.
- Store the battery or bicycles with the battery installed in cool indoor places (approx. 10 to 20 °C) where they do not become exposed to direct sunlight or rain. If the storage temperature is low or high, the performance of the battery is reduced, and its available time will be shorter. When you use the battery after a long storage period, be sure to fully charge it before use.

Battery life

- The battery is a consumable item. The battery will gradually lose its capacity for charging after repeated use and after time has passed. If the length of time that the battery can be used becomes extremely short, it has probably reached the end of its life, and so you will need to purchase a new battery.
- The life of the battery will vary depending on factors such as the storage method, the usage conditions, the surrounding environment and the characteristics of the individual battery pack.

About used batteries

Lithium ion batteries are recyclable, valuable resources.

For information on used batteries, contact the place of purchase or a bicycle dealer.

CAUTION

Risk of fire and burns. Do not open, crush, heat above 140°F(60°C) or incinerate. Follow manufacturer's Instruction. Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instruction.
Maximum Charge Current 1.0 A
Maximum Charge Voltage 8.5V dc



Europe only

Disposal information for countries outside the European Union

This symbol is only valid within the European Union. Follow local regulations when disposing of used batteries. If you are not sure, consult the place of purchase or a distributor.

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Please note: specifications are subject to change for improvement without notice. (English)
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