#### User's manual

# **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 specified charger and observe the specified charging conditions when charging the battery. Not doing so may cause overheating, bursting, or ignition of the battery.
- Do not leave the battery near sources of heat such as heaters. Do not heat the battery or throw it into a fire. Doing so may cause bursting or ignition of the battery.
- Do not deform, modify, disassemble or apply solder directly to the battery. Doing so may cause leakage, overheating, bursting, or ignition of the battery.
- 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.
- Do not place the battery into fresh water or sea water, and do not allow the battery terminals to get wet. Doing so may cause overheating, bursting, or ignition of the battery.
- Do not subject the battery to strong shocks or throw it. If this is not observed, overheating, bursting, or fire may occur.

# WARNING

- If any liquid leaking from the battery gets into your eyes, immediately
  wash the affected area thoroughly with clean water such as tap water
  without rubbing your eyes, and seek medical advice immediately. If
  this is not done, the battery liquid may damage your eyes.
- If the battery does not become fully charged even 2 hours after the designated charging time, immediately unplug the battery from the outlet and contact the place of purchase. Doing otherwise may cause it to overheat, burst, or ignite.
- 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 40°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 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.
- Do not recharge the battery in wet or very humid places, or outdoors. A fire, ignition, overheating, or electric shock may occur.

- Do not insert or remove the plug while it is wet. If this is not observed, electric shocks may result. If there is water leaking out of the plug, dry it thoroughly before inserting it.
- After reading the user's manual carefully, keep it in a safe place for later reference.

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- Do not leave the battery in a place exposed to direct sunlight, inside a vehicle on a hot day, or other hot places. This may result in battery leakage.
- If any leaked fluid gets on your skin or clothes, wash it off immediately with clean water. The leaked fluid may damage your skin.
- Keep away from children.
- Use both hands when handling the product. Failure to do so may result in the product falling and breaking or injury.
- If an error occurs during discharge or charging, stop using the battery immediately and refer to the user's manual. If you are not sure, consult the place of purchase or a bicycle dealer.
- Riding with a high level of assistance on hot days or charging the battery in direct sunlight may cause the surface temperature of the battery to exceed 60°C (BT-E8036). Avoid touching the battery for an extended period of time when it is at a high temperature. Doing so may cause a low-temperature burn.

### Notice

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Charging can be carried out at any time regardless of the amount of charge remaining, but you should fully charge the battery at the following times. Be sure to use the special charger when recharging the battery at these times.

- The battery is not fully charged at the time of purchase. Before riding, be sure to charge the battery until it is fully charged.
- If the LCD of the cycle computer no longer turns on, charge the battery until it is fully charged, so that the amount of charge remaining can be accurately displayed.
- If the battery has become completely empty, charge it as soon as possible. If the battery is left uncharged, it may cause the battery to deteriorate and become unusable.
- If pressing the battery power button does not turn on the LED display, the protection circuit is operating. To release the protection circuit, charge the battery by connecting the battery charger.
- If the battery has been charged in a low temperature environment (5 °C or below), the maximum riding distance per full charge becomes shorter. This is due to a characteristic of the battery. If the battery is charged at room temperature, the maximum riding distance becomes normal again.
- 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	BT-E6000/BT-E6010/BT-E8014: 11.6 Ah BT-E6001/BT-E8010/ BT-E8020/BT-E8035/BT-E8035-L: 14 Ah BT-E8016/BT-E8036: 17.5 Ah
Operating temperature range	During discharge: –10°C - 50°C During charging: 0°C - 40°C
Nominal voltage	36 V

- Depending on the drive unit, some batteries may be incompatible. For details, check the SHIMANO product website (https://productinfo. shimano.com/).
- The drive unit may not operate correctly if the latest firmware version is not installed. Connect to E-TUBE PROJECT, then update the firmware.

# Introduction

You cannot use the battery immediately after shipment. The battery can be used after charging it with the designated charger. Be sure to charge it before use. The battery can be used when the LED on it turns on.

# 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

#### Charging time

The charging time will vary depending on the battery level and the battery charger being used. Refer to the battery charger user's manual for the designated charging time. This battery is of lithium ion type. Use the designated charger. For information on how to charge the battery, follow the user's manual included with the charger.

#### Storing the battery

- If the bicycle will not be ridden for a long period of time, store it away with approximately 70% battery capacity remaining. In addition, take care not to let the battery become completely empty by charging it every 6 months.
- 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 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 or the riding distance that the battery can be used becomes extremely short, it has probably reached the end of its life. 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, follow the rules in your area. If you are not sure, consult the place of purchase or a bicycle dealer.



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 bicycle dealer.



SHIMANO NORTH AMERICA BICYCLE, INC.

One Holland, Irvine, California 92618, U.S.A. Phone: +1-949-951-5003

SHIMANO EUROPE B.V. High Tech Campus 92, 5656 AG Eindhoven, The Netherlands Phone: +31-402-612222

SHIMANO INC.

3-77 Oimatsu-cho, Sakai-ku, Sakai City, Osaka 590-8577, Japan

Please note: specifications are subject to change for improvement without notice. (English)  $\circledcirc$  Nov. 2019 by SHIMANO INC. ITP