# **Lithium-ion Battery**

User's Manual

The user's manual can be seen at the following link: https://si.shimano.com

## **IMPORTANT NOTICE**

- Contact the place of purchase or a distributor 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).
- Please observe the appropriate rules and regulations of the country, state or region in which you conduct your business as a dealer.
- Make sure to also refer to the "SHIMANO STEPS Special Battery and Parts User's Manual" and the "SHIMANO STEPS User's Manual" as well.

For safety, be sure to read this user's manual thoroughly before use, follow it for correct use, and store it so that it can be referenced at any time.

Δ	DANGER	Failure to follow the instructions will result
		in death or serious injury.
Δ	WARNING	Failure to follow the instructions could
		result in death or serious injury.
	CAUTION	Failure to follow the instructions could
		cause personal injury or physical damage
		to equipment and surroundings.

## Important safety information

Consult your place of purchase or a distributor regarding items requiring replacement.

Be sure to observe the following instructions in order to avoid burns or other injury from fluid leakage, overheating, fire, or explosion.

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- Use the specified battery charger for charging and observe the specified charging conditions. Doing otherwise may cause overheating, bursting, or ignition.
- Do not leave the battery near sources of heat such as heaters, and do not heat the battery or throw it into a fire. Doing so may cause bursting or ignition.
- Do not deform, modify, disassemble, or apply solder directly to the battery. Doing so may cause leakage, overheating, bursting, or ignition.
- Do not connect the terminals with metallic objects. If this is not observed, short-circuits or overheating may occur, resulting in burns or other injury.
- Do not carry or store the battery together with metallic objects such as necklaces or hairpins. If this is not observed, short-circuits or overheating may occur, resulting in burns or other injury.
- 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.
- Do not throw or subject the battery to strong shock. Doing so may cause overheating, bursting, or ignition.
- If the battery does not become fully charged even two hours after the designated charging time, immediately unplug the battery from the electrical outlet and contact the place of purchase. Doing otherwise may cause overheating, bursting, or ignition.

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- Do not disassemble or modify the product. This may cause the product to not operate correctly, and you may suddenly fall and be seriously injured.
- 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 attention immediately. If this is not done, the battery liquid may damage your eyes.
- Do not use it outside of the operating temperature ranges of the battery. If a battery is used or stored in temperatures which are outside these ranges, fire, injury or problems with operation may occur.
- 1. During discharge: -10 50°C
- 2. During charging: 0 40°C
- Do not use the battery if it has any noticeable scratches 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. Doing so may result in electric shock. If the inside of the plug is wet, dry it thoroughly before inserting it.

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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.
- Handle components with both hands. Failure to do so may cause the components to fall and break or cause injury.
- If an error occurs during the battery discharge or charge operation, immediately stop using it and check the user's manual. If you are not sure, consult the place of purchase or a distributor.
- Do not touch the battery when it is at a high temperature. Doing so may cause a burn.
- Avoid touching the battery for an extended period of time when its temperature has increased. Doing so may cause a low-temperature burn.

# Notice

Charging can be carried out at any time, regardless of the remaining battery, but please fully charge the battery in the following cases. Be sure to use the dedicated battery charger.

- The battery cannot be used at the time of purchase. Before riding, be sure to fully charge the battery.
- If the screen of the cycle computer is not displayed, fully charge the battery. The battery level may affect the display.
- When the battery is completely depleted, charge it as soon as possible. If you leave the battery without charging it, the battery will deteriorate and may become unable to be used.
- Press the battery power button and if the LED display does not light up, the protective circuit is operating. Connect the battery charger and charge the battery to deactivate this.
- If the battery is charged in a low-temperature environment of 5°C or lower, the traveling distance of a full charge will be shorter. Also, if the battery is used in a low-temperature environment of 5°C or lower, the battery consumption will become quicker. This is due to the characteristics of the battery, and the battery will return to normal when at a normal temperature.

- Riding with a high level of assistance in a low-temperature environment when the battery level is low may cause the battery level to drop to 0%, due to the characteristics of the battery. Charge it before use.
- Make sure to also refer to the battery charger user's manual.
- 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.

#### Main specifications

Battery main	Li-Ion
body	
Nominal capacity	BT-EN404 / BT-EN604: 11.6 Ah
	BT-EN405 / BT-EN605 / BT-EN805 / BT-EN805-L: 14 Ah
	BT-EN606 / BT-EN806: 17.5 Ah
Operating	During discharge: -10 - 50°C
temperature	During charging: 0 - 40°C
range	
Storage	-20 - 60°C
temperature	
range	
Nominal voltage	36 V

### Check compatibility

Always check product compatibility when you want to change batteries or add new ones. Information on component compatibility is provided on the SHIMANO product website (https://productinfo.shimano.com/).

#### Gen.2 mark

This product is made for second-generation (Gen.2) systems only. Check for the "Gen.2" marking as shown in the figure. Do not use with battery mounts that do not have this marking.

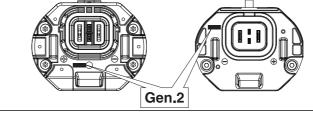
### Example: BT-EN805 and compatible battery mount

Location of terminals



Battery (terminal) Battery mount (terminal)





## E-TUBE PROJECT

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 battery 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, consult your place of purchase or a distributor.

• Is the battery level sufficient?

• Is the battery installed correctly?

### Handling method

#### 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 is a lithium-ion battery. Use the dedicated battery charger designated by SHIMANO. For the charging method, follow the user's manual for the battery charger.

#### Battery storage method

- If the bicycle will not be ridden for an extended period, store it with a battery level of approximately 70%. Also, charge the battery once every six months to ensure that it is not completely discharged.
- Store the battery or bicycle with battery installed in a cool indoor location away from direct sunlight and rain (approx. 10 to 20°C). If the storage temperature is too low or too high, the performance of the battery is reduced, and its usable time will be shorter. When you use it after a long storage period, make sure to charge it first.

#### Battery life

- The battery is an exhaustible item. The battery will gradually lose its capacity to charging after repeated use. If the length of time that the battery can be used and its traveling distance become 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.

#### Used batteries

 Lithium-ion batteries are recyclable, valuable resources. Please observe the appropriate rules of the country, state or region regarding used batteries. If you are not sure, consult the place of purchase or distributor.



# 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 distributor.

# SHIMANO

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Please note: specifications are subject to change for improvement without notice. (English) © Jan. 2022 by SHIMANO INC. ITP