

# Battery Charger / PC Linkage Device (SM-BCR2)



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**

- Do not get the charger wet or use it while it is wet, and do not touch or hold it with wet hands. If this is not observed, problems with operation or electric shocks may occur.
- Do not cover the charger with a cloth or similar while it is in use. If this is not observed, heat may build up and the case may become deformed, or fire or overheating may occur.
- Do not disassemble or modify the charger. If this is not observed, electric shocks or injury may occur.
- Use an AC adapter with a USB port with a voltage of 5.0 V DC and with a current equal to or higher than 1.0 A DC. If the one with a current lower than 1.0 A DC is used, the AC adapter may heat up, potentially causing a fire, smoke, overheating, destruction, electric shock, or burns.

### **WARNING**

- Do not use any USB cable other than the USB cable which is supplied with the PC linkage device. This may cause a charge error, fire, or failure of the connected PC due to heating.
- When connecting or disconnecting the USB cable or the charging cable, be sure to hold the plug of the cable. Failure to do so may cause a fire or electric shock. If the following symptoms are observed, stop using the device and contact a dealer. A fire or electric shock may be caused.
  - \* If heat or acrid-smelling smoke is coming out from the power plug.
  - \* There may be a bad connection inside the power plug.
- If it thunders while charging with an AC adapter with a USB port, do not touch the device, bicycle, or the AC adapter. When lightning strikes, an electric shock may be caused.
- Use an AC adapter with a USB port with a voltage of 5.0 V DC and with a current equal to or higher than 1.0 A DC. If the one with a current lower than 1.0 A DC is used, a charge error may occur or the AC adapter may heat up, leading to a fire.
- Do not use a USB hub when connecting the cable to a PC USB port. This may cause a charge error or fire due to heating.
- Be careful not to damage the charging cable. (Do not damage, process, forcibly bend, twist or pull them, bring them near hot objects, place heavy objects on them or bundle them tightly together.) If they are used while damaged, fire, electric shocks or short-circuits may occur.
- After reading the user's manual carefully, keep it in a safe place for later reference.

### **CAUTION**

- Disconnect the USB cable or the charging cable when performing maintenance.

## Note

- Do not use outdoors or in environments with high humidity.
- Do not place the PC linkage device on dusty floors when using it.
- Place the PC linkage device on a stable surface such as a table when using it.

- Do not place any objects on top of the PC linkage device or its cables.
- Do not wrap the cables into bundles.
- Do not connect the charger to PC when it is on standby. This may cause a failure of PC depending on its specifications.
- Do not hold the PC linkage device by the cables when carrying it.
- Do not apply excessive tension to the cables.
- Connect the PC linkage device directly to a computer, without using an intermediate device such as a USB hub.
- Do not ride the bicycle while the PC linkage device and cable are still connected to it.
- Do not connect two or more of the same units to the same connection point. If this is not done, the units may not operate correctly.
- Do not connect or disconnect units again while unit recognition is in progress or after recognition is complete. If this is not done, the units may not operate correctly. Check the procedures which are given in the user's manual for E-TUBE PROJECT Professional when connecting and disconnecting units.
- Do not wash the PC linkage device or wipe it using detergents.
- Do not connect two or more PC linkage devices at the same time. If two or more PC linkage device units are connected, they will not operate correctly. In addition, operating errors may occur at the PC and it may require the PC to be restarted.
- PC linkage device cannot be used while the charger is connected.
- Use this instrument under the direction of a safety supervisor or the direction for use. Do not allow physically, sensory, or mentally impaired persons, inexperienced persons, or persons with no required knowledge including children to use this instrument.
- Do not allow children to play near this instrument.
- Charge the battery in indoor places to avoid exposure to rain or wind.
- 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

Input	5.0 V DC, 1.0 A
Output	8.4 V DC, 0.4 A
Dimensions	85 mm × 22 mm × 30 mm W×D×H: Excluding the cord joint
Weight	Approx. 70 g
Operating temperature	0 - 45°C

\* The above values exclude the separately provided USB cable.

### Compatible PCs

For information on compatible PCs, check the support website (<https://bike.shimano.com/e-tube/project.html>).

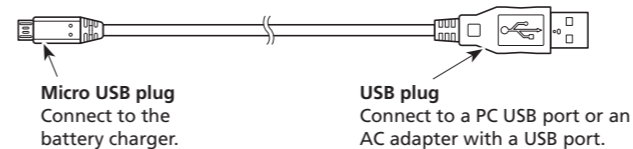
### Features

The <sup>1</sup>PC linkage device can be used to connect a PC to the bicycle (system or unit), and <sup>2</sup>E-TUBE PROJECT Professional can be used to carry out tasks such as updating <sup>3</sup>firmware of single units and system, and customizing.

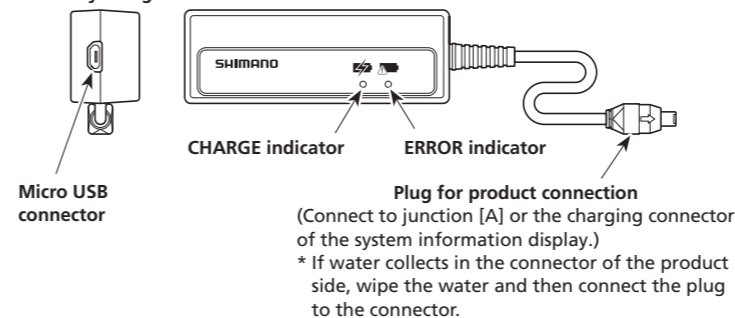
- \* 1 PC Linkage Device: SM-PCE1 / SM-BCR2
- \* 2 E-TUBE PROJECT Professional: the PC application
- \* 3 Firmware: the software inside each unit

## Names of parts

### USB cable



### Battery charger



### Special battery

This charger is a special charger for use in charging SHIMANO lithium ion batteries (SM-BTR2). For other batteries, refer to their manual. Never connect any incompatible batteries. A burst or fire may be caused. \* Fully understand and follow the precautions for use.

## Charging method

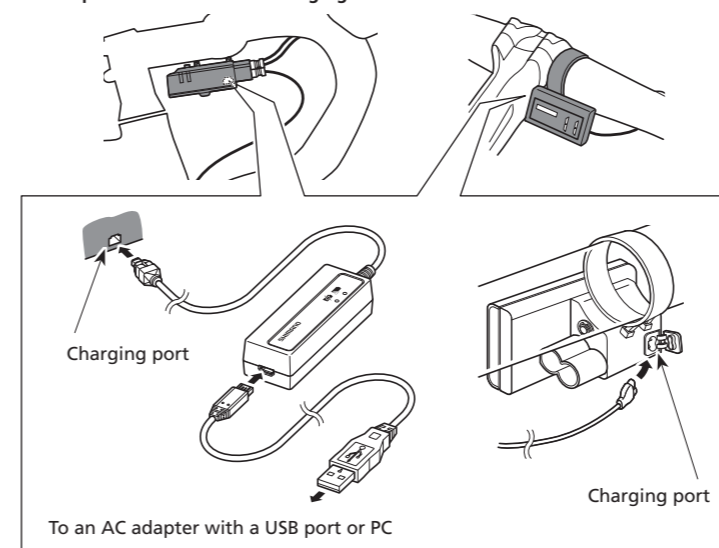
You can charge the battery by using the AC adapter with a USB port or connecting the battery charger to a PC USB port.

1. Connect the battery to junction [A] or system information display.
2. Connect the charging cable of the charger to junction [A] or the charge port of the system information display.
  - \* The charging time of an AC adapter with a USB port is about 1.5 hours, and that of PC 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.
3. When the CHARGE indicator (orange) goes out, charging is completed.
  - \* If ERROR indicator or CHARGE indicator blinks, refer to "Troubleshooting for charging error".
4. Disconnect the charging cable or USB cable, and keep it at the location specified in the precautions.

## Downloading application

To update the firmware or perform customization using devices connected to PC, you need to install E-TUBE PROJECT Professional on PC. Download E-TUBE PROJECT Professional from the support website (<https://bike.shimano.com/e-tube/project.html>). For information on how to install E-TUBE PROJECT Professional, check the support website. For information on how to operate the PC, refer to the user's manual for E-TUBE PROJECT Professional.

### Example of connection for charging



\* The position of the charging port differs depending on the product.

## Troubleshooting for charging error

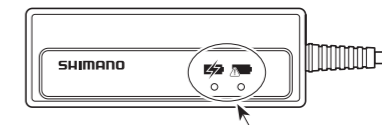
1. Reconnect the charging cable or USB cable, try charging again.
2. If the ERROR indicator blinks, the ambient temperature during charging may fall outside the operating temperature limits. Check that the temperature is appropriate.
3. If the CHARGE indicator blinks, refer to the following.
  - The current capacity of your AC adapter with a USB port is lower than 1.0 A DC.
    - ⇒ Use an AC adapter with a USB port with a current capacity equal to or higher than 1.0 A DC.
  - A USB hub is used to connect to PC.
    - ⇒ Remove the USB hub.

If none of the above 1 to 3 is the case, the battery or junction may be faulty. Contact a dealer.

If the battery is charged by using PC, check the following points as well.

4. Make sure that only one unit of SM-BCR2 is connected to PC.

\* If the CHARGE indicator does not light up or goes out soon, the battery may be fully charged. Check the remaining power of the battery using the junction [A] or system information display. If the battery is found low or dead, contact the place of purchase or a bicycle dealer.



If charging becomes unavailable, the CHARGE indicator (orange) or ERROR indicator of the charger blinks.



This symbol on your product, literature, or packaging reminds you that this product must be taken to separate collection at the end of its working life. Do not dispose of this product as unsorted municipal waste but instead take it for recycling. By ensuring the product is disposed correctly, you will help to prevent potential negative consequences for the environment and human health. For info on your nearest recycling point, check with your local waste authority.

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