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

**User’s manual**

User’s manuals in other languages are available at: [http://si.shimano.com](http://si.shimano.com)

**Important Notice**

- Contact the place of purchase or a bicycle dealer for information on installation and adjustment of the product which are not found in the user’s manual.
- A dealer’s manual for professional and experienced bicycle mechanics is available on our website (http://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 them for correct use.**

**Important Safety Information**

Guidelines that require replacement, 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 it with wet hands. If this is not observed, problems with operation or electric shocks may occur.
- Do not overcharge 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, destruction, electric shock, or burns.
- 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 Vdc and with a current equal to or higher than 1.0 A. If the one with a current lower than 1.0 A 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 device 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 occur.
- If heat or acidic-smelling smoke is coming out from the power plug, the charger may be in a bad condition inside the power plug.
- If the charger is charging with an adapter connected to the device, make sure the adapter is the right one for the charger. If the adapter is not designed for the charger, a fire or electric shock may occur.
- 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, 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**

- Do not 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 daily 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 the PC when it is on standby. This may cause a failure of the 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.
- Do not wash the PC linkage device or use it with detergent.
- Do not connect two or more PC linkage device units at the same time. If two or more PC linkage device units are connected, they will not operate correctly. In addition, operating error 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, severely, 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 heat resistant to natural wear and deterioration from normal use and aging.
- For maximum performance we highly recommend Shimano lubricants and maintenance products.
- 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 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, use 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.

**Features**

- The "PC linkage device" can be used to connect a PC to the bicycle (system or unit), and an "E-tube Project" can be used to carry out tasks such as updating "firmware on single units and system, and customizing".
- 1）PC Linkage Device: SM-PCE1/SM-BCR2
- 2）E-tube Project: the PC application
- 3）Firmware: the software inside each unit

**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. Use an AC adapter with a USB port with a current capacity equal to or higher than 1.0 A.
   - 1）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.
   - 5. If the CHARGE indicator does not light up or goes out error, the battery may be fully charged. Check the remaining power of the battery using the junction (A) or information display.
   - If the battery is found low or dead, contact the place of purchase or a bicycle dealer.

**Example of connection for charging**

When the CHARGE indicator (orange) or ERROR indicator of the charger blinks.

**Charging method**

1. Charge the battery using the AC adapter with a USB port or connecting the battery charger to a PC USB port.
   1. Connect the battery to the junction (A) or information display.
   2. Connect the charge port of the charger to the junction (A) or charging port of the information display.
   3. While the CHARGE indicator (orange) goes out, charging is completed. If the ERROR indicator or CHARGE indicator blinks, refer to “Troubleshooting for charging error”.
2. 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 on PC. Download an installation support website (http://e-tubeproject.shimano.com). For information on how to install an E-tube Project, check the support website. For information on how to operate the PC, refer to the help manual on the E-tube Project.

**Names of parts**

- **USB cable**
  - Micro USB plug: Connect to the battery charger.
  - USB plug: Connect to a PC USB port or an AC adapter with a USB port.
- **Battery charger**
  - Micro USB connector: Plug for product connection (Connect to the junction (A) or the charging connector of the information display.)
  - *1 If water collects in the connector of the product side, wipe the water and then connect the plug to the connector.

**Specifications**

- **Dimensions**: 85 mm × 22 mm × 30 mm
- **Output**: 8.4 V DC, 0.4 A
- **Input**: DC 5.0 V, 1.0 A
- **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 (http://e-tubeproject.shimano.com).

**Example of connection for charging**

- To an AC adapter with a USB port or PC.

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