User's manual

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 (http://si.shimano.com).

Other trademarks and trade names are those of their respective owners.

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.

DANGER

• Use the dedicated charging cable when charging the battery. If any non-specified items are used, fire, overheating, leakage, or damage to the connected PC may occur.

• Do not get the charging cable wet and do not touch it while it is wet or with wet hands. If this is not observed, problems with operation or electric shocks 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 0.5 A DC. If the one with a current lower than 0.5 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 burning 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, leakage, overheating or burning 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, leakage, overheating or burning may cause fire, burns or other injury to occur.

• Do not touch the metal terminals with metal items such as hairpins. If this is not observed, short-circuits, overheating, burns or other injuries 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

• Check that there are no cracks in the crank arms before riding the bicycle. If there are any cracks, the crank arm may break and you may fall off the bicycle.

• 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.

• If the battery does not become fully charged after 4 hours of charging, stop charging. If this is not observed, fire, burning or overheating may occur.

• Do not place this product in fresh water or sea water, etc., and do not allow the terminals to get wet. If this is not observed, fire, burning or overheating may occur.

• Use the dedicated charging cable when charging the battery. If any non-specified items are used, fire, burning, overheating or problems with operation may occur.

• Be careful not to get grease etc., on the metal terminals. A conduction failure may result.

• Do not use the battery if leakages, discoloration, deformation or any other abnormalities occur. If this is not observed,外国语の言語で、時計の針を回して間違った位置に置かれた場合、誤った時間表示が表示される可能性があります。

• The battery is a consumable item. The battery will gradually lose its capacity due to natural wear and deterioration. Be sure to charge it before use. Battery after a long storage period, be sure to charge it before use.

• Do not charge the battery if the ambient temperature is too low, the battery's usable time will be shorter. If the unit will not be used for an extended period, store it, after charging, in a cool indoor place (approx. 10 to 20°C) where the battery will not be exposed to direct sunlight or rain, and charge it every 6 months.

• Do not disassemble or modify this product. If this is not observed, fire, burning or overheating may occur.

• Do not get the charging cable or connector wet when connecting them. The battery is not fully charged at the time of purchase. Before riding, be sure to fully charge the battery. If the ambient temperature is low, the battery's usable time will be shorter.

• Do not apply excessive tension to the charging cable. Extending the cable may disrupt charging.

• Do not disconnect the charger when the power is on. It may impair the function.

• Do not use or leave the charging cable in hot and humid places such as near railway crossings and near railway tracks, around television, PC, radios, motors/engines, or in car and trains.

• Do not ride the bicycle with the charging cable still connected to it. E-TUBE PROJECT cannot be used when the charging cable is connected.

• Do not use or leave the battery in hot and humid places such as near railway crossings and near railway tracks, around television, PC, radios, motors/engines, or in car and trains.

• Do not use the battery if leakages, discoloration, deformation or any other abnormalities occur. If this is not observed,外国语の言語で、時計の針を回して間違った位置に置かれた場合、誤った時間表示が表示される可能性があります。

• Use the dedicated charging cable when charging the battery. If any non-specified items are used, fire, overheating, leakage, or damage to the connected PC may occur.

• Do not get the charging cable wet and do not touch it while it is wet or with wet hands. If this is not observed, problems with operation or electric shocks 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 0.5 A DC. If the one with a current lower than 0.5 A is used, the AC adapter may heat up, potentially causing a fire, smoke, heating, destruction, electric shock, or burns.

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User’s manual in other languages are available at http://si.shimano.com
**Names of parts**

- Terminal
- Cable
- Fastening section
- Outer cap
- Sensor
- ANT ID
- Magnet
- Crank arm
- Control unit
- Connection terminal
- Connector
- Electric wire
- Charging port

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**Operation**

You cannot use the battery immediately after shipment. Be sure to charge it before use.

**Charging the battery**

This product can be charged by using an AC adapter with a USB port or by connecting it to the USB connector of a PC. Power may no longer be supplied to the battery if the PC enters a hibernation or sleep state while charging.

1. Pull at the indented part of the control unit to open the cover.
2. Connect the charging cable as shown in the illustration. (Match the shapes of the charging cable and charging port when connecting.)
3. Once charging begins, the LED lights up blue.
   (Do not move the crank or cable during charging. There is a risk of the cable disconnecting. Reconnect the cable if it disconnects.)
4. Once charging is complete, the LED turns off. After charging, make sure to close the cover.

**How to check battery level**

1. Press the button on the control unit.
2. The LED is green or red. If the LED is red, flashing, or does not turn ON, the battery level is low. Charge the battery.
3. Once charging begins, the LED lights up blue.
4. When the LED lights up blue, release the button. The LED will begin blinking and zero offset calibration will complete.

**Activating the product**

Press the button on the control unit or rotate the crank 2 or more times.

**Confirming the product has activated**

- Activation by pressing the button
  - Remaining battery charge displays.
- Activation by rotating the crank (after connecting cycle computer)
  - Pedal power and display power on the cycle computer when the product is active.

If this product does not detect motion for 5 minutes after activation, wireless transmission will terminate in order to save battery power.

To re-enable the wireless connection, either press the button on the control unit or rotate the crank 2 or more times.

**Connection procedure**

**Cycle computer connection**

To make a connection, the cycle computer needs to be in connection mode.

For information on how to put the cycle computer into connection mode, refer to the manual for your cycle computer.

1. Press the button on the control unit.
2. Select the unit name displayed on the cycle computer screen.
3. This completes the connection process.

Check on the cycle computer to see if connection was successful. If a connection cannot be made in the way described above, refer to the manual for your cycle computer.

**E-TUBE PROJECT connection**

Before setting up a connection, turn on Bluetooth LE on the smartphone/tablet.

1. Open E-TUBE PROJECT and set it to listen for Bluetooth LE signals.
2. Press the button on the control unit.
3. Select the unit name displayed on screen.
4. To disconnect, cancel the Bluetooth LE connection from the smartphone/tablet. (The cycle computer will exit connection mode and return to regular operation mode.)

To restore the Bluetooth LE Name and Passkey to their default values, hold down the button on the control unit for at least 3 seconds during battery charging.

**Performing zero offset calibration**

- Zero offset calibration can be performed using the control unit or the cycle computer.
- When calibrating using the cycle computer, refer to the instruction manual for the cycle computer.
- It is recommended to perform zero offset calibration before riding the bicycle.
- Place the bicycle on level ground. (At this time, do not place your feet on the pedals or apply load to the crank. It may not be possible to perform calibration correctly.)
- Position the crank arm so that it is perpendicular to the ground as in the illustration.
- (Zero offset calibration is unaffected by whether the chain is positioned on the largest chaining or smallest chaining.)

**Troubleshooting**

If you experience any trouble using this product, please refer to the following.

If none of the following are applicable, or the suggested solution does not resolve the issue, consult with the place of purchase or a bicycle dealer.

1. If the power value has changed, it is possible to correct it. For details, consult the place of purchase.

**Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature range</td>
<td>-10°C to 50°C</td>
</tr>
<tr>
<td>Continuous operation time</td>
<td>100 or more hours</td>
</tr>
<tr>
<td>Battery type</td>
<td>Lithium ion</td>
</tr>
<tr>
<td>Normal charging time</td>
<td>2.5 hours</td>
</tr>
<tr>
<td>Charging temperature</td>
<td>4°C to 45°C</td>
</tr>
<tr>
<td>Frequency band</td>
<td>2,402 – 2,480 kHz</td>
</tr>
<tr>
<td>Maximum radio-frequency power</td>
<td>+6 dBm</td>
</tr>
</tbody>
</table>

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**About hardware reset**

If an issue cannot be resolved even after referring to the troubleshooting section, perform a hardware reset.

1. Hold down the button on the control unit for 15 seconds.
2. The hardware reset completes when the button is released.
3. When the hardware reset is complete, the LED will light up indicating remaining battery charge.

After the hardware reset is complete, check operation again and if the issue has not been resolved, consult with the place of purchase or a bicycle dealer.

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