

Dealer's Manual

ROAD	MTB	Trekking
City Touring/ Comfort Bike	URBAN SPORT	E-BIKE

Wireless Unit

EW-WU101

EW-WU111

CONTENTS

- IMPORTANT NOTICE..... 3
- TO ENSURE SAFETY..... 4
- LIST OF TOOLS TO BE USED..... 7
- INSTALLATION 9
 - BEFORE INSTALLATION9
 - Installation of the wireless unit.....13

IMPORTANT NOTICE

- **This dealer's manual is intended primarily for use by professional bicycle mechanics.**

Users who are not professionally trained for bicycle assembly should not attempt to install the components themselves using the dealer's manuals. If any part of the information on the manual is unclear to you, do not proceed with the installation. Instead, contact your place of purchase or a local bicycle dealer for their assistance.

- Make sure to read all instruction manuals included with the product.
- Do not disassemble or modify the product other than as stated in the information contained in this dealer's manual.
- All dealer's manuals and instruction manuals can be viewed on-line on our website (<http://si.shimano.com>).
- For consumers who do not have easy access to the internet, please contact a SHIMANO distributor or any of the SHIMANO offices to obtain a hardcopy of the User's Manual.
- Please observe the appropriate rules and regulations of the country, state or region in which you conduct your business as a dealer.
- The Bluetooth® word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc. and any use of such marks by SHIMANO INC. is under license. Other trademarks and trade names are those of their respective owners.

For safety, be sure to read this dealer's manual thoroughly before use, and follow it for correct use.

The following instructions must be observed at all times in order to prevent personal injury and physical damage to equipment and surroundings. The instructions are classified according to the degree of danger or damage which may occur if the product is used incorrectly.

 **DANGER**

Failure to follow the instructions will result in death or serious injury.

 **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.

TO ENSURE SAFETY

WARNING

- **Be sure to follow the instructions provided in the manuals when installing the product.**
It is recommended to use genuine Shimano parts only. If parts such as bolts and nuts become loose or damaged, the bicycle may suddenly fall over, which may cause serious injury.
In addition, if adjustments are not carried out correctly, problems may occur, and the bicycle may suddenly fall over, which may cause serious injury.
-  Be sure to wear safety glasses or goggles to protect your eyes while performing maintenance tasks such as replacing parts.
- After reading the dealer's manual thoroughly, keep it in a safe place for later reference.

NOTE

Be sure to also inform users of the following:

- When using EW-WU101, combine it with one of the following units.
External type: BM-DN100, Built-in type: BT-DN110
- Do not keep connecting and disconnecting the small waterproof connector. It may impair the function.
- Be careful not to let water get into the terminal.
- The components are designed to be fully waterproofed to withstand wet weather riding conditions; however, do not deliberately place them into water.
- Do not clean the bicycle with a high-pressure wash. Infiltration of fluid may result in damage or rust.
- Handle the product carefully, and avoid subjecting it to any strong shocks.
- Do not use thinners or similar substances to clean the products. Such substances may damage the surfaces.
- Do not leave the product in an area exposed to strong sunlight for an extended period of time.
- Do not disassemble the product as it cannot be reassembled.
- When cleaning the product, use a cloth moistened with a diluted neutral detergent.
- Contact the place of purchase for updates of the component software. The most up-to-date information is available on the Shimano website.
- 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.

■ Connection and communication with PC

A PC linkage device can be used to connect a PC to the bicycle (system or components), and E-TUBE PROJECT can be used to carry out tasks such as customizing single components or the whole system and updating firmware.

- PC linkage device: SM-PCE1/SM-BCR2
- E-TUBE PROJECT: PC application
- Firmware: software inside each component

■ Connection and communication with smartphone or tablet

- It is possible to customize single components or the system, and update firmware, using E-TUBE PROJECT for smartphones/tablets after connecting the bicycle (system or components) to a smartphone or tablet via Bluetooth LE.
 - E-TUBE PROJECT: app for smartphones/tablets
 - Firmware: software inside each component
- Disconnect Bluetooth LE when not using E-TUBE PROJECT for smartphones/tablets.
Using the wireless unit without disconnecting Bluetooth LE may result in high battery power consumption.

For Installation to the Bicycle, and Maintenance:

- Be sure to use Shimano original tool TL-EW02 to remove the electric wires.
- Be sure to use the specified electric wire.
- Secure the electric wires with plastic tape so that they do not interfere with the chainrings, sprockets and tires.
- The strength of the adhesive is fairly weak to prevent paint on the frame from peeling off at the same time when removing the double-sided tape on the wireless unit for reasons such as replacing the electric wires. If the double-sided tape on the wireless unit peels off, replace it with a new one. When removing the double-sided tape on the wireless unit, do not peel it off too vigorously. If so, the paint on the frame will peel off, too.

■ Notes on reinstalling and replacing components


- When the product is reassembled or replaced, it is automatically recognized by the system to allow operation according to the settings.
- If the component configuration changes or malfunction is observed, use the E-TUBE PROJECT software to update the firmware of each component to the latest version and perform a check again. Also make sure that the E-TUBE PROJECT software is the latest version. If the software is not the latest version, the component compatibility or the product functions may not be available.
- When installing to the bicycle, do not forcibly bend the electric wire plug. It may result in a poor contact.
- After removing the wireless unit from the bicycle frame, the double-sided tape for the spacer may remain on the frame. In that case, wipe it off with a cleaner.

The actual product may differ from the illustration because this manual is intended mainly to explain the procedures for using the product.

LIST OF TOOLS TO BE USED

LIST OF TOOLS TO BE USED

The following tools are needed for installation, adjustment, and maintenance purposes.

Tool	
 TL-EW02	TL-EW02

INSTALLATION

INSTALLATION

■ BEFORE INSTALLATION

Before installing components, please take note of the following.

Compatible cycle computers

A D-FLY compatible cycle computer is required to use EW-WU101 and EW-WU111. For details, refer to the manual for the cycle computer.



TECH TIPS

The types of information displayed vary by product. Refer to the manual for your cycle computer.

About wireless functions

Cycle computer connection

The wireless unit transmits the following four types of information to cycle computers or receivers that are compatible with ANT[™] or Bluetooth[®] LE connections.

(1)	Gear position (front, rear)
(2)	DI2 battery level information
(3)	Adjustment mode information
(4)	D-FLY channel switch information

For information on which of the above types of information are displayed, refer to the manual for your cycle computer or receiver.



TECH TIPS

The latest functions can be checked by updating the software via E-TUBE PROJECT. For details, consult the place of purchase.

E-TUBE PROJECT connection

E-TUBE PROJECT for smartphones/tablets may be used if a Bluetooth LE connection is established with a smartphone/tablet.

How to make connections

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 the cycle computer.

1 Put the cycle computer into connection mode.

Perform gear shifting operations.
If you cannot connect after performing gear shifting operations, perform the following operations.

2 **When using an external battery**

Check that the electric wires are connected to the wireless unit, and then remove and remount the external battery.

When using a built-in battery

Check that the electric wires are connected to the wireless unit, and then remove the electric wires (two wires) from the wireless unit and reconnect them.

3 This completes the connection process.



TECH TIPS

Connection transmission begins a few seconds after the battery is remounted or the electric wires are reconnected to the wireless unit.



TECH TIPS

- 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.
- For information on how to show the number of gears or the DI2 battery level, refer to the manual for the cycle computer.

INSTALLATION

▶▶ BEFORE INSTALLATION

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.

Setting up via information display

Press the mode switch until "C" appears on the display.

2



Setting up via junction A

Press the button on junction (A) until the green LED and red LED begin to blink alternately.

3

The unit on the bicycle will begin signal transmission. The unit name displays in E-TUBE PROJECT.

(Release the mode switch or button as soon as the unit on the bicycle begins signal transmission. If the mode switch or button is held down for any longer, a different mode will be activated.)

4

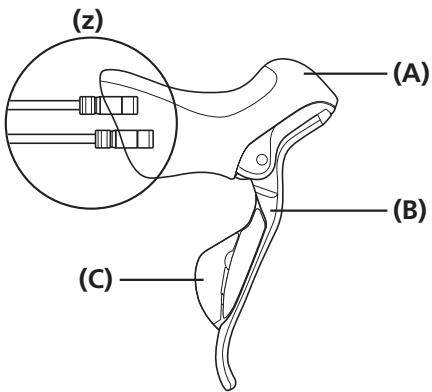
Select the unit name displayed on screen.



TECH TIPS

To disconnect, cancel the Bluetooth LE connection from the smartphone/tablet. (The cycle computer will exit connection mode and return to regular operation mode.)

Compatibility with dual control lever (ST-9070 only) built-in remote switch



- Using the dual control lever built-in remote switch in combination with EW-WU101 enables control of the D-FLY compatible cycle computer and related components.
- The dual control lever built-in remote switch sends a switch signal via wireless through EW-WU101. Please check the instruction manuals for compatible components as functions vary depending on the component.

(z) Terminal section

(A) Remote switch (ST-9070 only)

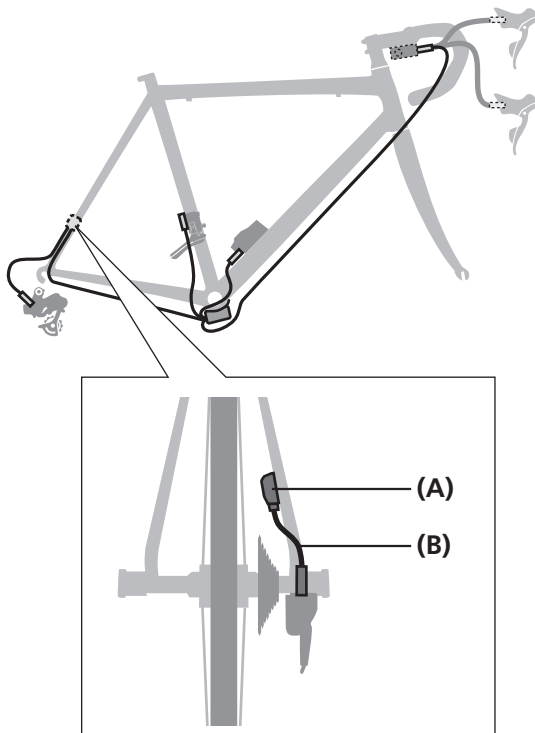
(B) Brake lever

(C) Shifting switch



Even with the dual control lever built-in remote switch (other than ST-9070), depending on the settings, there are those that can operate D-FLY compatible cycle computers and related components. For details, refer to the components compatibility table.

Shape and size of the frame



(A) Wireless unit

(B) Electric wire

NOTE

Even if the circumference is within the below range, the wireless unit cannot be attached to a seat stay with a cross-section that is much wider than the wireless unit.



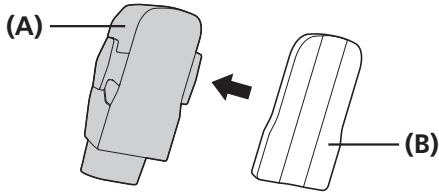
Attach the wireless unit to the seat stay of the bicycle frame.
Installable seat stay circumference
 40mm - 75mm

Installation of the wireless unit

1

Shift to the largest front chainring and to the smallest rear sprocket.
Wipe the dirt and dust off the frame, and if the frame is wet, dry it well before installation.

2



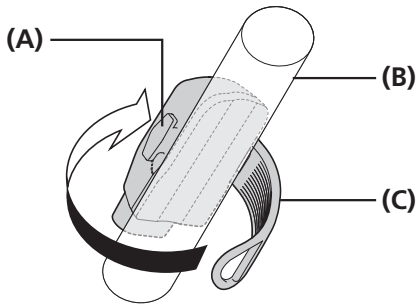
There are two types of spacer.
Choose the spacer that fits the frame.
Remove the release back sheet from the spacer and attach the spacer to the wireless unit.
Be careful about the orientation of the rubber sheet.

- (A) Wireless unit
- (B) Spacer



After attaching the rubber sheet, hold down the entire surface with your finger for approximately 1 minute.

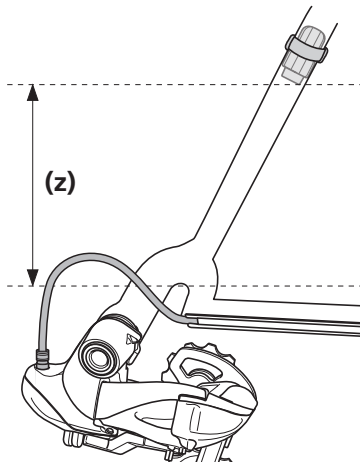
3



Temporarily fix the wireless unit to the frame with the mounting band.
Put the mounting band on one hook and pull the band to put it on the other hook.

- (A) Hook
- (B) Frame
- (C) Mounting band

4



Fix it at a height of 110 to 130mm above the rear hub axle.

- (z) 110 - 130mm

NOTE

There is no guarantee that the wireless unit will be able to communicate normally if it is attached to the inside of the bicycle frame or anywhere other than to the seat stay.

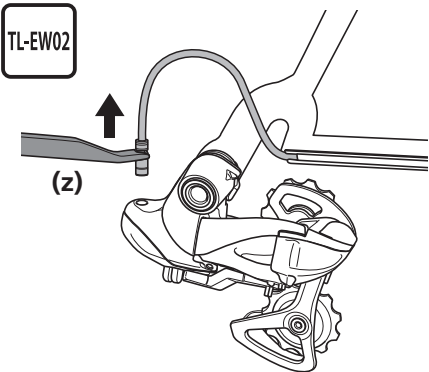


An additional electric wire 200mm or longer is needed to connect the wireless unit to the rear derailleur.

INSTALLATION

▶▶ Installation of the wireless unit

5

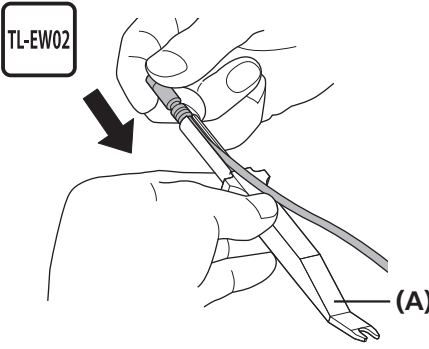


TL-EW02

(z)

Disconnect the electric wire from the rear derailleur.

6



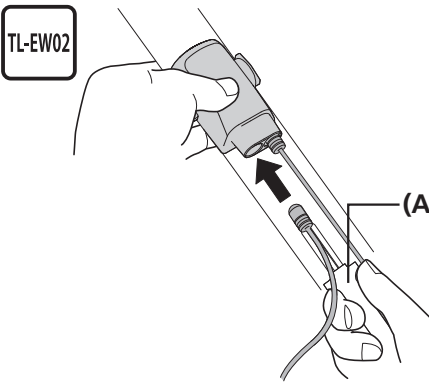
TL-EW02

(A)

Pass the electric wire through TL-EW02.

Set so that the projection on the connector is aligned with the groove on the narrow end.

7



TL-EW02

(A)

Connect the following two electric wires to the wireless unit.

- Electric wire disconnected from the rear derailleur
- Additional electric wire

8 Connect the electric wire to the rear derailleur.

(z) TL-EW02

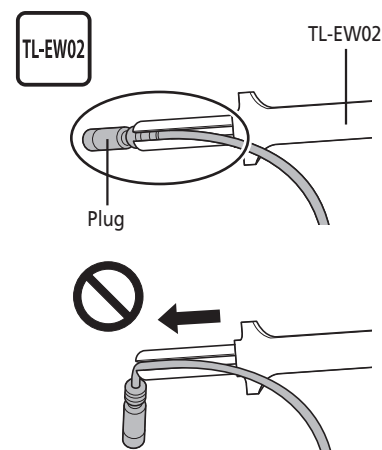
NOTE

Use the Shimano original tool (TL-EW02) for installation and removal of the electric wire.

(A) TL-EW02

NOTE

When installing the electric wire, do not forcibly bend the plug. It may result in a poor contact. When connecting the electric wire, push it in until it clicks in place.



(A) TL-EW02

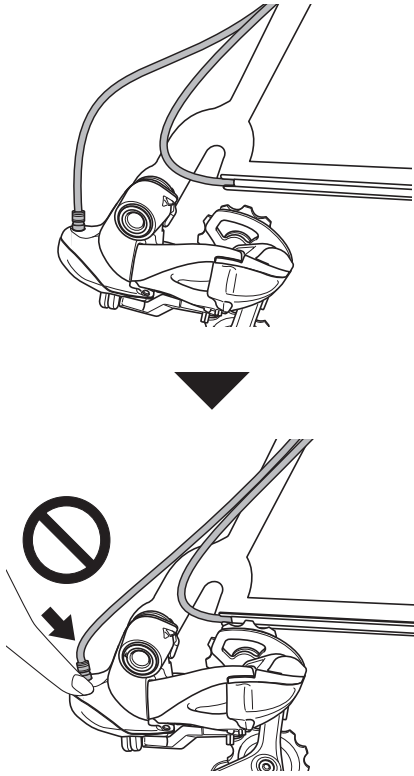


Hold the wireless unit in your hand when connecting or disconnecting electric wires to or from the wireless unit.

INSTALLATION

▶▶ Installation of the wireless unit

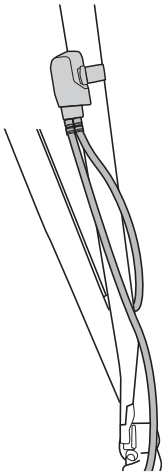
9



Check the excess length of the electric wire. (For a Racing type rear derailleur, push up the rear derailleur by hand until it touches the frame, and check the electric wire while holding the rear derailleur in that position.)

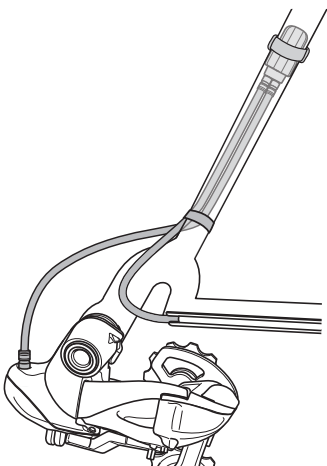
If the electric wire does not have enough slack, make adjustments to the height of the wireless unit.

10



Secure the wireless unit to the frame.

11



Secure the electric wires to the frame.

NOTE

If the electric wires are too long, they may interfere with the cassette sprocket or chain; therefore, use plastic tape, etc., to secure the slack electric wires to the frame.

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Please note: specifications are subject to change for improvement without notice. (English)

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