

## Dealer's Manual

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

# Lithium-ion Battery (Di2)

### Non-Series

BT-DN300

# Contents

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# 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 distributor for assistance.
- Make sure to read all manuals included with each product.
- Do not disassemble or modify the product other than as stated in the information contained in this dealer's manual.
- All manuals and technical documents are accessible online at <https://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.

**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.

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

# TO ENSURE SAFETY


## DANGER

### Be sure to also inform users of the following:

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

- Use the designated battery charger to charge the battery. If any non-specified items are used, fire, overheating or leakage may occur.
- Do not heat the battery or expose it to flames. If this is not observed, combustion or bursting of the battery may occur.
- Do not deform, modify, disassemble, or apply solder directly to the battery. Do not use or leave the battery in places which may exceed 60°C in temperature, such as places which are exposed to direct sunlight, inside vehicles on hot days or near stoves. If this is not observed, leakages, overheating or bursting may cause fire, burns, or other injuries.
- Do not connect the (+) and (-) terminals with metallic objects. Do not carry or store the battery together with metallic objects such as necklaces or hairpins. If this is not observed, short-circuits, overheating, burns or other injury 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, then seek medical attention. If this is not done, blindness may occur.

## WARNING

- **Be sure to follow the instructions provided in the manuals when installing the product.** Only use SHIMANO genuine parts. If a component or replacement part is incorrectly assembled or adjusted, it can lead to component failure and cause the rider to lose control and crash.
-  Wear approved eye protection while performing maintenance tasks such as replacing components.

### Be sure to also inform users of the following:

- Do not place the battery into fresh water or sea water, and do not allow the battery terminals to get wet. Doing otherwise may cause it to overheat, burst, or ignite.
- 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 throw or subject the battery to strong shock. 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.
- If any leaked fluid gets on your skin or clothes, wash it off immediately with clean water. The leaked fluid may damage your skin.
- Do not use it outside these operating temperature ranges of the battery. If the battery is used or stored in temperatures which are outside these ranges, fire, injury or problems with operation may occur. The operating temperature ranges for the battery are given below.  
During discharge: -10°C - 50°C  
During charging: 0°C - 45°C
- If the battery does not become fully charged after 4 hours of charging, stop charging. If this is not observed, fire, bursting, ignition, or overheating may occur.

**⚠ CAUTION**

**Be sure to also inform users of the following:**

- Store the product in a safe place out of the reach of infants and pets.
- When you do not use the battery for a long period, charge the battery before storage.

**NOTICE**

**Be sure to also inform users of the following:**

- The connectors are small and waterproof, so do not connect and disconnect electric wires except when necessary. Doing so may impair the waterproofing.
- Be careful not to get water into the E-TUBE ports.
- 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 washer. If water gets into any of the components, operating problems or corrosion may result.
- If water collects inside the frame after riding in wet weather conditions or cleaning the bicycle, drain the water and do not leave the battery submerged. If water gets into any of the components, operating problems or corrosion may result.
- Handle the components carefully, and avoid subjecting them to strong shock.
- Do not use the thinners or harsh solvents to clean the products. Such solvents may damage the surface.

- Charging can be carried out at any time regardless of the battery level. Always be sure to use the special battery charger to charge the battery until it is fully recharged.
- The battery is not fully charged at the time of purchase. Before riding, be sure to fully charge the battery.
- When the battery is completely depleted, charge it as soon as possible. If you leave the battery without charging it, it will cause the battery to deteriorate.
- 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 becomes 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.
- If storing the battery away for a long period, remove it when the battery level is 50% or higher or when the green indicator is illuminating in order to prolong its useful life. It is recommended that you charge the battery every six months.
- If the storage temperature is too high, the performance of the battery is reduced, and its useable time will be shorter. When you use the battery after a long storage period, store the battery indoors where the battery will not be exposed to direct sunlight or rain.
- If the ambient temperature is too low, the battery's usable time will be shorter.
- After removing the battery from the bicycle for storage, install a dummy plug to each port.
- The charging time of an AC adapter with a USB port is about 1.5 hours, and that of computer 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 may require as much time (about 3 hours) as recharging via PC.)
- 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.

## **For installation to the bicycle and maintenance**

- Be sure to attach dummy plugs to any unused E-TUBE ports.
- Be sure to use the SHIMANO original tool TL-EW300 to remove and install the electric wires.

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

## Be sure to also inform users of the following:

### ■ About used batteries

- Lithium-ion batteries are recyclable, valuable resources. For information on used batteries, contact the place of purchase or a distributor.



### ■ About system power reset

When the system fails to operate, it may be recovered by resetting the system power.

- In some cases, the system can be recovered using E-TUBE PROJECT. Refer to the user's manual for E-TUBE PROJECT for details on this procedure.
- If you are unable to recover the system using the E-TUBE PROJECT reset procedures, remove all electric wires and dummy plugs connected to the battery, wait approximately one minute, then reinsert the electric wires and dummy plugs.
- If any of these procedures do not recover the system, contact the place of purchase or a distributor.

# List of tools to be used

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

Tool	
	TL-EW300
	Internal snap ring pliers (1.8 mm)



# Installation/removal

## Installing the battery

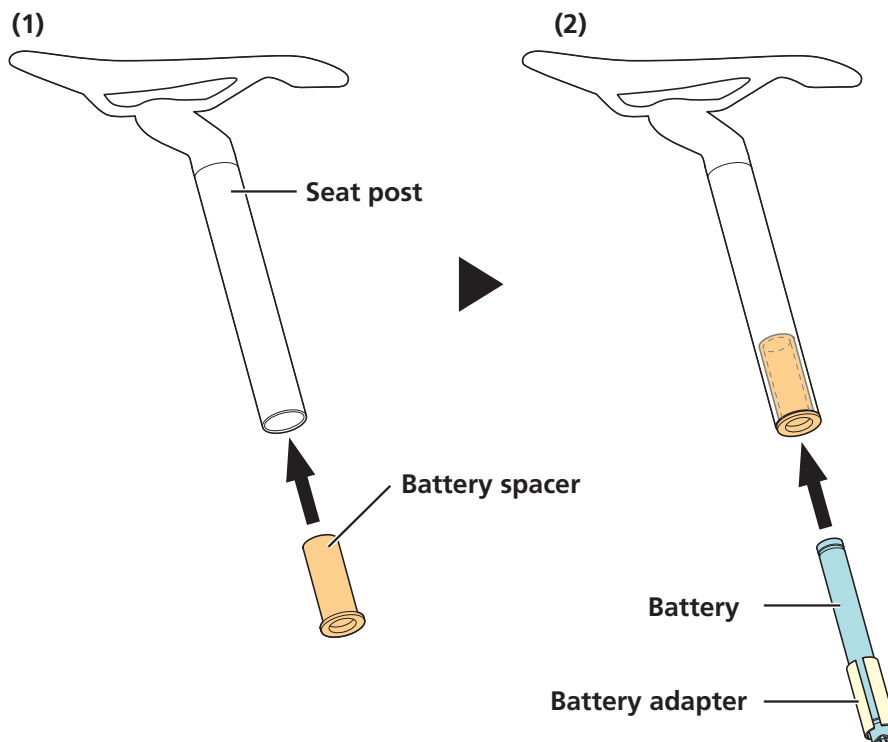
This section describes how to install the battery inside the seat post. Depending on the frame, the way the battery is installed may differ. For details, contact the manufacturer of the frame.

### TECH TIPS

- Ensure you are using a seat post that is compatible with Di2 batteries. If you have any questions, consult the manufacturer of the seat post.

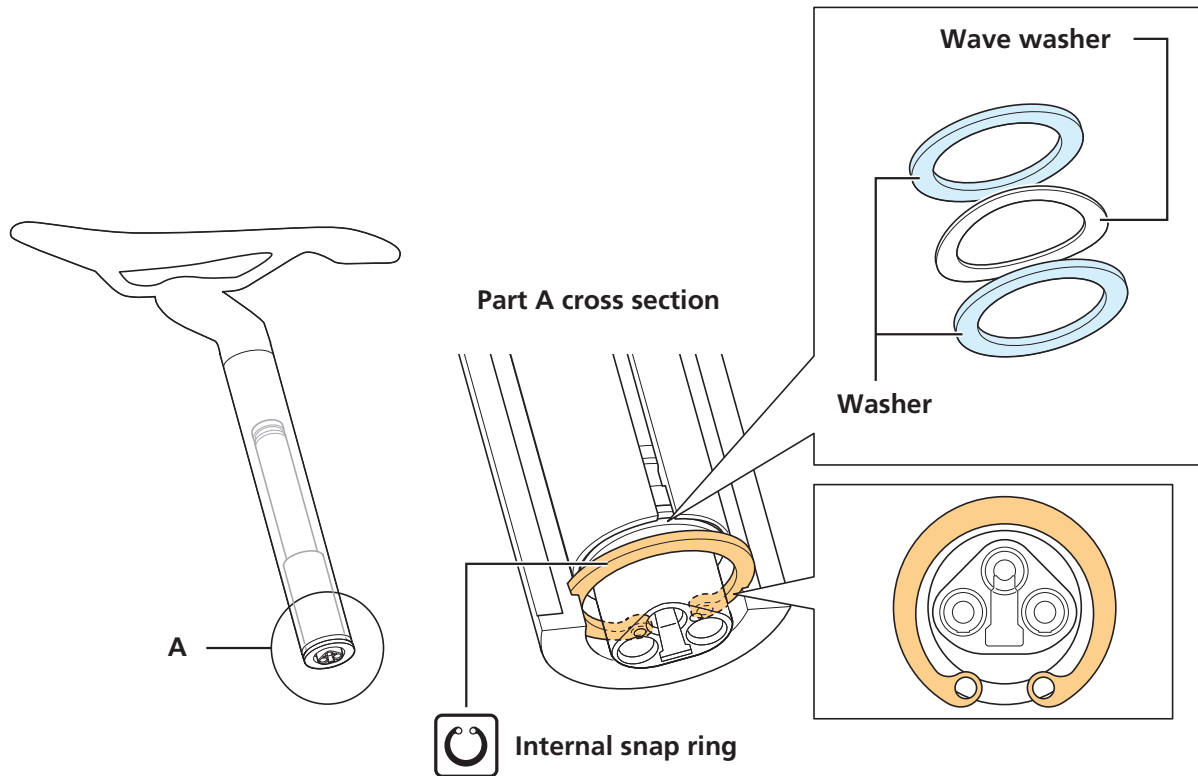
### 1. Insert the battery into the seat post.

- (1) Insert the battery spacer into the seat post.
- (2) Insert the battery into the seat post.



## 2. Secure the battery with the internal snap ring.

Install the internal snap ring in the orientation shown in the figure.

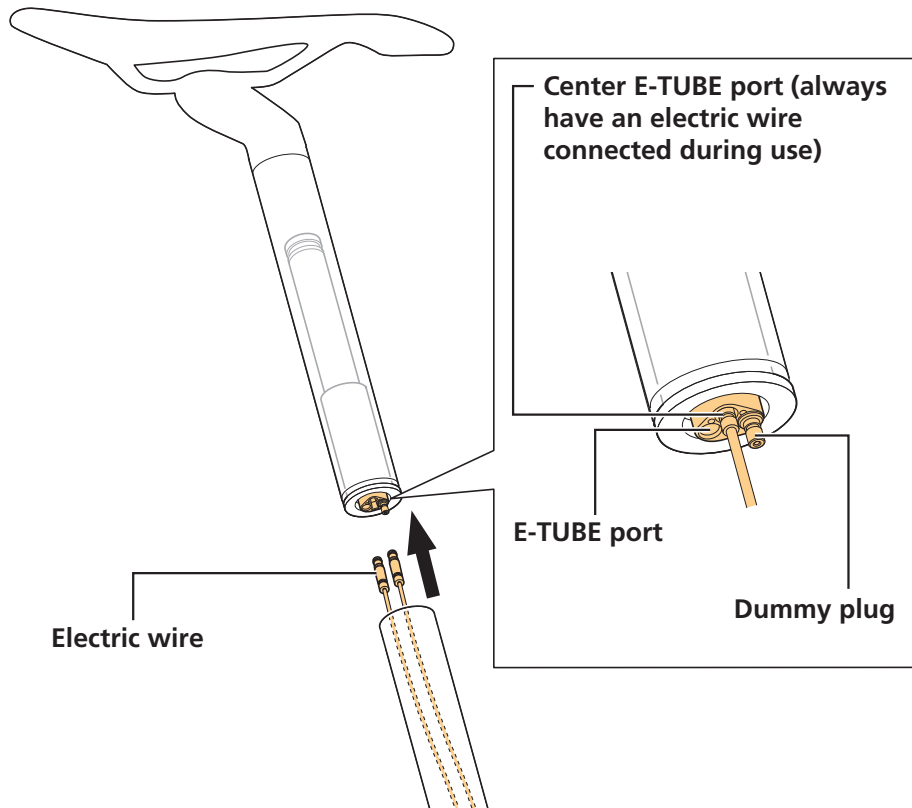


### TECH TIPS

- Use internal snap ring pliers (1.8 mm) to mount the internal snap ring.

### 3. Connect the electric wire to the battery.

Be sure to push it in firmly with the TL-EW300 until you feel a click.



#### **NOTICE**

- When using the product, be sure to connect an electric wire to the center E-TUBE port. The product will not operate normally if nothing is connected to the center E-TUBE port.
- Be sure to attach the dummy plugs to any E-TUBE ports that do not have electric wires connected to them. The product will not operate normally if the dummy plugs are not attached.
- If water collects inside the frame after riding in wet weather conditions or cleaning the bicycle, drain the water and do not leave the battery submerged.

### 4. Insert the seat post into the frame.

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

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