

Dealer's Manual

ROAD	GRAVEL	MTB
E-BIKE	LIFESTYLE	GENERAL

SHIMANO E-BIKE SYSTEMS Special Battery and Parts (Gen.2)

SHIMANO (E-BIKE)

BT-EN817-B

BM-EN810-A

EW-SW310

EW-CP110

EW-CP111

EC-EN814

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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.

	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

DANGER

Be sure to also inform users of the following:

■ Handling the battery

- Use the specified battery charger for charging and observe the specified charging conditions. Doing otherwise may cause overheating, bursting, or ignition.
- Do not leave the battery near sources of heat such as heaters, and do not heat the battery or throw it into a fire. Doing so may cause bursting or ignition.
- Do not deform, modify, disassemble, or apply solder directly to the battery. Doing so may cause leakage, overheating, bursting, or ignition.
- Do not connect the terminals with metallic objects. Otherwise, you may get burned or injured due to short circuits or overheating.
- Do not carry or store the battery together with metallic objects such as necklaces or hairpins. Otherwise, you may get burned or injured due to short circuits or overheating.
- 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 overheating, bursting, or ignition.
- Do not throw or subject the battery to strong shock. Doing so may cause overheating, bursting, or ignition.
- In the event of a battery fire, the following should be noted:
 - If possible, carefully keep other batteries away from the fire
 - Evacuate all persons from the immediate area of fire
 - Extinguish the fire with plenty of cold water (at least the weight of 10 battery packs)

■ Handling the battery charger

- Do not disassemble or modify the battery charger. If this is not observed, electric shocks or injury may occur.
- Use the specified battery and battery charger combination for charging and observe the specified charging conditions. Only charge rechargeable batteries. Doing otherwise may cause overheating, bursting, or ignition.
- If the battery does not become fully charged even two hours after the designated charging time, immediately unplug the battery from the electrical outlet and contact the place of purchase. Doing otherwise may cause overheating, bursting, or ignition.

Refer to the user's manual of the battery charger or the "[SHIMANO E-BIKE SYSTEMS Special Battery and Parts User's Manual \(Gen.2\)](#)" for information on the designated charging time of the battery.

- Do not allow the battery charger to get wet. If it is wet or water is allowed inside, it could cause a fire, ignition, overheating, or electric shock.
- Do not use it while it is wet. Do not touch or hold it with wet hands. An electric shock may occur.
- Do not use the battery charger when it is covered with a cloth or other material. If this is not observed, heat may build up and the case may become deformed, or fire, ignition, or overheating may occur.
- Use the battery charger at the specified power supply voltage only. If a power supply voltage other than that specified is used, fire, destruction, smoke, overheating, electric shocks or burns 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.
- For information on products not explained in this manual, refer to the manuals provided with each product.

Be sure to also inform users of the following:

■ Handling the battery

- **WARNING:** Risk of fire. Never disassemble. No user serviceable parts.
- Do not disassemble or modify the product. This may cause the product to not operate correctly, and you may suddenly fall and be seriously injured.
- Use the product under the supervision of someone responsible for safety, and only as instructed. Do not allow anyone (including children) with reduced physical, sensory, or mental capacity, or those without experience or knowledge, to use the product.
- Keep away from children.
- If any liquid leaking from the battery gets into your eyes, immediately wash the affected area thoroughly with clean water such as tap water without rubbing your eyes, and seek medical attention immediately. If this is not done, the battery liquid may damage your eyes.
- If any leaked fluid gets on your skin or clothes, wash it off immediately with clean water (for at least 15 min). The leaked fluid may damage your skin.
- Medical assistance is required for symptoms caused by accidental ingestion of battery fluid, contact with skin or eyes, or inhalation of battery combustion gases.
- If mist or vapor is inhaled by mistake, go immediately to an area with fresh air, stay warm and quiet, and seek professional medical advice if required.
- Do not use the battery outside its operating temperature ranges. If a battery is used or stored in temperatures which are outside these ranges, fire, injury or problems with operation may occur. The operating temperature ranges are as follows:
 - (1) During discharge: -10 - 45°C
 - (2) During charging: 0 - 45°C
 - (3) Recommended storage temperature: -10 - below 20°C

Temperatures above 60°C may result in battery leakage and rupture.

- Do not store the battery in temperature environments lower than -10°C or higher than 60°C.
- 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 use products with broken seals (*). Immediately forward them for appropriate recycling.
 - * The screw heads on the enclosure are sealed with adhesive or cover.
- 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.
- Batteries shall not be in contact with solvent materials (i.e. diluents, alcohol, oil, or anticorrosive agents) or chemicals that impact surfaces (i.e. detergents).

■ Handling the battery charger

- Be sure to hold the power plug when connecting or disconnecting from the electrical outlet. Failure to do so may cause a fire or electric shock. If the following symptoms are observed, stop using the device and contact the place of purchase. A fire or electric shock may be caused.
 - * If heat, acrid smell, or smoke is coming out from the power plug.
 - * There may be a bad connection inside the power plug.
- Do not touch the metallic parts of the device or the power plug on the AC adapter or other parts if there is a lightning storm. If lightning strikes, electric shocks may occur.
- Do not overload the electrical outlet with appliances beyond its rated capacity, and use only a 100 - 240 V AC electrical outlet. If the electrical outlet is overloaded by connecting too many appliances using adapters, overheating resulting in fire may occur.
- Do not damage the power cord or power plug. (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.
- Do not use the battery charger with commercially-available electrical transformers designed for overseas use (travel converters). They may damage the battery charger.
- Always be sure to insert the power plug as far as it will go. If this is not observed, fire may occur.
- Do not insert or remove the plug while it is wet. Doing so may result in electric shock. If the inside of the plug is wet, dry it thoroughly before inserting it.
- Do not recharge the battery in wet or very humid places, or outdoors. A fire, ignition, overheating, or electric shock may occur.
- When charging the battery while it is installed on the bicycle, do not move the bicycle. The battery charger's power plug may come loose and not be fully inserted into the electrical outlet, resulting in a risk of fire.

CAUTION

Be sure to also inform users of the following:

■ Handling the battery

- Do not leave batteries in a place exposed to direct sunlight, inside a vehicle on a hot day, or in other hot places. This may result in battery leakage.
- Avoid large temperature changes.
- Do not store this product near open fire and food.
- Store the battery in dry places.
- Keep the following in mind to prevent the battery from dropping while riding:
 - Confirm that the battery is securely locked to the battery mount.
 - Do not ride with the key inserted.
- When using an integrated type battery, be sure to install a battery cover to the bicycle. For the installation method of the battery cover, refer to the instructions in the manual for the bicycle.
- If an error occurs during the battery discharge or charge operation, immediately stop using it and check the user's manual. If you are not sure, consult the place of purchase or a distributor.
- Do not touch the battery when it is at a high temperature. Doing so may cause a burn.
- Do not touch the battery for an extended period of time when its temperature has increased. Doing so may cause a low-temperature burn.

■ Handling the battery charger

- Periodically check the battery charger and adapter, particularly the cord, plug, and enclosure, for any damage. If the battery charger or adapter is broken, do not use it until it has been repaired by the place of purchase or a distributor.
- Use the product under the supervision of someone responsible for safety, and only as instructed. Do not allow anyone (including children) with reduced physical, sensory, or mental capacity, or those without experience or knowledge, to use the product. Do not allow children to play near the product.
- When performing cleaning, disconnect the power plug from the electrical outlet and the charging plug from the battery. If this is not observed, an electric shock may occur.
- Do not touch the battery charger when it is at a high temperature. Doing so may cause a burn.
- Do not touch the battery charger for an extended period of time when its temperature has increased. Doing so may cause a low-temperature burn.
- The temperature of the product may reach 40 to 70°C while charging, but this is normal.
- Before using battery charger, read all instructions and cautionary markings on battery charger, battery, and product using battery.

NOTICE

Be sure to also inform users of the following:

- For any questions regarding methods of installation and maintenance, please contact your place of purchase.
- 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.

■ Handling the battery

- Charging can be carried out at any time, regardless of the remaining battery, but please fully charge the battery in the following case. Be sure to use the dedicated battery charger.
- The battery is not fully charged at the time of purchase. Before riding, be sure to fully charge the battery. The battery can be used when its LED turns on.
- When the battery is completely depleted, charge it as soon as possible. If you leave the battery without charging it, the battery will deteriorate and may become unable to be used.
- When purchasing or replacing a spare integrated battery, an adapter must be attached to the battery. Contact the place of purchase or a distributor.
- Before connecting the battery, make sure that the area where the battery will be connected (terminal) is dry and not dirty.
- Press the battery power button and if the LED display does not light up, the protective circuit is operating. Connect the battery charger and charge the battery to deactivate this.
- Rechargeable batteries have the greatest performance when kept and used at normal room temperature (20°C ± 5K).
- If the battery is charged in a low-temperature environment of 5°C or lower, the traveling distance of a full charge will be shorter. Also, if the battery is used in a low-temperature environment of 5°C or lower, the battery consumption will become quicker. This is due to the characteristics of the battery, and the battery will return to normal when at a normal temperature.
- Riding with a high level of assistance in a low-temperature environment when the battery level is low may cause the battery level to drop to 0%, due to the characteristics of the battery. Charge it before use.
- Only use batteries for the applications that they were designed for.

- Note the following when transporting batteries:
 - The user should remove the batteries from the E-BIKE when transporting it inside a vehicle or on a roof rack, etc.
 - This product falls under the requirements of the Dangerous Goods Legislation
 - Undamaged batteries can be transported on the road by private users without additional requirements
 - When batteries are transported by a third party, special requirements (e.g. ADR, DGR, UN-3480) on packaging and labelling need to be met, and they may only be packed and shipped by trained personnel
 - Do not transport damaged/unfunctional batteries
 - Be sure to confirm if any regulations in the country of origin and destination exist and adhere to them
 - Please contact an authorized bicycle dealer, SHIMANO local sales office or distributor, if you have any questions about the transportation or shipment of batteries
- Handling the battery charger
 - Charge the battery indoors to avoid exposure to rain or wind.
 - The battery can be charged at temperatures between 0 - 45°C. The battery charger will not operate at temperatures outside the range. It will display an error. (The battery charger LED flashes red.)
 - Do not use outdoors or in environments with high humidity.
 - Do not place the main body on dusty floors when using it.
 - Place the main body on a stable surface such as a table when using it.
 - Do not place any objects on top of the main body or its cable. Also, do not cover it with a cover or other object.
 - Do not bundle the cables.
 - Do not hold the main body by the cables when carrying it.
 - Do not apply excessive tension to the cable and charging plug.
 - In order to prevent the cable from being damaged, avoid wrapping it around the main body during storage.
 - Do not wash the main body or wipe it using detergents.
 - Do not allow children to play near the product.
 - When charging with the battery installed to a bicycle, take care that your legs, etc. do not get caught in the battery charger cord. Doing otherwise may cause injury or cause the bicycle to fall over and break the components.
 - When charging the battery while it is mounted on the bicycle, be careful of the following:
 - Before charging, check that there is no water on the charging port of the charging plug.
 - Check that the battery mount is locked before charging.
 - Do not remove the battery from the battery mount while charging.
 - Do not ride with the battery charger mounted.
 - Close the cap on the charging port when not charging.
 - Secure the bicycle in place when charging, so that it does not tip over.
 - Make sure to close the charging port cap after charging is complete. If foreign material such as dirt or dust is adhering to the charging port, it may not be possible to insert the charging plug.
 - Using the battery outside the operating temperature range may cause problems with operation or performance degradation.
 - The charging time is longer when the battery temperature is high.

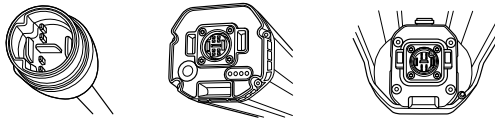
■ Battery mount

- The number written on the key of the battery mount is necessary when purchasing a spare key. Store it carefully.

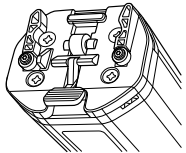
■ Care and maintenance

- Do not use thinner or other solvents to clean any of the components. Such substances may damage the surface.
- When there is dirt on the terminals of the battery mount and battery charger, remove the battery, remove the power plug from the electrical outlet, then clean them with a clean rag or cotton bud dampened with ethanol, etc. If you repeatedly install and remove the battery while they are still dirty, it may cause wear on the terminals and make them unable to be used.

Terminal example



- Keep the surface where the battery contacts the battery mount clean. If the battery is connected with foreign material such as dirt or dust attached, the battery may become unable to be removed.



- Use a damp, well wrung out cloth when cleaning the battery and plastic cover.

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

Booklet structure

■ User's manual

SHIMANO E-BIKE SYSTEMS user's manuals are split among several booklets, as described below.

The latest manuals are available on our website (<https://si.shimano.com>).

Name	Details
SHIMANO E-BIKE SYSTEMS User's Manual	This is the basic manual for SHIMANO E-BIKE SYSTEMS. It contains the following content: • Quick guide • Basic operations when riding • How to operate assist bicycles that use flat handlebars, such as city, trekking, or MTB type bicycles
SHIMANO E-BIKE SYSTEMS User's Manual for Drop Handlebar Bicycles	This booklet describes how to operate assist bicycles that use a drop handlebar and are controlled using dual control levers. This should be read along with the SHIMANO E-BIKE SYSTEMS User's Manual.
SHIMANO E-BIKE SYSTEMS Special Battery and Parts User's Manual (Gen.2)	It contains the following content: • How to charge and handle the SHIMANO E-BIKE SYSTEMS special battery • How to attach and remove the SHIMANO E-BIKE SYSTEMS special battery to the bicycle • Using the satellite charging port • How to read the battery LEDs when charging or during an error
SHIMANO E-BIKE SYSTEMS Cycle Computer User's Manual (clamp band type / bracket installation type / switch unit integrated type)	It contains the following content: • Method for configuring settings via the main body buttons and switch unit • Wireless communication method (supported models only)
Switch Unit User's Manual* (wireless gear shifting type / with LED indicator function / without LED indicator function)	This is the assist switch and shift switch user's manual. It describes switch unit handling and operations.
Satellite System ON/OFF Switch User's Manual	It describes the handling and operations of the satellite system ON/OFF switch.

* SHIMANO E-BIKE SYSTEMS compatibility with wireless gear shifting will be provided in a future firmware update.

■ Dealer's manual

SHIMANO E-BIKE SYSTEMS dealer's manuals are split among several booklets, as described below.

The latest manuals are available on our website (<https://si.shimano.com>).

Name	Details
SHIMANO E-BIKE SYSTEMS Dealer's Manual	This is the basic manual for SHIMANO E-BIKE SYSTEMS. • Overall wiring diagram • Overall flow of operations for installing the SHIMANO E-BIKE SYSTEMS components to an assist bicycle • Installation / removal and maintenance of the drive unit area • Installation / removal of the speed sensor
SHIMANO E-BIKE SYSTEMS Dealer's Manual for Drop Handlebar Bicycles	It specializes in the following information regarding assist bicycles that use a drop handlebar and are controlled using dual control levers. This should be read along with the SHIMANO E-BIKE SYSTEMS Dealer's Manual. • Overall wiring diagram • Cautions to follow when installing the drive unit
SHIMANO E-BIKE SYSTEMS Special Battery and Parts Dealer's Manual (Gen.2) (this document)	It contains the following content: • How to install the battery mount • How to install the satellite system ON/OFF switch and satellite charging port
SHIMANO E-BIKE SYSTEMS Cycle Computer and Switch Unit Parts Dealer's Manual (Gen.2)	It contains the following content: • Installation and maintenance of the SHIMANO E-BIKE SYSTEMS special cycle computer and switch unit • How to connect to E-TUBE PROJECT Professional
SHIMANO E-BIKE SYSTEMS Chain Device Dealer's Manual	This manual describes the installation and maintenance of the SHIMANO E-BIKE SYSTEMS special chain device.

List of tools to be used

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

Component	Location used / screw type	Tool	
Battery (BT-EN817-A)	Adapter		Pozidriv screwdriver [#1]
Battery mount (BM-EN810-A)	Key unit Latch base Connector base		3 mm hexagon wrench
	Upper bracket Lower bracket		5 mm hexagon wrench
	Bracket positioning		TL-BME06
	Power cord unit		Hexalobular [#10]
Satellite charging port (EW-CP110)	Satellite charging port mounting screw		Cross head screwdriver [#1]
Satellite charging port (EW-CP111)	Satellite charging port mounting screw		Cross head screwdriver [#1]
Satellite system ON/OFF switch (EW-SW310)	Satellite system ON/OFF switch mounting screw		2 mm hexagon wrench
	Electric wire		TL-EW300

Installation / removal

SHIMANO E-BIKE SYSTEMS battery management systems and compatibility

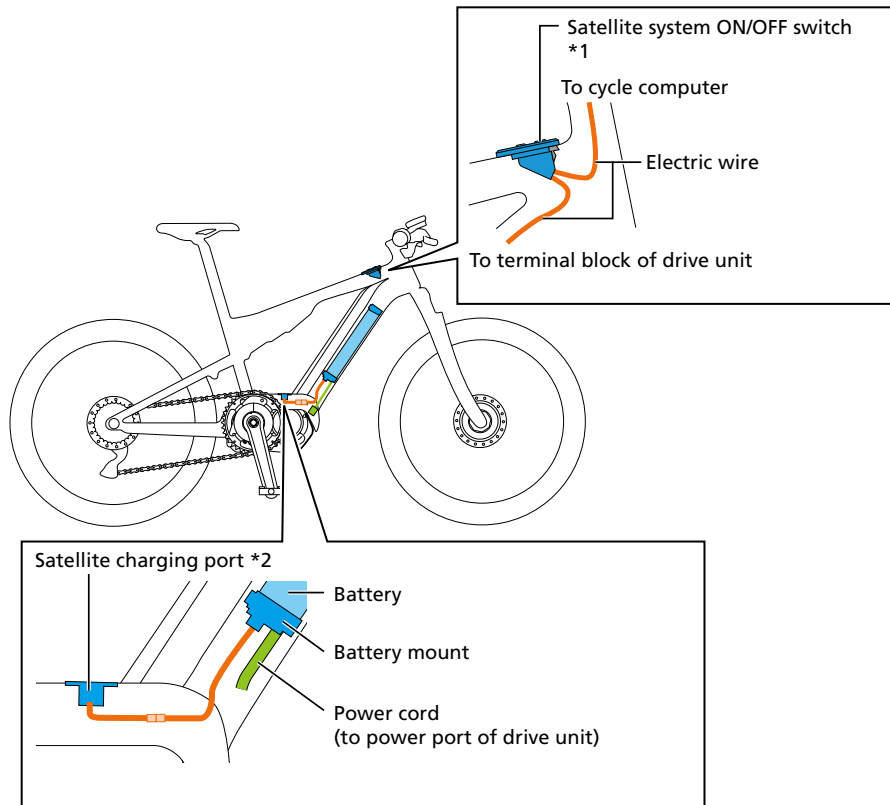
There are two generations of the SHIMANO E-BIKE SYSTEMS battery management system: first generation and second generation (Gen.2).

This manual only describes products compatible with Gen.2.

With some exceptions, first-generation and Gen.2 products of SHIMANO E-BIKE SYSTEMS components are not compatible with each other. For details, refer to the compatibility information on the SHIMANO product website (<https://productinfo.shimano.com/#/com>).

The Gen.2 battery and compatible battery mount have a “Gen.2” label.

Wiring example



*1 For the satellite system ON/OFF switch, pay attention to the compatibility with the cycle computer and switch unit. For details, refer to the compatibility information (<https://productinfo.shimano.com/#/com>).

*2 Take care to ensure that the satellite charging port is compatible with the battery mount. For details, refer to the compatibility information (<https://productinfo.shimano.com/#/com>).

NOTICE

- * The maximum electric wire length between components is 1,600 mm. Ensure that the total length is 1,600 mm or less when connecting via a junction [B] or conversion adapter.

Electric wires

There are two types of electric wire: the EW-SD300 and the EW-SD50. The supported electric wire differs based on the component model. Check the component specifications on the SHIMANO product website in advance (<https://productinfo.shimano.com/>).

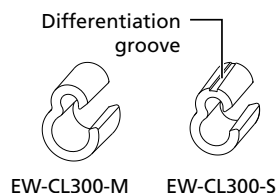
Supported products

The following products support each type of electric wire.

Product name	Intended purpose	EW-SD300 type	EW-SD50 type
SHIMANO original tool	Connecting / disconnecting the electric wires	TL-EW300	TL-EW02
Dummy plug	Plugging empty ports	Y7HE30000	Y6VE15000
Cord clip	Binding the wiring and the outer casing / brake hose together	EW-CL300-S (for shift outer casing) EW-CL300-M (for brake outer casing and brake hose)	Y70H98040
Wire cover	Supporting / protecting the electric wire (external wiring)	EW-CC300	SM-EWC2
Grommet	Installing to the wire insertion hole of a frame that supports internal wiring	EW-GM300-S EW-GM300-M	SM-GM01 SM-GM02
Cord band	Supporting the electric wire (flat handlebar external wiring)	EW-CB300-S EW-CB300-M EW-CB300-L	SM-EWE1
Junction [A] (for Di2)	Gathering the wiring around the cockpit. Also has functions for changing the shift mode, etc.	-	EW-RS910 SM-EW90-A SM-EW90-B
Junction [B]	Conjoining the wiring inside and outside the frame	EW-JC304 EW-JC302	SM-JC41 SM-JC40 EW-JC200 EW-JC130
Conversion adapter	Refer to the " Conversion adapter " section	EW-AD305	EW-AD305

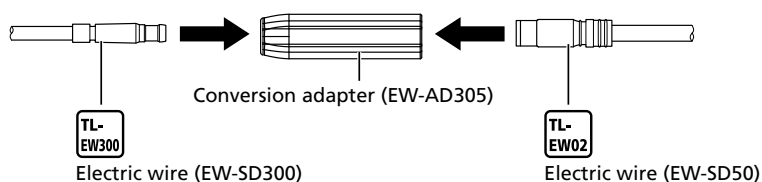
NOTICE

- The SHIMANO original tool used for installation / removal and the accessories used for wiring differ for the EW-SD300 and EW-SD50. Be sure to use a compatible product.
- EW-CL300-S is marked with a groove in order to differentiate it from EW-CL300-M.



Conversion adapter

A conversion adapter (EW-AD305) is required to connect the EW-SD50 to a component with an E-TUBE port for the EW-SD300.



Connecting / disconnecting the electric wires

Be sure to use the SHIMANO original tool to remove and install the electric wires.

NOTICE

- When connecting and disconnecting electric wires, do not forcibly bend the plug part. It may result in a poor connection.

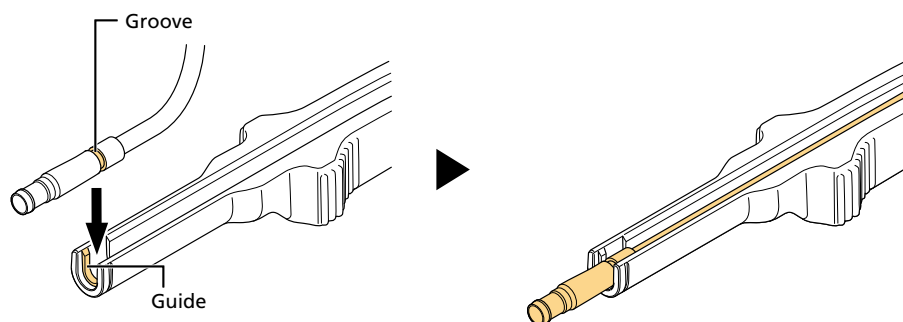
Connecting the electric wire (EW-SD300)

Connect the electric wire to the E-TUBE port.

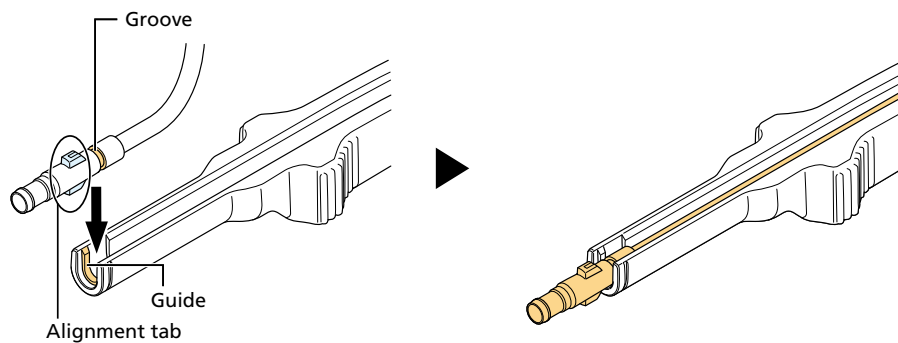
1. Set the plug of the electric wire to the TL-EW300.

If there is an alignment tab on the plug of the electric wire, check the shape of the E-TUBE port you are trying to connect to, and set it aligned with the alignment tab.

Without alignment tab on plug

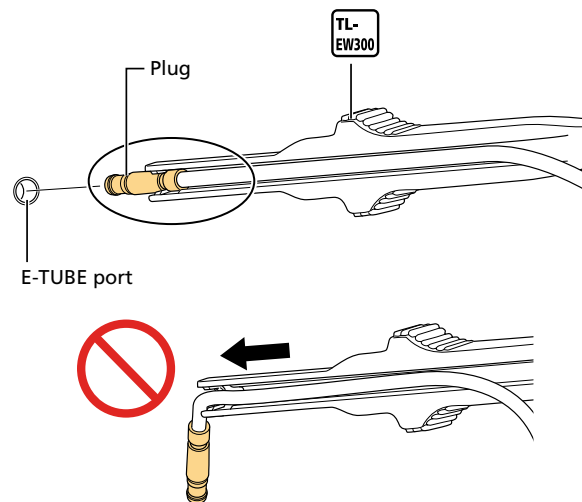


With alignment tab on plug



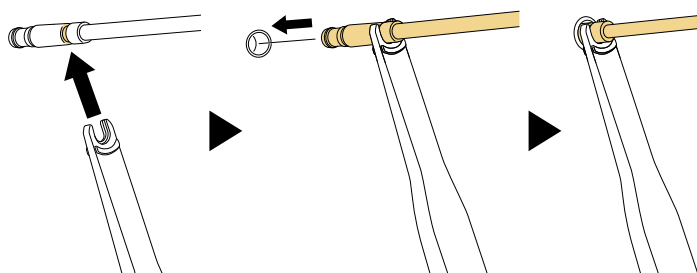
2. Insert the plug on the electric wire into the E-TUBE port.

Push it straight in until you feel a click.



TECH TIPS

- When connecting the EW-SD300, the method below can also be used.

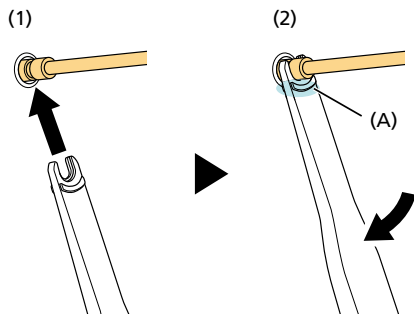


Removing the electric wire (EW-SD300)

1. Disconnect the electric wire.

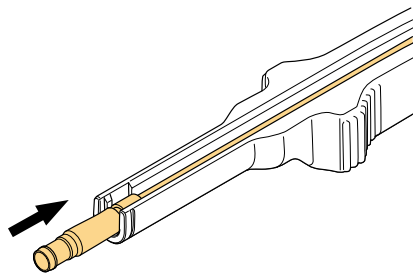
- (1) Insert the TL-EW300 into the groove on the plug part of the electric wire.
- (2) Disconnect the electric wire from the E-TUBE port.

* As shown in the figure, use part (A) of the TL-EW300 as a fulcrum, move the tool like a lever, then disconnect the plug part.



TECH TIPS

- If there is limited space to insert the tool, you can use the TL-EW300 as indicated in the figure to disconnect the electric wire.



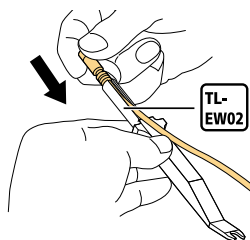
Connecting the electric wire (EW-SD50)

Connect the electric wire to the E-TUBE port.

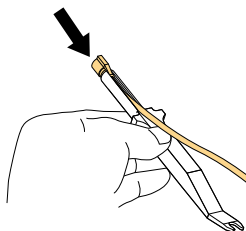
1. Set the plug of the electric wire to the TL-EW02.

If there is an alignment tab on the plug of the electric wire, set it aligned with the groove on the SHIMANO original tool.

Without alignment tab on plug

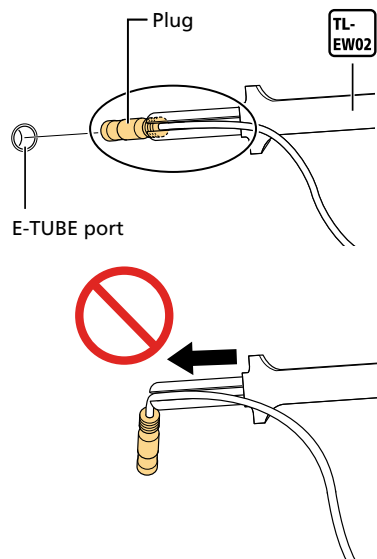


With alignment tab on plug



2. Insert the plug on the electric wire into the E-TUBE port.

Push it straight in until you feel a click.

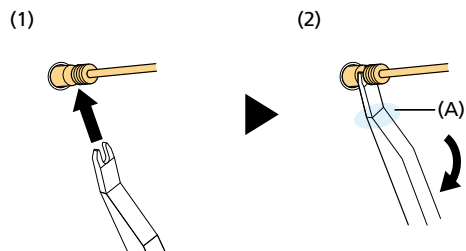


Removing the electric wire (EW-SD50)

1. Disconnect the electric wire.

- (1) Insert the TL-EW02 into the groove on the plug of the electric wire.
- (2) Disconnect the electric wire from the E-TUBE port.

* As shown in the figure, use part (A) of the TL-EW02 as a fulcrum, move the tool like a lever, then disconnect the plug part. If there is limited space to insert the tool, lift the TL-EW02 straight up and disconnect the electric wire.



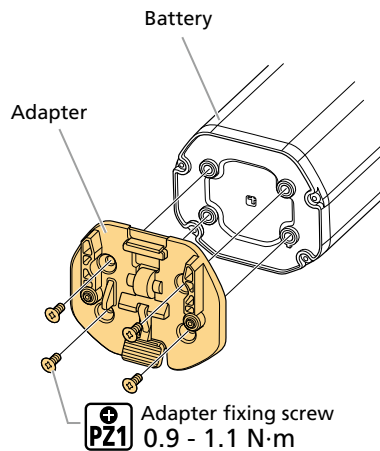
Assembling the battery

To install an integrated battery to the battery mount, the adapter must be secured in advance. The adapter is included with the battery mount.

NOTICE

- When replacing the battery with a new battery, the adapter must also be switched.
- A spare adapter (sold separately) is required to prepare a spare battery.

1. Secure the adapter to the battery.



Installing the battery mount

Integrated type

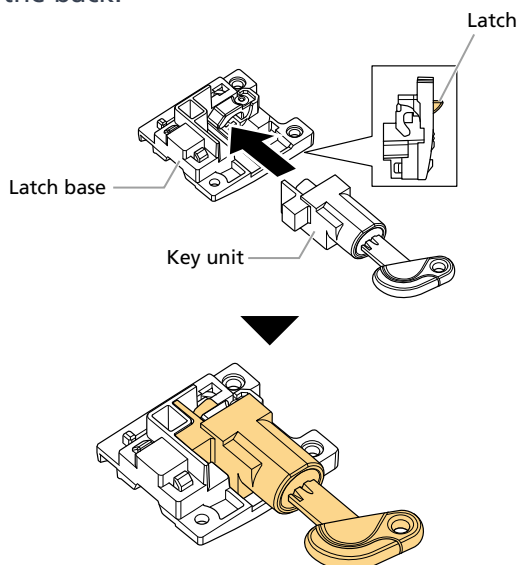
BM-EN810-A

The SHIMANO original tool (TL-BME06) is required to install the battery mount.

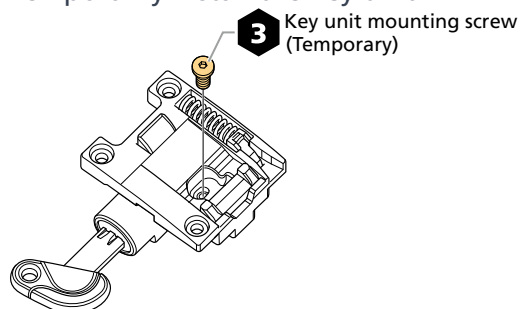
1. Temporarily install the key unit to the latch base.

There are two types of key units, one that uses a regular key and one that uses a hexagon wrench instead of a key, but the installation method is the same for both types. The type of key unit that uses a regular key is used as an example for this explanation.

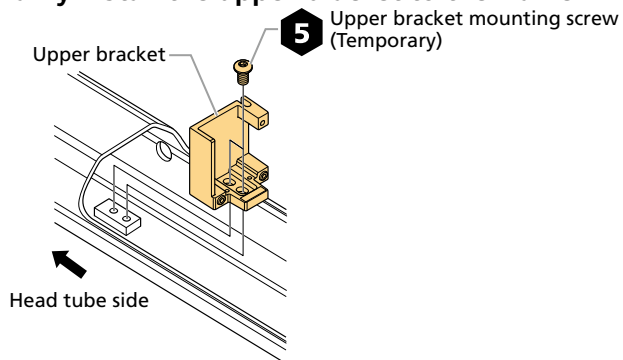
- (1) While pushing in the latch, insert the key unit into the latch base. Confirm that it is fully inserted all the way to the back.



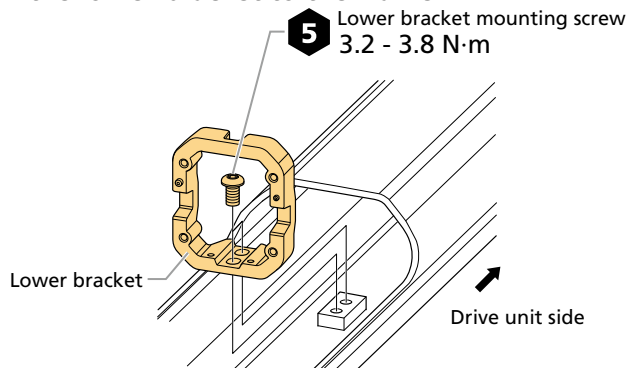
(2) Temporarily install the key unit.



2. Temporarily install the upper bracket to the frame.

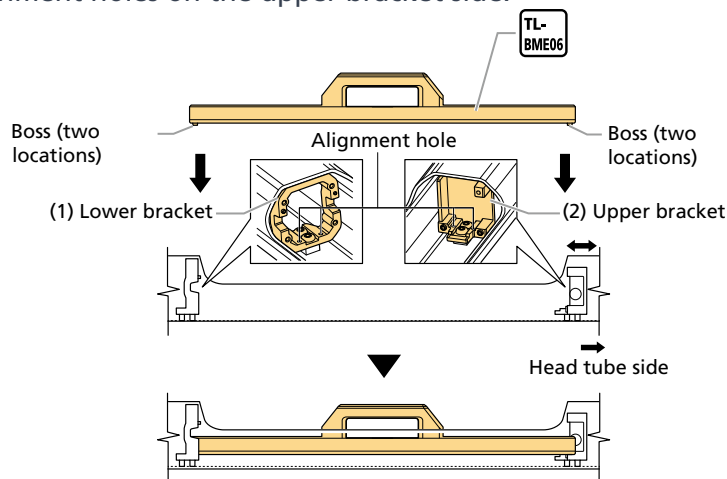


3. Install the lower bracket to the frame.



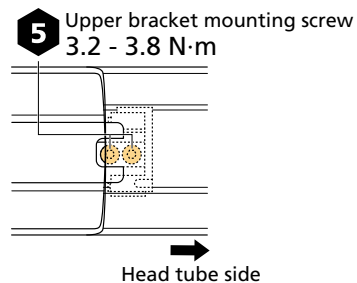
4. Secure the upper bracket to the frame.

- (1) Insert the bosses of the TL-BME06 into the two alignment holes on the lower bracket.
- (2) Adjust the position of the upper bracket so that the bosses of the TL-BME06 are also inserted into the alignment holes on the upper bracket side.



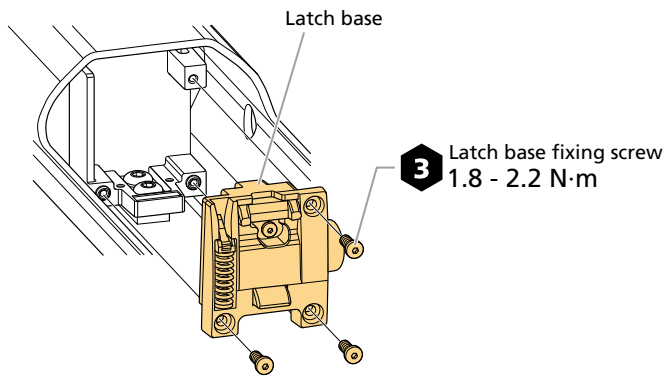
- (3) Secure the upper bracket.

The two upper bracket mounting screws can be tightened with the TL-BME06 mounted.

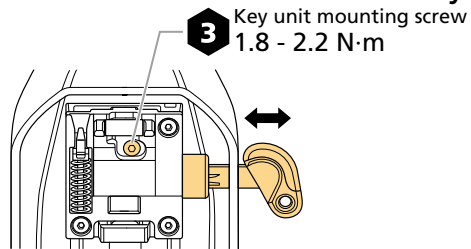


- (4) After securing the upper bracket, remove the TL-BME06.

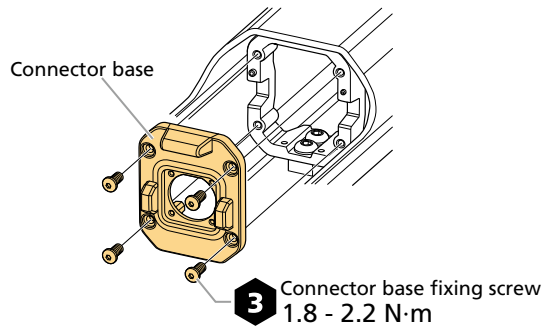
5. Secure the latch base to the upper bracket.



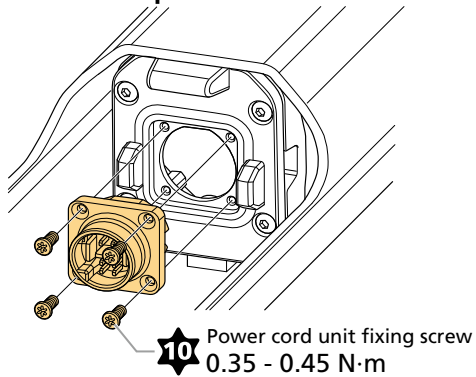
6. Determine the location for the key unit when securing it.



7. Secure the connector base to the lower bracket.



8. Secure the power cord unit to the connector base.



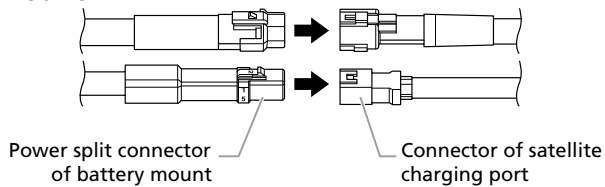
Installing the satellite charging port

EW-CP110 / EW-CP111

NOTICE

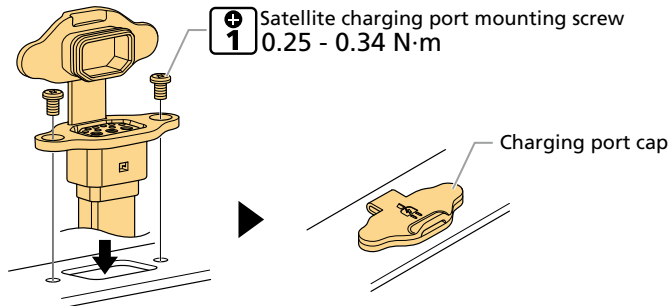
- The work procedure and tightening torque may vary depending on the design of the frame. Contact a distributor for details.

1. Connect the two connectors of the satellite charging port to the power split connectors of the battery mount.

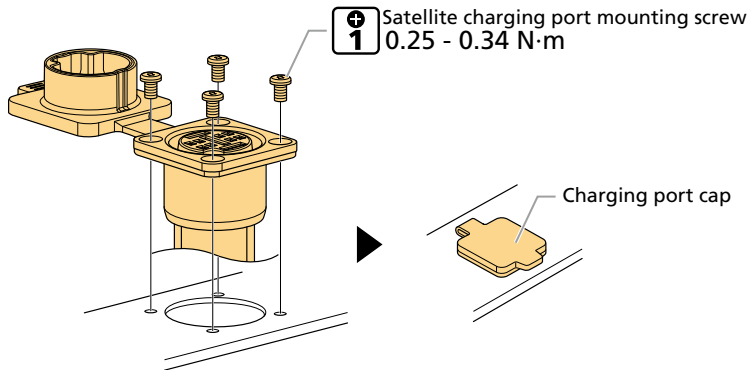


2. Install the satellite charging port, and close the charging port cap.

EW-CP110



EW-CP111



Installing the satellite system ON/OFF switch

EW-SW310

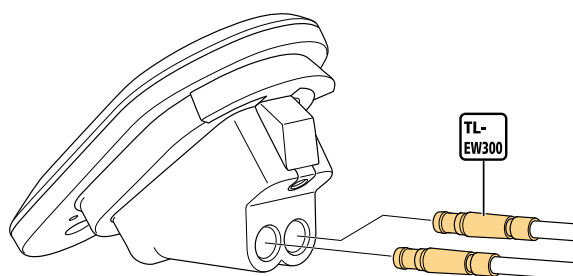
NOTICE

- The work procedure and tightening torque may vary depending on the design of the frame. Contact a distributor for details.

1. Connect the electric wires to the satellite system ON/OFF switch.

The electric wires to the drive unit are required.

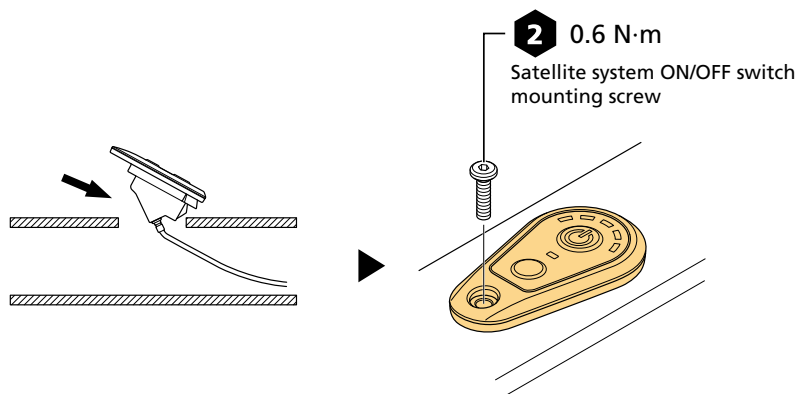
Connect the electric wires to the cycle computer, depending on the specifications of the bicycle.



NOTICE

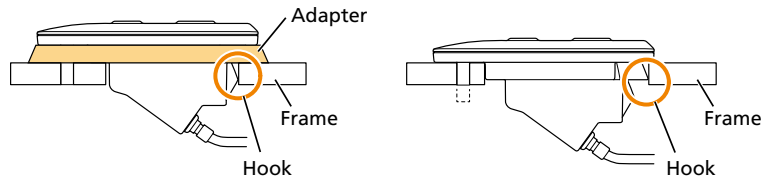
- Attach dummy plugs to any unused E-TUBE ports.

2. Install the satellite system ON/OFF switch.



NOTICE

- This may vary depending on the design of the frame. For example, there may or may not be an adapter, or the hook may differ. Contact a distributor for details.



Maintenance

Replacing the battery

When replacing the battery with a new battery, the adapter must also be switched. Refer to “ [Assembling the battery](#) ”.

Troubleshooting

Some components have an LED display that will notify you when an error occurs. Refer to the user's manual for each component.

- [SHIMANO E-BIKE SYSTEMS Special Battery and Parts \(Gen.2\) User's Manual](#)
- [Satellite System ON/OFF Switch User's Manual](#)

The FAQ for SHIMANO E-BIKE SYSTEMS can also be accessed with the following:



<https://si.shimano.com/iFAQ/STP0A>

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