



SHIMANO
STEPS

SERVICE MANUAL

E5000 / E6100 / E7000 / E8000

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SHIMANO

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Please note: Specifications are subject to change
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SHIMANO TOTAL ELECTRIC POWER SYSTEM

SHIMANO
STEPS

SHIMANO DNA



Shimano e-bike systems have been carefully crafted over a century of extensive research and development, coupled with many decades worth of experience and innovation in cycling. Now we've put all of our expertise into one of the most revolutionary e-bike systems available today. If you truly want to feel the essence of e-biking, you have to experience SHIMANO STEPS.

SHIMANO SYSTEM ENGINEERING



For e-bike systems development, Shimano has made maximum use of our accumulated expertise in bicycle parts development over the years. And we bring riders superb ride quality generated by optimal cooperation between conventional bike components and e-bike systems. We have worked to create new value by studying the total balance of bicycles and riders.

THE RIGHT POWER, AT THE RIGHT TIME

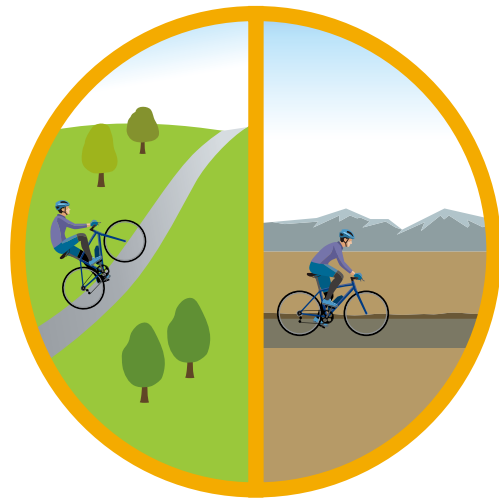
1. RIDE LONGER & RIDE SMOOTHER



RIDE LONGER

Enjoy longer and more enjoyable rides whether you take the scenic way home, venture farther, or tackle mountain trails.

Automatically-applied assist output characteristics (Powerful and Natural) make the most of every pedal stroke and battery charge. Greater system efficiency means more riding range on fewer charges, and longer overall battery life.



RIDE SMOOTHER

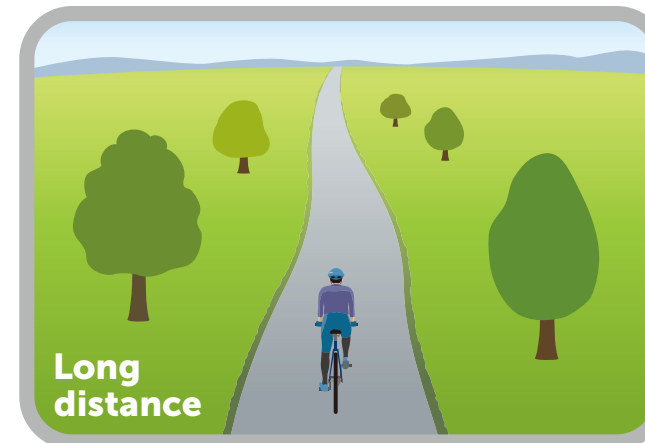
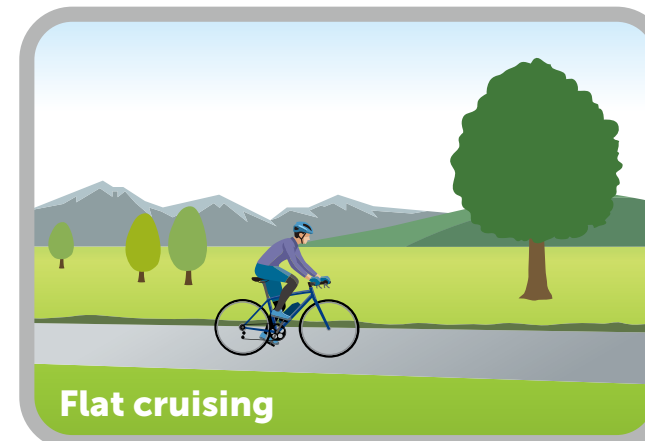
The optimal amount of support provided at the right time reduces harsh and unnatural surges of power, keeps pedaling smooth, and supports a more natural cycling experience in any environment. Real-time riding data from the torque, cadence, and speed sensors are analyzed to detect the optimal assist for every moment.

SHIMANO STEPS relies on the combination of its sensors, drive unit tuning and efficient pedaling mechanics to deliver a riding experience that is both highly sophisticated and intuitive at the same time.

2. COMFORTABLE IN ANY SITUATION

With dedicated systems for City, Trekking and MTB riding, we help keep you in control while providing optimal assist when you need it most. By receiving the right power at the right time, you can dedicate more focus to enjoying the cycling experience.

No matter if you are riding short or long distances, on flat or hilly routes, in windy or calm conditions, with no gear or cargo packed to the max; our E-bike systems will give you a boost when you need it, while keeping you comfortably in control.



3. MORE NATURAL BIKE CONTROL

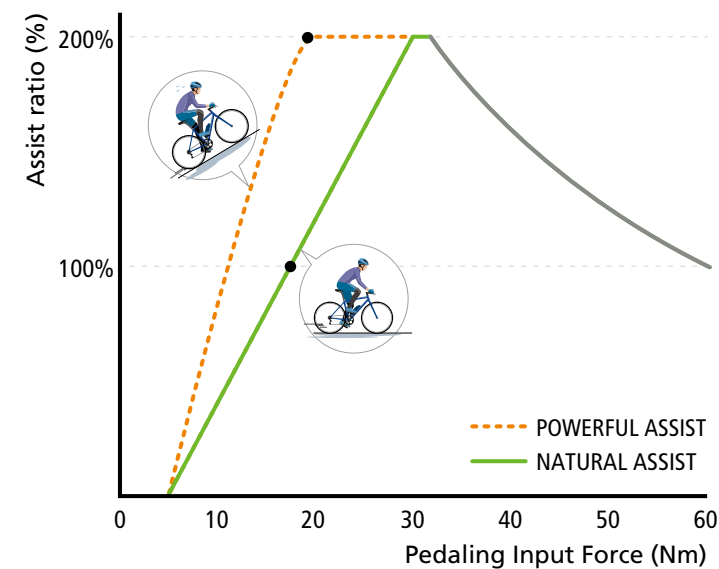
INPUT & OUTPUT POWER TOTAL MANAGEMENT

◆ THE OPTIMAL SETTING OF ASSIST OUTPUT CHARACTERISTICS FOR EVERY SITUATION.

Our E-bike system is so intuitive and efficient, you'll hardly realize that you're riding an E-bike.

The integrated sensors monitor your pedaling input, cadence, and speed to automatically set either a POWERFUL or NATURAL assist for the optimal level of support.

E6100 HIGH Mode



Whether you're zipping around city corners, crossing steep bridges, or coasting through the suburbs, our high-end E-bike system will be with you every step of the way. Not only will it transform your ride, it will also transform your life.

Powerful assist gives riders more powerful support when starting out, climbing hills, or facing strong headwinds.

Natural assist is utilised while comfortably cruising to preserve the natural feeling of riding a bike and extend range.

In addition to detecting and analysing pedaling force, our system also detects and calculates rider cadence to optimally set the assist power characteristic that best matches the current riding conditions.

Data from the cadence sensor allows dynamic and real-time setting of the right output characteristic at every moment, which increases battery usage efficiency and riding range between charges.

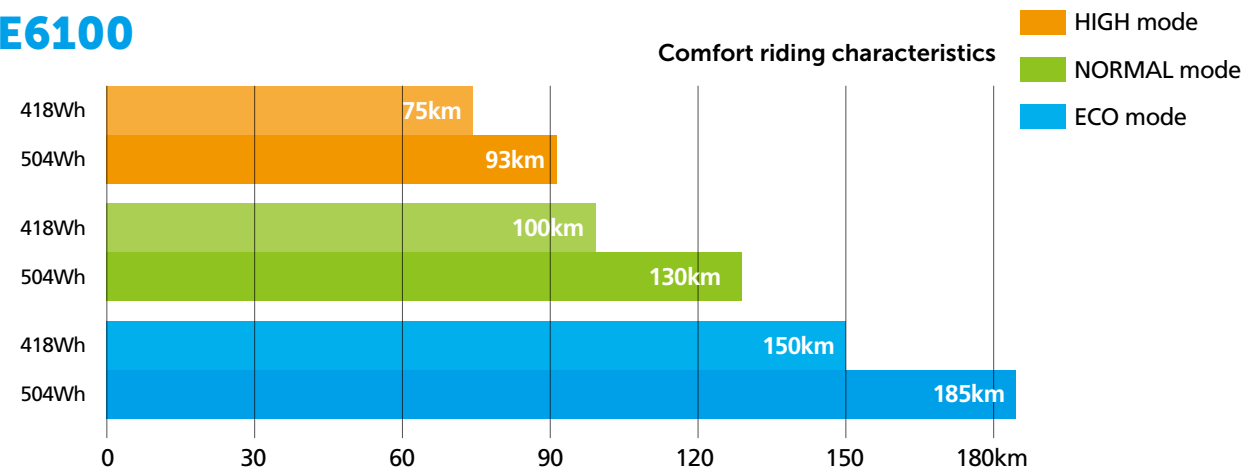
◆ PEDALING INPUT AND MOTOR OUTPUT MATCHED FOR MAXIMUM EFFICIENCY.

SHIMANO ORIGINAL E-BIKE TECHNOLOGY

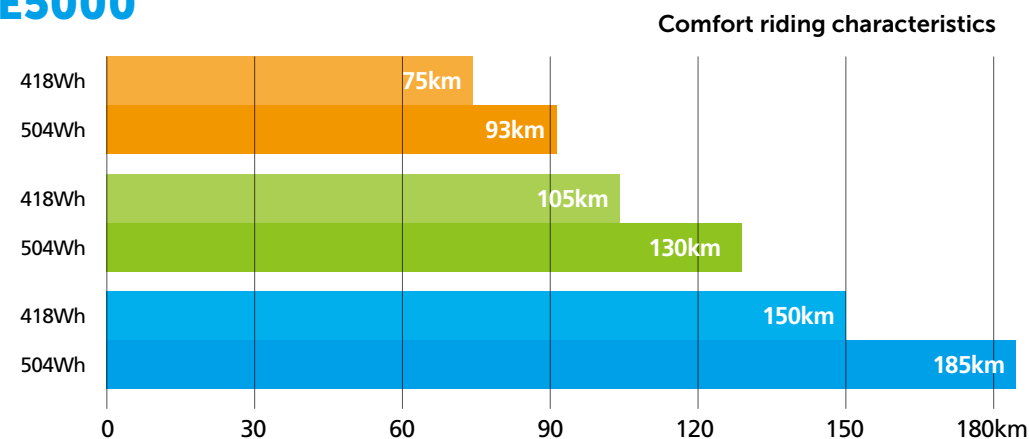
20% LONGER RIDING DISTANCE

Optimal setting of the assist output characteristic adds up to 20% more range per charge. (compared with E6002)

E6100



E5000



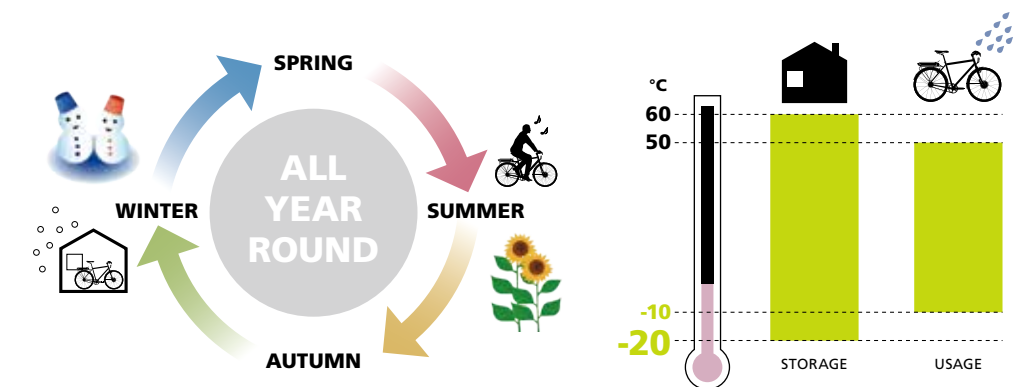
TEST CONDITIONS: (Shimano original riding pattern)

Flat paved road, riding speed: 23 km/h, stop/go 2 times/770m, optimal gear shifting cadence 60 rpm, rider weight: 80 kg, trekking bike tire 38C, outside temperature: 15 degree - 25 degree, without electronic shifting, without lights.

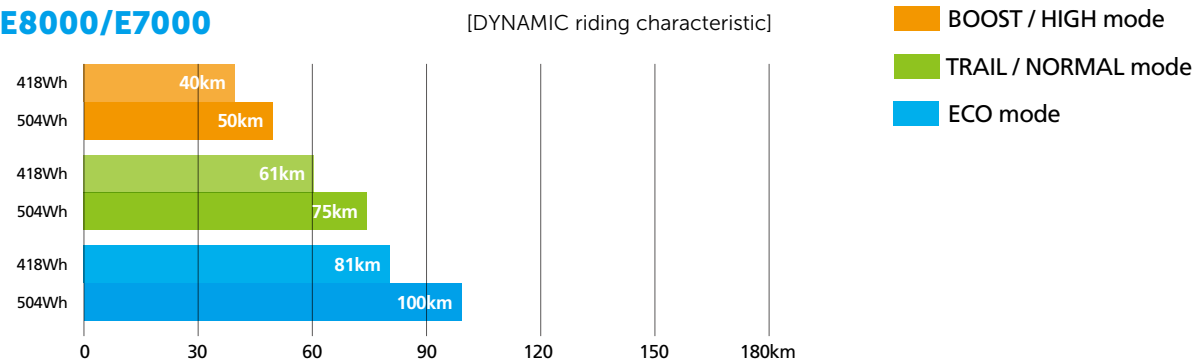
LONG BATTERY LIFE

BATTERY SYSTEM

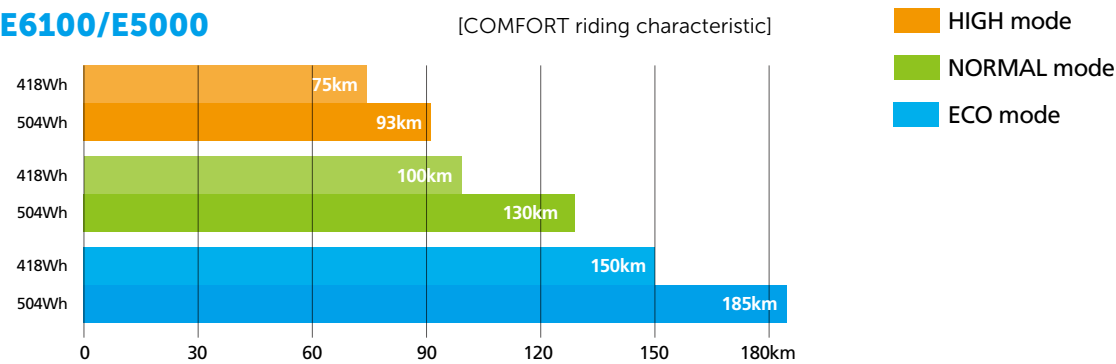
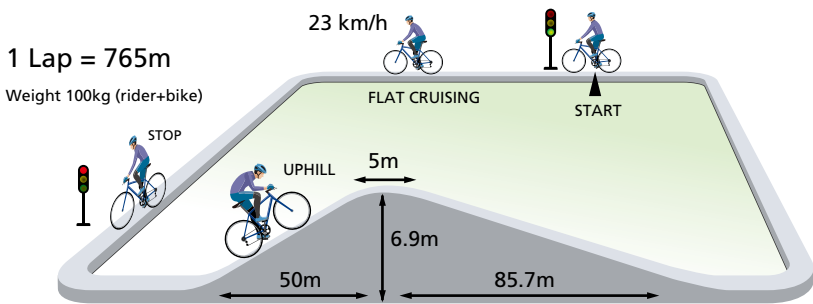
To supply year-round enjoyment under any conditions, the Shimano battery system features long-life operation at a wide range of temperatures.



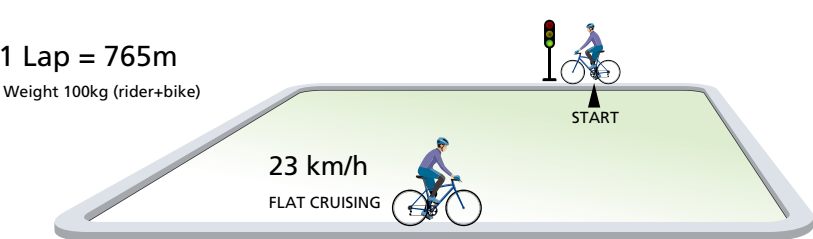
RIDING DISTANCE



Test conditions



Test conditions



E8000 / E7000 / E6100 / E5000 Series

DEALER'S
MANUAL

IMPORTANT NOTICE

This booklet is an excerpt from the user's manual and dealer's manual.

For the latest version of each manual, visit our website at:
<https://si.shimano.com>

This booklet shows the steps for assembly. For disassembly, perform these steps in reverse order.

LIST OF TOOLS

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

Component	Location used / bolt type	Tool	
Electric wire	Plug		TL-EW02
Cycle computer (handlebar-mounted)	Clamp bolt		3 mm hexagon wrench
Cycle computer (stem-mounted)	Clamp bolt Mounting bolt Angle adjustment bolt		Screwdriver [#2]
Switch unit	Clamp bolt Lever fixing bolt		3 mm hexagon wrench
Battery mount (BM-E8020)	Mount lower case Key unit		5 mm hexagon wrench
	Mount upper case Key unit cover		Screwdriver [#2]
	Key cylinder		2 mm hexagon wrench
	Key unit (determine the installation location)		TL-BME03
Battery mount (BM-E8010)	Mount lower case		3 mm hexagon wrench
			8 mm spanner
	Key unit		3 mm hexagon wrench
	Key unit cover Mount upper case		2.5 mm hexagon wrench
	Key unit		TL-BME02
Battery mount (BM-E6010)	Mount lower case Key unit		3 mm hexagon wrench
	Key unit cover Mount upper case		

INSTALLING THE DRIVE UNIT AND PERIPHERAL PARTS

Use the following procedure to install the drive unit and peripheral parts.

- (1) Installing the drive unit
- (2) Wiring to the drive unit
- (3) Installing the drive unit cover
- (4) Install the chainrings and crank arms

TECH TIPS

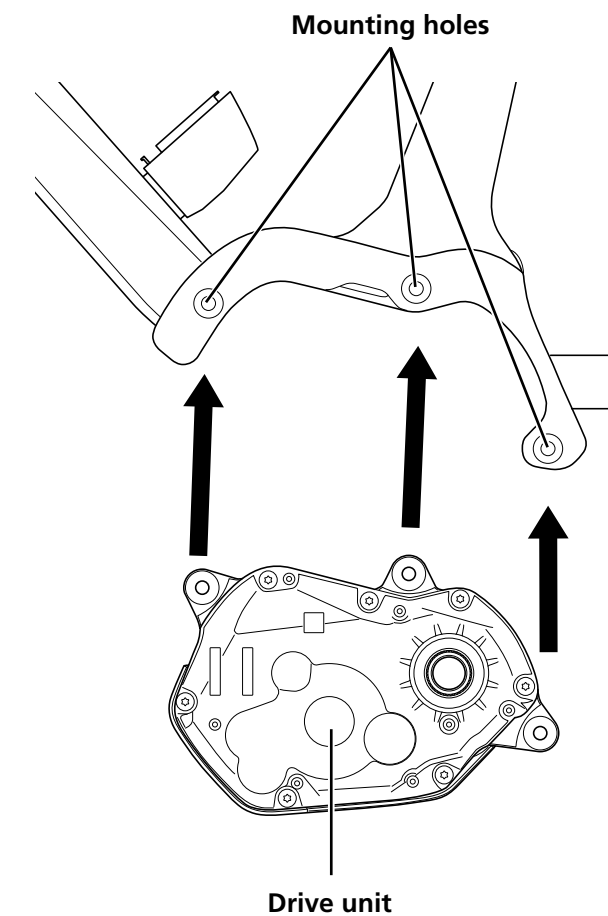
- To check the wiring of the drive unit on a completed bicycle, you will need to first remove the drive unit cover.
- DU-E8000 / DU-E5000: Remove the left cover to access the power cord and terminal block.
- DU-E7000 / DU-E6100: Remove the right cover (front side) to access the power cord and terminal block.
- To remove the drive unit, follow the procedure above in reverse.

Installing the Drive Unit

Before installing the drive unit to the frame, first check that all electric wires and cables to connect to the drive unit have been routed to the installation area of the drive unit of the frame.

- 1. Check the three mounting holes on the left and right of the frame, and then secure the drive unit.**

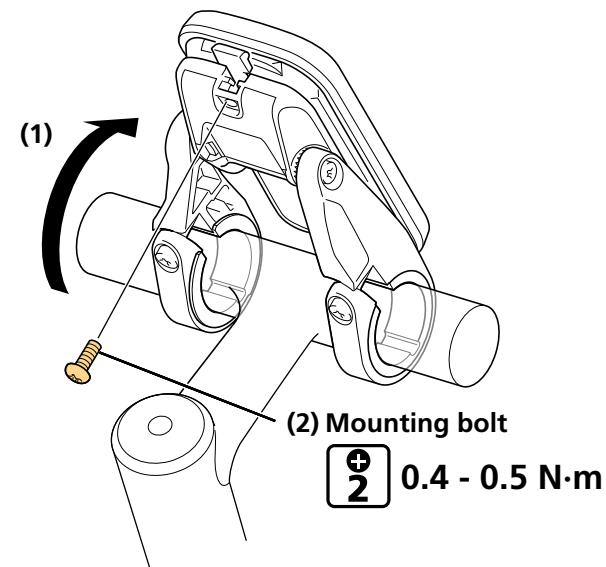
Be careful not to pinch electric wires or cables between the frame and drive unit, or to forcefully bend them.



5. Secure the cycle computer if necessary. (SC-E6100 only)

If the cycle computer will not be secured to the bracket, this step is not necessary.

- (1) Stand the cycle computer and bracket up on the stem (as though you are turning the cycle computer around).
- (2) Tighten the mounting bolt.

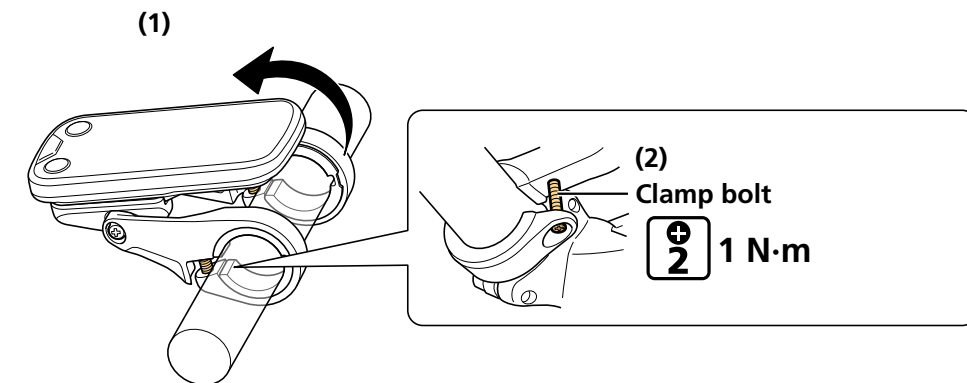


TECH TIPS

- This procedure is used to secure the cycle computer to the bracket, so that it cannot be easily removed. This is useful for displaying the product.
- Ask the user if they will secure the cycle computer when the product is delivered. If necessary, explain how to do as (as described above).

6. Secure the bracket to the handlebar.

- (1) Return the cycle computer to its installation position (the cycle computer was stood up on the stem in step 5).
- (2) Secure the bracket.



BM-E8010

The SHIMANO original tool can be used to easily determine the installation location of the key unit.

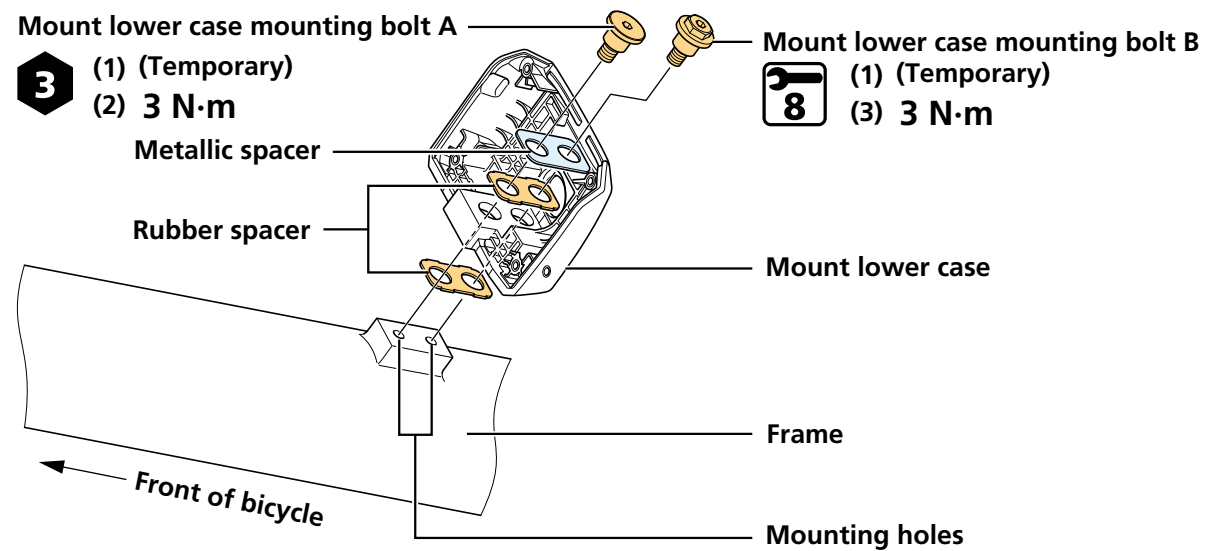
1. Install the mount lower case.

- (1) Set the mount lower case on the lower side of the down tube, and then temporarily install the mounting bolts.

* Temporarily install the two types of bolts as shown in the figure.

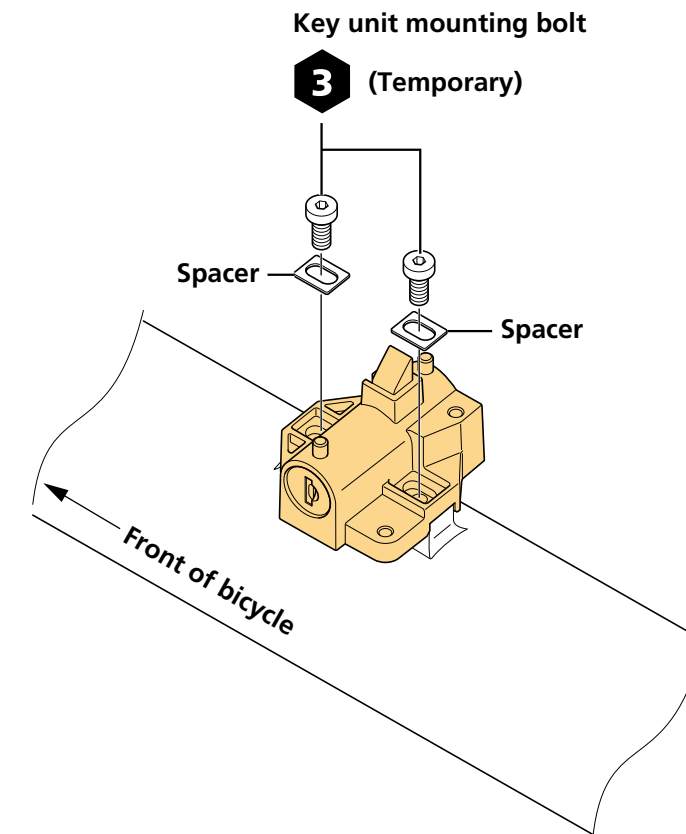
- (2) Tighten mount lower case mounting bolt A.

- (3) Tighten mount lower case mounting bolt B.



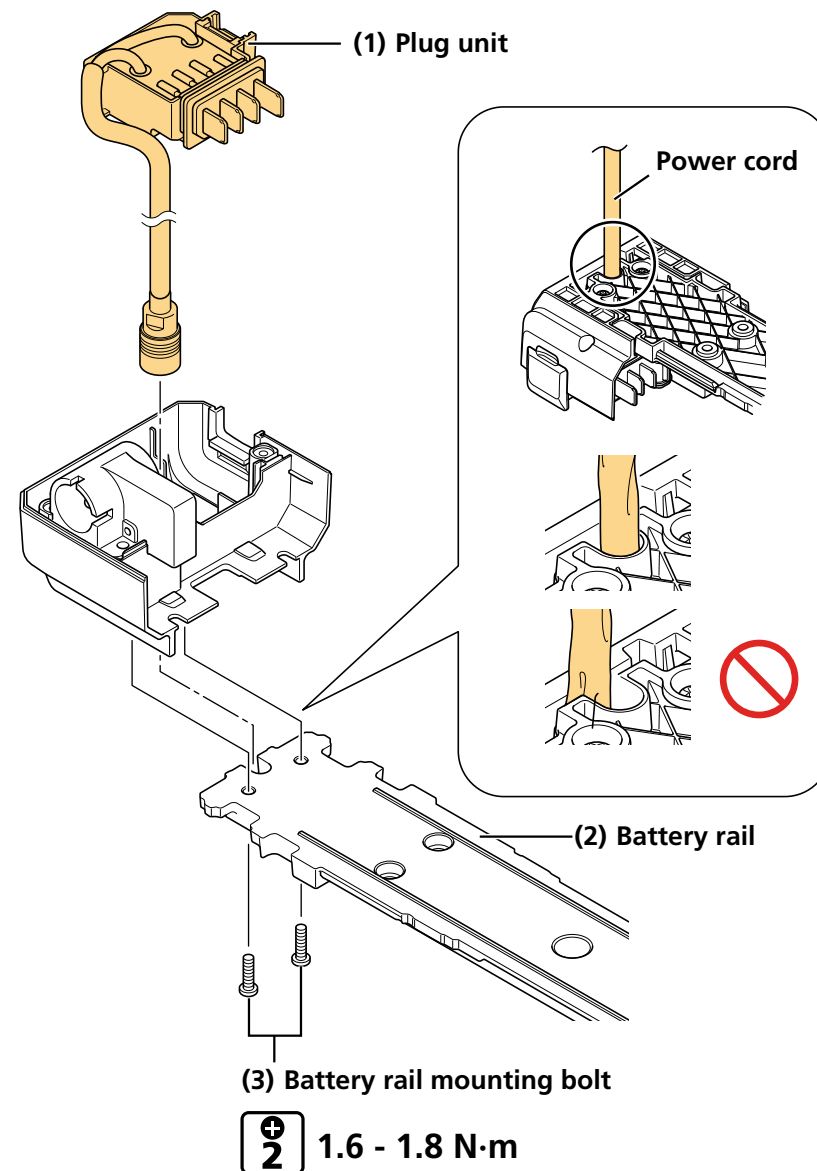
2. Temporarily install the key unit.

Key units are not included with SHIMANO products.



2. Set the plug unit to the mount lower case, and install it to the battery rail.

- (1) Set the plug unit to the mount lower case.
- (2) Set the battery rail to the mount lower case. Be careful not to pinch the power cord between the mount lower case and battery rail.
- (3) Secure the battery rail.



3. Install the mount upper case.

