

User's Manual

Rear Derailleur (Di2)



Contents

IMPORTANT NOTICE	3
Important safety information	4
Notice	6
Regular inspections before riding the bicycle	8
Names of parts	9
Installing / removing the battery (RD-M9250 / RD-M8250 / RD-M6250 / RD-RX827 / RD-RX717)	10
Before installing/removing the battery	10
Removal procedures	11
Installation procedures	12
Charging the Di2 battery	13
Switching modes	14
Switching operation modes	14
Low power consumption mode (RD-M9250 / RD-M8250 / RD-M6250 / RD-RX827 / RD-RX717)	16
E-BIKE mode setting (RD-M9250 / RD-M8250 / RD-M6250 / RD-RX827 / RD-RX717).....	17
Wireless connection	18
Pairing with a Di2 shift switch.....	18
Cycle computer connection	19
Connecting with a smartphone	20
Downloading the application	21
Specifications	22
Troubleshooting	23

IMPORTANT NOTICE

- Contact the place of purchase or a distributor for information on installation, adjustment, and replacement of the products which are not found in the user's manual. A dealer's manual for professional bicycle mechanics is available on our website (<https://si.shimano.com>).
- Do not disassemble or modify the product.
- 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.
- ANT[®] and ANT+[®] are trademarks or registered trademarks of ANT Wireless.

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

Important safety information

	Consult your place of purchase or a distributor regarding items requiring replacement.
	Be sure to observe the following instructions in order to avoid burns or other injury from fluid leakage, overheating, fire, or explosion.

DANGER

-  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 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, leakages, overheating or bursting may cause fire, burns or other injury to occur.
-  Do not deform, modify, disassemble, or apply solder directly to the battery. If this is not observed, leakages, overheating or bursting 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.

WARNING

- 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.
- Do not place this product in water or sea water, and do not allow the terminals to get wet. If this is not observed, fire, bursting, ignition, or overheating may occur.
- Do not throw or subject this product to strong shocks. 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.
- Clean the chain and QUICK-LINK with an appropriate chain cleaner regularly. Intervals between maintenance depend on the use and riding circumstances. Never use alkali- or acid-based detergents such as rust cleaners. If those solvents are used the chain or QUICK-LINK might break and cause serious injury.
- Check the chain for any damage (deformation or cracking), skipping, or other abnormalities such as unintended shifting. If any problems are found, consult your place of purchase or a distributor. The chain may break, and you may fall.
- Use only the batteries specified. Using an incorrect battery may cause the battery to burst or leak fluid, resulting in fire, injury, or defacement in the surrounding area.

CAUTION

- Store in a safe place out of the reach of small children to avoid letting them swallow by mistake.

Important safety information

- Do not let grease adhere to the metal terminals. A conduction failure may result.
- Do not perform maintenance with the PC connected using an electric wire.

Notice

- If shifting operations do not feel smooth, consult the place of purchase for assistance.
- If the chain keeps skipping during use, replace the gears and chain at the place of purchase.
- If there is a large amount of excess play in the pulleys and extra noise is generated while riding, replace the pulleys at your place of purchase.
- If you stop rotating the pedal while traveling at high speed, a sound may be emitted between the chain and cassette.
- The electric wire has small waterproof connectors, so do not repeatedly connect and disconnect it too often. Doing so may impair the waterproofing.
- The components are designed to be fully waterproofed to withstand wet weather riding conditions; however, do not deliberately place them into water.
- The gears should be periodically washed with a neutral detergent then lubricated. In addition, cleaning the chain and QUICK-LINK with a neutral detergent and lubricating them can be an effective way of extending the life of the chain and QUICK-LINK.
- Do not use the thinners or harsh solvents to clean the products. Such solvents may damage the surface.
- Do not clean the bicycle with a high-pressure wash. If water gets into any of the components, operating problems or rusting may result.
- Wash the bicycle with the battery installed. If you wash the bicycle with the battery removed, water or dirt may adhere to the terminals, which can cause malfunction.
- Contact the place of purchase for updates of the component firmware. The most up-to-date information is available on the SHIMANO website.
- Be careful not to get water into the terminals of the battery case and E-TUBE port.
- Handle the components carefully, and avoid subjecting them to strong shock.
- Disconnect the connection between E-TUBE PROJECT Cyclist and the rear derailleur when not using E-TUBE PROJECT Cyclist. The rear derailleur does not shift when connected to E-TUBE PROJECT Cyclist.

• 2.4 GHz digital wireless

This product adopts digital communication technologies in the 2.4 GHz frequency, which are used for wireless LAN, etc. It may receive interference in the following locations or environments that prevent wireless communication from being performed correctly:

- Near a device such as a television, computer, radio, or motor, or inside an automobile or railway car
 - Near a railway crossing or railway track, television transmitting station, or radar base, etc.
 - When using the device in combination with another cordless device or some lights
- When not using Bluetooth[®] LE or the ANT[®] function, wireless communication function can be disabled. For the setting procedure, refer to the user's manual for E-TUBE PROJECT Cyclist.

E-TUBE PROJECT Cyclist:



https://si.shimano.com/um/7J4MA/other_settings#task_ynb_fww_1mb

- If the ambient temperature is low, the battery's usable time will be shorter.

- Store this product or the bicycle with this product installed in a cool indoor location away from direct sunlight and rain. If the storage temperature is too low or too high, the performance of the battery is reduced, and its usable time will be shorter. When you use the battery after a long storage period, make sure to charge it first.
- 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 and its traveling distance become extremely short, contact the 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.
- Open source software

The open source software used in this product is available at the following URL:



<https://si.shimano.com/compliance/oss>

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



This symbol on your product, literature, or packaging reminds you that this product must be taken to separate collection at the end of its working life. Do not dispose of this product as unsorted municipal waste but instead take it for recycling. By ensuring the product is disposed correctly, you will help to prevent potential negative consequences for the environment and human health. For info on your nearest recycling point, check with your local waste authority.



Disposal information for countries outside the European Union

This symbol is only valid within the European Union. Follow local regulations when disposing of used batteries. If you are not sure, consult the place of purchase or a distributor.

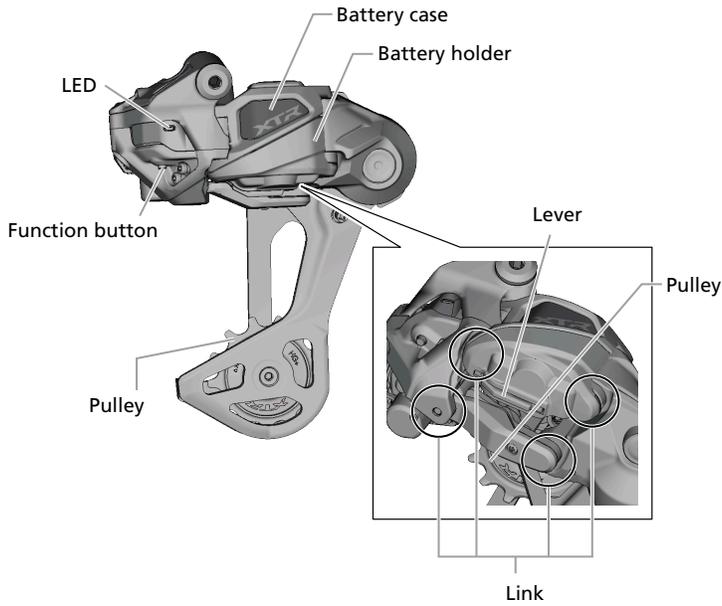
Regular inspections before riding the bicycle

Before riding the bicycle, check the following items. If any problems are found, consult your place of purchase or a distributor.

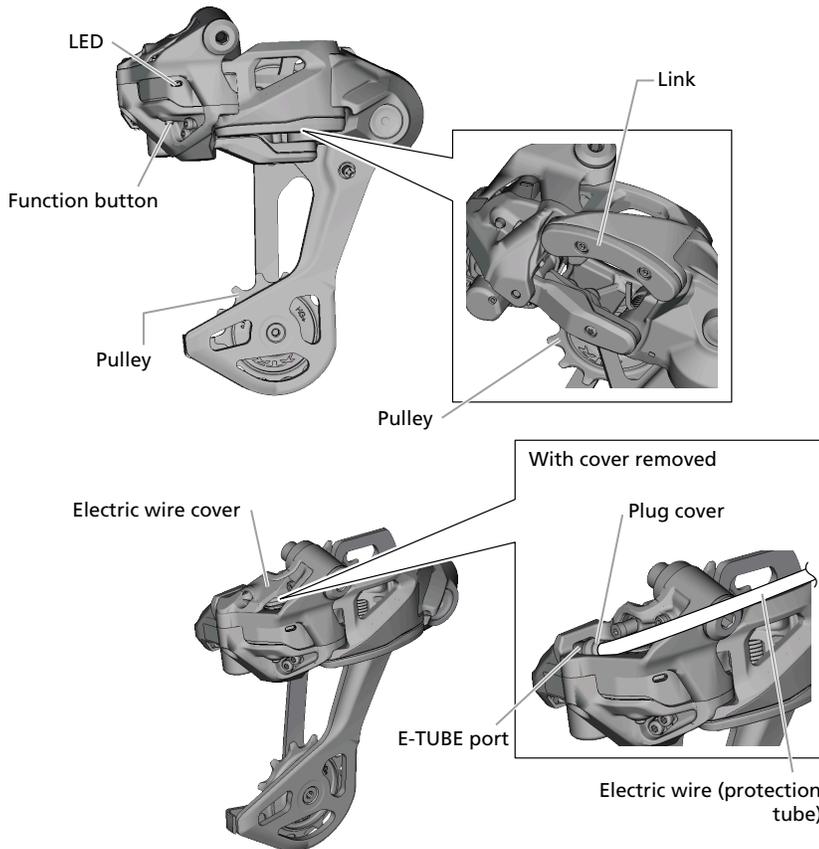
- Are the fastening sections fixed securely?
- Is there sufficient charge remaining in the battery?
- Is there any noticeable damage to the electric wires?
- Is shifting carried out smoothly?
- Has excess play increased in the links?
- Has excess play increased in the pulleys?
- Are there any abnormal noises coming from the derailleur?
- Has the chain become elongated?
- Is there any noticeable damage on the chain?

Names of parts

RD-M9250 / RD-M8250 / RD-M6250 / RD-RX827 / RD-RX717



RD-M9260 / RD-M8260 / RD-M6260



* Fully understand the precautions for use before using the product.

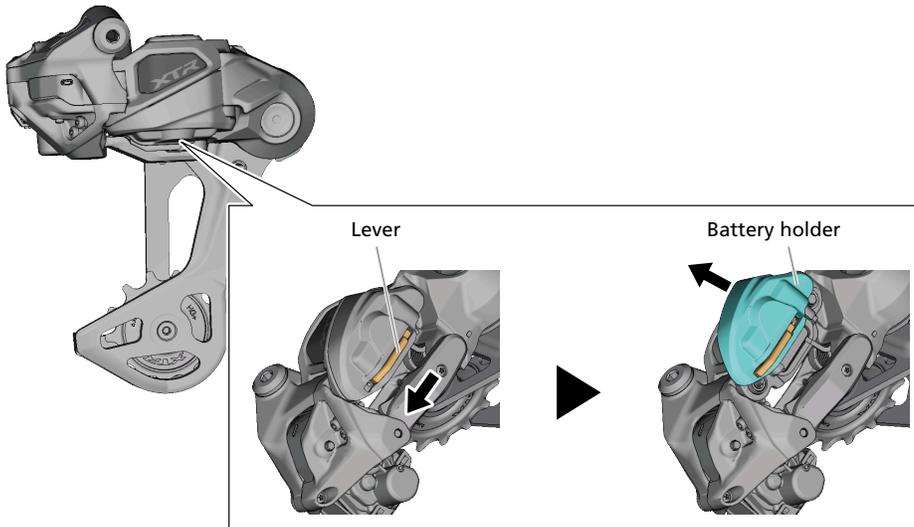
Installing / removing the battery (RD-M9250 / RD-M8250 / RD-M6250 / RD-RX827 / RD-RX717)

Before installing/removing the battery

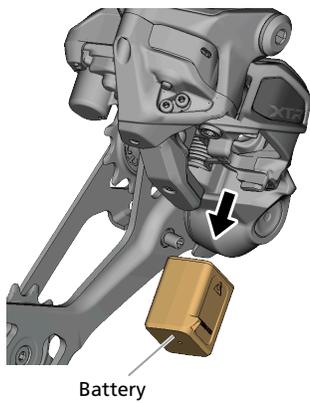
- When installing/removing the battery, move to an area well away from sources of water (such as rivers, lakes, the ocean, or ditches).
- Do not perform this task in locations with a lot of water or mud, such as outdoors during rain or car washing facilities. If not observed, problems with operation may occur.
- Do not perform this task in areas with a lot of sand or dust in the air. If not observed, problems with operation may occur.
- Before connecting the battery, make sure that the area where the battery will be connected (terminal) is dry and not dirty.
- If there is any dirt or sand on the battery terminals, gently wipe it away with a soft, dry cloth.
- When performing this task with your hands, clean your hands and remove all water and dirt before performing this task.
- Static electricity can damage electronic components. Discharge static electricity from your body before performing this task.

Removal procedures

1. Pull the lever in the direction of the arrow, then slide the battery holder out to remove it.

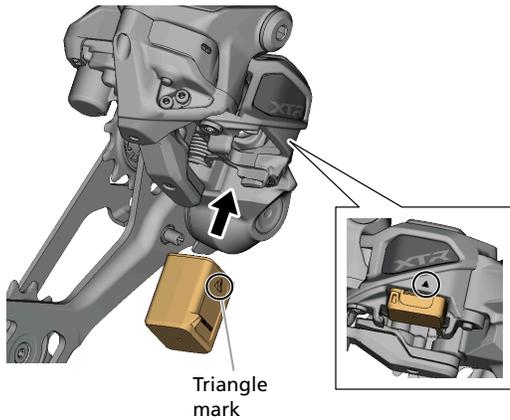


2. Remove the battery from the rear derailleur.



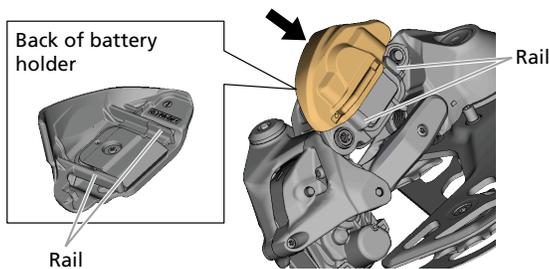
Installation procedures

1. Install the battery to the rear derailleur, with the triangle mark of the battery facing outward, as indicated in the figure.



2. Install the battery holder.

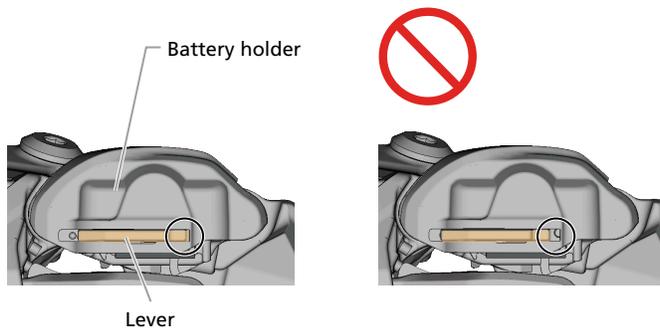
Align the rails of the battery holder and rear derailleur, and slide the battery holder in. Then, push it in firmly until you feel a click.



3. Check that the rear derailleur operates normally.

NOTICE

- After installing the battery holder, check that the lever is in the lock position.



Charging the Di2 battery

For information on charging the battery, refer to the user's manual for the [battery charger](#).

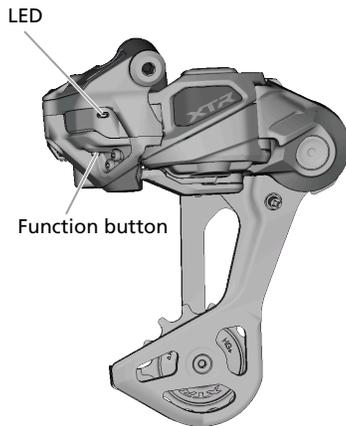
Switching modes

Switching operation modes

The LED indication differs depending on the rear derailleur model and E-BIKE system connected.
For the setting procedure for each function, contact your place of purchase or a distributor.

System mode	Rear Derailleur	Battery / E-BIKE system
Di2	RD-M9250 / RD-M8250 / RD-M6250 / RD- RX827 / RD-RX717	BT-DN320
SHIMANO E-BIKE SYSTEMS	RD-M9260 / RD-M8260 / RD-M6260	SHIMANO E-BIKE SYSTEMS drive unit
Non-SHIMANO E-BIKE		Non-SHIMANO E-BIKE system drive unit

Location of LED



Di2

Action	Function button operation	Current mode	LED	
Checking the battery level *	Single-click	Normal mode	●	Solid green: 51 - 100%
			☀	Flashing green: 26 - 50%
			●	Solid red: 1 - 25%
			○	Off: 0%
Bluetooth® LE connection mode	Press and hold (for 0.5 to 1.9 seconds)	Adjustment mode	☀	Flashing blue
Switching to adjustment mode	Press and hold (for 2 seconds or longer)		●	Solid yellow
Switching to normal mode	Press and hold (for 0.5 seconds or longer)	Adjustment mode	○	Off

* The battery level is also displayed when the battery is installed.

When the battery is completely drained, the derailleurs are fixed at the last gear position.

When the LED lights solid red, it is recommended to charge the battery as soon as possible because the battery level is low.

SHIMANO E-BIKE SYSTEMS

Action	Function button operation	Current mode	LED	
Switching to adjustment mode	Press and hold (for 2 to 4 seconds)	Normal mode		Solid yellow
Switching to AUTO SHIFT	Double-click			Flashing green [AUTO 1]: Once [AUTO 2]: Twice
Switching to normal mode	Press and hold (for 0.5 seconds or longer)	Adjustment mode		Off

Non-SHIMANO E-BIKE (EW-EX310 is not mounted)

Action	Function button operation	Current mode	LED	
Bluetooth [®] LE connection mode	Press and hold (for 0.5 to 1.9 seconds)	Normal mode		Flashing blue
Switching to adjustment mode	Press and hold (for 2 to 4 seconds)			Solid yellow
Switching to the mode for canceling pairing with a non-SHIMANO E-BIKE system	Press and hold (for 8 seconds or longer)			Alternates between flashing red and flashing green: In progress
				Flashing green: Deletion successful
			Flashing red: Deletion unsuccessful	
Switching to normal mode	Press and hold (for 0.5 seconds or longer)	Adjustment mode		Off

Non-SHIMANO E-BIKE (EW-EX310 is mounted)

Action	Function button operation	Current mode	LED	
Bluetooth [®] LE connection mode	Press and hold (for 0.5 to 1.9 seconds)	Normal mode		Flashing blue
Switching to adjustment mode	Press and hold (for 2 to 4 seconds)			Solid yellow
Switching to normal mode	Press and hold (for 0.5 seconds or longer)	Adjustment mode		Off

Low power consumption mode (RD-M9250 / RD-M8250 / RD-M6250 / RD-RX827 / RD-RX717)

If a certain amount of time elapses since the last time that shifting was performed, the rear derailleur switches to the low power consumption mode and will not accept shifting operations.

To perform shifting again, operate the shift switch while rotating the crank.

The rear derailleur will move slightly and shifting will be active again.

E-BIKE mode setting (RD-M9250 / RD-M8250 / RD-M6250 / RD-RX827 / RD-RX717)

Configure this setting when using the E-TUBE PROJECT and E-BIKE system together. In this mode, the shift timing adjustment optimized for E-BIKE prevents excessive load from being placed on the drivetrain.

This setting is enabled by default, so disable it when using a bicycle other than an E-BIKE. For details on the setting procedures, refer to the [user's manual for E-TUBE PROJECT Cyclist](#).

Wireless connection

Pairing with a Di2 shift switch

This product can use an original wireless standard to wirelessly communicate with a compatible shift switch. For details on pairing, refer to the [dealer's manual for the rear derailleur](#) or the [user's manual for E-TUBE PROJECT Cyclist](#), or contact the place of purchase for information about pairing.

Cycle computer connection

This product transmits the following information wirelessly to cycle computers or receivers that support ANT[®] or Bluetooth[®] LE connections:

- (1) Gear position (rear)
- (2) Di2 battery level *
- (3) Shift switch battery level
- (4) Adjustment mode

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

* Non-SHIMANO E-BIKE systems are not supported.

You can check the latest functions by using E-TUBE PROJECT to update the firmware. Please contact your place of purchase for details.

When using the rear derailleur with a non-SHIMANO E-BIKE system where EW-EX310 is not mounted, the rear derailleur cannot be connected with a cycle computer.

For details, refer to the manual for the E-BIKE system you are using.

To connect, 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. Put the cycle computer into connection mode.**
- 2. Perform shifting operations.**
- 3. Follow the instructions on the cycle computer screen to select the target to connect to.**
- 4. Connection is complete.**

Check with your cycle computer if connection has been successful. If connection cannot be performed in the way described above, refer to the manual for your cycle computer.

Connecting with a smartphone

E-TUBE PROJECT Cyclist may be used if a Bluetooth[®] LE connection is established with a smartphone. Before setting up a connection, turn on Bluetooth[®] LE on the smartphone.

- (1) Start E-TUBE PROJECT Cyclist and set it to listen for Bluetooth[®] LE signals.
- (2) Press the function button until the LED flashes blue. The bicycle side is ready to connect. The unit name is displayed on the E-TUBE PROJECT Cyclist screen.
- (3) Select the unit name displayed on screen.
 - * When disconnecting, cancel the Bluetooth[®] LE connection from the smartphone. (The bicycle will switch from the connection mode to the normal operation mode.)

Downloading the application

E-TUBE PROJECT Cyclist must be installed to a smartphone in order to update the firmware and perform customization.

Download E-TUBE PROJECT Cyclist from our support website (<https://bike.shimano.com/e-tube/project.html>).

For information on how to install E-TUBE PROJECT Cyclist, check the support website.

For information on how to operate the application on the smartphone, refer to the [user's manual for E-TUBE PROJECT Cyclist](#) or contact the place of purchase.

Specifications

Operating temperature	-10°C - 50°C	Wireless specifications	ANT [®] / Bluetooth [®] LE
Frequency band	2.4 GHz		
Maximum radio-frequency power	< 10 dBm	Firmware version	4.0.0 or later

Troubleshooting

Check the following information if you have a problem with the product. If the problem is not covered below or cannot be solved with the indicated method, contact the place of purchase or a distributor.

Shifting

Details	Causes / possibilities	Remedies
Shifting is not performed.	A non-SHIMANO E-BIKE system such as a BOSCH system connected via Bluetooth [®] LE may have become disconnected.	Check whether the gear position is displayed on the cycle computer of the non-SHIMANO E-BIKE system such as the BOSCH system. If the gear position is not displayed, restart the E-BIKE system you are using. If shifting is still not performed after restarting, pairing may not have been performed correctly. Use the tool of the E-BIKE system you are using to perform pairing. For details, refer to SHIMANO Di2 System and BOSCH "The smart system" Pairing Guide . If shifting is still not performed, contact the place of purchase.
	Has the shift switch been paired?	Pair the shift switch.
	Is there sufficient charge remaining in the battery?	Charge the battery and check again.
	Shifting is not performed when the switch is next operated if a certain amount of time has elapsed since the last time shifting was performed. (RD-M9250 / RD-M8250 / RD-M6250 / RD-RX827 / RD-RX717)	Operate the shift switch again while rotating the crank. The rear derailleur will operate slightly and shifting will become possible again.
	Is there sufficient charge remaining in the battery of the shift switch?	Check the battery level of the shift switch, and replace the battery if insufficient charge remains.
	The firmware may be temporarily unable to operate.	Remove the battery, and install it again.
The shifting interval is too long.	Is there sufficient charge remaining in the battery?	Charge the battery and check again. ⇒ " Charging the Di2 battery "
	Is the E-BIKE mode enabled?	Disable it when using a bicycle other than an E-BIKE. The setting can be changed in E-TUBE PROJECT Cyclist. For details, check the user's manual for E-TUBE PROJECT Cyclist .

Others

Details	Causes / possibilities	Remedies
The LED flashes red while performing shifting.	The Di2 battery level may be too low to perform shifting.	Charge the Di2 battery and check again. If the problem is not resolved, contact the place of purchase.

SHIMANO



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