

User's Manual

Rear Derailleur (Di2)



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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 and experienced bicycle mechanics is available on our website (<https://si.shimano.com>).
- 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, follow it for correct use, and store it so that it can be referenced at any time.

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.

Important safety information

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.
- **Never use alkali- or acid-based solvents such as rust cleaners. If those solvents are used the chain might break and cause serious injury.**
- **Clean the chain with an appropriate chain cleaner regularly. Intervals between maintenance depend on the use and riding circumstances.**
- Check the chain for any damage (deformation or cracking), skipping, or other abnormalities such as unintended gear shifting. If any problems are found, consult your place of purchase or a distributor. The chain may break, and you may fall.

Notice

- 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 wash. If water gets into any of the components, operating problems or rusting 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. When cleaning the products, use a cloth moistened with a neutral detergent diluted with water.
- If gear shifting operations do not feel smooth, wash the shifting unit and lubricate all moving parts.
- If the chain keeps skipping during use, replace the gears and chain at the place of purchase.
- If you hear abnormal noise as a result of excess play in a pulley while riding, you should replace the pulley at the place of purchase.
- The gears should be periodically washed with a neutral detergent. In addition, cleaning the chain with neutral detergent and lubricating it can be an effective way of extending the life of the gears and the chain.
- 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.

FCC

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

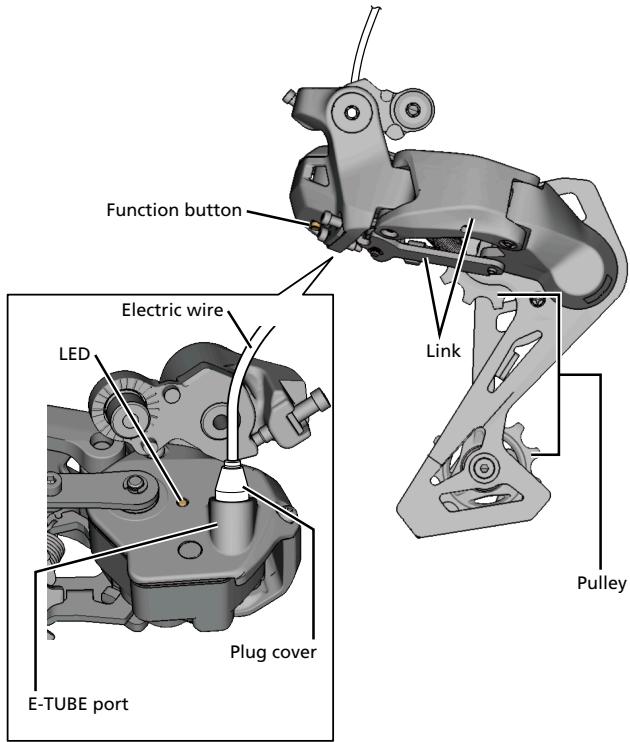
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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.

- Is gear 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?
- Is the plug cover installed in the correct position?
- Is there any noticeable damage to the electric wires?

Names of parts



How to operate

Switching operation modes

When connected to a drive unit

Mode	Function button operation	Action	LED	
Normal mode	Double-click	Switching to automatic gear shifting		Flashing green [Auto 1]: Once [Auto 2]: Twice
	Press and hold (for two to four seconds)	Switching to adjustment mode		Yellow
Adjustment mode	Press and hold (for 0.5 seconds)	Switching to normal mode		Off

When connected to a compatible freehub

Mode	Function button operation	Action		LED	
Normal mode	Single-click	Displaying the capacitor capacity	Able to shift gears		Green
			Unable to shift gears		Red
	Double-click	Switching to automatic gear shifting	[Auto 1]		Green
			[Auto 2]		Flashing green (twice)
			[Auto 3]		Flashing green (3 times)
	Press and hold (for two to four seconds)	Switching to adjustment mode			Yellow
	Press and hold (for five to seven seconds)	Switching to calibration mode			Alternates between yellow and green
Adjustment mode	Press and hold (for 0.5 seconds)	Switching to normal mode			Off
Calibration mode	Press and hold (for 0.5 seconds)	Switching to normal mode			Off
	-	Calibration results	Successful		Flashing green (5 times)
			Unsuccessful		

Switching to automatic gear shifting

The automatic gear shifting settings can be switched by double-clicking the function button.

When connected to a compatible freehub

Select [Auto 1], [Auto 2], or [Auto 3], which are set in advance.

* Refer to the [user's manual of the corresponding freehub](#) for details on the gear shifting features of [Auto 1], [Auto 2], and [Auto 3].

When connected to a drive unit

You can customize settings such as the gear shifting features, etc. of automatic gear shifting in E-TUBE PROJECT Cyclist and register them as [Auto 1] and [Auto 2].

* Automatic gear shifting does not switch from [Auto 1] to [Auto 2] when [Auto 2] is disabled in the E-TUBE PROJECT settings. For details on the function, refer to the [user's manual for E-TUBE PROJECT](#).

Calibrating the installation angle of a compatible freehub

Calibrate the installation angle of a compatible freehub in the following cases:

- When the wheel has been removed and reinstalled
- When gear shifting behaves strangely on a slope
- When the tightening of the E-THRU lever is loose and gear shifting feels strange

1. Place the bicycle on a flat surface.

2. Rotate the wheel to light the LED.

When the LED lights, stop rotating the wheel.

3. Secure the bicycle in a position perpendicular to the ground.

4. Press and hold the function button for five seconds or longer to switch to the calibration mode.

When the function button is pressed and held, the LED lights yellow for two to five seconds. If the button remains pressed and held, the LED will start alternating between green and yellow, and calibration will start. Release the function button.

5. Check the calibration results.

Calibration is complete when the LED flashes green or red five times.

LED	Results
	Flashing green (5 times) Calibration was successful
	Flashing red (5 times) Calibration was unsuccessful

If the calibration was unsuccessful, place the bicycle on a flat surface, confirm that it is perpendicular to the ground, then perform calibration again with the bicycle stopped. If the calibration was still unsuccessful, refer to "["Installation/removal of wheel"](#)" in the user's manual of the compatible freehub to perform readjustment, then perform calibration again.

Wireless function

Pairing with a shift switch

To use this product with wireless gear shifting, it must be paired with a shift switch.

Refer to the [user's manual for E-TUBE PROJECT Cyclist](#) or contact the place of purchase for information about pairing.

Pairing with an external device

This product supports Bluetooth® LE and ANT®, and can send the following information to an external device:

- (1) Gear position information (front and rear)
- (2) Di2 battery level information
- (3) Dual control lever battery level information
- (4) Adjustment mode information

For information on which of the above is displayed, refer to the manual for your external device.

Connection method

ANT® connection	Turn the power of the bicycle ON to receive communication. Switch the external device to connection mode then connect it.
Bluetooth® LE connection	Be sure to switch the external device to connection mode ahead of time. This product receives communication in the following cases: <ul style="list-style-type: none">• For 30 seconds after the power of the bicycle is turned ON• For 30 seconds after the function button is pressed

TECH TIPS

- The LED flashes blue when the product is ready to connect with the external device and receive communication.

E-TUBE application

- E-TUBE PROJECT Cyclist may be used if a Bluetooth® LE connection is established with a smartphone. E-TUBE RIDE can be used to check traveling data on a smartphone connected over Bluetooth®.
- E-TUBE PROJECT Cyclist is required to configure the corresponding settings. For information on how to install E-TUBE PROJECT Cyclist, check the support website (<https://bike.shimano.com/e-tube/project.html>).

2.4 GHz digital wireless systems

This product adopts digital wireless technologies in the 2.4 GHz frequency band, which are used for wireless LAN, etc.

It may receive interference in the following locations or environments, which can prevent wireless communication from being performed correctly in extremely rare cases.

- Near televisions, computers, radios, motors or engines, etc.
- Inside vehicles or trains
- Near railway crossings or tracks
- Near television stations or radar stations
- Near other wireless computers or digital control lights

About the RD protection function

The RD protection function will activate to protect the system when it is subjected to a strong impact such as a fall.

When the RD protection function is activated, the links move left and right and the rear derailleur automatically recovers, so no operations are required.

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



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.

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.

Gear shifting

Details	Causes / possibilities	Remedies
Gear shifting is not performed.	Has the shift switch been paired?	If not, connect to E-TUBE PROJECT and pair the included shift switch.
	Is there sufficient charge remaining in the battery?	Charge the battery and check again.
	Is the battery charging?	Gear shifting is not performed while charging. Disconnect the charging cable and check again.
	When using the shift switch wirelessly, gear shifting is not performed when the switch is next operated if a certain amount of time has elapsed since the last time gear shifting was performed.	Operate the shift switch to shift the gear again.

Pairing

Details	Causes / possibilities	Remedies
The LED flashes red while pairing.	The shift switch may not support wireless communication.	Check whether the shift switch supports wireless communication. If it does, perform pairing again. If pairing still fails, contact the place of purchase.

Others

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

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