

Dealer's Manual

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

Hub set (Disc brake)

SLX

HB-M7000
HB-M7010
HB-M7010-B
FH-M7000
FH-M7010
FH-M7010-B

FH-MT400
FH-MT400-B

E-THRU Axle 12 mm

SM-AX56
SM-AX56-B
SM-AX58
SM-AX58-B

DEORE

HB-M618
HB-M618-B
HB-M6000
HB-M6010
HB-M6010-B
FH-M618
FH-M618-B
FH-M6000
FH-M6010
FH-M6010-B

HB-M4050
HB-MT400
HB-MT400-B
FH-M4050

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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 local bicycle dealer for their assistance.

- Make sure to read all instruction manuals included with the product.
- Do not disassemble or modify the product other than as stated in the information contained in this dealer's manual.
- All dealer's manuals and instruction manuals can be viewed on-line on our website (<http://si.shimano.com>).
- 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.



Failure to follow the instructions will result in death or serious injury.



Failure to follow the instructions could result in death or serious injury.



Failure to follow the instructions could cause personal injury or physical damage to equipment and surroundings.

TO ENSURE SAFETY

⚠ WARNING

- **Be sure to follow the instructions provided in the manuals when installing the product.**

It is recommended to use genuine Shimano parts only. If parts such as bolts and nuts become loose or damaged, the bicycle may suddenly fall over, which may cause serious injury.

In addition, if adjustments are not carried out correctly, problems may occur, and the bicycle may suddenly fall over, which may cause serious injury.

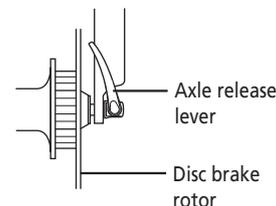
-  Be sure to wear safety glasses or goggles to protect your eyes while performing maintenance tasks such as replacing parts.
- After reading the dealer's manual thoroughly, keep it in a safe place for later reference.

Be sure to also inform users of the following:

- **Check that the wheels are fastened securely before riding the bicycle. If the wheels are loose in any way, they may come off the bicycle and cause serious injury.**

- These hubs are not designed for downhill bicycle riding and freeriding; therefore, depending on the riding conditions, the hub axle could develop cracks that result in the failure of the hub axle, which can lead to an accident resulting in serious injury or even death. Before riding, carefully check the hubs to make sure that there are no cracks in the axles; if there is any sign of a crack, or any another unusual condition, **DO NOT** use the bicycle.

- If the axle release lever is on the same side as the disc brake rotor, there is a possibility they may interfere. Make sure that, even if the axle release lever is tightened as much as possible by hand, the axle release lever does not interfere with the disc brake rotor. If the lever interferes with the disc brake rotor, stop using the wheel and consult a dealer or an agency.

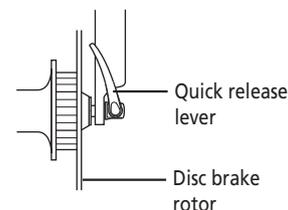


- HB-M7010/M7010-B/M6010/M6010-B/M618/M618-B/MT400/MT400-B can only be used in combination with the special front fork and through axle. If used in combination with any other front fork or through axle, it may cause the wheel to become detached from the bicycle while riding and result in serious bodily injury.

- FH-M7010/M7010-B/M6010/M6010-B/M618/M618-B/MT400/MT400-B can only be used in combination with the special frame and through axle. If used with any other type of frame, the wheel may come off while the bicycle is being ridden, and serious injury may occur as a result.

- If the quick release lever is on the same side as the disc brake rotor, there is the danger that it may interfere with the disc brake rotor.

Make sure that, even if the quick release lever is tightened as much as possible by hand, the quick release lever does not interfere with the disc brake rotor. If the lever interferes with the disc brake rotor, stop using the wheel and consult a dealer or an agency.



- If it is difficult to install the wheel, install the quick release lever on the disc brake rotor side. If doing this, make sure that the quick release lever does not interfere with the disc brake rotor and that burns do not occur.

- Failure to properly install this quick release hub (wheel) onto the bicycle may cause the wheel to become detached from the bicycle while riding and result in serious bodily injury.

- Make sure to read the instruction manual for the quick release lever.

For Installation to the Bicycle, and Maintenance:

- The securing method and tightening torque for the front wheel both vary depending on the type of front suspension fork being used. When installing the front wheel to the front suspension fork, always be sure to follow the directions given in the Service Instructions for the front suspension fork. If the instructions are not followed, the front wheel may fall out of the front suspension fork and serious injury may occur. When the front wheel is tightened onto the front suspension fork in accordance with the instruction manual, the front wheel's rotation may become stiff; however, the instructions must always be followed.
- It is strongly recommended that only the hub axle that is shipped with the Shimano hub is used. If a different hub axle is used to secure the hub, it may not have sufficient strength to secure the freehub, or the axle may break because of insufficient strength, and this may cause the wheel to fall off, and serious injury may occur.
- Be sure to also carefully read the Service Instructions for the disc brakes.

■ Quick release type

- Use a front fork which is equipped with a wheel retention mechanism.

**For Installation to the Bicycle, and Maintenance:**

- When using the Shimano original tool (TL-FC36) to remove and install the disc brake rotor fixing ring, be careful not to touch the outside of the disc brake rotor with your hands. Wear gloves to protect your hands from getting cut.

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

- This product is not warranted against damage resulting from improper use, such as jumping while riding or if the bicycle falls over, except if such malfunctions are caused by manufacturing methods.
- 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:

- If the wheel becomes stiff and difficult to turn, lubricate it with grease.
- Do not lubricate the internal parts of the hub. Otherwise, grease will flow out.
- When replacing the E-THRU Axle, make sure that the replacement E-THRU Axle is of the same model as the current E-THRU Axle attached to the frame.
A different model may not be mounted properly onto the frame due to differences in axle length, screw size, housing diameter, etc.
- Use the TL-HB16 when attaching the front hub to the wheel truing tool.
- SM-AX56/SM-AX56-B/SM-AX58/SM-AX58-B cannot be used because the model is not designed for downhill bicycle riding or freeriding.

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

LIST OF TOOLS TO BE USED

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

Tool		Tool		Tool	
	10 mm hexagon wrench		17 mm hub spanner		TL-FC36
	TL-FH15		22 mm hub spanner		TL-LR15
	13 mm hub spanner		Adjustable wrench		

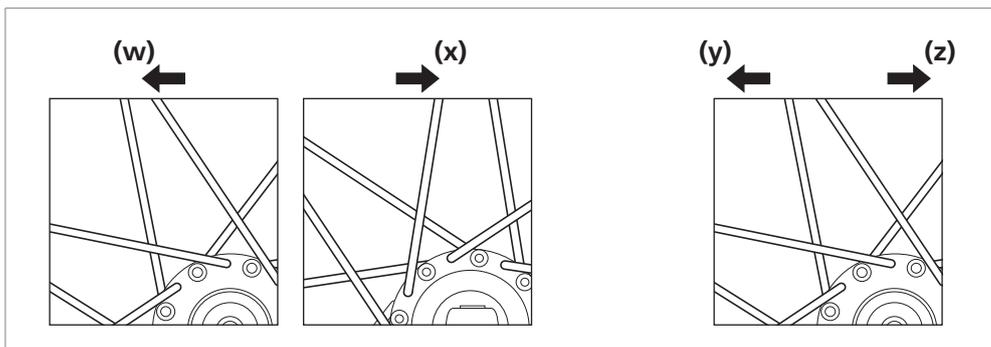
INSTALLATION

INSTALLATION

■ Spoke lacing

Check that the spokes have been laced as shown in the illustration.
A radial lacing cannot be used.

Rotating direction of wheel



(w) For front: Left (disc brake rotor) side

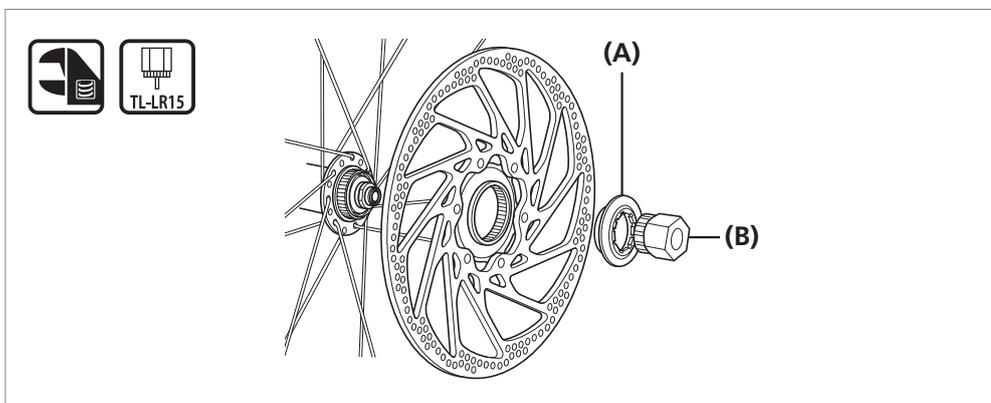
(x) For front: Right side

(y) For rear: Left (disc brake rotor) side

(z) For rear: Right (sprocket) side

■ Installation of the disc brake rotor

Quick release type



(A) Disc brake rotor fixing lock ring

(B) TL-LR15

Tightening torque

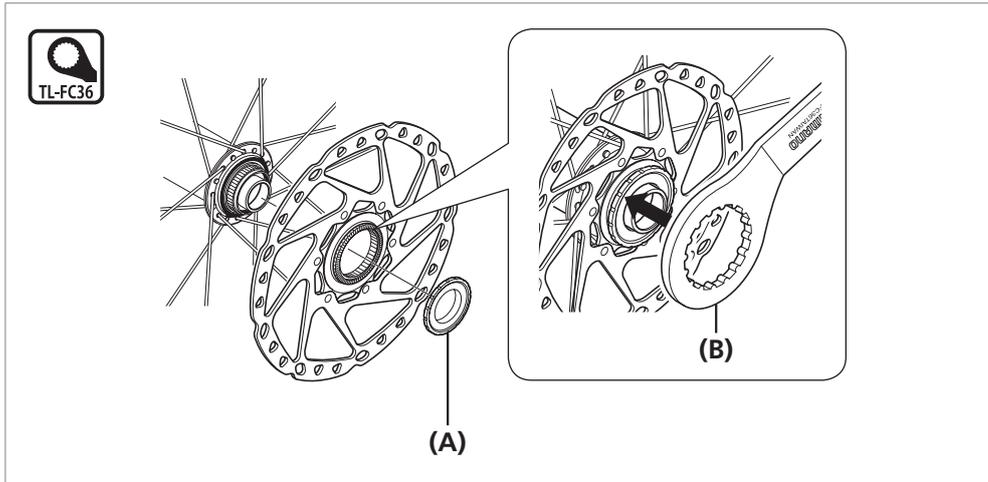


40 N·m

INSTALLATION

Installation of the disc brake rotor

E-THRU Axle



- (A) Disc brake rotor fixing lock ring
- (B) TL-FC36

Tightening torque



40 N·m

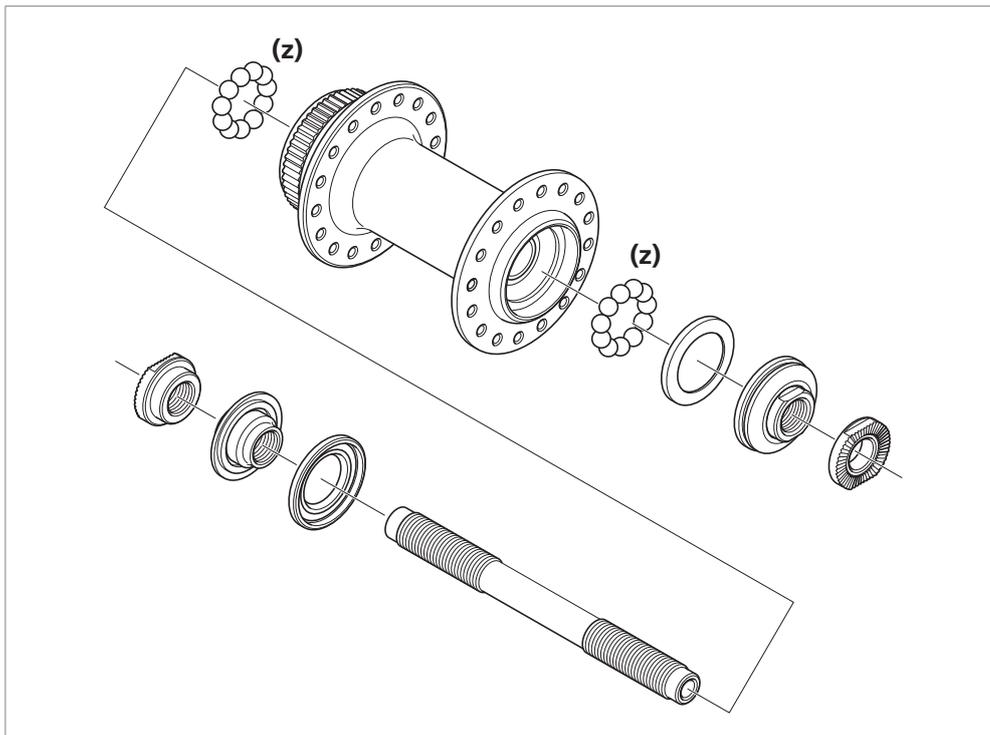
MAINTENANCE

MAINTENANCE

The hub can be disassembled as shown in the illustration. Apply grease to the various parts at periodic intervals.

■ Front hub

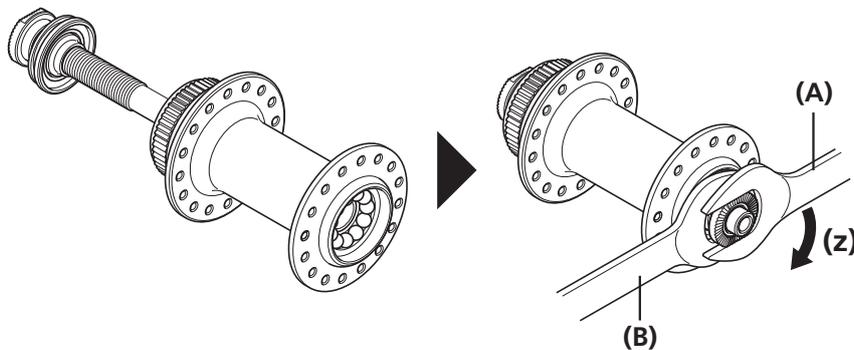
HB-M7000/M6000/M4050



(z) Apply grease: Premium grease (Y-04110000)

Assembly

Install the hub axle, and then use hub spanners as in the illustration to tighten the lock nut so as to double-lock the mechanism.



(z) Tighten

(A) 17 mm hub spanner

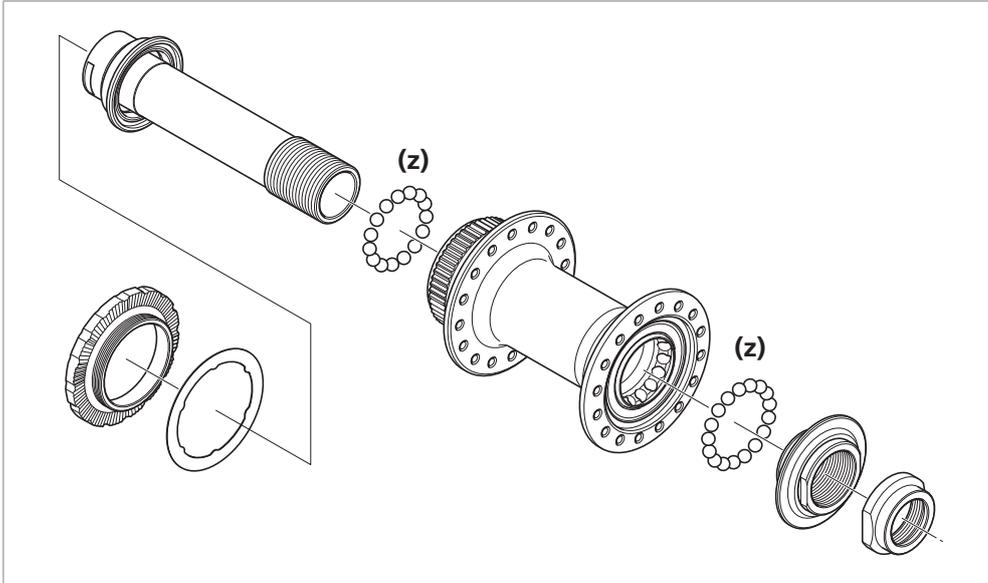
(B) 13 mm hub spanner

Tightening torque



10 - 15 N·m

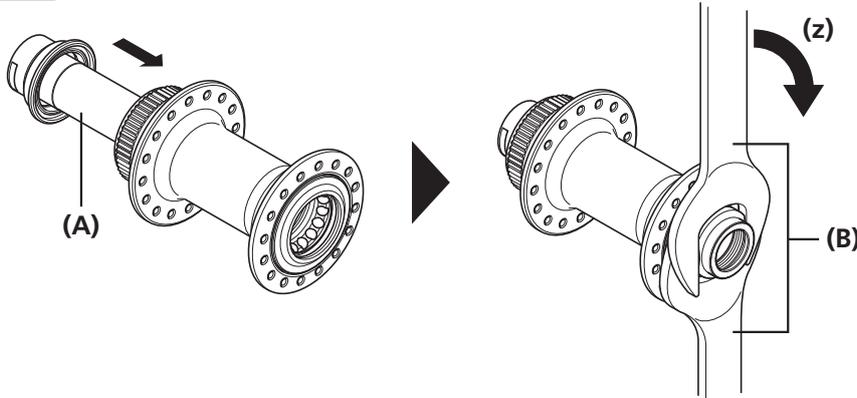
HB-M7010/M7010-B/M6010/M6010-B/M618/M618-B/HB-MT400/HB-MT400-B



(z) Apply grease: Premium grease (Y-04110000)

Assembly

Install the hub axle, and then use hub spanners as in the illustration to tighten the lock nut so as to double-lock the mechanism.



(z) Tighten

(A) Hub axle

(B) 22 mm hub spanner

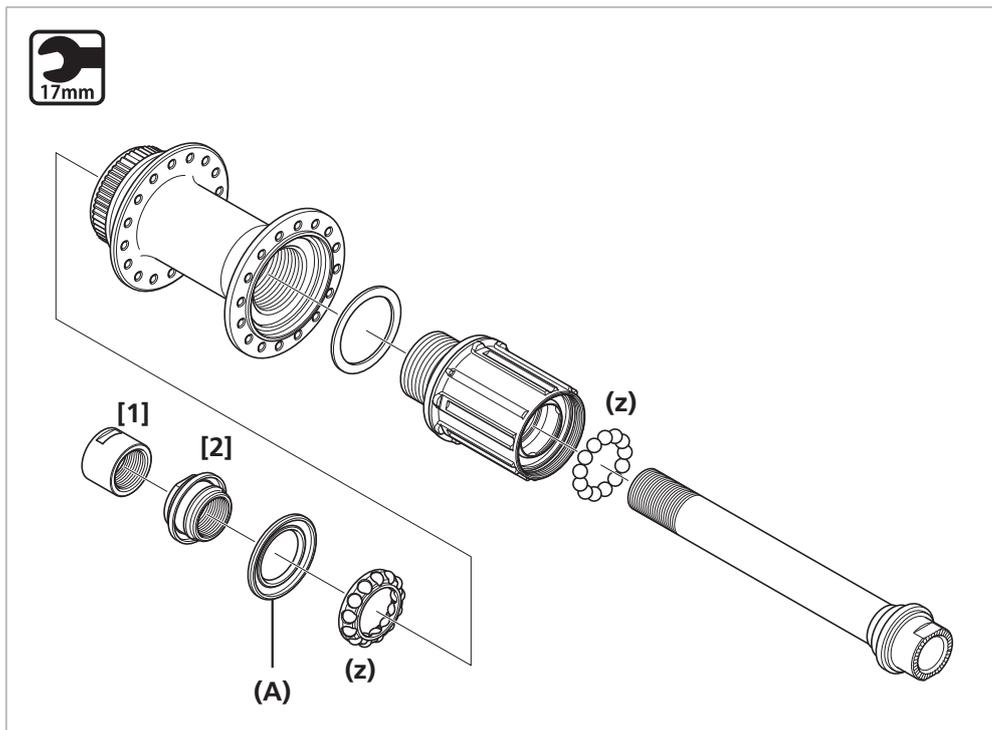
Tightening torque	
	21 - 26 N·m

Freehub

NOTE

- When removing and installing the seal, do so very carefully so that the seal does not become bent. When reinstalling the seal, make sure that it is facing the right way, and insert it as far as it will go.
- Do not disassemble the dust covers which are crimped onto the axle, the right nut and the cone.
- Do not attempt to disassemble the freewheel body, because it may result in a malfunction.

FH-M7010/M7010-B/M6010/M6010-B/M618/M618-B/FH-MT400/FH-MT400-B

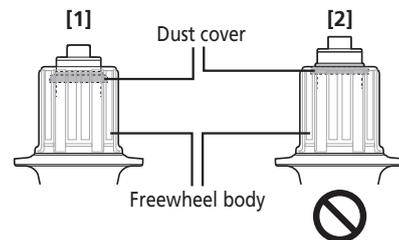


(z) Apply grease: Premium grease (Y-04110000)

(A) Seal (Lip is on the outside)

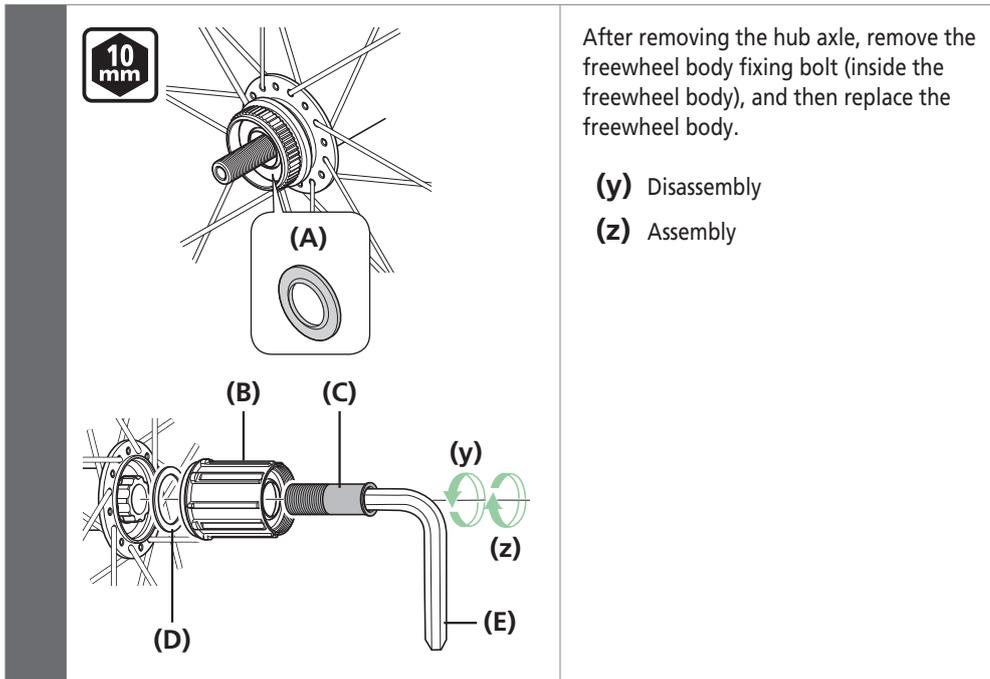
NOTE

The correct position for the dust cover is where it is hidden in the freewheel body, as shown in illustration [1]. If the dust cover is in the position shown in illustration [2], repeat the assembly process from the beginning.



	Part name	Thread type	Tool	Tightening torque
[1]	Left hand lock nut (M15)	Clockwise thread	17 mm hub spanner	15 - 20 N·m
[2]	Left hand cone (M15)	Clockwise thread	17 mm hub spanner	-

Replacement of the freewheel body (For QR type)



After removing the hub axle, remove the freewheel body fixing bolt (inside the freewheel body), and then replace the freewheel body.

- (y) Disassembly
- (z) Assembly

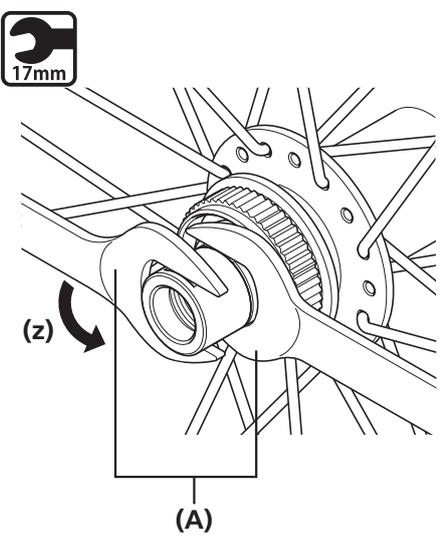
- (A) Seal (Lip is on the outside)
- (B) Freewheel body
- (C) Freewheel body fixing bolt
- (D) Freewheel body washer
- (E) 10 mm hexagon wrench (TL-WR37)

Tightening torque	
	35 - 50 N·m

Replacement of the freewheel body (For E-THRU type)

Pulling out the hub axle

1



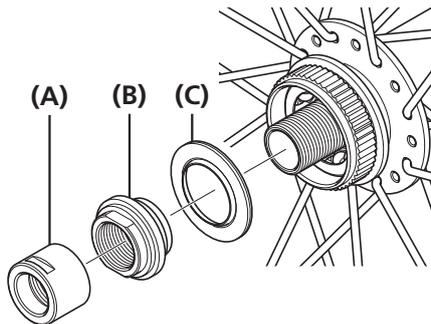
Use the spanner to loosen the lock nut on the double-lock section.

(z) Disassembly

(A) 17 mm hub spanner

Tightening torque	
	10 - 15 N·m

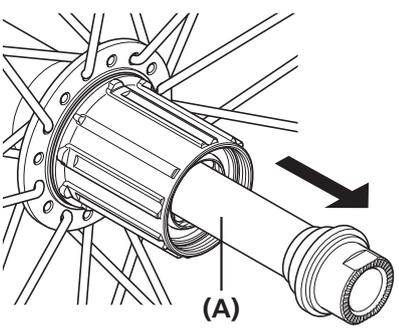
2



Remove as shown in the illustration.

- (A)** Lock nut
- (B)** Cone with dust cover
(Cannot be disassembled)
- (C)** Seal ring

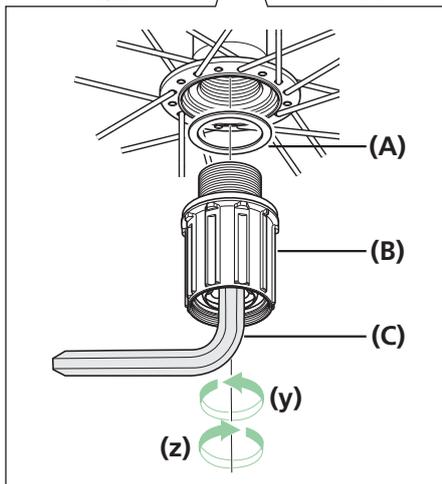
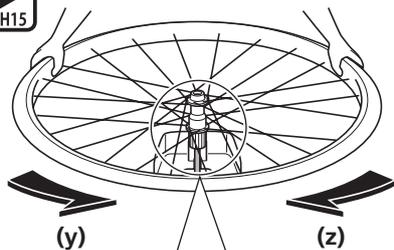
3



Pull out the hub axle from the freewheel body.

(A) Hub axle

Replacement of the freewheel body



After removing the hub, remove the freewheel body fixing bolt (inside the freewheel body), and then replace the freewheel body.

Insert TL-FH15 into the freewheel unit, secure the tool so that it does not rotate and then rotate the wheel.

(y) Disassembly

(z) Assembly

(A) Freewheel body washer

(B) Freewheel body

(C) TL-FH15

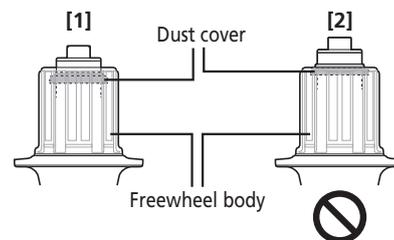
Tightening torque



150 N·m

NOTE

- Do not attempt to disassemble the freewheel body, because it may result in a malfunction.
- The correct position for the dust cover is when it is hidden in the freewheel body, as shown in illustration [1]. If the dust cover is in the position shown in illustration [2], repeat the assembly process from the beginning.



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

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