

Dealer's Manual

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

Front Hub/Freehub (Standard type)

ROAD

HB-3500
FH-3500
HB-2400
FH-2400
HB-RS400
FH-RS400
HB-RS300
FH-RS300

Comfort

FH-S028

MTB

HB-MX71
HB-TX800
FH-TX800

Trekking

HB-T670
FH-T670
HB-T610
FH-T610
HB-T4000
FH-T4000
HB-T3000
FH-T3000

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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 serious injury may result.**
- Failure to properly install this quick release hub (wheel) onto your bicycle may cause the wheel to become detached from the bicycle while you are 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:

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

NOTE

Be sure to also inform users of the following:

- Do not lubricate the internal parts of the hub. Otherwise, grease will flow out.
- 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.

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

LIST OF TOOLS TO BE USED

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

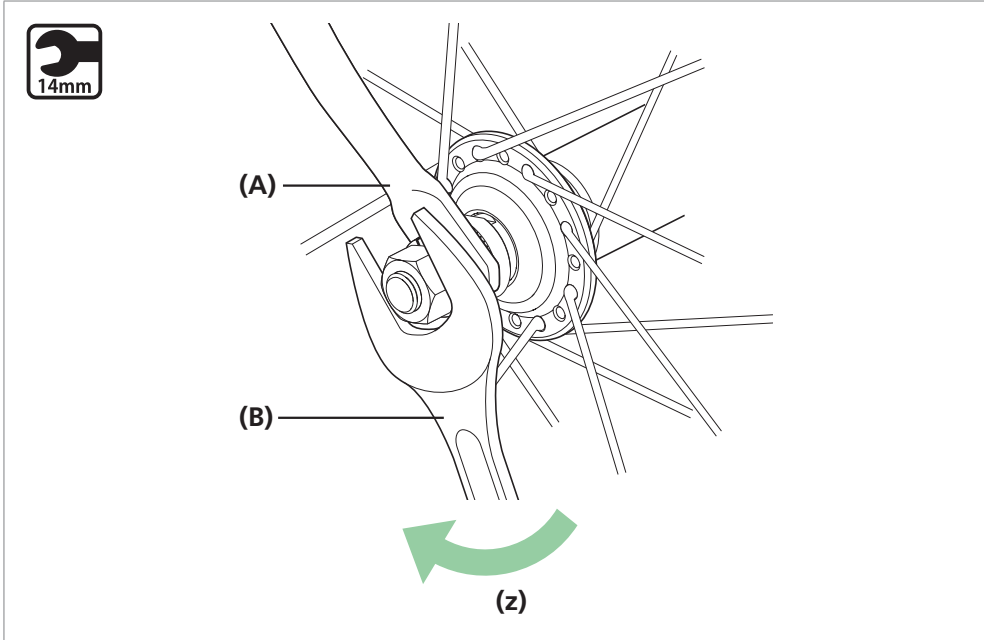
Tool		Tool		Tool	
	6 mm hexagon wrench		14 mm spanner		17 mm hub spanner
	10 mm hexagon wrench		15 mm spanner		18 mm hub spanner
	13 mm spanner		17 mm spanner		

INSTALLATION

INSTALLATION

■ Front hub

Nut type



(z) Tighten

(A) Front fork

(B) 14 mm spanner

Tightening torque



20 - 25 N·m

NOTE

When tightening the nuts, tightening or loosening the nut only on one side excessively may force the hub axle to turn, tightening or loosening the lock nut excessively; therefore, tighten both nuts alternately.

Quick release type

1

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

(z) Disassembly

- (A)** 13 mm spanner
- (B)** 17 mm spanner

Tightening torque	
	15 - 17 N·m

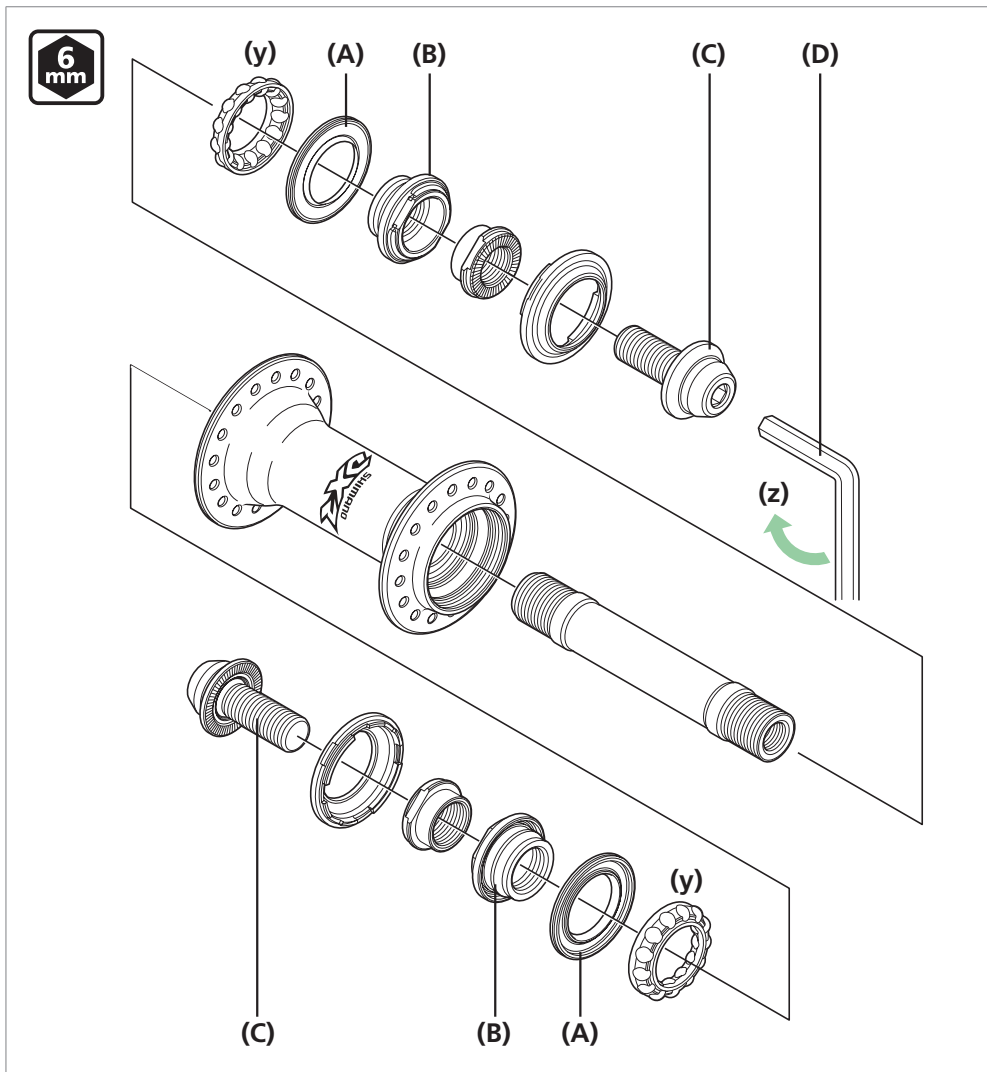
2

Remove as shown in the illustration.

- (A)** Lock nut
- (B)** Washer
- (C)** Cone

HB-MX71

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



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

(z) Tighten

(A) Seal (Lip is on the outside)

(B) Cone with dust cover

(C) Mounting bolt

(D) 6 mm hexagon wrench

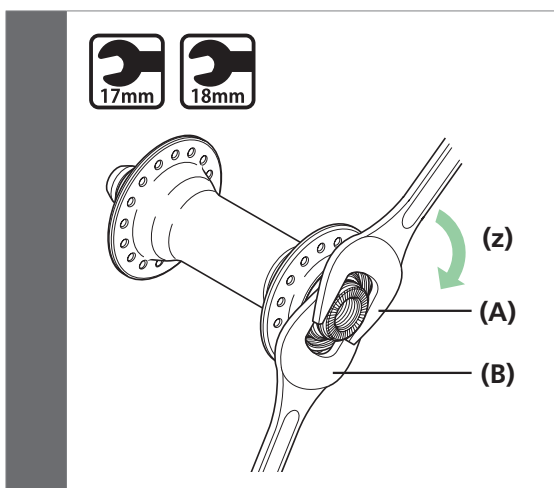
Mounting bolt tightening torque



23 - 28 N·m

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 cover which is crimped onto the cone.



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) 18 mm hub spanner

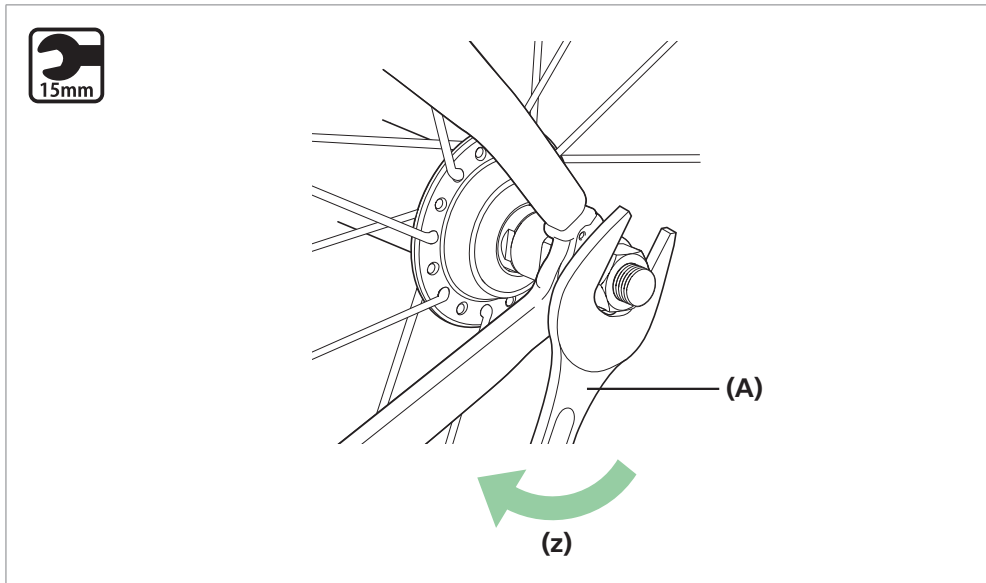
Tightening torque



15 - 20 N·m

■ Freehub

Nut type



(z) Tighten

(A) 15 mm spanner

Tightening torque



30 - 45 N·m

NOTE

When tightening the nuts, tightening or loosening the nut only on one side excessively may force the hub axle to turn, tightening or loosening the lock nut excessively; therefore, tighten both nuts alternately.

Quick release type

1

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

(z) Disassembly

- (A)** 15 mm spanner
- (B)** 17 mm spanner

Tightening torque	
	10 - 15 N·m

2

Remove as shown in the illustration.

- (A)** Lock nut
- (B)** Axle spacer
- (C)** Cone

3

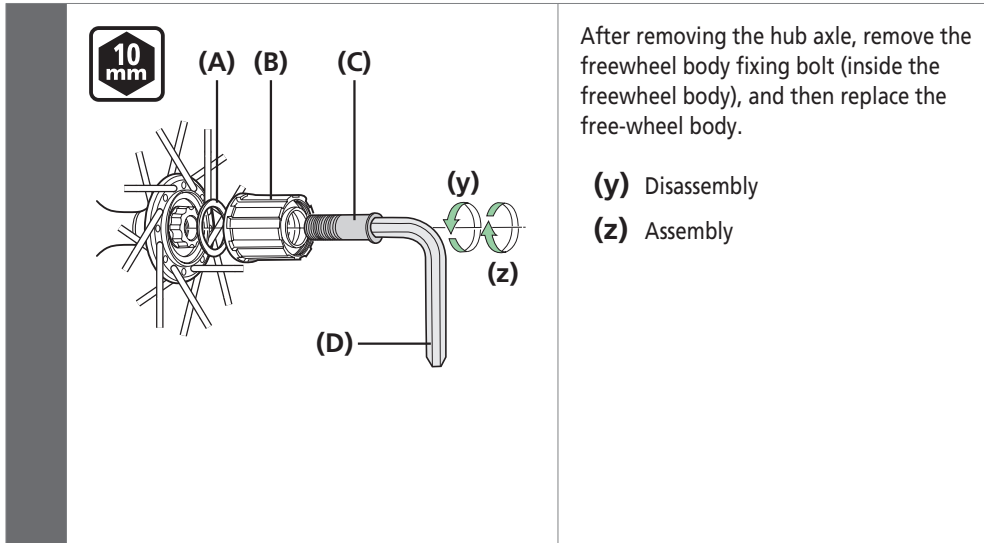
Pull out the hub axle from the freewheel body.

- (A)** Hub axle

INSTALLATION

▶ Replacement of the freewheel body

■ Replacement of the freewheel body



- (A) Freewheel body washer
- (B) Freewheel body
- (C) Freewheel body fixing bolt
- (D) 10 mm hexagon wrench (TL-WR37)

Tightening torque



35 - 50 N·m

NOTE

Do not attempt to disassemble the freewheel body, because it may result in a malfunction.

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

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