

Dealer's Manual

ROAD	GRAVEL	MTB
E-BIKE	LIFESTYLE	GENERAL

Hub Set

Non-series

HB-NN300

FH-NN300

Contents

IMPORTANT NOTICE..... 3

TO ENSURE SAFETY..... 4

List of tools to be used 6

Installation/removal 7

 Front hub installation 7

 Freehub installation 8

Maintenance..... 9

 Front hub disassembly 9

 Front hub assembly 12

 Freehub disassembly 14

 Freehub assembly 17

 Replacing the freewheel body unit 19

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. Contact your place of purchase or a distributor for assistance.

- Make sure to read all manuals included with each product.
- Do not disassemble or modify the product other than as stated in the information contained in this dealer's manual.
- All manuals and technical documents are accessible online at <https://si.shimano.com>.
- For consumers who do not have easy access to the internet, please contact a SHIMANO distributor or any of the SHIMANO offices to obtain a hardcopy of the user's manual.
- 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.

	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.

TO ENSURE SAFETY

WARNING

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

Only use SHIMANO genuine parts. If a component or replacement part is incorrectly assembled or adjusted, it can lead to component failure and cause the rider to lose control and crash.

-  Wear approved eye protection while performing maintenance tasks such as replacing components.
- When assembling the freewheel body unit, do not apply grease or oil outside of the designated areas. This may cause the freewheel body unit to malfunction.
- Do not wash the freewheel body unit. The internal grease may flow out and cause the freewheel body unit to malfunction.
- 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. Incorrect use may cause the wheel to fall off, etc. and lead to serious injury due to a fall or collision.
- Make sure to properly install the front hub and freehub onto the bicycle. Otherwise the wheel may detach from the bicycle while riding, resulting in serious injury.

For installation to the bicycle and maintenance

- When installing the wheel to the front fork/frame, always be sure to follow the instructions given in the manual for the front fork/frame. The securing method and tightening torque for the wheel both vary depending on the type of front fork/frame being used. If the instructions are not followed, the wheel may fall out and possibly result in serious injury. When the wheel is secured in accordance with the tightening torque, the wheel's rotation may become stiff; however, the instructions in the manual for front fork/frame must always be followed.
- Use a front fork which is equipped with a wheel retention mechanism.

NOTICE

Be sure to also inform users of the following:

- This product is not warranted against damage caused by improper use, abuse, or issues resulting from a crash, unless the circumstance was caused by a manufacturing problem.
- If there are abnormal noises or if the freewheel body unit becomes difficult to engage, consult a place of purchase or a distributor.
- Use a neutral detergent when cleaning hubs. Other cleaners may damage the hubs. Do not clean any areas that have been instructed not to be cleaned.
- Do not clean the hub areas with a high-pressure wash. Water may get inside the hubs, which can degrade performance.
- 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, perform an inspection.
- Use only the lubricants specified by SHIMANO in this dealer's manual.

TO ENSURE SAFETY

- Do not oil the internal parts of the hub. Otherwise, the grease will flow out.
- If the freehub is making abnormal noises when the pedal is pressed, the spacer may need more grease. Apply grease to the spacer.

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

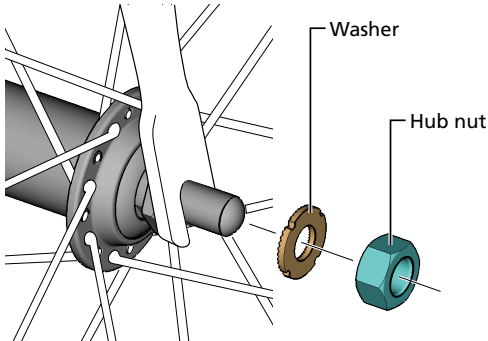
The following tools are needed for installation/removal, adjustment, and maintenance purposes.

Tool	
	12 mm hexagon wrench
	TL-HS33
	TL-HS34
	TL-HS35
	TL-HS37
	Snap ring pliers

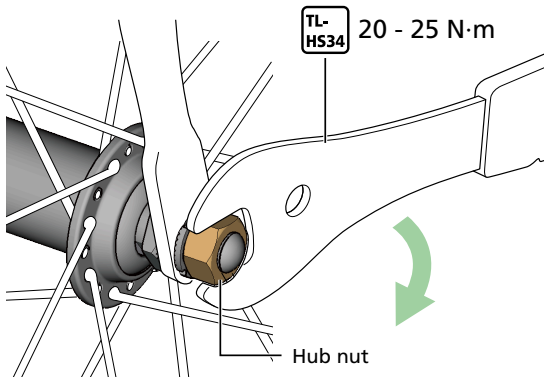
Installation/removal

Front hub installation

1. Install the hub nuts and washers.



2. Tighten the hub nuts.

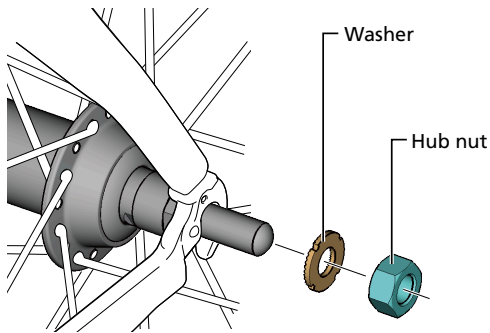


NOTICE

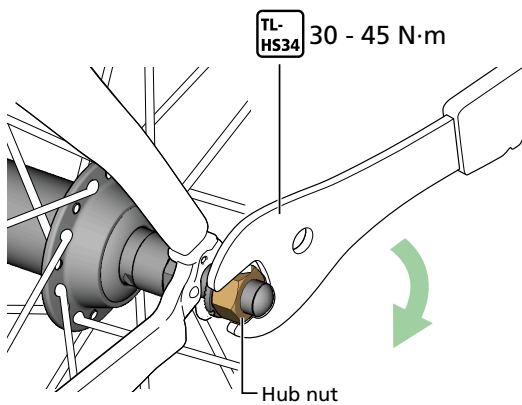
- When tightening the hub nuts, tightening the hub nut only on one side excessively may force the hub axle to turn, tightening or loosening the lock nut excessively; therefore, tighten both nuts alternately.

Freehub installation

1. Install the hub nuts and washers.



2. Tighten the hub nuts.



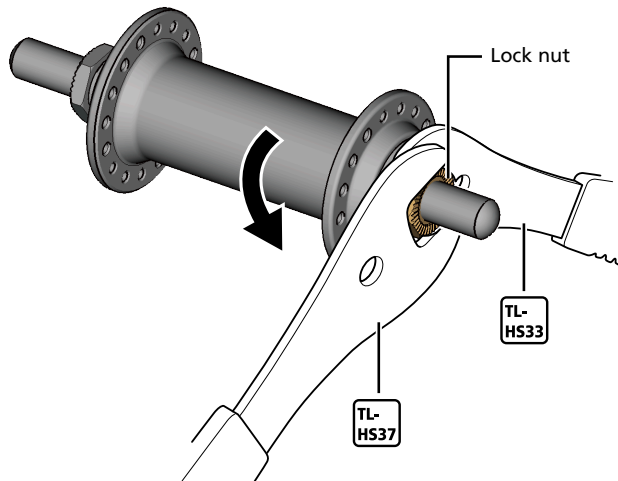
NOTICE

- When tightening the hub nuts, tightening the hub 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.

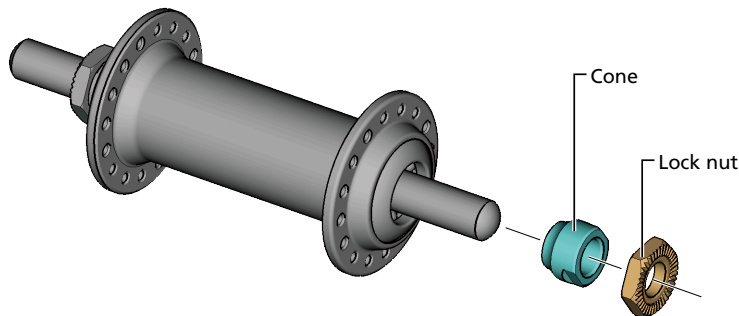
Maintenance

Front hub disassembly

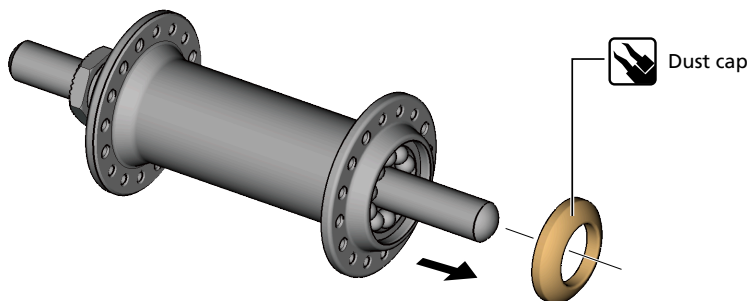
1. Loosen the lock nut on the double-lock section on the right side of the hub body.



2. Remove the cone and lock nut.



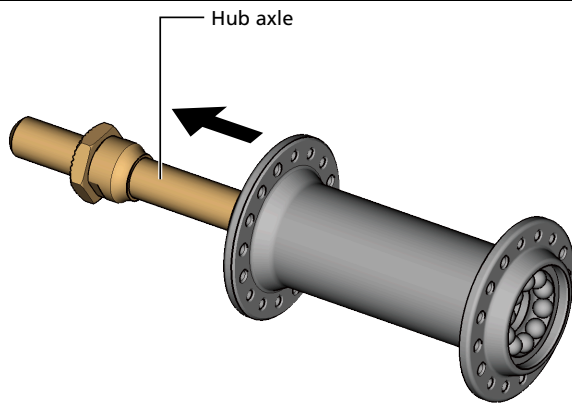
3. Remove the dust cap.



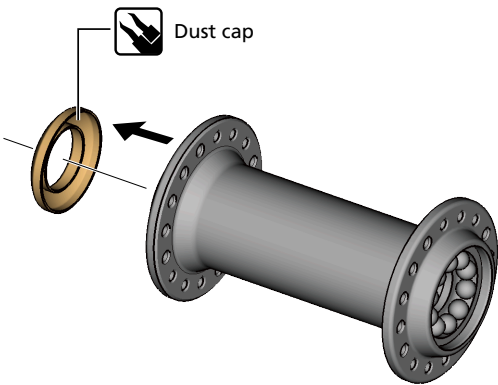
4. Pull out the hub axle, lock nut and cone from the left side of the hub body.

Maintenance

Front hub disassembly



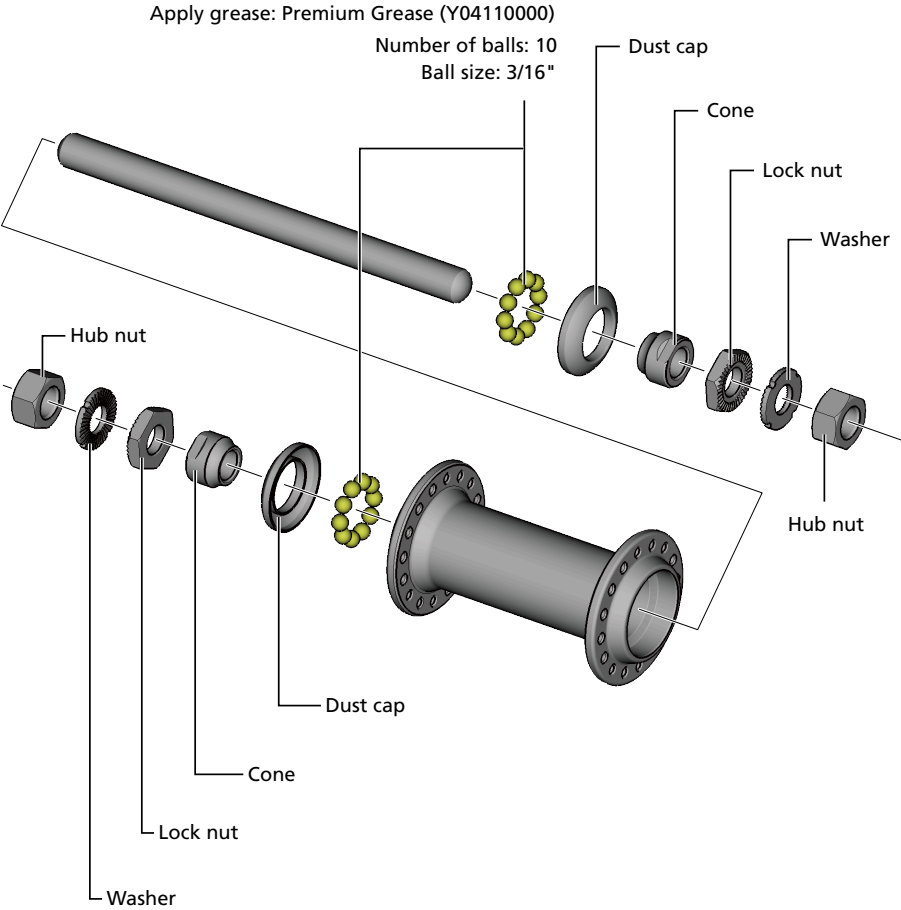
5. Remove the dust cap.



6. The unit can be disassembled as shown in the figure. Apply grease to the indicated parts at periodic intervals.

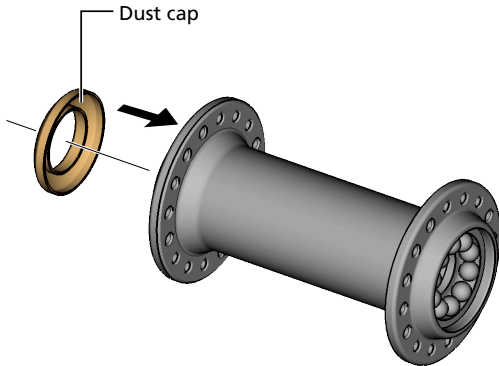
Maintenance

Front hub disassembly

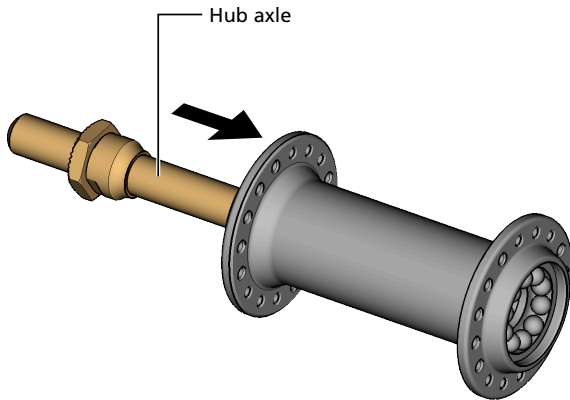


Front hub assembly

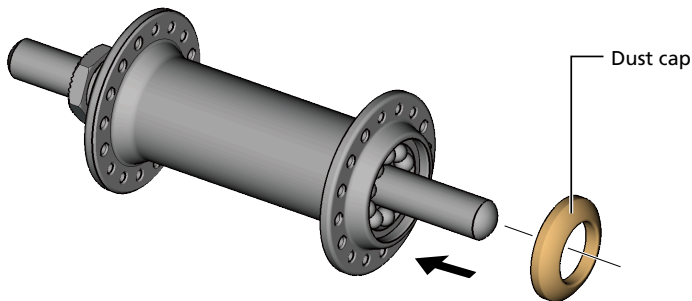
1. Install the dust cap on the left side of the hub body.



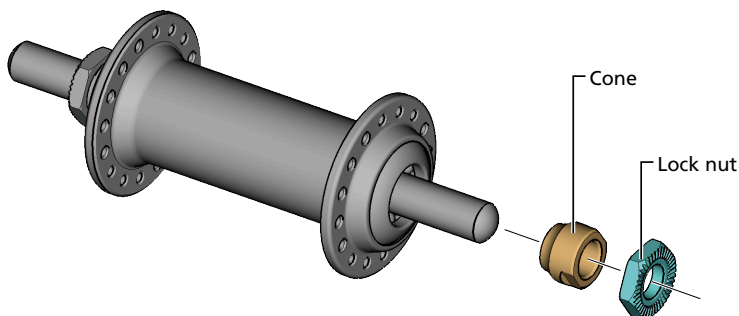
2. Install the hub axle, lock nut and cone.



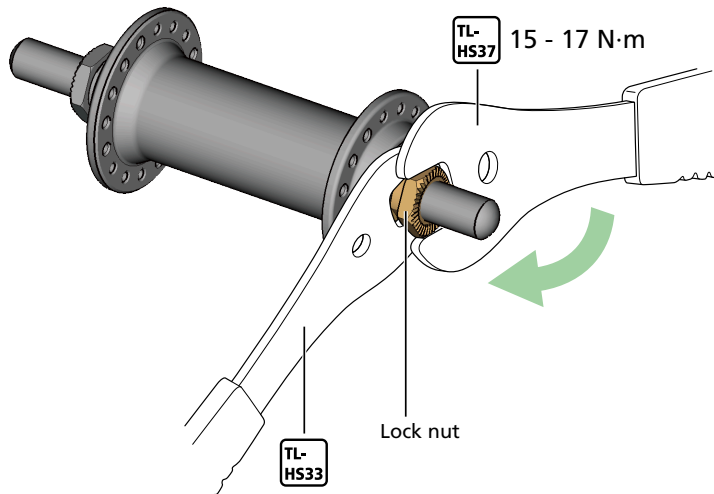
3. Install the dust cap on the right side of the hub body.



4. Install the cone and lock nut.



5. Tighten the lock nut and double-lock the assembly.



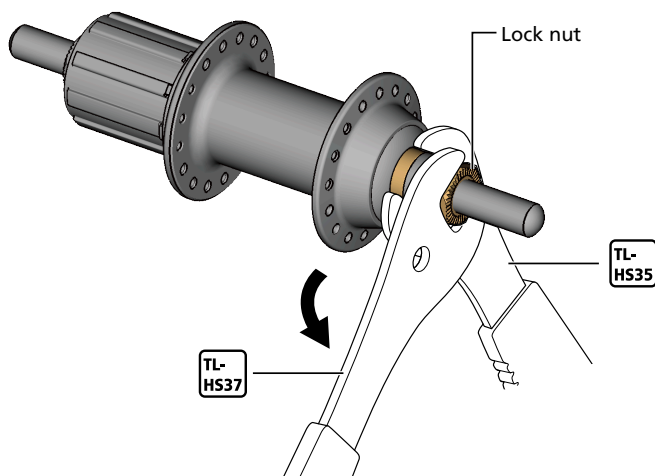
Freehub disassembly

NOTICE

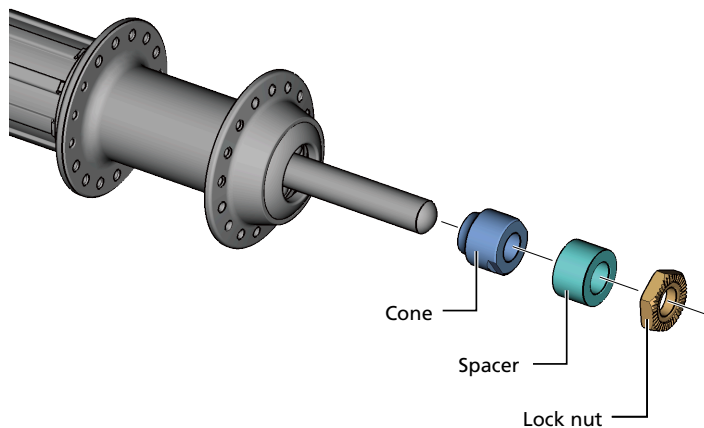
- Do not attempt to disassemble the freewheel body unit, because it may result in a malfunction.
- Perform the assembly according to the assembly procedures when the freewheel body unit has been removed.

1. Loosen the lock nut on the double-lock section on the left side of the hub body.

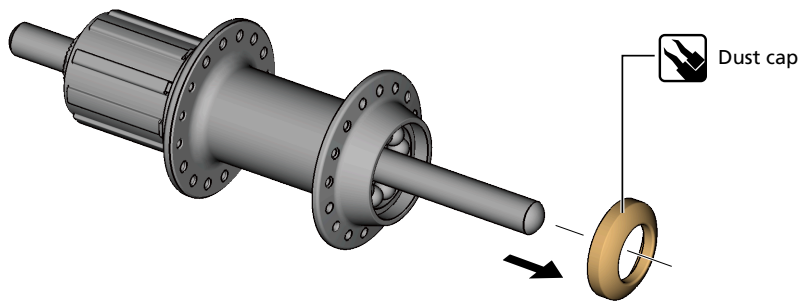
Disassembly from the right side of the hub body is not possible.



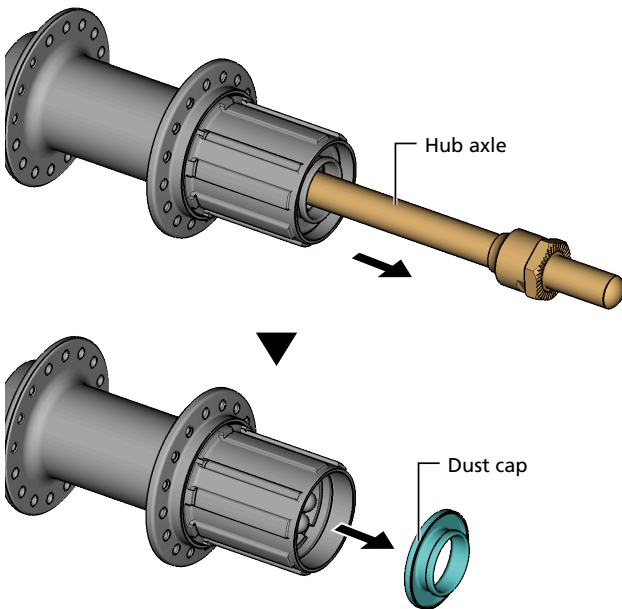
2. Remove the lock nut, spacer, and cone.



3. Remove the dust cap.



4. Pull out the hub axle, lock nut and cone from the right side of the hub body, then remove the dust cap.



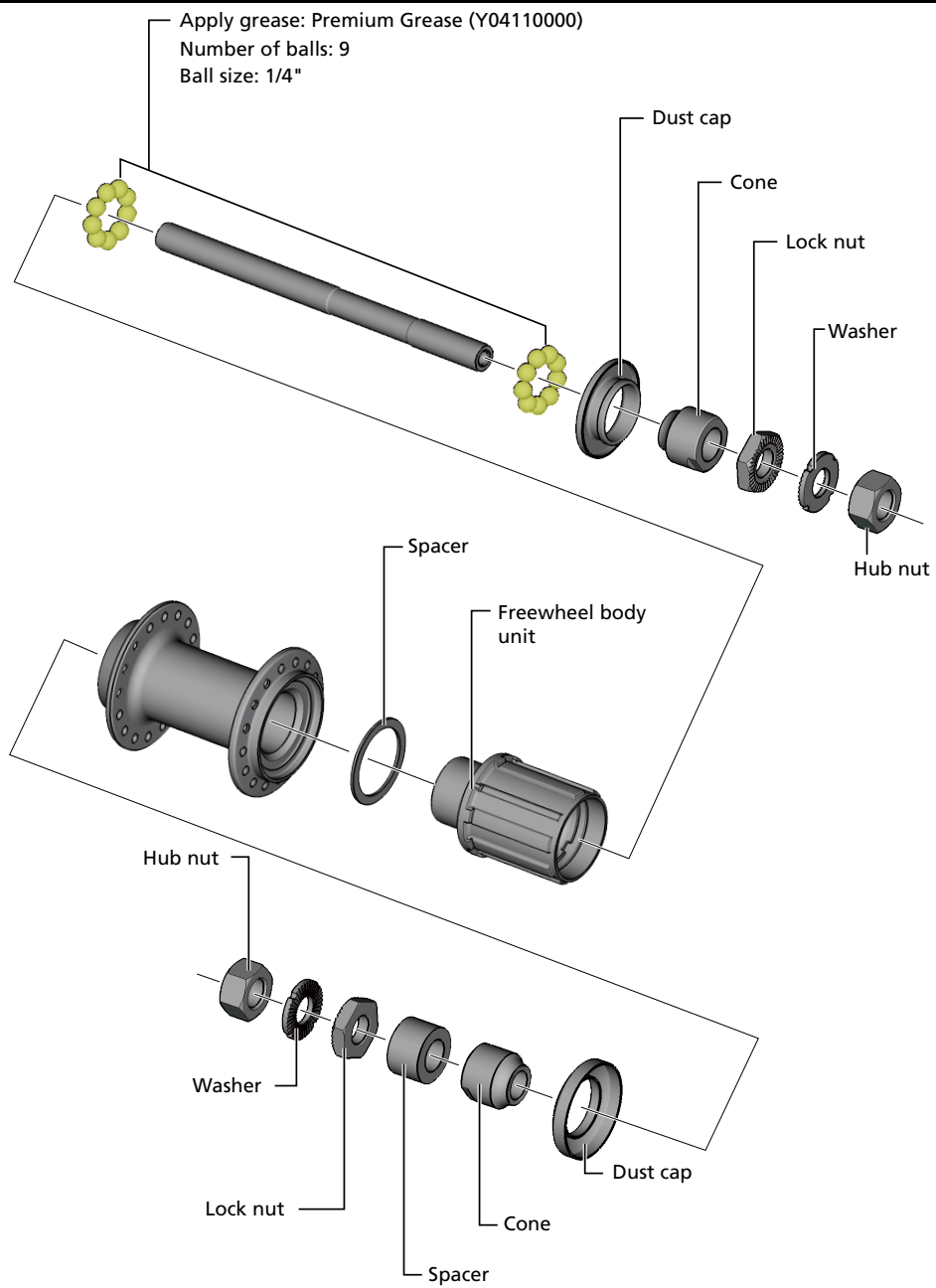
5. Remove the freewheel body unit.

Refer to " [Replacing the freewheel body unit](#) " when removing the freewheel body unit.

6. The unit can be disassembled as shown in the figure. Apply grease to the indicated parts at periodic intervals.

Maintenance

Freehub disassembly

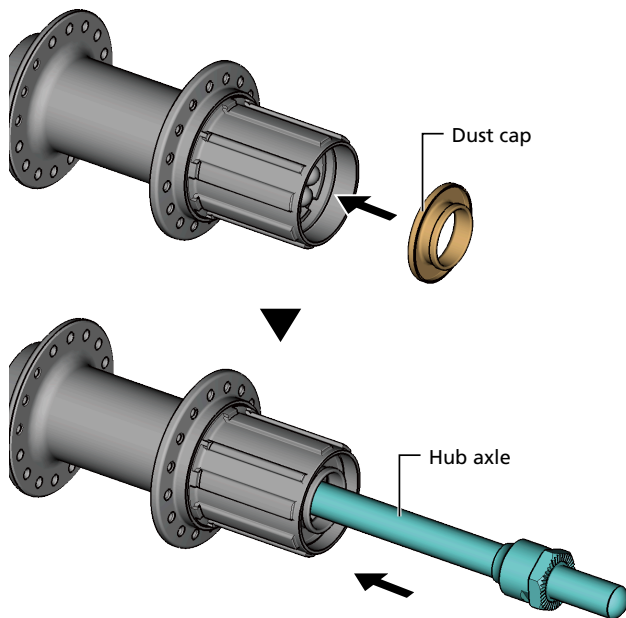


Freehub assembly

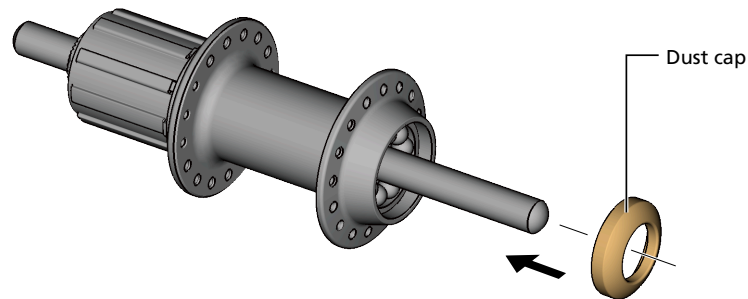
1. Install the freewheel body unit.

Refer to " [Replacing the freewheel body unit](#) " when installing the freewheel body unit.

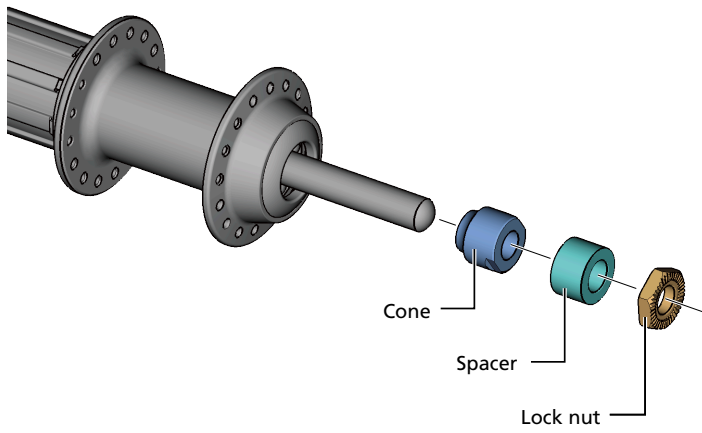
2. Install the dust cap, hub axle, lock nut and cone on the right side of the hub body.



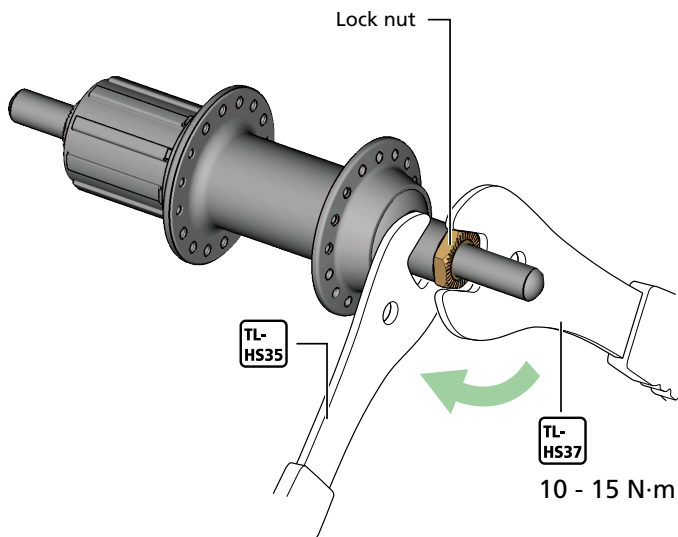
3. Install the dust cap.



4. Install the lock nut, spacer and cone.



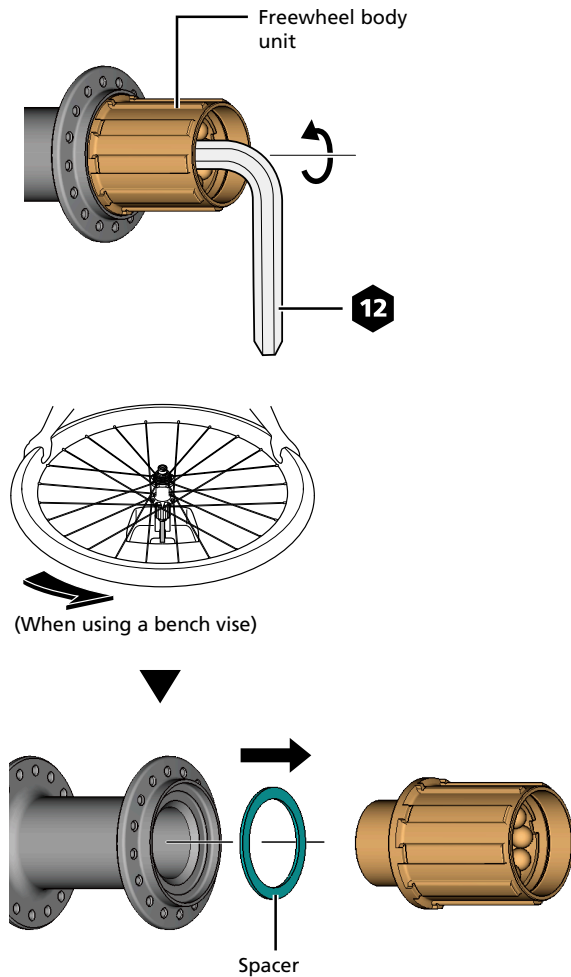
5. Tighten the lock nut on the left side of the hub body to double-lock the assembly.



Replacing the freewheel body unit

For information on how to pull out the hub axle, refer to " [Freehub disassembly](#) ".

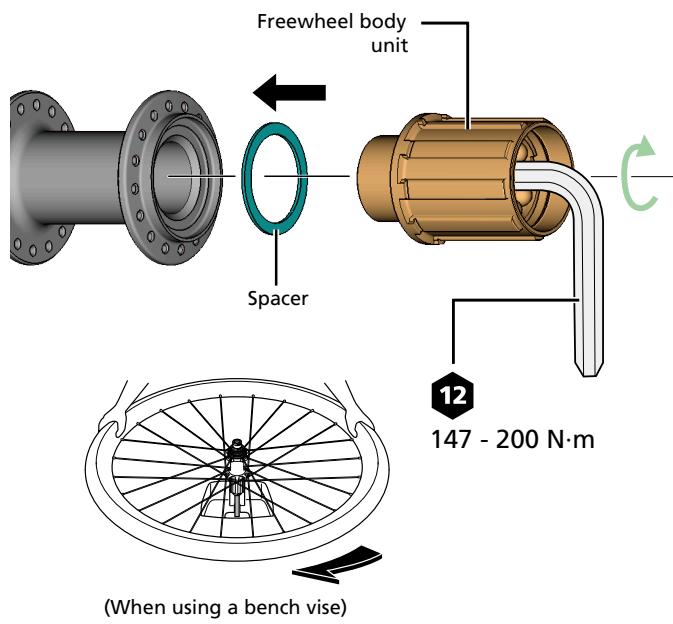
1. Remove the freewheel body unit.



2. Install the new freewheel body unit.

Maintenance

Replacing the freewheel body unit



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

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