

Dealer's Manual

ROAD Front hub / Freehub11-speed

HB-9000

HB-6800

HB-5800

FH-9000

FH-6800

FH-5800

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.



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

- **When installing components, be sure to follow the instructions that are given in the instruction manuals.**

It is recommended that you use only genuine Shimano parts. 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 apply any oil to the inside of the hub, otherwise the grease will come 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:

- This hub is designed so that it will achieve optimal rotational feel when it is built into a wheel and installed on a bicycle. The axle rotation will feel heavier prior to lacing into a wheel. Since the hub is unaffected by the binding pressure from fixing of the wheel on a frame, it is unnecessary to allow any play when adjusting the axle unit.
- If the wheel becomes stiff and difficult to turn, you should lubricate it with grease.

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

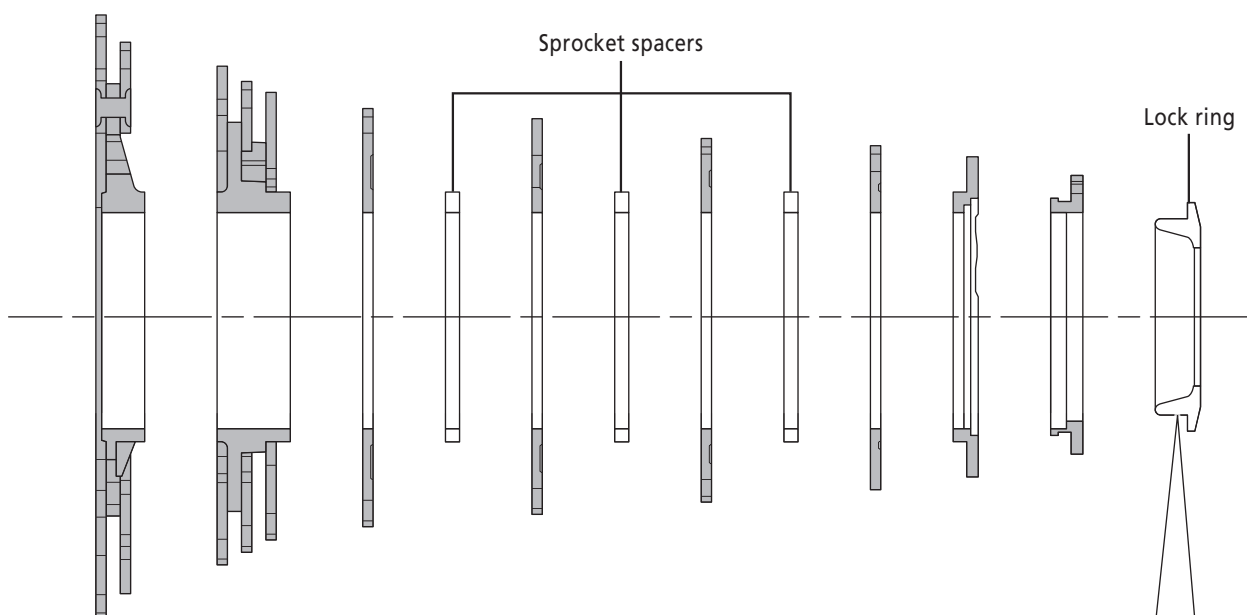
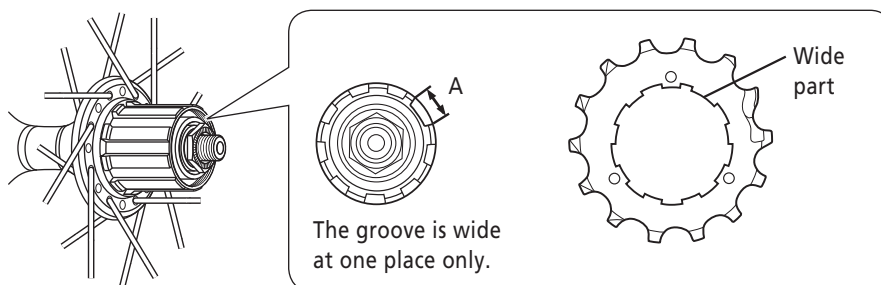
INSTALLATION

The following tools are needed to assemble this product.

Usage location	Tool
Lock ring	TL-LR15 / LR10

Install the hub as shown in the illustration.

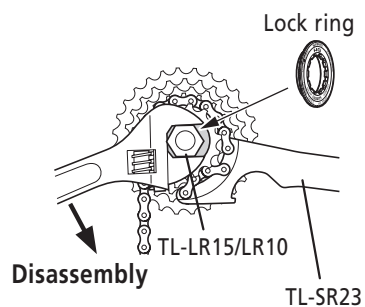
For each sprocket, the surface that has the group mark should face outward and be positioned so that the wide parts of the gear projections on each sprocket and the A part (where the groove width is wide) of the freewheel body are aligned.



- For installation of the HG sprockets, use the special tool TL-LR15/LR10 to tighten the lock ring.

Tightening torque:
30.0 - 50.0 N·m {262 - 437 in. lbs.}

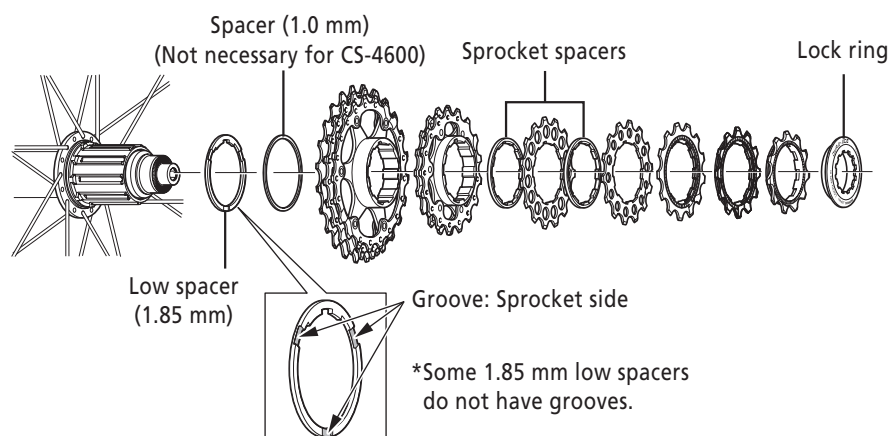
- To replace the HG sprockets, use the special tool TL-LR15/LR10 and TL-SR23 to remove the lock ring.



Note:

When installing a 10-gear cassette other than CS-4600 to FH-9000 / FH-6800, install the included 1.85 mm low spacer and the 1.0 mm spacer included with the cassette at the positions indicated in the illustration.

For CS-4600, install only the 1.85 mm low spacer. (The 1.0 mm spacer is not necessary.)

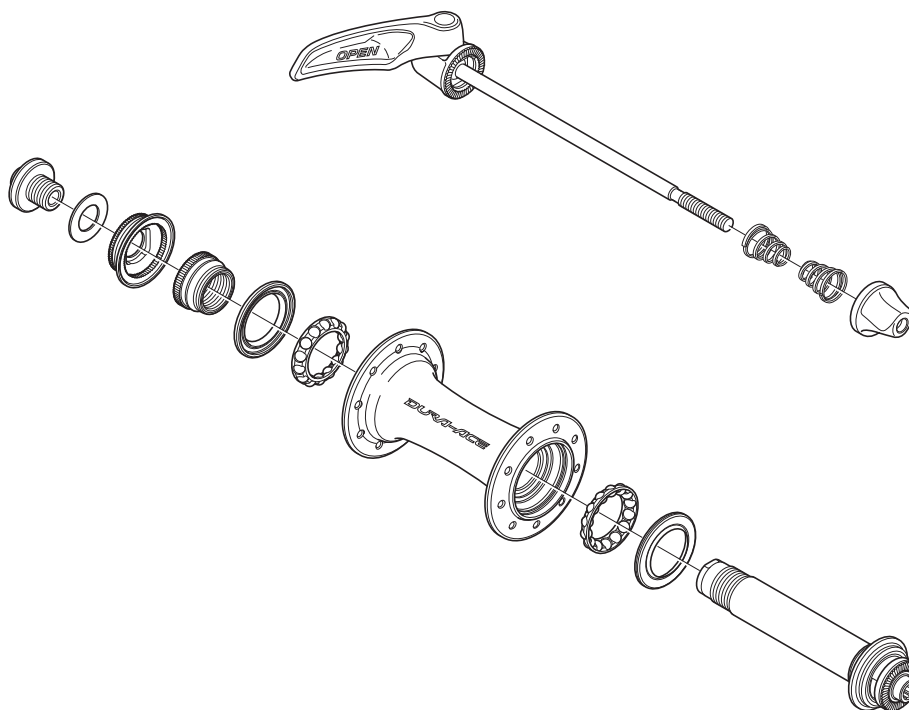


MAINTENANCE

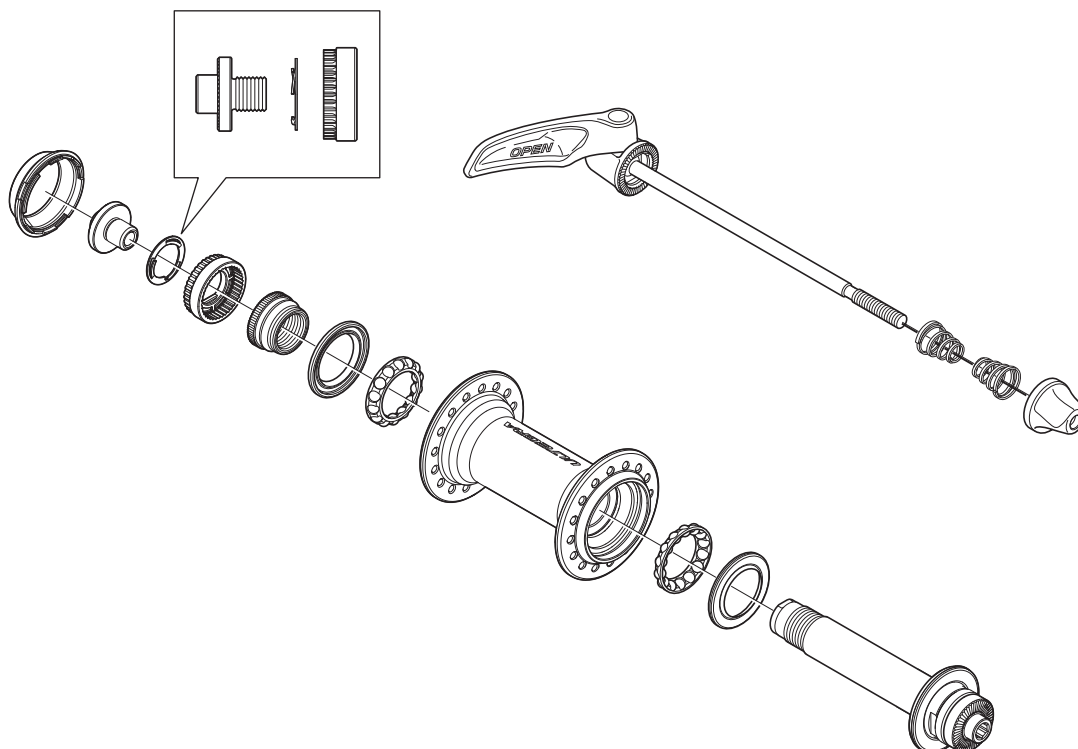
■ Front hub

Front hub can be disassembled as shown in the illustration. However, do not disassemble the front hub any further than this. If it is disassembled any further, it will not be possible to reassemble it.

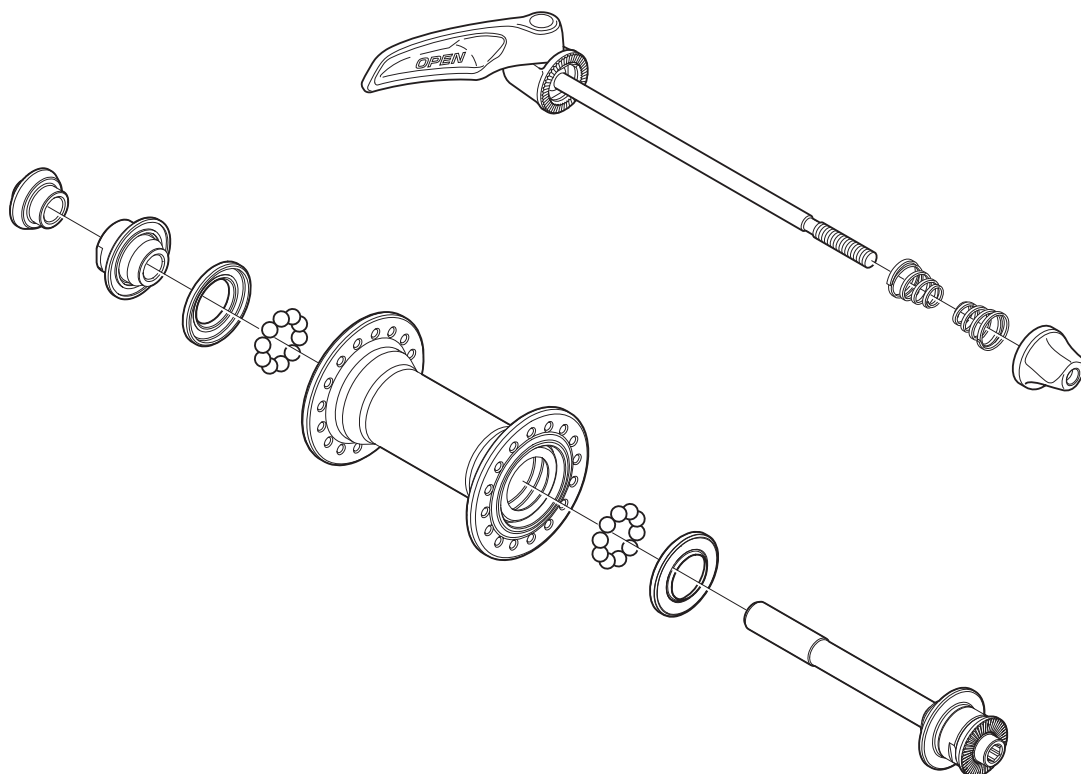
<HB-9000>



<HB-6800>



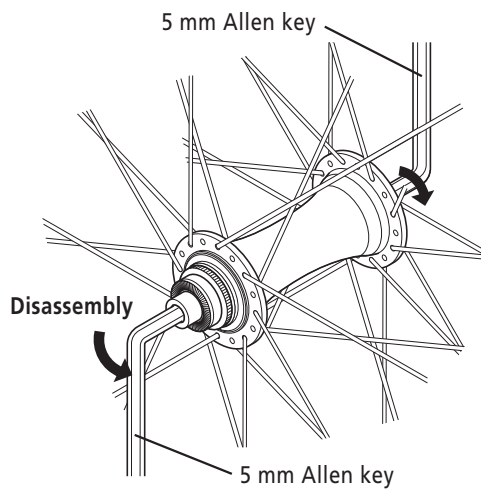
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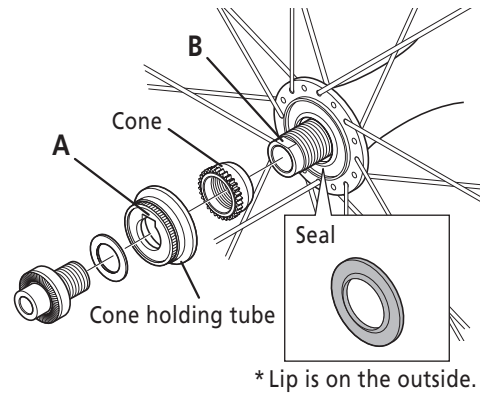
Pull out the hub axle by following the procedure shown in the illustration. Disassembly from the right side is not possible.

<HB-9000>

(1)

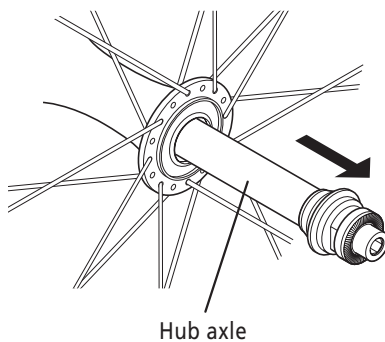


(2)



Tightening torque:
15.0 - 17.0 N·m {131 - 149 in. lbs.}

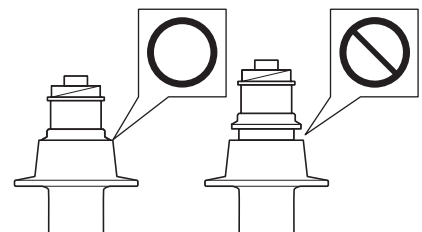
(3)



Cautions in installing the front hub.

Note:

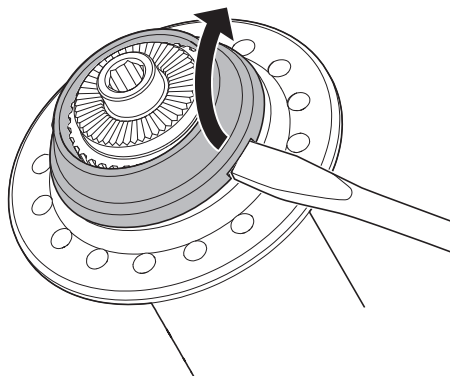
- When removing and installing the seal, do it very carefully so that the seal does not become bent.
When reinstalling the seal, make sure that it is facing the right way, and insert it as far as it will go.



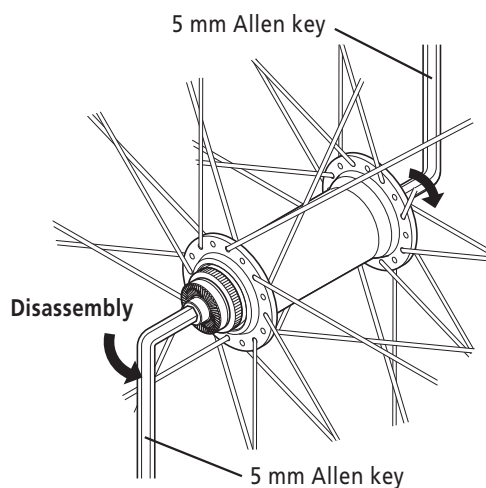
- Tighten the cone onto the hub axle until it has no looseness.
While aligning the knurls of the cone and the knurls of the cone holding tube, align section A of the cone holding tube with section B on the hub axle.

<HB-6800>

(1)

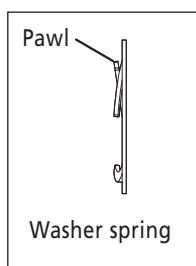


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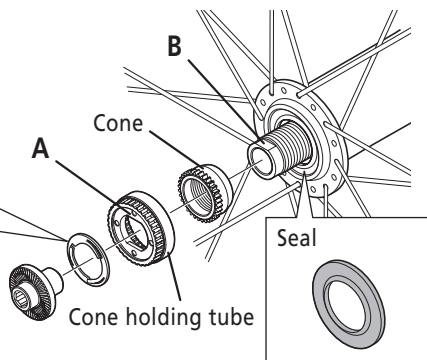


Tightening torque:
15.0 - 17.0 N·m {131 - 149 in. lbs.}

(3)

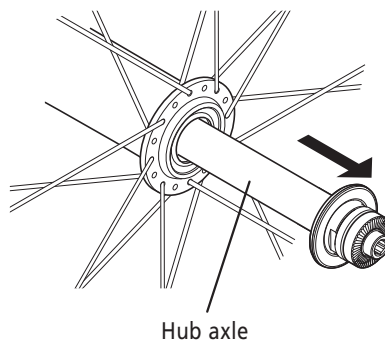


* Be careful about the direction.



* Lip is on the outside.

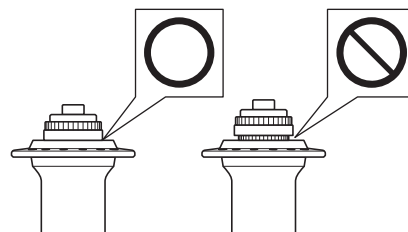
(4)



Cautions in installing the front hub.

Note:

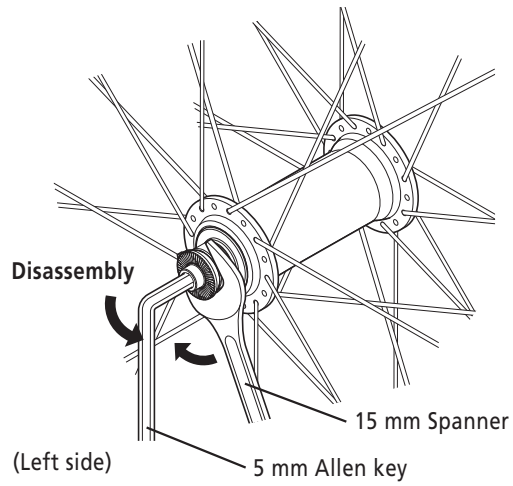
- When removing and installing the seal, do it very carefully so that the seal does not become bent.
When reinstalling the seal, make sure that it is facing the right way, and insert it as far as it will go.



- Tighten the cone onto the hub axle until it has no looseness.
While aligning the knurls of the cone and the knurls of the cone holding tube, align section A of the cone holding tube with section B on the hub axle.

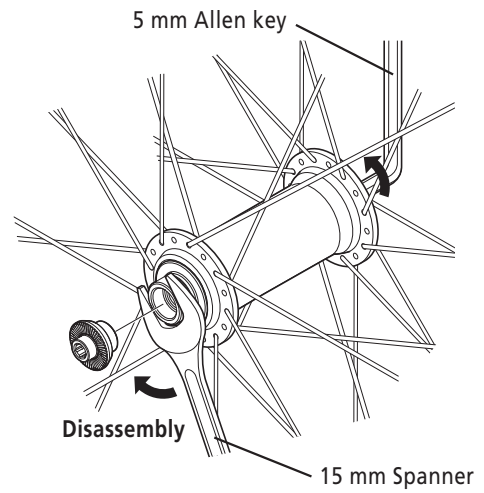
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(1)

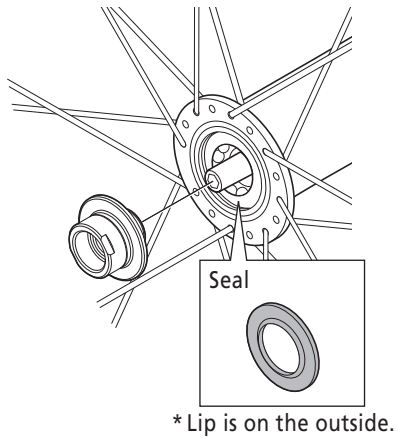


Tightening torque:
10.0 - 15.0 N·m {88 - 131 in. lbs.}

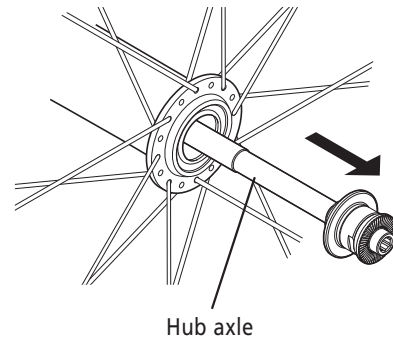
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(3)



(4)



Cautions in installing the front hub.

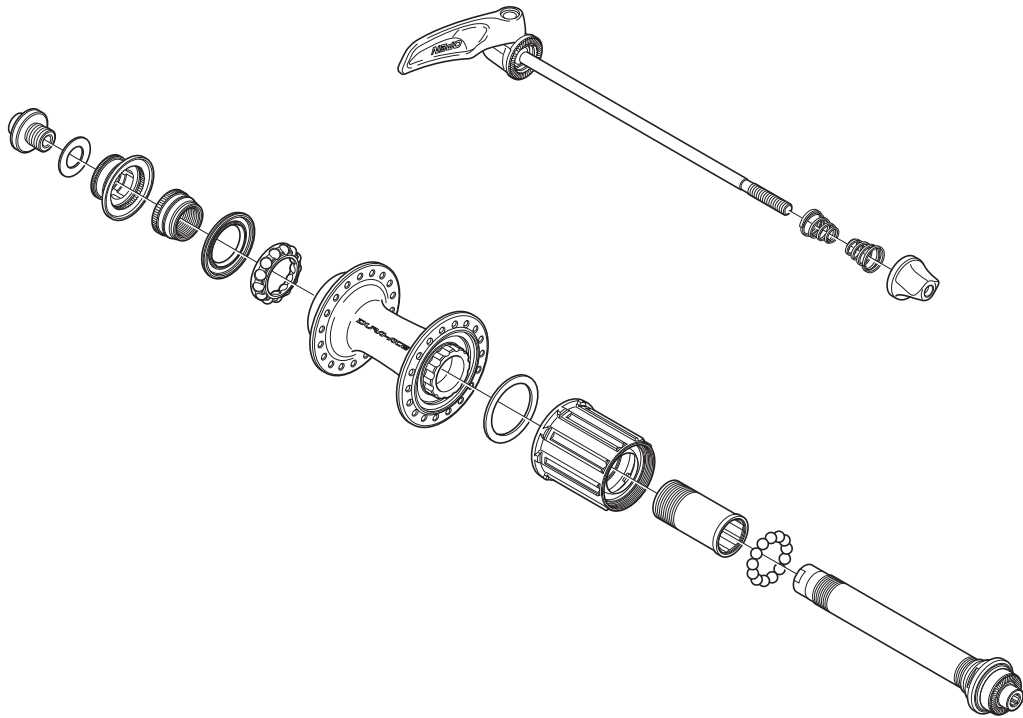
Note:

- When removing and installing the seal, do it 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.

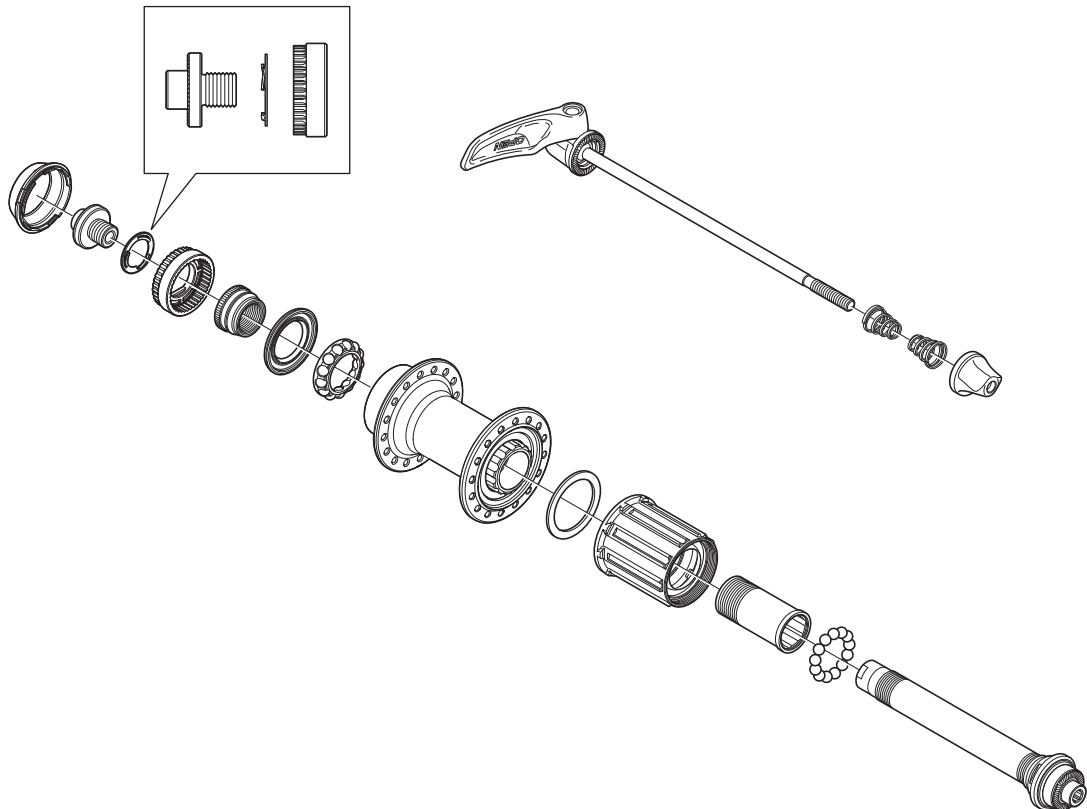
■ Freehub

Freehub can be disassembled as shown in the illustration. However, do not disassemble the freehub any further than this. If it is disassembled any further, it will not be possible to reassemble it.

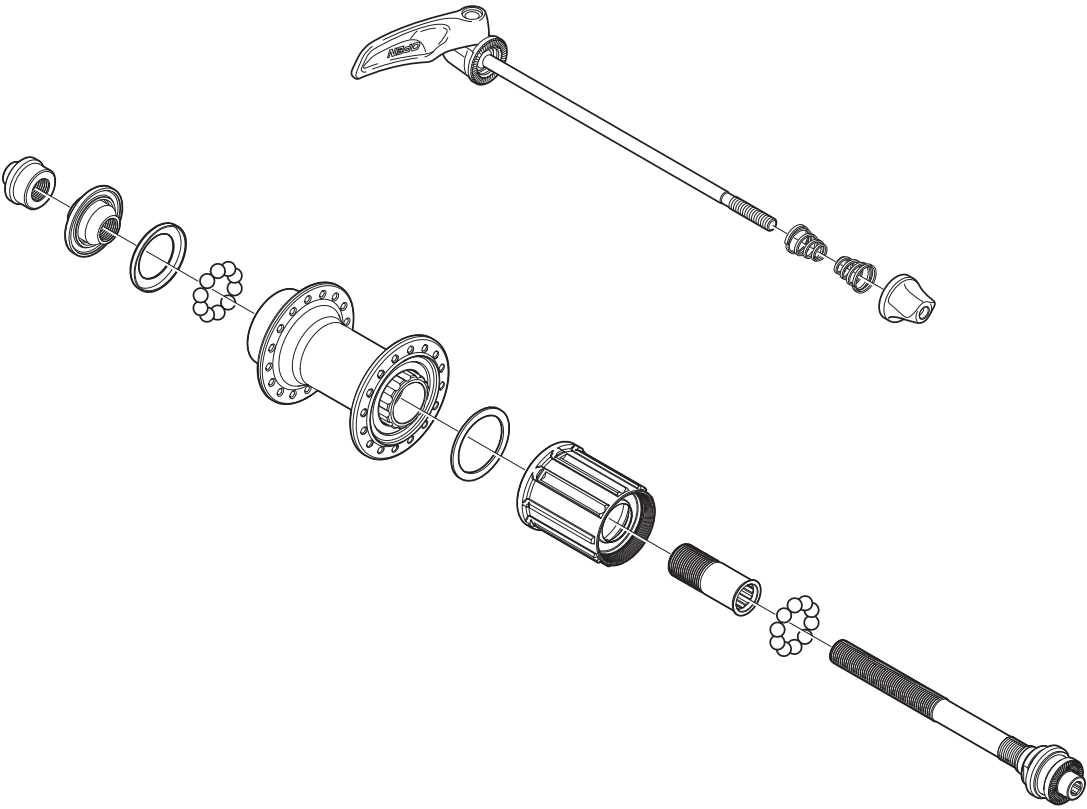
<FH-9000>



<FH-6800>



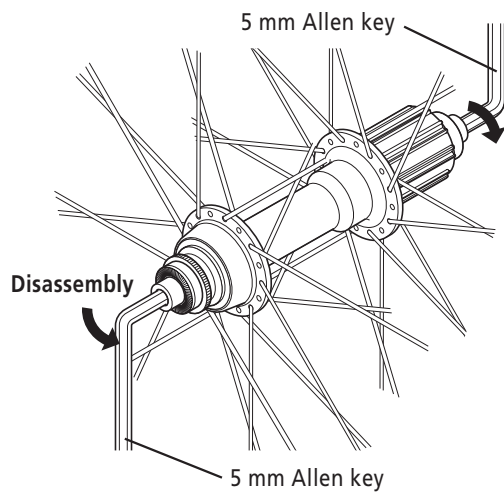
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Pull out the hub axle by following the procedure shown in the illustration. Disassembly from the right side is not possible.

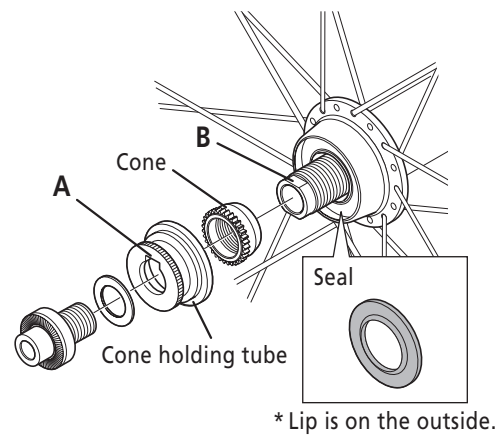
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(1)

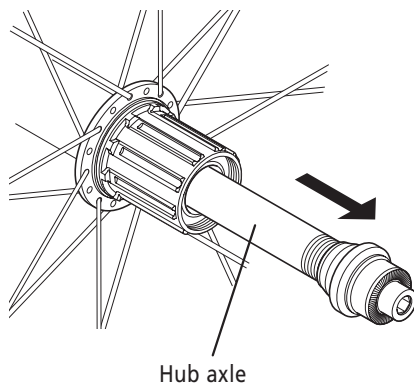


Left side Tightening torque:
15.0 - 17.0 N·m {131 - 149 in. lbs.}

(2)



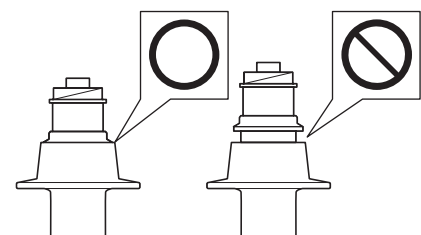
(3)



Cautions in installing the freehub.

Note:

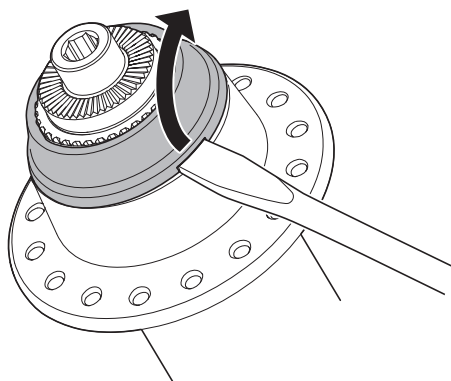
- When removing and installing the seal, do it very carefully so that the seal does not become bent.
When reinstalling the seal, make sure that it is facing the right way, and insert it as far as it will go.



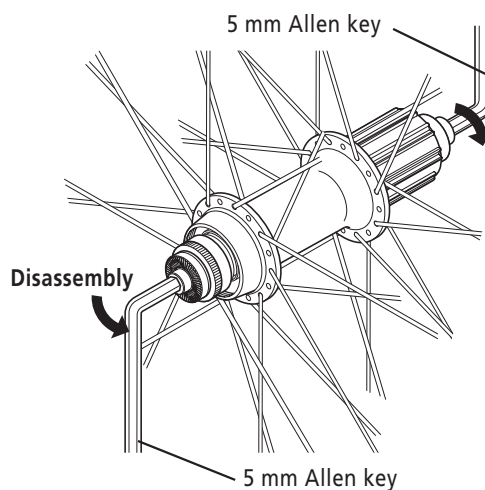
- Tighten the cone onto the hub axle until it has no looseness.
While aligning the knurls of the cone and the knurls of the cone holding tube, align section A of the cone holding tube with section B on the hub axle.

<FH-6800>

(1)

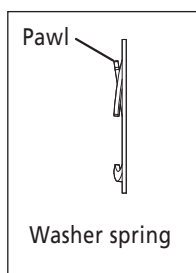


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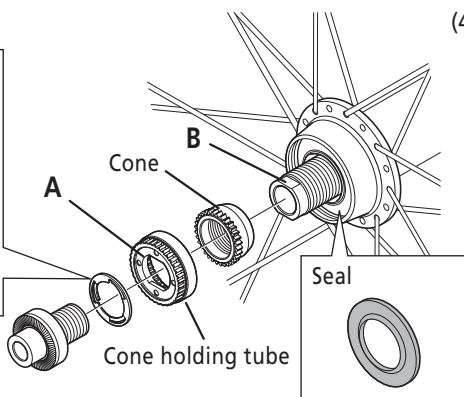


Left side Tightening torque:
15.0 - 17.0 N·m {131 - 149 in. lbs.}

(3)

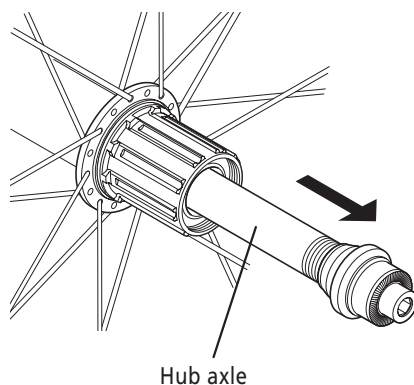


* Be careful about the direction.



* Lip is on the outside.

(4)

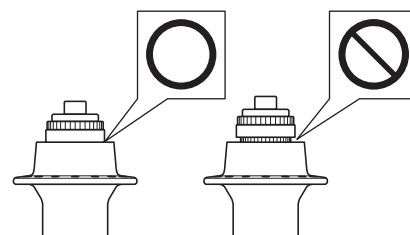


Cautions in installing the freehub.

Note:

- When removing and installing the seal, do it very carefully so that the seal does not become bent.

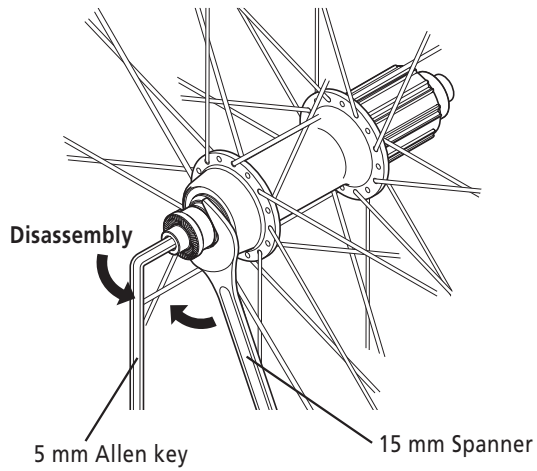
When reinstalling the seal, make sure that it is facing the right way, and insert it as far as it will go.



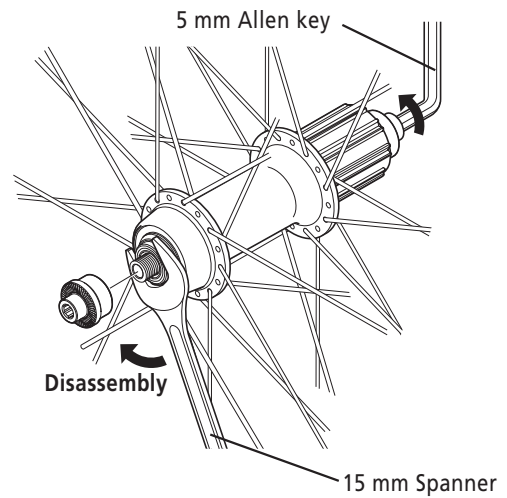
- Tighten the cone onto the hub axle until it has no looseness. While aligning the knurls of the cone and the knurls of the cone holding tube, align section A of the cone holding tube with section B on the hub axle.

<FH-5800>

(1)

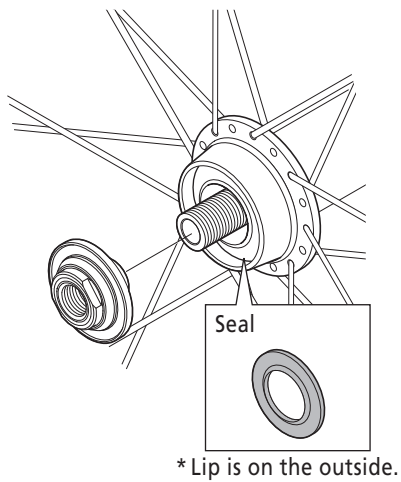


(2)

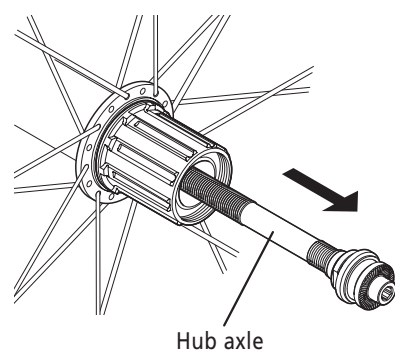


Left side Tightening torque:
10.0 - 15.0 N·m {88 - 131 in. lbs.}

(3)



(4)



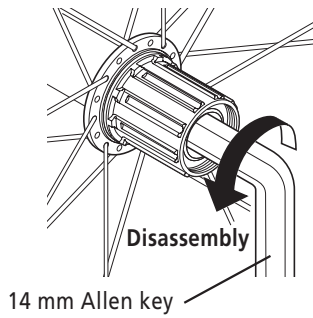
Cautions in installing the freehub.

Note:

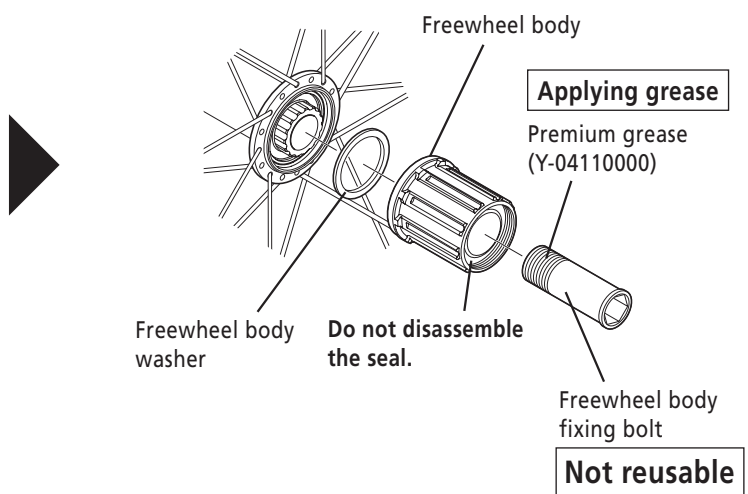
- When removing and installing the seal, do it very carefully so that the seal does not become bent.
When reinstalling the seal, make sure that it is facing the right way, and insert it as far as it will go.

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

<FH-9000 / FH-6800>



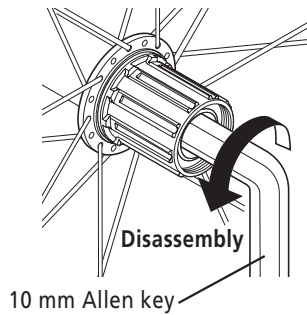
Tightening torque:
45 - 50 N·m {394 - 437 in. lbs.}



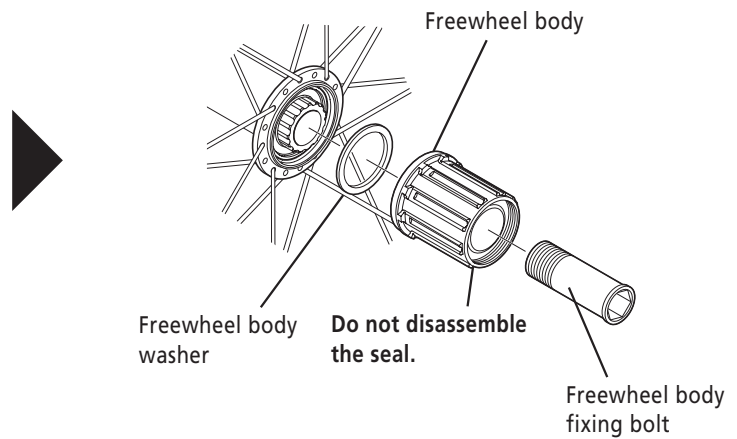
Note:

- For FH-9000, replace the freewheel mounting bolt as well when replacing the freewheel.
- Be sure to apply grease to the thread of the freewheel body fixing bolt, otherwise looseness or sticking may occur.
Do not disassemble the freewheel or apply oil or grease to it, otherwise problems with operation may occur.

<FH-5800>



Tightening torque:
35 - 50 N·m {306 - 437 in. lbs.}



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

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