

## **Dealer's Manual**

# **On Road Disc Brake Hub**

HB-CX75  
HB-RS505  
FH-CX75  
FH-RS505

## 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.

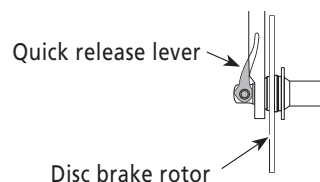
It is recommended to use genuine Shimano parts only. If parts such as bolts and nuts become loose or damaged, the bicycle may suddenly fall over, which may cause serious injury.

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.
- If the quick release lever on the hub is on the same side as the disc brake rotor, they may interfere with each other, which is dangerous, so check that they do not. 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.
- Also read the manuals for the quick release lever and the disc brake.



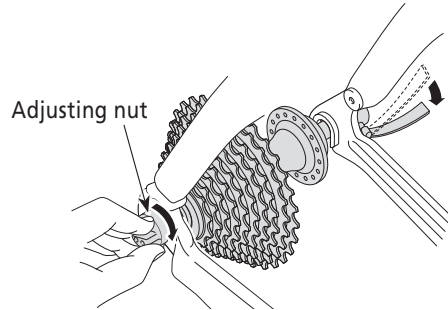
### For Installation to the Bicycle, and Maintenance:

- 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.
- If the quick release lever can be easily pushed to the CLOSE position, this means the clamping strength is insufficient. Return the quick release lever to the position perpendicular to the bicycle frame and again turn the adjusting nut clockwise to increase the clamping strength. Push the quick release lever back to the CLOSE position.



- When riding the bicycle with the disc brake mounted on a steep or long downhill, apply the front and rear brakes evenly. If only one of them is continuously applied, the hub becomes hot, which may accelerate deterioration.
- 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 rotation 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 onto the frame, it is unnecessary to leave a gap when adjusting the axle unit.
- 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.

# INSTALLATION

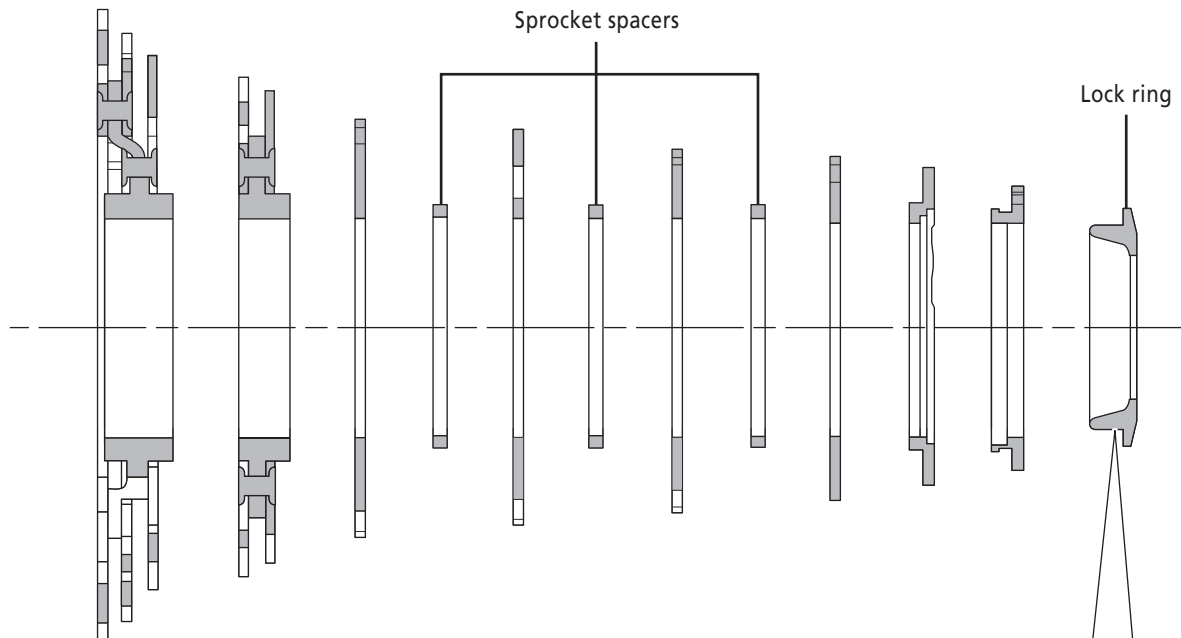
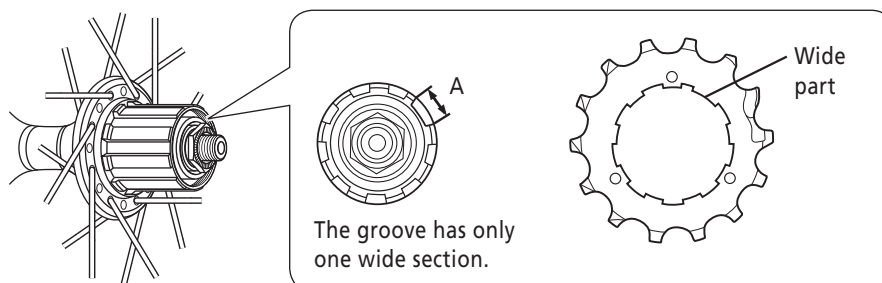
The following tools are needed to assemble this product.

Where to use	Tool
Cassette sprockets	TL-LR10 / 15, TL-SR23 Adjustable wrench
Hub	Allen key 5 mm, 10mm, 14 mm TL-HS20 / HS22 / HS37 Spanner 13mm, 15mm, 17mm

## ■ Installation of cassette sprocket

Install the hub as shown in the illustration.

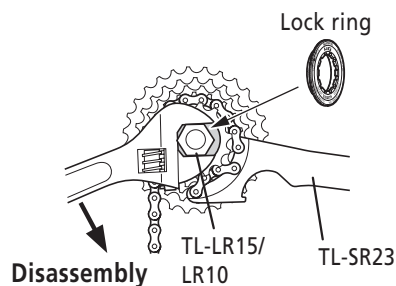
For each sprocket, the surface that has the group mark should face outward and be positioned so that the wide parts of the convex sections on each sprocket and the A part (where the groove width is wide) of the freewheel body are aligned.



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

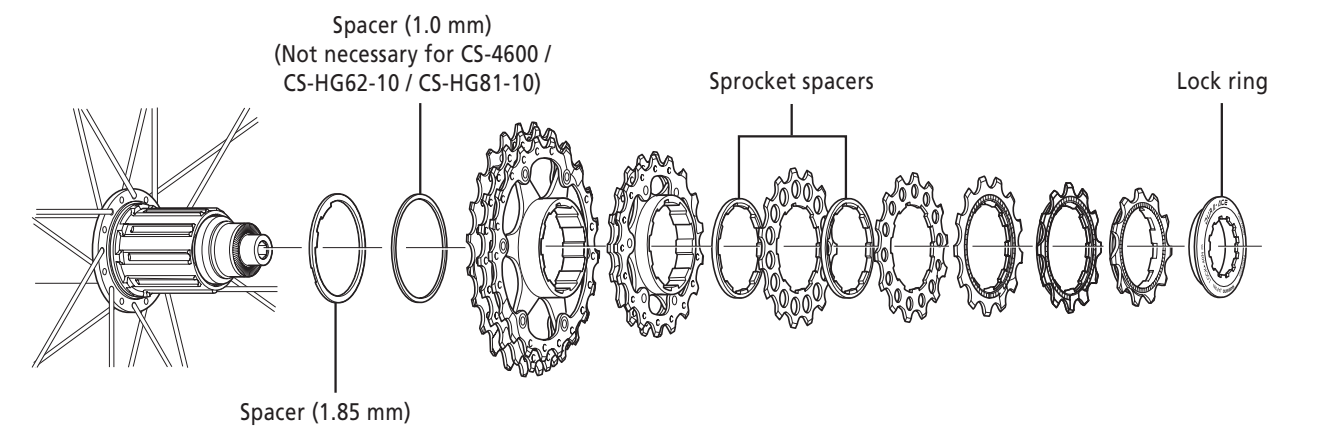
**Tightening torque:**  
30.0 - 50.0 N·m {262 - 437 in. lbs.}

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



**Note:**

When mounting a cassette sprocket on FH-CX75 / FH-RS505, check the compatibility table.



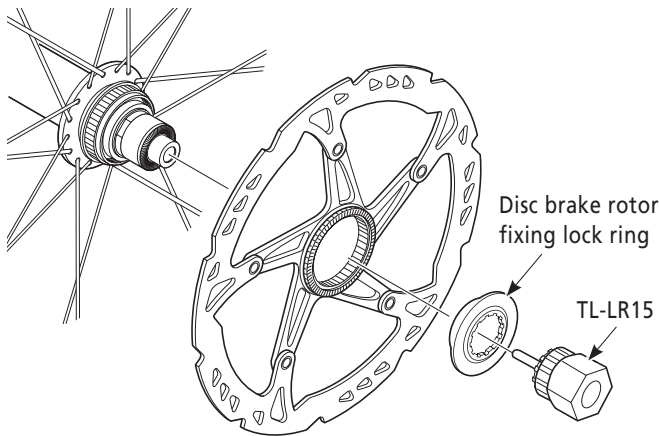
Cassette sprocket compatibility table

			Cassette sprockets					
			11-speed	10-speed			9-speed	8-speed
			CS-9000 CS-6800	CS-5700	CS-4600	CS-HG81-10 CS-HG62-10	CS-HG50-9	CS-HG50-8
Freehub	FH-CX-75 FH-RS505	11-speed	OK	OK	OK	OK		
	Spacer	1.85 mm	not necessary	necessary	necessary	necessary		
		1 mm	not necessary	necessary	not necessary	not necessary		

1.85 mm spacer comes with the 11-speed wheel.  
1 mm spacer comes with the 10-speed cassette sprocket.

■ Installation of the disc brake rotor

**Tightening torque:**  
40.0 - 50.0 N·m {350 - 437 in. lbs.}

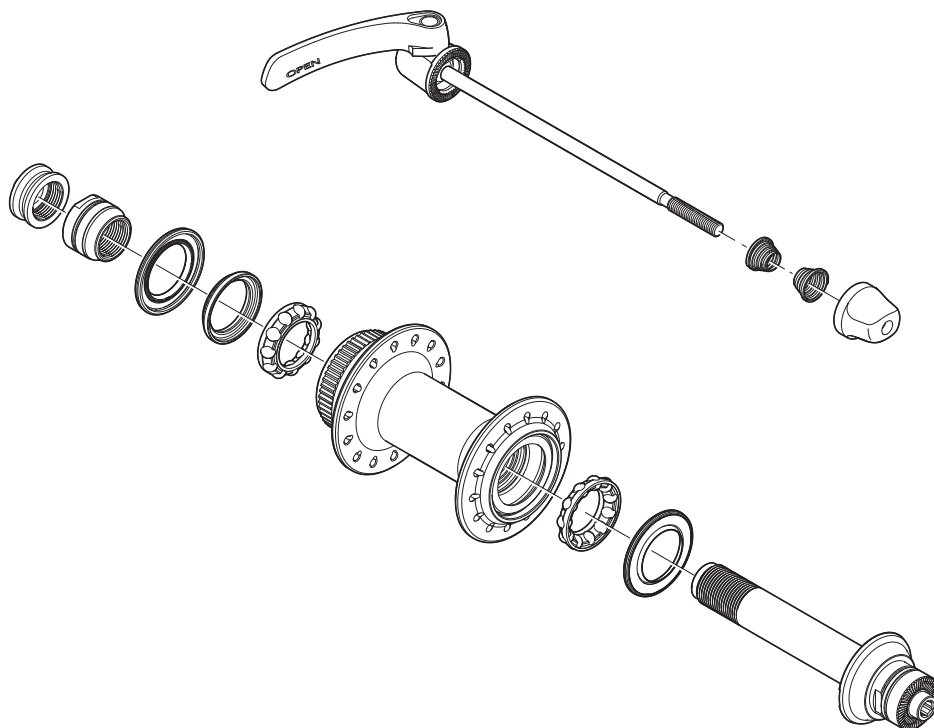


## MAINTENANCE

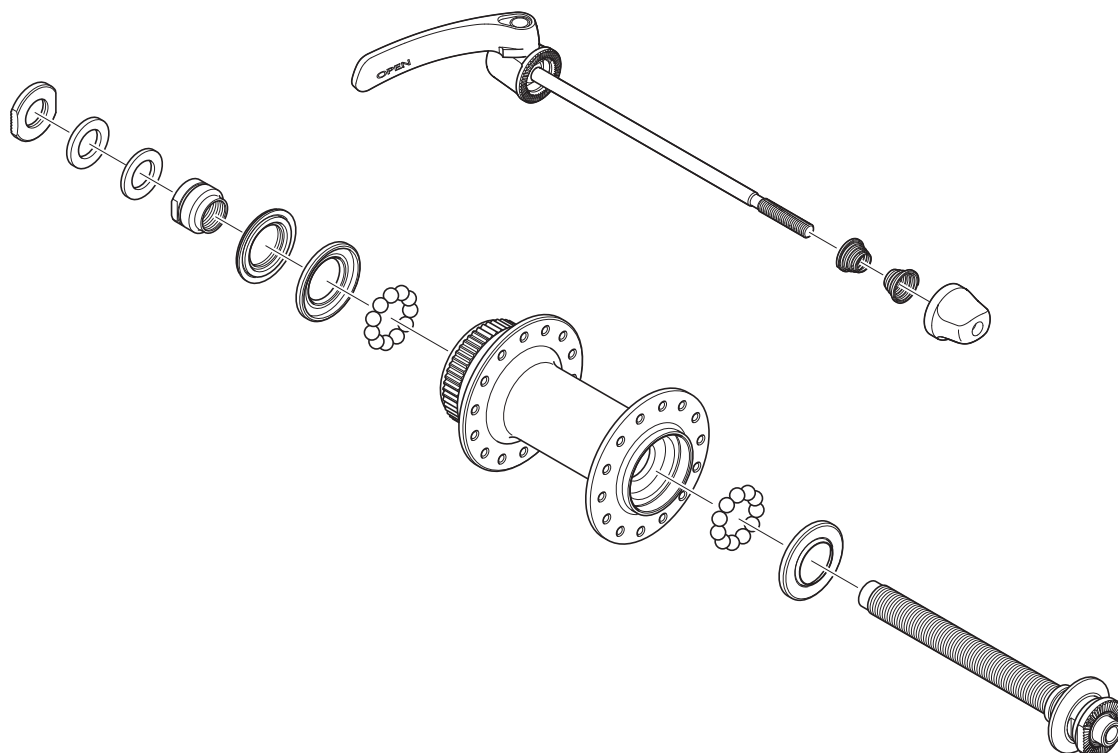
### ■ Front hub

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

<HB-CX75>



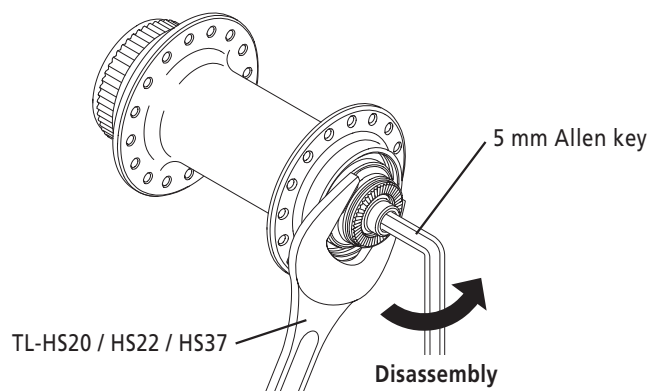
<HB-RS505>



### <HB-CX75>

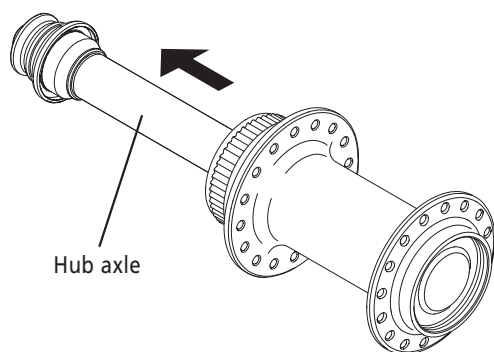
Pull out the hub axle by following the procedure shown in the illustration. Disassembly from the left side is not possible.

(1)



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

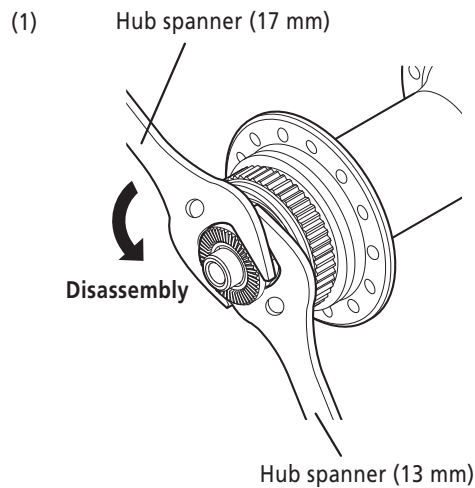
(2)



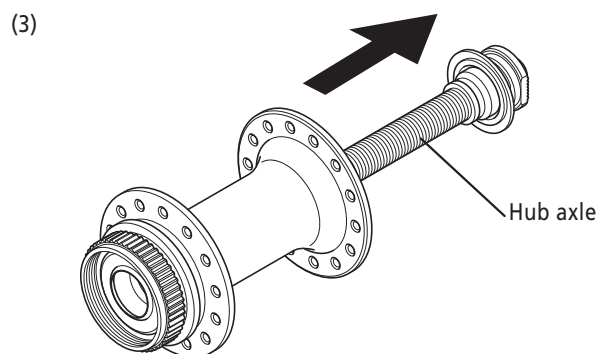
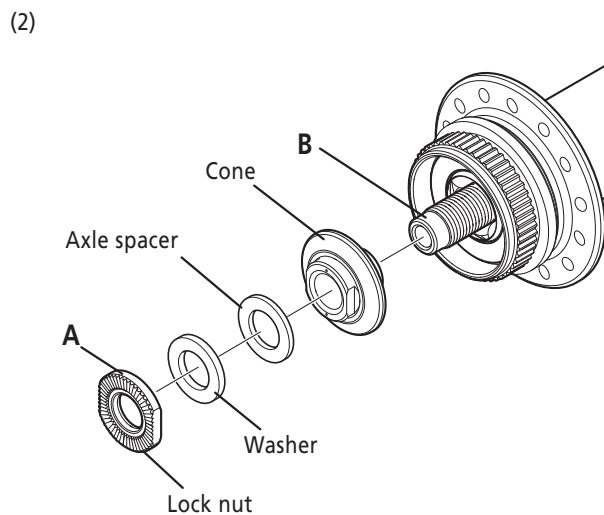


## <HB-RS505>

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



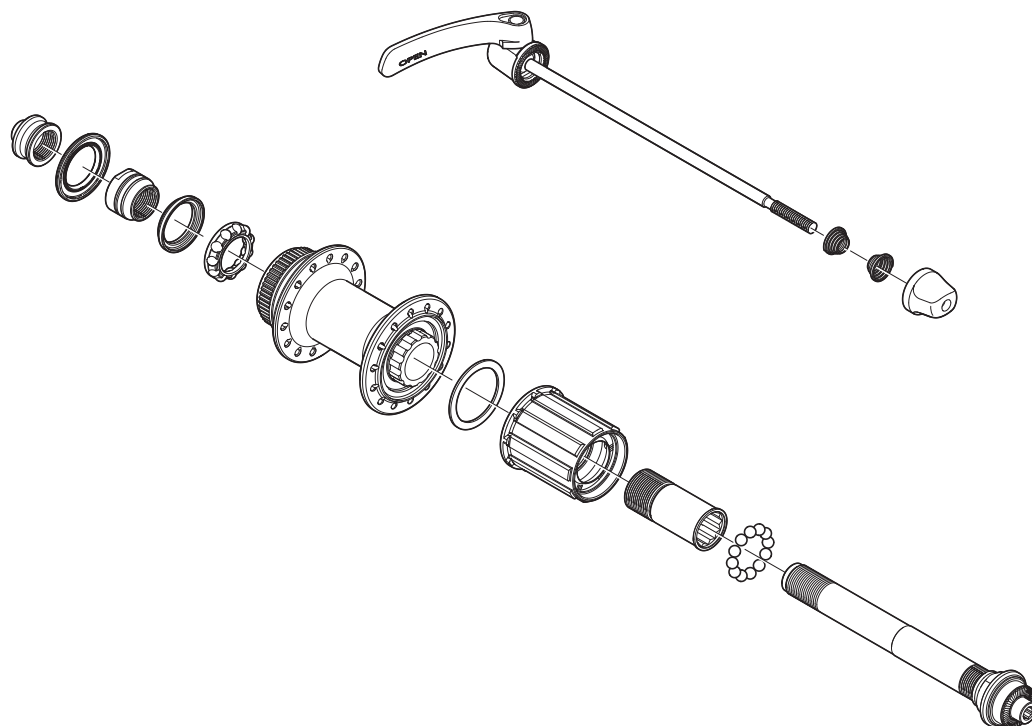
**Tightening torque:**  
15.0 - 17.0 N·m {131 - 149 in. lbs.}



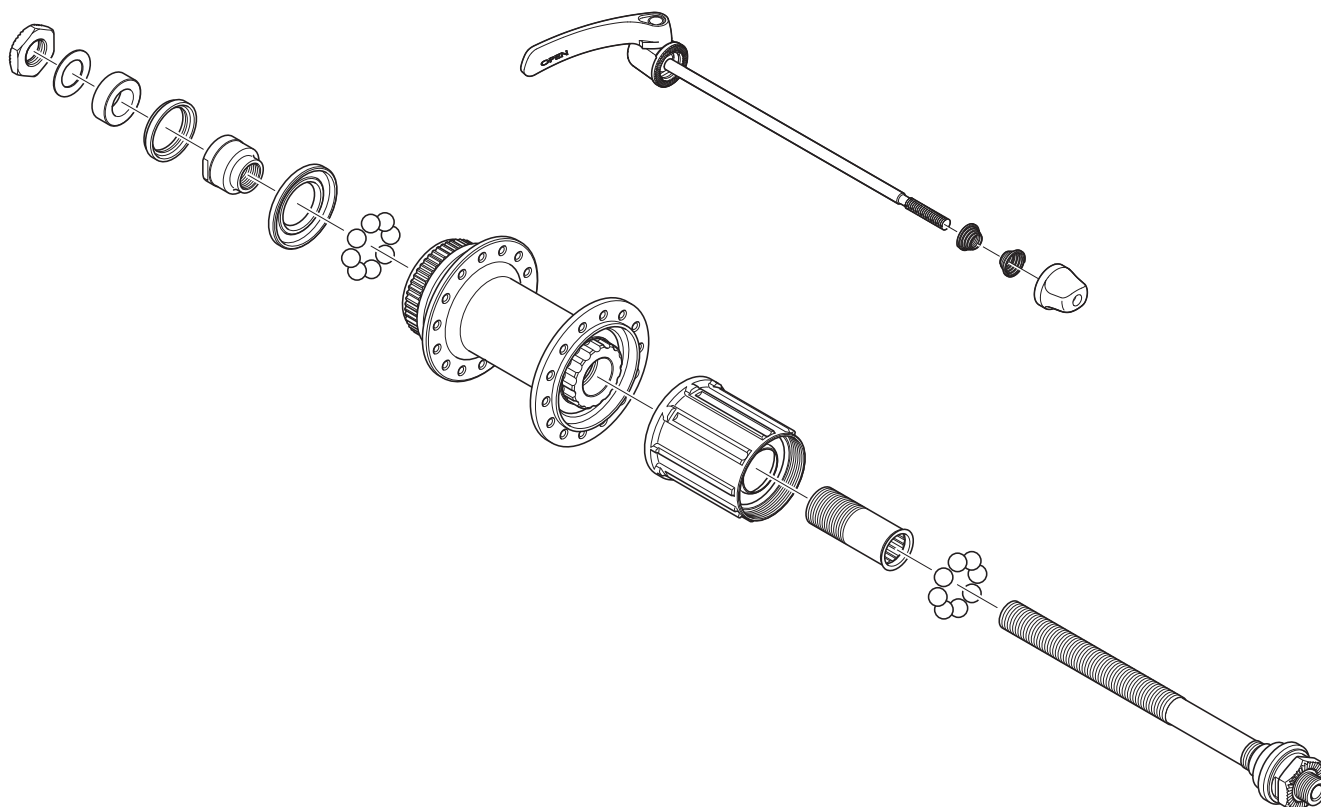
## ■ Freehub

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

**<FH-CX75>**



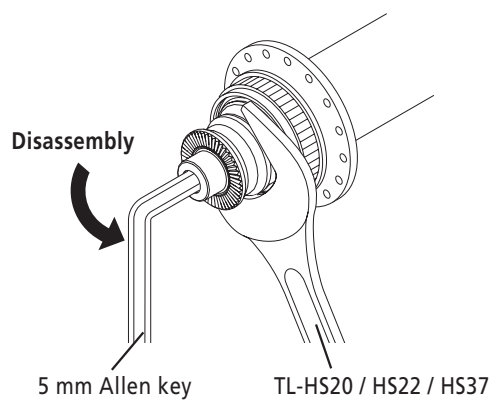
**<FH-RS505>**



## <FH-CX75>

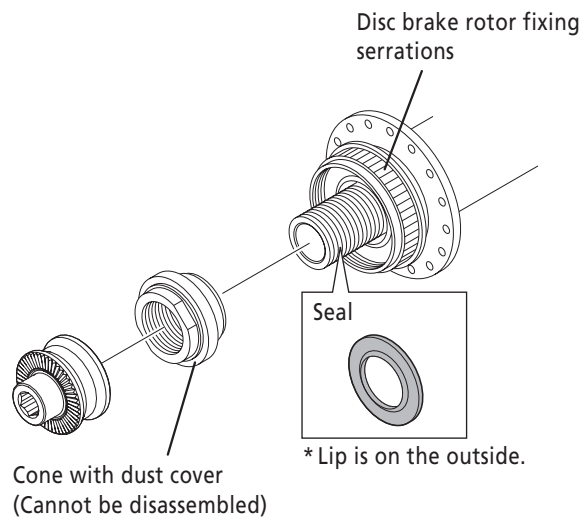
Pull out the hub axle by following the procedure shown in the illustration. Disassembly from the right side is not possible.

(1)

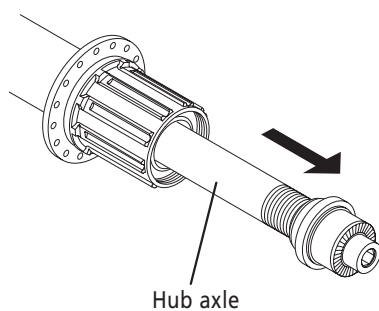


**Tightening torque:**  
15.0 - 20.0 N·m {131 - 175 in. lbs.}

(2)

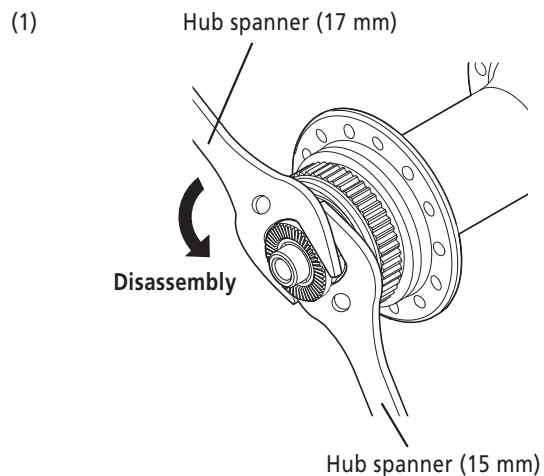


(3)

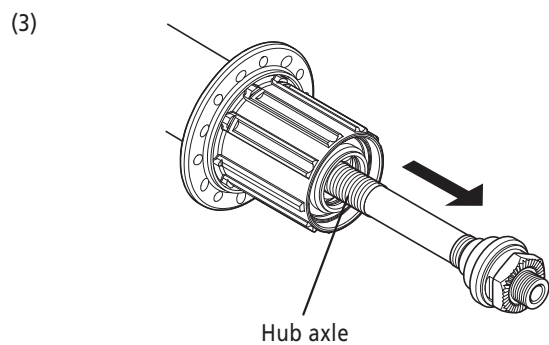
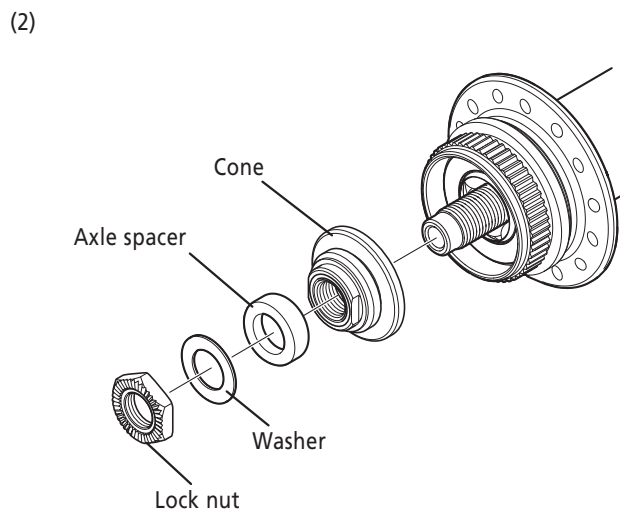


## <FH-RS505>

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

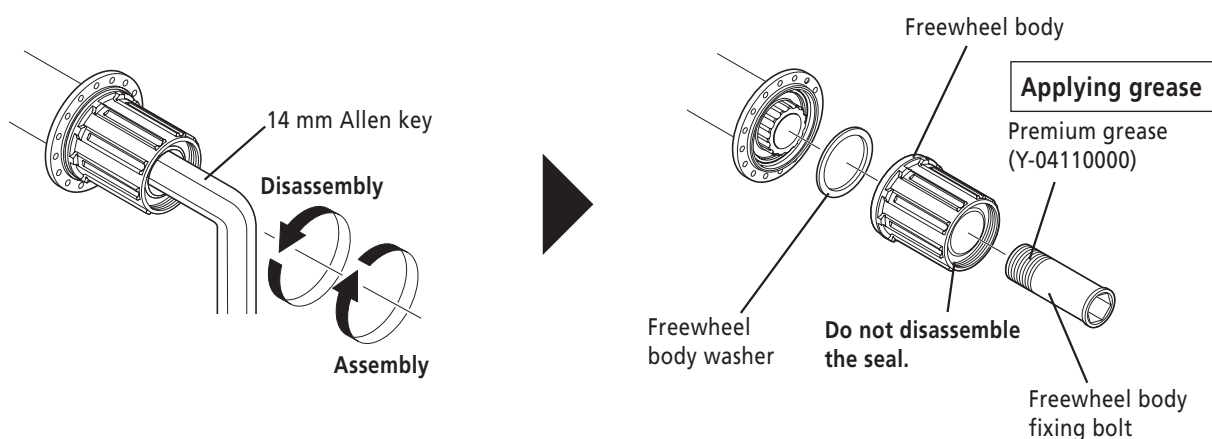


**Tightening torque:**  
15.0 - 17.0 N·m {131 - 149 in. lbs.}



### <FH-CX75>

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



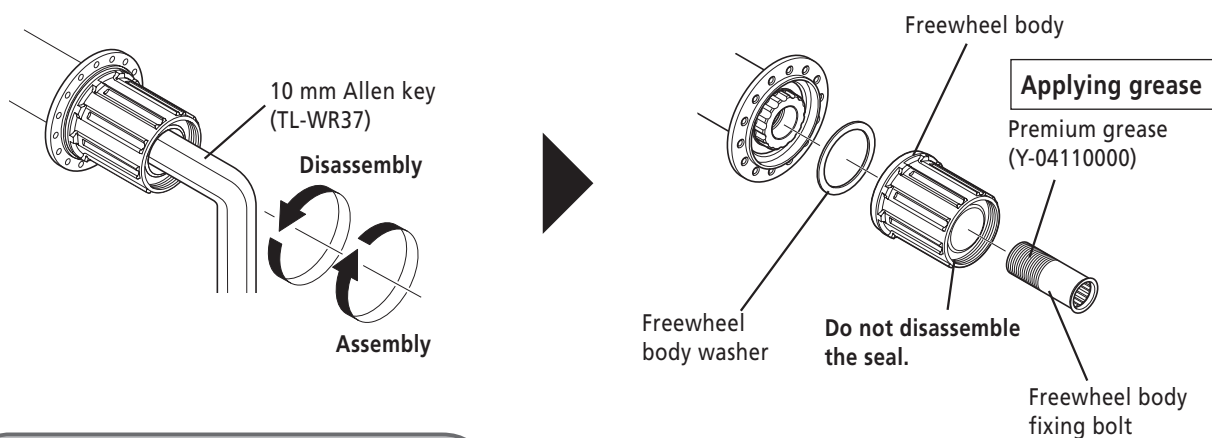
**Tightening torque:**  
45.0 - 50.0 N·m {393 - 437 in. lbs.}

#### Note:

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-RS505>

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



**Tightening torque:**  
35.0 - 50.0 N·m {306 - 437 in. lbs.}

#### Note:

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.

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

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