

## General Safety Information

### ⚠ WARNING

- 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.
- Obtain and read the service instructions carefully prior to installing the parts. Loose, worn, or damaged parts may cause injury to the rider. We strongly recommend only using genuine Shimano replacement parts.
- Read these Technical Service Instructions carefully, and keep them in a safe place for later reference.

### Note

- Do not use the CS-7800 in any combination other than with the CN-7801. Other chains cannot be used as the sizes do not match.
- An 11T and a 12T lock ring are available for use with the CS-7800. Use whichever lock ring matches the sprocket configuration.
- If the wheel becomes stiff and difficult to turn, you should lubricate it with grease.
- Do not apply any oil to the inside of the hub, otherwise the grease will come out.
- You should periodically wash the sprockets in a neutral detergent and then lubricate them again. In addition, cleaning the chain with neutral detergent and lubricating it can be an effective way of extending the useful life of the sprockets and the chain.
- If the chain keeps coming off the sprockets during use, replace the sprockets and the chain.
- Parts are not guaranteed against natural wear or deterioration resulting from normal use.
- For maximum performance we highly recommend Shimano lubricants and maintenance products.

## Technical Service Instructions

SI-3B90C

# FH-7801

Freehub

## Specifications

### Freehub

Model No.	FH-7801
Gears	10
No. of spoke holes	24 / 28 / 32 / 36
Overlock nut dimensions	130 mm

# SHIMANO

These service instructions are printed on recycled paper.


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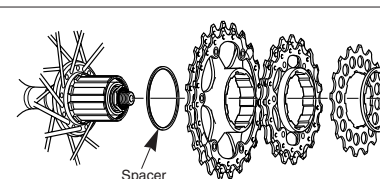
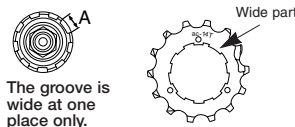
## Cassette sprocket

Sprockets marked by  are secured.

Model No.	CS-7800										
Sprocket tooth configuration	11T - 21T	11T, 12T, 13T, 14T, 15T, 16T,	17T, 18T,	19T, 21T							
	11T - 23T	11T, 12T, 13T, 14T, 15T, 16T,	17T, 19T,	21T, 23T							
	12T - 21T	12T, 13T, 14T, 15T, 16T,	17T, 18T,	19T, 20T, 21T							
	12T - 23T	12T, 13T, 14T, 15T, 16T,	17T, 18T,	19T, 21T, 23T							
	12T - 25T	12T, 13T, 14T, 15T, 16T,	17T, 19T,	21T, 23T, 25T							
12T - 27T	12T, 13T, 14T, 15T, 16T,	17T, 19T,	21T, 24T, 27T								

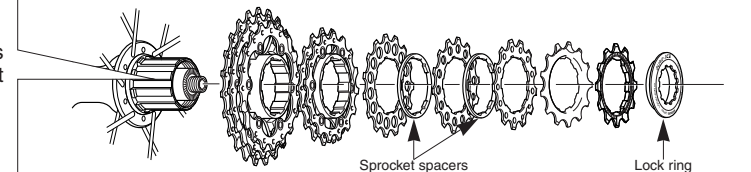
## Installation of the HG sprockets

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.

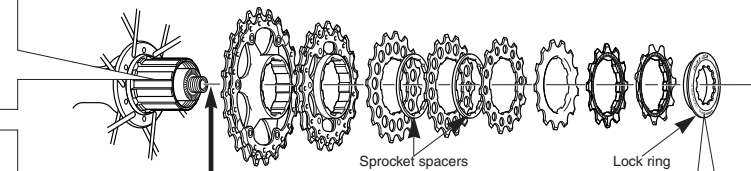


When installing the CS-7800 to the 9-speed freewheel, install a spacer in the position shown in the illustration.

12T - 21T, 12T - 23T, 12T - 25T, 12T - 27T

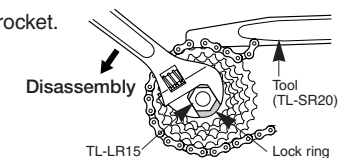


11T - 21T, 11T - 23T



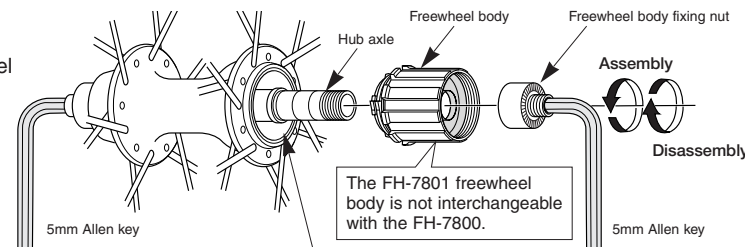
- For installation of the HG sprockets, use the special tool (TL-LR15) to tighten the lock ring.
- To replace the HG sprockets, use the special tool (TL-LR15) and TL-SR20 to remove the lock ring. Install the TL-SR20 to the largest sprocket.

Tightening torque:  
30 - 50 N·m  
{261 - 434 in. lbs.}



## Replacement of the freewheel body

- Remove the freewheel body fixing nut (inside the freewheel body), and then replace the freewheel body. (The freewheel body fixing nut has a left-hand thread.)
- Special grease is used for the freewheel body. Do not mix it with other types of grease, as this may cause problems with the operation of the freewheel clutch mechanism. (Grease part number: Y-3B980000)



Tightening torque:  
10 - 15 N·m  
{86 - 130 in. lbs.}

### Note:

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

Do not remove the seal ring, otherwise it will cause a severe drop in the waterproofing performance.