

General Safety Information

WARNING – To avoid serious injuries:

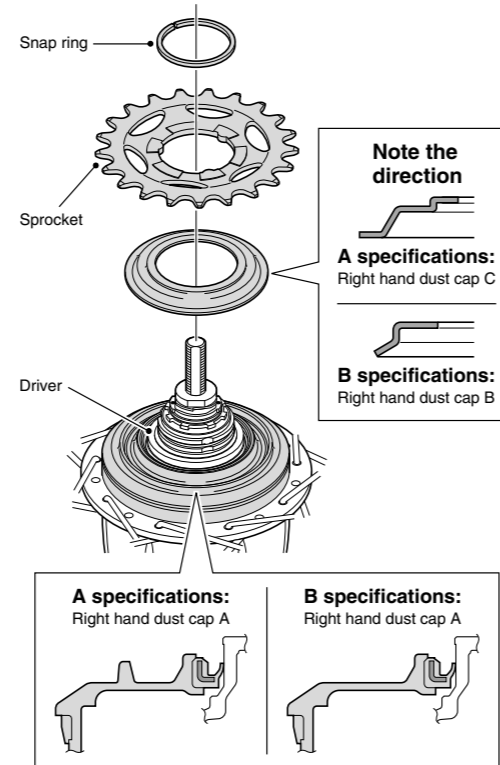
- When installing the hub to the frame, be sure to install the correct non-turn washers to the left and right sides, and securely tighten the hub nuts to the specified torques. If the non-turn washers are installed to one side only, or if the hub nuts are not tightened sufficiently, the non-turn washer may fall out, which could cause the hub axle to rotate and the cassette joint to turn. This may then cause the handlebars to be accidentally pulled by the shifting cable, and an extremely serious accident could result.
- Obtain and read the service instructions carefully prior to installing the parts.** Loose, worn, or damaged parts may cause serious injury to the rider. We strongly recommend only using genuine Shimano replacement parts.
- 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.
- Read these Technical Service Instructions carefully, and keep them in a safe place for later reference.

NOTE:

- You can shift gears while pedaling, but on rare occasions the pawls and ratchet inside the hub may produce some noise afterwards as part of normal gear shifting operation.
- The 8-speed hub has a built-in mechanism to support shifting. When this support mechanism operates during shifting, noise or vibration may occur. The shifting feel may also change depending on the gear position at the time of shifting. Noise may also be generated if the crank arms are turned backward or if the bicycle is pushed backward when the gear position is 5, 6, 7 or 8. These occurrences are a normal result of the structure of the internal gear shifting mechanism, and are not a sign of a malfunction.
- The CJ-8S20 cassette joint should only be used with sprockets from 16T to 23T.
- It is recommended that you set the chainrings so that the gear ratios are approximately 2.1.
Example: F36T – R16T, F38T – R18T, F46T – R22T
- In order to maintain proper performance, it is recommended that you ask the place where you purchased the bicycle or your nearest Pro shop to carry out maintenance such as greasing the internal hub about once every two years starting from the first time of use (or once about every 5,000 km if the bicycle is used very frequently). Furthermore, it is recommended that you use the Shimano internal hub grease or lubrication kit when carrying out maintenance. If the special grease or lubrication kit is not used, problems may occur such as the gear shifting not working correctly.
- The internal hub is not completely waterproof. Avoid using the hub in places where water might get inside it and do not use high-pressure water to clean the hub, otherwise the internal mechanism may rust.
- 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.
- For any questions regarding methods of handling or adjustment, please contact the place of purchase.
- Do not disassemble the hub. If you think disassembly might be necessary, contact the place of purchase.

Installation of the sprocket to the hub

Place right hand dust cap C or B onto the driver on the right side of the hub body. Next, install the sprocket and secure it in place with the snap ring.



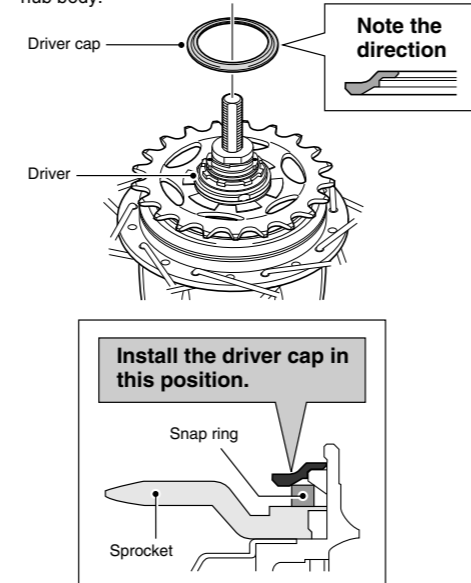
Specifications	Applicable sprockets	
	Outward assembling	Inward assembling
A	16T – 23T	20T – 23T
B	16T – 23T	

Note:

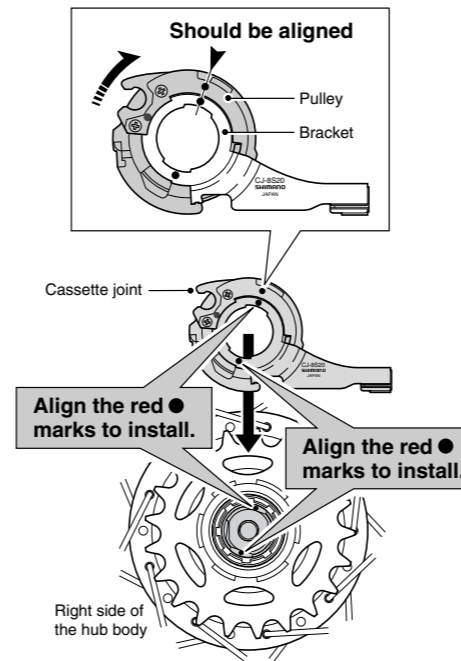
- For A specifications: If the sprocket is an inward assembling sprocket with 19T or less or for belt drive specifications, right hand dust cap A will come into contact with the chain or pulley and so B specifications should be used instead.
- For B specifications: If the sprocket is an inward assembling sprocket with 16T and thick teeth or for belt drive specifications, remove right hand dust cap B before use.

Installation of the cassette joint to the hub

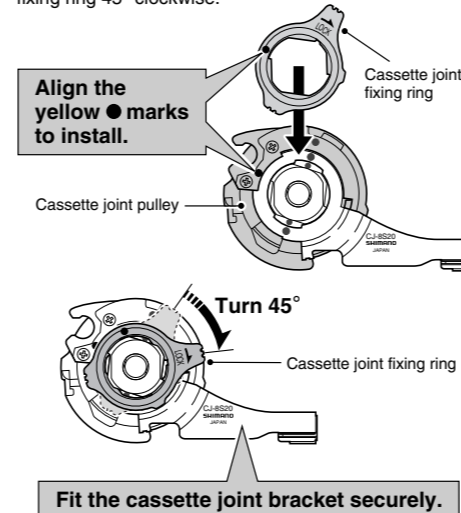
- Install the driver cap to the driver on the right side of the hub body.



- Turn the cassette joint pulley in the direction of the arrow in the illustration to align the red ● marks on the pulley and the bracket. With the cassette joint in this condition, install it so that the red ● mark on the cassette joint is aligned with the red ● mark on the right side of the hub body.

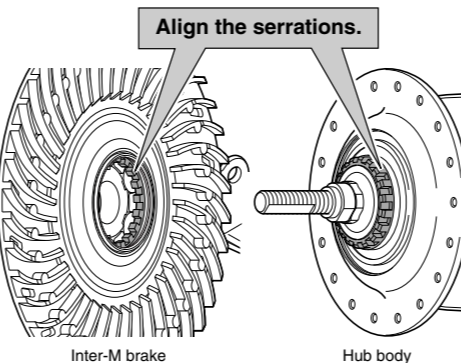


- Secure the cassette joint to the hub with the cassette joint fixing ring. When installing the cassette joint fixing ring, align the yellow ● mark with the yellow ● mark on the cassette joint pulley, and then turn the cassette joint fixing ring 45° clockwise.



Installing the Inter-M brake to the hub body

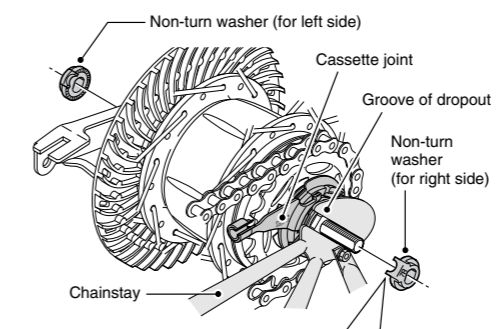
Engage the serrations on the hub body with the serrations on the Inter-M brake, and then provisionally tighten the brake unit fixing nut.



Refer to the Technical Service Instructions for the Inter-M brake for details on installing the Inter-M brake.

Installation of the hub to the frame

- Mount the chain on the sprocket, and then set the hub axle into the dropouts.
- Place the non-turn washers onto the right side and left side of the hub axle. At this time, turn the cassette joint so that the projecting parts of the non-turn washers fit into the grooves of the dropouts. If this is done, the cassette joint can be installed so that it is almost parallel to the chainstay.



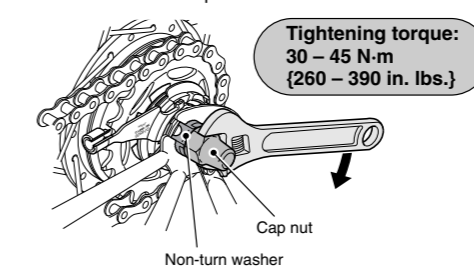
- Use whichever non-turn washers match the shape of the dropouts. Different non-turn washers are used at the left and right sides.

Dropouts	Non-turn washer		Size
	Right	Left	
Standard	5R/Yellow	5L/Brown	$\theta \leq 20^\circ$
	7R/Black	7L/Gray	$\theta \leq 38^\circ$
Reversed	6R/Silver	6L/White	$\theta = 0^\circ$
Reversed (full chain case)	5R/Yellow	5L/Brown	$\theta = 0^\circ$
Vertical	8R/Blue	8L/Green	$\theta = 60^\circ - 90^\circ$



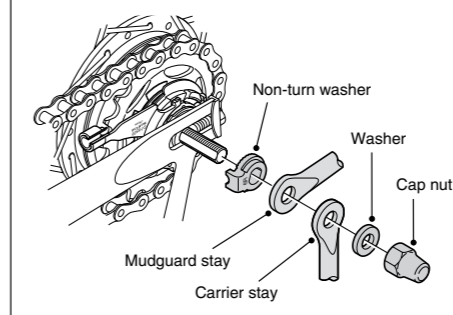
- The projecting parts should be on the dropouts side.
- Install the non-turn washers so that the projecting parts is securely in the dropouts grooves on either side of the hub axle.

- Take up the slack in the chain and secure the wheel to the frame with the cap nuts.



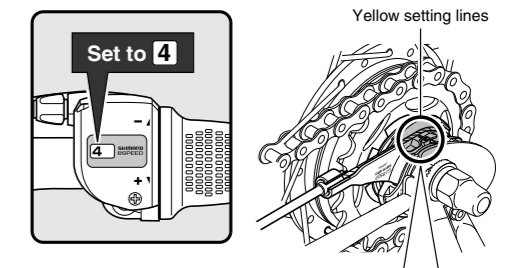
Note:

When installing a part such as a mudguard stay to the hub axle, install in the order shown in the illustration below.



Adjusting the cassette joint

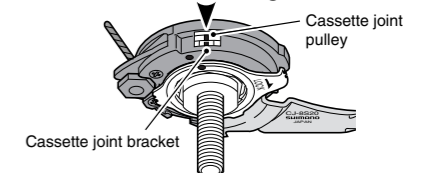
- Move the shifting lever from [1] to [4]. Check to be sure that the yellow setting lines on the cassette joint bracket and pulley are aligned at this time.



The yellow setting lines on the cassette joint are located in two places. Use the one that is easiest to see.

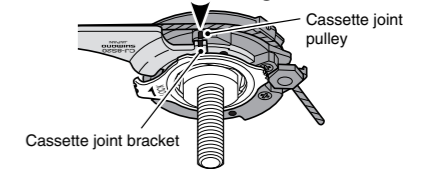
When bicycle is standing up

Should be straight

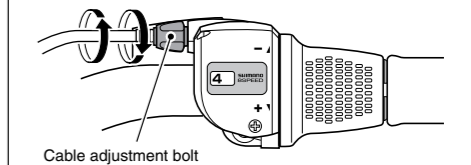


When bicycle is upside down

Should be straight

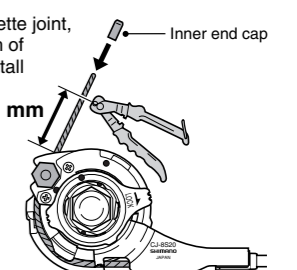


If the yellow setting lines are not aligned, turn the cable adjustment bolt of the shifting lever to align the setting lines. After this, move the shifting lever once more from [4] to [1] and then back to [4], and then re-check to be sure that the yellow setting lines are aligned.



- After adjusting the cassette joint, cut off the excess length of inner cable and then install the inner end cap.

15 – 20 mm



These service instructions explain how to use and maintain the Shimano bicycle parts which have been used on your new bicycle. For any questions regarding your bicycle or other matters which are not related to Shimano parts, please contact the place of purchase or the bicycle manufacturer.

These service instructions are printed on recycled paper.

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

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SG-8R31
SG-8R36
CJ-8S20

Inter-8 Hub

Cassette joint

Technical Service Instructions

Be sure to read these service instructions in conjunction with the Technical Service Instructions for the Inter-M Brake and the Inter-8 shifting lever before use.