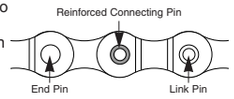
General Safety Information

⚠ 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.
- Use neutral detergent to clean the chain. Do not use alkali-based or acid based detergent such as rust cleaners as it may result in damage and/or failure of the chain.
- Use the reinforced connecting pin only for connecting the narrow type of chain.
- There are two different types of reinforced connecting pins available. Be sure to check the table below before selecting which pin to use. If connecting pins other than reinforced connecting pins are used, or if a reinforced connecting pin or tool which is not suitable for the type of chain is used, sufficient connection force may not be obtained, which could cause the chain to break or fall off.

Chain	Reinforced connecting pin	Chain tool
9-speed super narrow chain such as CN-7701 / CN-HG93	6.5mm Silver	TL-CN32 / TL-CN23
8-/7-/6-speed narrow chain such as CN-HG50 / CN-IG51	7.1mm Black	TL-CN32 / TL-CN23

- If it is necessary to adjust the length of the chain due to a change in the number of sprocket teeth, make the cut at some other place than the place where the chain has been joined using a reinforced connecting pin or an end pin. The chain will be damaged if it is cut at a place where it has been joined with a reinforced connecting pin or an end pin.



- Check that the tension of the chain is correct and that the chain is not damaged. If the tension is too weak or the chain is damaged, the chain should be replaced. If this is not done, the chain may break and cause serious injury.
- 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

Low adjustment for the rear derailleur is carried out differently from previous rear derailleurs. Be sure to read the low adjustment procedure carefully before making the adjustment.

- Be sure to use a 9-speed super narrow chain.
- Adjust the RD-C531 / C530 low normal rear derailleur (reverse spring type) from the low side.
- If gear shifting operations do not feel smooth, wash the derailleur and lubricate all moving parts.
- If the amount of looseness in the links is so great that adjustment is not possible, you should replace the derailleur.
- You should periodically clean the derailleur and lubricate all moving parts (mechanism and pulleys).
- If gear shifting adjustment cannot be carried out, check the degree of parallelism at the rear end of the bicycle. Also check if the cable is lubricated and if the outer casing is too long or too short.
- If you hear abnormal noise as a result of looseness in a pulley, you should replace the pulley.
- 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 a 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.
- Always be sure to use the sprocket set bearing the same group marks. Never use in combination with a sprocket bearing a different group mark.



- Use a frame with internal cable routing is strongly discouraged as it has tendencies to impair the SIS shifting function due to its high cable resistance.
- Use an outer casing which still has some length to spare even when the handlebars are turned all the way to both sides. Furthermore, check that the shifting lever does not touch the bicycle frame when the handlebars are turned all the way.
- Grease the inner cable and the inside of the outer casing before use to ensure that they slide properly.
- To avoid any interference between the inner cable and the shoe in the area near the chain stay, use the SM-CG90.
- Operation of the levers related to gear shifting should be made only when the front chainwheel is turning.
- 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 installation, adjustment, maintenance or operation, please contact a professional bicycle dealer.

This service instruction explains 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.

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* Service Instructions in further languages are available at : **http://techdocs.shimano.com**

Please note: specifications are subject to change for improvement without notice. (English) © Aug. 2009 by Shimano Inc. XBC SZK Printed in Japan.

Technical Service Instructions **SI-5VL0C**

RD-C531
RD-C530

Rear Derailleur

In order to realize the best performance, we recommend that the following combination be used.

Series	NEXAVE
Shifting lever	ST-C503-A
Outer casing	SP40 sealed
Rear derailleur	RD-C531 / RD-C530
Type	SS
Freehub	IF-C530
Gears	8
Cassette sprocket	CS-LG50
Chain	CN-HG53
Bottom bracket guide	SM-SP18 / SM-BT18

Specifications

Rear Derailleur

Model number	RD-C531 / RD-C530
Type	SS
Gears	8
Total capacity	22 teeth or less
Largest sprocket	33T
Smallest sprocket	11T
Applicable front chainwheel (chainring tooth configuration)	FC-C530 (33T / 38T)

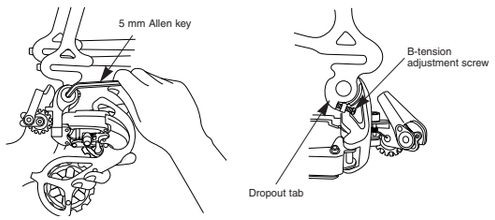
Cassette sprocket tooth combination

Type	Gears	Group name	Tooth combination
LG	8	bb	11, 13, 15, 17, 21, 25, 29, 33T

Installation of the rear derailleur

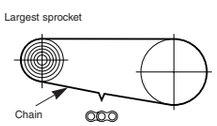
When installing, be careful not to let the B-tension adjustment screw come into contact with the dropout tab, otherwise deformation may result.
Do not remove the Pro-Set alignment block at this time.

Tightening torque:
8 - 10 N·m {70 - 86 in. lbs.}



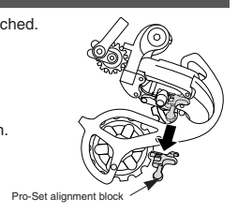
Chain length

Add 2 links (with the chain on the largest sprocket)



Installation of the chain

1. Install the chain with the Pro-Set alignment block still attached. After installing, remove the Pro-Set alignment block.
2. Turn the crank arm to set the derailleur to the low position.

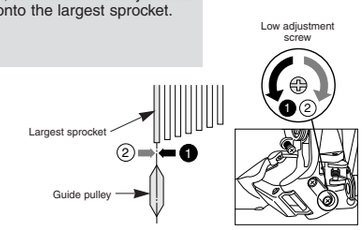


Adjustment

Carry out low adjustment and top adjustment without the cable installed.

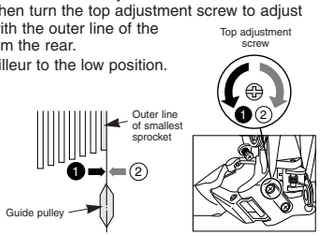
1. Low adjustment

- While turning the Crank arm, pull the rear derailleur by hand to set the chain onto the 2nd-gear sprocket.
- While turning the Crank arm, loosen the low adjustment screw until the chain shifts onto the largest sprocket.



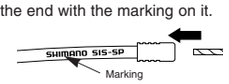
2. Top adjustment

Turn the crank arm while pulling the derailleur with your hand to move the derailleur to the top position, and then turn the top adjustment screw to adjust so that the guide pulley is in line with the outer line of the smallest sprocket when looking from the rear.
Turn the crank arm to set the derailleur to the low position.



Inserting the inner cable

Insert the inner cable into the outer casing from the end with the marking on it.
Apply grease from the end with the marking in order to maintain cable operating efficiency.

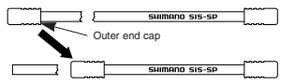


Cutting the outer casing

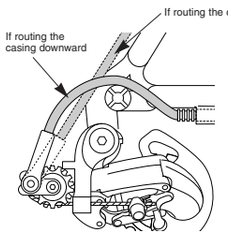
When cutting the outer casing, cut the opposite end to the end with the marking. After cutting the outer casing, make the end round so that the inside of the hole has a uniform diameter.



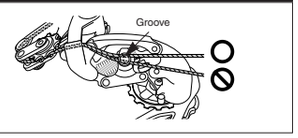
Attach the same outer end cap to the cut end of the outer casing.



Connect the inner cable to the derailleur as shown in the illustration.

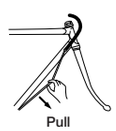


Note: Be sure that the cable is securely in the groove.

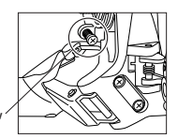


Connect the cable to the rear derailleur and, after taking up the initial slack in the cable, re-secure to the rear derailleur as shown in the illustration.

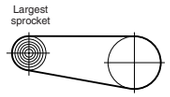
Tightening torque :
5 - 7 N·m {44 - 60 in. lbs.}



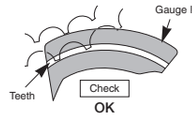
3. How to use the B-tension adjustment screw



- While turning the pedals, operate the right lever to move the chain to the largest sprocket.



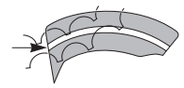
- Check that the teeth of the sprocket are overlapping the indicated section of the gauge label. If they are not overlapping, adjust by the following procedure.



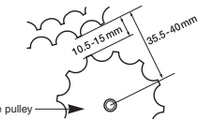
If the teeth are above the section indicated by the arrow, loosen the B tension screw.



If the teeth are below the section indicated by the arrow, tighten the B tension screw.



If there is no gauge seal attached, turn the B tension screw until the guide pulley is within the range indicated in the illustration.

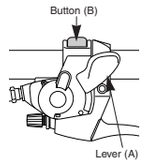


As a guide, the teeth move about 1 mm for every 270° rotation of the B tension screw.

While turning the pedals, operate the right lever to move the chain first to from the largest sprocket to the smallest sprocket, and then move it once more to the largest sprocket. If a gauge label is attached, check that the teeth of the sprocket are overlapping the indicated section of the gauge label. If no gauge label is attached, check that the guide pulley is within the indicated range. If teeth are not overlapping or the guide pulley position is incorrect, repeat the adjustment procedure.

4. SIS Adjustment

Push button (B) while turning the crank arm to move the derailleur to the largest sprocket. Then operate lever (A) once to move the derailleur to the 2nd-gear sprocket. After this, turn the crank arm.

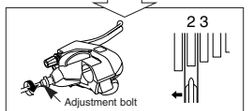


When changing to 3rd

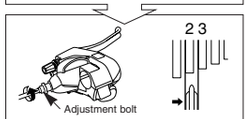


If shifting to 2nd is not possible, or shifting to 2nd occurs but noise of the chain contacting the largest sprocket is heard





Turn the cable adjustment bolt clockwise to tighten it until the chain returns to the 2nd sprocket.



Change to 2nd and turn the screw counterclockwise until no noise is heard.

Best setting
The best setting is when the cable adjustment bolt is tightened (turned clockwise) until noise occurs without lever (A) being operated, and then loosened (turned counterclockwise) 360 degrees from that point.

Operate lever (A) to change gears, and check that no noise occurs in any of the gear positions.

For the best SIS performance, periodically lubricate all power-transmission parts.