

WARNING

- 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 pin 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-7700 / CN-HG92	Silver	TL-CN31/TL-CN22
8-7-7/6-speed narrow chain such as CN-HG50 / CN-IG51	Black	TL-CN31/TL-CN22 and TL-CN30/TL-CN21

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.



- Obtain, read and carefully service instructions when installing parts. A loose, worn, or damaged parts may cause injury to the rider. We strongly recommend that only genuine Shimano replacement parts be used.

SERVICE INSTRUCTION

SI-R971A

Rear Drive System

Before use, read these instructions carefully, and follow them for correct use.

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

Series	NEXAVE
Shifting lever	SL-C600-R
Outer casing	SP40 sealed
Rear derailleur	RD-C600
Type	MGS
Freehub	FH-C900 / FH-C901
Gears	9
Cassette sprocket	CS-HG70-9
Chain	CN-HG72

Specifications

Rear Derailleur	
Model number	RD-C600
Gears	9
Total capacity	35 teeth or less
Largest sprocket	34T
Smallest sprocket	11T
Front chainwheel tooth difference	12T
Applicable front chainwheel (chainring tooth configuration)	FC-C600 (46T-34T)

Cassette sprocket tooth combination			
Type	Gears	Group name	Tooth combination
HG	9	au	11, 13, 15, 17, 20, 23, 26, 30, 34T

Note

- Adjust the RD-C600 Rapid Rise rear derailleur (reverse spring type) from the low side.
- 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.
- Because the high cable resistance of a frame with internal cable routing would impair the SIS function, this type of frame should not be used.
- 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.
- Enlarge 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.
- 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.



Installation of the lever

Use a handlebar grip with a maximum outer diameter of 32 mm.



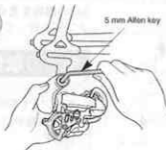
Install the brake lever in a position where it will not obstruct brake operation. Do not use in a combination which causes brake operation to be obstructed.

Tightening torque: 6 - 8 Nm (53 - 69 in. lbs.)

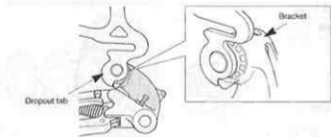
Installation of the rear derailleur

Secure so that the projection on the rear derailleur contacts the dropout tab. Do not remove the Pro-Set alignment block at this time.

Tightening torque: 8 - 10 Nm (70 - 86 in. lbs.)

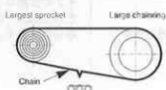


- Check that the dropout tab on the fork end and the projection on the rear derailleur are touching.
- Check that the bracket is securely fixed to the fork end and does not move.



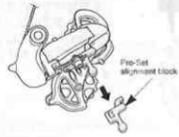
Chain length

Add 2 links (with the chain on both the largest sprocket and the largest chainring)



Installation of the chain

1. Install the chain with the Pro-Set alignment block still attached. After installing, remove the Pro-Set alignment block.

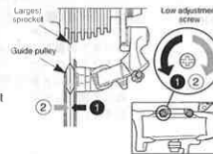


2. Turn the crank arm to set the derailleur to the low position.

Adjustment

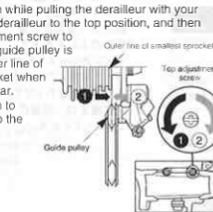
1. Low adjustment

Turn the low adjustment screw so that the guide pulley moves to a position directly in line with the largest sprocket.



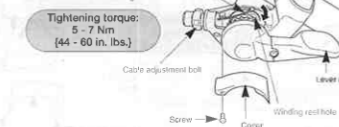
2. Top adjustment

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.



3. Installation and securing of the outer casing and inner cable

Press button (L) 8 or more times to set the lever to the lowest position, check on the indicator that the lowest position is correct, and then install and adjust the inner cable. Loosen the screw, remove the cover and then pass the inner cable through the cable adjustment bolt as shown in the illustration. Run the cable along the slit in the winding reel and hook it into the hole in the winding reel. The inner end cap should be pressed into the hole in the winding reel as far as it will go.



Inserting the inner cable

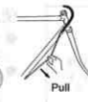
Insert the inner cable into the outer casing from the end with the marking on it. Apply grease from the end with the marking in order to maintain cable operating efficiency.

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.

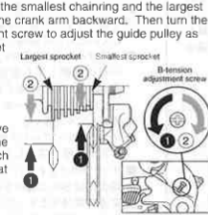
Connect the cable to the rear derailleur and, after taking up the initial slack in the cable, re-secure to the rear derailleur as shown in the illustration.



Tightening torque: 5 - 7 Nm (44 - 60 in. lbs.)

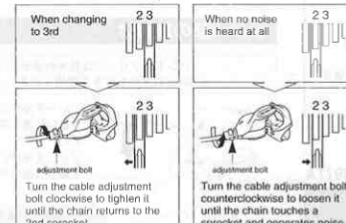
4. How to use the B-tension adjustment screw

Mount the chain on the smallest chainring and the largest sprocket, and turn the crank arm backward. Then turn the B-tension adjustment screw to adjust the guide pulley as close to the sprocket as possible but not so close that it touches. Next, set the chain to the smallest sprocket and repeat the above to make sure that the pulley does not touch the sprocket and that the chain tension is maintained.



5. SIS adjustment

Push button (L) while turning the crank arm to move the derailleur to the largest sprocket. Then operate lever (H) once to move the derailleur to the 2nd-gear sprocket. After this, operate lever (H) just as far as the extent of play, and then turn the crank arm.



Best setting

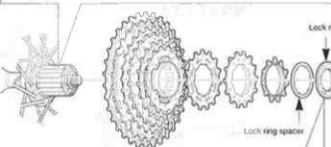
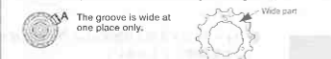
The best setting is when the cable adjustment bolt is tightened (turned clockwise) until noise occurs without lever (H) being operated, and then loosened (turned counterclockwise) 90 - 180 degrees from that point.

Operate lever (H) 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.

Installation of the sprockets

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



For installation of the sprockets, use the special tool (TL-HG16) to lighten the lock ring.

Tightening torque: 30 - 50 Nm (261 - 434 in. lbs.)

To replace the sprockets, use the special tool (TL-HG16) and TL-SR20 to remove the lock ring.

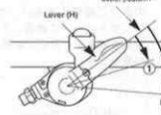


Gear shifting operation

Both lever (H) and button (L) return to the initial lever or button position when they are released after shifting. When operating lever (H) or button (L), always be sure to turn the crank arm at the same time.

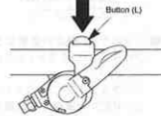
To shift from a larger sprocket to a smaller sprocket [Lever (H)]

To shift one step only, press lever (H) to the (1) position. To shift two steps at one time, press to the (2) position. A maximum two-step shift can be made in this manner.



To shift from a smaller sprocket to a larger sprocket [Button (L)]

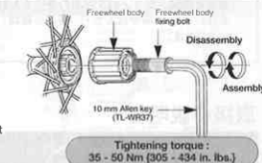
Press button (L) once and then release it to shift one step from a smaller to a larger sprocket.



Replacement of the freewheel body

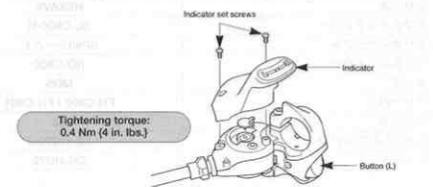
After removing the hub axle, remove the freewheel body fixing bolt (inside the freewheel body), and then replace the freewheel body.

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



Replacing the indicator / Replacing the inner cable

Press button (L) to set the lever to the lowest position.



Tightening torque: 0.4 Nm (4 in. lbs.)

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

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