

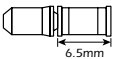
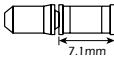


# Rear Drive System

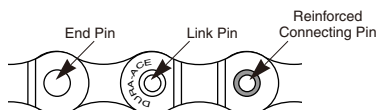
## General Safety Information

### ⚠ 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 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-7701 / CN-HG93	 Silver 6.5mm	TL-CN31/TL-CN22
8- / 7- / 6-speed narrow chain such as CN-HG50 / CN-IG51	 Black 7.1mm	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.



- 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 you may fall off the bicycle.
- 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

- Adjust the RD-C050, C030 Rapid Rise 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 lubricant 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.
- 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.
- Grease the inner cable and the inside of the outer casing before use to ensure that they slide properly.
- For smooth operation, use the specified outer casing and bottom bracket cable guide.
- Operation of the levers related to gear shifting should be made only when the front chainwheel is turning.
- Read these Service Instructions together with the Front Drive System Service Instructions.
- Refer to the Front Drive System Service Instructions for details on installing the CI-Deck.

- 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.

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

Series		C050
CI-DECK		ID-C050-7R / ID-C050-6R
Gears	Right	SIS 7 / 6-gears
REVO SHIFT		SB-C055-7R / SB-C055-6R
Outer casing		SIS
Rear derailleur		RD-C050 / RD-C030
Type		Smart cage
Freewheel		MF-HG50-7 / MF-ZH37 / MF-ZH36
Chain		CN-HG50 / CN-UG50
Bottom bracket cable guide		SM-SP18 / SM-BT18

## Specifications

### Rear Derailleur

Model number	RD-C050	RD-C030
Type	Smart cage	Smart cage
Total capacity	43T	43T
Largest sprocket	34T	34T
Smallest sprocket	11T	11T
Front chainwheel tooth difference	20T	20T

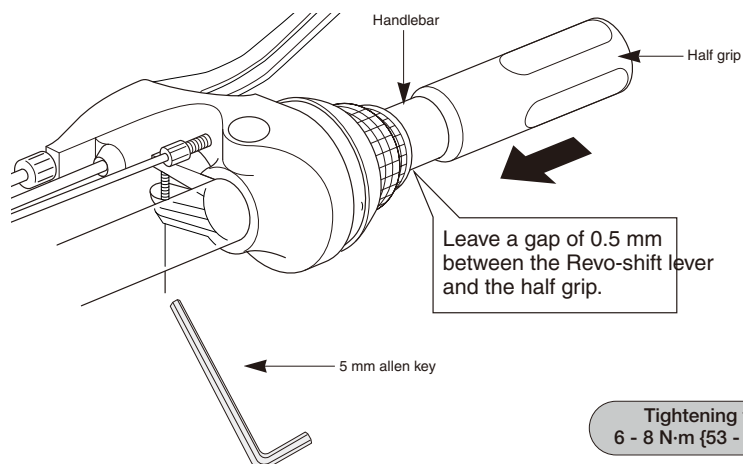
### Freewheel tooth configurations

Model number	Gears	Group name	Tooth combination
MF-HG50-7	7	by	11, 13, 15, 18, 21, 24, 34T
MF-ZH37	7	cy	13, 15, 17, 19, 21, 24, 34T
MF-ZH36	6	cx	13, 15, 18, 21, 24, 34T

### CI-DECK

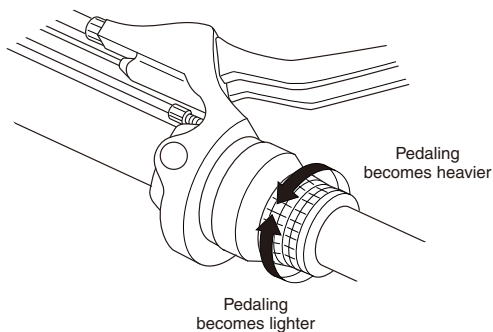
Model number	Shift lever	Rear derailleur	Use
ID-C050-7R	SB-C055-7R	Rapid Rise	Rear 7-gears
ID-C050-6R	SB-C055-6R	Rapid Rise	Rear 6-gears

## Mounting the shifting lever



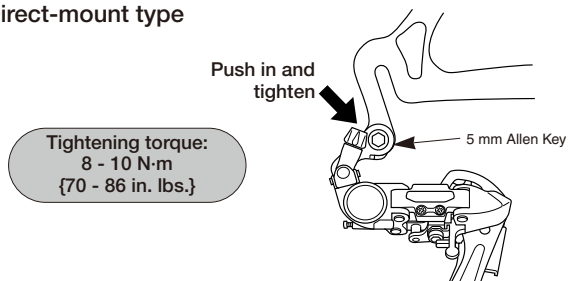
**Tightening torque:**  
6 - 8 N·m {53 - 69 in. lbs.}

## Gear shifting operation

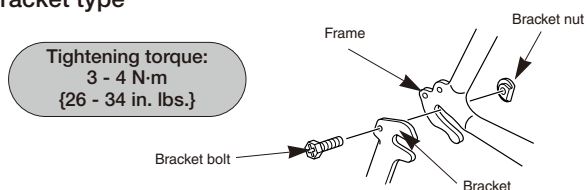


## Installation of the rear derailleur

### Direct-mount type

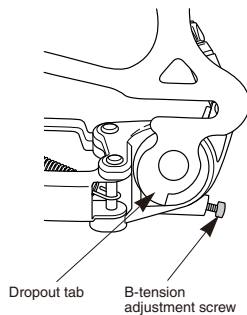


### Bracket type



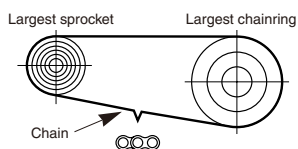
### < RD-C050 >

When installing, be careful that deformation is not caused by the B-tension adjustment screw coming into contact with the dropout tab.



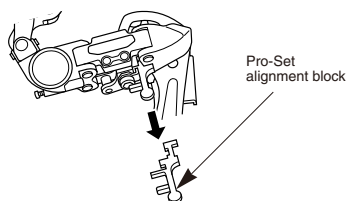
## Chain length

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.

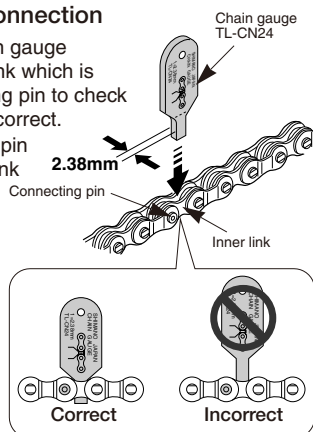


2. Turn the crank arm to set the derailleur to the low position.

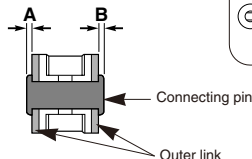
### Checking the chain connection

For chains, insert the chain gauge (TL-CN24) into the inner link which is next to the chain connecting pin to check that the inner link width is correct.

Check that the connecting pin protrudes past the outer link by the same amount on both sides, and that the amount of protrusion is 0.2 mm or more.



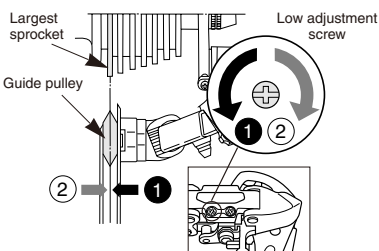
$A, B \geq 0.2\text{mm}$



## Adjustment

### 1. Low adjustment

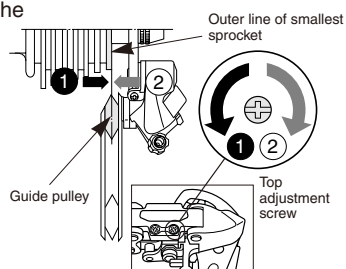
Turn the low adjustment screw so that the guide pulley moves to a position directly in line with the largest sprocket.



### 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.

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



### 3. Securing the outer cable and inner cable

#### 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.



## < RD-C050 >

Place the outer casing so that it does not touch the basket and mudguard, otherwise it may cause a problem with the performance of the derailleur.

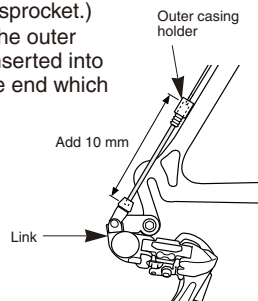
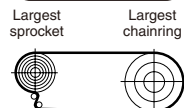
Set the outer casing so that its length is as follows.

### • If routing the casing upward:

(The chain should be on the largest chainring and on the largest sprocket.)

Add 10 mm to the length of the outer casing from the end that is inserted into the outer casing holder to the end which is inserted into the link.

#### Chain position

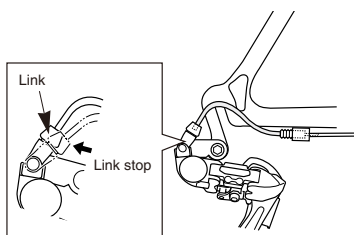
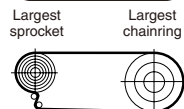


### • If routing the casing downward:

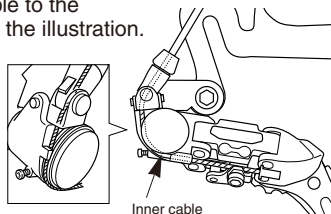
(The chain should be on the largest chainring and on the largest sprocket.)

Set the length of the outer casing so that it describes a smooth arc, and so that the link stops in a position where there is a small gap between the link and the link stop.

#### Chain position



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

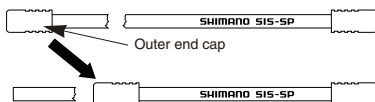


## Cutting the outer casing

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.

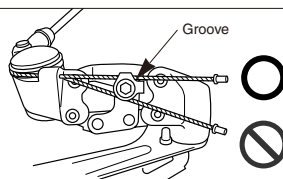


Attach the same outer end cap to the cut end of the outer casing.

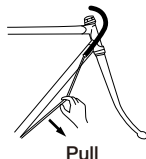


### Note:

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.

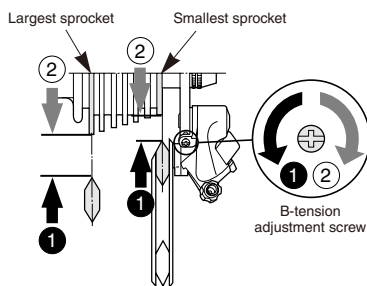


#### Tightening torque:

5 - 7 N·m {44 - 60 in. lbs.}

#### 4. How to use the B-tension adjustment screw < RD-C050 >

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.



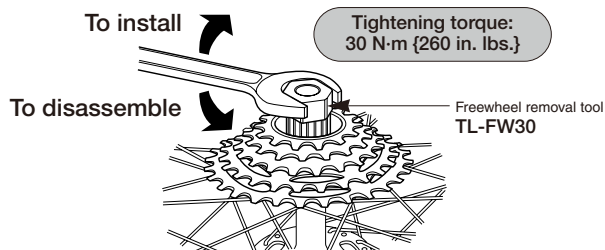
#### 5. SIS adjustment

Operate the Revoshift while turning the crank arm to move the derailleur to the largest sprocket. Then operate the Revoshift once to move the derailleur to the 2nd-gear sprocket. After this, operate the Revoshift just as far as the extent of play, and then turn the crank arm.

When changing to 3rd 2 3	When no noise is heard at all 2 3
 adjustment bolt Turn the cable adjustment bolt clockwise to tighten it until the chain returns to the 2nd sprocket.	 adjustment bolt Turn the cable adjustment bolt counterclockwise to loosen it until the chain touches a sprocket and generates noise.
<b>Best setting</b> The best setting is when the cable adjustment bolt is tightened (turned clockwise) until noise occurs without the Revoshift being operated, and then loosened (turned counterclockwise) 90 - 180 degrees from that point.  Operate the Revoshift to change gears, and check that no noise occurs in any of the gear positions.	

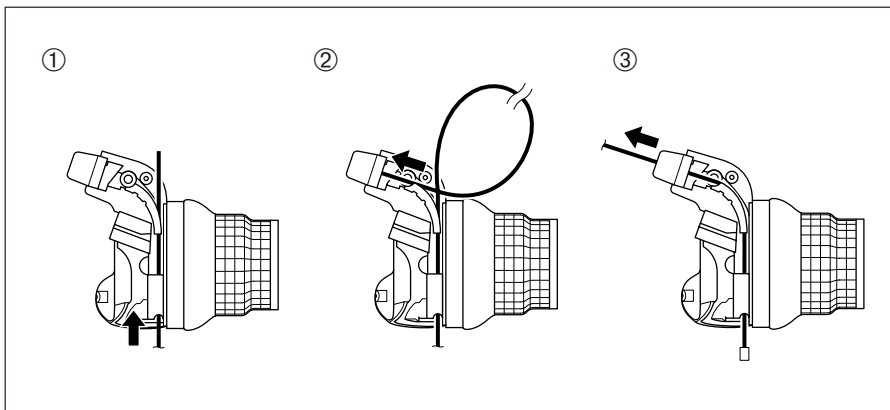
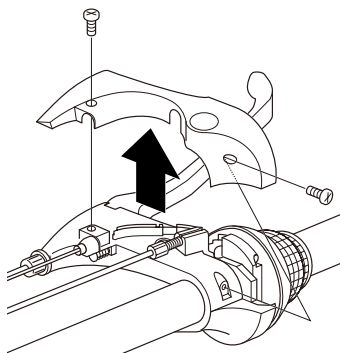
For the best SIS performance, periodically lubricate all power-transmission parts.

## Installation of the freewheel



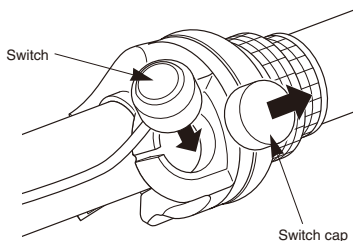
## Replacing the inner cable

Replace the inner cable by carrying out steps ① to ③ as shown in the illustrations.



## Installation of the switch

Remove the switch cap and install the switch as shown in the illustration.



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.

# SHIMANO

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