

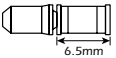
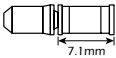


Tourney

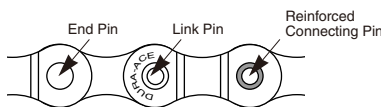
General Safety Information

⚠ 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-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.
 - Be careful not to let the cuffs of your clothes get caught in the chain while riding, otherwise you may fall off the bicycle.
 - 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.
 - Check that there are no cracks in the crank arms before riding the bicycle. If there are any cracks, the crank arm may break and you may fall off the bicycle.
 - 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, 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.
- Read these Technical Service Instructions carefully, and keep them in a safe place for later reference.



Note

- FD-TY15-GS/TY18/TZ31/TZ30 are Non SIS compatible, and cannot be used in combination with the SL-RS41-L.
- Apply grease to the thread section of the bottom bracket and to the inside thread of the adapter before installing the bottom bracket.
- In addition, if pedaling performance does not feel normal, check this once more.
- Check that there is no looseness in any joints or connections before riding the bicycle. (BB-FC, FC-PD)
- Do not wash the bottom bracket with high-pressure jets of water.
- If you feel any looseness in the bottom bracket axle, the bottom bracket should be replaced.
- 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.
- 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.
- 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.
- Operation of the levers related to gear shifting should be made only when the front chainwheel is turning.
- For smooth operation, use the specified outer casing and bottom bracket cable guide.
- **To ensure the best performance, be sure to use only the specified type of chain. The wide type chain cannot be used.**
- The ID-C050 gear indicator, SC-C050 speedmeter, SC-C051 odometer and SC-C052 clock and stopwatch are available as separate items. Please ask your bicycle dealer for further details.
- For maximum performance we highly recommend Shimano lubricants and maintenance products.
- Parts are not guaranteed against natural wear or deterioration resulting from normal use.
- 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		MEGARANGE Tourney		Tourney		Tourney
Gears		21-gears	18-gears	21-gears	18-gears	15-gears
Shifting lever	Right	SL-RS41-7/RS41A-7 SL-RS31-7	SL-RS41-6 SL-RS31-6	SL-RS41-7/RS41A-7 SL-RS31-7	SL-RS41-6 SL-RS31-6	SL-RS31-5
	Left	SL-RS41-L/RS41A-L SL-RS31-LA	SL-RS41-L SL-RS31-LA	SL-RS31-L	SL-RS31-L	SL-RS31-L
Outer casing		SIS40	SIS40	SIS40	SIS40	SIS40
Front derailleur		FD-C051 / FD-TY32-A / FD-TY30 FD-C050 / FD-TY10		FD-C051 / FD-TY22-GS / FD-TY18 / FD-TZ31 FD-C050 / FD-TZ30		FD-TY15-GS
Front chainwheel		FC-TX70 / FC-TX71 FC-C051 / FC-TY33-A / FC-TY33 FC-C050 / FC-TY40 / FC-TS32		FC-TX70 / FC-TX71 FC-C051 / FC-TY33-A / FC-TY33 FC-C050 / FC-TY40 / FC-TS32		FC-TY33
Rear derailleur		RD-TX70 / RD-TX50 / RD-TX30		RD-TX70 / RD-TX50 / RD-TX30		RD-TY15-GS
Bottom bracket		BB-UN25	BB-UN25	BB-UN25	BB-UN25	BB-UN25
Multiple freewheel		MF-TZ37 / ZH37 / HG50	MF-HG40-6 / HG22 / ZH36	MF-HG37 / TZ07	MF-HG22 / TZ06	MF-Z015
Chain		CN-UG51 / HG50	CN-UG51 / HG50	CN-UG51 / HG50	CN-UG51 / HG50	CN-UG51 / HP20
Bottom bracket cable guide		SM-SP18 / BT18	SM-SP18 / BT18	SM-SP18 / BT18	SM-SP18 / BT18	SM-SP18 / BT18

Specifications

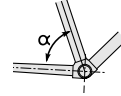
Shifting lever

Model number	SL-RS41-7/RS41A-7	SL-RS41-6	SL-RS31-6	SL-RS31-5	SL-RS41-L/RS41A-L	SL-RS31-L
Gears	SIS 7-gears	SIS 6-gears	SIS 6-gears	SIS 5-gears	SIS 3-gears	Non SIS

Front Derailleur

Model number	FD-C051/C050	FD-TY32/TY32-A	FD-TY30	FD-TY22-GS	FD-TY18	FD-TY15-GS	FD-TY10	FD-TZ31/TZ30
Front derailleur installation band diameter (Normal type)	S, M, L	S, M	S	S, M	S, M	S, M	S, M	S, M
Front derailleur installation band diameter (Top route type)	S, M, L	S, M		S, M	S, M		S, M	S, M
Chainstay angle (α)	66°- 69°	66°- 69°	63°- 66° 66°- 69°	66°- 69°	66°- 69°	66°- 69°	66°- 69°	66°- 69°

Chainstay angle



Front chainwheel

Model number	FC-TX71/C051	FC-TY33/TY33-A	FC-TX70/C050	FC-TY40	FC-TS32
Front chainwheel tooth combination	48T-38T-28T		42T-34T-24T		
Crank arm length	160mm, 170mm	170mm	160mm, 170mm	160mm, 170mm	170mm
Pedal thread dimensions	BC 9/16" X 20 T.P.I. (English thread)		BC 9/16" X 20 T.P.I. (English thread)		
Bottom bracket cup thread dimensions	BC 1.37" X 24 T.P.I. (68, 73 mm)		BC 1.37" X 24 T.P.I. (68, 73 mm)		
Applicable front derailleur	FD-C051	FD-TY33	FD-C050	FD-C050/TZ30	FD-C050/TZ30

Bottom Bracket

Type	Chain line	Spindle length	Shell width	Stamped marking	Thread dimensions
Triple	47.5mm	122.5mm	68mm	D-NL	BC1.37 X 24 T.P.I.

* FC-TY40 : 47.5mm — YL117

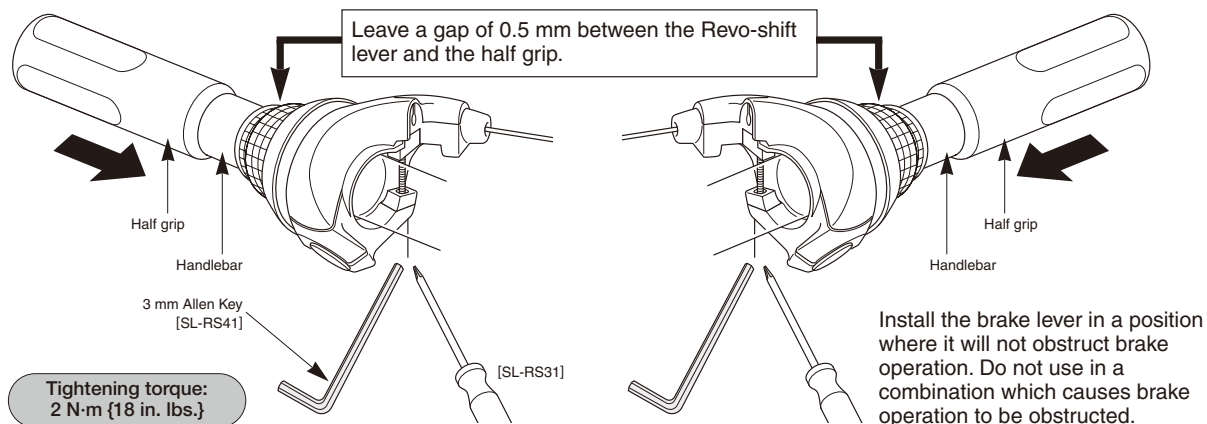
Rear derailleur

Model number	RD-TX70	RD-TX50	RD-TX30	RD-TY15-GS
Type	MGS	MGS	MGS	GS
Gears	7-gears/6-gears	7-gears/6-gears	7-gears/6-gears	5-gears
Total capacity	43T	43T	43T	34T
Rear largest sprocket	28-34T	28-34T	28-34T	28T
Rear smallest sprocket	11T	11T	11T	14T
Front chainwheel tooth difference	20T	20T	20T	20T

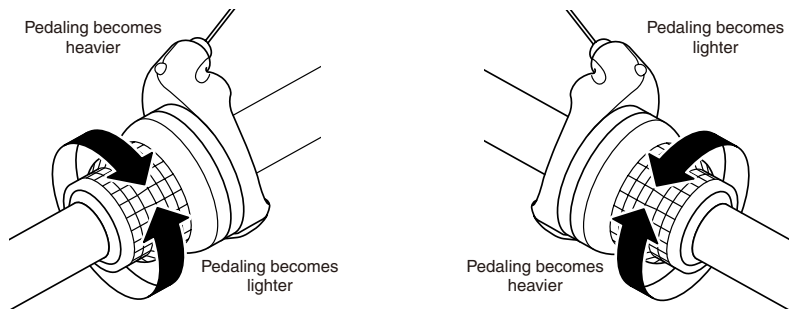
Sprocket tooth configurations

Gears	7-gears	6-gears	5-gears
Tooth combination	14, 16, 18, 20, 22, 24, 34T 14, 16, 18, 20, 22, 24, 28T 13, 15, 17, 19, 21, 24, 34T	14, 16, 18, 21, 24, 34T 14, 16, 18, 21, 24, 28T	14, 17, 20, 24, 28T

Mounting the shifting lever



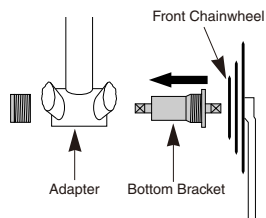
Gear shifting operation



Installation of the bottom bracket

Install using the special tool TL-UN74.
First install the main body, then the adapter.

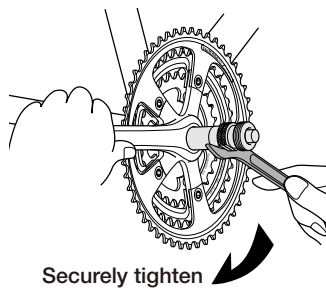
Tightening torque:
50 - 70 N·m {435 - 608 in. lbs.}



Installation of the front chainwheel

Use the cotterless crank extractor (TL-FC10) to
install the front chainwheel.

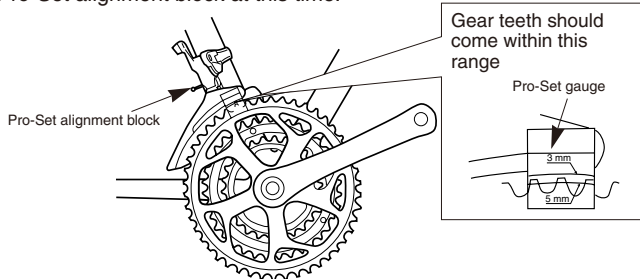
Tightening torque:
35 - 50 N·m {305 - 435 in. lbs.}



Installation of the front derailleur

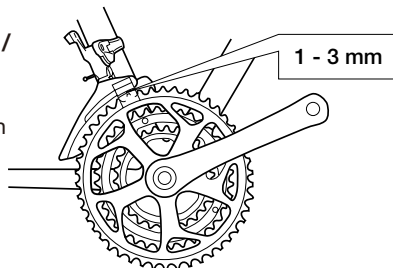
1. < FD-C051 / FD-C050 / FD-TY32 / FD-TY32-A / FD-TY30 / FD-TY22 /
FD-TY10 >

Adjust and then install the front derailleur as shown in the illustration. Do not
remove the Pro-Set alignment block at this time.



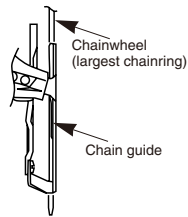
< FD-TY18 / FD-TY15 / FD-TZ31 /
FD-TZ30 >

Install so that there is 1 -3 mm of
clearance at the closest point between
the largest chainring and the bottom
edge of the chain guide.



2. The level section of the chain guide outer plate should be directly above and parallel to the largest chainring.

3. Secure using a 9 mm spanner (TY30, TY18, TY15, TY10, TZ31, TZ30) or a 5 mm Allen key (C051, C050, TY32, TY32-A, TY22).

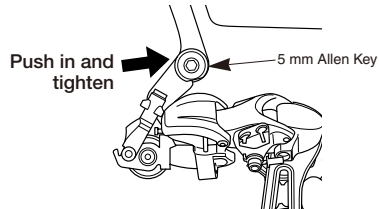


Tightening torque:
5 - 7 N·m {44 - 60 in. lbs.}

Installation of the rear derailleur

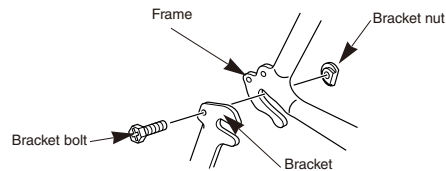
Direct-mount type

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

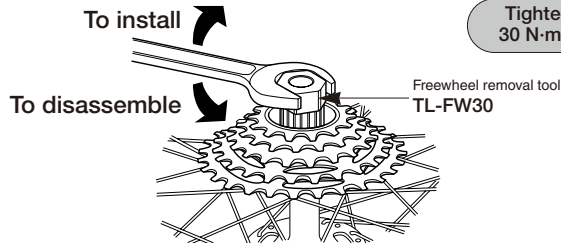


Bracket type

Tightening torque:
3 - 4 N·m
{26 - 34 in. lbs.}



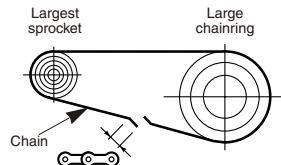
Installation of the freewheel



Tightening torque:
30 N·m {260 in. lbs.}

Chain length

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



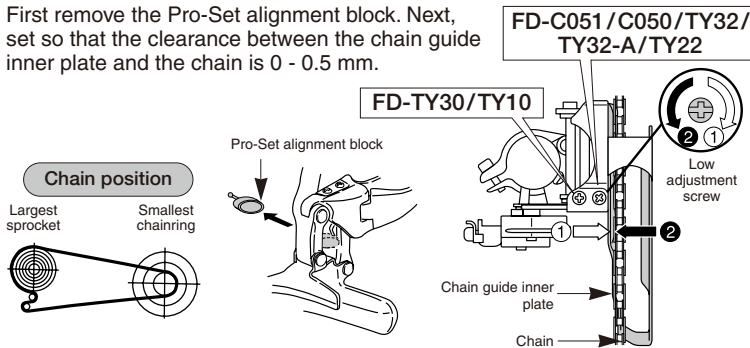
Adjustment

Be sure to follow the sequence described below.

1. Low adjustment

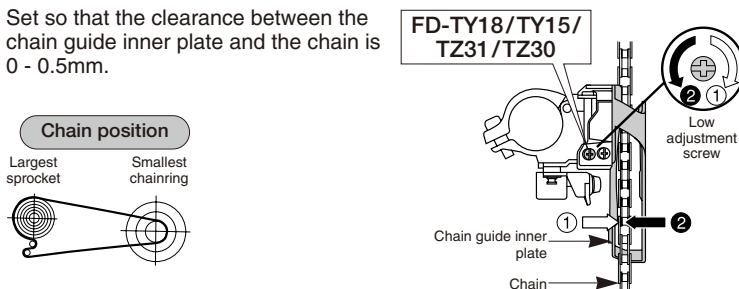
< FD-C051 / FD-C050 / FD-TY32 / FD-TY32-A / FD-TY30 / FD-TY22 / FD-TY10 >

First remove the Pro-Set alignment block. Next, set so that the clearance between the chain guide inner plate and the chain is 0 - 0.5 mm.



< FD-TY18 / FD-TY15 / FD-TZ31 / FD-TZ30 >

Set so that the clearance between the chain guide inner plate and the chain is 0 - 0.5mm.



2. Connection and securing of cable

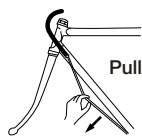
While firmly pulling the cable, tighten the fixing bolt with a 9 mm spanner (TY30, TY18, TY15, TY10, TZ31, TZ30) or a 5 mm Allen key (C051, C050, TY32, TY32-A, TY22) to secure the cable.

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

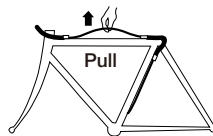
3. Adjustment of cable tension

After taking up the initial slack in the cable, re-secure to the front derailleur as shown in the illustration.

Normal type

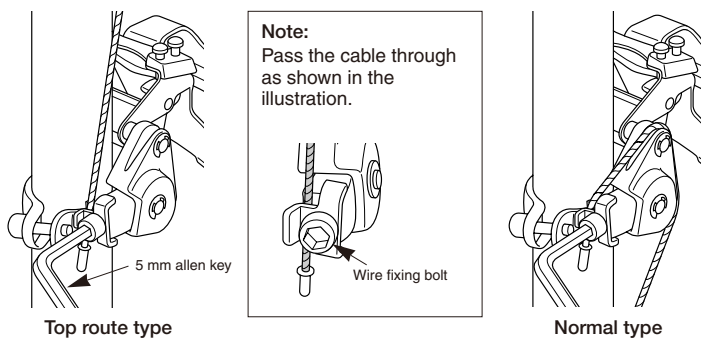


Top route type



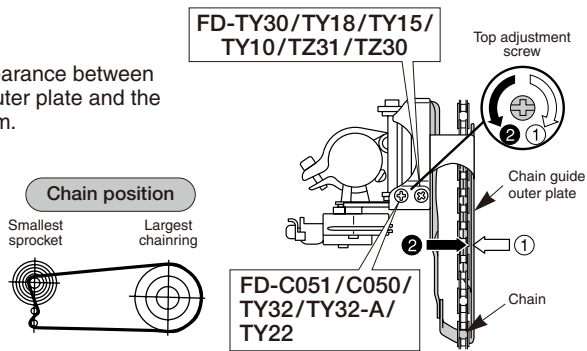
Cut off the excess length of inner cable and then install the inner end cap.

< FD-C051 / FD-C050 >



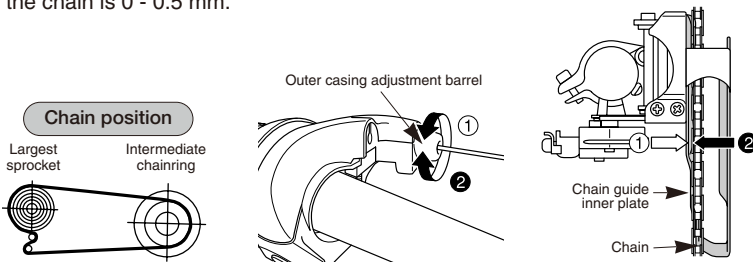
4. Top adjustment

Set so that the clearance between the chain guide outer plate and the chain is 0 - 0.5 mm.



5. Adjustment of the intermediate chainring (SL-RS41-L)

Set the chain onto the largest sprocket, and at the front, move the chain from the largest chainring to the intermediate chainring. Adjust using the cable adjusting bolt so that the clearance between the chain guide inner plate and the chain is 0 - 0.5 mm.



6. Troubleshooting chart

After completion of steps 1 - 5, move the shifting lever to check the shifting. (This also applies if shifting becomes difficult during use.)

If the chain falls to the crank side	Tighten the top adjustment screw clockwise (about 1/4 turn).	
If shifting is difficult from the intermediate chainring to the largest chainring	Loosen the top adjustment screw counterclockwise (about 1/8 turn).	
If shifting is difficult from the intermediate chainring to the smallest chainring	Loosen the low adjustment screw counterclockwise (about 1/4 turn).	
If there is interference between the chain and the front derailleur inner plate at the largest chainring	Tighten the top adjustment screw clockwise (about 1/8 turn).	
If there is interference between the chain and the front derailleur outer plate at the largest chainring	Loosen the top adjustment screw counterclockwise (about 1/8 turn).	
If the intermediate chainring is skipped when shifting from the largest chainring	Loosen the outer casing adjustment barrel counterclockwise (1 or 2 turns).	*
If there is interference between the chain and front derailleur inner plate when the rear sprocket is shifted to the largest sprocket when the chainwheel is at the intermediate chainring position.	Tighten the outer casing adjustment barrel clockwise (1 or 2 turns).	*
If shifting is difficult from the largest chainring to the intermediate chainring		
If the chain falls to the bottom bracket side	Tighten the low adjustment screw clockwise (about 1/2 turn).	

* SL-RS41-L

Cable securing and stroke adjustment

< RD-TX70 / RD-TX50 >

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 (RD-TX70/RD-TX50) so that its length is as follows.

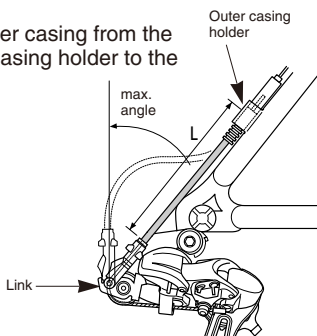
- If routing the casing upward:

(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

Largest sprocket Largest chainring



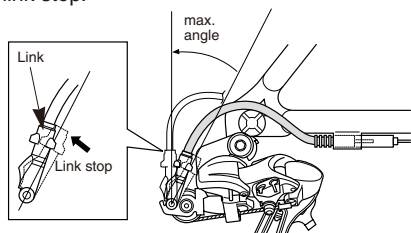
- If routing the casing downward:

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

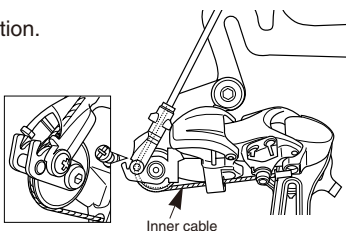
Set the length of the outer casing so that it describes a smooth arc, and so that the link stops in a position where there is a small gap between the link and the link stop.

Chain position

Largest sprocket Largest chainring

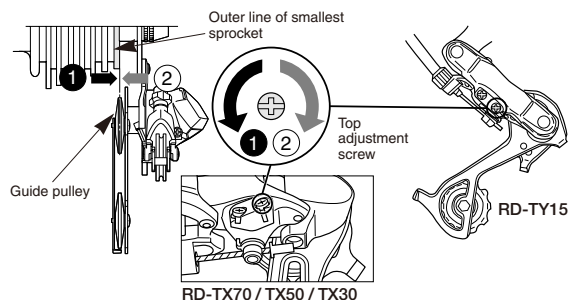


Connect the inner cable to the derailleur as shown in the illustration.



1. Top adjustment

Turn the top adjustment screw to adjust so that the guide pulley is below the outer line of the smallest sprocket when looking from the rear.

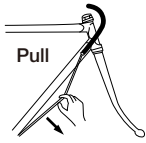


2. Connection and securing of cable

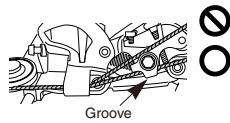
Connect the cable to the rear derailleur and, after taking up the initial slack in the cable, reattach to the rear derailleur as shown in the illustration.

Secure the cable by pulling it with pliers with a force of 5 - 10 kg.

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

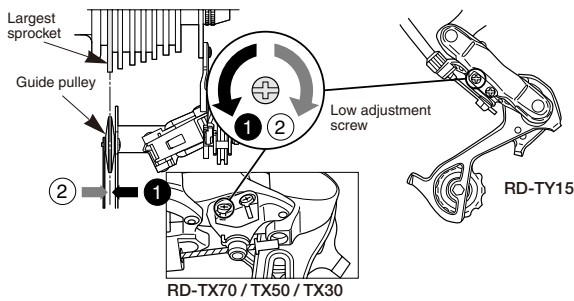


Note: Be sure that the cable is securely in the groove.



3. Low adjustment

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

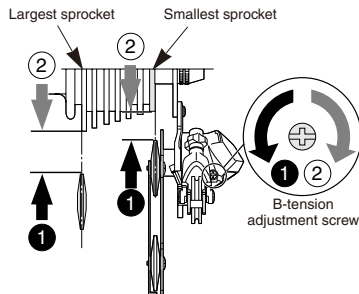


4. How to use the B-tension adjustment screw

< RD-TX70 / RD-TX50 / RD-TX30 >

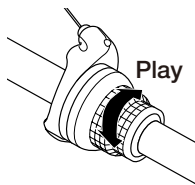
Mount the chain on the smallest chainring and the largest sprocket, and turn the crank arm backward. Then turn the B-tension adjustment screw to adjust the guide pulley as close to the sprocket as possible but not so close that it touches.

Next, set the chain to the smallest sprocket and repeat the above to make sure that the pulley does not touch the sprocket.

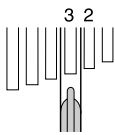


SIS Adjustment

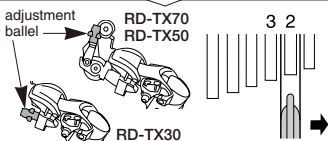
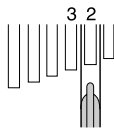
Operate the shifting lever several times to move the chain to the 2nd sprocket. Then, while pressing the lever just enough to take up the play in the lever, turn the crank arm.



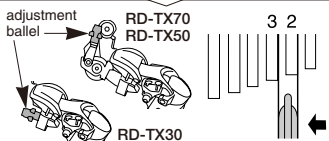
When shifting to 3rd



When no sound at all is heard



Tighten the outer cable adjusting barrel until the chain returns to the 2nd sprocket. (clockwise)

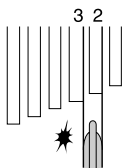


Loosen the outer casing adjustment barrel until the chain touches the 3rd sprocket and makes noise. (counter clockwise)

Best setting

The best setting is when the shifting lever is operated just enough to take up the play and the chain touches the 3rd sprocket and makes noise.

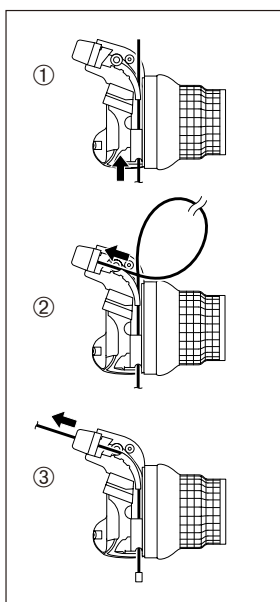
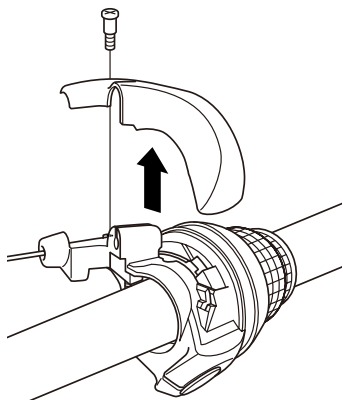
* Return the lever to its original position (the position where the lever is at the 2nd sprocket setting and it has been released) and then turn the crank arm clockwise. If the chain is touching the 3rd sprocket and making noise, turn the outer casing adjustment barrel clockwise slightly to tighten it until the noise stops and the chain runs smoothly.



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

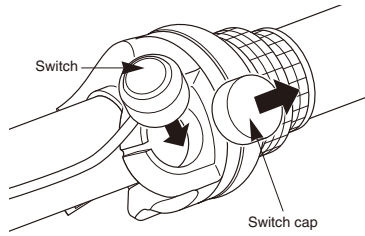
Replacing the inner cable

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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