

ST-1055-T
ST-A417

Shimano
Total
Integration

For proper and safe performance, read and follow these instructions carefully.



Shimano Total Integration Features

Shimano Total Integration features a dual action control lever which actuates the brakes like a conventional brake lever, and shifts the gears when moved inward toward the center line of the bicycle. Gear shifting is now possible without ever taking your hands off the brake hoods or drops.

Operation of the levers related to gear shifting should be made only when the front chainwheel is turning.

For any questions regarding methods of handling or maintenance, please contact the place of purchase.

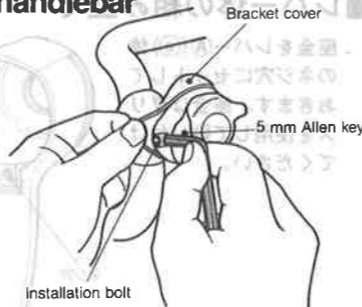
In order to realize the best performance, we recommend that the following combination be used.

Series	105-SC	RSX
Shifting lever	ST-1055-T/ST-1055	ST-A417/ST-A416/ ST-A410
Front derailleur	FD-1057	FD-A417
Front chainwheel	FC-1057	FC-A417
Rear derailleur	RD-1056GS	RD-A416GS
Freehub	FH-1056	FH-A416
Cassette sprocket	CS-HG70-8	CS-HG50-8
Chain	CN-HG70 / CN-HG50	
Bottom bracket cable guide	SM-SP17	SM-SP18
Bottom bracket	BB-UN52	BB-LP27

Installation

Installation to the handlebar

Secure the assembly with the installation bolt on the outside of the bracket. Pull the bracket cover back and use a 5 mm Allen key to tighten the bolt.



Tightening torque:
5 - 8 Nm
(50 - 70 in. lbs.)

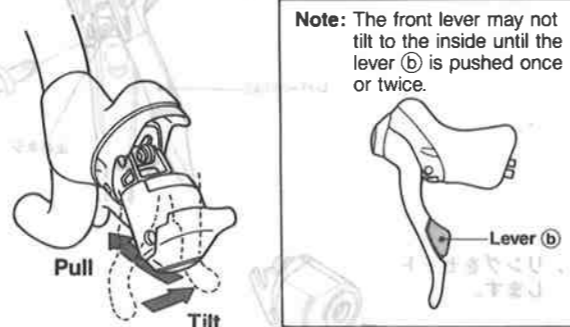
Installation of the brake cable

Cable used

- Inner cable..... $\phi 1.6\text{mm}$
- SLR outer casing..... $\phi 5\text{mm}$

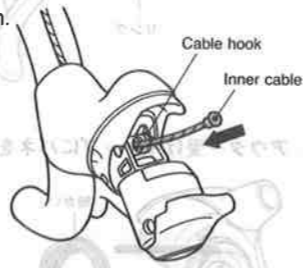
Be sure to leave some excess cable, even if cutting it to the full length of the handlebars.

1. Tilt the lever in (as when shifting) to make it easier to pass the cable through the cable hook.



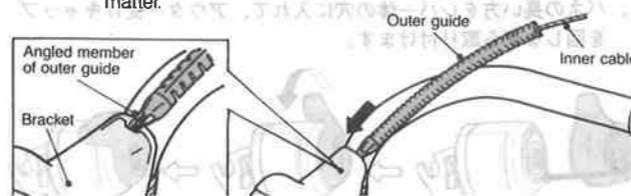
Note: The front lever may not tilt to the inside until the lever (B) is pushed once or twice.

2. Pass the inner cable through.



3. Fix the outer guide to the inner cable, and set the angled member in the bracket.

Note: Do not wipe off the grease on the inner cable. Also, be careful that the inner cable does not pick up dust and foreign matter.



Installation of the shifting cable

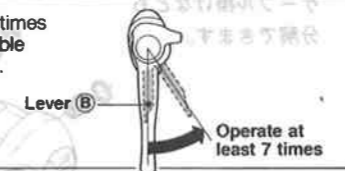
Cable used

- Inner cable (stainless steel)..... $\phi 1.2\text{mm}$
- SIS-SP40 sealed outer casing (1)..... $\phi 4\text{mm}$
- SIS-SP40 outer casing (2)..... $\phi 4\text{mm}$

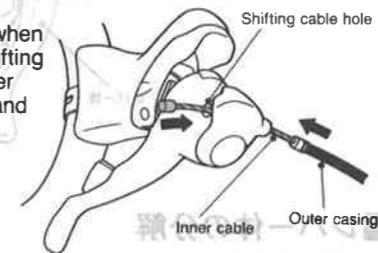
Grease the inner cable and the inside of the outer casing before use to ensure that they slide properly.

• Rear lever

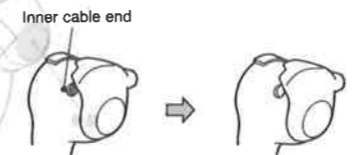
Push lever (B) at least seven times before installing to set the cable hook to the top gear position. Be sure to push lever (B) to the full stroke.



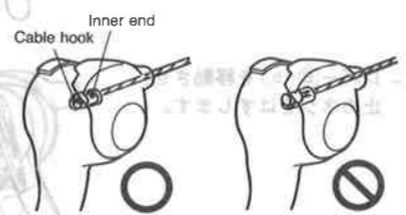
Pull the brake lever (as when braking) to reveal the shifting cable hole. Pass the inner cable through this hole and set it in the outer casing.



Note: Make sure that the inner cable end is firmly seated in the cable hook.



Note: Make sure that the inner end is firmly set inside the cable hook.

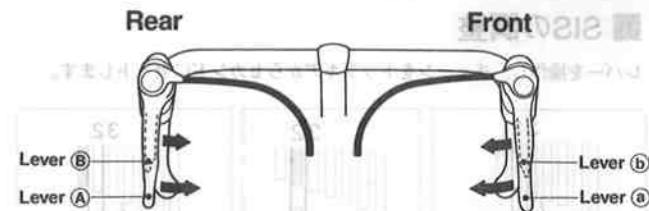


• Front lever

Push lever (B) two-three times before installing to set the cable hook to the top gear position. Push lever (B) to the full stroke.



Operation

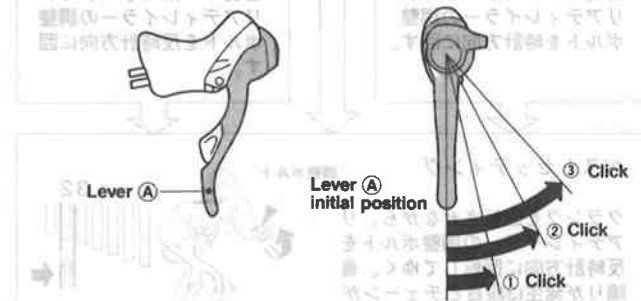


- Lever (A): To shift from a small sprocket to a larger sprocket.
- Lever (B): To shift from a large sprocket to a smaller sprocket.
- Lever (a): To shift from a small chainring to a larger chainring.
- Lever (b): To shift from a large chainring to a smaller chainring.

All levers return to the starting position when released.

Operation of rear derailleur levers

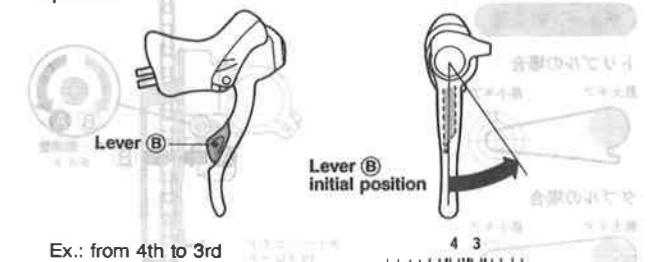
- Lever (A): To shift from a small sprocket to a larger sprocket. Lever (A) has click stops at positions 1, 2, and 3.



- ①: Shifts one sprocket. Ex.: from 3rd to 4th.
- ②: Quick-shifts two sprockets. Ex.: from 3rd to 5th.
- ③: Quick-shifts three sprockets. Ex.: from 3rd to 6th.



- Lever (B): To shift from a large sprocket to a smaller sprocket. Press lever (B) once to shift from a larger to one smaller sprocket.



Caution on operation

Lever (B) will also move when lever (A) is operated, but be careful not to apply pressure to lever (B). Similarly, be careful not to press lever (A) when operating lever (B). Gears will not shift when both levers are pressed simultaneously.

Front chainwheel	FC-1057	FC-A417
Rear derailleur	RD-1056GS	RD-A416GS
Freehub	FH-1056	FH-A416
Cassette sprocket	CS-HG70-8	CS-HG50-8
Chain	CN-HG70 / CN-HG50	
Bottom bracket cable guide	SM-SP17	SM-SP18
Bottom bracket	BB-UN52	BB-LP27



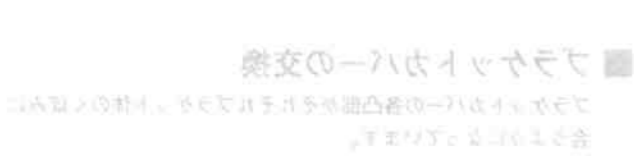
These service instructions are printed on recycled paper and can be recycled again.



These service instructions are printed on recycled paper and can be recycled again.



These service instructions are printed on recycled paper and can be recycled again.



These service instructions are printed on recycled paper and can be recycled again.

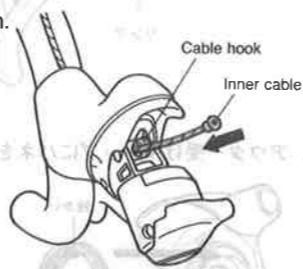
SHIMANO
SHIMANO AMERICAN CORPORATION
One Holland Irvine CA 92618 U.S.A. Phone 714-951-5003

SHIMANO EUROPA
Industrieweg 24 NL-8071 CT Nunspeet Holland Phone 31-3412-72222

SHIMANO INC.
77 Oimatsu-cho 3-cho Sakai Osaka 590-8577 Japan Phone 0722-23-3243
Please note: specifications are subject to change for improvement without notice. (English)
© Apr. 1998 by Shimano Inc. XBC SZK Printed in Japan.

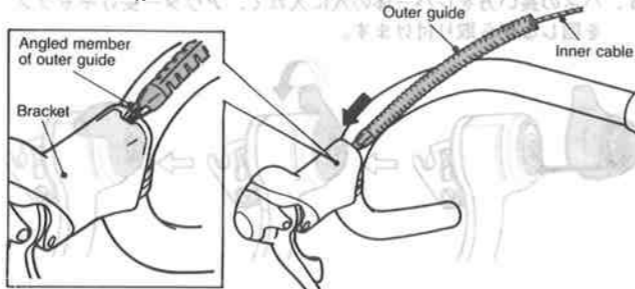
Tilt

2. Pass the inner cable through.



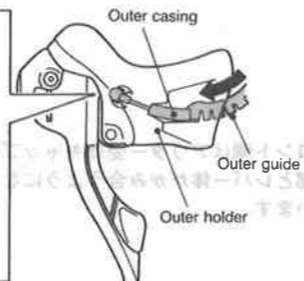
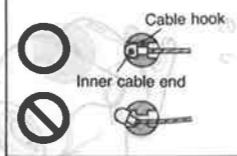
3. Fix the outer guide to the inner cable, and set the angled member in the bracket.

Note: Do not wipe off the grease on the inner cable. Also, be careful that the inner cable does not pick up dust and foreign matter.



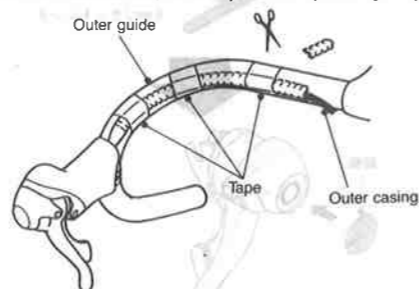
4. Set the outer casing on the inner cable and into the bracket along the outer guide.

Make sure that the inner cable end is firmly sealed in the cable hook.



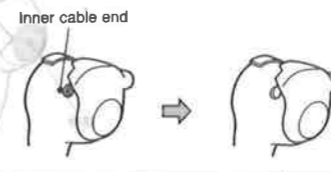
Make sure that the outer casing is firmly seated in the outer holder. Pull the bracket cover back to reveal the hole in the side of the bracket through which the seating can be confirmed.

5. Bring the outer casing along the front of the handlebar and cover it with the outer guide. Now cut the outer guide to the length of the handlebar, and tape it temporarily in place.

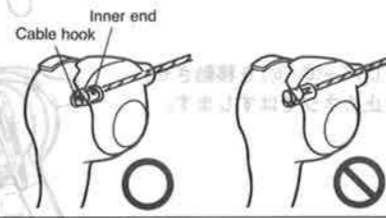


6. Finally, wrap the handlebar with the finish tape.

Note: Make sure that the inner cable end is firmly seated in the cable hook.

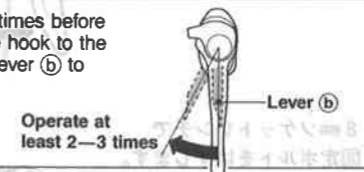


Note: Make sure that the inner end is firmly set inside the cable hook.

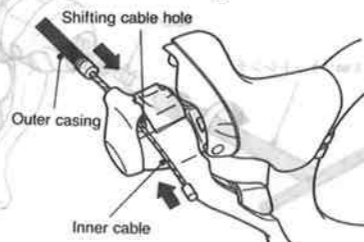


• Front lever

Push lever (b) two-three times before installing to set the cable hook to the top gear position. Push lever (b) to the full stroke.

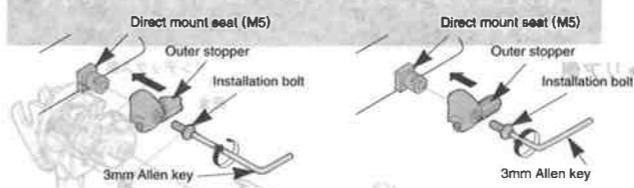


Pull the brake lever (as when braking) to pass the inner cable through the shifting cable hole, and set it in the outer casing.



• Outer stopper

1. Install the outer stopper to the down tube.

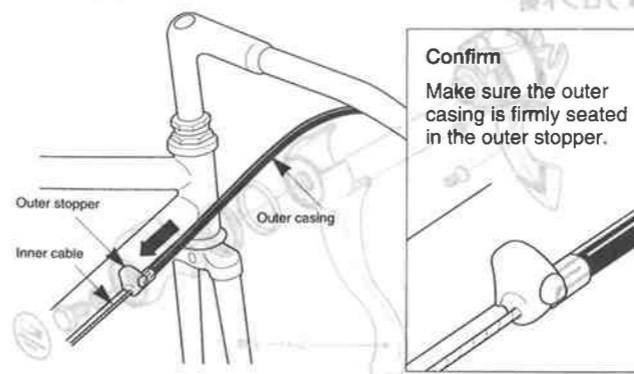


SM-ST74 (for ST-1055) SM-CS50 (ST-A410/A416/A417)

Install the outer stopper for the rear derailleur with the lever in the default position. **Tightening torque: 1.5 - 2 Nm (13 - 8 in. lbs.)**

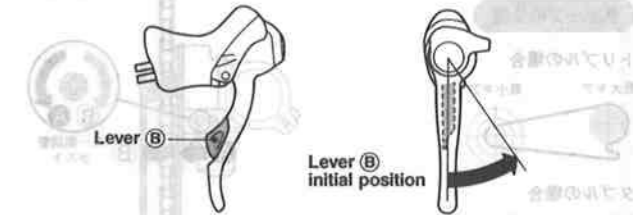
2. Pass the inner cable through, and set the outer casing.

Be sure to leave some slack in the outer casing, even if cutting it to the full length of the handlebars.

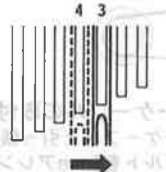


Confirm
Make sure the outer casing is firmly seated in the outer stopper.

• Lever (b): To shift from a large sprocket to a smaller sprocket. Press lever (b) once to shift from a larger to one smaller sprocket.



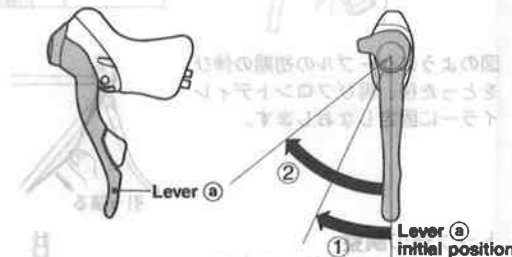
Ex.: from 4th to 3rd



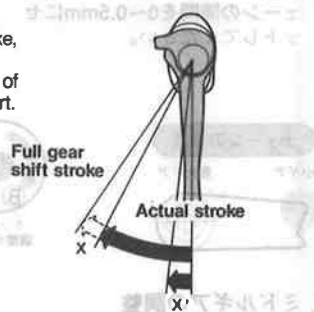
Caution on operation
Lever (b) will also move when lever (a) is operated, but be careful not to apply pressure to lever (b). Similarly, be careful not to press lever (a) when operating lever (b). Gears will not shift when both levers are pressed simultaneously.

Operation of front derailleur levers

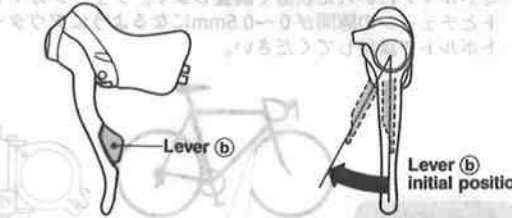
• Lever (a): To shift from a small chainring to a larger chainring.



If operation of lever (a) does not complete the chainring shift stroke, operate lever (a) again for the distance (x') to complete that part of the lever stroke (x) which was short.



• Lever (b): To shift from a large chainring to a smaller chainring.



Caution on operation
Lever (b) will also move when lever (a) is operated, but be careful not to apply pressure to lever (b). Similarly, be careful not to press lever (a) when operating lever (b). Gears will not shift when both levers are pressed simultaneously.

Adjustment

SIS adjustment

Operate lever (A) to set the chain to the 2nd sprocket.

Contacts 3rd sprocket, making noise.

No noise

Contacts smallest sprocket, making noise.

Turn the rear derailleur cable adjusting barrel clockwise until there is no noise.

Turn the rear derailleur cable adjusting barrel counterclockwise until there is no noise.

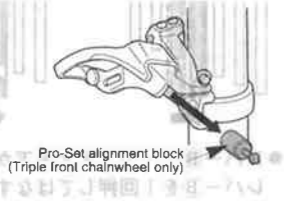
Best setting

Turn the crank forward while turning the rear derailleur cable adjusting barrel slowly counterclockwise. Stop just before noise is produced (the chain contacts the third sprocket).

Front gear shift adjustment

Be sure to follow the sequence described below.

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



Chain position

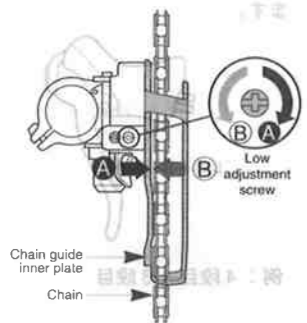
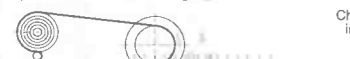
For triple front chainwheel

Largest sprocket Smallest chainring



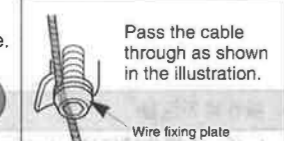
For double front chainwheel

Largest sprocket Smallest chainring



2. Connection and securing of cable

While pulling the inner the cable, tighten the wire fixing bolt with a 5 mm Allen key to secure the cable.



Tightening torque:
4.9 - 6.9 Nm (44 - 60 in. lbs.)

Pass the cable through as shown in the illustration.

Wire fixing plate

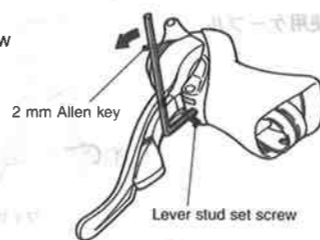
5 mm Allen key

Cut off any unnecessary cable, attach an end cap and hook it onto the pin.

Disassembly and reassembly

Bracket and lever disassembly

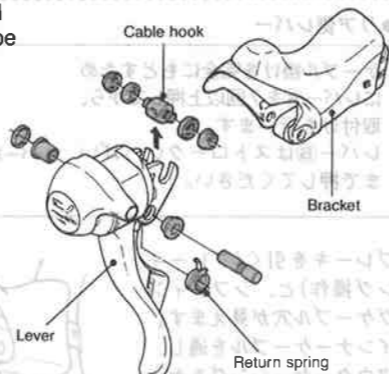
1. Use a 2 mm Allen key to remove the lever stud set screw on the bottom of the bracket.



2. Insert a 2.5 mm Allen key or similar tool into the lever stud hole, and tap it gently with a plastic mallet to push out the lever stud. When the lever stud comes out, the bracket body and lever body can be disassembled.

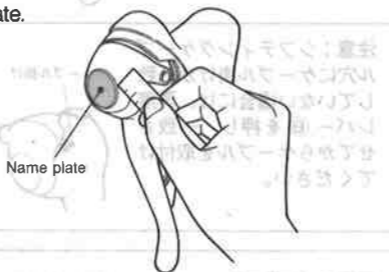


3. The return spring and cable hook can also be disassembled.

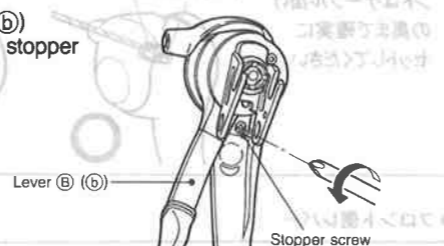


Lever disassembly

1. Remove the name plate.



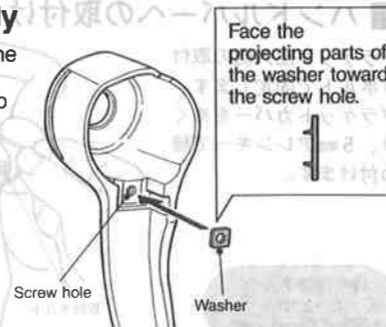
2. Move lever (B) and remove the stopper screw.



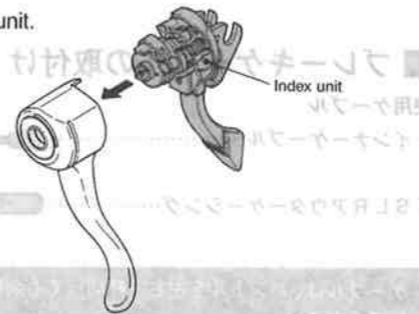
3. Remove the fixing bolt with an 8 mm socket wrench

Lever reassembly

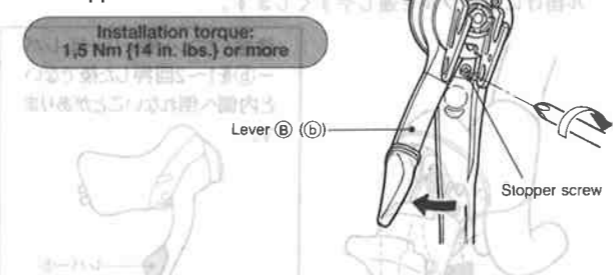
1. Set the washer into the screw hole on lever (A) (a). Use grease to stick it on.



2. Attach the index unit.



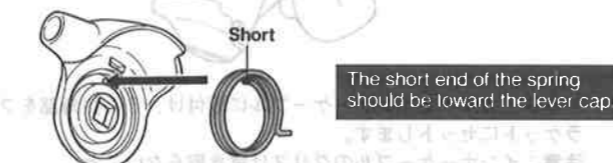
3. Secure by tightening the stopper screw.



4. Attach the ring.



5. Attach the spring to the lever cap.

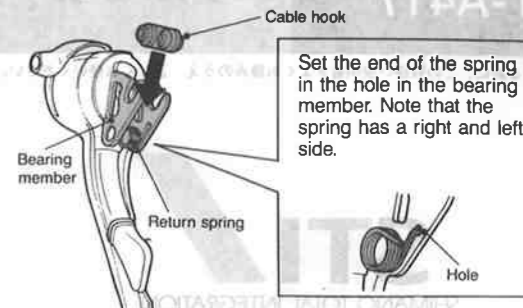


6. Insert the long end of the spring into the lever, and attach the lever by turning the lever cap.



Assembling the bracket and lever

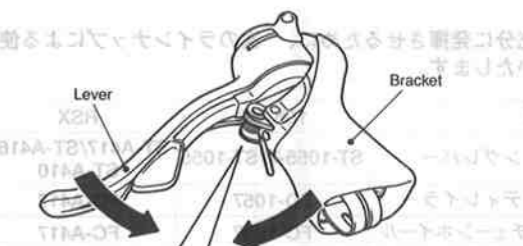
1. Put the cable hook into the bearing member, and set the return spring.



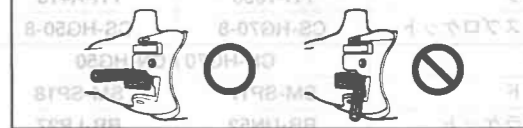
2. Set the special installation tool for the return spring.



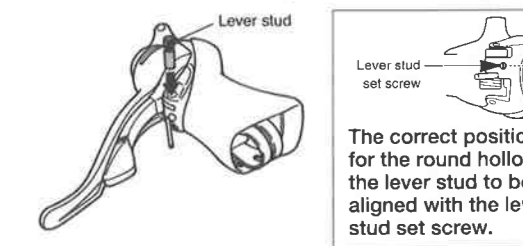
3. Assemble the bracket and lever. Be careful that the end of the return spring does not protrude from the hole in the bearing member at this time.



Make sure the spring is properly positioned.



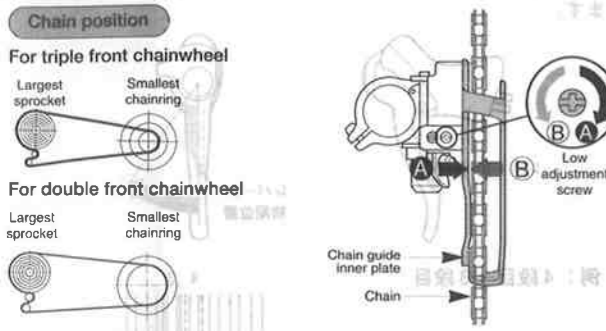
4. Align the stud holes, and then press-fit the lever stud.



5. Remove the return spring installation tool with pliers.

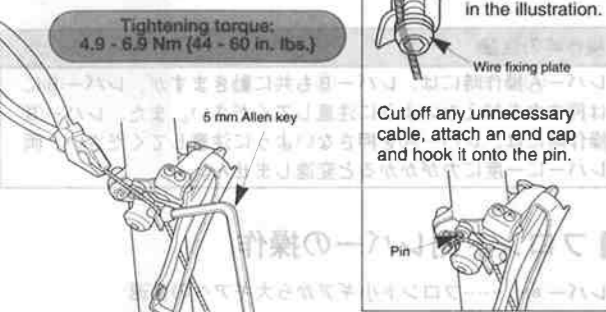


the clearance between the chain guide inner plate and the chain is 0-0.5mm.



2. Connection and securing of cable

While pulling the inner the cable, tighten the wire fixing bolt with a 5 mm Allen key to secure the cable.



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

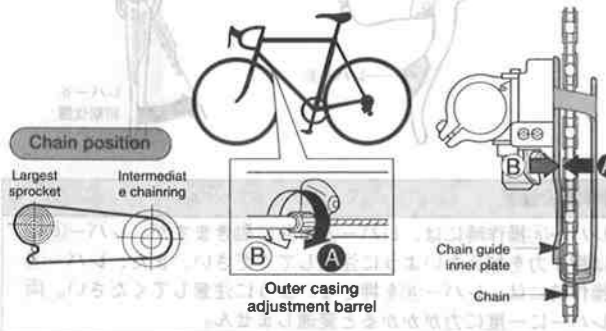
3. Top adjustment

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

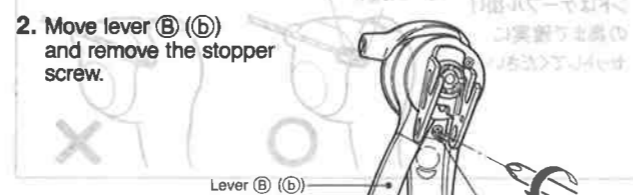


4. Adjustment of the intermediate chainring

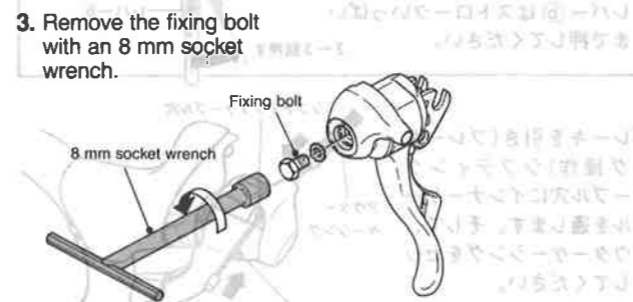
When carrying out adjustment, set the chain to the largest sprocket, and at the front, set the chain to the intermediate chainring. Adjust using the outer casing adjustment barrel so that the clearance between the chain guide inner plate and the chain is 0-0.5 mm.



2. Move lever (B) and remove the stopper screw.

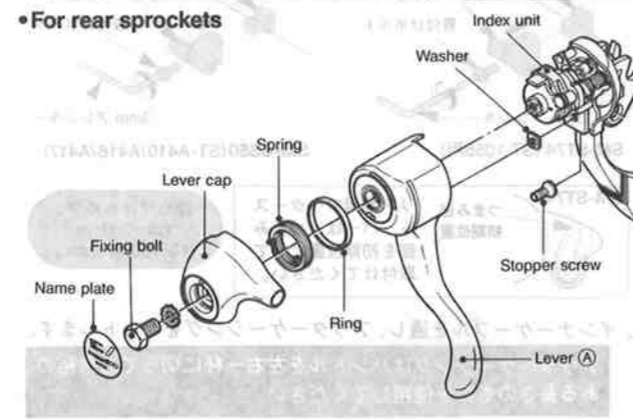


3. Remove the fixing bolt with an 8 mm socket wrench.

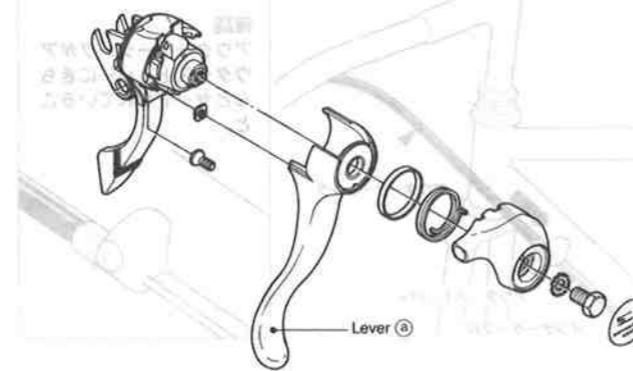


4. Disassembly is possible as shown below.

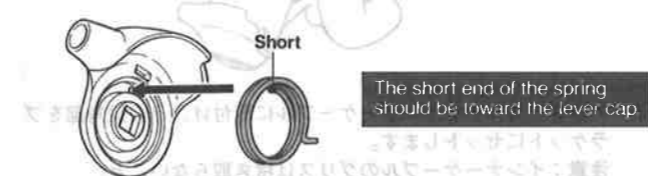
Do not disassemble any further as reassembly may not be possible.



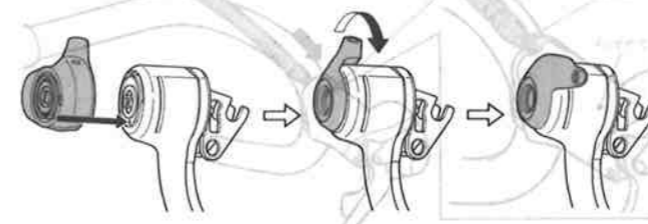
For front chainwheel



5. Attach the spring to the lever cap.



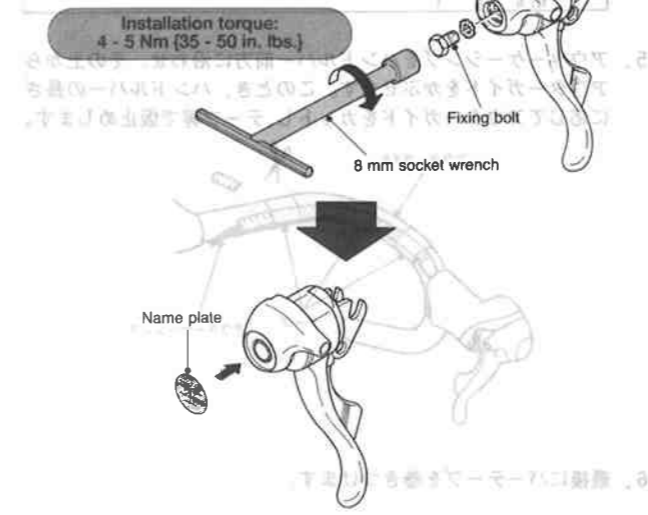
6. Insert the long end of the spring into the lever, and attach the lever by turning the lever cap.



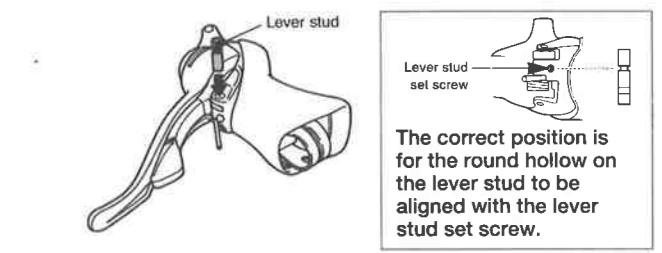
For the rear sprockets, attach so that the projecting part of the lever is aligned with the tab on the lever cap.

For the front chainwheel, attach so that the projecting parts of the lever are interlocked with the tabs on the lever cap.

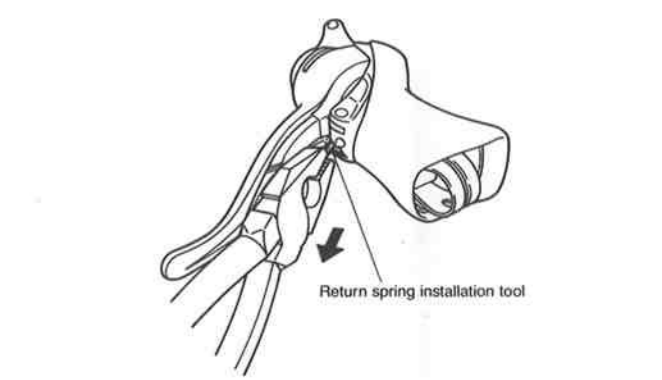
7. Then tighten the fixing bolt and attach the name plate.



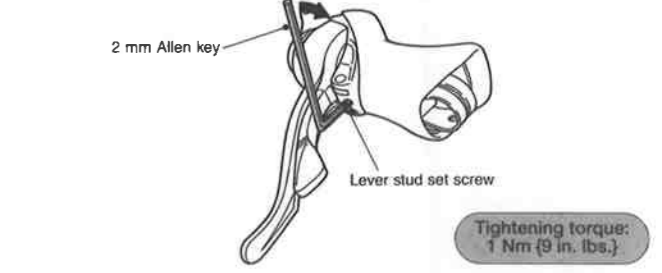
4. Align the stud holes, and then press-fit the lever stud.



5. Remove the return spring installation tool with pliers.

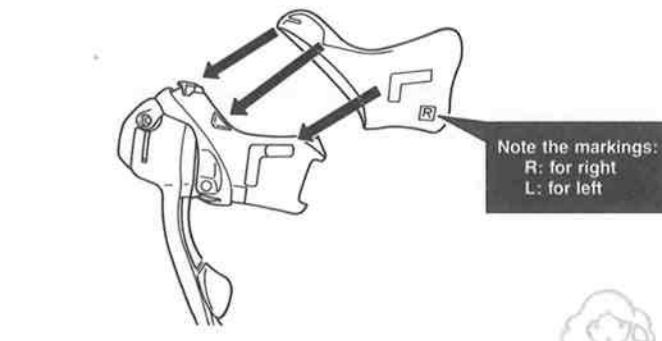


6. Tighten the lever stud set screw until it is even with the surface of the bracket.



Replacing the bracket cover

The tabs on the bracket cover each fit into a matching slot on the bracket.



Put a little rubbing alcohol inside the bracket cover to make installation easier.