

**ST-7700-C**Shimano Total
IntegrationSHIMANO
TOTAL
INTEGRATION **DURA-ACE**

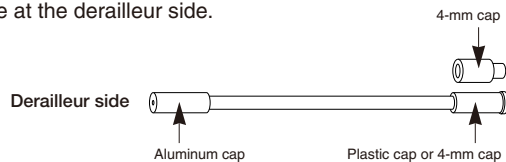
General Safety Information

WARNING

- 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

- 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 the bottom bracket cable guide.
- Grease the inner cable and the inside of the outer casing before use to ensure that they slide properly.
- 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.
- The end of the outer casing which has the aluminum cap should be at the derailleur side.

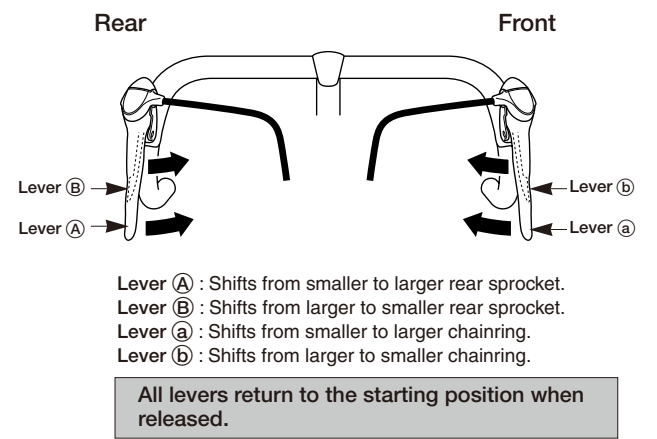


- The cycle computer is compatible with the SM-6501. Be sure to read these Service Instructions together with the Service Instructions for the SM-6501.
- Parts are not guaranteed against natural wear or deterioration resulting from normal use.
- For maximum performance we highly recommend Shimano lubricants 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.

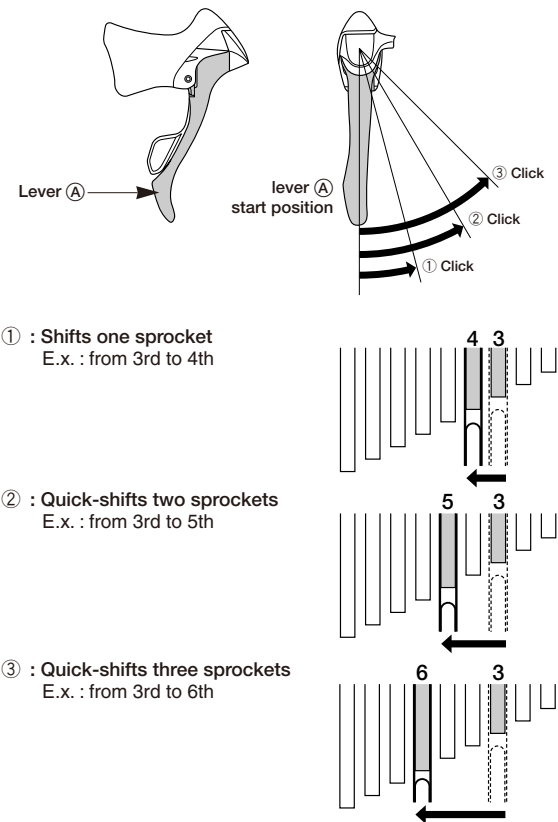
Series	DURA-ACE
Shifting lever	ST-7700-C
Outer casing	SP40
Gears	18
Front derailleur	FD-7700
Front chainwheel	FC-7700
Bottom bracket	BB-7700
Rear derailleur	RD-7700
Freehub	FH-7700
Cassette sprocket	CS-7700
Chain	CN-7701
Bottom bracket cable guide	SM-SP17

Operation

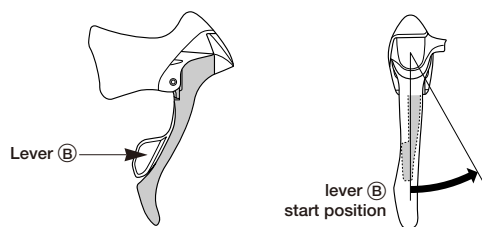


Operation of rear derailleur lever

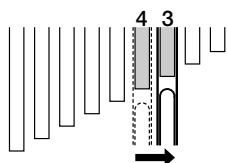
- Lever (A) : Shifts from smaller to larger rear sprocket.
Lever (A) has a click stop at positions ①, ②, and ③.



- **Lever (B)** : Shifts from larger to smaller rear sprocket.
Press lever (B) once to shift from a larger to one smaller sprocket.



E.x. : from 4th to 3rd



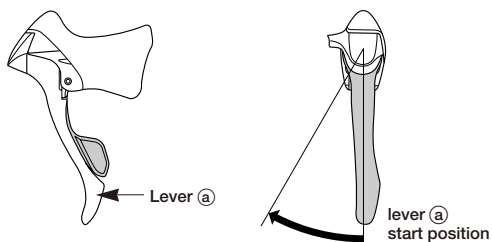
Caution on operation

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.

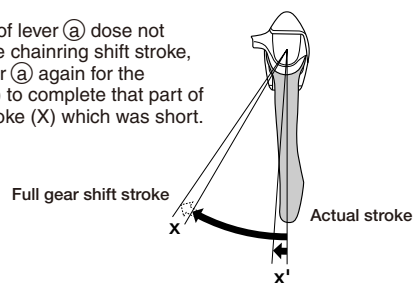
Be sure to read these service instructions in conjunction with the service instructions for the RD-7700 before use.

Operation of front derailleur levers (FD-7700)

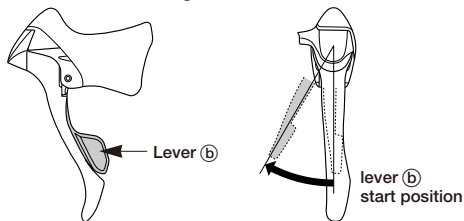
- **Lever (a)** : Shifts from smaller to larger front chainring.



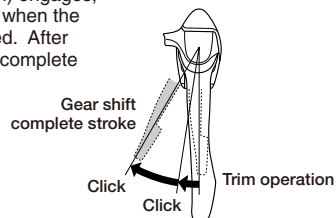
If operation of lever (a) does not complete the chainring shift stroke, operate lever (a) again for the distance (X') to complete that part of the lever stroke (X) which was short.



- **Lever ⑥** : Shifts from largest chainring to intermediate chainring.

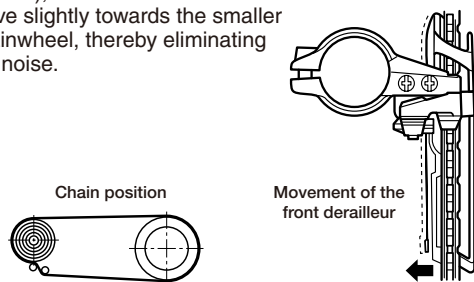


When lever ⑥ is operated, there is one click where trimming (the noise prevention mechanism) engages, and a second stronger click when the gear shift stroke is completed. After trimming, the next push will complete the gear shift stroke.



Trimming (noise prevention operation)

If the chain is on the large front chainwheel and the larger rear sprocket, the chain will rub in the front derailleur plate, producing a characteristic noise. When this happens, press lever ⑥ lightly (to the point where it clicks); this causes the front derailleur to move slightly towards the smaller chainwheel, thereby eliminating the noise.



Caution on operation (FD-7700)

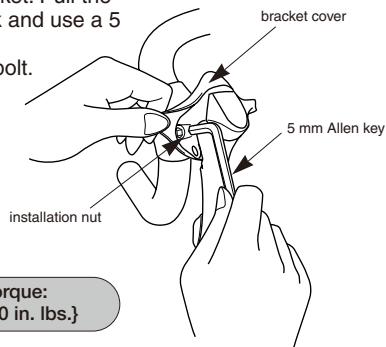
Lever ⑥ will also move when lever ⑤ is operated, but be careful not to apply pressure to lever ⑥. Similarly be careful not to press lever ⑤ when operating lever ⑥. Gears will not shift when both levers are pressed simultaneously.

Be sure to read these service instructions in conjunction with the service instructions for the FD-7700 before use.

Installation

Installation to the handlebar

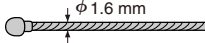
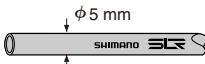
Secure the assembly with the installation nut on the outside of the bracket. Pull the bracket cover back and use a 5 mm Allen key to tighten the bolt.



Tightening torque:
6 - 8 N·m {50 - 70 in. lbs.}

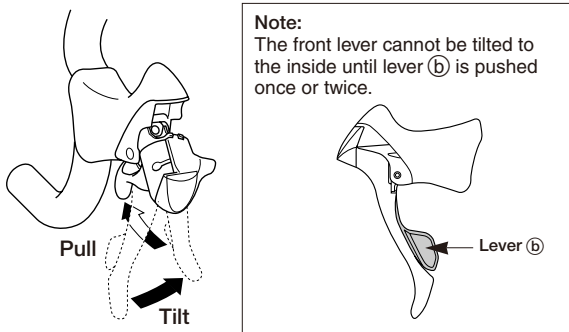
Installation of the brake cable

Cable used

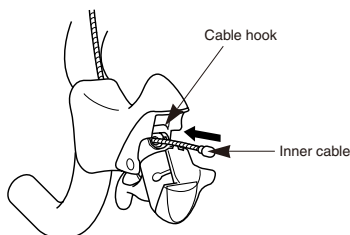
- Inner cable (stainless steel) 
- SLR outer casing 

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.



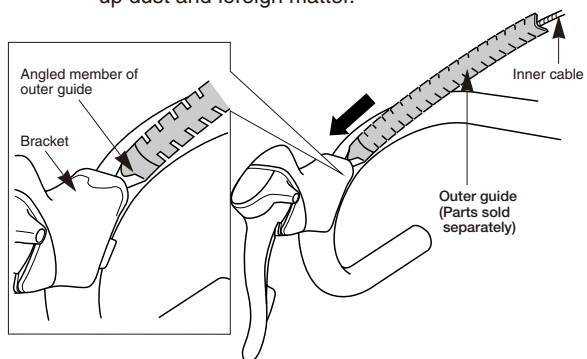
2. Pass the inner cable through.



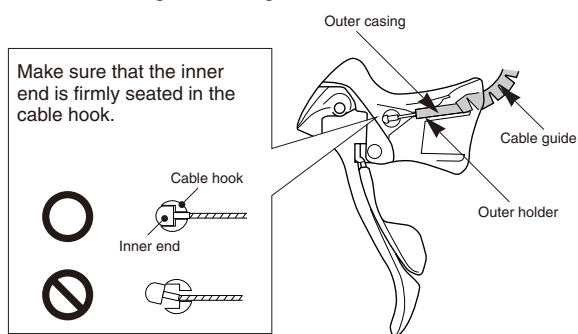
3. Fix the outer guide to the inner cable, and set the angled member in the bracket.

Note: Do not wipe the grease on the inner cable off.

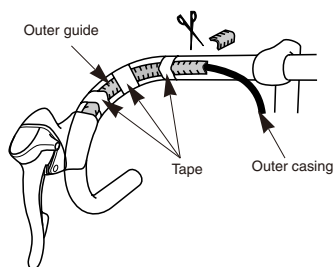
Also, be careful that the inner cable does not pick up dust and foreign matter.



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



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.

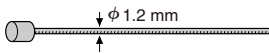


6. Finally, wrap the handlebar with the finish tape.

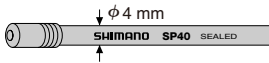
Installing the shifting cable

Cable used

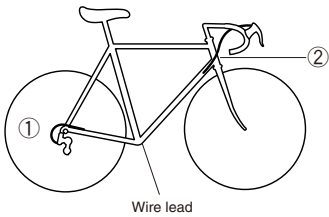
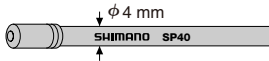
- Inner cable (stainless steel)



- SP40 sealed outer casing (①)

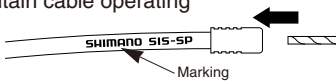


- SP40 outer casing (②)



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.

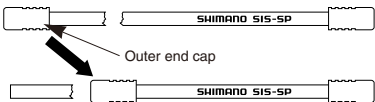


Cutting the outer casing

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.

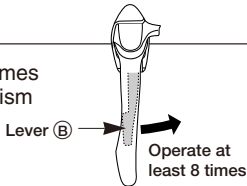


Attach the same outer end cap to the cut end of the outer casing.

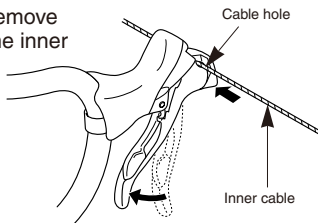


Rear lever

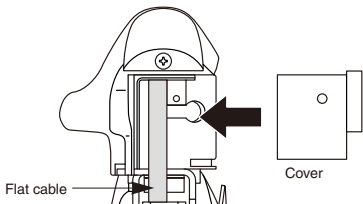
Push lever ⑧ at least 8 times to make sure the mechanism is in top gear before installing.



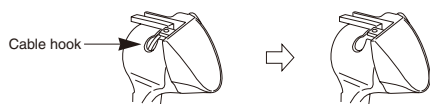
Depress the brake lever, remove the cover and then pass the inner cable through the cable hole.



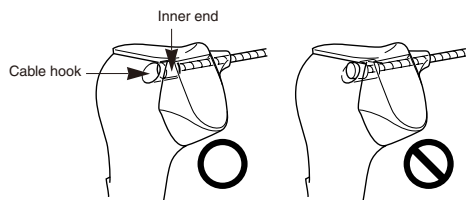
Make sure that the flat cable is straight as shown in the illustration, and then install the cover. (Be careful not to clamp the flat cable when installing the cover.)



If the cable hook does not align with the shifting cable hole, press lever ⑥ again until it does, and then install the cable.

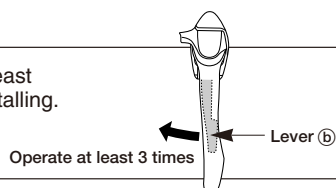


Make sure that the inner end is firmly seated in the cable hook.

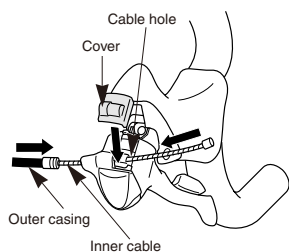


• Front lever

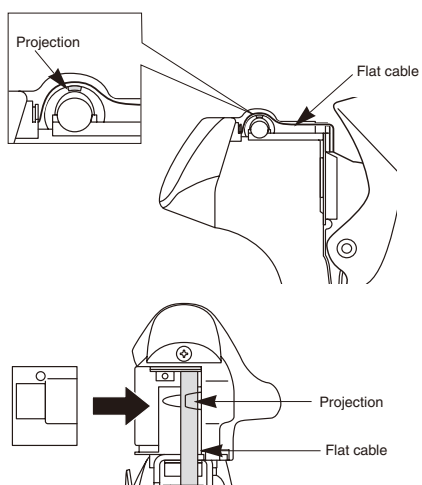
Push lever ⑥ at least 3 times before installing.



Depress the brake lever, remove the cover and then pass the inner cable through the cable hole.

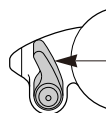
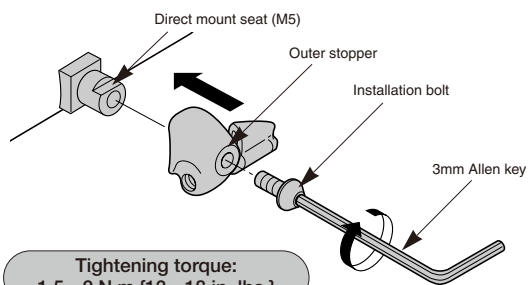


Make sure that the flat cable is straight and sitting on top of the projection, and then install the cover. (Be careful not to clamp the flat cable when installing the cover.)



• Outer stopper

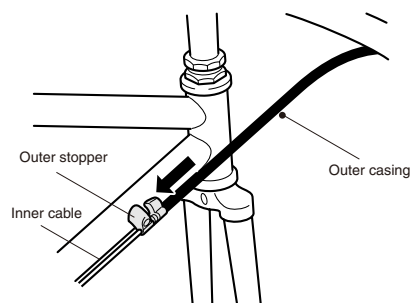
1. Install the outer stopper to the down tube.



Install the outer stopper for the rear chainwheels with the handle in the default position.

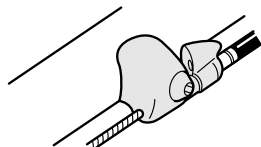
2. Pass the inner cable through, and set the outer casing.

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



Confirm

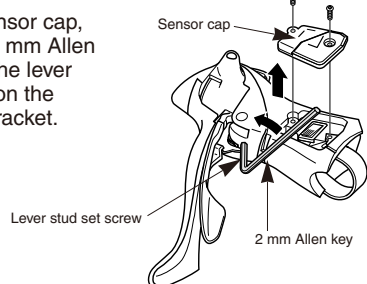
Make sure the outer casing is firmly seated in the outer stopper.



Maintenance

Bracket and lever disassembly

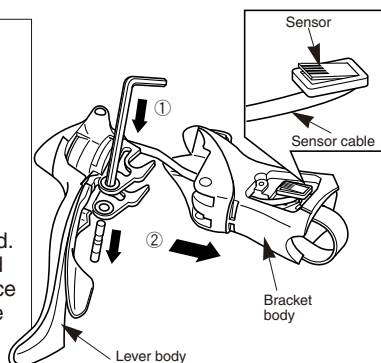
1. Remove the sensor cap, and the use a 2 mm Allen key to remove the lever stud set screw on the bottom of the bracket.



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. After this, pull the sensor cable out from the bracket body.

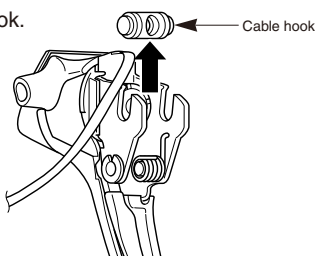
Note:

When removing the sensor cable, do not apply too much force when pulling the cable, otherwise the sensor may become damaged. Use a tool to hold the sensor in place and pull the cable out carefully.

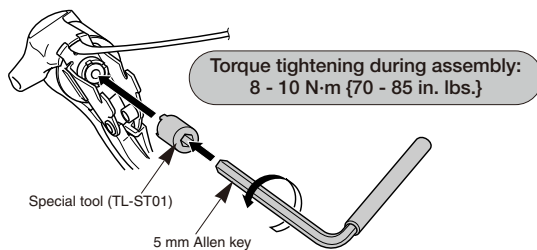


Lever and bearing assembly disassembly

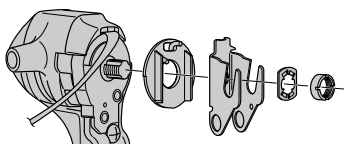
1. Remove the cable hook.



2. Disassemble using the special tool and a 5 mm Allen key.

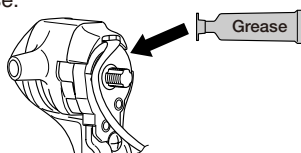


3. Disassemble as shown.



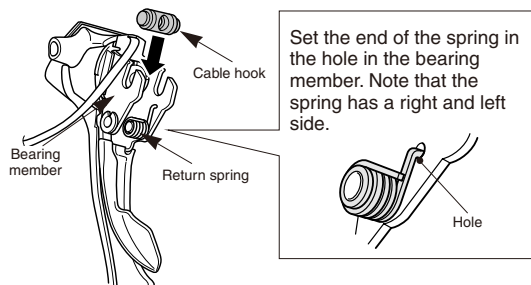
Do not disassemble any further as reassembly may not be possible.

- Be sure to regrease.

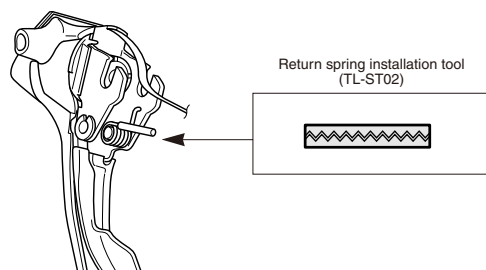


Assembling the bracket and lever

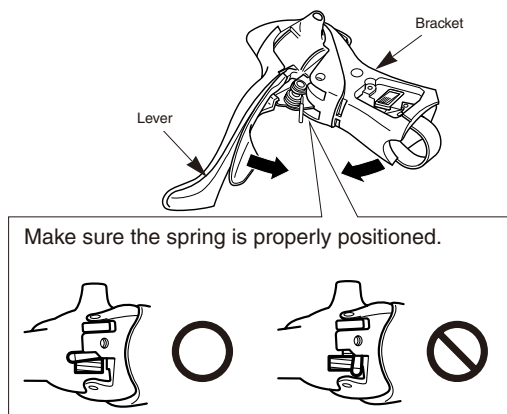
1. Put the cable hook in to the bearing member, and set the return spring.



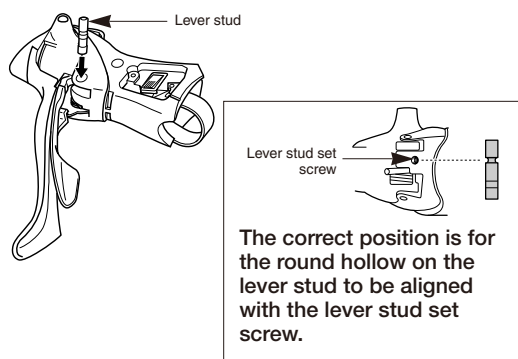
2. Set the special installation tool for the return spring.



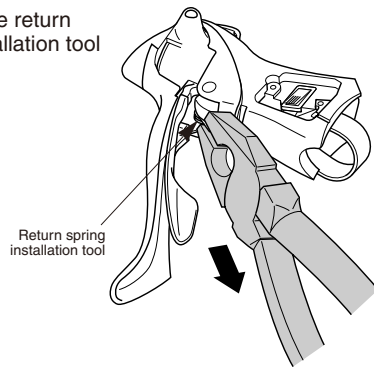
3. First insert the sensor cable into the bracket body, and then assemble the bracket body and lever body. Be careful that the end of the return spring does not protrude from the hole in the bearing member at this time.



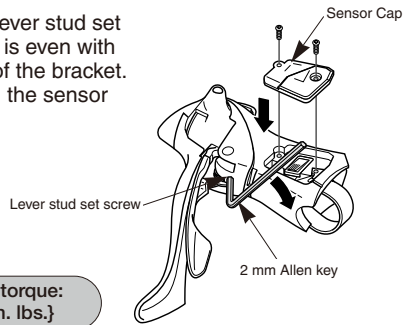
4. Align the stud holes, and then press-fit the lever stud.



5. Remove the return spring installation tool with pliers.



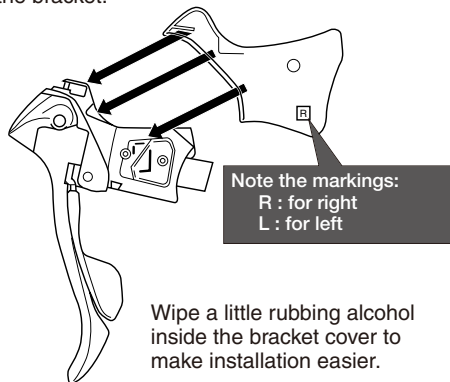
6. Tighten the lever stud set screw until it is even with the surface of the bracket. Lastly, install the sensor cap.



Tightening torque:
1 N·m {8 in. lbs.}

Replacing the bracket cover

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



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