

General Safety Information

WARNING

- Obtain and read the service instructions carefully prior to installing the parts. Loose, worn or damaged parts may cause the bicycle to fall over and serious injury may occur as a result. We strongly recommend only using genuine Shimano replacement parts.
- Obtain and read the service instructions carefully prior to installing the parts. If adjustments are not carried out correctly, the chain may come off and this may cause you to fall off the bicycle which could result in serious injury.
- Use the CN-7900 in combination with the chain. If a 10-speed chain for components such as the CN-7801 or CN-6600 is used, the chain may fall off and the bicycle may suddenly fall over, and serious injury may occur.
- Be careful not to let the cuffs of your clothes get caught in the chain while riding, otherwise you may fall off the bicycle.
- Read these Technical Service Instructions carefully, and keep them in a safe place for later reference.

Note

- If gear shifting operations cannot be carried out smoothly, clean 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.
- 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.
- 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.

Technical Service Instructions

SI-5LB0A-001

FD-7900

Front derailleur

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

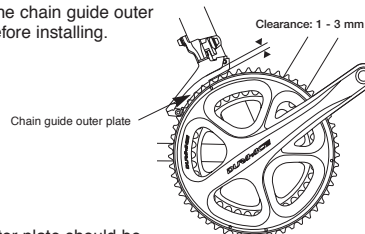
| Series | DURA-ACE |
|----------------------------|-----------------------------|
| Shifting lever | ST-7900 / SL-7900 / SL-BS79 |
| Outer casing | SP41 |
| Gears | 20 |
| Front derailleur | FD-7900 |
| Front chainwheel | FC-7900 |
| Rear derailleur | RD-7900 |
| Freehub | FH-7900 |
| Cassette sprocket | CS-7900 |
| Chain | CN-7900 |
| Bottom bracket cable guide | SM-SP17 |

Specifications

| Type | Band type / Brazed on type |
|---|------------------------------------|
| Front derailleur installation band diameter | S (28.6mm), M (31.8mm), L (34.9mm) |
| Front chainwheel tooth difference | 16 teeth or less |
| Chainstay angle (α) | 61° - 66° |
| Chain line | 43.5mm |

Installation of the front derailleur

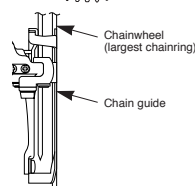
- Adjust so that the clearance between the chain guide outer plate and the large gear is 1 - 3 mm before installing.



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

- Secure using a 5mm Allen key.

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



When installing the components to carbon frame/handle bar surfaces, verify with the manufacturer of the carbon frame/parts for their recommendation on tightening torque in order to prevent over tightening that can cause damage to the carbon material and/or under tightening that can cause lack of fixing strength for the components.

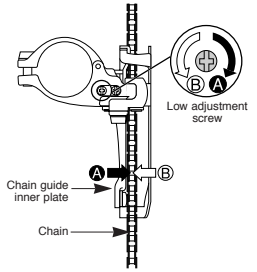
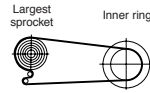
To improve gear shifting performance, the SIS adjustment method for the FD-7900 front derailleur is slightly different from previous derailleurs. In addition, the trimming mechanism has also been abolished in order to improve shifting performance.

SIS adjustment

1. Low adjustment

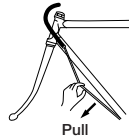
Set so that the clearance between the chain guide inner plate and the chain is 0 - 0.5 mm.

* 1/8 turn of adjustment screw (45 degrees) = 0.4 mm movement of front derailleur



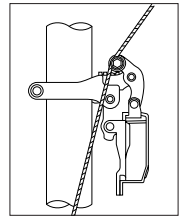
2. Connection and securing of cable

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



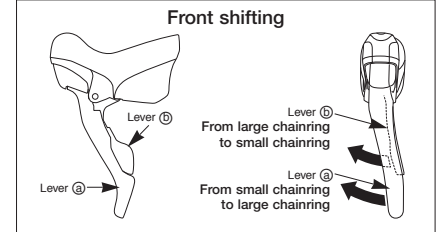
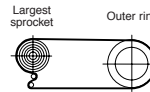
Tightening torque:
5 - 7 N·m {44 - 60 in. lbs.}

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

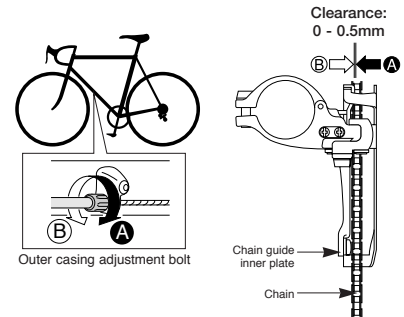
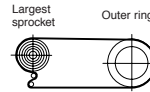


3. Adjustment of the cable tension

- Set the chain to the largest rear sprocket, and shift the front to top gear.



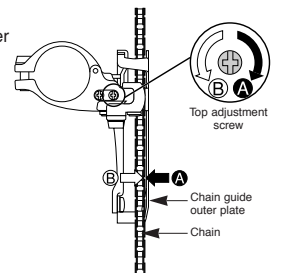
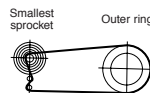
- Adjust the clearance (by using the cable-adjustment bolt) of the chain and chain guide to the minimum (0 - 0.5 mm).



4. Top adjustment

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

* 1/8 turn of adjustment screw (45 degrees) = 0.4 mm movement of front derailleur



5. Troubleshooting chart

After completion of steps 1 - 4, 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 small chainring to the large chainring | Loosen the top adjustment screw counterclockwise (about 1/8 turn). If it still does not solve the problem, adjust the cable tension again. |
| If shifting is difficult from the large chainring to the small chainring | Loosen the low adjustment screw counterclockwise (about 1/8 turn). |
| If the chain falls to the bottom bracket side. | Tighten the low adjustment screw clockwise (about 1/2 turn). |

Be sure to read these service instructions in conjunction with the service instructions for the ST-7900 / SL-7900 / SL-BS79 before use.

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