SERVICE INSTRUCTIONS

FD-M900
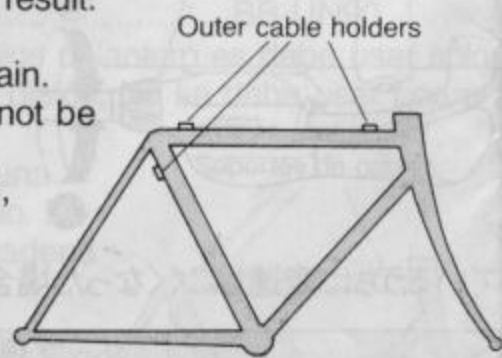# FD-M901
Front Derailleur
(Top pull type)

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

Specifications

Capacity (front gear tooth difference	Round gear	8T—26T
Installation band diameter	⌀28.0—⌀28.6 mm, ⌀31.8 mm, ⌀34.9 mm	
Stroke (A—A′)	⌀28.0—⌀28.6 mm	35—55 mm
	⌀31.8 mm	37—57 mm
	⌀34.9 mm	38—58 mm
Frame angle (α)	66°—69°	

Note:
- Be sure to use in the following combination.
  - Front Derailleur....................FD-M900/FD-M901
  - Rapidfire...............................ST-M900
  - Front chainwheel..................FC-M900
  - Bottom bracket.....................BB-UN90
- This front derailleur is for front chainwheel triple gear use only. It cannot be used with the double gear, as poor shifting performance will result.
- Be sure to use only the Shimano narrow-type chain. The wide-type chain cannot be used.

Outer cable holders

- When installing FD-M901, choose a frame that has three outer cable holders as shown in the illustration below.

- The load strength can be changed from strong to weak and vice versa.

Weak

Strong

Please note: specifications are subject to change for improvement without notice. (English)
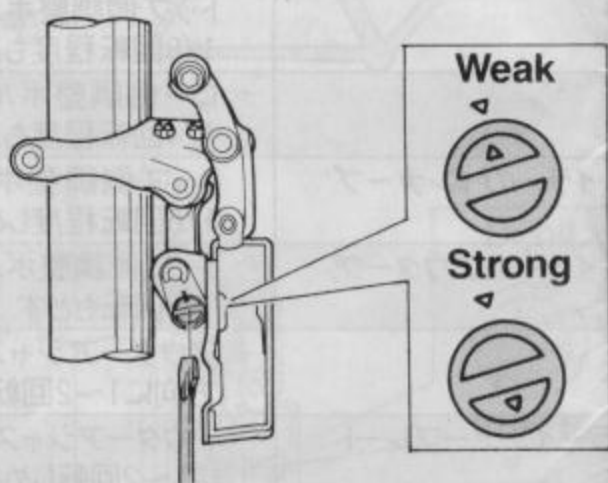
Installation to the frame

1. Adjust so that clearance between the outside plate of the chain guide and the large gear is 1—3 mm, and then install.

Seat tube

Clearance: 1—3 mm

Chain guide outer plate

Front chainwheel (large gear)
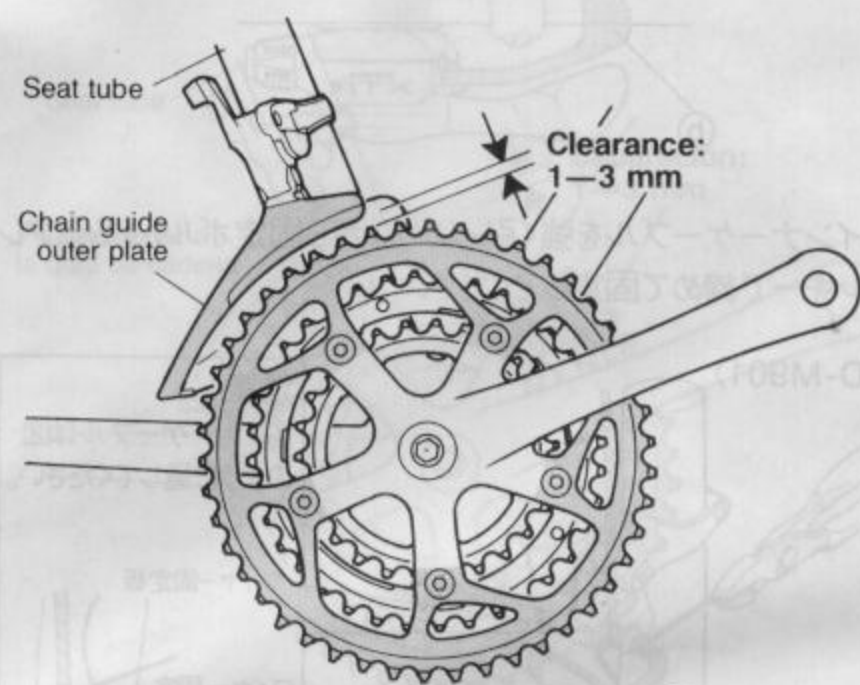
2. The outside surface Ⓐ of the chain guide should be directly above and parallel to the large gear.

Chainguide

Ⓐ
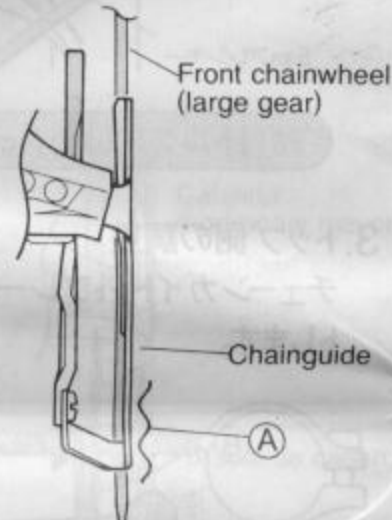
3. Secure by using a 5mm Allen key.

Tightening torque: 50 kgfcm (43 in.lbs.)

Adjustment and cable securing

Be sure to follow the sequence described below.

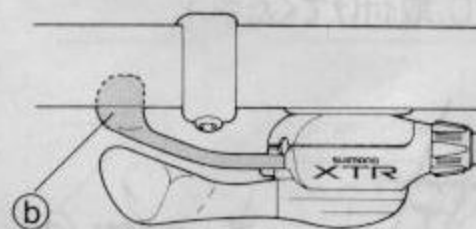### 1. Low adjustment
Set so that the clearance between the chain guide inner plate and the chain is as follows:
- If the largest gear of the front chainwheel has 46T: 0—0.5mm.
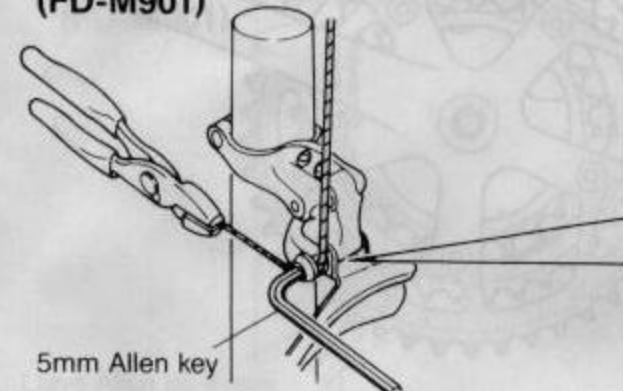- If the largest gear of the front chainwheel has 48T: 1—1.5mm.

Low adjustment bolt

Ⓐ ← → Ⓑ   Chain position

Chain guide inner plate

Chain

Largest gear   Smallest gear
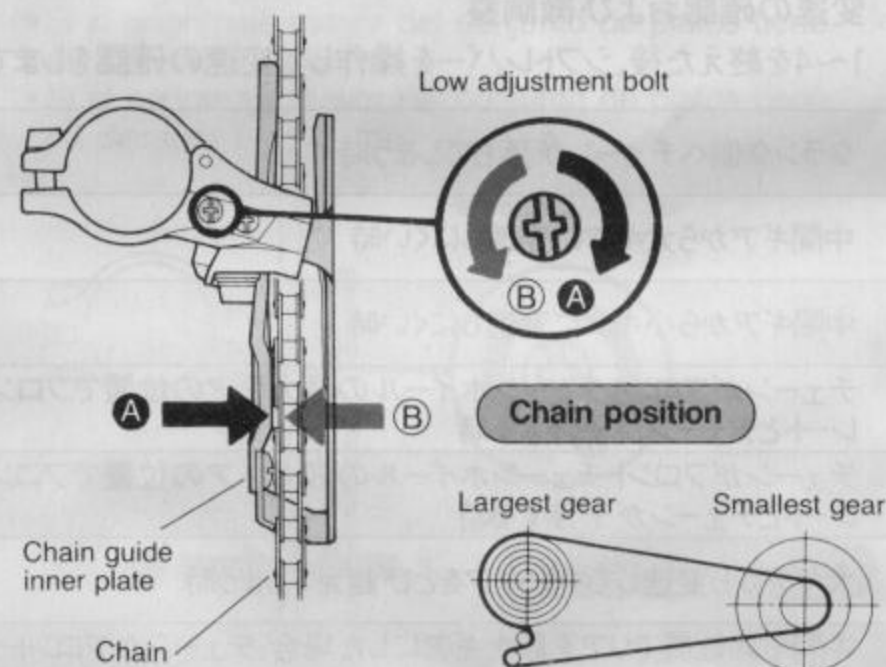
2. Fixing the cable
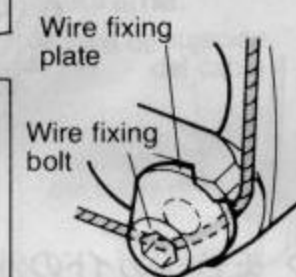① Pull lever ⓑ 3 or 4 times to move the lever to low position.

ⓑ   XTR

② While pulling the inner cable firmly, tighten the wire fixing bolt with a 5mm Allen key.
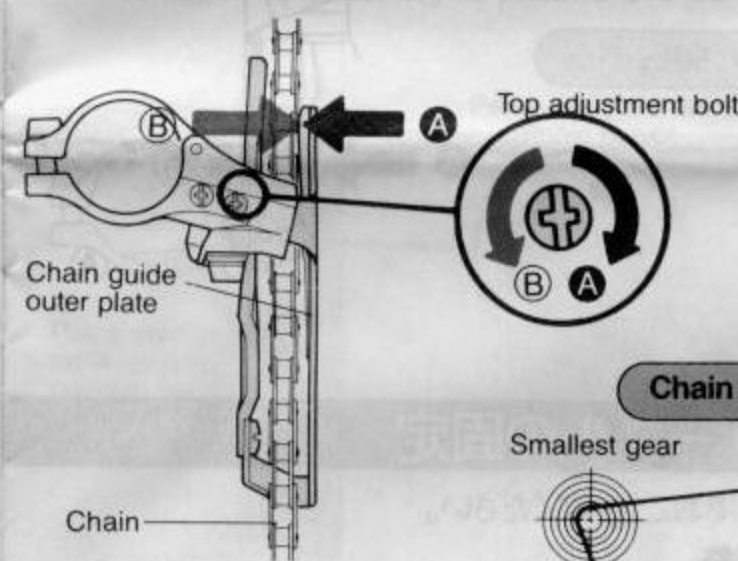
(FD-M901)

5mm Allen key

Caution
Thread the inner cable as shown in the diagram.

Wire fixing plate

Wire fixing bolt

Tightening torque: 50 kgfcm

3. Top adjustment
Set so that the clearance between the chain guide outer plate and the chain is 0—0.5 mm.

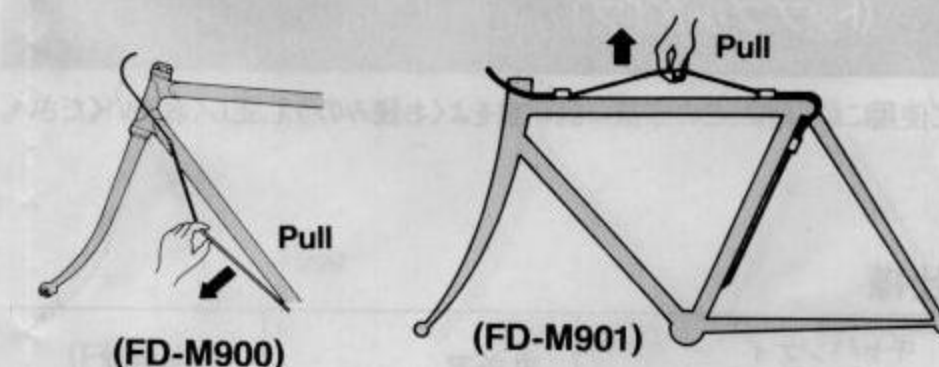Top adjustment bolt

Ⓑ   Ⓐ
Ⓑ Ⓐ

Chain guide outer plate

Chain position

Smallest gear   Largest gear

Chain

4. Tension adjustment of the cable

**If use is not as Shimano Total Integration, the step "Tension adjustment of the cable" is not necessary.**

① After taking up the initial slack in the cable, reattach to the front derailleur.

Pull

Pull

(FD-M900)   (FD-M901)

② Set the chain to the **largest rear sprocket**, and, at the front, use the Rapidfire to shift **from the largest chainwheel to the intermediate chainwheel.**

Largest gear   Largest gear   Largest gear   Intermediate gear
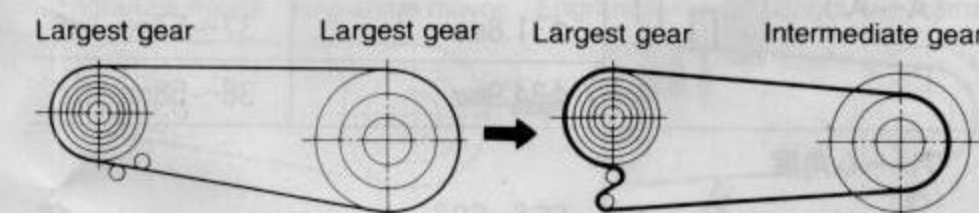
③ Adjust by using the outer adjustment bolt so that the clearance between the chain guide inner plate and the chain is 0—0.5mm.

Outer cable adjustment bolt

Ⓑ   Ⓑ → Ⓐ

XTR

Chain guide inner bolt

Chain

Ⓐ
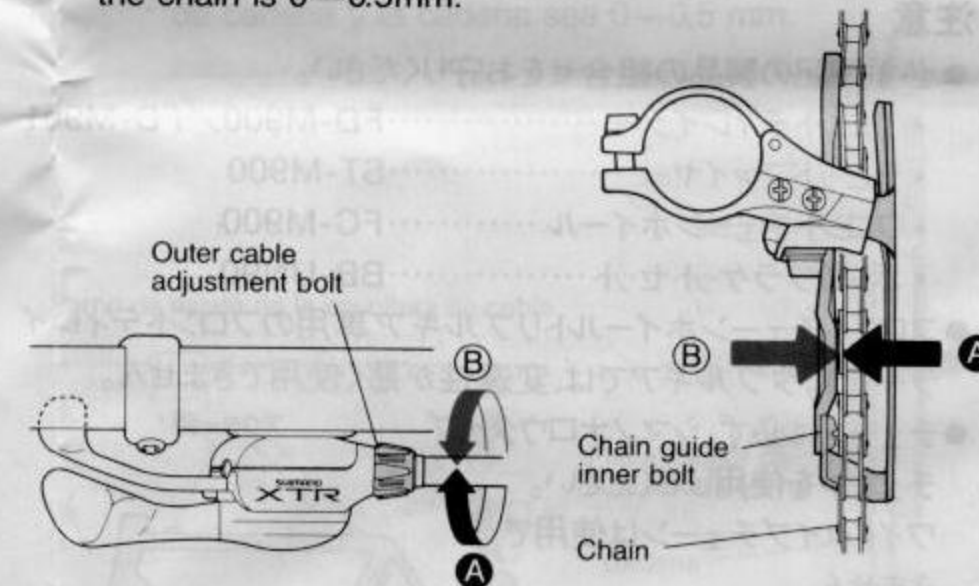
5. Trouble shooting chart
After completion of 1—4, move the shift lever to check the shifting. (This also applies if shifting becomes difficult during use.)

If the chain falls to the crank side	Tighten the top adjustment bolt clockwise (about 1/4 turn).
If shifting is difficult from the intermediate gear to the large gear	Loosen the top adjustment bolt counterclockwise (about 1/8 turn).
If shifting is difficult from the intermediate gear to the small gear	Loosen the low adjustment bolt counterclockwise (about 1/4 turn).
If there is interference of the chain and front derailleur inner plate at the largest gear of the front chain wheel	Tighten the top adjustment bolt clockwise (about 1/8 turn).
If there is interference of the chain and front derailleur outer plate at the largest gear of the front chain wheel	Loosen the top adjustment bolt counterclockwise (1/8 turn).
If the intermediate gear is skipped when shifting from the largest gear	Loosen the outer cable adjustment bolt counterclockwise (1 or 2 turns). ★
If there is interference of the chain and front derailleur inner plate when, at the intermediate gear position, the rear chainwheel is shifted to the largest gear.	Tighten the outer cable adjustment bolt clockwise (1 or 2 turns).
If the chain falls to the bottom bracket side	Tighten the low adjustment bolt clockwise (1/2 turn).

Note: If use is not as Shimano Total Integration, items marked ★ are not necessary.