

**mechanical disc brake of bicycle**

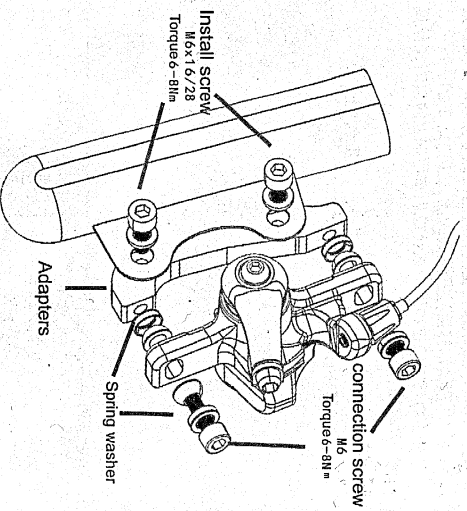
Installation and operation user  
manual for disc brakes

ER-5	ER-1
ER-3	ZJ-5
YK-5	JAK-1
T-2	JAK-7
ZJ-2	JAK-8
JAK-5	Split
All-in-one system	system

All disc brakes are designed to fit the front fork, frame and wheel hub under international standards.

**Installation**

**1 Installation of caliper with fixed bracket**

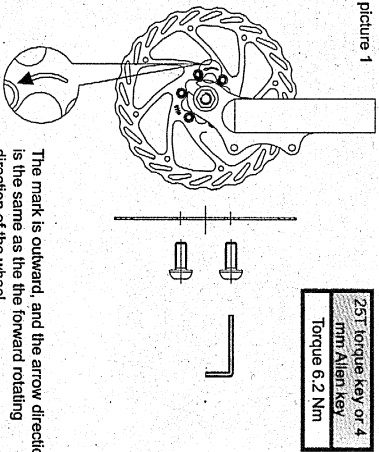


picture 3

**Installation**

**Rotor Installation**

- (1) Remove the front wheel from the front fork of the bicycle. Use 6 rotor screws to tighten the rotor onto the disc hub (25T Torque Key or 4 mm Allen key, torque 6.2 Nm).
  - (2) When assembling, the specification marks on the rotor must face outwards. And the rotor must be installed with the rotation arrow label pointing in the same direction as the forward rotation of the wheel.
- \*Warning: Safety problems may occur if the disc is reversed.

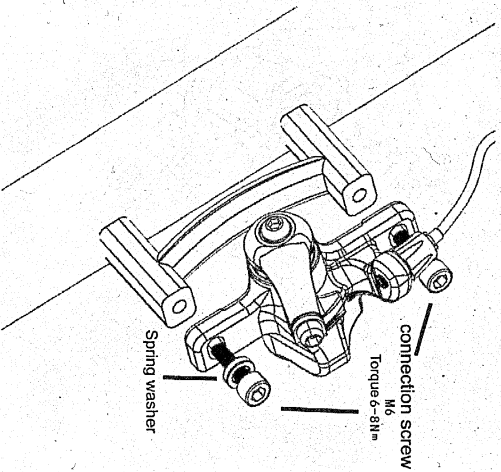


25T Torque Key or 4 mm Allen Key  
Torque 6.2 Nm

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**Installation**

**Column setting installation**

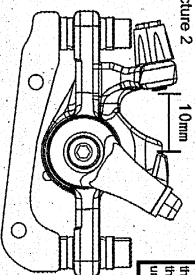


picture 4

**Installation**

**2 Caliper Installation**

- (1) Select the appropriate caliper adapter according to the size of the rotor. Fix the caliper to the caliper adapter with hex socket screws (washers are optional). Please only pre-tighten at this moment.
- (2) Install the calipers with the fixed adapters to the fixing holes of the rotors by using hex socket screws (M6X16 or M6X28, the screw sizes may vary depending on the bicycle models) and flat washers, then tighten the screws up (torque 6-8 Nm).
- (3) Install the calipers with the fixed adapters to the front fork or seat stay through the fixing holes of the rotor by using two M6X18 hex socket screws and flat washers (the screws may vary depending on the frame size).
- (4) After the brake cable is installed, pull the brake lever to its tightest position, and then alternatively tighten the M6 connection screws on the caliper (torque 6-8 Nm). Then release the brake lever to make sure the disc is between 2 brake pads (B gap is allowed to be little bit smaller). Then spin the wheel to make sure the disc is clear to brake pads.
- (5) If disc is in contact with the brake pad on the adjusting bolt side, the adjusting bolt could be unscrewed to certain degree to make sure the wheel spins smoothly.



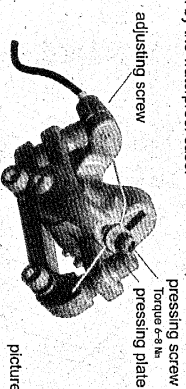
**NOTE!**  
When pulling the brake lever tightly, the gap between the pull rod and the force arm is at least 10 mm under the normal state.

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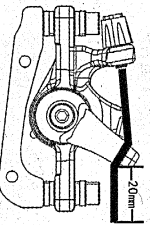
**Installation**

**4 Brake inner cable installation**

- (1) Thread the brake inner cable through the adjusting screw on the caliper force arm.
- (2) Continue to thread the brake inner cable through the cable pressing plate of the pull rod on the caliper. The pull rod is pulled forward for 3-7 degrees for pre-tightening, and then tighten the cable pressing screw (torque 6-8 Nm).
- (3) The tension of the brake cable can be adjusted by the adjusting screw on the force arm or the adjusting screw on the brake lever. If everything works well, then cover the adjusting screw of the caliper arm by the waterproof case.



picture 5



**Warning!**  
The length of the tail end of the brake inner cable must be no more than 20 mm. In case of danger caused by the brake inner cable, it must be necessarily caught into the disc.

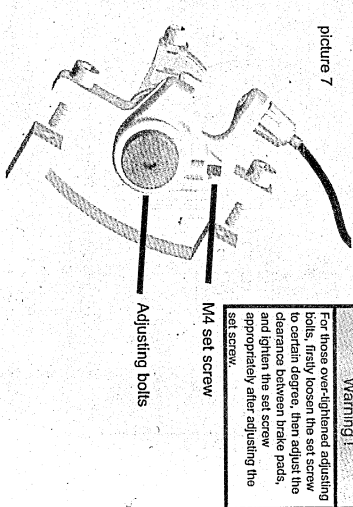
picture 6

## Installation

### 5 Brake pad adjustment

#### Adjustment

- (1) A gap is too large, the connection screws have to be loosened. Then screw the adjusting bolt into appropriate position (tighten the rotor by holding the brake lever with appropriate force to check if you feel comfortable or not). Then repeat the caliper installation steps mentioned in Step 3 and Step 4.
- (2) B gap is too large, just screw the adjusting bolt to right position (tighten the rotor by holding the brake lever with appropriate force to check if you feel comfortable or not).

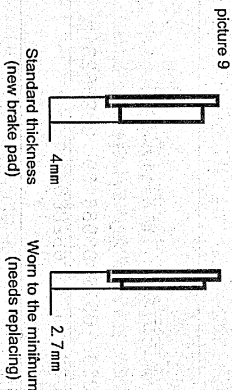


picture 7

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## Notes

- ★ (a) When the brake pads are worn too thin, the manner to compensate the wear by tightening the inner cable is not allowed in case of affecting the normal brake operation. (If the inner cable is inappropriately over-tightened, the pull rod will be too close to the caliper force arm, and the pull rod will lose the motion range required for normal braking, and thereby fails the braking function).
- ★ (b) Before riding the bicycle, please check the thickness of the brake pads. When the wear of the brake pads exceeds 0.8 mm, the replacement of the pad is recommended. When the total thickness of the worn brake pad is less than 2.7 mm, the pads must be replaced to ensure the safety riding.



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## Installation

### 6 Brake pad replacement

#### Preparation

- (1) Loosen the connection screw.
- (2) Unscrew the adjusting bolt, and remove the caliper.
- (3) Push caliper pistons fully back and pull out the brake pads, then replace new brake pads.
- 3-1. Loosen the set screw and unscrew the adjusting bolt, then remove the used brake pads and place new brake pads.
- (4) Tighten the connection screw between big and small calipers, torque 6-8 Nm.
- (5) Repeat the caliper installation.

#### Final adjustment

- (1) Loosen the connection screw.
- (2) Unscrew the adjusting bolt, and remove the caliper.
- (3) Loosen the connection screw between big and small calipers, remove the used brake pads and place the new brake pads.
- (4) Tighten the connection screw between big and small calipers, torque 6-8 Nm.
- (5) Repeat the caliper installation.

#### Final check

For T-2, JK-1, JAK-7, JAK-8 quick release calipers, no need to remove calipers. Just replace the brake pads directly when the calipers remain installed.

#### Notes

Do not use the manner of tightening the brake inner cable only or replacing the brake pads of different specifications to solve the wear issue. Use the adjusting bolt on the force arm or the adjusting screw on the brake lever to tighten the brake cable would also adjust the A gap. However, attention must be paid that the distance between the force arm and the pull rod when you grasp the handle n case of interference.

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## Notes

### Notes

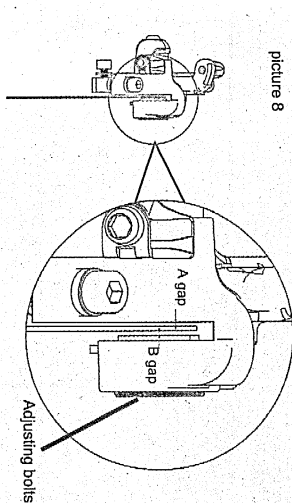
1. After it has been frequently used for a long time or not used for at least one month, the disc brake must be checked whether it works normally, whether the wear of the brake pads is within normal range and the rotor is worn deformed or not (when the deformation deflection exceeds 0.2mm, the rotor must be replaced).
2. Be careful not to allow any oil or grease to get onto the brake pads. If the pads become contaminated, they should be replaced to make sure the safety riding.
3. When users use the brake during riding, there may be slight noise caused by the friction of the brake pads and the disc. It is normal and no need to worry about.
4. It is critical to completely understand the operation of bicycle braking system. Any improper use of brakes may lead to a loss of control or even an accident and possible severe injury. Make sure to learn the proper braking technique and operation of bicycles because each bicycle may handle differently. Please consult professional bicycle dealer or the manual for assistance and improve the riding and braking technique.
5. Before each ride, please check whether the disc brakes can work normally. If abnormal occurrence, such as poor braking feeling, insufficient braking force, or brake failure happens, please consult professional technician in bicycle dealers for inspection and tune-up.
6. When replacing the incoming film, please make sure that the replaced one is the same as the original one. Unanimously, if the inconsistent incoming film is replaced, it may cause safety problems.
7. In order to avoid the hidden danger of loosening of the screws due to damage to the anti-loosening glue, all the loose screws that have been disassembled during the maintenance and repair process must be replaced with new anti-loosening screws.

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## Installation

### 7 Brake pad adjustment when using quick release

The clearance between rotor and the left brake pad (A gap) is approximately 0.3 mm. The clearance between rotor and the right brake pad (B gap) is allowed to be smaller given the fact that the disc is clear to brake pads when spinning the wheel. If brake pads, connection screw needs to be loosened. Then repeat the caliper installation shown in Step 3 and 4, and adjust the clearance between brake pads as before in case of losing the safety braking force.



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## contact information

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