

I. Caution:

- a. Bengal hydraulic disc brakes are specially designed for bicycle using only. To assemble on other kinds of vehicle, Bengal will not guarantee its safety and void the product warranty. Improper installation of Bengal Disc Brakes may cause accident.
- b. Before riding, please make sure if hydraulic disc brake system is working properly and the brake pads need to be replaced. * Always wear helmet when riding.
- c. Understanding how to operate a hydraulic disc brake system is very important. Improper operation will result in losing braking power, causing an accident, and may result in even physical injury. Therefore, learn the proper operation of your brakes thoroughly before riding.
- d. Do not touch the caliper and rotor after riding that might be heated to cause injury. Please cool them first before repair and adjust.

e. Consult a qualified technician/mechanic and use the correct tools for any installation or adjustment.

II. Tool for disc brake mounts front fork and frame: Torx wrench/T25 and 2mm/4mm/5mm Allen key.

1. Installation of Rotor

- 1-1 Wipe the rotor and hub surface with alcohol.
- 1-2 Place the rotor upon the installation side of hub and make sure the rotation direction (laser narrow) of the rotor if as same as wheel's.
- 1-3 Using T25 Torx wrench and tighten the M5 rotor screws to the hub with a tightening torque: 6~8 Nm(53 ~ 71 in.lbs).

2. Installation of Master cylinder

- 2-1 Mounting the master cylinder/brake lever on the handlebar with M5 screw bolt. Adjust its appropriate angle and position, then tighten it at a torque of 4-6Nm(35~53 in. lbs) (as shown in Figure 1).

3. Installation of Adaptor

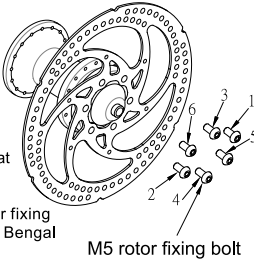
- 3-1 Place a qualified adaptor on the front fork or frame by M6 adaptor fixing bolts + washer at a torque of 8~10 Nm(71~89 in.lbs) to install the Bengal Hydraulic Disc Brake. (As shown in FIG.2).
- Note: Bengal hydraulic disc brake and an adaptor arrangement can be installed on front forks and frames with international mount standard(51mm). It can also be installed without an adaptor on forks and frames for POST mount(74mm).

4. Installation of Caliper:

- 4-1 Install the calipers on the adaptor by M6 caliper fixing bolts loosely and let calipers be able to swivel left and right for adjusting its position. (As shown in FIG.2).

5. Adjustment of disc brake position

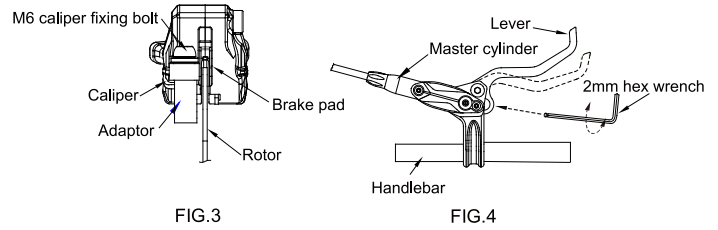
- 5-1 Hold the piston after stroking the handle back and forth several times, so that the caliper can tightly clip the disc and adjust the caliper in the middle of disc (as shown in FIG.3), tighten M6 caliper fixing bolts (2 pcs) at a torque of 8~10 Nm(71~89 in. lbs).



- 5-2 Turn the wheel to see if there exists strange noise or abnormal abrasion. If yes, untighten M6 caliper fixing bolts and repeat 5-1 step and readjust the position of caliper until the wheel can turn freely without trouble to complete.

- 5-3 Adjust the holding space between and lever to fit personal requirement by a 2mm hex wrench. (As shown in FIG.4).

Notes: It is recommended to test the braking system in low speed before going wild.



III. Steps of changing braking pad:

- 3-1 Untighten the caliper fixing bolts and take off calipers.
- 3-2 Press the piston back through its center part steady and slowly by tool.
- 3-3 Rotating the pad 90 degrees and take it off (as shown in FIG.5&6)
- 3-4 Replace a new pad (as shown in FIG.6) and rotate it back 90 degrees and position. (As shown in FIG.7).
- 3-5 Repeat step 4-1 + 5-1 and 5-2 to complete the installation.

Note: Please keep brake pads clean and oil free. Once they are contaminated, please replace the pads immediately. If any squealing sound appears while braking, it means that the brake pads are worn out and need to be replaced.

IV. Caution of adding brake oil and replacement

- a. When the levers work loose, but still with braking function, that maybe not enough brake oil, so after adding the brake oil and making sure that levers work tightly before riding.
- b. In order to maintain braking performance, brake oil should be replaced once a year.
- c. MINERAL brake oil using only for ARES series. (Never mix with any other brake oil)
- d. When replacing the brake oil, avoid touching body, pads or other parts. If you do touch them with any brake oil, please clean it by alcohol immediately. If other components were contaminated, please wipe them down as well.
- e. Properly dispose of the used brake oil

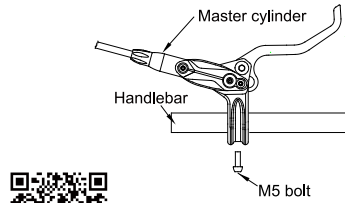


FIG.1

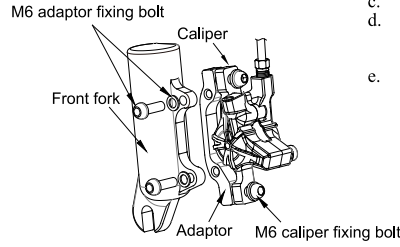


FIG.2

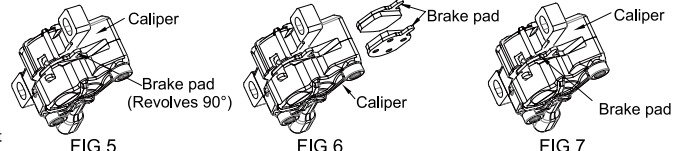


FIG.5

FIG.6

FIG.7

