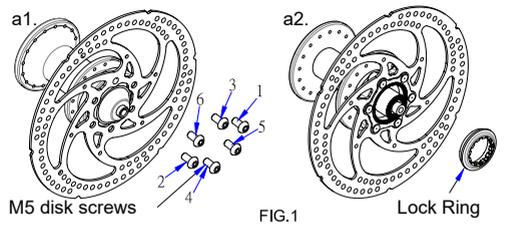


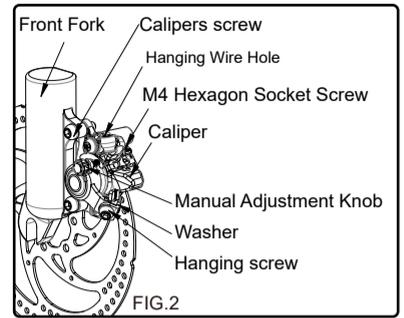
A Disk Installation

- a1. **Disk Screw:** Place the disk on the mounting surface of the hub and make sure that the direction of the arrow on the disk is the same as the rotation direction of the wheel advancement. Use a T25 wrench to tighten the M5 disk screws onto the hub sequentially. The tightening torque is 6-8Nm (54 ~ 71 lb.in.). (FIG.1)
- a2. **Center lock-in:** Mount the disk to the mounting surface of the hub, and use a sleeve to lock the lock ring onto the hub. The tightening torque is 35-40 Nm (310 ~ 355 lb.in.) (as FIG.1).



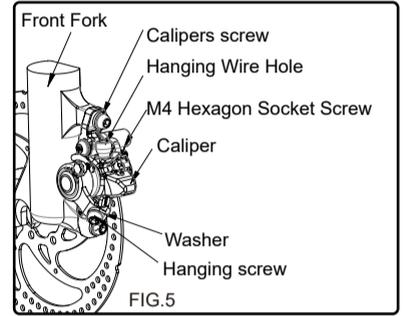
B Install the disk brakes on the front fork or frame: IS mount(51mm)

- b1. Install the caliper on the front fork or frame (FIG.2). The locking torque is 8-10Nm (71 ~ 89 lb.in.)
- b2. Rotate the manual knob so that the left and right gaps between the plate and the disk are equal (FIG.3) (this is the best effect).
- b3. Rotate the wheel; if any abnormal sound or friction occurs, repeat step B2; if the wheel can rotate freely without any sound or rubbing, go to the next step.
- b4. Put the brake inner wire through the enclosure and the caliper hanging wire hole. The design is a bilateral floating design (FIG. 2). Note whether the enclosure interferes (the interference will affect the smoothness of the float) (FIG.7). Then, put the brake inner wire through the hanging wire screw and the washer (FIG.2). Tighten the brake inner wire and lock the hanging screw, so that the inner wire is fixed on the arm. The locking torque is 6-8Nm (54~71 lb.in.). After the above steps are completed, turn the wheel; if any abnormal sound or friction occurs, you must repeat steps b2-b4; if the wheel can be rotated freely without any sound or rubbing, installation is complete.



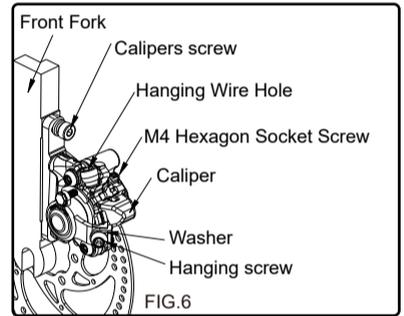
C. Maintenance

- c1. When the braking force is weakened or the grip feels too loose, it means the pad is worn. The gap position of pad must be adjusted to restore the original best condition. In this case, the M4 hexagon screw (FIG.2) should be released first, and the screw is then adjusted by clockwise rotation (FIG.9), so that the handle can be approximately parallel to the bicycle handle. Then, the M4 hexagon socket screw is locked. The locking torque is 1-2 Nm (9~18 lb.in.). Rotate the manual knob so that the left and right gaps between the pad and the disk are equal (FIG.3) (this is the best effect). If noise or abnormal friction occurs, then steps b2-b4 must be repeated; if the wheel can be freely rotated without the foregoing phenomenon, installation is complete.
- c2. When braking, if a harsh metal sound is heard, it means that the pad is worn and must be replaced. At this time, first remove the wheel, remove the shrapnel, release the M4 hexagon screw (FIG.2), and adjust the screw by counterclockwise rotation (about 3 to 4 turns). When removing the worn pad, first remove the outer pad, and then remove the inner pad (FIG.9). When inserting the new brake leather, put in the inner pad, and then put in the outer pad. Then the shrapnel is indeed located in the groove of the pad. At this time, the replacement of pad is complete. Adjust the gap position of the pad to restore the original best condition. Adjust the screw by clockwise rotation (FIG.9), so that the handle can be approximately parallel to the bicycle handle. Then lock the M4 hexagon socket screws. The locking torque is 1-2Nm (9~18 lb.in.). Follow the installation procedure of "Mounting the disk brakes on the front fork or frame :IS mount (51mm)" and proceed with the installation.



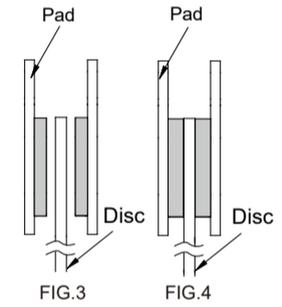
D Install the Disk brakes on the fork or frame: Post mount(74mm)

- d1. Install the caliper on the front fork or frame with the caliper screw (FIG.5); it must not lock, so that the caliper position can be adjusted to the left and right.
- d2. Manually rotate the arm (FIG. 10), so that the pad can clamp the disk at this time (FIG.4); The hand strength should not cause any deformation or displacement of the disk (FIG.8). Then, lock the caliper screw. (FIG. 5). The locking torque is 8-10Nm (71~89 lb.in.). Release the arm after completing the locking.
- d3. Rotate the wheel; if any noise or abnormal friction occurs, repeat step d2; if the wheel can rotate freely without
- d4. any sound or rubbing, go to the next step.



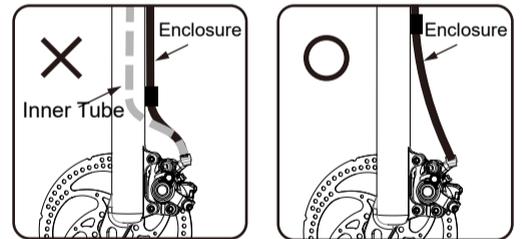
E. Maintenance

- e1. When the braking force is weakened or the grip feels too loose, it means that the pad is worn and the gap position of the pad must be adjusted to restore the original best condition. At this time, loosen the M4 inner hexagonal screws (FIG. 5), and then adjust the screw by clockwise rotation (FIG.9) so that the handle can be approximately parallel to the bicycle handle. Then, lock the M4 hexagon screw. The locking torque is 1-2Nm (9 ~ 18 lb.in.). Loosen the caliper screw (FIG.5), and gently press the handle to hold the caliper in position. Avoid excessive lateral tension on the enclosure or the problems in FIG 8 will occur. At this time the pad clamps onto the disk (FIG.4). Then, lock the caliper screw. The locking torque is 8-10Nm (71~89 lb.in.). Turn the wheel; if any abnormal sound or friction occurs, you must repeat step D; if the wheel can be rotated freely without any sound or rubbing, installation is complete.
- e2. During braking, if any harsh metal sound is heard, it means that the pad has worn out and must be replaced. At this point, remove the wheel and remove the shrapnel; then release the M4 hexagon screw (FIG.5), adjust the screw by counterclockwise rotation (About 3 to 4 laps). Remove the worn pad; first, remove the outer pad, then remove the inner pad (FIG.9). Put on the new pad; first put the inside of the pad, and then put the outer pad. Then, the shrapnel is indeed located in the brake leather groove; at this time, pad replacement is complete. Adjust the clearance position of the pad to restore the original best condition. Adjust the screw by clockwise rotation (FIG.9) so that the handle can be approximately parallel to the bicycle handle. Then, lock the M4 inner hexagon screw. The locking torque is 1-2Nm (9~18 lb.in.). Follow the installation procedure of "Mounting of disk brake on the front fork or frame: Flat mount (34mm)" and proceed with the installation.



F. Install the disk brakes on the front fork or frame Flat mount(34mm)

- f1. Install the caliper on the front fork or frame with the caliper screw (FIG. 6); it must not lock, so that the caliper position can be adjusted left and right.
- f2. Rotate the arm manually (FIG.10); at this time, the pad clamps onto the disk (FIG. 4). The force of the hand should not cause any deformation or displacement (FIG.8). Then, lock the caliper screw (FIG.6). The locking torque is 6-8Nm (54~71 lb.in.). After the locking is completed, let go the arm strength.
- f3. Rotate the wheel; if any noise or abnormal friction occurs, repeat step f2; if the wheel can rotate freely without any sound or rubbing, go to the next step.
- f4. Put the brake inner wire through the enclosure and the caliper hanging wire hole. The design is bilateral floating design (FIG. 6). Note whether the enclosure interferes (interference will affect the smoothness of the float) (FIG.7). Then, put the brake inner wire through the hanging wire screw and the washer (FIG.6). Tighten the brake inner wire and lock the hanging screw. The locking torque is 6-8Nm (54~71 lb.in.), so that the inner wire is fixed on the arm. After the above steps are completed, turn the wheel; if any abnormal sound or friction occurs, you must repeat step F; if the wheel can be rotated freely without any sound or rubbing, installation is complete.

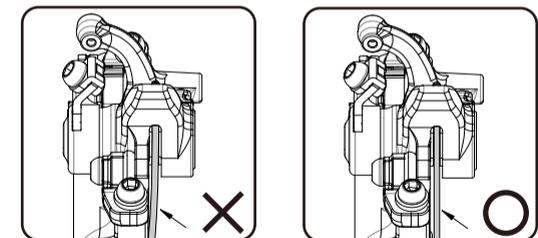


Installation (wrong)
The enclosure is too tight, and the degree of freedom is limited. It will interfere with the bilateral floating actuation

Installation (correct)
Good degree of freedom of the enclosure. It will not interfere with the bilateral floating actuation

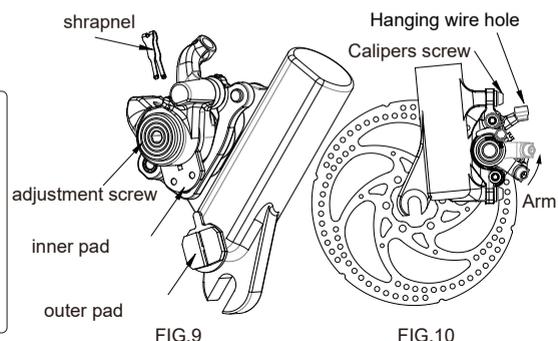
G. Maintenance

- g1. When the braking force is weakened or the grip feels too loose, it means that the pad is worn and the gap position of the pad must be adjusted to restore the original best condition. In this case, the M4 inner hexagon screw (FIG.6) should be first released, and the adjustment screw (FIG.9) rotated clockwise to bring the handle to the normal braking state. Then, lock the M4 inner hexagon screws. The locking torque is 1-2Nm (9~18 lb.in.). Release the caliper screw (FIG.6), and press the handle gently to keep the caliper in position to avoid an excessive lateral tension exerting on the enclosure, which would cause the problem in FIG.8. At this time, the pad clamps the disk (FIG.4). Then lock the caliper screw again. The locking torque is 6-8 Nm (54~71 lb.in.). Turn the wheel; if any abnormal sound or friction occurs, you must repeat step f2; if the wheel can rotate freely without any sound or rubbing, installation is complete.
- g2. During braking, if any harsh metal sound is heard, it means that the pad has worn out and must be replaced. At this point, remove the wheel and remove the shrapnel; then release the M4 hexagon screw (FIG.6), adjust the screw by counterclockwise rotation (About 3 to 4 laps). Remove the worn pad; first, remove the outer pad, then remove the inner pad (FIG.9). Put on the new pad; first put the inside of the pad, and then put the outer pad. Then, the shrapnel is indeed located in the brake leather groove; at this time, pad replacement is complete. Adjust the clearance position of the pad to restore the original best condition. Adjust the screw by clockwise rotation (FIG.9) so that the handle can be approximately parallel to the bicycle handle. Then, lock the M4 inner hexagon screw. The locking torque is 1-2Nm (9~18 lb.in.). Follow the installation procedure of "Mounting of disk brake on the front fork or frame: Flat mount (34mm)" and proceed with the installation.



Installation (wrong)
The displacement deformation will affect the floating function, brake force, calipers and disc friction

Installation (correct)
No displacement deformation and can be locked



Precautions

- a. BENGAL disk brakes are specially designed for use on bicycles. If they are used for other types of vehicles, BENGAL will not be able to guarantee its safety. Improper installation may result in accidental injury. Installation should be performed by a professional qualified technician and the correct tools should be used.
- b. Ensure the installation of enclosure will not interfere with the bilateral actuation (FIG.7)
- c. When the disk brake is mounted on the fork or frame, the strength of the hand should not cause the deformation or displacement of the disk (FIG.8)
- d. MB300 is suitable for a mountaineering system; MB300T is suitable for racing bike system and STI handles.