

TECHNICAL TIPS

GUIDE TO ADJUSTING BRAKES, BOTH FRONT AND REAR.

Description of Problem:

The brake pads are rubbing against the rim, and/or the brakes do not fully engage (i.e. they're too loose).

How do I correct this?

The rim must be centered evenly between the brake pads, with a minimal amount of space between the rim and pad. The tools needed for this are a small Philips or flat head screw driver and a 5mm hex wrench.

Special Note:

Brake cables will invariably stretch out over time, which results in the brakes becoming loose, which can be easily adjusted, however it is recommended that the brake cables be replaced periodically (ideally once a year) to ensure optimum performance. The straightness of the rim also plays an important role in brake performance. If the rim when rotating “wobbles” more than 3mm side to side this will greatly affect the performance of the brakes. A rim can easily be straightened (trued) at most bike shops.

Part A: Barrel Adjustment

The barrel adjustment can be used to either tighten or loosen the brakes. This adjustment however does not center the brake pads. When applying the barrel adjustment, you may be required to re-center the brakes, which is described in part B.

Step 1: To tighten the brakes, first loosen the lock nut on the barrel adjuster. (See Figure 1) Then turn the barrel away from you (same direction the tires move on the bike when the bike is in motion). The brake pads should engage the rim when the lever is at least at its half way point. Retighten the lock nut against the lever housing.

Step 2: To loosen the brakes, first loosen the lock nut on the barrel adjuster. Then turn the barrel towards you (opposite the direction the tires turn when the bike is in motion). The brake pads should engage the rim when the lever is at least at its half way point. Retighten the lock nut against the lever housing.

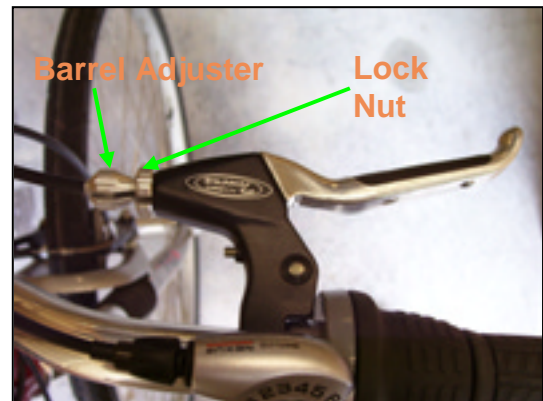


Figure 1: Brake lever, with barrel adjuster and lock nut shown.

Part B: Centering the brakes:

Centering the brakes is accomplished by tightening or loosening the rebound adjustment screws located at the base of both brake arms. (Small Phillips head screw) This screw can take both Philips and Flat head screw drivers. (See figure 2).

Step 1: Looking at the brakes observe which pad is closer to the rim. It is also recommended to spin the wheel to determine which side is always the closest (many wheels have a slight but allowable “wobble” in the rim). The pad that is the closest to the rim is the pad that needs to be moved away from the rim.

Step 2: To move the pad away from the rim, tighten the corresponding screw on that side of the rim by turning the screw clockwise. Tighten screw 1/2 turn at a time and recheck after every adjustment by squeezing the brake lever and spinning the wheel to set the brakes in their new position. A spacing of 2mm or closer is recommended between both brake pads. (See Figure 3)

Step 3: If you are unable to move the brake pad to the desired position by tightening the adjustment screw, loosen the screw on the opposite arm. Loosen this screw 1/2 turn at a time and squeeze the brake lever to reset brakes and spin the wheel to recheck.

Part C: Brake pad positioning:

Brakes on your Dynamic bicycle will already have been adjusted. In the event that you need to replace brake pads, or for some other reason the pads are not correctly positioned on the rim, you will have to re-align the pad.

Step 1: Loosen the 5mm Allen bolt that holds the brake pad in place. It is important to make sure the pad is not touching the rim.

Step 2: Position the brake pad so it is centered on the rim and is not touching the tire (some brake pads also use an arrow to show direction of tire rotation and/or have a curvature to the pad to match the curve of the rim). Squeeze the brake arm so the pad is tightly against the rim and re-tighten the 5mm Allen bolt. It is important to make sure the pad does not rotate while you are tightening the bolt. (see Figure 3)



Figure 2: Base of brake arm with adjustment screw shown.



Figure 3: Brake assembly, with rim and brake pad clearance depicted.