

## Adjusting Rear Derailleur



**Check the following first:** Make sure the bolt holding the derailleur onto the frame is tight. Inspect pulley wheels on derailleur for wear, and ensure that the chain is threaded thru properly. Check that the derailleur or the hanger is not bent. If the hanger is bent it needs to be realigned. Make sure to lube your chain before you start.

**Most problems of the rear derailleur are with the cable tension adjustments, and sometimes the limit screw adjustments.** The cable tension can be adjusted at the barrel adjuster on the derailleur or on the shifter. Often, if your bike is making noise in gear, you may just need a simple cable tension adjustment. Try this first. Experiment by turning 1/2 - 1 turn, and then see if it helped. If not, go back and turn in the other direction and check it out.

**The limit screws are usually marked "H" and "L" for high and low.** The "H" limit screw adjusts the outward movement of the derailleur to go on the smallest cog. The "L" limits the inward movement of the derailleur onto the largest cog. The "L" limit screw prevents the chain from coming off to the inside of the largest cog and hitting your spokes. The "H" limit screw prevents the chain from going off the outside of your small cog and hitting your frame. Adjusting the limit screws only affect the inner and outer limit of movement of the derailleur, not the cable tension or alignment between gears.

### Regular Derailleurs (High Normal)

These derailleurs automatically go to the highest gear (smallest cog) when there is no cable tension

Start by disconnecting the cable from the derailleur.

Adjust the "H" limit screw so that the chain is aligned with the smallest cog. Turn this screw until the derailleur pulley is lined up with the smallest cog.

Set the "L" limit screw so that the chain is aligned with largest cog. Turn this screw until the derailleur pulley is lined up with the largest cog.

Make sure the derailleur is in high gear (smallest cog). Reattach the cable to the derailleur.

### Rapid Rise Derailleurs (Low Normal)

These derailleurs automatically go to the lowest gear (largest cog) when there is no cable tension

Start by disconnecting the cable from the derailleur.

Set the "L" limit screw so that the chain is aligned with largest cog. Turn this screw until the derailleur pulley is lined up with the largest cog.

Adjust the "H" limit screw so that the chain is aligned with the smallest cog. Turn this screw until the derailleur pulley is lined up with the smallest cog.

Make sure the derailleur is in low gear (largest cog). Reattach the cable to the derailleur.

## **Fine Tuning**

Adjust the cable tension so that as you shift up one gear, the chain moves to the next cog. Adjust this at the derailleur by the barrel adjuster as needed to get it to shift. A trick is to shift to the middle cog and then turn the barrel adjuster so that the chain lines up in the centre of the cog.

Check your adjustments by alternately shifting back and forth from high to low gears, and seeing that it shifts smoothly, and does not go too far at each limit.

Adjust the cable tension as needed after taking a test ride. Major adjustments at the derailleur, and fine tune at the right hand shifter.

The final adjustment should be the "b" screw adjustment, which is the other little screw on the back of the derailleur where it attaches to the frame.. Adjusting this screw affects the distance between the upper pulley wheel on the derailleur, and the largest cog.