

Chameleon Tech Sheet

Read the Instructions!

It's the right thing to do, so just go ahead and do it. Understand what you are about to encounter. Remove rear wheel, crankset, BB, rear derailleur, and rear brake caliper from frame. Clean off the major dirt so you don't contaminate grease or loctite later on.

The 2008 Chameleon uses an eccentric bottom bracket (E.B.B.) to adjust chain tension for single speed use. The E.B.B. is a simple wedge design, which requires little or no maintenance once setup correctly. If using a front derailleur, you can choose to have the E.B.B. at the 6 o'clock or 12 o'clock for different bb heights. It is best to use one of these positions for proper alignment with the front derailleur. When setting up the bike as a single speed, you can also choose between a higher and lower bb height. The advantages of this system over traditional horizontal dropouts are: perfect disk brake positioning, easy "set and forget" chain adjustment, and a consistent wheelbase length so your handling never changes.

Step 1: Remove the E.B.B.

- a) If your bike has a newer external bearing bottom bracket, you will need to remove the crank and bb before the E.B.B. can be taken out. Check the torque on the extractor plate bolts (75 in/lbs).
- b) Insert a 4mm allen wrench into the wedge bolt on the non-drive side, and loosen a few turns. Insert a 5mm allen wrench into one of the broaches in the E.B.B. and try to turn the E.B.B. while loosening the wedge bolt. Once you can rotate it in the frame, stop loosening the wedge bolt.
- c) Push the E.B.B. out of the frame towards the non-drive side of the bike. You may need to tap it lightly with a mallet.

Step 2: Grease the E.B.B.

- a) Loosen the wedge bolt until the wedge comes off the bolt. Grease the bolt threads and re-assemble loosely. (Fig. 1)
- b) Grease between the wedge and E.B.B., so the mating surfaces can slide smoothly against each other.
- c) Apply a thin coating of grease to the external surfaces of the E.B.B., in all areas that contact the frame when installed.



Fig. 1

Step 3: Install in frame

- a) It is easier to install the E.B.B. from the drive side, so the wedge doesn't get jammed up. Slide it in with a slight rotating motion if needed. (Fig. 2)
- b) If you are going to be using a single speed drive train, clock the E.B.B. towards the back of the bike, so you have the most chain slack to work with. If you are going to use a front derailleur, clock it at 6 o'clock or 12 o'clock.
- c) Tighten the wedge bolt to 90 in/lbs.
- d) Install your bb and cranks.



Fig. 2

Step 4: Single speed chain tensioning

- a) Install the rear wheel and chain. Make the chain as short as you can, while still fitting around the rear cog and front chainring.
- b) Loosen the wedge bolt with a 4mm allen wrench until you can spin the E.B.B. around with a 5mm allen in the broach. (Fig. 3)
- c) If you want a lower bb height, rotate the E.B.B. clockwise (while looking at the NON-Drive side), until the chain has appropriate tension. Rotate the E.B.B. counter-clockwise if you want a higher bb.
- d) Make sure you spin the cranks when you reach a good chain tension, as chainrings aren't always perfectly round. The

cranks should spin freely, even through the tight spots. (Fig. 4)

- e) Once in the correct position, tighten the wedge bolt to 90 in/lbs.



Fig. 3



Fig. 4

Bonus: Derailleur Hanger Replacement

- a) Use a good fresh 3mm (or 4mm, depending on the ra of your bike) allen wrench and remove both bolts.
- b) Apply loctite 242 to bolts and install new dropout. Hold hanger straight while you torque the bolts to 80 in/lbs. (Fig. 6)

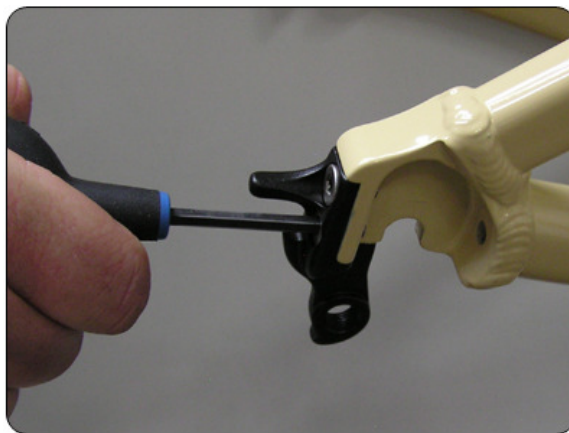


Fig. 6