

Subject:

Replacing Alternator Brushes

1. A take a small punch and mark the case covers so that they go back together the same way at same point. They should and will have to go back together the same way once all is aligned up. Ok once you have the alternator out of the bike.

1. On the back side take off all the nuts including the one in the center of the black plastic wire connector.

2. Take out the 3 long screws along the case. Now Very carefully with a soft plastic or wooden hammer. Tap all around the case as you try to pull it off and you might also have to pry a bit as you go along. Also try tapping on the studs that are sticking out the back of the case and WATCH that you don't crack the plastic shield around the one that the wire connects to.

3. Once the cover comes off and the armature starts to come out set that part aside. Now separate the winding from the other half . At this point you should have the windings and the attached plate in your hands .

4. THE FIRST THING YOU WILL SEE IS THAT EITHER ONE OR BOTH BRUSHES ARE CRACKED OFF. This is because as you take the shaft out and the brushes pop all the way out they grab on to the end bearing as its coming out !! No way to stop this.

5 Ok now if you have an air supply blow out all the dust etc.

6. Now take your soldering gun and some Solder wicking (radio shack sells it) and unsolder and take up all the old solder so that you can see a clean totally open hole. (if you don't have a shop manual NOTE WHICH WAY " BOTH BRUSHES ARE IN THE HOLDER " IT'S VERY IMPORTANT!!.

7. Now take the old brushes and the new set. Mark the length of the OLD sets pigtail wire on to the new set. DON'T CUT IT YET!!

8. Now find the thinnest piece of solid wire (not stranded) wire from somewhere that you can find maybe a 20 gage or so about 8 inches long. Butt solder it to the end of the pigtail on the brush. Take this now and see if the splice part will pass through the hole (from the out side) if it does then put the spring over the wires and put the brush in from the inside. (watch for correct way of the brush) the solid wire will now thread through the hole very easy and then you pull the pigtail through with it.

9. Solder the spot you marked on the pigtail from the old brush set. Then trim off the rest

10. Do same on other brush.

11. OK you're ready to put it back together. NOW on the back of the case cover. You should find a small hole next to the three small holes near the center hub boss. It might have a foil cover over it, peel it back and find a stiff thin piece of wire that will pass through it. Also check and see if that wire will pass through the hole in the new brushes. Now take the wire and on top of the diode there should be a small hole. Take the wire and put it in as you slowly push in on the brush when the wire passes through the brushes hole do the same for the next brush. All THIS IS DONE SO THAT WHEN YOU ASSEMBLE THE ARMATURE IT WILL NOT BREAK OFF THE BRUSHES.

12. Now take the cover and carefully put the cover over the end and make sure the wire comes out of the small hole. Tap and align the halves together.

SLOWLY AND CAREFULLY START TO REMOVE THE STIFF WIRE FROM THE HOLE IN THE BACK. LISTEN FOR FIRST ONE CLICK THEN A SECOND This is the brushes snapping into place on the exciters.

Tighten all screws down and put back into the bike.