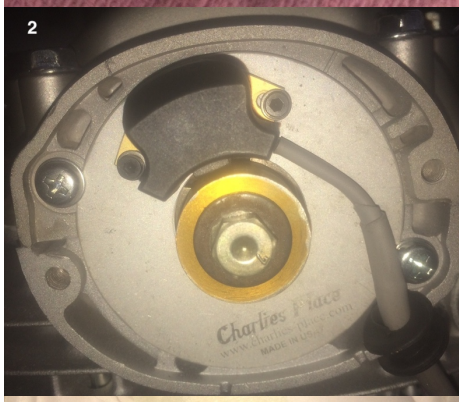
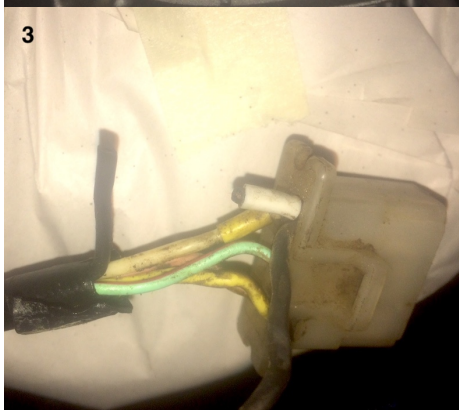
Installation & Timing Instructions for 6 Volt Electronic Ignition~XL250/350





INSTALLATION

Important note: You cannot run this ignition without a battery. Failure to follow directions properly or attempting to run the bike without an actual battery voids all warrantee of the products.

1) Remove the gas tank.

2) Remove the point, point plate, condenser and coil.

3) Remove the 10mm retaining bolt on the end of the camshaft that holds the spark advancer on and remove the spark advancer.

4) Remove the point cam rotor from the advance mechanism. Clean inspect and lubricate the advance mechanism. Check springs for weak tension. Springs can be tightened by carefully crimping them where they hook onto the posts at the base of the advance mechanism plate.

5) Install the new rotor on the advance mechanism as shown in fig 1. Use the provided washer on the end of the camshaft behind the retaining washer and bolt. This washer is shown in fig 1. Check to make sure advance mechanism opens and closes freely and closes down all the way without assistance once you have secured the retaining washer and bolt. If it does not, adjust the springs as described in step 4. If it is binding against the retaining washer it will be necessary to lightly sand the bottom of the new rotor until there is no drag.

6) Install the new coil. Connect provided ground wire either directly to battery negative or to a point on the frame where the harness is also bolted onto the frame.

7) Locate the wires coming from the key switch which are in the same vicinity as the coil. Locate the black wire from the harness side coupler that the key switch is plugged into. This is the power wire for the coil and ignition. Splice into that black wire and attach provided black wire with single female coupler. It is also possible to simply locate a vacant coupler on a black wire in the area just in front of the coil where many wires couple together under the gas tank. If you can locate a vacant black female coupler space be sure to check for full battery pos. power at that wire using a volt meter or test light

8) Install the new ignition plate.

9) Refer to the wiring diagram (https://www.charlies-place.com/wp-content/uploads/2020/03/XLdiagram.pdf) and plug the coil wires into the ignition. Plug the single black male lead from the ignition into the harness where you have spliced in your power wire or connect directly to the harness as described in step 7.

10) Disconnect the single black wire with the white ring down below the muffler as shown in figure 3. Do not disconnect any other wires in this area. This is the wire that originally powered your coil/ignition. You are no longer using it. Tape or cut it off.

It is important to note that you are also eliminating the stock kill switch from the ignition wiring. Your key switch is now your kill switch. Be aware of this and be sure to always turn the key switch OFF when the motor is not running to avoid damaging the new ignition

TIMING THE UNIT: Do not attempt to set your timing using a dynamic timing light. It will damage the pickup if the ignition plate is loose/loosened while the bike is running. This will cause a ground failure that will short the capacitor inside the pickup. Using a test light, hook up one end to ground (on the engine) and put the other end of the test light against the yellow couplers between the coil and ignition. This can be done by carefully pulling back the female coupler on the yellow wire from the coil. Make sure all wires are connected. Begin by making sure the magnets on the rotor are 180 degrees opposite the pickup. Rotate the crankshaft rotor to check the timing. The light will stay on until approx. 40 degrees before the “F” mark reaches the pointer. Continue rotating the crank until the light comes back on. The light should come on exactly at the "F" mark. If adjustment is necessary, rotate the entire plate to set the timing. Note: Do not touch the pick up fastening screws or attempt to adjust the position of the pick up on the plate. Rotate the entire plate to adjust.

If any of the above directions are unclear or you have questions, please contact us before proceeding.