’00-on KTM EXC/MXC (Not SX) Four Stroke Stator Modification Instructions

READ THESE INSTRUCTIONS IN THEIR ENTIRETY BEFORE BEGINNING. This is a very delicate modification that requires crimping and soldering to the stator wiring. If you do not have the proper tools or are not comfortable performing this type of work, DO NOT BEGIN. Baja Designs can perform this modification for you for $30 (call 760.560.2252 for an order number.) If you choose to perform this modification yourself it is critical that you be able to follow these instructions exactly. Any errors will cause the stator to have to be rewound completely.

’00-on KTM EXC/MXC stators are wound with two separate coil outputs from the factory. One output charges the battery for the electric-start and the other output powers the stock lighting (on EXC’s) via its own AC circuit with no battery backup. In stock form the battery cannot be used to power any lighting without becoming discharged. This modification joins the two existing stator outputs together into one and is necessary anytime the stock battery will be used to power a lighting system (such as an HID system.) ***Once the stator has been modified, the lighting system must be powered via DC from the battery. The stock headlight connector can no longer be used as a lighting power source. Using the stock headlight connector will result in the battery discharging.***

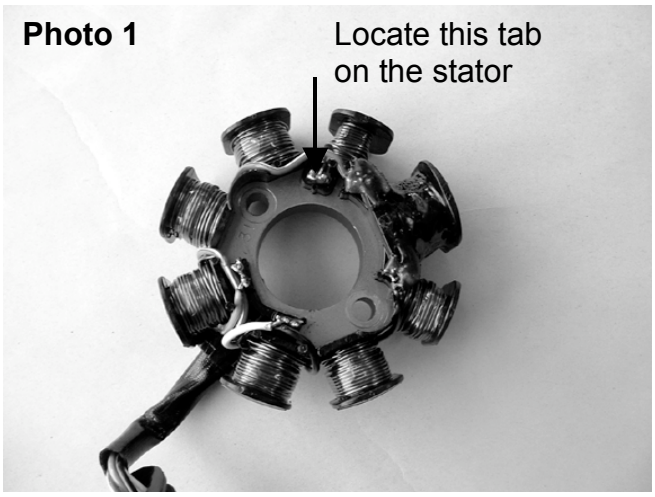
STATOR REMOVAL

1. Remove the seat and fuel tank.
2. Unplug the purple plastic connector and the white and yellow wires from the stator that plug into the main harness under the fuel tank. Clip the factory zip-ties and un-route the stator wires so they hang from the left engine case cover.
3. Lay the bike on its right side (to avoid draining the engine oil) and remove the left case cover.
4. The stator is bolted into the left case cover. Remove the small retaining bracket and the stator from the case cover.

STATOR MODIFICATION

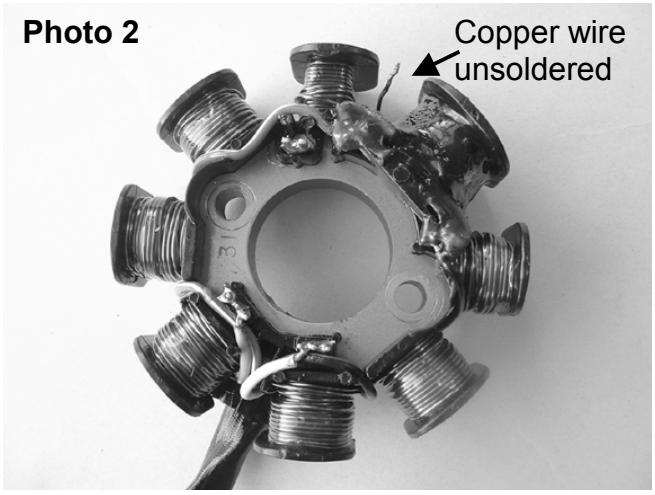
1. Lay the stator down on a flat work surface with the solder connections facing up. Locate the tab shown in Photo 1 that has the single copper wire soldered to it (the red/white wire passes over this copper wire.)

Photo 1



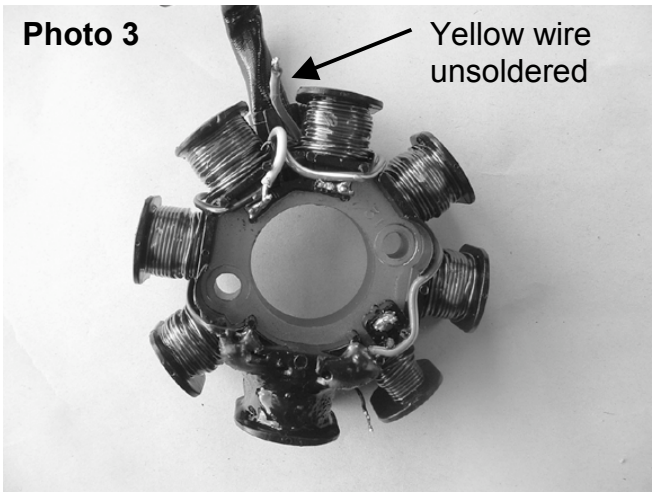
2. Using a soldering iron, melt the solder and push up on the copper wire at the same time to release it from the tab. Try not to bend the copper wire sharply as this will weaken it and cause it to break. You can temporarily move the red/white wire from its guide to allow the unsoldered copper wire to pass under it easier. See Photo 2.

Photo 2

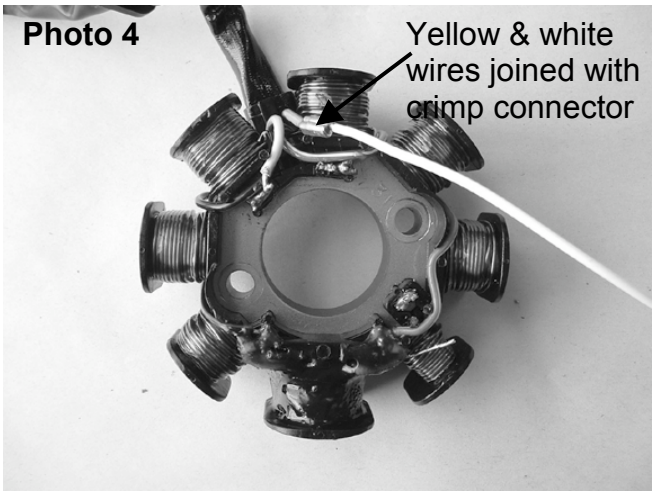


3. Locate the tab on the stator that the yellow wire attaches to. Unsolder the yellow wire from this tab. Do not unsolder the two copper wires attached to the same tab. Strip the end of the yellow wire so ¼" of bare wire is showing. See Photo 3.

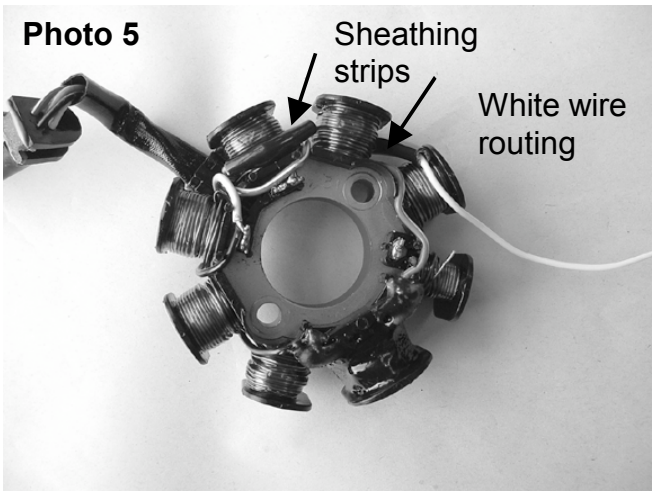
Photo 3



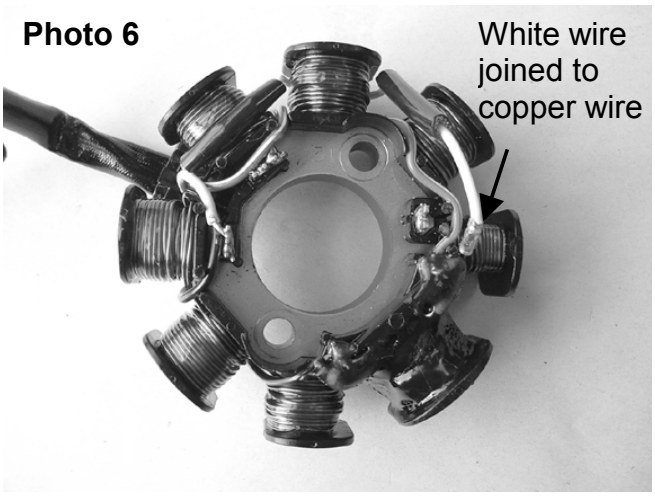
4. Locate the short length of white wire, two crimp connectors, and the two strips of black sheathing in your parts bag. Strip one end of the white wire ¼" and use one of the crimp connectors to join it to the yellow wire from the stator as shown in Photo 4. Solder this connection after it has been made.



5. Slide one of the strips of sheathing over the new white wire so it covers the crimp connection you just made. Route the white wire along the same path as the white/red wire as shown in Photo 5. Slide the second piece of sheathing over the white wire.



6. This step is the trickiest. You must cut the white wire to length, strip the end ¼", and attach it to the freed copper wire using the remaining crimp connector. Hold up the white wire and cut it to length so that you have just enough slack to join the two wires. The goal is to leave as little slack in the white wire as possible once both are joined. See Photo 6.



7. Slide the second sheathing strip over the crimp connection you just made. Route the new white wire so it follows the same molded guides as the red/white wire. Try to take as much loose slack out of the white wire as possible so it wraps tightly around the coil windings. The sheathing strips should be trapped against the sides of the windings so they cannot move. See Photo 7. You can also remove slack by pulling the yellow wire through the factory sheathing and bunching it up before the grommet. You may add some epoxy or use small zip-ties to help secure the white wire in place if you wish.

Photo 7

The modification is now complete. Before reinstalling the stator you can check your work by verifying with an Ohmmeter that the yellow and white wires from the stator have continuity only with each other and not with the metal body of the stator. There should be very low resistance (approximately .5 Ohm) between the yellow and white wires. If it looks good, go ahead and reinstall the stator onto the motorcycle.

The stock rectifier/regulator MUST be replaced with a Baja Designs unit once this modification has been performed. If not, the battery will not charge.