

## Starter solenoid upgrade edited

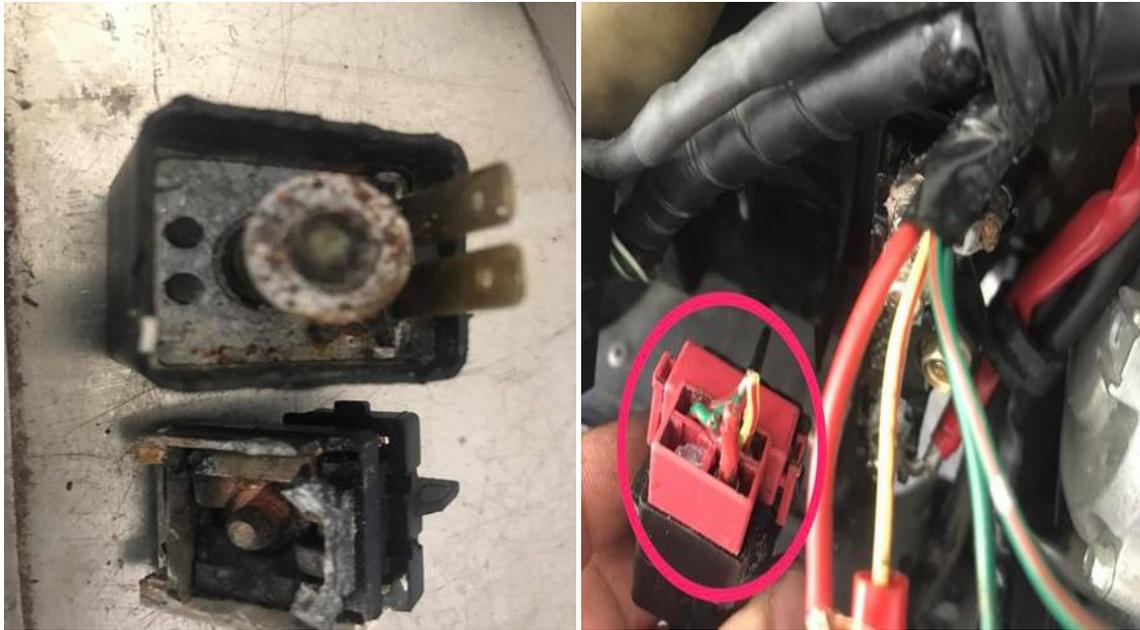
I posted this a few days ago and had to delete it and well no way to sugar coat it, I screwed up. I don't have the carbs on the bike and never checked to make sure everything was functional. Thanks to the knowledge of [Bob Murray](#) I got a PM advising me of my mistake. This was something I had never attempted before but was very familiar with the reliability and operation of the solenoid that was being used. The solenoid has to be grounded at its metal base in order to work. I had hooked it up and ran a ground from the battery to the solenoid base to ground it making it work. What I didn't realize was that the safety features such as the kickstand switch, and clutch switch would not function by grounding it that way. So Bob helped me correct the problem by removing the ground to the battery and using the safety switch wires to ground it. So if you liked this upgrade before, your gonna love it now, cause it works, all of it, all functions. 😂😁

So if you copied the previous post which I deleted throw it away and use this one. It works and works well. Thanks Bob for keeping an eye on me and setting me straight. Sorry to the rest of you for the mistake. Here's the new version with the comments in the pics. Thanks



(left) Here's our problem child, looks like a new one on the outside but won't work.

(right) After breaking it open the problem is evident.



(left) This is no good, did some research and gonna replace it with something different. Won't be long these will be obsolete anyway along with many parts for our 20 year old bikes so time to find some different options

(right) 1st step is to disconnect and remove the battery from the battery box. Gonna be replacing the OEM solenoid with a very common known for its reliability solenoid that is used on many vehicles, boats and generators. Can be purchased at any parts store. Orielys part #2-SS4 or # F492  
So first we cut the wires off the plug



(left) Got to remove a couple plastic pieces that were used to hold the old solenoid

(right) 2 of them to remove.



(left) I used a pair of end cutters to cut them out

(right) Held the new solenoid up between the fuse box and the main 50 amp blade fuse to see where it will mount.



(left) I held it flush with the bottom of the battery box with the terminal with the "S" at the top

(right) Removed the fuse box by releasing the clips.



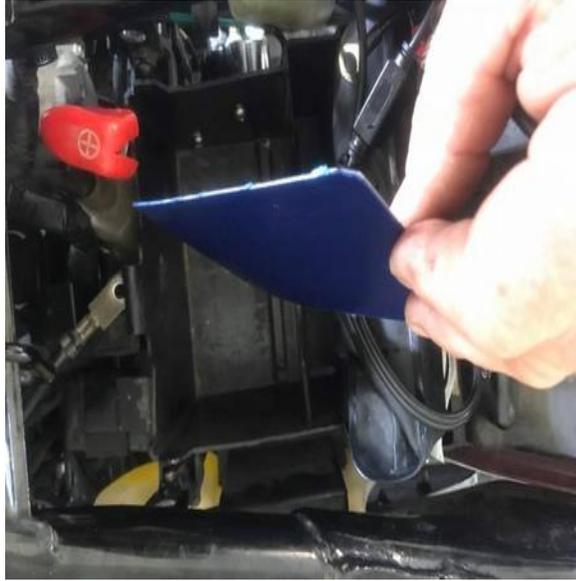
(left) Pulled the cap off the 50amp fuse holder

(right) Drilled 2 - 1/4" holes into the battery box to match the mounting holes on the solenoid.  
Be sure you removed the battery first.



(left) I used 2 - 3/4"X 1/4" Phillip head bolts pushed out from the inside of the battery box and nuts on the outside to hold the solenoid.

(right) View of the bolts from inside the battery box.



(left) I cut a section out of an oil jug 3 1/2"x 4 1/2"

(right) Slid it inside the battery box to cover the heads of the bolts, so they wouldn't run a hole in the battery.



(left) It fits between the battery and the box over the screw heads.

(right) Next I cut the terminal ends off the big wires that were held onto the old solenoid with the Allen head bolts. Need to install bigger ring terminals on them for the bigger lugs on the new solenoid.



(left) Installed bigger ring terminals, soldered and heat shrink.

(right) Attached them to the 2 big lugs on the new solenoid. The one coming from the positive terminal of the battery I put on the left side terminal.



(left) Next the yellow wire we cut off the plug needs to be made longer and a ring terminal installed, soldered and heat shrunk. It comes around and down to the bottom and connects to the top terminal with the "S" on it. The 2 other green red wires get put together and lengthened with a ring connector soldered and heat shrunk and put on the top mounting bolt that holds the solenoid to the battery box. The big ground wire shown in the pic with them has been deleted. The 2 green red wires are now the ground for the chassis of the solenoid which will make all the safety switches work as they did before

(right) Then the red wire that was cut off the switch needs a 30 amp fuse holder added to it, soldered and heat shrunk and a ring connector added to the end so it can go on the same terminal as the positive terminal from the battery which we put on the left side lug.



(left) I used a trailer hitch ball cover to fit over the solenoid to protect it.

(right) Had to cut about 3/4" off the bottom and cut a U to go around the wires coming up from the bottom.



I applied a liberal amount of dielectric grease to all the connections then slid the rubber cover over the solenoid and ran a zip tie around it to hold it from falling off. Now the 30 amp main fuse is in easy reach inside the covered fuse holder filled with dielectric grease.

