



US PATENT # 8,235,419 B

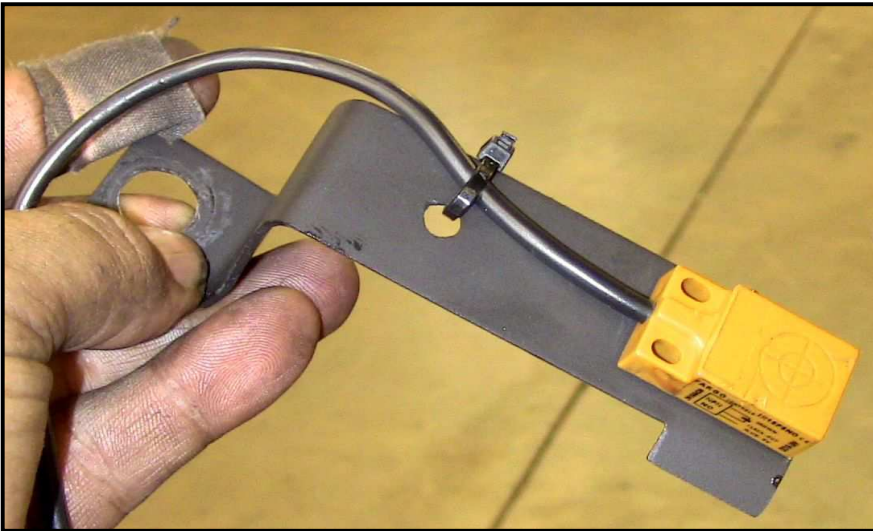
Installation Manual Generation II Harley Cush Drive Mount Rev II

**Copyright 2016, Pete Giarrusso, Inc.
D/B/A Chopper Design Services
All Rights Reserved**

MOUNT PROXIMITY SWITCH

This manual covers the installation of the Rev II Speed sensor bracket for Harley Cush Drive Models. Start by removing the existing bracket, and peeling the sensor off the old mount. You may wish to cut the wire ties that hold the sensor wire so you have more leeway for the new bracket.

This step is crucial!! Understand it before starting. The proximity sensor tells the system how fast the bike is traveling. The proximity sensor mounts to the swing-arm at the rear rotor. You need to jack up the rear wheel so we can spin it to test the sensor and its placement. Make sure the bike is in neutral.



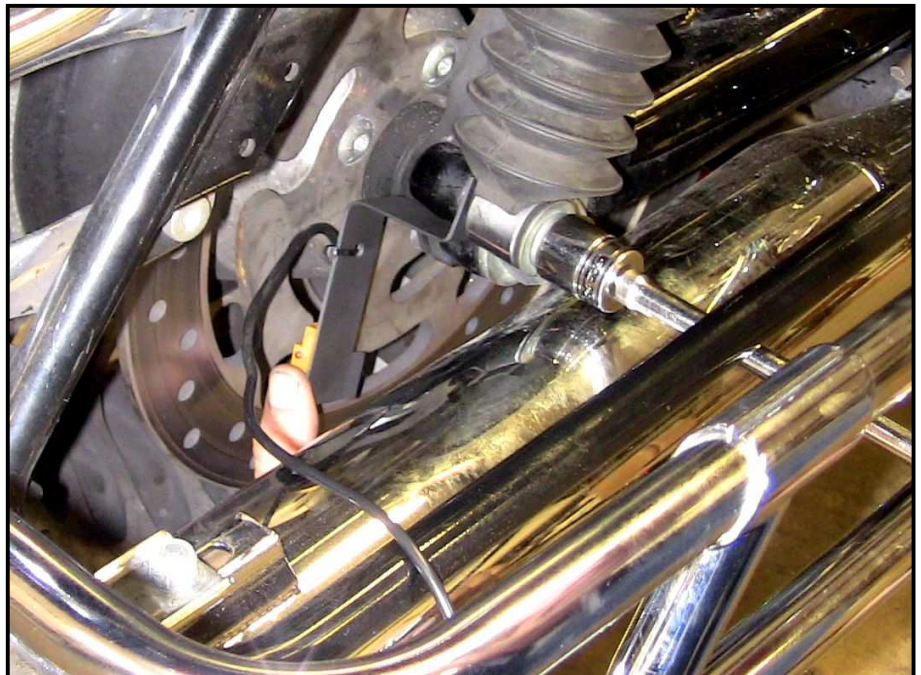
Remove the bottom bolt from the right shock at the rear of the bike. Insert the top of the bracket shown at left, behind the shock and in front of the hole in the swing-arm, so the bolt will pass through it when reinserted. **NOTE:** the yellow sensor seen here will be close to the brake rotor and below the shock bolt (see below).

Reinsert the shock bolt and tighten the nut, while holding the bracket forward against the swingarm as seen here.

Get the shock bolt snug!

We next have to set the sensor so it finds the spokes of the brake rotor (not the bolts as in the past!) at a distance of 5MM (about 1/4").

Be prepared to bend the bracket to get to the sensor in the correct position.





When you think you have it, turn the ignition to Accessory position, and roll the wheel to make the spokes of the rotor pass by the sensor. Each time one passes the sensor, the LED on the sensor should go bright then off.

If this is not happening, you may need to get the sensor a bit closer to the brake rotor (5MM is a very small distance!). If you have to move the

sensor closer, you may have to bend the bracket just a tad (you may even need to loosen or remove it to bend it as you need to). No matter what you need to do, you **MUST** make sure that as the wheel turns, the light works as described above! Once you are certain, tighten the shock bolt and test it again! Rotate the wheel past all 5 spokes on the brake rotor and make sure the light blinks and goes out each time. If all is perfect, you are done! The automatic retraction of the legs as well as their deployment RELIES on this sensor being placed perfectly! Now we can route the wire.

Reroute the wire on the top of the swingarm as seen here using wire ties. As in the initial installation, make sure there is enough slack to allow the swingarm to pivot!

Test your new install by driving the bike with the system on and the legs up. Watch as the yellow light goes on and off. This should occur at approximately 6mph. No need to lower the legs for this test. Just make sure the light turns on and off as it should!