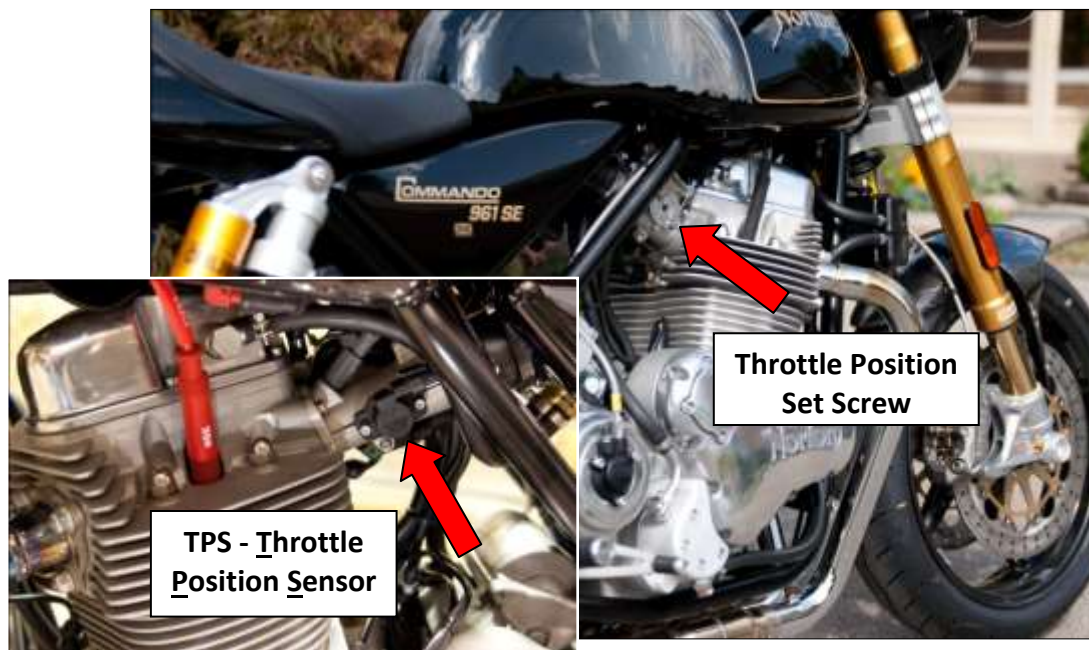


This section shows how to set your idle (sort of), replace throttle control related sensors and solenoids.

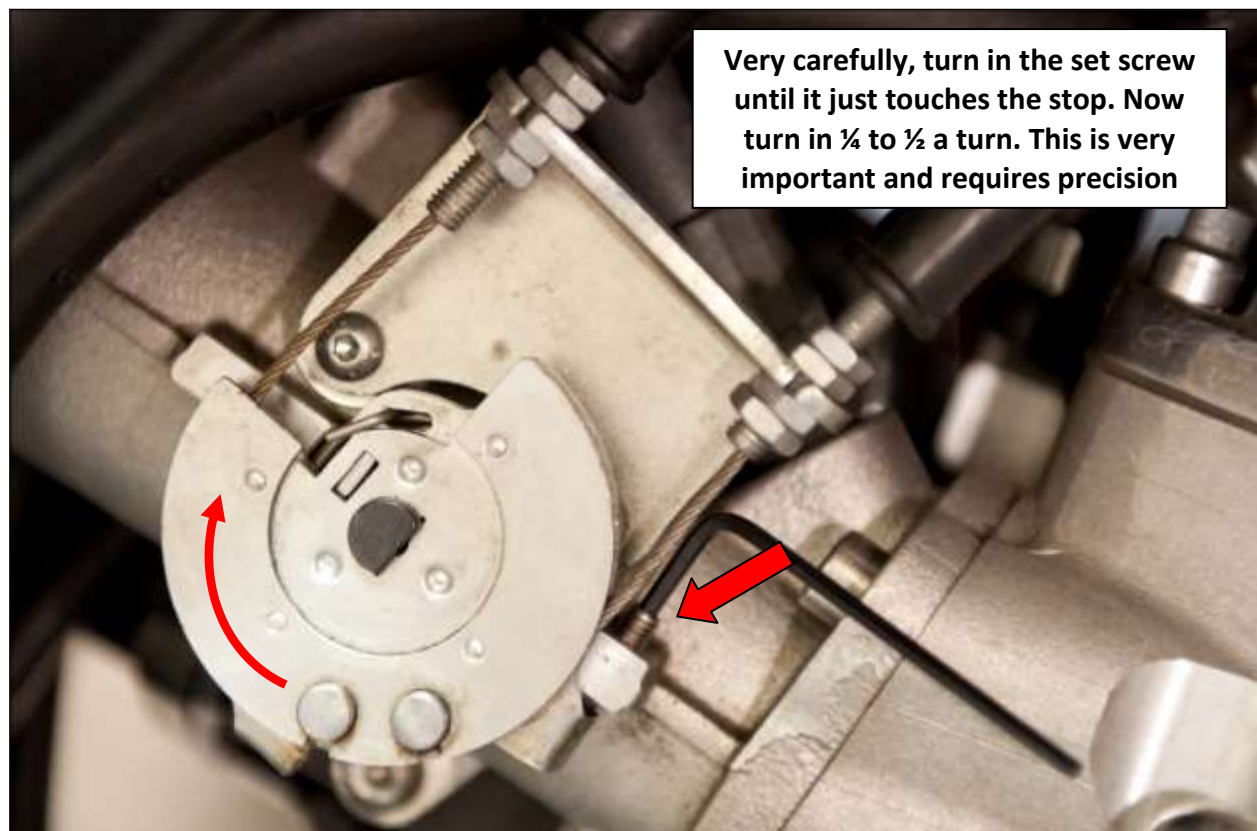
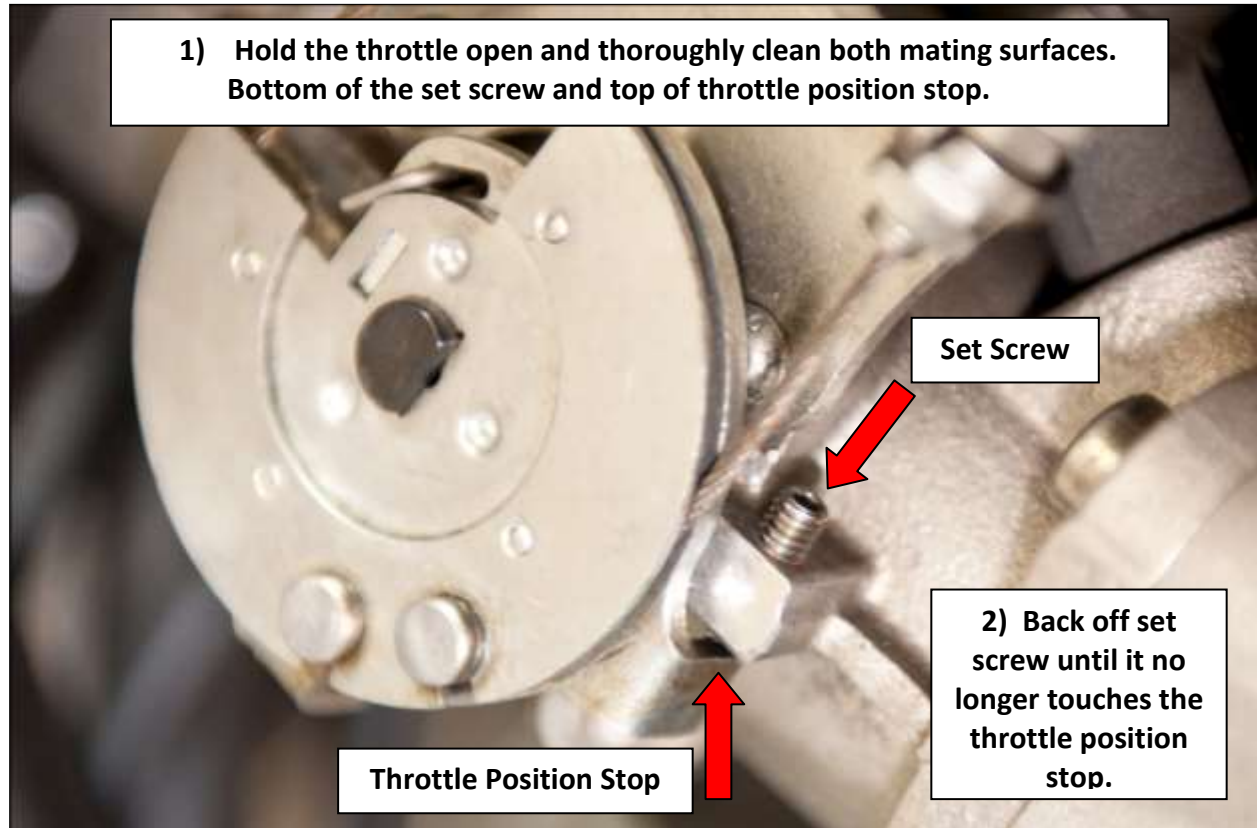
### Setting your Throttle Position (idle) screw

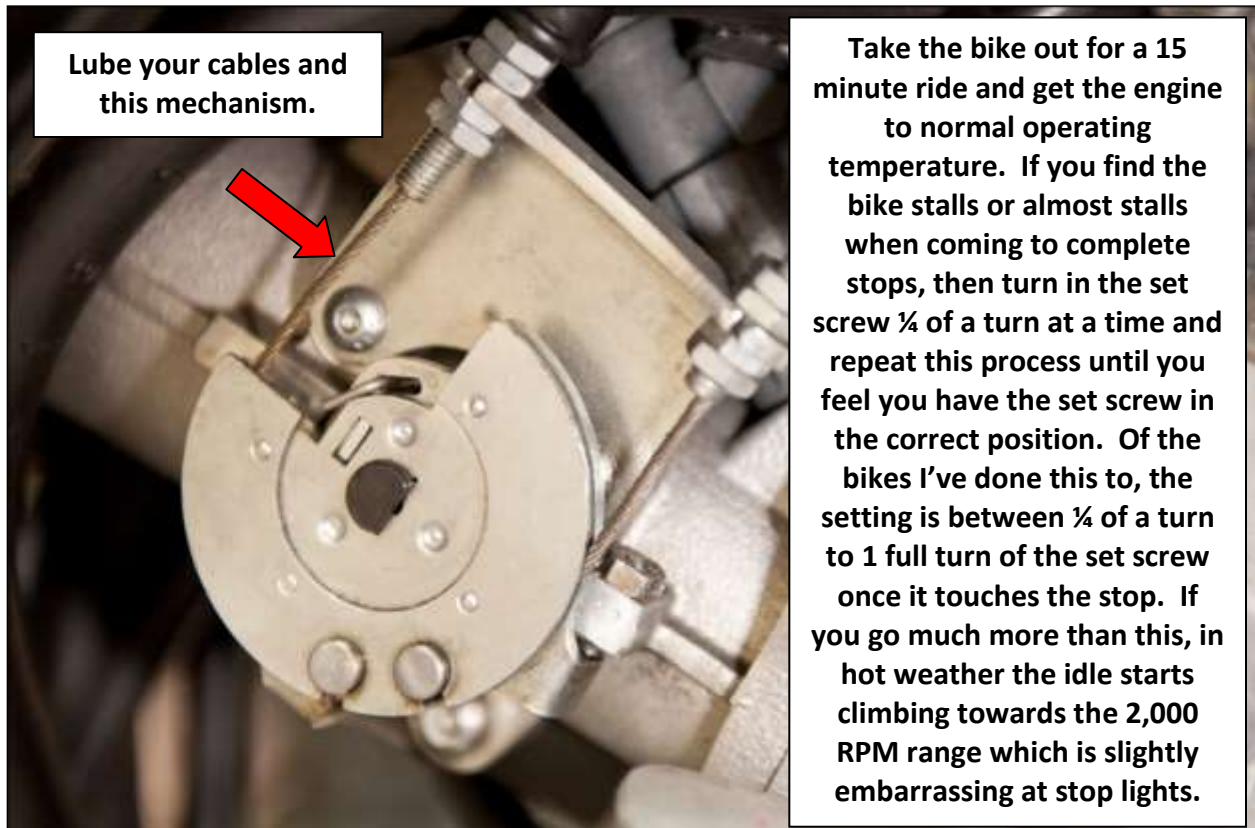
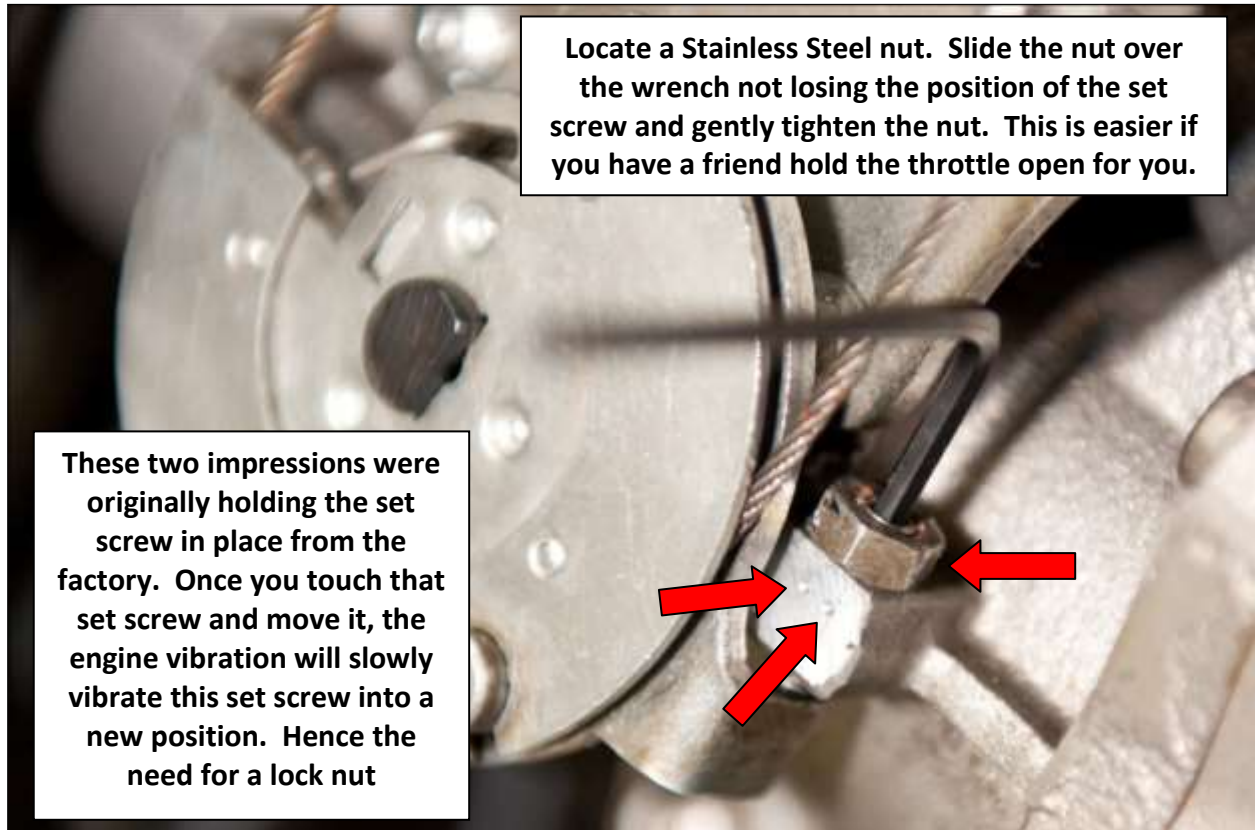


There are a few important notes to make. The idle is controlled by the Engine Control Unit (ECU) which gets one of its many readings from the Throttle Position Sensor (TPS) located on the left side of the bike. The ECU sets the IDLE to 1,200 RPM when the bike is at normal operating temperature. The reading for the RPM is from the Pick-Up sensor on the primary side. So this set screw, although seems like it controls the idle, does not! Its purpose is to set the butterfly flaps on the inside from being closed off completely. To make it simple, this set screw setting prevents the bike from stalling when quickly releasing the throttle from a high RPM to the closed position until the ECU can take over.

**IMPORTANT:** The TPS is reset with the key OFF. When the key is turned to the ON position, it sets the TPS output value to zero % wherever the throttle is at that time. So imagine the ECU can now determine when the throttle is fully closed against that set screw (zero %) and fully open (100%) so the fuel mixture can be adjusted accordingly by the ECU by getting feedback from all the other sensors on the bike. If the set screw is in the wrong position by too much or the throttle itself is touched at the time the ECU is getting its readings when the key is turned ON, the bike will NOT run properly!

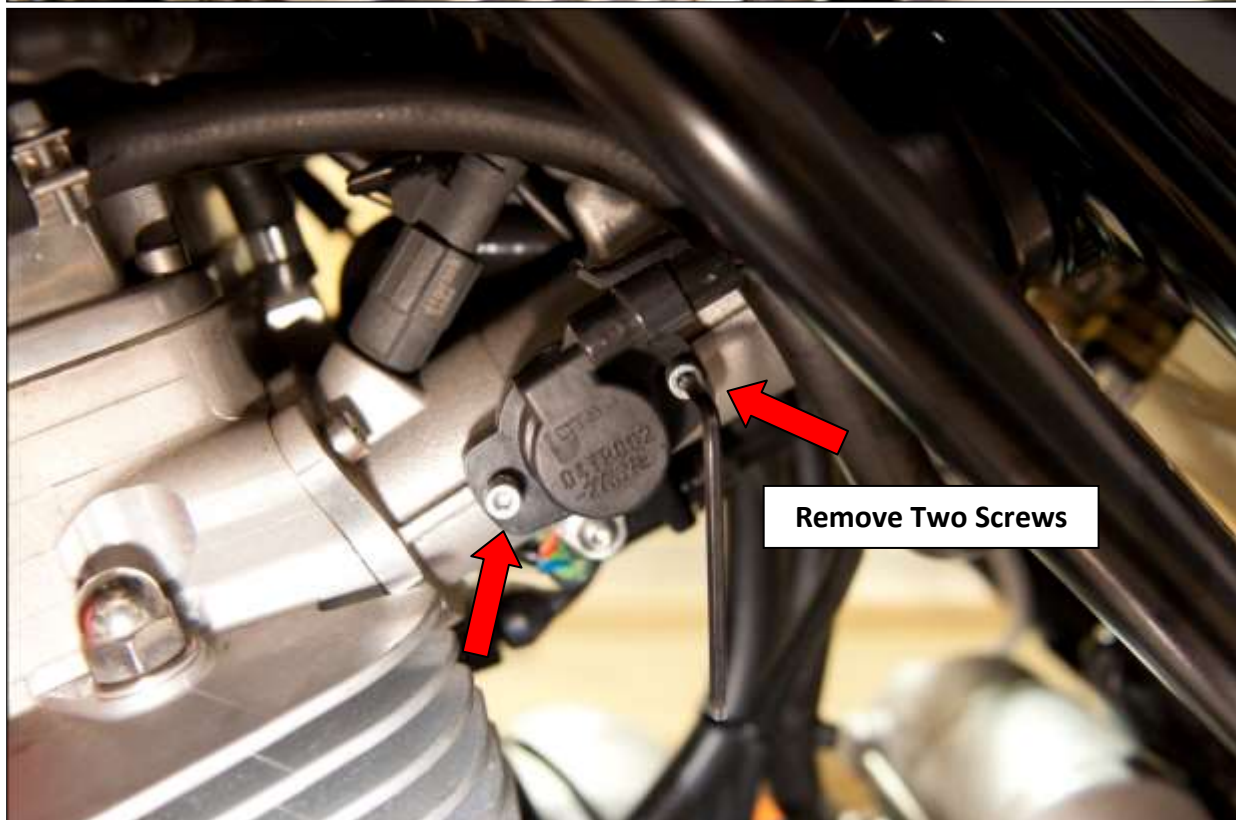
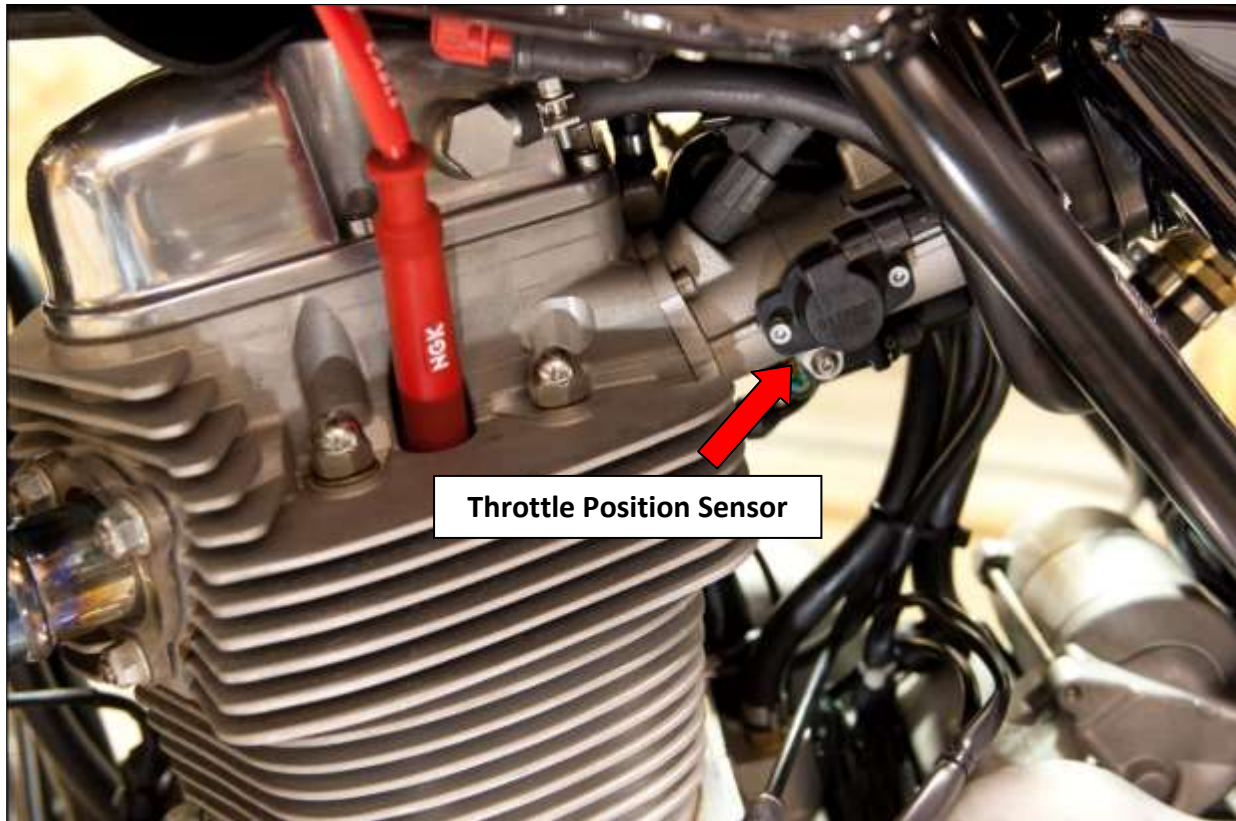
There is a trick to starting the 961 that is really important. **1)** Turn the key to the ON position. **2)** Listen for the fuel pump to stop making noise and gauges to stop moving. **3)** DO NOT TOUCH THE THROTTLE – most important! **4)** Start the bike by pulling in the clutch then pressing the starter button and let it idle for **15 seconds** before touching the throttle. **5)** Most bikes when cold will take two attempts to idle. If you start the bike and immediately try to rev it up, the fuel mixture will be incorrect and you could experience rough running.

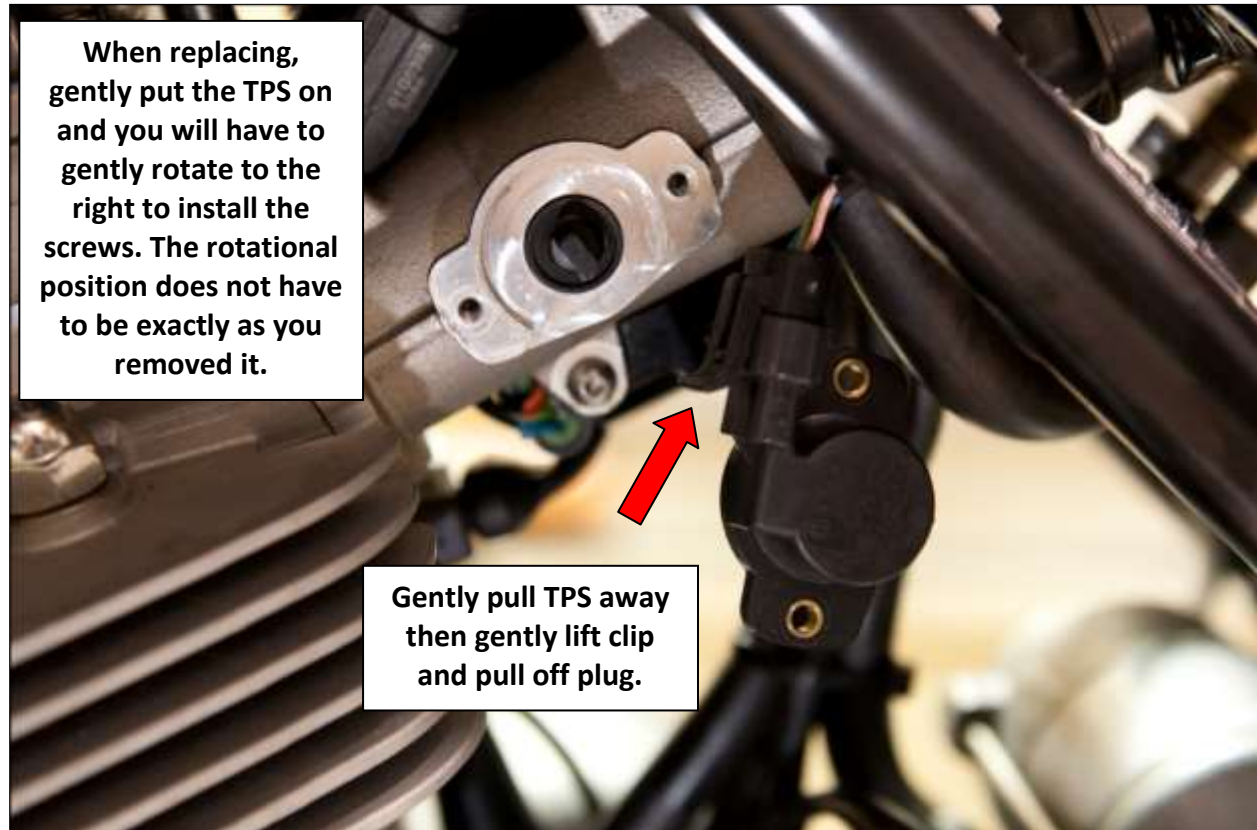






### Removing your Throttle Position Sensor



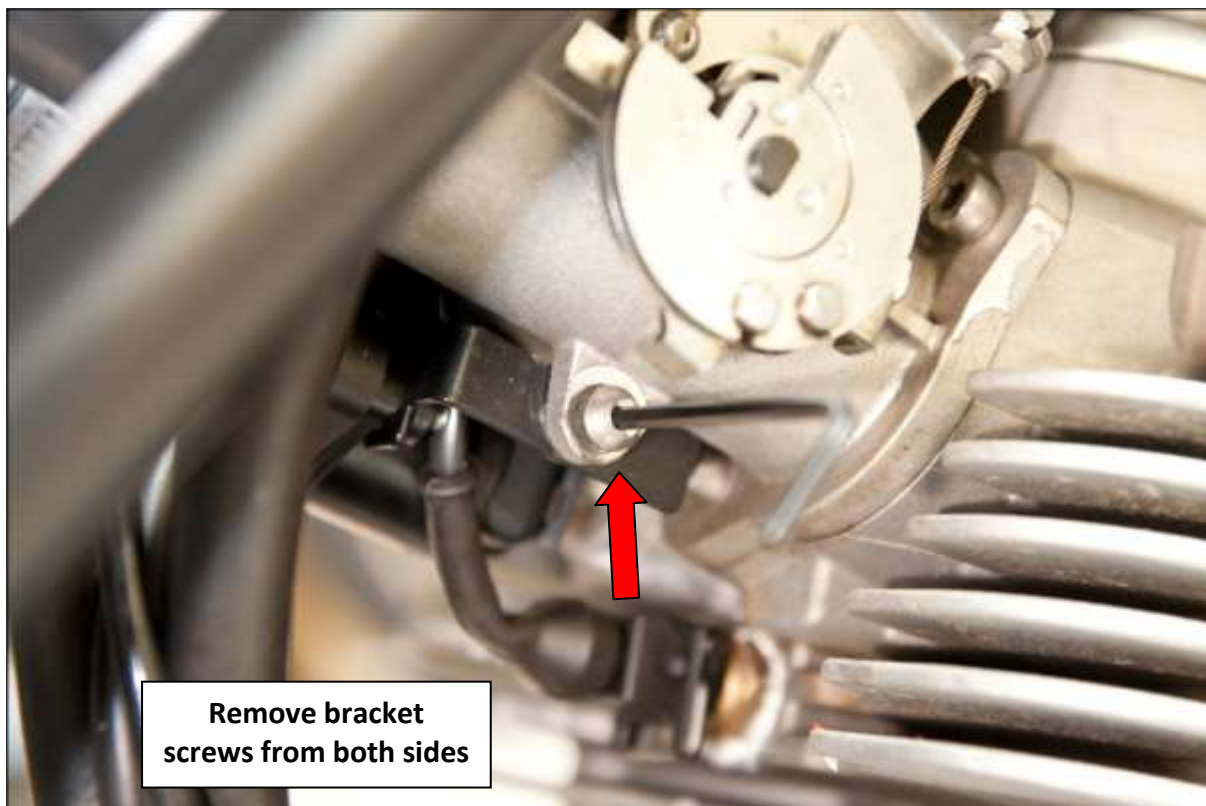
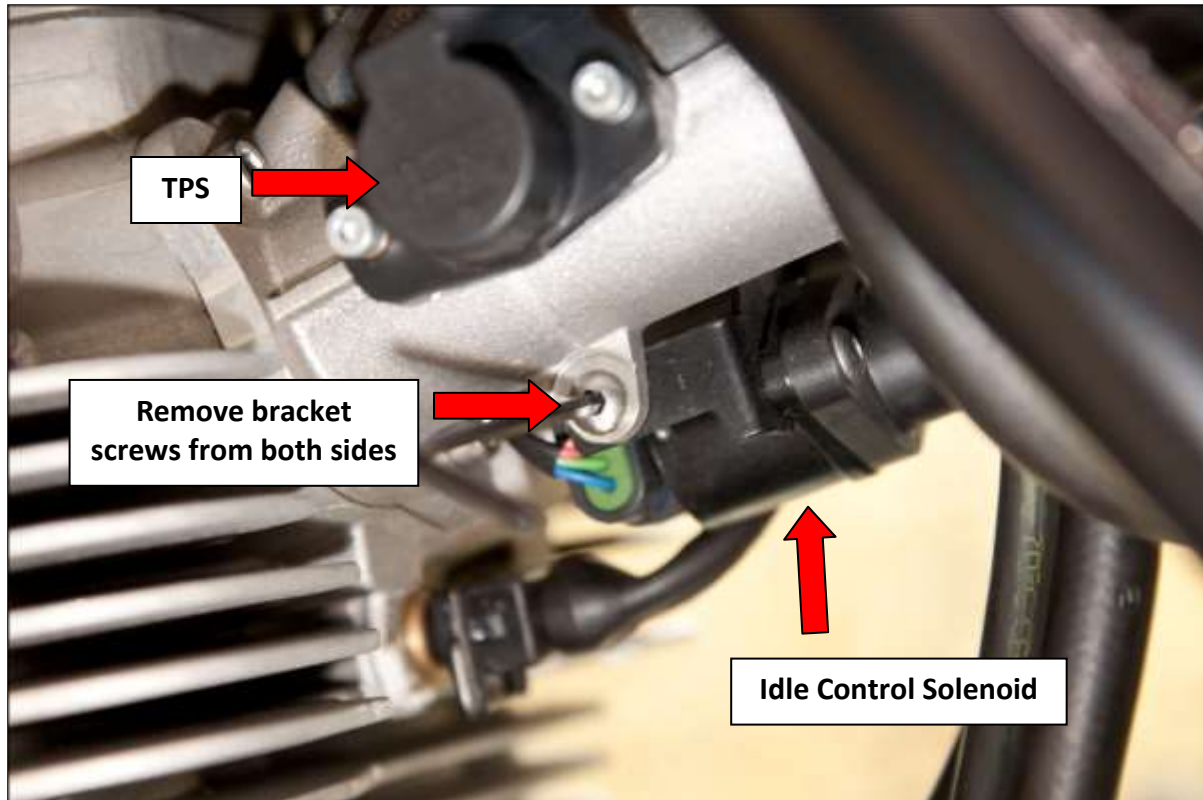




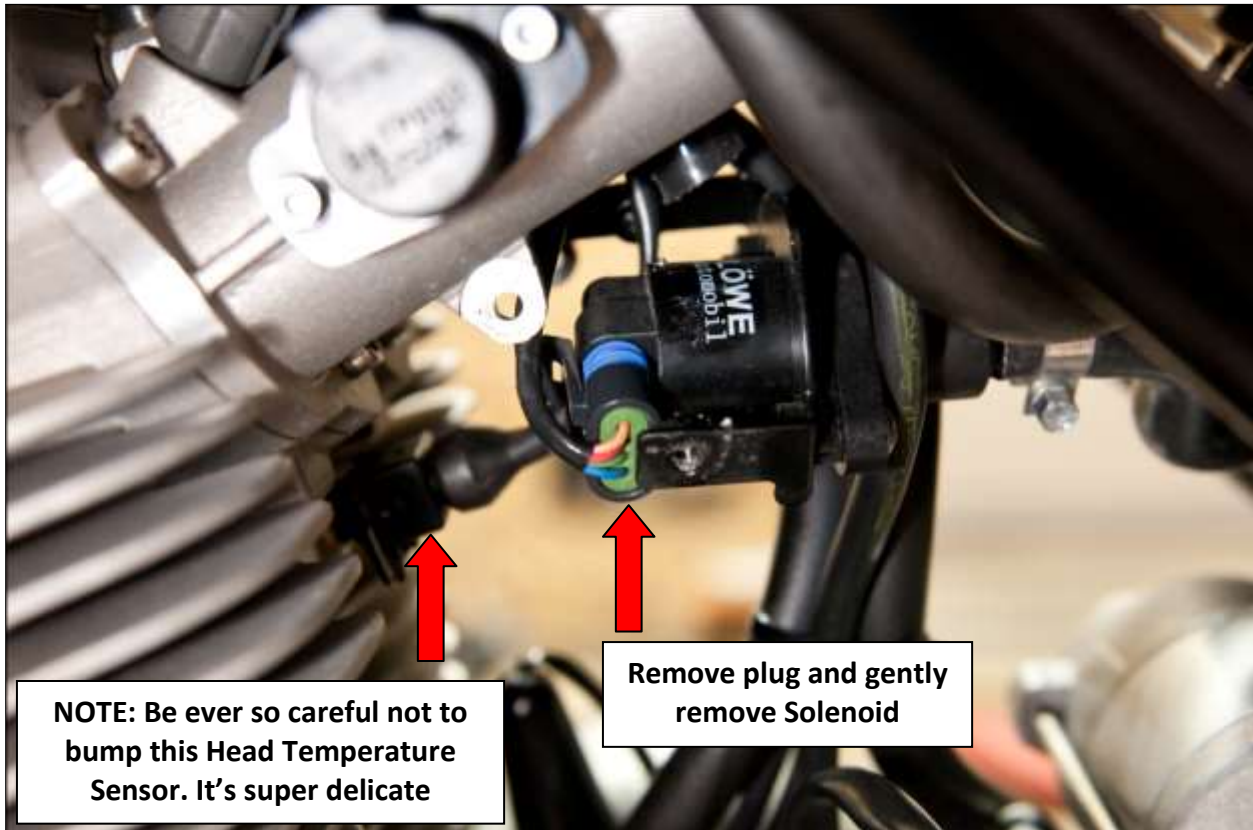
**NOTE:** If the bike acts erratic or surges when cruising, try this method of a temporary fix to help prove if the TPS is the culprit. With the engine OFF and the key ON, twist the throttle several times, then turn the key OFF. Turn the key back ON and start the bike. If the problem goes away for a few days then it could be the TPS and it may need to be replaced. With an OHMS meter and a flat screwdriver twisting in the back acting like the throttle, you can quickly test for a faulty TPS.



### Removing your Idle Control Solenoid









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If there are any tools in this manual you would like to purchase, please email me at **richard@coote1.com** for prices and availability. We are slowly developing useful tools to help make it easier for you to work on your pride and joy.



**2013 Norton Commando SE #107 (L) - 2015 Norton Commando SF (M) - 2014 Norton Commando SE #112 (R)**  
**The Blue Ridge Parkway North Carolina USA at Sunrise for the 2015 INOA Rally.**