



Golen Engine Service

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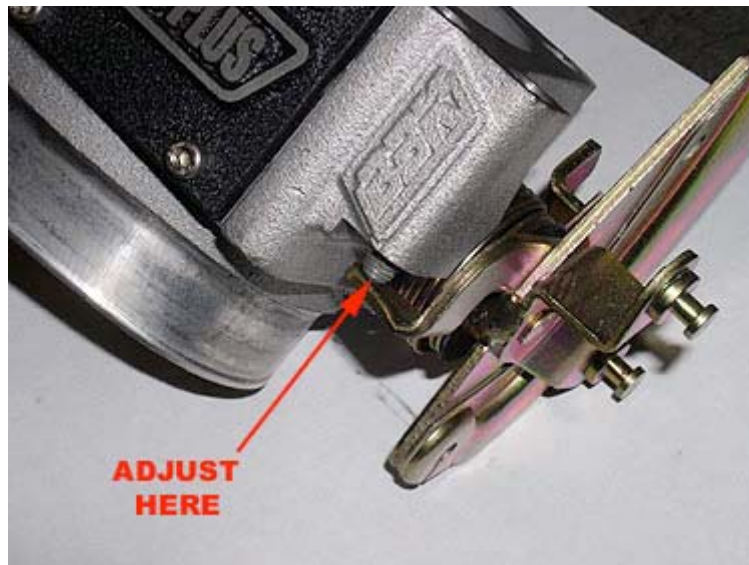
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Adjusting the Chevy LT1 Throttle Position Sensor

If you are installing a 383 or larger cubic inch engine, it will require more air to start and idle properly, and therefore you will need to move the throttle blades to allow more airflow. Once you do this, however, the TPS voltage reading will be off. The computer needs to see the proper voltage reading in order to know where the throttle blades are at any given time to keep the engine running properly. Follow the steps below to properly adjust your TPS and keep your engine starting and idling perfectly.

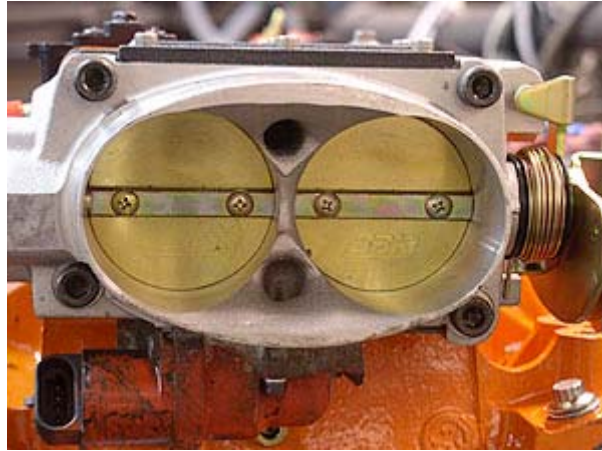
In order to make the adjustment you will need a voltmeter, small file and a torx screwdriver.

Step #1 - The easiest way to adjust the throttle body is to remove it from the intake so as to gain access to the blade adjustment set screw in the side of the throttle body (see Picture A).



Picture A

Start by turning the set screw until you see the throttle blades open slightly (Picture B).



Picture B

Step #2 - You will need to remove the TPS and carefully file the holes to make an adjustment (see picture C). Pay close attention to where you will need to file in relation to where the screws go into the throttle body; it is a rotation adjustment. You can also use a drill bit or any other tool that works to make the mounting holes larger.



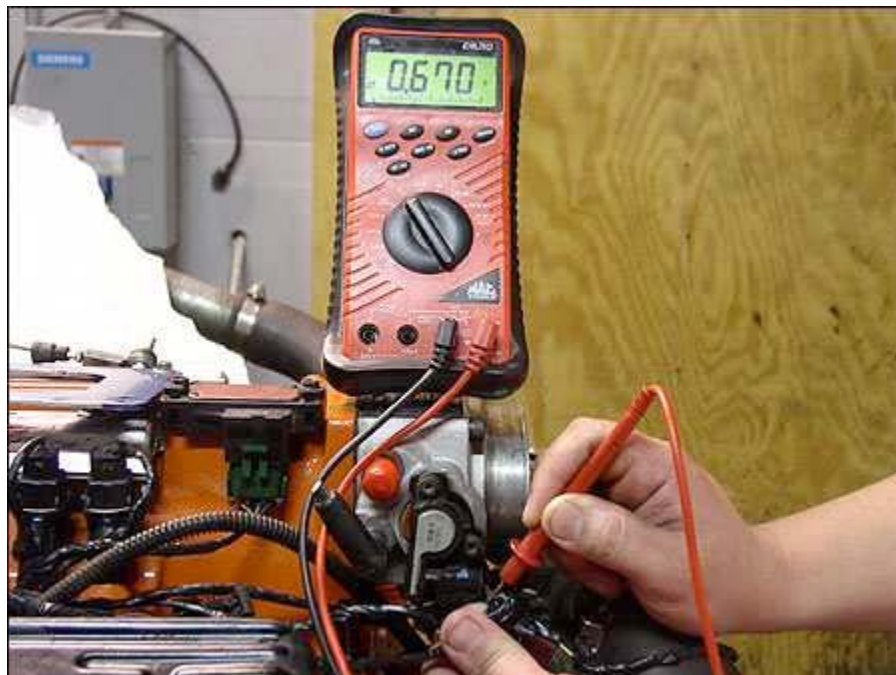
Picture C

Step #3 - Bolt the TPS back onto the throttle body and tighten the screws slightly so you can make easy adjustments, then take the lead on the voltmeter and pierce the center wire. It should be blue in color, (see picture D) until you get a voltage reading.



Picture D

You will need to have the ignition key in the on position but the engine not running. The voltage reading you are looking for is .67 volts if you have a LT1 from 94-97 MAF (Mass Air Flow) (see picture E) and .50 volts if you have a LT1 1993 speed-density.



Picture E

Once you find the perfect adjustment tighten the TPS screws and recheck the voltage reading to make sure that it hasn't moved. At this point reinstall the throttle body, you will in most cases need to go back and forth with the throttle blade position and chase it with the proper TPS voltage adjustment until you find the spot where the engine starts and idles perfectly. If you have any problems with making this adjustment please contact Golen Engine Tech Support to avoid damage to your new engine.