

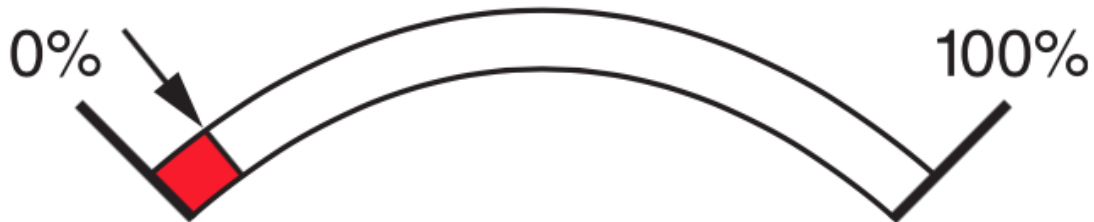
Installation: APPS Sensor

1. Disconnect the battery cables.
2. Remove the plastic APPS cover.
3. Remove the six 10 mm headed bolts that hold the bellcrank assembly on. When that is removed, you will see the sensor on the back. A T20 Torx bit is needed here.
CAUTION: These screws have Loctite on them from the factory. Make sure the T20 Torx bit is engaged fully into the screw head so it does not strip, or you will need to use vise-grips to remove them.
4. After the old sensor is removed, take the new sensor and look at the side that bolts to the bracket. In the center, you will see a slot that engages in the tang of the bellcrank shaft. Next, line up the slot with the tang and push the sensor onto the mounting surface.
*If a sensor does not mate flat to the mounting surface, the slot is not engaged properly. Try again.
5. When you are sure the tang is engaged properly, rotate the sensor clockwise until the screw holes are aligned. Then start the screws. Just before the screws are tight, twist the sensor clockwise and tighten the screws.
6. Remount the bellcrank assembly to the bracket.
7. The next step is setting the idle voltage using a digital voltmeter and turning the idle stop screw clockwise.
CAUTION: The screw has Loctite on it from the factory. You will need a T20 Torx bit with a ¼" ratchet to turn it. Make sure the bit is engaged fully into the screw head before attempting to turn it. Be careful not to strip the torx head.
*If needed, a propane torch can VERY CAREFULLY be used to heat the screw. This will soften the Loctite and allow it to break free. Only heat the screw for a couple seconds at a time. Once heated, attempt to turn the screw clockwise.
8. Look on the back of the 6-pin electrical connector. It is numbered. Insert the paperclip provided in the kit into the back of connector PIN #3 (GREEN wire). Or insert the paperclip into the back of the factory plug – just make sure it is PIN #3. This will get hooked to the positive lead of the voltmeter. The ground lead can be hooked to the APPS bracket anywhere. Turn your voltmeter to the low voltage DC scale.
9. Make sure the paperclip does not contact ground. Proceed to plug the sensor into the factory harness and then hook the batteries up. Turn the ignition key to the ON position. Now read the voltmeter. It should read .580-.670. (If it reads higher than that, turn the idle stop screw out 1 turn and then proceed to the next step).
10. Turn the idle stop screw clockwise.
NOTE: You may turn for a little bit before the voltage actually rises. As soon as the voltage begins to rise, turn the idle screw backwards ½ turn.
11. Turn ignition key to the OFF position. Disconnect the voltmeter and pull the paperclip out of PIN #3.
12. Turn ignition key to the ON position. Press the accelerator slowly to the floor and then let it up slowly. Turn ignition key to the OFF position. Repeat this two more times and you are finished. See the next page for information on calibration.

APPS Calibration

The most commonly asked question about installing the APPS Sensor is calibration. The instructions below help to simplify understanding the concept. It is fairly simple.

The stock APPS sensor has an "IDLE VOLTAGE" stamped on the back which the sensor needs to be "SET" at in order to work properly and not set any DTC codes.



This aftermarket replacement sensor is designed a bit differently only in the "IDLE" portion of it. Look at the drawing above and take notice of the area shaded in red. The first few degrees of movement in the beginning are the "IDLE VOLTAGE". The voltage stays constant (does not rise). The end of the red shaded area is the point at which voltage rises, thus engine RPMs increase.

When you install the replacement sensor, you want to adjust the idle stop screw to find the point at which voltage begins to rise (the end of the red shaded area). The arrow indicates where you want to set it, just a hair before the point voltage begins to rise.

You should indeed bolt the sensor on and go. The result would be a little bit of accelerator pedal movement in the beginning that the engine does not respond to. It is similar to "free play" if you like. No "CHECK ENGINE" light will occur if the adjustment is not made.

Click on the link for the YouTube video showing how to calibrate the APPS:

<http://youtu.be/uLU9dzimC6U>

