



TPS Zeroing

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What is the “TPS?”

TPS stands for Throttle Position Sensor. The TPS is critical to the ECM’s management of the engine, as it indicates how much air is coming through the throttle body.

What is “Zeroing the TPS?”

To get an accurate reading from the TPS, the ECM needs to know what reading from the TPS corresponds to a closed throttle. Zeroing the TPS is essentially the process of closing the throttle plate and telling the ECM to use the current reading from the TPS to establish the reference value.

When should I zero the TPS?

Zeroing the TPS properly does not hurt anything, and it can be a very simple process. How and when to zero the TPS varies based on which ECM your motorcycle uses. Fuel-injected Buell motorcycles after model year 2007 use the DDFI-3 ECM, where motorcycles model year 2007 and prior use the DDFI-2 ECM. EBR motorcycles use the DVCS ECM. A new DDFI-3 or DVCS ECM purchased from IDS will automatically zero the TPS upon installation. After installing a DDFI-2 ECM, you will need a service tool to zero the TPS. There are other cases in which the TPS should be zeroed regardless of what type of ECM you have. These include replacing the throttle body, replacing the TPS, and installing a used ECM.

How do you zero the TPS?

If your bike uses a pre-tuned or stock DDFI-2 ECM, you will need to go to a Buell dealer or use [CMI Lite](#) to zero your TPS. If you use CMI Lite to zero the TPS, the instructions for that process can be found in the CMI Lite User Manual. The process for DDFI-3 and DVCS does not require tools.

For DDFI-3 and DVCS only (2008 and later Buell and all EBR products):

1. Begin with the ignition key off, run/stop switch in “Run” position, and throttle closed.
2. Turn the ignition key on; do not start the motorcycle.
3. After at least one second, hold the throttle fully open for one second.
4. Release the throttle and allow it to snap closed.
5. After at least one second, hold the throttle fully open for one second.
6. Release the throttle and allow it to snap closed.
7. After at least one second, hold the throttle fully open for one second.
8. Release the throttle and allow it to snap closed.

This completes the TPS zero process. At this point, you can turn off the ignition or start the motorcycle.