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Speed Signal / Turn Signal Cancellation Issues

If you use a test ECM in your shop or have ever swapped ECMs bike to bike to help diagnose an issue or get a stranded traveler back on the road this Tech Tip is for you. You might be installing problems.

There is a difference between stock EFI calibrations that may be causing some of the speed signal related issues you encounter. The stock calibrations for 2004 & later model years will write a PPU Value to the ECM. The current stock calibrations for 2003 & earlier models do not. The PPU Value is what controls the speed displayed on the speedometer, which in turn controls the turn signal cancellation.

If you have downloaded a 2004 & later stock calibration into an ECM it should not be used on a 2003 or earlier motorcycle; the speedometer and turn signals will not function correctly even after updating the VIN and calibration to match the vehicle.

This would also apply if you replaced an ECM for a 2003 & earlier motorcycle with one taken off of a 2004 & later motorcycle, or mistakenly download a 2004 and Later calibration into an earlier vehicle. This is another great reason to compare VIN identification to the frame and verify the correct calibrations before reflashing an ECM.

If you suspect this situation has occurred on a 2001 – 2003 vehicle, one way you can verify it is to attach the speedometer tester (HD-41354) to connector [65B] and sequentially send a speed signal of 10 MPH – 20 MPH – 30 PH – 40 MPH – 50 MPH and observe the output on both the speedometer and the data monitor to verify what the ECM is seeing for a value. Both should read approximately the same. If the ECM speed signal is low is it likely due to an incorrect PPU value.

If any of these scenarios have taken place the only way to correct it is to replace the ECM and download the correct calibration. This will not be considered a warranty situation so make sure you double check the VIN and calibration before performing downloads.

We are working to update future revisions of pre-2004 stock EFI calibrations to include PPU values in case a mistake is made. In the mean time, please be careful.

The PPU Values have been updated, if you have Digital Technician Version 15.08 or later installed all you will need to do is reflash the ECM to correct the above issues.