



TROUBLE SHOOTING GUIDE FOR TAB PERFORMANCE AUTO TUNER

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1. What do I do if my motorcycle does not start?

The Auto Tuner plugs into the crank position sensor. If this signal is not making a good connection, the motorcycle will not start. Inspect the crank position sensor plug to make sure the pins are straight and not pushed out of the plug.

2. Why is the LED light not coming on?

Check your power and ground connection on the harness to make sure it is connected properly at the data link plug and the battery terminal.

3. What does it mean if my LED light is not changing to green?

When your light is not changing to green something may not be hooked up properly. After 2 minutes of running, the module will blink a code.

2 red blinks and a pause means there is no engine speed detected, check your crank position sensor plugs and make sure there is a good connection. Also check to make sure your engine is running.

3 red blinks and a pause means there is no O2 sensor detected, check your O2 sensor plugs and make sure you have a good connection.

4. Why is my check engine light coming on and not going off?

This means that your bike is telling you that you have a trouble code; you can go into the speedometer and pull the codes out. Below is the procedure of pulling the codes out of the speedometer.

1. Turn ignition switch to OFF & Run/Stop switch is to Run.
2. Push odometer reset button in & hold.
3. Turn ignition switch to Ignition and release odometer reset button. Background lighting should illuminate, speedometer needle should sweep its full range and indicator lamps (battery, security, low fuel, check engine and cruise) should illuminate. The word "diag" should then appear.
4. Push the odometer reset button once and you will see the selection menu "PSSPT" with the first P flashing.
5. Each letter represents an area of the diagnostics module. The module that is flashing is the one you are going to check. To move from one letter (module) to the next, you push the odometer reset button one time. (from P to S to SP to t and back to P, etc.)
 - P = ECM/ICM (Electronic Control Module (EFI) / (Ignition Control Module, 'Carbureted')
 - S = TSM/TSSM (Turn Signal/Turn Signal Security Module)
 - SP = Speedometer
 - T = Tachometer
6. To get the DTC within an area of diagnostics, push and hold the odometer reset button in for 5 seconds and release. If there are any DTC's the code will be displayed or the work "none" will appear if there are no DTC's. Push the odometer reset button again to view additional codes if they exist
7. Record the codes.
8. If DTC's are not to be cleared, press and release the odometer reset button. Part number of module will be displayed. NOTE: To determine if a code is current or 3 historic, clear the displayed code by pushing in and holding the odometer reset button (longer than 5 seconds) until 'clear' comes up. Release the odometer reset button. Turn OFF the ignition switch. Run your bike and shut it down then recheck the DTC's again by repeating steps 1 to 9. If the code is current it will reappear.
9. Press and release the odometer reset button to continue to the next module.
10. Turn Ignition switch to OFF.

Below is a list of error codes and their meanings which should help you narrow down where the issue is. This list can also be found on the FAQ section of our website.

B0563 Battery Voltage High TSM/TSSM	P0123 TP Sensor High EFI	P0607 Converter Error Carb	Status TSM/TSSM
B1004 Fuel Level Sending Unit Low Instruments	P0261 Front Injector Open/Low EFI	P1001 System Relay Coil Open/Low EFI	U1064 Loss of TSM/TSSM Serial Data Carb
B1005 Fuel Level Sending Unit High/Open Instruments	P0262 Front Injector High EFI	P1002 System relay Coil High/Shorted EFI	U1064 Loss of TSM/TSSM Serial Data EFI
B1006 Accessory Line Overvoltage Instruments	P0263 Rear Injector Open/Low EFI	P1003 System relay Contacts Open EFI	U1064 Loss of TSM/TSSM Serial Data Instruments
B1007 Ignition Line Overvoltage Instruments	P0264 Rear Injector High EFI	P1004 System Relay Contacts Closed EFI	U1097 Loss of Speedometer Serial data Carb
B1008 Reset Switch Closed Instruments	P0373 CKP Sensor Intermittent Carb	P1009 Incorrect Password Carb	U1097 Loss of Speedometer Serial data EFI
B1131 Alarm Output Low TSM/TSSM	P0373 CKP Sensor Intermittent EFI	P1009 Incorrect Password EFI	U1097 Loss of Speedometer Serial data TSM/TSSM
B1132 Alarm Output High TSM/TSSM	P0374 CKP Sensor Not Detected Carb	P1010 Missing Password Carb	U1255 Missing Message at Speedometer EFI
B1134 Starter Output High TSM/TSSM	P0374 CKP Sensor Synch Error EFI	P1010 Missing Password EFI	U1255 Serial Data Error/Missing Message EFI
B1135 Accelerometer Fault TSM/TSSM	P0501 VSS Low Carb	P1351 Front Ignition Open/Low Carb	U1255 Serial Data Error/Missing Message EFI
B1151 Sidecar BAS Low TSM/TSSM	P0501 VSS Low EFI	P1351 Front Ignition Open/Low EFI	U1255 Serial Data Error/Missing Message Instruments
B1152 Sidecar BAS High TSM/TSSM	P0502 VSS High/Open Carb	P1352 Front Ignition Coil High/Shorted Carb	U1255 Serial Data Error/Missing Message TSM/TSSM
B1153 Sidecar BAS Out of Range TSM/TSSM	P0502 VSS High/Open EFI	P1352 Front Ignition Coil High/Shorted EFI	U1300 Serial Data Low Carb
P0106 MAP Sensor Rate of Range Error Carb	P0505 Loss of Idle Sped Control EFI	P1353 Front Cylinder No Combustion EFI	U1300 Serial Data Low EFI
P0107 Map Sensor Failed Open/Low Carb	P0562 Battery Voltage Low Carb	P1353 Front Cylinder No Combustion Carb	U1300 Serial Data Low Instruments
P0107 Map Sensor Open/Low EFI	P0562 Battery Voltage Low EFI	P1354 Rear Ignition Coil Open/Low Carb	U1300 Serial Data Low TSM/TSSM
P0108 Map Sensor Failed High Carb	P0563 Battery Voltage High Carb	P1354 Rear Ignition Coil Open/Low EFI	U1301 Serial Data Open/High Carb
P0108 Map Sensor High EFI	P0563 Battery Voltage High EFI	P1355 Rear Ignition Coil High/Shorted Carb	U1301 Serial Data Open/High EFI
P0112 IAT Sensor Voltage Low EFI	P0602 Calibration Memory Error Carb	P1355 Rear Ignition Coil High/Shorted EFI	U1301 Serial Data Open/High Instruments
P0113 IAT Sensor Voltage Open/High EFI	P0603 EEPROM Failure Carb	P1356 Rear Cylinder No Combustion EFI	U1301 Serial Data Open/High TSM/TSSM
P0117 ET Sensor Voltage Low EFI	P0603 ECM EEPROM Error EFI	P1357 Intermittent Secondary Front EFI	
P0118 ET Sensor Voltage Open/High EFI	P0604 RAM Failure Carb	P1358 Intermittent Secondary Rear EFI	
P0122 TP Sensor Open/Low EFI	P0605 Program Memory Error Carb	U1016 Loss of ICM/ECM Serial Data Instruments	
	P0605 ECM Flash Error EFI	U1016 Loss of ECM Serial Data, Vehicle Speed, Vehicle Inhibit Motion or Powertrain Security	

5. I have a 08-09 Throttle by Wire Harley-Davidson Touring Model, under hard acceleration I am losing all throttle control. How do I fix this issue?

Harley-Davidson has equipped all Throttle by Wire Motorcycles with a safety feature; it is called Limp Home Mode. If there is a loss of voltage to the throttle body actuator this will cause the Limp Home Mode to occur. Always make sure that all connections are good and battery terminals are tight. If this does happen, you can pull over and cycle the key switch 4 times and it will reset the throttle body actuator. When you get to your destination go through and double check all your connections are good and tight. Also, check to see if you have any trouble codes (please refer to Question 4).

6. I have a 08-09 Throttle by Wire Harley-Davidson Touring Model and after installing the Auto Tuner I have lost all throttle response at start up. How do I fix this issue?

Double check that both the power wires and the ground wire are giving power to the module. (We gain our ground from the throttle body actuator plug)

7. What is the data link plug and where is it?

The data link plug is what Harley-Davidson uses to hook up their scanalyzer to read trouble codes. On most Harley-Davidson models the data link plug is located beside the factory ECU. On earlier Touring Models your ECU is located on the exhaust side under the side cover, early model V-Rods are under the battery. All other models, ECU is under the seat. On the 08-09 TBW Touring Models ECU is under the seat and the data link plug is located under the left side cover, under fuse panel.

8. How do I find the gray wire in the data link plug?

When you find the data link plug, pull back the black tubing and underneath the tubing you will see wires, take the Posi-Tap we have provided and tap it into the gray wire, as see in the diagram below. In this case the grey wire on the data link plug is your "Hot Wire."



9. How do I bypass the Auto Tuner and go back to stock?

At the throttle position sensor on your bike, unplug the Auto Tuner harness from the stock Harley-Davidson plug and re-plug the stock throttle position sensor plug back into the throttle position sensor. Your bike is now running on its original Delphi settings.

10. After installing the Auto Tuner how can I tell if the air/fuel ratio is correct?

For the most part you can tell by how your bike is running. If you're running rich you will be getting a lot of black smoke even after the engine has warmed up. You may also be getting some backfiring. If you're running lean you may feel like the throttle is a bit sluggish and your engine may be running hotter than normal. You can also remove and look at your spark plugs; the porcelain should be a light tan or a dirty white color. If your spark plugs are fouled you may not be running at the proper A/F ratio.

11. Why am I having a high or fluctuating idle on my motorcycle?

On some Harley-Davidson models this will occur, we have added a secondary power wire to our harnesses that corrects this issue. On the V-ROD Models make sure that you're getting a good seal around the base of the air box cover. The rubber gasket has a tendency to become kinked when you put it back together which can allow excess air in. If you see that your gasket is kinked or damaged in any way you will want to replace it with a new gasket.

If this problem still occurs, plug your throttle position sensor back to stock. When you plug your Throttle Position Sensor back to stock you are completely bypassing the Auto Tuner, and if it continues to idle high then you may be having problems with your bike and you will need to take your bike to a local Harley-Davidson dealer to have them check it out.

12. Why do I have two power wires on my harness?

This is so the Auto Tuner will power up within the milliseconds that it needs to work properly.

13. Why, after installing the Auto Tuner, am I having deceleration popping and sputtering?

Some popping, especially in deceleration is normal and even occurs with factory exhaust and settings although it is not as noticeable since the factory exhaust is so quiet. If you are getting a lot of popping it may be an issue with the O₂ Sensor. If there is any exhaust leaks or the O₂ sensor(s) have been removed and have not been properly tightened our Auto Tuner will think that the motorcycle is running lean and add fuel, this can cause poor fuel mileage and deceleration popping and sputtering. On the V-ROD Models make sure that you're getting a good seal around the base of the air box cover. The rubber gasket has a tendency to become kinked when you put it back together which can allow excess air in. If you see that your gasket is kinked or damaged in any way you will want to replace it with a new gasket.

14. What if I am having discoloration on my spark plugs?

If you are having discoloration on your spark plugs, install a new set of spark plugs and run the bike for a few miles and recheck the plugs to see what the plugs look like. The spark plugs should be a light tan or a dirty white color, if the spark plugs are a different color you may not be running at the proper A/F ratio.

15. My check engine light is popping up randomly, how do I fix this issue?

Unplug your Throttle Position Sensor and look at the pins, make sure there is not a film covering them also make sure the pins are straight.

16. I keep losing throttle response on my 08-09 throttle by wire, how do I fix this issue?

We have found that on pin 2 and pin 4 at your throttle body actuator that these pins have a tendency to corrode. Harley-Davidson has corrected this problem from occurring in 2010!

17. Having an issue not covered above?

The most common installation issue we find is with the Throttle Position Sensor (TPS), which if not properly installed can cause a host of different issues, so this is always the best place to start. What often happens is the factory housing gets left behind when you unplug the factory connection and if you don't have things properly lined up when you go to plug the Auto Tuner in the pins will get jammed in this housing and you won't make a good connection. To check if this is the case pull apart the TPS connection and look on the Auto Tuner plug side to see if you see a piece of purple plastic as shown in the picture to the right. If you do fish out and remove this piece of purple plastic and discard it (you don't need it). Then make sure the Auto Tuner pins are straight and in line with the center of the plug, and then connect everything back together and this will most likely resolve your issue.



18. What if all else fails? Check out the FAQ section of our website or call our tech support line at 1 (888) 822-0070 ext. 2

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