

2004/2005 “SERIAL DATA BUS” SYSTEM CODES

Harley-Davidson Diagnostic Trouble Codes

The following applies to full Serial Data Bus bikes, 2004 and 2005 only.

The IM (instrument module) is capable of displaying DTC's (diagnostic trouble codes)

Speedometer Self-Diagnostics: The speedometer is capable of displaying and clearing speedometer, tachometer, TSM/TSSM and ICM/ECM Diagnostic Trouble Codes.

Procedure:

1. Turn Ignition switch to OFF & Run/Stop switch 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. Note that all the lamps will light, even if you do not have cruise, or whatever installed) 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. Once you have selected the area you want to look at, 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 word “none” will appear if there are no DTC's. present. Push the odometer reset button again to view additional codes if they exist.
7. Record the codes.
8. If you are not going to clear the DTC's, Press and release the odometer reset button. The H.D. Part number of the module will be displayed.

NOTE: To determine if a code is current or historic, clear the displayed code by pushing in and holding the odometer reset button (longer than 5 seconds) until “clear” is displayed. Release the odometer reset button. Turn OFF the ignition switch. Start the bike, and run for a minute or so, and shut down. 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.

DTC fault codes that can possibly be displayed are listed here:

<u>FAULT #</u>	<u>CONDITION</u>	<u>MODULE</u>
B0563	Battery Voltage High	TSM/TSSM
B1004	Fuel Level Sending Unit Low	Instruments
B1005	Fuel Level Sending Unit High/Open	Instruments
B1006	Accessory Line Overvoltage	Instruments
B1007	Ignition Line Overvoltage	Instruments
B1008	Reset Switch Closed	Instruments
B1131	Alarm Output Low	TSM/TSSM
B1132	Alarm Output High	TSM/TSSM
B1134	Starter Output High	TSM/TSSM
B1135	Accelerometer Fault	TSM/TSSM
B1151	Sidecar BAS Low	TSM/TSSM
B1152	Sidecar BAS High	TSM/TSSM
B1153	Sidecar BAS Out of Range	TSM/TSSM
P0106	MAP Sensor Rate of Range Error	Carb
P0107	Map Sensor Failed Open/Low	Carb
P0107	Map Sensor Open/Low	EFI
P0108	Map Sensor Failed High	Carb
P0108	Map Sensor High	EFI
P0112	IAT Sensor Voltage Low	EFI
P0113	IAT Sensor Voltage Open/High	EFI
P0117	ET Sensor Voltage Low	EFI
P0118	ET Sensor Voltage Open/High	EFI
P0122	TP Sensor Open/Low	EFI
P0123	TP Sensor High	EFI
P0261	Front Injector Open/Low	EFI
P0262	Front Injector High	EFI
P0263	Rear Injector Open/Low	EFI
P0264	Rear Injector High	EFI
P0373	CKP Sensor Intermittent	Carb
P0373	CKP Sensor Intermittent	EFI

<u>FAULT #</u>	<u>CONDITION</u>	<u>MODULE</u>
P0374	CKP Sensor Not Detected	Carb
P0374	CKP Sensor Synch Error	EFI
P0501	VSS Low	Carb
P0501	VSS Low	EFI
P0502	VSS High/Open	Carb
P0502	VSS High/Open	EFI
P0505	Loss of Idle Sped Control	EFI
P0562	Battery Voltage Low	Carb
P0562	Battery Voltage Low	EFI
P0563	Battery Voltage High	Carb
P0563	Battery Voltage High	EFI
P0602	Calibration Memory Error	Carb
P0603	EEPROM Failure	Carb
P0603	ECM EEPROM Error	EFI
P0604	RAM Failure	Carb
P0605	Program Memory Error	Carb
P0605	ECM Flash Error	EFI
P0607	Converter Error	Carb
P1001	System Relay Coil Open/Low	EFI
P1002	System relay Coil High/Shorted	EFI
P1003	System relay Contacts Open	EFI
P1004	System Relay Contacts Closed	EFI
P1009	Incorrect Password	Carb
P1009	Incorrect Password	EFI
P1010	Missing Password	Carb
P1010	Missing Password	EFI
P1351	Front Ignition Open/Low	Carb
P1351	Front Ignition Open/Low	EFI
P1352	Front Ignition Coil High/Shorted	Carb
P1352	Front Ignition Coil High/Shorted	EFI
P1353	Front Cylinder No Combustion	EFI
P1354	Rear Ignition Coil Open/Low	Carb
P1354	Rear Ignition Coil Open/Low	EFI
P1355	Rear Ignition Coil High/Shorted	Carb
P1355	Rear Ignition Coil High/Shorted	EFI
P1356	Rear Cylinder No Combustion	EFI
P1357	Intermittent Secondary Front	EFI
P1358	Intermittent Secondary Rear	EFI
U1016	Loss of ICM/ECM Serial Data	Instruments
U1016	Loss of ECM Serial Data, Vehicle Speed, Vehicle Inhibit Motion, or Powertrain Security Status	TSM/TSSM
U1064	Loss of TSM/TSSM Serial Data	Carb
U1064	Loss of TSM/TSSM Serial Data	EFI
U1064	Loss of TSM/TSSM Serial Data	Instruments

<u>FAULT #</u>	<u>CONDITION</u>	<u>MODULE</u>
U1097	Loss of Speedometer Serial data	Carb
U1097	Loss of Speedometer Serial data	EFI
U1097	Loss of Speedometer Serial data	TSM/TSSM
U1255	Missing Message at Speedometer	EFI
U1255	Serial Data Error/Missing Message	EFI
U1255	Serial Data Error/Missing Message	Instruments
U1255	Serial Data Error/Missing Message	TSM/TSSM
U1300	Serial Data Low	Carb
U1300	Serial Data Low	EFI
U1300	Serial Data Low	Instruments
U1300	Serial Data Low	TSM/TSSM
U1301	Serial Data Open/High	Carb
U1301	Serial Data Open/High	EFI
U1301	Serial Data Open/High	Instruments
U1301	Serial Data Open/High	TSM/TSSM

 AFR – Air Fuel Ratio

ATS – Air Temperature Sensor

BAS – Bank Angle Sensor

CCM – Cruise Control Module

CKP – Crank Position Sensor. The CKP generates an “AC signal” which is sent to the ECM where it is used to reference engine position (TDC) and speed.

DTC – Diagnostic Trouble Codes

ECM – Electronic Control Module. (The Computer) Computes the spark advance for proper ignition timing and fuel control based on sensor inputs (from CKP, MAP & TP sensors) and controls the low-voltage circuits for the ignition coils and injectors.

The dwell time for the ignition coil is also calculated in the microprocessor and is dependent upon battery voltage. The programmed dwell feature gives adequate spark at all speeds.

ECT – Engine Coolant Temperature. Sensor also controls the cooling fan relay that provides 12 Vdc to the fans.

EFI – Electronic Fuel Injection

EFP – Electronic Fuel Pump

ET – Engine Temperature sensor

FI – Fuel Injectors

FPR – Fuel Pressure regulator

IAC – Idle Air Control actuator

IAT – Intake Air Temperature sensor

ISS – Ion Sensing System...detonation detection

MAP – manifold Absolute Pressure sensor. The MAP sensor monitors the intake manifold pressure (vacuum) and sends the information to the ECM. The EMC then adjusts the spark and fuel-timing advance curves for optimum performance.

TP – Throttle Position Sensor

TSM/TSSM (Turn Signal/ Turn Signal Security Module)

VE – Volume Efficiency

VSS – Vehicle Speed Sensor. Used as an input for idle speed control

Enjoy,

Ultra

