



Automotive Hardware Inspection

Name	:	
Brand	:	
Model	:	
Vin Number	:	
License plate	:	
KMH/MPH	:	
Engine code	:	
Engine specs	:	
Latest Service kmh	:	

Modifications

Exhaust System	:	
Intake System	:	
Turbocharger	:	
Supercharger	:	
Fueling system	:	
Cooling system	:	
Ignition system	:	

Aftermarket spare parts type/brand definition

Spark plugs	:	
--------------------	---	--

Coil packs :
Fuel pump :
High pressure fuel pump :
Air filter :
Oil Filter :
Oil Type :
Fuel Filter :
Clutch :
Pulleys :
Intercooler :
Turbo/supercharger :
Camshafts :
Crankshaft :
Voltage stabilizers :
Maf sensor :
Map sensor :
Lambda 1 post cat :
Battery :

General Tests

- **Visual check** **Yes** **No**
- **Drivability check** **Yes** **No**
- **MIL on check** **Yes** **No**
- **Dyno check** **Yes** **No**

Conclusion :

Engine Specific Mechanical Tests

Compression Check psi/bar :	
Cylinder 1 :	Cylinder 7 :
Cylinder 2 :	Cylinder 8 :
Cylinder 3 :	Cylinder 9 :
Cylinder 4 :	Cylinder 10 :
Cylinder 5 :	Cylinder 11 :
Cylinder 6 :	Cylinder 12 :

Fuel/oil pressure check psi/bar	
Low fuel pressure pump 1 :	
Low fuel pressure pump 2 :	
High fuel pressure pump 1 :	
High fuel pressure pump 2 :	
Oil pressure pump 1 :	

Timing Check Degrees + - (or gear teeth)	
Intake Advance :	
Intake Retardation :	
Exhaust Advance :	
Exhaust retardation :	

Boost leak	
Pressure test bar /psi :	
Leakage time duration :	
Conclusion :	

Electric/Electronics check

- **Fuse box check** **Yes** **No**

Conclusion :

- **Relay box check** **Yes** **No**

Conclusion :

- **Wiring check** **Yes** **No**

Conclusion :

ENGINE MANAGEMENT SYSTEM SPECIFICATIONS

- **Standalone Check** **Yes** **No**

- **OEM Check** **Yes** **No**

Manufacturer :
Type :
Sw number :
Hardware Number :
Sw Update :

- **Diagnostics Check** **Yes** **No**
- **OBD Type** **Obd1** **Obd2**
- **OBD Protocol** **K-line** **Can**

DTC PRESENT :
FREEZE FRAME :

Performed Diagnostics check

Fuel system tests
Solenoids tests :
Spark plug/coil tests :
Lambda tests:

Readiness tests :
Variable valve timing system test :

Sensor Values

ENGINE Temperature idle :
ENGINE Temperature max value :
INTAKE Air Temperature idle :
INTAKE Air Temperature Max value :
OIL Temperature idle :
OIL Temperature Max value:
OIL Pressure idle :
OIL Pressure Max value :
BATTERY Voltage :
MAF Sensor Idle :
MAF Sensor Max value :
MAP Sensor Idle :
MAP Sensor Max value :
RPM Idle :
RPM Max Value :
INJECTION Duration Idle :
INJECTION Duration Max value :
INJECTION Correction idle :
INJECTION Correction Max value :
INJECTION Duty cycle % :
Injector 1 :
Injector 2 :
Injector 3 :
Injector 4 :
Injector 5 :
Injector 6 :
Injector 7 :
Injector 8 :
Injector 9 :
Injector 10 :
Injector 11:
Injector 12:
LAMBDA Type :
LAMBDA B1 S1 Voltage idle :
LAMBDA B1 S2 Voltage idle :

LAMBDA B1 S1 Voltage Max value :
LAMBDA B1 S2 Voltage Max value :
LAMBDA B2 S1 Voltage idle :
LAMBDA B2 S2 Voltage idle :
LAMBDA B2 S1 Voltage Max value :
LAMBDA B2 S2 Voltage Max value :
LAMBDA Correction B1 S1 % Idle :
LAMBDA Correction B2 S1 % Idle :
LAMBDA Correction B1 S1 % Max value :
LAMBDA Correction B2 S1 % Max value :
LOW FUEL Pressure sensor idle :
LOW FUEL Pressure sensor Max value :
HIGH FUEL Pressure sensor idle :
HIGH FUEL Pressure sensor Max value :
THROTTLE Degrees Sensor Idle :
THROTTLE Degrees Sensor Max Value :
TIMING Degrees Advance Idle :
TIMING Degrees Advance Max value :
TIMING Degrees Retardation Idle :
Cylinder 1 : Cylinder 7 :
Cylinder 2 : Cylinder 8 :
Cylinder 3 : Cylinder 9 :
Cylinder 4 : Cylinder 10:
Cylinder 5 : Cylinder 11:
Cylinder 6 : Cylinder 12:
TIMING Degrees Retardation Max value :
Cylinder 1 : Cylinder 7 :
Cylinder 2 : Cylinder 8 :
Cylinder 3 : Cylinder 9 :
Cylinder 4 : Cylinder 10:
Cylinder 5 : Cylinder 11:
Cylinder 6 : Cylinder 12:
MISFIRE Counter idle:
Cylinder 1 : Cylinder 7 :
Cylinder 2 : Cylinder 8 :
Cylinder 3 : Cylinder 9 :
Cylinder 4 : Cylinder 10:
Cylinder 5 : Cylinder 11:
Cylinder 6 : Cylinder 12:
MISFIRE Counter Max Value:
Cylinder 1 : Cylinder 7 :

Cylinder 2 :	Cylinder 8 :
Cylinder 3 :	Cylinder 9 :
Cylinder 4 :	Cylinder 10:
Cylinder 5 :	Cylinder 11:
Cylinder 6 :	Cylinder 12:
RPM vs Misfire specific Max Value :	
Cylinder 1 :	Cylinder 7 :
Cylinder 2 :	Cylinder 8 :
Cylinder 3 :	Cylinder 9 :
Cylinder 4 :	Cylinder 10:
Cylinder 5 :	Cylinder 11:
Cylinder 6 :	Cylinder 12:
BOOST pressure solenoid (n75) duty cycle % idle value :	
BOOST pressure solenoid (n75) duty cycle % Max value :	

Problem Description :

Extra Sensors/Gauges :
Type :
Value:
Type :
Value:
Type :
Value:

NOTES

You can always include a live data stream (datalog) from any diagnostic interface as long as it is in a readable format(xls, word, pdf, txt, etc)

**Please be thorough and perform as much tests as you can on every section.
Feel free to add any other info in the form.**

Dtc's should always be described in the universal PXXXX code format .

This Form Was Created to help in a diagnostic procedure for any kind of mechanical /electrical problem .