



EScan | DTCs | Monitors | PIDs | Digital | Graphs | Mode6 | O2 | Sharp SHOOTER | www.AT3nm.com

Fuel Trim | Volumetric Eff | Simulated Injector | Power | Catalyst Eff | Temperature | Auto Diag

?  
! Test will not perform !  
correctly if vehicle has  
Wide Range O2 sensors

**Prepare for Test  
(Calculate Below)**

O2 Sensors Present

Bank 1 - Sensor 1  Bank 2 - Sensor 1   
 Bank 1 - Sensor 2  Bank 2 - Sensor 2   
 Bank 1 - Sensor 3  Bank 2 - Sensor 3   
 Bank 1 - Sensor 4  Bank 2 - Sensor 4

All Lights below must be green  
for test results to be accurate

- No DTCs or Pending
- Fuel Control
- Fuel Trim
- Coolant Temp (Must be > 170F)
- RPM (Run engine above 1800 RPM for 1 minute)
- Rear O2 (Snap throttle twice after RPM turns green)

| Test Setup | Bank One | Bank Two |
|------------|----------|----------|
| Front      | O2B1S1   | O2B2S1   |
| Rear       | O2B1S2   | O2B2S2   |

RPM  
**1497**

Catalyst Efficiency %  
**66**

**Test Running**

Catalyst Efficiency %  
**NaN**

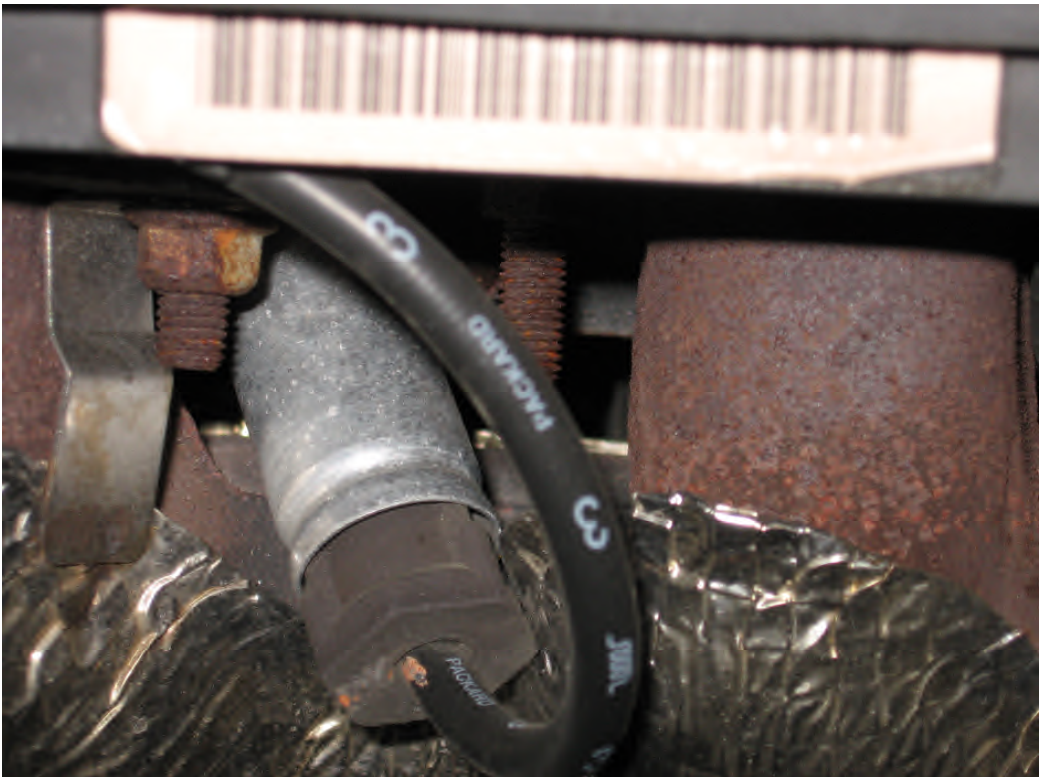
Bank One

Bank Two

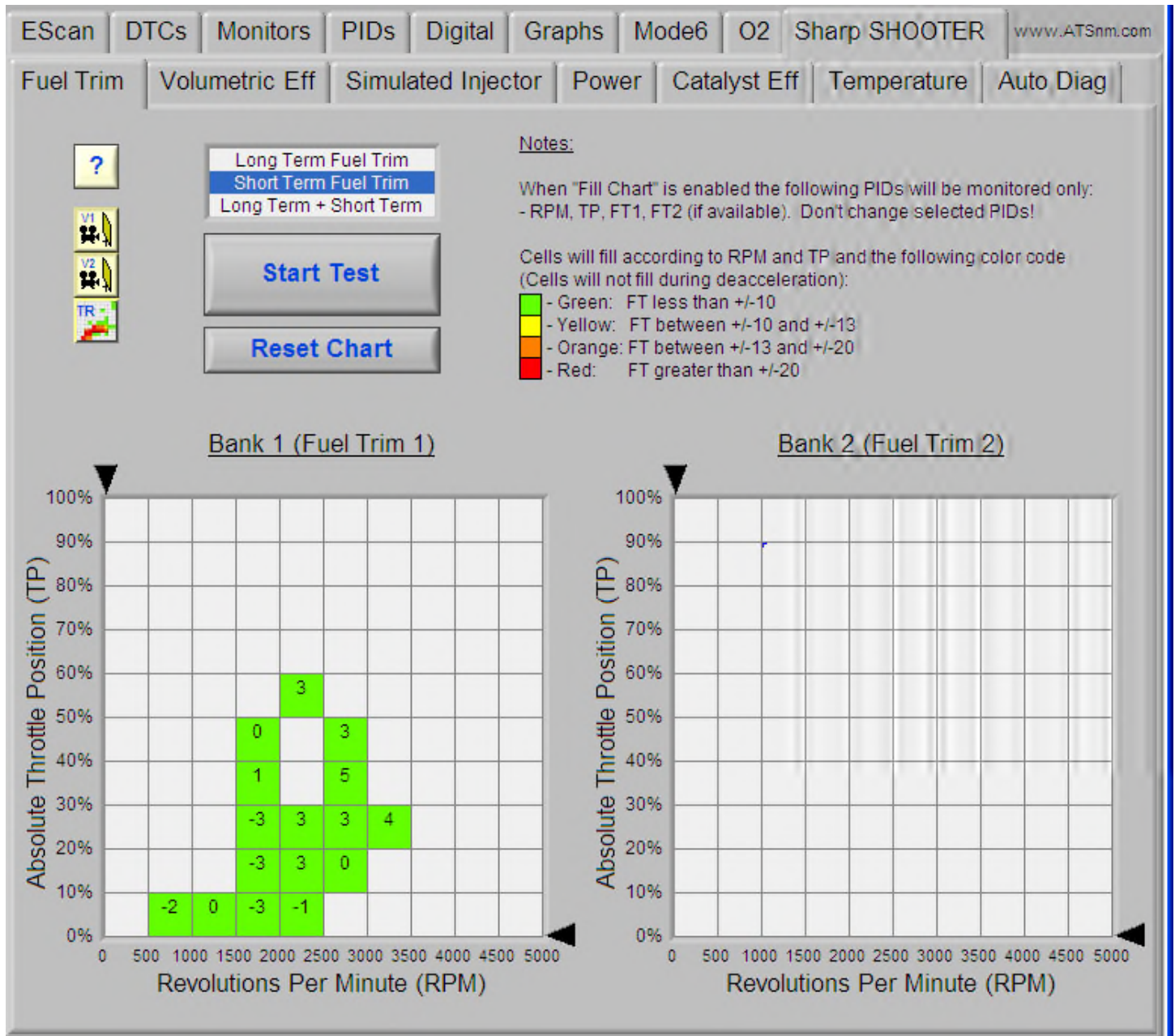
As you can see, the catalyst is working at roughly 66%. Typically, it should be above 80%. Our technician also noticed while testing your vehicle, that the catalytic converter has been replaced previously, with a universal catalytic converter.



Please note the use of a reducer pipe, and the 2 exhaust clamps used, typically when the car comes from the factory, or when a direct-fit catalytic converter is used, this is all one piece. Now, I'm sure you're wondering "Why would another catalytic converter be bad on my car with 126,000 miles?". There are several answer's for this question. The first possibility is the use of the smaller, universal catalyst. Secondly, a poor running engine can damage the catalyst in a matter of minutes. The technician noted that the car has the original spark plug wires, and what seem to be the original spark plugs.



Notice the number on the spark plug wire? This is indicative that the plug wires are original. Also, if there is an error in the fuel control system of the vehicle, the catalyst may be damaged as well. Generally speaking the fuel control system is doing OK if it is adding or subtracting less than 10% of the fuel mixture. Here is a capture that the technician took while on a test drive with your car.



As you can see, all the grids are green, indicating that the system is operating within spec at this time. We also checked for software updates to your on-board computer, and there are none at this time. So our recommendations at this time are to replace the spark plugs, spark plug wires, and install a direct-fit catalytic converter. I will be following up with a phone call, to give you an estimate, and answer any questions you may have.

Thank you,

Ryan Kooiman

PS While checking the results of the tests that the car's on-board computer runs, I also noticed that the results for the evaporative emissions system are getting close to the failing point. This isn't something that you should necessarily worry about at this time. I thought you should be aware of it, in case the Check Engine Light should come back on after today's repair.

EScan - Automotive Test Solutions, Inc.

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Controls MultiTool Info ? EScan DTCs Monitors PIDs Digital Graphs Mode6 O2 Sharp SHOOTER www.ATSnm.com

Select Make  
GM

Test Value background color: **Red** if outside of limit, **Yellow** if close to limit Reading

Read All Mode6 Once  
Read All Mode6 Continuous  
Read Selected Continuous

| Test ID (TID)                          | Component ID (CID)                          | Test Value | Min Limit | Max Limit | Units  |
|--|---|------------|-----------|-----------|--------|
| \$05: O2 Sensor Monitors and Constants | \$01: B1S1 Rich to Lean Threshold           | 400.094    |           | 2047.969  | mV     |
| \$05: O2 Sensor Monitors and Constants | \$02: B1S1 Lean to Rich Threshold           | 475.000    |           | 2047.969  | mV     |
| \$05: O2 Sensor Monitors and Constants | \$03: B1S1 Low Switch Time Calculation      | 299.469    |           | 2047.969  | mV     |
| \$05: O2 Sensor Monitors and Constants | \$04: B1S1 High Switch Time Calculation     | 598.937    |           | 2047.969  | mV     |
| \$05: O2 Sensor Monitors and Constants | \$05: B1S1 Rich to Lean Switch Time         | 30.990     |           | 139.955   | msec   |
| \$05: O2 Sensor Monitors and Constants | \$06: B1S1 Lean to Rich Switch Time         | 20.993     |           | 74.976    | msec   |
| \$05: O2 Sensor Monitors and Constants | \$87: B1S1 Rich to Lean Switches            | 178.000    | 45.000    |           | sw     |
| \$05: O2 Sensor Monitors and Constants | \$88: B1S1 Lean to Rich Switches            | 180.000    | 45.000    |           | sw     |
| \$06: O2 Sensor Heater Monitor         | \$41: B1S2 Heater Time to Activity          | 34.000     |           | 104.000   | sec    |
| \$06: O2 Sensor Heater Monitor         | \$35: B1S1 Heater Time to Activity          | 26.000     |           | 57.000    | sec    |
| \$07: Exhaust Gas Recirc Sys Monitor   | \$4D: EGR decel test                        | -45.000    |           | 1.498     | kPa    |
| \$0A: EVAP Monitor #2 (.020 Leak)      | \$01: EVPD canister vent restriction test 1 | 0.000      |           | 15.000    | sec    |
| \$0A: EVAP Monitor #2 (.020 Leak)      | \$C2: EVPD canister vent restriction test 2 | 6.007      | 6.000     |           | liters |
| \$0A: EVAP Monitor #2 (.020 Leak)      | \$13: EVAP weak vacuum test                 | 0.000      |           | 12.000    | liters |
| \$0A: EVAP Monitor #2 (.020 Leak)      | \$84: EVPD weak vacuum followup test        | 0.000      | 0.000     |           | sec    |
| \$0A: EVAP Monitor #2 (.020 Leak)      | \$05: EVPD .040" leak test                  | 0.002      |           | 0.032     | inches |
| \$0A: EVAP Monitor #2 (.020 Leak)      | \$87: EVPD purge pass test                  | 60.000     | 60.000    |           | sec    |
| \$0A: EVAP Monitor #2 (.020 Leak)      | \$48: EVPD purge vacuum fail test           | 0.100      |           | 10.000    | inH2O  |
| \$0A: EVAP Monitor #2 (.020 Leak)      | \$06: EVPD .020" leak test                  | 0.003      |           | 0.013     | inches |
| \$0C: Catalyst Efficiency Monitor      | \$60: Bank 1 Catalyst Test OSC              | 0.731      |           | 0.000     | sec    |

Bank to Bank Fuel Trim BtoBTrim NaN

Time to Engine Temperature Temp(F) 188.60

Engine Vacuum OK Vac (HG) 19.88

Charging Voltage Good Battery V 13.92

MIL ON (Check DTCs) # Codes 1

Monitors Complete # not run 0

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Related DTC: Unavailable  
Explanation: Catalyst Test Bank 1 (using OSC compensation units)