

## Smog Check OBD II Reference (Testability Issues)

---

(formerly known as APPENDIX J)

The Smog Check OBD II Reference provides information and test instructions for inspecting vehicles with known OBD II functional test difficulties.

- [USEPA's OBD Readiness Testability Issues](#) - This document includes vehicles that have a U.S. EPA exception from performing some OBD II functions and includes information on flex fuel vehicle testability issues. Although some OBD II functionality may not be present, the OBD II portion of the Smog Check shall be performed as instructed in the Smog Check Inspection Manual. The OBD II test shall NOT be bypassed by the OIS or the technician.
- **Table 1a – 1b** lists vehicles where OBD monitors are ignored. Table 1a contains BAR-97 EIS tested vehicles. Table 1b contains OBD Inspection System (OIS) tested vehicles.
- **Table 2** data no longer exists in this document, but the information is provided by BAR through a link to the [National OBD Clearinghouse](#). Currently, many CAN-equipped gasoline vehicles currently cannot be OBD II tested on the BAR-97 EIS. The EIS should automatically bypass the OBD II test for CAN equipped vehicles. However, if the EIS prompts for an OBD II test, bypass the test by answering “No” to the OBD II functional test prompt. Unless otherwise instructed by BAR, do not answer “No” to bypass the OBD II functional test for any other OBD II equipped vehicles. CAN protocol will be tested on the OIS in the future.
- **Table 3** assists in identifying diesel vehicles that cannot receive the OBD II functional test on the BAR-97 EIS, as a result of either: 1) they are not OBD II compatible, or 2) they use the CAN communication protocol. All diesels subject to Smog Check will be tested on the OIS in the future.

To ensure that any special test processes are appropriately applied, always select the correct vehicle from the vehicle information (make, model, engine size, etc.) provided from the VLT by the BAR-97 inspection menu lists.

## OBD Readiness Testability Issues

Transportation and Climate Division  
Office of Transportation and Air Quality  
U.S. Environmental Protection Agency

## Smog Check OBD II Reference (Testability Issues)

(formerly known as APPENDIX J)

<b>OBD Readiness Testability Issues<sup>1</sup></b>				
Make	Model Year	Model	Problem	Action
Acura	1997	2.5 TL	Trouble communicating with some scan tools	Attempt communication with a different scan tool. See OBD clearinghouse for more information.
Audi and Volkswagen	1996-2002	All models with non-OEM stereos	If OEM stereo has been replaced with an aftermarket unit, the OBD system may not communicate with and may damage the scan tool	Ensure scan tool has complete current/voltage override protection. For more information, see VW Technical service bulletin 02-03 dated June 10, 2002.
Chrysler	1996 built prior to 11/21/95	Cirrus, Sebring, Sebring Convertible, Concord, LHS	All monitors reset to incomplete upon every ignition key-off.	Recall campaign #678 applies to California certified vehicles in California. TSB #18-005-01 applies to all other vehicles with a lifetime warranty.
Chrysler	2010 built prior to 2/20/10	300 with 3.5L engine and 5-speed automatic transmission	Evaporative Leak Detection Monitor may not set to ready	TSB# 18-008-10 Revision A
Dodge	1996 built prior to 11/21/95	Stratus, Intrepid, Neon, Avenger	All monitors reset to incomplete upon every ignition key-off	Recall campaign #678 applies to California certified vehicles in California. TSB #18-005-01 applies to all other vehicles with a lifetime warranty.
Dodge	1996	Stealth	All monitors reset to incomplete upon every ignition key-off	These vehicles are not reflashable and should be tested without regard to monitor readiness
Dodge	2003	Dakota, Durango and Ram Trucks with 4.7L engine and California or 50 state certified.	Catalyst monitor readiness status may indicate not supported	TSB#18-032-10 with lifetime warranty
Dodge	2003	Ram Truck with Cummins 5.9L diesel engine and California certified	MIL may illuminate erroneously. Comprehensive component monitor status may not set to ready	Recall Campaign #K01
Dodge	2004-5	Ram Truck with Cummins 5.9L diesel engine and California certified	Comprehensive component monitor status may not set to ready	TSB#18-030-10 with lifetime warranty
Dodge	2006-7	Ram Truck with Cummins 5.9L diesel engine.	Fuel system monitor and comprehensive component monitor status may not set to ready	Recall campaign #K01 applies to California certified vehicles. TSB#18-017-10 with lifetime warranty applied to federal certified vehicles.

<sup>1</sup> Formerly known as Appendix D, this table lists specific vehicle makes and models with OBD readiness issues along with resolutions for IM programs to use at their discretion to overcome those issues.

## Smog Check OBD II Reference (Testability Issues)

(formerly known as APPENDIX J)

<b>OBD Readiness Testability Issues<sup>1</sup></b>				
Make	Model Year	Model	Problem	Action
Dodge	2007 built prior to 01/06/07	Ram Chassis Cab with Cummins 6.7L diesel engine	Trucks are not equipped with oxygen sensors but oxygen sensor and oxygen sensor heater monitors may report as not ready. Comprehensive component monitor status may not be set to ready	Recall campaign #K01 applies to California certified vehicles. TSB#18-017-10 with lifetime warranty applied to federal certified vehicles.
Dodge	2010 built prior to 2/20/10	Charger, Challenger with 3.5L engine and 5-speed automatic transmission	Evaporative leak detection monitor may not set to ready	TSB# 18-008-10 Revision A
Eagle	1996 built prior to 11/21/95	Vision, Non-turbo Talon	All monitors reset to incomplete upon every ignition key-off	TSB #18-005-01 applies with a lifetime warranty
Eagle	1996	Summit, Summit Wagon	All monitors reset to incomplete upon every ignition key-off	These vehicles are not reflashable and should be tested without regard to monitor readiness.
Eagle	1996-8	Talon with 2.0L Turbo	All monitors reset to incomplete upon every ignition key-off	These vehicles are not reflashable and should be tested without regard to monitor readiness.
Ford	2000-2002	All	Evap monitors may be difficult to complete	Follow recommended drive cycles. See OBD clearinghouse. Otherwise test as normal.
Ford	2003	Focus	Monitors may be difficult to complete	Powertrain control module needs to be updated. See TSB 06-7-5. Otherwise test as normal.
Hyundai	2002	Sonata	Monitors are difficult to complete; perform drive cycle 2 times	Follow drive cycle in TSB #02-36-030 applies. Otherwise test as normal.
Hyundai	2003	Tiburon	Will not communicate with generic OBD test equipment	A manufacturer recall is in effect; recall campaign #057 and Hyundai TSB #03-01-003-01. Otherwise test as normal.
Infiniti	1996	All models	Catalyst and evaporative system monitors are difficult to complete	Follow drive cycle in TSB #NTB98-018, February 18, 1998. Otherwise test as normal.
Jeep	2005-6	Wrangler	Oxygen sensor heater readiness status bit remains incomplete.	TSB #25-001-07
Jeep	2010-11 built before 09/02/10	Wrangler with 3.8L engine	Downstream oxygen sensor monitor may not set to ready	TSB #18-027-10
Maserati	2005+	All models	VIN may not display properly on hand held scan tools	See TSB# MTB 148A Writing
Mitsubishi	1996-1998	All models	Some monitors are difficult to complete	Test without regard to readiness status.

## Smog Check OBD II Reference (Testability Issues)

(formerly known as APPENDIX J)

<b>OBD Readiness Testability Issues<sup>1</sup></b>				
Make	Model Year	Model	Problem	Action
Mitsubishi	1998-2001	Montero, Montero Sport, Diamante, 3000GT, Mirage, Galant, Expo/Expo LRV, and Eclipse models (except 2.0L non-turbo 420A engine models)	Some monitors are difficult to complete	Follow recommended drive cycles in Mitsubishi service manual. Otherwise, test as normal.
Nissan	1996-1997	All models	Catalyst and evaporative system monitors are difficult to complete	Follow recommended drive cycles. See Nissan TSB #NTB98-018, January 3, 2002. Otherwise, test as normal.
Nissan	1999-2006	All models	Monitors can be difficult to complete	Follow owner's manual drive cycle to achieve readiness. Otherwise, test as normal.
Plymouth	1996 built prior to 11/21/95	Breeze, Neon	All monitors reset to incomplete upon every ignition key-off	Recall campaign #678 applies to California certified vehicles in California. TSB #18-005-01 applies to all other vehicles with a lifetime warranty.
Saab	1996-1998	900 (B234i with Motronic 4.1)	Monitors are difficult to complete	Saab Service Instruction No. 248 describes the correct drive cycle for completion of the monitors. Otherwise, test as normal.
Saab	1996-1998	All models	Catalyst and evaporative system monitors are difficult to complete	The OBD readiness criteria for this vehicle allow two monitors to be incomplete. Test as normal.
Subaru	1996	All models	Readiness cleared at key-off	Scan vehicle for MIL illumination without regard to readiness.
Suzuki	2001	Aerio	Monitors can be difficult to complete	Follow drive cycle. See OBD Clearinghouse or Suzuki service information.
Suzuki	2004	Forenza	Monitors can be difficult to complete	Follow drive cycle. See OBD Clearinghouse or Suzuki service information.
Toyota/Lexus	1996-2006	All models	Monitors can be difficult to complete	Follow drive cycles in Toyota service information.
Toyota	1996-1997	Tercel, Paseo	Evaporative system monitor will never complete or is unsupported	The OBD readiness criteria for these model years allow two monitors to be incomplete. Test as normal.
Volvo	1996-1998	All models excluding the 850 Turbo	Catalyst and evaporative system monitors are difficult to complete	Follow recommended drive cycles in Service Bulletin 2-23-0056. Otherwise test as normal.
Volvo	1996	850 Turbo	Vehicle clears readiness at key-off	Scan for MIL illumination without regard to readiness status. See Volvo SB-2-23-0056.
Volvo	2004-2006	S40, V50	Air conditioning monitor mistakenly set to supported instead of unsupported	Ignore A/C monitor status and otherwise test as normal.
Volvo	2005-2007	XC90	Air conditioning monitor mistakenly set to supported instead of unsupported	Ignore A/C monitor status and otherwise test as normal.

## Smog Check OBD II Reference (Testability Issues)

(formerly known as APPENDIX J)

Flex Fuel Vehicle Testability Issues <sup>2</sup>					
Model Year	Model	Engine	Engine Family and VIN	Problem	Action
<b>Chrysler</b>					
1998	Chrysler Caravan and Town and Country / Dodge Caravan / Plymouth Voyager	3.3L V-6 (E85)	WCRXT03.32BP (VIN 8 <sup>th</sup> digit: G)	All monitors disabled for operation >E30 and ethanol fuel content learning.	Test without regard to monitor readiness
1999	Chrysler Town and Country / Dodge Caravan / Plymouth Voyager	3.3L V-6 (E85)	XCRXT03.32BP (VIN 8 <sup>th</sup> digit: G)	Desensitized system monitors: <ul style="list-style-type: none"> <li>• fuel system rail check only for &gt;E30;</li> <li>• fuel system rich for &gt;E50;</li> <li>• fuel system lean and misfire for E0-E10 and coolant temp &gt;230 deg. F;</li> <li>• purge flow check.</li> </ul>	
2000	Chrysler Caravan, Voyager, and Town and Country / Dodge Caravan / Plymouth Voyager	3.3L V-6 (E85)	YCRXT03.32BP (VIN 8 <sup>th</sup> digit: G)		
<b>Ford</b>					
2002	Ford Ranger 2-wheel drive	3.0L V-6 (E85)	2FMXT03.02F6 (50 State) (VIN 8 <sup>th</sup> digit: V)	Monitors Disabled for operation >E10 blends: catalyst. Desensitized evaporative leak/purge check monitor to detect gross leak for operation >E75 blends (monitor fully compliant up to E75 blends).	Test without regard to monitor readiness
<b>General Motors</b>					
2000	Chevrolet S-10/GMC Sonoma 2-wheel drive	2.2 L I-4 (E85)	YGMXT02.2121 YGMXT02.2122 (VIN 8 <sup>th</sup> digit: 5)	System monitors disabled for operation ≥E15 blends: O2 sensor heater, secondary air, catalyst. System monitors disabled for operation ≥E10 blends: evaporative leak check. Desensitized O2 sensor monitor implemented; only reports faults during operation ≤E15 blends.	Test without regard to monitor readiness
2001	Chevrolet S-10/GMC Sonoma 2-wheel drive	2.2 L I-4 (E85)	1GMXT02.2122 (VIN 8 <sup>th</sup> digit: 5)	System monitors disabled for operation ≥E15 blends: O2 sensor heater, secondary air, catalyst. System monitors disabled for operation ≥E10 blends: evaporative leak check. Desensitized O2 sensor monitor implemented; only reports faults during operation ≤E15 blends.	Test without regard to monitor readiness

<sup>2</sup> This table identifies Flexible Fuel Vehicles (FFV) that have a U.S. EPA exception from performing some OBD functions while under operation with an alternative fuel. Although some OBD functionality may not be present, the OBD inspection shall be performed for the operative monitors.

## Smog Check OBD II Reference (Testability Issues)

(formerly known as APPENDIX J)

Flex Fuel Vehicle Testability Issues <sup>2</sup>					
Model Year	Model	Engine	Engine Family and VIN	Problem	Action
2002	Chevrolet S-10/GMC Sonoma 2-wheel drive	2.2 L I-4 (E85)	2GMXT02.2122 (VIN 8 <sup>th</sup> digit: 5)	<p>System monitors disabled for operation <math>\geq</math>E15 blends: O2 sensor heater, secondary air, catalyst.</p> <p>System monitors disabled for operation <math>\geq</math>E10 blends: evaporative leak check.</p> <p>Desensitized O2 sensor monitor implemented; only reports faults during operation <math>\leq</math>E15 blends.</p>	
<b>Isuzu</b>					
2000	Hombre 2-wheel drive	2.2 L I-4 / (E85)	YGMXT02.2121 YGMXT02.2122 (VIN 8 <sup>th</sup> digit: 5)	This model shares a platform with the Chevrolet S-10 and GMC Sonoma.	Test without regard to monitor readiness
2001	Hombre 2-wheel drive	2.2 L I-4 / (E85)	YGMXT02.2121 YGMXT02.2122 (VIN 8 <sup>th</sup> digit: 5)	<i>For guidance on these models, please refer to General Motors section.</i>	
<b>Mazda</b>					
2002	B3000 2-wheel drive	3.0 L V-6 (E85)	2FMXT03.02F6 (VIN 8 <sup>th</sup> digit: V)	This model shares a platform with the Ford Ranger.	Test without regard to monitor readiness
2003	B3000 2-wheel drive	3.0 L V-6 (E85)	3FMXT03.02F6 (VIN 8 <sup>th</sup> digit: V)	<i>For guidance on these models, please refer to Ford section.</i>	

## Smog Check OBD II Reference (Testability Issues)

(formerly known as APPENDIX J)

**TABLE 1a - The EIS Ignores Monitor Readiness Status**

Make	Model Year	Model	Displacement	Action
BMW	1996	7-Series, 8-Series	5.0, 5.4	Complete Inspection as prompted by the EIS.
Chrysler	1996	Concorde, LHS, New Yorker, Sebring, Town & Country	2.0, 2.4, 2.5, 3.3, 3.5	Complete Inspection as prompted by the EIS.
Dodge	1996	Avenger	2.0 (manual trans)	Complete Inspection as prompted by the EIS.
Dodge	1996	Stealth, Stealth R/T	3.0	Complete Inspection as prompted by the EIS.
Dodge	1996	Stratus	2.0 (manual trans)	Complete Inspection as prompted by the EIS.
Eagle	1996-1997	Talon	2.0	Complete Inspection as prompted by the EIS.
Hyundai	1996	Accent	1.5	Complete Inspection as prompted by the EIS.
Hyundai	1996	Elantra	1.8	Complete Inspection as prompted by the EIS.
Hyundai	1996	Sonata	2.0	Complete Inspection as prompted by the EIS.
Hyundai	1997-1998	Sonata	2.0, 3.0	Complete Inspection as prompted by the EIS.
Kia	1996-1998	Sephia, Sportage	1.5, 1.6	Complete Inspection as prompted by the EIS.
Mitsubishi	1996-1997	3000 GT, 3000 GT Spyder, 3000 GT VR-4, Diamante, Eclipse, Eclipse Spyder, Eclipse Spyder TC, Eclipse TC 2WD, Eclipse TC 4WD, Galant, Mighty Max, Mirage, Montero, Montero Sport, Montero Sport 4WD	1.5, 1.8, 2.0, 2.4, 3.0, 3.5	Complete Inspection as prompted by the EIS.
Mitsubishi	1998	Eclipse, Eclipse Spyder, Eclipse Spyder TC, Eclipse TC 2WD, Eclipse TC 4WD, Galant, Mirage, Montero Sport	1.5, 1.8, 2.0, 2.4	Complete Inspection as prompted by the EIS.
Nissan	1996	Sentra	1.6 (manual and auto trans), 2.0 (manual trans)	Complete Inspection as prompted by the EIS.
Nissan	1996	200 SX	1.6	Complete Inspection as prompted by the EIS.
Nissan	1996	240SX, Maxima, Pickup 2WD, Pickup 4WD	1.6, 2.0, 2.4, 3.0	Complete Inspection as prompted by the EIS.
Saab	1996-1998	900	2.3	Complete Inspection as prompted by the EIS.
Subaru	1996	Impreza, Legacy, SVX	1.8, 2.2, 2.5, 3.3	Complete Inspection as prompted by the EIS.
Volvo	1996-1998	850, 850 GLT TURBO, 850 TURBO, 850R, 960, C70, S70, S90, V70, V90	2.3, 2.4, 2.5, 2.9	Complete Inspection as prompted by the EIS.

## Smog Check OBD II Reference (Testability Issues)

(formerly known as APPENDIX J)

**TABLE 1b - The OIS Ignores Monitor Readiness Status**

Make	Model Year	Model	Displacement	Action
Hyundai	2000-2001	Accent	1.5, 1.6	Complete Inspection as prompted by the OIS.

**TABLE 2 – Vehicles Currently Not OBD II Testable on the BAR-97 EIS**

Many vehicles use an OBD II protocol known as Controller Area Network (CAN), which will not currently communicate with the BAR-97 emissions inspection system.

CAN vehicles are testable on the OIS.

**Table 3 – Diesel Vehicle OBDII Compatibility with BAR-97**

Model-Year	California OBDII	Federal Light-Duty OBDII	Federal Heavy-Duty OBDII (>8500 lb GVWR)	CAN protocol prevents OBDII communication with BAR-97
1998-2002	OK	OK	<b>not OBDII testable</b>	CAN was not used
2003	OK	OK	<b>not OBDII testable</b>	some vehicles not OBDII testable
2004-2007	OK	OK	OK	some vehicles not OBDII testable
2008-2009	OK	OK	OK	<b>MOST vehicles not OBDII testable with BAR-97</b>

Note: In the future, All Diesel powered vehicles subject to Smog Check will be inspected on the OIS.