

THE NEVADA CLEAN AIR BULLETIN

Department of Motor Vehicles

MANAGEMENT SERVICES
AND
PROGRAMS DIVISION



555 WRIGHT WAY
CARSON CITY NV 89711

A NEVADA I/M PROGRAM INFORMATIONAL NEWSLETTER FIRST QUARTER 2003

OBD II TESTING OF HYBRID VEHICLES

The first series of Hybrid vehicles require an emission test because they are now due for their third registration.



There has been some concern in the field regarding the testing of these vehicles.

At the present time, the popular hybrid models are Honda and Toyota. These Hybrid vehicles are able to operate on gasoline and electricity. The electricity is stored in an on-board battery, and charged by the gasoline engine.

The main problem that developed in the field and caused some confusion is as follows:

The hybrid vehicles are not designed to idle. They are only designed to operate under a load, and will shut off before the test can be administered.

The resolutions:

The Honda hybrid has a bypass switch on the dash to allow the vehicle to idle, whereas the Toyota Hybrid does not. The accelerator on Toyota vehicles must be pressed or a load must be put

on the engine in order for the engine to run, for example, the air conditioner or the heater must be activated. The OBD II test procedure in Nevada requires that the engine of the vehicle being tested must be operating and a tachometer signal must be received by the emission analyzer. Honda hybrid vehicles may also be tested by turning on the heater or air conditioner.

Accessories must be turned off during a tailpipe test only. Once Nevada's advisory period is over and OBD II is pass or fail only, and the analyzer will not automatically revert to a tailpipe test, this problem will be eliminated.

Several other state programs have been evaluated as to the procedures used in the testing of hybrid vehicles. The research has found that other states are testing hybrid vehicles using the same procedure as described above in their programs.

After evaluating other state programs the Nevada Emission Control Program regulation's are deemed satisfactory as written. Changes or additions are not necessary concerning hybrid vehicles. Nevada's OBDII test procedure does not require accessories to be turned off during the emission test as there is no adverse effect whatsoever. The information retrieved is history stored in the computer of the vehicle.

The DMV's Emission Control Lab Technicians in Clark and Washoe County have reported that they have had few questions and even fewer complaints regarding these vehicles. The stations and inspectors have

adapted well to the hybrid and understand the small differences involved in testing of these vehicles. But, remember, if you have any problems, questions, or concerns please contact your local Emission Control Lab for assistance.

NEWSLETTER AND FACT SHEETS AVAILABLE ON DMV WEBSITE

In an effort to reach more readers, this Nevada Clean Air Bulletin newsletter is now available on the Department of Motor Vehicles' website. If you missed any of the other quarter's issues, they are also on the website. Check us out at: www.dmvnv.com/emission.htm#News

A hard copy of the Clean Air Bulletin will still be sent to each emission station, until further notice.

Please refer to the fact sheets (brochures) on the following pages. Due to prohibitive printing costs, they will not be available as before. Please feel free to download the information on the website and pass these on to your customers. These pages contain valuable information that your customers can take with them and read to help them understand the proper steps necessary to remedy their situation in case of a failed emission test.

The information afforded by these pages will also save a lot of time for station owners and inspectors as they are self explanatory.

NO EGR VALVE ON NISSAN MODELS



Nissan 2000 Xterra

Nissan

Nissan has been kind enough to furnish us with information concerning the absence of the EGR valve on two models with V-6 engines, the 2000 Frontier (D22) and the 2000 Xterra (WD22), built on or after October 6, 1999. These vehicles do not have an EGR valve, and the intake manifold port where the EGR valve formerly was, is covered with a plate.

These vehicles meet all applicable emission standards as indicated by the underhood emissions label. The manufacturer has deleted the EGR as an emission certified production change. Remember to check the production date of these vehicles.

For a copy of Nissan's Service Bulletin contact the nearest Emission Control Lab.

FAILURE RATE ANALYSIS REPORT YEARS 2000 and 2001 COMPARISON

Listed below is a statistical comparison of emission test results for 2001 and 2002. The number of emission test performed in 2002 dropped by 141,511 tests; of this 106,355 tests were in Clark County and 34,670 tests were in Washoe County. Percentage wise, the drop in the number of emission test is 7.3% for Washoe County and 6.4% for Clark County.

The failure rate remains the same from 2001 to 2002 for both counties. The steadiness of the failure rates can be credited to the excellent service the authorized emission stations and approved inspectors are doing to execute the emission program's objectives.

2001

CLARK COUNTY

Emission tests performed: 883,013
Emission test failures: 50,354
Overall failure rate 5.7%

WASHOE COUNTY

Emission tests performed: 256,177
Emission test failures: 16,817
Overall failure rate 6.6%

STATEWIDE

Emission tests performed: 1,140,995
Emission test failures: 67,350
Overall failure rate 5.9%

2002

CLARK COUNTY

Emission tests performed: 776,658
Emission test failures: 43,505
Overall failure rate: 5.6%

WASHOE COUNTY

Emission tests performed: 221,507
Emission test failures: 15,330
Overall failure rate: 6.9%

STATEWIDE

Emission tests performed: 999,484
Emission test failures: 58,954
Overall failure rate: 5.9%

On Board Diagnostics Emission Inspections (OBDII)

The State of Nevada has implemented a new method of inspecting 1996 and newer light duty gasoline vehicles. This new method, mandated by the USEPA Clean Air Act requires emission inspection of such vehicles through their on-board computer systems.



HOW DOES OBDII LET A DRIVER KNOW THE VEHICLE HAS A PROBLEM?

OBDII is emissions oriented. OBDII will illuminate a vehicle malfunction dashboard indicator lamp (MIL) when a problem exists that has the potential to make a vehicle emit excess emission levels, relative to the federal emission standards for new vehicles. Certain vehicle malfunctions may cause the MIL dashboard indicator lamp to blink or flash. This indicates that the vehicle requires immediate service or major damage could occur to expensive emission related components.

WHY IS THE NEW EMISSION TEST BETTER?

The new emission test is a pro-active method of inspecting vehicles for emission problems. Typically minor problems are detected. These problems can be detected and repaired before they have a chance to progress into a major problem. The new test is more specific about the problem and many times helps the service technician by reducing troubleshooting or diagnostic time. Normally "trouble codes" are printed on the vehicle inspection report that describes a specific reason for the emission failure. A trained service technician can then follow the vehicle manufacturer's prescribed service procedures to correct the emission problem.

HOW DOES THE TEST WORK?

All 1996 and newer light duty vehicles (less than 8,500 pounds gross vehicle weight) have a standard data link connector, or DLC. The emission testing equipment is connected to the data link connector and the vehicle's emission system information is retrieved. A vehicle inspection report (VIR) is then printed out by the emission inspector and provided to their customer. The emission test information is then sent via a network system to the DMV.

The emission test does not change or affect the vehicle's computer in any way. Normally the entire

emission test can be completed in five minutes or less.

WHAT CAUSES A FAILING EMISSION TEST?

A vehicle will fail its OBDII emission test if:

- The dashboard malfunction illumination lamp (MIL) fails to light up
- The dashboard malfunction illumination lamp (MIL) is commanded "on" by the OBDII system
- The data link connector (DLC) is missing, tampered, inoperable
- No serial data communication between the vehicle's computer and test equipment

WHAT DOES "NOT READY" MEAN?

OBDII monitors the status of the eleven (or more) important emission related systems within the vehicle. If a set number of the system monitors do not show "ready" during the emissions test, the vehicle will be "rejected". Essentially the end result is the same as a "failed" emission test.

Driving a vehicle in a normal fashion can reset the vast majority vehicle monitors. This will include a mixture of cruise and "stop and go" driving for a period of one week. This will give the vehicle computer time to evaluate and reset the monitors. There are a number of vehicles with monitors that are hard to reset, sometimes requiring trained service personnel to put the vehicle through specific "drive-cycles" designated by the manufacturer. The DMV Emission Control Test Lab nearest you has information identifying such vehicles.

It is also important to not clear the computer trouble codes, or disconnect the vehicle's battery, which may also clear the computer trouble codes, anytime prior to an emission test. Not following these instructions properly can tremendously increase the possibility of an emission test "rejection".

DMV EMISSION CONTROL TELEPHONE NUMBERS

For more information please call your nearest DMV office:
Las Vegas: (702) 486-4981
Reno: (775) 684-3580

State of Nevada Emission Control Program

The Nevada Environmental Commission and the Department of Motor Vehicles have developed a vehicle inspection and maintenance program to satisfy the requirements of the Federal Clean Air Act.

The Inspection and Maintenance Program is currently in operation to ensure that the state complies with the Federal Clean Air Act and the regulations of the U.S. Environmental Protection Agency (EPA) pertaining to the control of Carbon Monoxide (CO) and Hydrocarbon (HC) emissions from vehicles.

A motorist will be issued a vehicle inspection report showing the vehicle has passed the current emission inspection test if a vehicle meets the emission testing requirements. The following information is intended to guide a motorist through the proper compliance procedures in the event their vehicle does not meet Nevada emission requirements.

WHAT IF MY VEHICLE FAILS?

If your vehicle has failed the initial emission test, you must repair the vehicle and pass the after repairs emission test to be eligible for registration.



WHO CAN MAKE THE REPAIRS:

If a waiver is sought, repairs must be made by a 2G DMV authorized repair facility. For Washoe County Residents: if you prefer, you may make the repairs yourself. (See Waiver Information for restrictions in your county)

CHALLENGE TESTING: After a failed test, you may ask for an unbiased challenge test. This emission test will be performed at no cost to you at your nearest DMV emission control lab. Please note: A challenge test should be performed within 24 hours of a failed emission test. For more information, please contact the DMV emission control lab nearest you.

TAMPERING: If your vehicle has failed a Nevada emission test due to visibly inoperative or missing emission control devices, the problem must be repaired regardless of cost. Your vehicle cannot receive a waiver due to emission control devices that have either been tampered with or removed.



VISIBLE EXHAUST: If your vehicle has failed a Nevada emission test due to visible smoke from your exhaust, crankcase blow-by or both, the problem must be repaired regardless of cost. Vehicles with this type of problem cannot be issued a waiver.

GAS CAP REQUIREMENTS: The Nevada emission inspection requires that all vehicles be inspected for a proper or missing gas cap. If your vehicle has passed all areas of the Nevada emission test except for a proper gas cap, you will need to have a gas cap installed. Then take your vehicle and the failed emission test to any inspection station for a visible inspection. If your vehicle passes the visible inspection, your failed emission test report can be signed off for registration purposes.

EXHAUST EMISSION FAILURES: A vehicle that fails the re-inspection emission test for carbon monoxide (CO), hydrocarbons (HC) or both may be eligible to receive a waiver. A waiver will allow registration or renewal for one year. Waiver requirements are different in Washoe and Clark counties. (See below).

WAIVER REQUIREMENTS:

CLARK COUNTY: For a vehicle to be issued a waiver in Clark County, all repairs must be performed by an Authorized Station that is classified as 2G. A monetary minimum expenditure of \$450.00 (Parts and Labor) must be met prior to waiver approval. Repairs must be related to the emission failure problem. The purchase of a catalytic converter, fuel inlet restrictor or air injection system components cannot be applied towards a waiver.

WASHOE COUNTY: These are two choices of waiver approval procedures in Washoe county: self-repair or shop repair. If repairs are performed by the vehicle's owner (self repair), receipts must be submitted for parts purchased and the purchase dates must be within 14 days after the initial emission test was performed. The parts purchased must be related to the failure problem and total a minimum of \$200.00. Self repair labor will not be considered as part of the \$200 minimum. The purchase of a catalytic converter, fuel inlet restrictor or air injection system components cannot be applied towards a waiver.

If the repairs are performed by a repair facility (shop repair), the facility must be a licensed 2G Authorized Station and must total \$200.00. Parts and labor, including diagnostics, can be applied toward the \$200.00 minimum. The purchase of a catalytic converter, fuel inlet restrictor or air injection system components cannot be applied towards a waiver.

EMISSION CONTROL WARRANTIES: Waivers cannot be issued for vehicles eligible for warranty coverage. Vehicles that are less than (8) years old with fewer than 80,000 miles, which have failed the Nevada emission test, may have selected emission control components covered under a manufacturer's emission control warranty. Certain requirements must be met to have a vehicle eligible for this warranty. Please refer to your vehicle's owner's manual, or contact the Department of Motor Vehicles Emission Control Lab for specific information.

FOR MORE INFORMATION
PLEASE CONTACT:

Las Vegas (Southern Office)
Department of Motor Vehicles
Compliance/Enforcement Division
Emission Control Section
2701 East Sahara Avenue
Las Vegas, NV 89158
(702) 486-4981

Reno (Northern Office)
Department of Motor Vehicles
Compliance/Enforcement Division
Emission Control Section
305 Galletti Way
Reno, NV 89512
(775) 684-3580

Vehicles with OBD-II Testability Issues

The vehicles listed below have noted problem(s) reported by other states while being tested for emission compliance through their on-board diagnostic systems. If you have any questions concerning these vehicles please contact you're nearest DMV Emission Control Test Lab:

Las Vegas: (702) 486-4981 Reno: (775) 684-3581

Should the vehicle fail the emission inspection at your emission facility, please refer the customer to the DMV Emission Control Test Lab for a referee inspection.

Vehicles with unique emission testing issues

Model Year: 1996
Vehicle Make: Mercedes Benz
Vehicle Model: C220, E320, C280, S320, SL320
Problem: These vehicles will have their Malfunction Illumination Light (MIL) illuminated whenever a scan tool is connected to the vehicle, causing a "false failure" during the "visual check" portion of the inspection
Solution: When testing these Mercedes-Benz vehicles, the NV2000 emission test analyzer must not be connected to the vehicle's data link connector during the visual MIL illumination check

Model Year: 1996
Vehicle Make: Mitsubishi
Vehicle Model: All models (except the Montero) seems to be most commonly affected
Problem: Affected vehicles have no data trouble codes present and will not illuminate the Malfunction Illumination Light (MIL). But the "MIL Commanded On" bit is in the data stream, causing an emission test failure
Solution: A later production electronic control module is available. As an alternative, refer affected vehicles to nearest DMV Emission Control Test Lab for a referee inspection

Model Year: 1997-2002
Vehicle Make: Volkswagen and Audi
Model: Any with non-original manufacturer stereo systems
Problem: If the original equipment stereo has been replaced with an aftermarket stereo, these vehicles may not communicate with on-board diagnostic scanners. Severe damage to code scanning tools can occur
Solution: Verification check can be performed with code-scanning tools with complete over-voltage protection. Alternative is to send all 1997 and newer VW/Audi vehicles with non-OEM radio installations to their respective dealer for verification of proper OBD function

Vehicles that have readiness monitor variations used for pass/fail decisions

Model Year: 1996
Vehicle Make: Dodge
Vehicle Model: Stealth models with 3.0 liter V6 engines
Problem: All monitors reset to "incomplete" on ignition key-off if all monitors were set to "complete" prior to ignition off
Solution: Currently no factory modification is available. If a vehicle fails the emission inspection, refer customer to nearest DMV Emission Control Test Lab for a referee inspection

Model Year: 1996-1997
Vehicle Make: Mitsubishi
Vehicle Model: Diamante, 3000GT, 3000GT Spyder, Montero and Montero Sport models equipped with 3.0 liter or 3.5 liter V6 engines
Problem: All monitors reset to "incomplete" on ignition key-off if all monitors were set to "complete" prior to ignition off
Solution: Currently no factory modification is available. If a vehicle fails the emission inspection, refer customer to nearest DMV Emission Control Test Lab for a referee inspection

Model Year: 1996
Vehicle Make: Subaru
Vehicle Model: All
Problem: All monitors reset to "incomplete" on every ignition key-off
Solution: Currently no factory modification is available. If a vehicle fails the emission inspection, refer customer to nearest DMV Emission Control Test Lab for a referee inspection

Model Year: 1996
Vehicle Make: Volvo
Vehicle Model: 850 Turbocharged
Problem: All monitors reset to "incomplete" on every ignition key-off
Solution: Currently no factory modification is available. If a vehicle fails the emission inspection, refer customer to nearest DMV Emission Control Test Lab for a referee inspection

It will be likely that these vehicles will have the readiness monitor information not used for the pass/fail decision, unless the respective manufacturers develop an update for the on-board computer system.

Vehicles noted to have been recalled to correct readiness monitor issues

Model Year: 1996
Vehicle Make: Chrysler
Vehicle Model: Cirrus, Concorde, LHS, Sebring, and Sebring Convertible
Problem: All monitors reset to "incomplete" on every ignition key-off
Solution: If the readiness monitors reset to "incomplete" on ignition key-off ask customer if vehicle has had recall service performed. Customer may want to consult nearest dealership to verify recall information.

Model Year: 1996
Vehicle Make: Dodge
Vehicle Model: Avenger, Intrepid, Stratus, and Neon
Problem: All monitors reset to "incomplete" on every ignition key-off
Solution: If the readiness monitors reset to "incomplete" on ignition key-off ask customer if vehicle has had recall service performed. Customer may want to consult nearest dealership to verify recall information.

Model Year: 1996
Vehicle Make: Eagle
Vehicle Model: Talon, Vision
Problem: All monitors reset to "incomplete" on every ignition key-off
Solution: If the readiness monitors reset to "incomplete" on ignition key-off ask customer if vehicle has had recall service performed. Customer may want to consult nearest dealership to verify recall information

Model Year: 1996
Vehicle Make: Plymouth
Vehicle Model: Breeze, Neon
Problem: All monitors reset to "incomplete" on every ignition key-off
Solution: If the readiness monitors reset to "incomplete" on ignition key-off ask customer if vehicle has had recall service performed. Customer may want to consult nearest dealership to verify recall information

Vehicles that have readiness monitor issues

Model Year: 1996
Vehicle Make: Infinity
Vehicle Model: All Models
Problem: The catalyst and evaporative monitors are difficult to set to "complete"
Notes: Manufacturer provides recommended driving cycles in its service information to assist technicians operate the monitors
Nissan TSB #NTB98-018 February 18, 1998

Model Year: 1996-1998
Vehicle Make: Mitsubishi
Vehicle Model: All models except V6 models noted under "vehicles that have readiness monitor variations used for pass/fail decisions"
Problem: Some monitors are difficult to set to "complete"
Notes: Manufacturer provides recommended driving cycles in its service information to assist technicians operate the monitors
Mitsubishi TSB #00-13-005 (for 1996-1997 MY affected vehicles)

Model Year: 1996
Vehicle Make: Nissan
Vehicle Model: All Models
Problem: The catalyst and evaporative monitors are difficult to set to "complete"
Notes: Manufacturer provides recommended driving cycles in its service information to assist technicians to operate the monitors
Nissan TSB #NTB98-018 February 18, 1998

Model Year: 1997
Vehicle Make: Nissan
Vehicle Model: 2.0 liter 200SX
Problem: The catalyst and evaporative monitors are difficult to set to "complete"
Notes: Manufacturer provides recommended driving cycles in its service information to assist technicians to operate monitors
Nissan TSB #NTB98-018 February 18, 1998

Model Year: 1996-1998
Vehicle Make: Saab
Vehicle Model: All
Problem: The catalyst and evaporative monitors are difficult to set to "complete"
Notes: Refer to manufacture drive cycle guide

Vehicles that have readiness monitor issues (continue)

Vehicle Year: 1996-1998

Vehicle Make: Volvo

Vehicle Model: All models except 850 turbocharged

Problem: Some monitors are difficult to set to “complete”

Notes: Volvo provides driving cycles in its service information to assist technicians operate the monitors
Volvo TSB #SB 2-23-0056

Note: Non-OEM manufacturers (Motor Publications) has a “drive cycle” guide available to assist the service industry with operating the monitors so they will re-set.

Consult your nearest Motor representative for further information