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Clean Air

focus

AN INFORMATIONAL NEWSLETTER FROM THE STATE OF NEVADA—DEPARTMENT OF MOTOR VEHICLES. COMPLIANCE ENFORCEMENT DIVISION
555 WRIGHT WAY, CARSON CITY, NV 89711

"In an underdeveloped country, don't drink the water; in a developed country, don't breathe the air.." Jonathan Raban, author

FAILOVER MODE VEHICLE EMISSION TESTING

When the vehicle information database (VID) mainframe system becomes unavailable, a backup system, referred to as **Failover Mode** is activated so emission testing may continue. When Failover Mode is activated, inspectors are sometimes prompted to enter additional vehicle information in order to continue with the emissions test. This is required because the analyzer could not connect to all of the available resources contained in the mainframe which maintains the information.

Here is what emission inspectors normally experience:

Mainframe is active: vehicle identification number, license plate number, reason for no plate (if needed), state where plate was issued (if needed), odometer, zip code, county based, gross weight

and if vehicle is a motor home yes/no.

Failover is active: All information listed above when mainframe is active, plus: vehicle year, vehicle make, vehicle model, cylinders and fuel type.

In all cases vehicle registrations cannot be done when the system is in Failover Mode. The mainframe must be active to carry out any vehicle registration transactions.

We hope this article answers any questions you might have with regards to the different analyzer prompts you may have seen recently. Thanks very much for your patience and cooperation while we build improvements in order to provide a better VID to our industry members.



NO ANALYZER TO VID CONNECTION (AFTER HOURS) - What Now?

- Try a data file refresh to see if the refresh can be completed
- Verify your Internet Provider is up and running and has not experienced an outage
- Check the lights on the modem—are they properly lit?
- Perform an analyzer re-start or re-boot

If all the above checks fail to bring the analyzer back online and it is after normal DMV business hours, please call the on-call staff at 684-4914. Someone will be there to assist you.



EMISSION TEST DATA CALENDAR YEAR 2008

Thought you
might like to
know...

Initial Tests (Light Duty)	Total Tests	Passed	Failed	% Fail
Southern Nevada	981,133	929,005	52,128	5.3 %
Northern Nevada	250,367	237,470	12,897	5.2 %
Totals	1,231,500	1,166,475	65,025	5.3%

Re -Tests (Light Duty)	Total Tests	Passed	Failed	% Fail
Southern Nevada	40,266	35,841	4,425	11.4%
Northern Nevada	9,289	8,083	1,206	13.0%
Totals	49,555	43,924	5,631	11.4%

Initial Tests (Heavy Duty)	Total Tests	Passed	Failed	% Fail
Southern Nevada	26,595	25,672	923	3.5%
Northern Nevada	14,705	14,199	506	3.4%
Totals	41,300	39,871	1,429	3.5%

Re -Tests (Heavy Duty)	Total Tests	Passed	Failed	% Fail
Southern Nevada	885	787	98	11.1%
Northern Nevada	412	366	46	11.2%
Totals	1,297	1,153	144	11.1%

...that you can schedule a time to renew your 1G approved inspector license ninety days prior to its expiration date. Don't wait until the last minute to schedule your renewal training and testing!

LAS VEGAS:

702-486-4986

RENO:

775-684-3581

**Don't Wait Until
The Last Minute!**



CONTINUOUS MONITORING OF OBD EQUIPPED VEHICLES

The technology currently exists within the aftermarket industry to transmit the status of a vehicle's emission control system to a central database. This technology has actually been used quite successfully within the fleet industry for a number of years on vehicles equipped with OBD-II, and in some cases even Class 8 big rigs. In addition to reporting emission related data to a central database, some of these systems are capable of pinpointing where a vehicle is at through global positioning systems, can tell someone when the vehicle is ready for scheduled maintenance, along with reporting several other areas of data.



To our knowledge the aftermarket devices now available can use one of least three types of transmission designs to function. The designs used are cellular telephone, short range transmission and WI FI. The cellular design can transmit data to a central database anywhere cellular phones work. Short range transmission requires a receiver based at a specific sight to capture the data which is transmitted from the device installed on the vehicle which is then transferred over to a central database. WIFI systems transmit data to the central database whenever the vehicle drives through a WIFI hotspot. On vehicles equipped with OBD-II, the remote transmitting devices plug directly into the data link connector (DLC) typically found underneath the vehicle's dashboard.

What does an emission inspector do when he is emission testing a vehicle and finds one of these devices plugged into the DLC? The emission test result related to the status of the DLC depends upon what information emission inspectors enter into the emissions analyzer. A DLC that has been altered, removed or tampered with in some way would result in a failing emission test result. A DLC with a remote data transmitter installed would be considered 'not accessible' for connecting the analysis equipment, resulting in a "Reject" test. Hopefully the vehicle's owner or fleet manager will remember to remove the device before taking the vehicle into the emission station for testing.

At this time the Department of Motor Vehicles has not heard of many private motorists interested in this aftermarket technology. However, fleet managers are now becoming interested in this technology and some of them are already using it to monitor the performance of their fleet.

Assembly Bill 414, passed during the 2009 Legislative session does give the State Environmental Commission authority to adopt regulations which would allow for using continuous monitoring technology for submittal of annual emission compliance in lieu of the traditional emission test. It is possible that sometime in the future continuous monitoring may be accepted as a viable means for submitting evidence of compliance for vehicle registration purposes.

Diesel powered vehicles up to 14,000 lbs manufacturer's gross vehicle weight are now subject to annual registration enforced emission tests. This requirement became effective on July 1st. Emission inspectors question how to determine the axle weight rating of a diesel powered vehicle. Knowing the vehicle's axle weight rating is essential before using a dynamometer. A label on the vehicle's door jamb usually lists a vehicle's axle weight rating. That label should show the entire gross vehicle weight rating for the vehicle, and the weight rating for each axle. In rare instances someone might even need to contact a local dealership to obtain the gross vehicle weight information for their vehicle if the label is missing from the door jamb, or for some reason the label does not indicate the axle weight ratings.

ET Message **200969-1** noted that exceeding the axle weight rating of a dynamometer roller unit can cause damage to the roller unit. **The axle width also needs to be checked**—not every dynamometer in use is able to accommodate all axle widths. Make certain a dynamometer can handle a vehicle's **axle weight and width before running the dynamometer!** Be especially aware of trucks used for commercial purposes which may be loaded down with equipment or materials.

If you have doubts your dynamometer can handle a vehicle, it would be much safer to refer that vehicle to another station that has a roller unit capable of handling heavier GVW vehicles. Check with your local DMV Emission Lab for emission stations in your area which have heavy duty roller units.

Listed below are the axle weight ratings for all dynamometers currently used at emission stations to opacity test diesel powered vehicles:

Worldwide Environmental Products
MAHA roller unit 06,000 LBS
Clayton roller unit 07,000 LBS

Mustang
MD250 roller unit 12,000 LBS
MD250HD roller unit 26,000 LBS

A list of emission stations which can test diesel vehicles can be found on the Department of Motor Vehicle website:

http://www.dmvnv.com/emission_diesel.htm#Light

With the passage of AB414, the definition of a trimobile is clearly defined pursuant to Code of Federal Regulation (CFR) requirements. Trimobiles are now exempted from emission testing, based upon weight ratings. The previous NRS did not clearly define emission testing requirements and the Department feels the new language will better serve Trimobile owners.

CFR requirement § 86.402-78 defines motorcycle as any motor vehicle with a headlight, taillight and stoplight and having two or three wheels with a curb mass less than or equal to 680 Kilograms (1,499 pounds). This CFR covers 1978 through 1997 year Trimobiles.

CFR requirement § 86.402-98 defines motorcycle as any motor vehicle with a headlight, taillight and stoplight and having two or three wheels with a curb mass less than or equal to 793 Kilograms (1,749 pounds). This CFR covers 1998 and newer year Trimobiles.

Nevada Revised Statute (NRS) 482.129 defines a Trimobile as every motor vehicle designed to travel with three wheels in contact with the ground, two of which are power driven. The vehicle can be either front or rear wheel drive, or a combination of front and rear wheels.

If a Trimobile comes into your business for an emission test and you are not sure the test is required, it may need to be referred to the nearest DMV Inspection Lane for an inspection. The Trimobile owner will be provided with the correct document, which usually is either an exemption form or Exception Vehicle form. Please, don't hesitate to call your local DMV Emissions Lab for guidance before turning the Trimobile away from testing. The Emission Technicians will be happy to assist you.



CATALYTIC CONVERTERS ARE TARGETS OF THEFT

Recent information from the insurance industry notes that thefts of catalytic converters has been on the rise.

High profile vehicles such as pickup trucks and sport utility vehicles are especially prime targets for catalytic converter thefts. These vehicles are easy to crawl under, and in some cases a catalytic converter can be removed in under five minutes. These catalytic converters can be worth \$20 - \$200 dollars each, depending upon the amount of precious metal they contain, but these metals can bring much more money on the open market. There are even theft rings which case parking lots, and catalyts are stolen off of numerous vehicles in these lots.

Motorists can help protect their vehicles from catalytic converter theft by parking in well-lit areas with a high volume of traffic. Also, using secure parking lots helps reduce the chance of theft.

More detailed information can be found online at these websites:

<http://www.azcentral.com/news/articles/2008/09/22/20080922catalytic0922.html>

<http://www.carseek.com/news/april2008/catalytic-converter-theft-rising/>

http://www.usatoday.com/news/nation/2008-07-06-car-theft_N.htm

Note: There are now anti-theft devices available to protect a catalytic converter, which can be fitted onto a vehicle fairly easily. Pictures of these devices and information where they can be obtained can easily be found online.

A QUICK REMINDER...



Don't forget, if you are licensed as a 2G inspector, you can take your recertification training anytime within the two year license period. Get your training over and done with early!

Questions about your 2G training? Call Training Officer Hal Greene at (702) 486-4999.

Hal would be happy to talk with you about any questions or concerns with regards to training.

Our 2G technicians need to stay licensed so that they can assist our motorists who have a vehicle that failed or rejected an emissions test.

Remember, DMV can only issue a shop repair type vehicle emissions repair waiver if the work was performed at a 2G licensed facility.

Trained professionals like our 2G inspectors are needed to handle complex issues when repairing or servicing today's technologically advanced vehicles (OBDII).

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Hybrid vehicles are exempt from emission testing provisions found in NRS 445B.770 - 445B.815 inclusive, until the model year of the vehicle is six years old.

A hybrid vehicle definition can be found in the Federal Code of Regulations (CFR) 40 C.F.R. § 86.1702-99

OBD II, MONITORS & READINESS CODES

Article by: Hal Greene, Training Officer

Light duty vehicles built from 1996 to present are required to be equipped with an OBD II system.

This system is designed to perform self diagnostics on the vehicles emission control systems and detect faults that may cause a vehicle's emissions to exceed the federal standards.

The OBDII system will not tell you exactly which components are defective but will point the technician to a particular area.

Monitors and Drive Cycles are the tests and test criteria that perform that function.

The OBD II system uses separate monitors, or Readiness Monitors to check any system that is involved in emission control, any system whose malfunction could cause an emission problem and any system or component that is used in conducting these tests.

Every monitor has a set of detailed conditions that must be followed before the test can run. These conditions are known as Enabling Conditions and may vary substantially between vehicle manufacturers or even models in the same make.

If a fault occurs in a monitored system, other OBD II monitors may not run or test. For example if a defective oxygen sensor heater is detected, in most applications this will prevent the O2 sensor monitor, catalyst monitor and secondary Air System monitors from completing their tests and setting the readiness code to "complete".

Drive Cycles are the detailed instructions to accomplish the task of completing the steps needed for a particular monitor or monitors to complete a test.

Some monitors run as soon as the engine is started, such as Misfire, Fuel System and Comprehensive Component monitors. These are known as "continuous" monitors.

The other monitors are usually much more difficult to get to run.

Some drive cycles require a cold engine and then operating the vehicle until the engine reaches normal operating temperature or the vehicle must be driven steadily at a specific speed range for a test to run. For example, it is a good rule of thumb that most manufacturers require the fuel tank to be between 15% and 85% full in order for the Evaporative System monitor to run.

Some Monitors must see a fault more than once at similar conditions before setting a Diagnostic Trouble Code (DTC) and illuminate the Malfunction Light (MIL).

Once a DTC has been set and the MIL illuminated the Powertrain Control Module (PCM) will continue to monitor the system and if the problem noted does not recur for a number of consecutive times at similar conditions, the MIL may be commanded off. However the DTC will remain in memory for a considerable length of time, so it is very possible to have DTCS set in memory with the MIL not on.

Every manufacturer has very specific and detailed drive cycles, for each model, that must be completed for each monitor to be completed.

Some, if not most, Drive Cycles are difficult to follow on normal driving, care must be taken.

Remember EPA requires that all monitors should run during normal driving but the manufacturers run their tests on a dynamometer in a safe test environment.

Drive Cycles are available from most aftermarket information sources.

An excellent source of OBD II information can be found at www.obdclearinghouse.com

INFORMATION FOR PARTICIPATING REGISTRATION RENEWAL STATIONS

Motorists that renewed a vehicle registration at an emission station usually don't receive their documents by mail if their address record with DMV is not current. If this happens, motorists may choose to handle a DMV address change through mail or by fax. However, it will take about one week for the new documents to arrive at the correct mailing address. In most cases a vehicle owner should go to a local DMV office right away to update their address record and obtain the replacement registration documents. Motorists can be issued a citation for operating a vehicle without having proper registration documents.

A Change of Address request form and Application for Duplicate Registration must be completed to obtain the replacement documents. The forms can be downloaded online at:

<http://www.dmvnv.com/pdfforms/rd13.pdf>

<http://www.dmvnv.com/pdfforms/dld22.pdf>

Fees for producing the duplicate documents are listed on the forms.

Compliance Enforcement Division representatives in the Carson City office can no longer coordinate expedited address changes for emission station customers, as we have in the past. DMV can no longer process expedited address changes for a number of reasons.

CHANGES TO REGISTRATION FEES AND MAILED RENEWAL NOTICES

If your emission station renews vehicle registrations, on September 1st or thereafter a customer may ask you why their vehicle's registration fees have increased. A recent change in law has adjusted vehicle registration fees. Detailed information regarding the change in law can be read online at:

<http://www.dmvnv.com/regfees.htm>

Vehicle registration renewal notices mailed by DMV are now on post cards, to reduce mailing costs. Only the last four digits of the vehicle identification number will be printed on the post card notices. The notices will be mailed out thirty five days prior to the vehicle's registration expiration date.

The new post card format can also be viewed online at the above web address.