



Gateway Air Repair

A Newsletter for the Vehicle Repair Industry

Volume 7 Number 5 September 2005

Is Your Customer's Vehicle Ready for OBDII Testing?

By Haskins Hobson, P.E., I/M Team Coordinator, Department of Natural Resources

The first two months of pass/fail OBDII testing have passed. The Department of Natural Resources has experienced a large increase in the number of motorist phone calls, most of which are asking about why their vehicle received one or more REJECT test results.

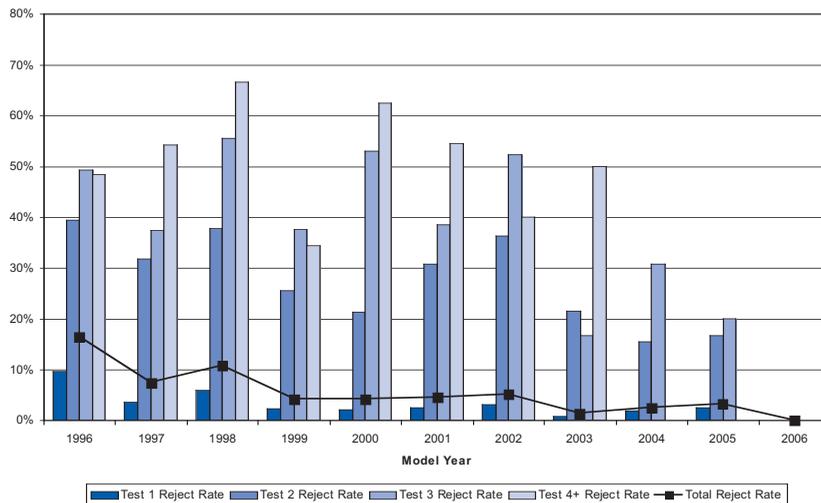
The REJECT test result is a brand new test result for 1996 and newer model year vehicles. It indicates that the vehicle did not have enough readiness monitors set to be OBDII tested. Every vehicle has three continuous and up to six non-continuous readiness monitors as shown in the chart below. To prevent a REJECT test result, 1996 to 2000 model year vehicles must have no more than two non-continuous monitors unset, and 2001 and newer model year vehicles must have no more than one non-continuous monitor unset.



Readiness monitors are integral to the functionality of the OBDII system. These monitors ensure that the vehicle's emissions control components are present and functioning as designed. If a monitor is unset, then the integrity of the component that it monitors cannot be verified, and the vehicle cannot pass the OBDII test.

Below is a graph that illustrates the REJECT test rate by vehicle model year and test number. The majority of vehicles are ready for their first OBDII test, but the percentage of unready vehicles increases dramatically after those vehicles are repaired and retested.

June 2005 Readiness Reject Rates by Model Year and Test Number



As vehicle repair technicians, you can help your customers avoid unnecessary REJECT test results by following one of three paths.

1) After you service a vehicle brought to you with the malfunction indicator light (MIL) or "Check Engine" light on, do not clear the diagnostic trouble codes or extinguish the MIL with a scan tool. This way the vehicle's readiness monitors will stay set to ready.

To help you communicate with your customers about why you are returning their vehicle to them with the MIL still on

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after you repaired the vehicle, we have included a reproducible handout on page 3 (**“After Your Vehicle’s Repair . . .” - left half**). This handout explains to your customers that the MIL will extinguish itself once the system has verified that the condition that caused the MIL to turn on has been corrected.

If you choose this path, you can save your customers the possibly expensive and time-consuming procedure of resetting the vehicle’s readiness monitors.

2) After you service a vehicle brought to you with the MIL or “Check Engine” light on, clear the diagnostic trouble codes and extinguish the MIL with a scan tool. If you do so, you will unset all of the vehicle’s non-continuous readiness monitors, and the vehicle will not be ready for its next emissions test. As a result, you will now be responsible for communicating with your customer that the vehicle will not be immediately ready for its next emissions test.

To help you communicate with your customers about why you are returning their vehicle to them without the vehicle being ready after you repaired the vehicle, we have included a reproducible handout on page 3 (**“After Your Vehicle’s Repair . . .” - right half**). This handout explains to your customers that in most cases, the vehicle’s readiness monitors will reset automatically under normal city and highway driving conditions.

If you choose this path, you may be responsible for setting all of the vehicle’s non-continuous readiness monitors to ready, should the motorist return the vehicle to you after receiving a REJECT test result.

3) After you service a vehicle brought to you with the MIL or “Check Engine” light on, clear the diagnostic trouble codes and extinguish the MIL with a scan tool. Then, drive the appropriate drive cycle(s) for the vehicle so that the readiness monitors are reset before you return the vehicle to your customer.

Continuous Monitors	Non-Continuous
Misfire	Exhaust Gas Recirculation
Fuel	Oxygen Sensor
Comprehensive Component	Heated Oxygen Sensor
	Secondary Air
	Catalytic Converter
	Evaporative System

If you choose this path, you will be providing your customers with the most complete OBDII vehicle repair possible.

There are various informational resources available to technicians to assist them with setting vehicle readiness monitors. Many of these resources are mentioned elsewhere in this newsletter. The program encourages all technicians to access and use this abundance of information to provide the most cost-effective service for your customers.

Articles Wanted

The Gateway Clean Air Program wants to continue to bring readers pertinent repair information. If you have an idea for an article, or have a topic you would like discussed in a future issue, please contact Robert Arrol by fax at (314) 739-2901 or by e-mail at rob.arrol@mo.etest.com.



AFTER YOUR VEHICLE'S REPAIR . . .

Your 1996 or newer vehicle came to us with an emissions-related concern noted by the vehicle's on-board diagnostic (OBDII) computer. We have addressed the concern and believe the vehicle to be effectively repaired.

The malfunction indicator light (MIL), also known as the check engine light, has been left illuminated after the repair. This was intentional, as the vehicle's emissions system needs to verify, during normal driving, that the repair has corrected the problem noted initially. Once the OBDII computer has fully evaluated the repaired emissions component(s), the vehicle should turn the MIL off.

The manufacturer has specific drive cycles (conditions) that must be met to allow the OBDII computer to evaluate the emissions control system. A few days of both city and highway driving should allow the OBDII computer to fully evaluate its systems, verify the effectiveness of the repair(s), and turn the MIL off.

We would be happy to complete the manufacturer-specific drive cycle for you to turn off the MIL. In order to save you additional repair time and money, we encourage you to allow the vehicle to turn the MIL off by simply driving your vehicle normally for several days. You should not return to an emissions testing station until the MIL is no longer illuminated, or the vehicle will fail the retest.

If the MIL remains illuminated after several days of normal driving, please contact us immediately, as additional diagnosis on the vehicle or driving by a technician may be necessary to fully repair the vehicle.

AFTER YOUR VEHICLE'S REPAIR . . .

Your 1996 or newer vehicle came to us with an emissions-related concern noted by the vehicle's on-board diagnostic (OBDII) computer. We have addressed the concern and believe the vehicle to be effectively repaired.

The malfunction indicator light (MIL), also known as the check engine light, has been intentionally turned off after the repair. Doing this has reset the vehicle's emissions system monitors to "not ready." The vehicle now needs to verify, during normal driving, that the repair has corrected the problem noted initially. Once the OBDII computer has fully evaluated the repaired emissions component(s), the MIL should stay off. If the MIL comes back on, then either the problem has reoccurred, or another problem has appeared.

The manufacturer has specific drive cycles (conditions) that must be met to allow the OBDII computer to evaluate the emissions control system. A few days of both city and highway driving should allow the OBDII computer to fully evaluate its systems, reset the monitors to "ready," and verify the effectiveness of the repair(s).

To save you additional expense, we have opted not to make the vehicle ready for an emissions retest. If you return to an emissions testing station before the vehicle is ready, you will be provided a diagnostic trace report that will indicate what readiness monitors are still not set, or whether there are additional problems noted. 1996 - 2000 vehicles with more than two (2) unset monitors, and 2001 or newer vehicles with more than one (1) unset monitor are considered not ready for an emission test and will receive a REJECT test result.

If the vehicle is still not ready after several days of normal driving, or if the MIL turns on again, please contact us immediately. Additional diagnosis on the vehicle or driving by a technician may be necessary to fully repair the vehicle.

OBDII Drive Trace Information Available

Effectively repairing and retesting an OBDII system can be complicated. Clearing all the codes and the readiness monitors will require resetting, a potentially time consuming process.

The National Center for Vehicle Emissions Control Systems (NCVECS) has a handy CD available that shows the known OBDII drive cycles for the majority of vehicles. Performing the specific drive cycle needed allows you, the repair technician, to validate the repair and clear the code. This leaves all the readiness monitors set, which enhances your customers' ability to acquire a passing vehicle test.

The cost for the Drive Trace CD is \$39.95 (plus \$4.50 S/H). To order call (970) 491-7240 or visit www.ncvecs.colostate.edu

OBDII testing was implemented on a pass/fail basis on June 6, 2005. From the implementation date through the end of July, more than 3,600 diagnostic trouble codes (DTCs) have been captured. The top ten DTCs by make are as follows:

June 6-30, 2005

Make	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
General Motors	P0420	P0440	P1870	P0141	P0133	P0401	P0113	P0300	P0171	P1404
Daimler-Chrysler	P0134	P0403	P0442	P0455	P0441	P0401	P0420	P0300	P0456	P0140
Ford	P0401	P0171	P0420	P1443	P0174	P0430	P0340	P0133	P0455	P0153
Honda/Acura	P0420	P0401	P0135	P0141	P1491	P1456	P0122	P0131	P0301	P1106
Nissan/Infiniti	P0325	P0400	P0420	P0440	P0446	P0505	P0130	P0500	P1446	P0110
Toyota/Lexus	P0420	P0171	P0440	P0441	P0300	P0430	P0446	P0130	P0133	P0301
Other Japanese	P0420	P1195	P0400	P0442	P0421	P0133	P0401	P0135	P0140	P0170
Korean	P0100	P0342	P0125	P0130	P0170	P0302	P0341	P0455	P0030	P0031
German	P1582	P0455	P1128	P0171	P0440	P0442	P0116	P0133	P0134	P0300
Swedish	P0410	P0014	P0015	P0130	P0133	P0135	P0136	P0141	P0155	P0172
English	P0420	P0442	P0457	P2135	N/A	N/A	N/A	N/A	N/A	N/A

July 1-31, 2005

Make	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
General Motors	P0420	P1870	P0440	P0300	P0410	P0102	P0141	P0171	P0133	P0401
Daimler-Chrysler	P0134	P0442	P0455	P0401	P0403	P0300	P0171	P0138	P0601	P0743
Ford	P0401	P1443	P0171	P0174	P0340	P0420	P0133	P1744	P0430	P0402
Honda/Acura	P0420	P0401	P0135	P1491	P1337	P1456	P0141	P0301	P0302	P0303
Nissan/Infiniti	P0325	P0400	P0440	P0420	P0446	P0136	P0130	P0110	P0138	P0139
Toyota/Lexus	P0420	P0171	P0401	P0430	P0440	P0441	P0446	P0135	P0300	P0304
Other Japanese	P0420	P0400	P0421	P0135	P0401	P0106	P0442	P0171	P0170	P0301
Korean	P0442	P0100	P0134	P0136	P0446	P0455	P0171	P0300	P0342	P0422
German	P0455	P1582	P0170	P0173	P0420	P0188	P1106	P1128	P0116	P0141
Swedish	P0155	P0101	P0113	P0128	P0130	P0133	P0136	P0171	P0300	P0301
English	P1138	P0455	P0134	P0135	P0155	P0171	P0174	P0420	P0456	P1317

KEY:

General Motors	= Buick, Cadillac, Chevrolet, GEO, GMC, Oldsmobile, Pontiac, Saturn
Daimler-Chrysler	= Chrysler, Dodge, American Eagle, Jeep, Plymouth
Ford	= Ford, Lincoln, Mercury
Honda	= Honda, Acura
Nissan	= Nissan, Infiniti
Toyota	= Toyota, Lexus
Other Japanese	= Isuzu, Mazda, Mitsubishi, Subaru, Suzuki
Korean	= Daewoo, Hyundai, Kia
German	= Audi, BMW, Mercedes, Porsche, Volkswagen
Swedish	= Saab, Volvo
English	= Bentley, Land Rover, Jaguar, Mini, Rolls Royce

DTC CATEGORY DEFINITIONS

PX1XX	= Fuel and Air Metering
PX2XX	= Fuel Control
PX3XX	= Ignition System or Misfire
PX4XX	= Auxilliary Emission Controls
PX5XX	= Vehicle Speed, Idle Control, Auxilliary Input
PX6XX	= Computer and Auxiliary Output Devices
PX7XX, PX8XX, PX9XX	= Transaxle/Transmission

Here are a few reminders about some of the most common codes listed:

Nissan/Infiniti P0325 (#1 most common Nissan DTC) and Honda/Acura P1456 (#6 most common Honda DTC) - These are not necessarily codes that turn the MIL on or cause the vehicle to fail the emissions test. The high frequency of these codes indicates that vehicles that fail the OBDII test will have other DTCs along with this code, and those other DTCs are the reason the MIL is illuminated. For more information on these DTCs, see the May 2004 and July 2004 *Gateway Air Repair* newsletters. If you no longer have your copy of these newsletters, you can find them on the web at: www.gatewaycleanair.com/mechanic/airmenu.htm

General Motors P1870 (#3 in June, #2 in July most common General Motors DTC) - This transmission code relates to the torque converter, but does not necessarily require the replacement of the vehicle's transmission. If you are not trained in transmission repairs, we recommend you consult with a transmission repair expert to help you diagnose the reason for this DTC being set. If this is the only DTC that the vehicle has, the vehicle is eligible for a transmission waiver from the Department. For more information on transmission waivers, call (314) 416-2115.

P0420 - P0439 DTCs - This range of DTCs covers catalytic converters that are very common codes represented on these two tables. Here a couple of reminders about repairing catalytic converters:

- 1) OEM Converters are covered under warranty for 8 years or 80,000 miles. If you are servicing a vehicle that hasn't exceeded this warranty period, make sure to submit this repair under a warranty claim.
- 2) Not all replacement converters are created equally. The performance of new aftermarket converters is only warranted for 25,000 miles. Not all aftermarket converters will enable the catalytic converter monitor to reset. Make sure you consult with your customer before you install an aftermarket converter.

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Help is a Phone Call (or Click) Away

The following resources are presented for informational purposes only and are not necessarily official productions of the Missouri Department of Natural Resources or the Gateway Clean Air Program. No one affiliated with the Gateway Clean Air Program is responsible for the content or accuracy of any unofficial site listed.

EMISSIONS TESTING INFORMATION

www.gatewaycleanair.com
 Gateway Clean Air Program repair industry hotline:
 1-888-748-0377
 Gateway Clean Air Program general information
 hotline: 1-888-748-1247
 Missouri Department of Natural Resources:
 (314)416-2115 - information about MRRT/MQRT
 status and technical assistance.

EMISSIONS REPAIR INFORMATION

Assistance Finding Emissions Parts:
 HELP Smog Parts: 1-800-544-4357
 Brown Recycling: 1-800-367-9271
 for information on certified used
 catalytic converters.
www.tomco-inc.com or (314)815-6944

EMISSIONS-RELATED HEALTH INFORMATION

www.lungusa.org
www.envirosafeshop.com

INDUSTRY SUPPORT

www.iatn.com
www.asecert.com
www.acc-online.org
www.sts.sae.org
www.theautomotivetechshop.com
www.carcarecouncil.org

OBDII INFORMATION

www.obdclearinghouse.com
www.obdiicsu.com
www.obdii.com
www.autotap.com
bob@servicemycar.com (for free OBDII software)

OBDII OEM TECHNICAL WEB SITES

Below is a list of Original Equipment Manufacturers' Technical Web sites. The information on these Web sites can help increase your successful OBDII repair rate and should be part of your toolbox. Please note that there is a fee required to visit the majority of these sites.

ACURA – www.ServiceExpress.Honda.com –
 \$500 per year, \$20 per 72 hours, \$50 per 30 days
 (the 30 day option will automatically renew)

BMW – www.bmwtechinfo.com – \$2500 per year,
 \$300 per month, \$25 per day

CHRYSLER GROUP – <http://www.techauthority.com> -
 \$1500 per year, \$200 per 300 days, \$20 per day

FORD – <http://motorcraftservice.com> – \$2499.95
 per year, \$19.95 per 72 hour –OBDII Theory and
 Operation – FREE OF CHARGE

GENERAL MOTORS – www.acdelcotechconnect.com –
 \$1200 per year, \$20 per day

HYUNDAI – www.hmaservice.com – FREE

INFINITI – www.nissantechinfo.com – \$2499.98 per
 year, \$299.98 per 30 day, \$19.99 per day

ISUZU – www.isuzutechinfo.com – \$1650 per year,
 \$150 per 30 day, \$20 per day

KIA – www.kiatechinfo.com – \$299 per year, \$29 per
 month, \$19.00 per week, \$10 for three days



LEXUS – <http://techinfo.toyota.com> – \$350 per year, \$50 per month, \$10 per day

MAZDA – www.mazdatechinfo.com – \$1500 per year, \$900 per six months, \$199.95 per 30 day, \$19.95 per day

MINI – www.minitechinfo.com – \$2500 per year, \$300 per 30 days, \$25 per day

NISSAN – www.nissantechinfo.com – \$2499.98 per year, \$299.98 per 30 days, \$19.99 per day

PORSCHE – <http://techinfo.porsche.com> – \$5200 per year, \$110 per day, document search is free

SAAB – www.saabtechinfo.com - \$500 per year, \$180 per three months, \$175 per month, \$10 per day

SUBARU – <http://saabtechinfo.com> - \$2499.95 per year, \$19.95 per day

TOYOTA – <http://techinfo.toyota.com> – \$350 per year, \$50 per month, \$10 per day

VOLVO – www.volvotechinfo.com - \$3225 per year, \$322.50 per 31 days, \$49.50 per 72 hours

TRAINING and RESOURCES

www.theautochannel.com

www.aspireinc.com or 1-800-247-1099

www.caat.org

www.ccar-greenlink.org

www.sts.sae.org

www.secondchancegarage.com

www.autoed.com

www.beyondparts.com

www.fuelline.com

www.fedworld.gov/pub/auto/auto.htm

www.aera.org

www.apra.org

www.autoshop101.com

www.toolsforeducation.com

www.bergwall.com

www.diagnostichotline.com

www.learntofixcars.com

www.asetestprep.com

www.asecert.org

www.allexperts.com

www.asld.com

www.smogfree.com

www.car-sound.com

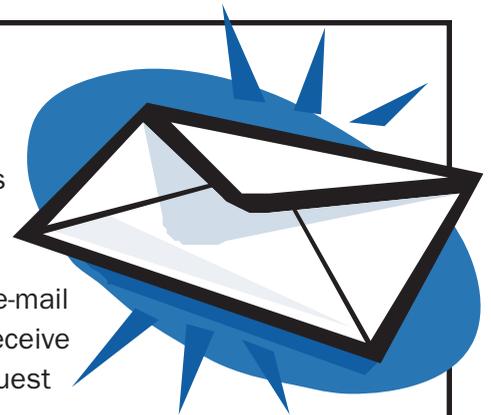
www.mad-mechanic.com

www.carleysoftware.com

www.aecc.be

Special Delivery

If you would like to receive the Gateway Air Repair at your home address instead of your workplace, please complete the information sheet on the back of this issue, checking the “new address” box and mail to: Gateway Air Repair, Attn: Robert Arrol, PO Box 1034, St. Charles, MO 63302 or e-mail information directly to rob.arrol@mo.etest.com. If you would like to receive future *Gateway Air Repair* issues by e-mail, contact Rob Arrol with your request and e-mail address.



Training and Special Events

The following is a list of known training available in the St. Louis area. This information is for reference only and is neither endorsed nor sponsored by the Gateway Clean Air Program. To find out what training is currently being offered, please contact any of the training providers listed below. Training providers that accept the \$50.00 (fifty-dollar) MRRT Training Voucher are noted. Please contact trainers to confirm dates and course costs, and to arrange payment.

CARQUEST

The trainer is Lou Nelson. For more information, contact Chris Chesney at (919)573-3342 or Mike Mulcahy at (314)566-4303. Courses are held at 800 N. 17th St., St. Louis, MO 63106. The MRRT Training Voucher is accepted.

Design Technology, Inc. (DTI)

The trainer is Lou Craven. For information on training offered by DTI, call (636)939-5670 or fax (636)477-9093. The MRRT Training Voucher is accepted.

Modern Underhood Systems Technology (M.U.S.T.)

“Level I/Daytime” course.
Class time is 8:30 a.m. – 3:30 p.m.
This course is approved for MRRT continuing education.

02 Waveform Analysis – September 6

Federal Mogul

6565 Wells Ave., St. Louis, MO 63133
Contact: Thomas Martin
(314)977-0798; fax (314)512-8398
The MRRT Training Voucher is accepted.

Technical Information: 1-888-819-5681 (no charge)
Technical Bulletins: 1-888-819-5681 (no charge)
Diagnostic Line: 1-900-486-0400 or 1-866-265-4170
(\$3.95/min.)
Training Course Information: 1-888-771-6005
Web site: www.federal-mogul.com/training

TECH 301 - Automotive Electronics

(2.5 days = 20 hours)

Students will become proficient with the diagnostic tools needed to service electrical systems and learn skills necessary to develop diagnostic strategies. Exercises will include use of various diagnostic tools. This course is approved for MRRT continuing education.

September 26 - 28

October 17 - 19

October 31 – November 2



[TECH 304 - Domestic Drivability](#)

(2.5 days = 20 hours)

Engine controls and components are reviewed as they relate to OBD I & II. Students will become proficient with scanning tools, oscilloscopes, multimeters and understanding the benefits of dynamometers. This course is approved for MRRT continuing education.

September 19 - 21

October 19 - 21

[TECH 306 - Fuel and Ignition System Diagnostics](#)

(2.5 days = 20 hours)

Practical instruction focuses on the fuel delivery and ignition systems knowledge that is essential for technicians. Major fuel and ignition systems will be reviewed; diagnostic procedures include advanced oscilloscope diagnosis. This course is approved for MRRT continuing education.

November 2 - 4

[TECH 307 - Advanced Drivability](#)

(2 days = 16 hours)

Students will learn the function and purpose of engine management systems. Advanced test equipment is used to show the best procedures to test and repair. Diagnose problems and perform accurate system repairs by incorporating dynamometers and five gas analysis. This course is approved for MRRT continuing education.

September 21 - 22

[St. Louis Community College at Forest Park](#)

The trainers are Angelo Vitullo and Bob Weil. Contact Angelo at (314)951-9420 for additional details. To register by phone or for payment by credit card, call Andrea at (314)539-5341 or (314)644-9287. All courses are held at St. Louis Community College at Forest Park at 5600 Oakland Ave., St. Louis, MO.

[ASE Test Prep L1 Crash Course](#)

4-hour course. All nights from 6 - 10 p.m. This course is NOT approved for MRRT continuing education.

November 7

[Automotive Oscilloscopes and Emissions Diagnostics](#)

9-hour course. All nights 6 - 9 p.m. This course is approved for MRRT continuing education.

September 6, 8 and 13

October 6, 11 and 13

November 9, 14 and 16

December 12, 14 and 19

[Carbureted Vehicle I/M Failures and Current Topics Dealing with GCAP Program](#)

4-hour course. All nights 6 - 10 p.m. This course is approved for MRRT continuing education.

September 26

October 20

November 21

December 15 and 27

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Evaporative Emissions System Course

6-hour course. All nights 6-9 p.m. This course is approved for MRRT continuing education.

September 27 and 29
October 25 and 27
December 6 and 8

Internet Resources, Electronic Information Systems, Computer Reprogramming

4-hour course. This course is approved for MRRT continuing education. Investigate three areas of interest: Electronic Information Systems, usage of popular PC software and the Internet to facilitate organization and communication of technical information and Reprogramming of Vehicle Computers.

September 22
October 12
November 8 and 29
December 22 and 28

MRRT/GCAP Course

4-hour course. All nights 6-10 p.m. This course is NOT approved for MRRT continuing education.

September 7 and 21
October 5 and 19
November 2 and 23
December 7 and 21

OBDII and 5 Gas Exhaust Analysis

4-hour course. All nights 6-10 p.m. This course is approved for MRRT continuing education.

September 12 and 20
October 4 and 26
November 3 and 30
December 1, 20 and 29

Area Trainers!

Are you currently offering automotive repair training in the St. Louis area? If so, please contact the Gateway Clean Air Program to be included in future issues of the Gateway Air Repair. Please include a detailed description of your course, including topics covered, dates, costs and location. Notices may be sent to Robert Arrol at rob.arrol@mo.etest.com or faxed to (314)739-2901. If the training is emissions-related and you would like it evaluated as a continuing education course offered to all Missouri Recognized Repair Technicians, please contact the Missouri Department of Natural Resources at (314)416-2115.

OBDII Testing Exceptions

In an effort to properly test 1996 and newer vehicles, protocol at the enhanced area testing stations has temporarily changed for a few makes and models due to manufacturer issues. Most affected vehicles will receive an IM240 tailpipe test until confirmation is received that a fix is available from the manufacturer. Once the fix is available, these vehicles will receive an OBDII test. Details are as follows:

- All 1996-1998 Volvo 850 (non turbo) models initially receive an OBDII test. If a "REJECT" result for readiness is received, the vehicle is automatically administered an IM240 test. This requires the vehicle reenter the queue.
- All 2003-2005 Mazda 6 vehicles do not receive OBDII testing since a malfunction indicator light (MIL or check engine light) may illuminate falsely due to manufacturer design. These vehicles receive an IM240 test. Mazda North America is currently working on a programming solution to address the situation.

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3) A vehicle that fails the OBDII test for a catalytic converter code must have the catalytic converter monitor reset in order to pass the OBDII retest. If the monitor is unset, the vehicle will receive a REJECT test result. Be sure to set the catalytic monitor to ready for your customers if you replace their converter.

4) Catalytic converters are exempt from state sales tax. For more information on sales tax exempt parts, see: <http://www.dnr.state.mo.us/oac/pub1294.pdf>.

P0440 – P0459, P1443, P1446 DTCs – This range of DTCs covers the evaporative system and includes very common codes represented on these two tables. Here are a couple of reminders about repairing evaporative systems:

1) The IM240 tailpipe test was not designed to measure evaporative emissions, so the presence of these codes may have been ignored in the past. In other words, these codes may not have been repaired for an extended period of time.

2) Evaporative emissions are becoming an ever larger portion of the emissions from a vehicle. Therefore, it is important to repair these codes correctly to improve air quality.

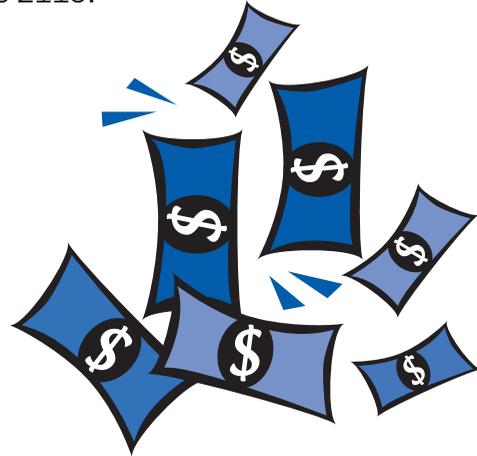
3) Along with repairing these codes, it is important to set the evaporative system readiness monitor so that evaporative system problems will be identified as soon as they occur. Learn how to set your customers' vehicle readiness monitors so that their vehicles will have an intact OBDII system.

4) With gasoline prices increasing, you can help your customers keep their vehicle efficiency as high as possible by properly repairing evaporative system DTCs. This prevents their fuel from escaping the vehicle. In other words, an evaporative system repair should pay for itself over time.



Training Vouchers Available for MRRTs

The Gateway Clean Air Program has supported emissions-related repair training since it began in April 2000. All Missouri Recognized Repair Technicians listed as active as of Jan. 1, 2005 should have received a \$50 voucher good toward the total cost for approved continuing education courses. Vouchers must be redeemed at MRRT-approved training courses in 2005 and will not carry over from one year to the next. Not all training providers, however, accept the voucher, so when contacting the trainers for course availability and costs, verify that they accept the voucher. For more information, please contact the Missouri Department of Natural Resources at (314)416-2115.



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St. Charles, MO 63302-1034

**PLEASE POST. Please pass on to any
Missouri Recognized Repair
Technicians working at this address.**



Count Me In!

I'd like more information about the Gateway Clean Air Program!

Please Print

Name _____ Technician ID Number _____

Company Name _____ Facility ID Number _____

Address _____

City, State, Zip _____

Phone _____ E-mail Address _____

I'd like to receive the *Gateway Air Repair* electronically.

I'd like to receive future issues at home.

Please change or correct my address.

I am interested in:

Open house tour Send me OBD brochures

Training opportunities Send me a poster

More information on becoming a Missouri Recognized Repair
Technician or a Missouri Qualified Repair Technician



MAIL TO:
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