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INSPECTION UPDATE

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Spring 2016

Contents

Motorist Assistance Center (MAC) Referral Reminders 2

3

Inspection Procedure Reminders

Registered Repair Technician Updates

Inspection Update Profile

Motorist Assistance Center Repair Technician's Corner 6

Website Updates

Inspection Update is a publication produced by Massachusetts Vehicle Check; a joint program of the Massachusetts Department of Environmental Protection (MassDEP), the Registry of Motor Vehicles (RMV) and Parsons Environment and Infrastructure Group, Inc.

Registry of Motor Vehicles Welcomes New Deputy Registrar of Operations

Sarah Zaphiris is the new Deputy Registrar of Operations at the Massachusetts Department of Transportation (MassDOT) Registry of Motor Vehicles (RMV) Division. Ms. Zaphiris joins the RMV after a 14 year career with the City of Boston working in the office of Mayor Thomas M. Menino as a policy aide and deputy chief of staff. Most recently, Ms. Zaphiris attended the Harvard Kennedy School of Government and graduated in June 2015 with a Mid-Career Master Degree in Public Administration.



As Deputy Registrar, Ms. Zaphiris oversees Vehicle Safety and Compliance Services

(VSCS), Titles and Registrations, Driver's Licensing, the Road Test Program, and RMV Business Support.

"In 2016, RMV is continuing to make systemic changes to become a more customer-centric organization," said Ms. Zaphiris. "We are working every day to reduce the wait times on all of our services, both at our branch and central offices. By encouraging more of our customers to access our services online at https://www.massrmv.com/, we are improving the customer experience and reducing the turnaround time for RMV services."

Ms. Zaphiris will be involved with the RMV's VSCS team as they undertake the procurement of a new inspection system, beginning in late 2017. Additionally, she is part of the RMV team that is planning a technology and business program to replace the Automated Licensing and Registration System (ALARS) with a robust and forward-looking operational system.

Spring 2016 Workstation Changes

The Massachusetts Vehicle Check program will release a workstation software update in the spring that makes the following changes:

- OBD Mode \$01 and \$09 data will be collected from certain model years of vehicles that have additional OBD data.
- Automatic Motorist Assistance Center (MAC) referrals will be added for vehicles that require further specialized testing or assistance at a MAC.
- Sticker loading messaging has been improved to clearly inform inspectors not to add another book of stickers to the printer tray until there are fewer than 75 stickers remaining.

(Continued on page 2)

Spring 2016 Workstation Changes

(Continued from page 1)

PM Filter Monitor

EGR and/or VVT System Monitor

readiness monitor names on the VIR.

On-Board Diagnostic (OBD) Monitor Results

NMHC Catalyst Monitor	Ready	
NOx/SCR Aftertreatment Monitor	Ready	
ISO/SAE Reserved Monitor	Not Supported	
Boost Pressure System Monitor	Ready	
ISO/SAE Reserved Monitor	Not Supported	
Exhaust Gas Sensor Monitor	Ready	

Not Supported

Not Ready

The next software release will show diesel-specific OBD

 Vehicle inspection reports (VIRs) will show the readiness monitor names for diesel-powered light-duty and medium-duty vehicles subject to the on-board diagnostics (OBD) emissions test.

Whenever your workstation indicates that a newer version of software is available, it is important that you to take the time to download and install the update so you will have the most current version. Once the installation is complete, perform a Data File Refresh before starting a new vehicle inspection. If you have any questions about downloading or installing these software updates, please contact the Technical Help Desk at 877-834-4677.

Motorist Assistance Center (MAC) Referral Reminders

► What is a Motorist Assistance Center (MAC) referral inspection result?

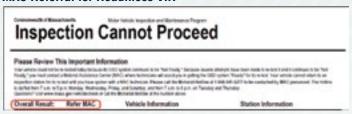
MAC referrals are designed to allow the Massachusetts Vehicle Check Program to assist during the inspection process when there are unusual inspection results, special concerns with a vehicle or repeated vehicle turnaways due to readiness. MAC referrals can occur via two mechanisms: 1) test results that automatically trigger the MAC referral by the workstation or 2) a Massachusetts Department of Environmental Protection or Registry of Motor Vehicles "flag" on a particular vehicle for a MAC referral before it is inspected.

► How do I know when there is a MAC referral result and what is the reason?

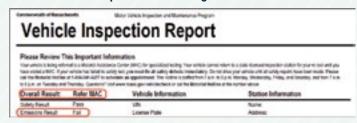
On the Vehicle Inspection Report (VIR), all MAC referrals will have an overall result of "Refer MAC" listed in the upper left section of the first page and an Emissions Result

of "FAIL" or "Turnaway" written below it. The section at the top of the first page of the VIR with the heading "Please Review This Important Information" will provide a general description of the reason for the MAC referral. For more specific reasons, you'll need to review the section of the VIR that shows the OBD test results.

MAC Referral for Readiness VIR



MAC Referral for Specialized Testing VIR



► How does a vehicle with a MAC referral get through the inspection process?

Vehicles cannot be re-inspected until the referral flag is cleared by the MAC. To get the MAC referral cleared, motorists will need to contact the Motorist Hotline at 866-941-6277 and speak with their local MAC L-1 technician. The Hotline is available 7 am to 5 pm Monday through Saturday, with additional hours on Tuesday and Thursday from 5 pm to 8 pm. All MACs are open from 8 am to 5 pm Monday through Friday, and 8 am to 3 pm on Saturday.

▶ Where are the MACs located?

There are 12 MACs distributed across Massachusetts. See the map below for a general description of the MAC locations. For more information, please visit http://www.massvehiclecheck.state.ma.us/motorist_emissions. httml#mac.



Inspection Procedure Reminders

▶ Recording the Correct Odometer Reading is Essential

The Registry of Motor Vehicles (RMV) reminds inspectors to accurately enter odometer readings for all inspected vehicles. Vehicle insurance companies and used car consumer protection services rely on annual odometer readings as proof of the vehicle's "low mileage" insurance discount or recommended purchase value. Inspectors who incorrectly enter odometer readings can cause their customers to lose "low mileage" insurance rates or vehicle resale value. Stations that repeatedly enter vehicle odometer readings incorrectly may receive violations notices from the RMV and be subject to disciplinary action.

Here are a few odometer reading tips to ensure that you enter accurate mileage information:

- If the odometer display is not visible, check the interior light dimming switch. If the interior lights are at their brightest, but you still can't see the odometer value, please enter "BROKEN" in the odometer field.
- You may need to toggle the odometer display settings to the "Total Distance Traveled" setting. Do not enter the "Miles to Empty" or "Trip Odometer" readings.
- Make sure the odometer value is displayed in miles, not kilometers. This may require you to check that the odometer is displaying distance in standard, not metric, values.



- ▶ Vehicles with the Check Engine Light On Must Be Inspected As Presented
- If you are inspecting a vehicle that has the malfunction indicator light (MIL), or Check Engine light, illuminated when presented, please do not attempt to re-set the MIL light before you perform the inspection. The Registry of Motor Vehicles (RMV) reminds you that it is your responsibility to inspect the vehicle as it is presented to you by the motorist.
- If you reset a MIL, you may turn the light off and erase the diagnostic trouble code(s) (DTCs) that turned it on, but the vehicle will fail its first inspection because the monitors will not be ready. When your customer then takes the vehicle to a repair shop, the Vehicle Inspection Report (VIR) will only let the technician know that the vehicle failed its emission test for monitors not ready without indicating the actual problem that commanded the MIL on in the first place. Clearing DTCs also erases the code-setting criteria that are very helpful to the technician in diagnosing the vehicle.
- In some cases, trying to get all of the monitors to run again after repairs have been made can be difficult, especially in colder weather. While you may believe you are being helpful, in many cases you are simply complicating the motorist's path and delaying the time it takes them to obtain a passing inspection sticker.
- Note: When a vehicle fails inspection, please make sure you provide your customer with a complete VIR and a Failure Brochure as required under the inspection procedure. This information is designed to address motorists' most frequently asked questions when their vehicles fail. Stations that continue to fail to provide a complete VIR and failure brochure may receive written violations from the RMV and be subject to disciplinary action.

Registered Repair Technician Updates

► Emissions Repair Success Ratings Reminder

For Registered Emissions Repair Shops that have entered repair data, the Fourth Quarter 2015 Emissions Repair Success Ratings are now available on Vehicle Inspection Reports and on the Repair Shop Locator, found at:

http://www.massvehiclecheck.state.ma.us/find_emissions_repair.php.

Each repair shop is responsible for entering its vehicle repair information for any given month by the tenth day of the following month. For more information about repair data entry, visit: http://www.massvehiclecheck.state.ma.us/inspection-repair data-entry.php

Spring 2016 OBD Diagnosis and Repair Training

On-Board Diagnostics (OBD) Diagnosis and Repair Training is designed for motor vehicle repair professionals who are seeking to become Massachusetts Registered Emissions Repair Technicians.

This training consists of 20 hours of classroom lecture and eight hours of hands-on training and examination. The class provides foundational information concerning the diagnosis and repair of OBD-equipped vehicles. The course fee is \$600. The next class is being offered in April at the West Springfield Motorist Assistance Center (MAC).

Course Name	Locations and Dates
Spring 2016	West Springfield MAC Monday - Wednesday, April 4, 5 and 6, 8:00 AM - 5:00 PM Thursday, April 7, 8:00 AM - 12:00 PM

This class is open to all technicians, including those studying to take the A8 Engine Performance or L1 Advanced Engine Performance Specialist National Institute for Automotive Service Excellence (ASE) tests. In other words, you do not need to be ASE-certified repair technician to take this course.

Repair technicians who took the course in November 2015 had the following comments about the course:

- "Unreal the amount of information given. This class should be given to all techs. I was happy to get information/refresher on electrical and diagnosis." -David B.
- "A+. Lots of good information." Mike L.
- "Liked the materials/instruction, information covered."
 Aaron E.
- "Good explanation in all areas." Thomas H.

The application for this course is available at http://www.massvehiclecheck.state.ma.us/inspection obd repair. httml. If you have questions or need help signing up, please contact our Registered Repair Coordinator at (781) 794-2961.

▶ 2016 Ongoing Training Courses

All current Registered Emissions Repair Technicians are required to attend one four-hour ongoing training seminar each year to maintain their status in the Massachusetts Vehicle Check Program. Parsons is offering the following 2016 quarterly seminars from 6:00 PM to 10:00 PM at Motorist Assistance Centers (MACs) located across the state.

Course Name	Locations and Dates		
Spring 2016 – Hybrid Vehicle DTCs	Braintree MAC - June 6 Pocasset MAC - June 7 Shrewsbury MAC - June 8 West Springfield MAC - June 9		
Summer 2016 – SAE J2534 and OBD Re-Flashing	Medford MAC - September 12 Fall River MAC - September 13 Shrewsbury MAC - September 14 West Springfield MAC - September 15		
Fall 2016 – Domestic and Asian EVAP Systems	Braintree MAC - November 7 Pocasset MAC - November 8 Shrewsbury MAC - November 21 West Springfield MAC - November 22		

All Training Seminars for Registered Repair Technicians are offered free of charge. The applications for these courses are available at http://www.massvehiclecheck.state.ma.us/inspection_ongoing.html.

Should you need help registering or have any questions, please contact our Registered Repair Coordinator at (781) 794-2961. Space is limited to 35 technicians per class; please enroll as soon as possible to secure a place.



Inspection Update Profile

Nick Antoun, Owner and Registered Repair Technician Morrissey Boulevard Auto Service, Dorchester, MA





Technician

Q: What services does Morrissey Boulevard Auto Service offer?

A: We perform all types of vehicle maintenance, but we specialize in computer diagnostics, emissions repairs, and computer reprogramming.

We even program car keys as an added service, so customers don't have to go back to the dealer for replacements. My status as a National Automotive Service Task Force (NASTF)

Vehicle Security Professional (VSP) gives us access to this type of vehicle security information. (For more information about becoming a NASTF VSP member, please visit: http://www.nastf.org/i4a/pages/index.cfm?pageid=3532.)

- Q: What are your roles and responsibilities as owner?
- A: My job is to oversee everything at the shop, and I perform all of the tough diagnostic work, which is my specialty. Throughout the year, I attend about 10 different seminars, which take place nationwide. At these events, I receive hands-on training and return to train my employees using this same information.
- Q: How many employees do you have? What are their roles?
- A: Besides myself, we have three vehicle maintenance technicians: Jay Gomes; who specializes in computer re-programming; Jason DePina, who specializes in vehicle alignment; and Pat G., who specializes in replacement parts.
- Q: How did you get your start in the automotive industry? What made you want to open your own business?
- A: I have loved cars ever since I was a young boy. I got my first car when I was 16 years old and have been collecting them ever since. In college, I worked parttime at a shop doing paperwork and helping to perform inspections. That's when I realized that I'm really good at interpreting data. I bought my own shop in 1994, and have been working here ever since.
- Q: Have you attended any of the Ongoing Training? How else do you keep up with changes in vehicle technology and emerging Industry technologies?
- A: I have attended the quarterly Ongoing Trainings at the Braintree Motorist Assistance Center. I also attend events, such the WORLDPAC Supplier & Training Expo, which helps me keep up with the latest vehicle

- technology. These events also allow me to network with technicians across the country, and if I get stuck on a vehicle repair, I can call on them. I also have every single factory scan tool at my shop.
- Q: How has being a Registered Repair Technician (RRT) helped your business?
- A: Being a Registered Repair Technician has helped me gain new customers who are referred to me from their Vehicle Inspection Reports (VIRs) if their vehicles fail a vehicle inspection. It makes a big difference when you can fix a car that nobody else can, so I get a lot of referrals via word-of-mouth. When customers come to me, I can typically diagnose their vehicle's issue right away. As a result, I have had people come to my shop for service from as far as 20 miles away.
- Q: Your shop has entered the most Emissions Repair Success Ratings (ERSR) repairs in the second and third quarters of 2015. Why do you think this is?
- A: We do not just tell our customers to just keep driving their cars and then come back to have the monitor statuses reset. We specialize in diagnosing the vehicle's real issue, so motorists can pass their inspections. I also speak with a lot of our customers at the gas pumps who have Black R emissions rejection stickers and explain their VIRs to them in detail. I believe this type of knowledge helps us to gain a lot of new customers as well.
- Q: What are some of your most challenging vehicle repairs?
- A: My most challenging vehicle repairs, which are not emissions-related, involve diagnosing "U" codes, which includes the controller area network communications between different modules. However, when I run into these types of repairs, I use the Autologic Assist service (https://autologic.com/), or call upon workshop trainers whom I have met at various events and seminars.
- Q: What should motorists begin to do to ready their vehicles for spring?
- A: Cars are different than they used to be, especially the newer models; for example, with newer models, there could be up to one year's worth of driving between oil changes, so I recommend motorists don't rely on out-of-date information; instead they should follow their vehicle's recommended maintenance schedule.
- Q: How do you advertise your business?
- A: Our only advertisement is word-of-mouth from our customers.
- Q: What is your business motto?
- A: An educated customer is my best customer.



jetta-sedan-tdi/

Motorist Assistance Center Repair Technician's Corner

► Federal Emission Warranty Saves Motorist Thousands of Dollars

A motorist contacted the nearest MAC for assistance with an emissions failure on her vehicle, a 2010 Volkswagen (VW) Jetta Diesel with 77,191 miles on the odometer. The vehicle had failed its emissions test with a P0401 diagnostic trouble code (DTC), indicating that there was exhaust gas regulation (EGR) insufficient flow.



She had the vehicle diagnosed by a VW dealer, and received an estimate to replace her Diesel Particulate Filter (DPF)/EGR filter at a cost of \$3,400 because Technical Service Bulletin (TSB) #01-14-21 recommends inspecting and replacing that component if a P0401 DTC is set for excess soot accumulation.

The motorist could not afford this repair on short notice and asked the Beverly MAC L1 technician for repair assistance. One option she asked about was an economic hardship repair extension, but in order to qualify, the suggested repair cannot be covered by any type of emissions warranty. Noting the vehicle year and mileage were both inside the warranty period, the MAC L1 technician asked the motorist if she had reviewed her vehicle's eight-year/80,000 mile, or "8/80" federal emission control warranty. The motorist was not familiar with an "8/80" warranty and had difficulty understanding "car stuff." Furthermore, the dealer had previously told her that the warranty period had expired, which meant the recommend repairs would not be covered by the warranty.

To get to the root of the issue, the Beverly L1 scheduled her for a MAC visit. She arrived with her vehicle, the dealer's repair estimate and the owner's warranty book. The L1 confirmed the presence of the P0401 DTC and reviewed the estimate and warranty book. The dealer estimate clearly stated that they had charged her for diagnostic time and were recommending a new DPF as a retail repair. In addition, the L1 found in the warranty book that the DPF was indeed covered as a major emission control component for eight years or 80,000 miles, whichever came first.

As the discussion proceeded, the motorist stated she was an attorney and that having this information presented and explained to her by the MAC L1 had motivated her to seek further explanation from the dealer of their original diagnosis. The L1 asked to be kept informed and offered to speak with the VW service department if that would be helpful.

After reviewing the L1's findings, the VW service manager refunded all of the diagnostic charges and replaced the Jetta Diesel's particulate filter under warranty. The motorist was also provided with a complimentary rental vehicle while repairs were being made. Additionally, she requested that the dealer set her monitors "ready" and complete a passing inspection before returning her car because the 60 day limit was about to expire on her rejection sticker.

As it turned out, the dealer ended up having to replace the vehicle's Powertrain Control Module (PCM), which was also covered by the federal warranty, in order to reset the monitors ready. The dealer also completed the passing vehicle inspection at no charge to the motorist. To its credit, the dealership recognized its initial diagnostic error and took the necessary actions to satisfy the customer. During a follow-up conversation with the MAC L1, the motorist stated the total cost for the vehicle's repairs on her invoice was \$5,600, for which she paid nothing due to her owner's rights as spelled out in the warranty book.

The "8/80" emission warranty covers major emission control items over and above the manufacturer's standard vehicle warranty. Additionally, manufacturers of low-emission vehicles often offer specified emission warranties that may exceed federal emission warranty periods. Warranty coverage can vary by manufacturer or model. A list of the emission control components covered can be found in the owner's warranty guide for the specific vehicle.

The takeaway lesson from this case study is that it is always beneficial to research the specific vehicle's emission control warranties, including any extended coverage that may still be available. While you may not be able to charge for a warranty repair, by saving your customers thousands of dollars, you will most likely build his or her loyalty to you, and gain additional customers through word-of-mouth referrals.

For more information about vehicle federal emission control warranties, please visit:

http://www3.epa.gov/obd/questions.htm#7 and http://www3.epa.gov/otaq/regs/im/obd/pubs/420f15035.pdf

Website Updates

This winter, the Massachusetts Vehicle Check Program expanded its content to place more information at the fingertips of inspectors and motorists. Please visit the following webpages:

- On http://www.massvehiclecheck.state.ma.us/motorist rmv questions.html, we updated the list of RMV-related questions. You will find hyperlinks for answers to RMV-related questions about drivers licensing, road tests, finding RMV branch offices, what documents to bring to an RMV branch office, how to get an E-Z Pass toll device, and more.
- On http://www.massvehiclecheck.state.ma.us/aboutwhywhat.html#safetytests, we added a paragraph to provide you with a direct link to the Safety Inspection Regulations. And for each safety test item, we added a direct link to the page in the regulations where the safety test criteria is described.
- This should be very helpful if you have a question about any safety test standards or if you customers want to see the regulations related to any safety item that failed.
- On http://www.massvehiclecheck.state.ma.us/about_whywhat.html#emissionstests, we have added a paragraph to provide you with a direct link to the MassDEP Emissions Inspection Regulations.
- On http://www.massvehiclecheck.state.ma.us/
 inspection obd repair.html, we added a hyperlink for the Registered Emissions Repair Technician application form. We have also added the Spring 2016 OBD Diagnosis and Repair Training application form.
- This class is open to all technicians including those studying to take the A8 Engine Performance or L1 Advanced Engine Performance Specialist National Institute for Automotive Service Excellence (ASE) test. You do not need to be ASE-certified repair technician to take this course.
- Our class offers both theory and hands-on training, as well as the opportunity to bring in and use your own diagnostic scan tools with our ASE Master Auto Technician who has over 30 years experience in the repair industry.



More information about the Spring 2016 OBD Diagnosis and Repair Training can be found on massvehiclecheck.state.ma.us

RECERT Reminders

- Massachusetts Vehicle Check inspector training certifications are valid for a period of two years.
- Because RECERT training is a requirement to continue inspecting vehicles, here are a few reminders:
- You can visit http://www.massvehiclecheck.state.ma.us/inspection_recert.html to find information about how to complete your Non-Commercial, Commercial, 7D and Motorcycle RECERT training requirements.
- You can begin your recertification training up to 90 days prior to your current training certification expiration date.
- You are allowed three attempts to pass the exam (one initial and two free re-tests). If you do not pass the initial RECERT exam, you must take the re-tests within 45 days of the initial RECERT exam. However, you must successfully pass your RECERT exam prior to your current training certification's expiration date in order to continue inspecting vehicles.
- Parsons accepts credit cards (Visa & MasterCard) via the RECERT website, as well as checks and money orders by mail.
- If you any questions about RECERT training, you are welcome to call the Technical Help Desk at 877-834-4677.
- On http://www.massvehiclecheck.state.ma.us/
 inspection ongoing.html , we added the ongoing training course application forms for Winter, Spring, Summer and Fall 2016.
- On http://www.massvehiclecheck.state.ma.us/
 motorist whatiffail.html#economic, we added new information to clarify the requirements for economic hardship repair extensions.
- On http://www.massvehiclecheck.state.ma.us/
 motorist top ten questions.html, we added a question regarding out-of-state vehicles being inspected in Massachusetts.
- We have created a new page, http://www.massvehiclecheck.state.ma.us/motorist other states vehicles.html, to answer motorist and inspector questions about out-of-state vehicles being inspected in Massachusetts.



Inspection Update Massachusetts Vehicle Check Program 55 Messina Drive, Unit C Braintree, MA 02184

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Motorist Assistance Center Referral and Federal Emission Warranty Reminders Inside!

Massachusetts Vehicle Check Program At A Glance

Program at a Glance	Count	Failure Rate	Enforcement Statistics	Count
Non-Commercial Safety Inspections	1,065,530	4.3%	Violations Issued to Inspectors	77
Commercial Safety Inspections	39,052	4.6%	Violations Issued to Stations	105
7D Safety Inspections	6,149	1.5%	Inspector Privileges Revoked	3
OBD Emissions Inspections	848,980	5.7%	Inspector Required to Retrain	3
Opacity Emissions Inspections	21,306	1.6%	Inspectors Suspended	17
Emissions Waivers Issued	0		Stations Suspended	29
Repair Hardship Extensions Issued	13		Penalties Assessed	\$0
Hotline and Training Statistics	Count		Licensed Stations	Count
Motorist Calls Received	2,293		Class A Stations	1,170
Inspection Station Calls Received	5,372		Class B Stations	195
Initial Non-Comm. Inspectors Trained	300		Class C Stations	30
Initial Commercial Inspectors Trained	53		Class D Stations	314
Initial 7D Inspectors Trained	0		Class E Stations	9
Initial Motorcycle Inspectors Trained	0		Reg. Emissions Repair Shops	181

For period 10/1/2015 through 12/31/2015

