



INSPECTION UPDATE

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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 Commercial Technology Group, Inc.

2010 Workstation Software and Program Changes Are in the Air

In the spring of 2010, the Massachusetts Vehicle Check Program will release new workstation software that will enhance the inspection process for both inspectors and motorists.

Workstation Changes

This new software will focus on improvements to automatic vehicle referrals at Motorist Assistance Centers (MACs). A vehicle may be referred to a MAC for a variety of reasons. Some have had multiple on-board diagnostics (OBD) readiness monitor turnaway reinspections, while others may be newly manufactured kit cars.



After installing this new software, inspectors will need to pay close attention to the Vehicle Inspection Report (VIR) messages so that they can tell their customers if the vehicle has been referred to a MAC. If the vehicle receives an automatic MAC referral, customers should call the Motorist Hotline, 866-941-6277, to make an appointment.

The next software release will include several improvements for the diesel opacity emissions inspection. The most notable enhancement will allow commercial inspectors to use the Manual Readings menu to measure opacity levels before inspecting a diesel-powered vehicle. Other improvements include a "help screen" feature to assist inspectors with identifying kit cars.

Program Changes

The Massachusetts Vehicle Check Program is updating the public web site, massvehiclecheck.state.ma.us, monthly. We have improved the inspection station locator application so that motorists can more easily locate their station. For inspectors, there is a new "Helpful Hints" web page that provides useful tips for using the new workstation software.

On January 1, 2010, the Massachusetts Vehicle Check emissions waiver and economic hardship repair extension minimums increased as follows:

Vehicle Age	Emissions Waiver Spending Minimum	Economic Hardship Repair Extension Estimate Minimum
Five model years old or newer	\$ 790	\$ 1,185
Six to ten model years old	\$ 690	\$ 1,035
Greater than ten model years old	\$ 590	\$ 885



Training at the Shrewsbury MAC brought staff together in February. Pictured, from l-r, Rob Waterman, West Springfield MAC; Paul Jannoni, Medford MAC; Mike Shanahan, Shrewsbury MAC; Paul Plahn, Hyde Park MAC, Lorri Everitt, Shrewsbury MAC, and Dan Deroy, Pocasset MAC.

Readiness Monitor Assistance is Available

Twelve Motorist Assistance Centers (MACs), located conveniently throughout the Commonwealth, help both motorists and the inspection/repair community with resetting emission monitors through training, information and hands-on collaboration.

- ▶ The Training MAC locations in Medford, Pocasset, Braintree, Shrewsbury and West Springfield, support the inspection community through inspector training classes that include information on emission readiness monitors. The training is designed to provide enough information to help the inspector educate the motorist about his or her vehicle's current state of readiness, as well as to address any specific questions he or she may have. Of course, the training does not stop at the end of the class. Inspectors are encouraged to contact any MAC with all future questions.
- ▶ The expert staff at all MACs are an information resource for the repair community. The MAC staff deal with monitor readiness issues on a daily basis and they diagnose the same types of readiness issues as the repair community. However, since they do not have other vehicles in the shop to repair, MACs can focus their expertise on a single vehicle at a time. This gives them the unique ability to identify specific enabling criteria that are causing problems and develop strategies for resetting the monitors efficiently. By researching and experimenting with emission readiness issues, the MAC staff are better able to serve the entire Massachusetts repair community. If you are experiencing difficulty with readiness monitors or other emissions repair problems, contact the nearest MAC and use it as an informational resource much like Identifix or the International Automotive Technicians' Network (iATN).

- ▶ The repair community can also use MACs to help complete difficult-to-set emission monitors. All MACs are equipped with two-wheel drive above-ground dynamometers. These dynes allow vehicles to be driven safely in a controlled environment away from the restrictions of the roads, such as traffic, hills, changing speed limits, etc. The repair shop and MAC technicians can work together while following the controlled drive cycle to identify why the unset monitors will not complete to "ready." The repair technician can bring his or her diagnostic tool(s) to a MAC where the L-1 technician and dynamometer are available Monday through Friday, 8 a.m. to 5 p.m.

MACs are designed to help the inspection and repair community in any way that they can. They do not perform repair services or take work away from repair shops. The success of the MACs relies on their ability to provide inspection stations and repair shops with valuable assistance. If you are struggling with an emission or vehicle inspection issue, please contact the MAC nearest to you via the Technical Helpdesk, 877-834-4677.

Did You Know You Can Edit a Vehicle's Plate Information?

Current workstation software allows inspectors to edit a vehicle's plate type and plate number. After scanning the previous year's windshield sticker, use the "Up" arrow button to move the cursor to the "Plate Type" or "Plate Number" field and enter the correct information. This revised information will then appear on the vehicle summary screen.

Use this screen to edit a vehicle's plate information.

Inspection Update Profile

with Russell Bradway, A-TECH Automotive Company

Q. How did you grow your family-owned and operated facility into a successful business?

A. I started my business in 1992 with more than 15 years of automotive experience, including 10 years as a Cadillac technician. It has since become a family affair. My wife, Kelly, joined me in 1996, bringing 12 years of experience to the team, including nine years as an assistant service manager for Long Cadillac-Pontiac in Framingham. In addition, for the past five years my daughter Amanda has advised our front counter customers and she has obtained her National Institute for Automotive Service Excellence (ASE) Service Consultant Certification. Currently, all of A-TECH's technicians are ASE Certified Master Technicians.

Q. What types of vehicles does A-TECH Automotive service?

A. A-TECH Automotive maintains an eight-bay service facility on Route 9 in Shrewsbury and provides maintenance services for all vehicle makes and models. As technology advances in the industry, some companies have found it necessary to specialize in a single car line or a narrower group of manufacturers. At our shop, we continue to service most vehicle car lines as our customers and their families may own different types of cars. They seem to still value the convenience and familiarity of doing business with our local, family-owned and operated facility.

Q. How has being both an inspector and registered repair tech benefited your customers and your business?

A. We recently received our Inspection Station License, which allows A-TECH to offer a more full-service experience to our customers. We also maintain our valuable repair service during our inspection station's hours, which keeps us from losing any repair work to our competitors. In addition, the Massachusetts Vehicle Check Program has brought us new regular customers. A-TECH has serviced the Shrewsbury area and beyond as a registered repair shop for the past 10 years. Because the Vehicle Inspection Report (VIR) advises motorists whose vehicles fail the emissions inspection of the nearest emissions registered repair facilities, the registered repair program has created an opportunity for A-TECH to stand out on the VIR as a professional diagnostic facility.



Q. Do you find that motorists understand the Massachusetts Vehicle Check Program and its components? If so, are they more informed than in the past?

A. I think that although consumers seem more informed than in the past, there is always room for improvement in public education. Many industry representatives attend the Inspection and Maintenance Program Advisory Council (IMPAC) meetings. So far, the IMPAC discussions have focused on ensuring that the new Program equipment and software function as designed. Nevertheless, I believe additional education would benefit both the consumer and the automotive service industry. The new website, massvehiclecheck.state.ma.us, plays a major role in getting information out to the public and its content has grown over the past year.

Q. What types of tools have played a role in A-TECH Automotive's growth?

A. Our biggest growth tools are our computer systems and the Internet, which provide our shop with a wealth of information. A-TECH uses multiple online sources for this information, including: Mitchell On-Demand, ALLDATA, Identifix, International Automotive Technicians' Network (iATN), National Automotive Service Task Force (NASTF), Original Equipment Manufacturers (OEM) Websites, and even Google.

Q. What is your role in the Alliance of Automotive Service Providers (AASP)?

A. I have been involved with AASP-MA/RI for the past ten years, much of this as a Board Member. I also attend various industry meetings and seminars and provide others on the Association Board with my insight and interpretation on various industry issues.

(continued on page 4)

Inspection Update Profile *(continued from pg. 3)*

- Q.** What advice do you have for newer inspectors who are just starting out in the industry?
- A.** It is more important than ever to take something complicated and simplify it for your customers. I have found that writing simple explanations and attaching photos of why a vehicle failed the inspection helps our customers better comprehend the issues. To maintain consistency among the inspectors in my shop, I have even taken excerpts from the regulations and training materials and posted them in the inspection bays for quick reference.

- Q.** Since you attended the last National Automotive Service Task Force (NASTF) meeting, is there anything you'd like to share with your peers?
- A.** During the conference, NASTF introduced its eNews website and I encourage everyone to check it out. There are some very interesting articles posted at: www.nastfnews.org.



Interesting MAC Cases



General Motors Model 1999 Saturn SL 1.9

A 1999 Saturn SL 1.9 failed its initial inspection for too many unset readiness monitors. Only the oxygen sensor heater monitor reported ready. 1999 model year vehicles can have only two unset readiness monitors, so this vehicle needed to complete multiple incomplete monitors in order to pass the monitor readiness test.

The Saturn was inspected but turned away from an emission test eight times over a seven week period. The vehicle was driven daily, accruing 1,150 miles during this seven week period. The motorist called the Motorist Hotline and arranged to visit the nearest Motorist Assistance Center (MAC).

The MAC technician researched the Saturn's drive cycle and the applicable readiness monitor enabling criteria. While driving the vehicle on the dynamometer, the MAC L-1 observed irregularities in the coolant temperature readings, which indicated that the Saturn's readiness monitor enabling criteria were not being met. The MAC technician informed the motorist that there was a problem with the vehicle meeting the necessary enabling criteria and that this issue likely prevented the monitors from being set to "ready." The technician encouraged the motorist to have the vehicle diagnosed at a registered repair shop. The MAC also encouraged the motorist to have the repair shop call the MAC to discuss the findings if there were any questions.

The motorist followed the MAC's advice. Once the repair shop performed the coolant system repairs, the vehicle's enabling criteria were met, and the vehicle was able to completely set its emission monitors.

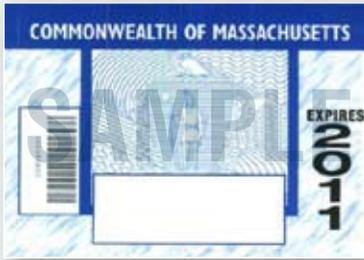
Once the vehicle's monitors completed, the Malfunction Indicator Lamp (MIL) or "Check Engine" light illuminated because the vehicle stored an exhaust gas recirculation (EGR) Diagnostic Trouble Code (DTC). This DTC resulted in further diagnosis and repairs before the vehicle passed the emission inspection and received its inspection sticker.

Takeaway lesson: This vehicle's owner used the entire 60-day re-inspection period by retesting the vehicle multiple times at the same station. Each time the vehicle received a turnaway test result, the inspector told the motorist to drive the vehicle some more before its next retest. However, sometimes "drive the vehicle for an unspecified additional period of time" is not the best advice for an inspector to give his or her customer. If the problem is more complex, such as in the case of enabling criteria not being met, then continuing to drive the vehicle will not resolve it.

Next Edition Preview

Don't miss the next edition of the Inspection Update Newsletter that will feature important information for all inspectors about recertification requirements. This issue will also include important information for all registered repair technicians or those who want to become registered.

2010 Sticker Reminders



At the end of 2009, Parsons shipped all vehicle inspection stations a small quantity of Blue 2010 windshield stickers to start the new year. In early January 2010, Parsons shipped all vehicle inspection stations

enough Blue 2010 stickers to cover approximately six months of vehicle inspections. In some cases, a station may have received enough stickers in January to cover the entire year's worth of inspections.

High test volume stations received an average of 12 to 16 books of stickers, while low test volume stations received an average of two to four books of stickers. No station received more than 20 books of stickers. Stations will receive another shipment of stickers in June to cover the June through November time period, and a final shipment in December to ensure stations have enough stickers to complete the calendar year.

Please load only one sticker book into the printer tray at a time. All unopened, unused sticker books should be kept in a secure location until you open the next sticker book's shrink wrapping. Remember to always load the sticker books into the workstation in the order of lowest to highest sticker book number.

In late January, Parsons also shipped Green 7D stickers to all vehicle inspection stations with 7D (pupil transport) endorsements, to cover the inspection period from February 1 through September 30, 2010. Then, in late September, Parsons will ship Orange 7D stickers to all 7D vehicle inspection stations to cover the inspection period from October 1, 2010 through January 31, 2011.

Will These Windshield Stickers Fade?

No. Parsons used a rigorous quality control procedure to ensure that the Blue 2010 and Green 7D windshield stickers your station received will not fade due to sun exposure. Before Parsons shipped stickers to inspection stations, the sticker manufacturer sent a sample sticker from each production run to a testing laboratory. This lab tested the stickers with a system that exposed them to a carbon arc that simulated one year of direct summer sunlight in just a few weeks. Parsons only accepted these stickers from the manufacturer after the manufacturer provided proof that the sticker samples passed this fade resistance testing.

Nissan Extends Continuously Variable Transmission Warranty

For owners of the 2003-2010 Murano, 2007-2010 Versa SL, Sentra, Altima and Maxima, 2008-2010 Rogue, and 2009-2010 cube®, Nissan has extended the warranty coverage on these vehicles equipped with the Continuously Variable Transmission (CVT) to 10 years/120,000 miles (whichever occurs first). This CVT warranty extension is effective immediately and is fully transferable to future owners of the vehicle. Nissan will reimburse customers who have previously paid to repair or replace their CVT, if the repairs would have been covered within the new extended warranty period. For any additional information, visit the Nissan website: www.nissanassist.com.

What is a CVT?

A Continuously Variable Transmission (CVT) uses a high-strength steel belt instead of fixed gears to transmit power to two variable diameter pulleys. One pulley receives the power generated by the engine and the other pulley transmits drive power to the tires. A CVT selects the optimal ratio for every driving situation. By continuously adjusting the transmission's output, the CVT keeps the engine in its optimum power and efficiency range, and the vehicle sees improved fuel economy. In addition, a CVT eliminates the shift shock that occurs when a conventional automatic transmission shifts from one gear to another. As a result, passengers experience a smoother ride.

Inspection Equipment Updates

► Returning Replacement Parts

Beginning in January 2010, the Massachusetts Vehicle Check Program began billing inspection stations for replaced workstation parts that have not been returned, and for workstation parts that were returned in damaged condition. Parsons sent invoices covering the time period from January 1, 2009, through October 31, 2009, in accordance with the terms in each station's signed Station Participation Agreement. Parsons will mail additional invoices covering the time period beyond October 31, 2009, in the spring of 2010.

Also, starting in January 2010, the Program began distribution of workstation components from a facility in Massachusetts. As a result, the Program is now collecting state sales tax on invoices when replaced parts are not returned to Parsons within three days after receiving the replacements. The collection of state sales tax must also occur when the station returns parts that failed due to damage rather than from normal wear or from flaws in materials or workmanship.

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Inspection Equipment Updates

(continued from pg. 5)

If you have any questions about costs associated with parts replacement and parts invoicing, please review the following sections in your Station Participation Agreement: Section 17 describes the invoice and dispute process. Sections 40 through 50 describe the break/fix services that your monthly maintenance fees cover.

You can avoid a charge for failing to return a part that no longer works by sending the broken part back to Parsons immediately. If you do not ship the broken part within three business days of receipt of the replacement part, Parsons will electronically remove that part from its service inventory and bill your inspection station for the cost of replacing it.

Getting a replacement part delivered is as easy as placing a call to the Technical Helpdesk at 877-834-4677. If the component is a replacement on-board diagnostics (OBD) scan tool/cable, an opacity meter/cable, or a workstation computer, a Parsons field service representative (FSR) will now deliver the part to your station in person. FSRs will install the replacement part and collect the broken part.

If the component is a keyboard, mouse, printer or bar code scanner, the part will be shipped to you via UPS. Inside the box of the new part, you will find a prepaid UPS return label. Simply put the broken part inside the same box that the new part came in, seal the box, put the return label on it and call UPS to pick it up. Remember to indicate to UPS that the pickup is a return and give them the return label tracking number so that they do not assess your station a package pickup fee or charge the shipping to your business UPS account.

► OBD and Opacity Meter Cables

The Massachusetts Vehicle Check Program is upgrading replacement on-board diagnostics (OBD) scan tool cables with a heavy duty USB cable that has been designed to provide greater durability and fewer OBD cable failures. You may continue to use your current OBD scan tool cable. However, if your current OBD scan tool cable fails, call the Technical Helpdesk at 877-834-4677 and request that a field service representative (FSR) deliver a heavy duty replacement OBD cable to you at no cost. If the FSR discovers that the existing cable has been intentionally or accidentally damaged, your station will be invoiced for the cost of the replacement cable as well as for the cost of delivering that part to your station.

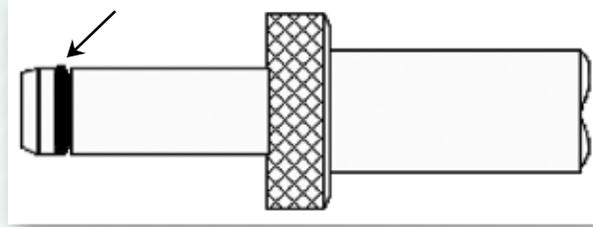
The Massachusetts Vehicle Check Program has also implemented a plan to replace the current opacity meter cables with longer cables so that diesel emissions inspections are more efficient for commercial vehicle inspectors. You may continue to use your current opacity meter cable until Parsons provides a replacement. If your opacity

meter cable fails, call the Technical Helpdesk at 877-834-4677, and if Parsons has longer opacity cables in inventory, a FSR will deliver and install the longer opacity meter cable in person.

► Opacity Meter Probe Maintenance

In addition to the normal periodic maintenance of cleaning probes and lenses, Parsons recommends that you perform the following procedures every time you change the smokemeter probe from the flexible probe used for horizontal exhaust systems to the rigid hook style probe used for vertical stacks:

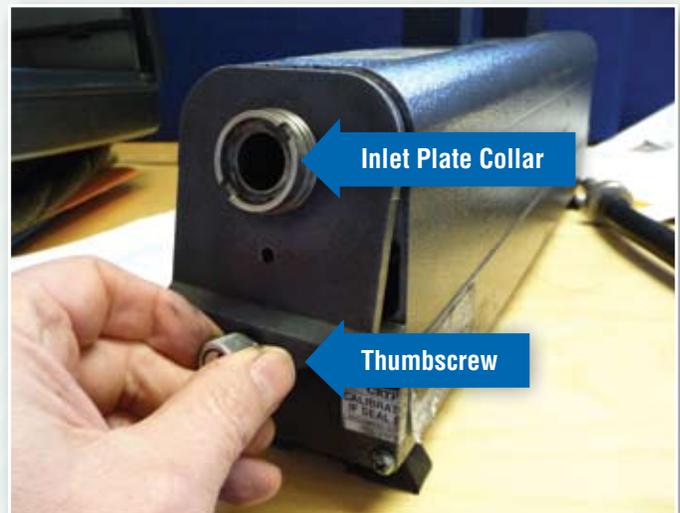
1. Inspect/Lubricate Probe O-Ring



On the end of the probe that goes into the body of the smokemeter, there is an O-ring. Periodically apply a thin film of silicone grease to the O-ring to help in attaching the probe and to extend the life of the O-ring. Silicone "faucet grease" is available at most hardware stores. Inspect the O-ring for damage and replace it if necessary. To purchase replacement O-rings, please call the Technical Helpdesk at 877-834-4677.

2. Inspect Probe Adapter Collar

Remove the probe from the body of the smokemeter. Then remove the Inlet plate by loosening the thumbscrew.



Find the Probe Adapter Collar in the middle towards the top of the measurement assembly. The collar looks like a round black bushing made of a hard nylon composite.

P0420/Catalytic Converter Code Repair Course



Use your forefinger and thumb to gently check if the collar is loose. If the collar is secure, re-position the Inlet plate and secure with the thumbscrew. If the collar is loose, please call the Technical Helpdesk at 877-834-4677 for service.

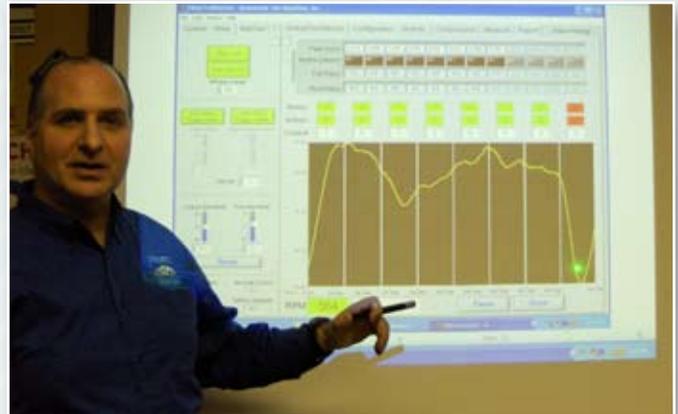
3. Ensure Probe is Tight to Inlet Plate Collar

To extend the life of your smokemeter, please ensure that the probe is screwed tightly to the Inlet Plate Collar of the smokemeter. When the probe is not screwed on tightly, the probe and/or the internal components experience undue stress that can lead to unnecessary service calls.

Enforcement Statistics

Violations issued to inspectors:	207
Violations issued to stations:	235
Inspectors privileges Revoked:	3
Inspectors required to retrain:	23
Inspectors suspended:	52
Stations suspended:	72

For period 07/01/2009 to 12/31/2009



"G" Truglia discussed engine misfire as one of the causes of catalytic converter degradation.

During the months of November and December 2009, Parsons invited the registered repair community to participate in a free training seminar held at six Motorist Assistance Centers (MACs).

The training had three objectives in mind:

- ▶ Introduce the technicians to the MACs
- ▶ Review the emission waiver and economic repair extension process
- ▶ Provide training on how to diagnose the number one failing diagnostic trouble code in Massachusetts: P0420 (catalytic converter efficiency)

Approximately 150 repair technicians attended these trainings that were presented by Jerry G. Truglia, or "G," as he is known in the industry. "G" presented a review of the components involved in setting a catalyst efficiency code, items that may affect a catalyst efficiency code, items that may lead to a false catalyst efficiency code, and the "Top Ten" causes of catalytic converter degradation.

"G" also discussed the various tools and methods that are useful in this diagnostic process and presented recent repair case studies. The seminar ended with hands-on testing and an active discussion. These events serve as a precursor for the Registered Repair Technician training that will begin later in 2010. Thank you to everyone who attended for helping to make these great events.



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2010 Workstation Software and Program Details Inside!

Please keep us up to date with current information on your business to help us ensure that you continue to receive this Inspection Update. If you know someone who would like to receive the newsletter, or have changes or corrections to your information please use this form. If you mail or fax the corrections, be sure to send the entire back page and mark the appropriate boxes below. Remember, you must also inform RMV of any station name or address changes.

- | | |
|--|---|
| <input type="checkbox"/> New Shop | <input type="checkbox"/> Change of Address |
| <input type="checkbox"/> Phone Number Change | <input type="checkbox"/> Technician Moved to a New Shop |

Call us at: 877-834-4677
Email us at: info@massvehiclecheck.state.ma.us
Fax us at: 866-873-8932

Or write to us at: Massachusetts Vehicle Check Program
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