



# 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.**

## New Workstation and Program Changes Beginning January 1, 2011

In December the Massachusetts Vehicle Check program released new workstation software to improve the inspection process for inspectors, repairers and motorists.

### Workstation Changes

This new software has several improvements related to the vehicle inspection report (VIR). The VIR improvements include a list of the 10 closest Registered Emissions Repair Shops which service the make of the failing vehicle. Each repair shop listed now has a 100-character promotional statement printed on the VIR.

HERB CHAMBERS FORD OUR SHOP HAS 20 FACTORY FORD CERTIFIED TECHNICIANS, 3 MASTER CERTIFIED T	75 GRANITE ST, BRAINTR
HERB CHAMBERS HONDA	1186 COMM AVE., BOSTO
AUTO SERVICE & TIRE FAMILY OWNED AND OPERATED SINCE 1956. COMPLETE MECHANICAL AND COLLISIO	1590 BLUE HILL AVE, MAT
US PETROLEUM SERVICE & SALE	664 WASHINGTON STRE

NewVIRswilllist100-characterpromotionalstatementsfor RegisteredEmissionsRepairShops.Toaddorchangeyour shop'spromotionalstatement,pleasecalltheRegistered Repair Coordinator at (781) 794-2961

The Emissions Repair Success Ratings from the previous inspection program have been removed until the rating system that is currently under development is introduced. To reduce the amount of plain paper and toner inspection stations use, the workstation software no longer prints Repair Data Forms for failing vehicles and emissions recall information for student pupil transport vehicle (7D) inspections. The software prints On-Board Diagnostic (OBD) inspection data on the VIRs of vehicles that receive a turn-away for unset readiness monitors to provide repairers with additional information about the reason for the turn-away.

For improved vehicle data entry, the new software now properly decodes 2008 through 2011 model year vehicle identification numbers (VIN). For improved sticker management, the windshield sticker transition process has been streamlined so that inspection stations can smoothly transition from unused blue 2010 windshield stickers to the orange 2011 windshield stickers after January 1, 2011.

The sticker software changes also accommodate the reduced size of the new sticker packs, as described in the Program Changes section on page 2. During the last week of December 2010 and the first week of January 2011, please look for windshield sticker transition workstation messages that will assist you through the transition process.

For commercial inspectors, the commercial vehicle and trailer inspection safety checklists have been modified to accurately reflect the equipment with which these vehicles are equipped. The workstation software's list of vehicle makes is now expanded to include heavy-duty diesel vehicle manufacturers. Finally, the diesel opacity testing logic has been refined to increase the accuracy of the tailpipe emissions measurements.

*(Continued on page 2)*

# New Workstation and Program Changes Beginning January 1, 2011

(Continued from page 1)

## Windshield Sticker Changes

In December the Massachusetts Vehicle Check program began shipping to all inspection stations the first deliveries of orange 2011 VIR and windshield stickers to cover approximately six months of vehicle inspections. In some cases, a station may have received enough stickers to cover the entire year's worth of inspections. Stations will receive another shipment of stickers in June 2011 to cover the July through December time period.

The orange 2011 stickers have been distributed in 100-sheet books to accommodate the VIR's thicker paper stock. If you have not received your station's sticker shipment by December 28, or if you have any questions about the new orange 2011 stickers, please call the Technical Help Desk at 877-834-4677.

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.

## Program Changes

On Jan. 1, 2011, 1996 model year vehicles are exempt from the OBD emissions inspection requirement. All 1996 model year vehicles are still subject to an annual safety inspection, and all 1996 model year vehicles that are over 10,000 pounds Gross Vehicle Weight Rating are still subject to the opacity emissions inspection requirement. Additionally, the Massachusetts Vehicle Check emissions waiver and economic hardship repair extension minimums have increased to the following:

Vehicle Age	Emissions Waiver Spending Minimum	Economic Hardship Repair Extension Estimate Minimum
Five model years old or newer	\$800	\$1,200
Six to ten model years old	\$700	\$1,050
Greater than ten model years old	\$600	\$900

(Continued on page 3)

# Happy Two-Year Anniversary — The Year In Review

October 2010 marked the two-year anniversary of the Massachusetts Vehicle Check program. Congratulations to all who contributed to another successful year! The following is a summary of program statistics\* from Year Two:

- Number of paid vehicle inspections.....4,649,898
- Number of inspectors receiving initial training .....1,697
- Number of inspectors re-certified.....3,068
- Number of active inspection stations.....1,755
- Number of registered emissions repair technicians.....386
- Number of motorist hotline calls.....14,757
- Number of technical helpdesk calls .....30,225
- Number of registered vehicles in Massachusetts ... 4.7 million
- Average age of vehicles in Massachusetts..... 10.43 years
- Number of registered hybrid vehicles .....42,098
- Number of registered diesel vehicles.....146,244
- Number of registered flexible fuel vehicles.....18,022

## Communities with the most registered vehicles:

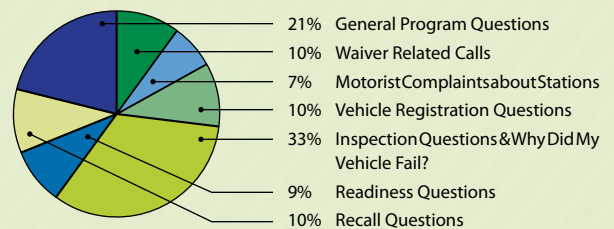
1. Boston:.....372,585
2. Worcester: .....128,625
3. Springfield: .....118,818

## Communities with oldest average vehicle age:

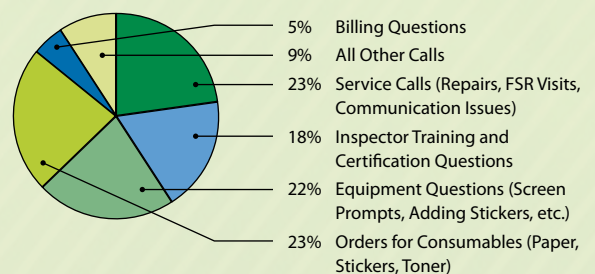
1. Aquinnah: ..... 14.51 yrs
2. Nantucket: ..... 14.43 yrs
3. Lawrence:..... 14.41 yrs

\*Statistics as of September 30, 2010

## Motorist Hotline Calls:



## Technical Helpdesk Calls:



## New Workstation and Program Changes Beginning January 1, 2011

*(Continued from page 2)*

The Massachusetts Vehicle Check program has reorganized the Inspection and Repair Industry section of its Web site so that inspectors and repair technicians can find information that will help them participate in the program more efficiently. For more information, visit [www.massvehiclecheck.state.ma.us/inspection.html](http://www.massvehiclecheck.state.ma.us/inspection.html)

## Inspector Re-Certification Training (RECERT) Update

By the end of November 2011, Parsons had mailed RECERT notifications to approximately 6,000 Non-Commercial inspectors, 1,000 Commercial inspectors, 100 7D inspectors and 50 motorcycle inspectors. Parsons mails all RECERT notifications within a 90-day window before each inspector's respective training certification expiration date. As of November 1, 2010, our records indicate that 3,637 Non-Commercial inspectors and 414 Commercial inspectors had taken their online RECERT exams.

After an inspector successfully passes the RECERT exam, his or her training certification is extended two years beyond its current expiration date, regardless of when he or she took the exam.

### 7D and Motorcycle RECERT Update

In November, Parsons mailed motorcycle and 7D RECERT notifications for inspectors whose certifications will be expiring in January 2011. Motorcycle and 7D RECERT exams and preparation materials are now available on the program Web site.

Additional information is available by calling the Technical Help Desk at 877-834-4677 and/or visiting the program Web site: <http://www.massvehiclecheck.state.ma.us>

## Safety Inspection Reminders

The Registry of Motor Vehicles (RMV) would like to remind vehicle inspectors of the inspection requirements for vehicle license plates. Inspectors must reject a license plate if:

- The license plate is damaged, not securely mounted, faded, repainted and/or not clearly visible. No bumper, trailer hitch or other accessory may interfere with a clear view of the license plate.

- The license plate is bordered by a frame that covers or obscures in any manner the plate number or any other words, symbols or numbers lawfully imprinted on or affixed to such number plate.
- The reflectorized license plate is covered with glass, plastic or similar material that reduces the legibility or substantially diminishes the reflective qualities of such plate.
- The illuminated rear plate is not plainly visible at a distance of 60 feet.
- Any decorative license plate or license plate replica not issued by the RMV on which any jurisdiction name appears must be removed from the vehicle.
- The following plate images are examples of license plates that should be rejected. The first plate is obstructed by a license plate frame. The second plate is faded or damaged and not clearly visible from 60 feet.



## Motorist Assistance Center (MAC) Success Story

### 2007 Toyota Prius

A 2007 Toyota Prius initially failed for "no communication with the workstation." The inspector had made several attempts to communicate, but each time the vehicle was unable to communicate, so the inspector contacted the Motorist Assistance Center (MAC) for help. The MAC L-1 technician researched the vehicle's inspection history and found that the vehicle had failed the previous year because of "no communication," although it had eventually passed inspection. The MAC L-1 technician made an appointment for the vehicle to visit the MAC so that he could determine whether the issue was with the vehicle or possibly the workstation.



The MAC L-1 technician performed a Diagnostic Inspection and confirmed that the communication problem was present. The MAC L-1 technician then used a Data Link Connector (DLC) 16 pin break-out box to help locate the problem. A DLC Break-Out Box (BOB) is a device installed between the vehicle's DLC and any scan tool connected to the vehicle.

*(Continued on page 4)*



## Motorist Assistance Center (MAC) Success Story

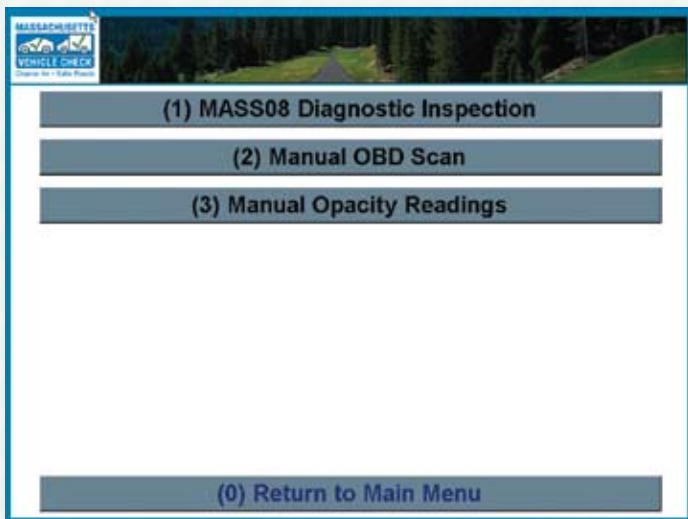
*(Continued from page 3)*

The BOB allows the user to test voltage at each pin "live" without interrupting the communication. Some break-out boxes have lights indicating power, grounds and data signals built into the device. Using the BOB, the MAC L-1 technician was able to see that the Pin 5 light was not lit, which indicated a problem with the Prius' Vehicle Signal Ground.



The workstation scan tool, which meets the SAE J1962 standard, utilizes power and ground from the DLC connector. Pin 16 supplies battery positive; chassis ground is provided on Pin 4; and signal ground is on Pin 5. Not all pins in the DLC connector may be utilized, but for a vehicle to communicate successfully with the workstation, the DLC must provide power, ground and generic communication from the module that sends the on-board diagnostic (OBD) generic data to the DLC.

Knowing that the problem was with the vehicle signal ground, the MAC L-1 technician wiggled the BOB connection at the DLC, and the Pin 5 light illuminated and then flickered on and off. Upon further inspection, he found that Pin 5 was spread open too far in the DLC. The MAC L-1 technician explained his findings to the motorist. The DLC Pin 5's fit was corrected at a repair shop, and the vehicle passed the re-inspection.



There are several lessons from this MAC case:

- Having a BOB tool in your repair shop can help you diagnose and troubleshoot OBD communications problems.
- Scan tools require more than just the DLC's Pin 16 voltage to operate. Be sure to check all the necessary DLC pins to make sure vehicles can communicate on the generic side of your OBD scan tool.
- The Diagnostic MASS08 function is available on the workstation. The advantage to performing a Diagnostic Inspection is that it does not consume a test authorization. A Diagnostic Inspection mimics an actual inspection, including communication, but does not provide a sticker at the end. Using this menu can help you confirm that emission repairs to a vehicle were successful prior to officially retesting the vehicle.

## Registered Emissions Repair Technician Update

In December, Parsons completed the development of the Mass Module (Massachusetts-specific vehicle emissions inspection program information) for Registered Emissions Repair Technicians. This course will be made available from the redesigned Inspection and Repair Industry section of the program Web site in 2011.

Parsons also completed the development of the new 28-hour training course on performing successful On-Board Diagnostics (OBD) vehicle repairs for Registered Emissions Repair Technicians. Parsons will offer this course in 2011 in an eight-hour daytime or three-hour evening format. Repair technicians will need to schedule two weeks of classroom and hands-on training to complete the course.

You may obtain a Registered Emissions Repair Technician application form via the program Web site: [www.massvehiclecheck.state.ma.us/inspection\\_forms.html](http://www.massvehiclecheck.state.ma.us/inspection_forms.html), or call the Registered Repair Coordinator at (781) 794-2961 and request that an application be sent to you by fax or mail.

**MASSACHUSETTS**  
**Vehicle Check**  
 Massachusetts Vehicle Check  
 Repair Technician Application  
 55 Messina Dr., Unit C, Braintree, MA 02184

Please complete ALL sections of this form in INK, sign and mail to Massachusetts Vehicle Check at address above, or FAX to (781) 849-2967.  
 Incomplete applications will be returned.

SECTION A Applicant Information		PLEASE PRINT
1. Applicant Name: First _____ Middle _____ Last _____		
2. Existing Registered Repair Technician ID: R _____		
3. Driver's License # : _____		4. Drivers License State: _____
5. Date of Birth: MM / DD / YY _____		6. Drivers License Expiration: MM / DD / YY _____
7. Home Address: _____		
8. City: _____		9. Zip Code: _____
10. State: _____		11. Home Phone: (____) _____
12. Alternate Phone: (____) _____		13. Fax: (____) _____
14. Email: _____		
15. Association Memberships: _____		

## Profile: John Paul, AAA Southern New England

Q. What are the services that American Automobile Association (AAA) provides?

A. AAA is primarily an auto club and road service provider. Most people don't know that we have a battery program, where we will actually deliver a battery to motorist homes. We're also in the windshield business. In addition to our automotive services, AAA offers everything from student loans to mortgages.

Q. How does AAA take part in the Massachusetts Vehicle Check program?

A. AAA joined the original Massachusetts vehicle inspection program in 1985 as a consumer advocate. We felt that it was important to represent consumers and their needs in order to help them better communicate with repair shops.

Q. How have you seen the program change?

A. AAA is a sounding board for motorists and repair shops. As the Massachusetts Vehicle Check program has matured, we have received significantly fewer motorist complaints about it. Inspectors seem to be doing a much better job explaining the reasons for and the value of the program, including why a vehicle needs an inspection, what to do when a vehicle fails and how to fix it.

Q. How has the automotive industry changed over the 34+ years you have worked in it?

A. Repair technology has changed greatly. When I first got into this business, the only tools that a technician required to fix a car were hand tools, electronic equipment and a repair manual. Now repair technicians need access to specialized diagnostic scanning tools as well as Web sites in order to do their jobs. For example, some cars today have laser-guided brake technology versus 30 years ago when cars had basic brakes.

Q. How did you come to be known as the "Car Doctor?"

A. Many years ago, I guest-hosted the "Car Doctor" radio show on a small network radio station, and when the regular host didn't return, I was offered the job. I am also a certified master auto technician. Years ago I used to work in a shop. One day, I helped a motorist successfully repair his car, and he returned with a brass plaque for me that read "Car Doctor."



John Paul, "Car Doctor" and Manager of AAA Southern New England

Q. You regularly offer motorists advice in various publications and host the "Car Doctor" radio program. What is the oddest question you have ever received?

A. Years ago I received a call at work from a motorist in Texas who wanted to know if I was the "Car Doctor." He found my resume on the internet, and then called my wife at home and she gave him my cell phone number. He had taken his Saturn to a mechanic, but it still wouldn't start and the gas gauge showed zero. I suggested some things over the phone that his mechanic might have overlooked. When he took his car back to the shop, they successfully fixed what turned out to be a wiring problem. I receive questions from both consumers and repair shops, and typically I suggest that they go back and look at some factors that they may have missed the first time around.

Q. Who is the most compelling guest you have had on your radio program?

A. Hau Thai-Tang. He is the 2005 model year Ford Mustang chief engineer. As a child growing up in Vietnam, his aspirations were to someday own a car. His family escaped communism and moved to New York City. When he graduated from college, he became a Ford College graduate trainee, which eventually led to his role as chief engineer for the fifth-generation Mustang.

Q. How do you stay on top of industry trends?

A. I visit Web sites such as ALLDATA, Michelin and the International Automotive Technician's Network (iATN). Training is very important for today's technician. If I were not able to take advantage of trainings, keeping my National Institute for Automotive Service Excellence (ASE) certification would be difficult. Part of my job also requires me to answer car questions, which forces me to learn what makes cars tick.

Q. What are some of the advisory boards and industry groups you belong to?

A. I belong to the advisory boards of several automotive schools, including Bristol Plymouth Regional Technical School, Brockton High School, Mass Bay Community College, Mt. Wachusett Community College, Quinsigamond Community College, South Shore Vocational Tech Institute and Universal Technical Institute. It's very important for me to be involved with educational institutions, because I have first-hand knowledge of the experiences that students will encounter when they work in the automotive field. Additionally, I belong to the Society of Automotive Engineers (SAE), New England Motor Press Association (NEMPA) and International Motor Press Association (IMPA).

## How to Use Manual Diesel Opacity Function

For inspectors who inspect commercial vehicles, the workstation's manual diesel opacity function is useful to conduct either a pre-test or confirm a vehicle's emissions repair before re-inspecting the vehicle. By conducting a manual opacity test after repairs, you can keep from using the vehicle's one free re-inspection until you are certain the vehicle will pass its re-inspection.

From the Workstation Main Menu:

- Select: (2) Diagnostic Tests
- Then Select: (3) Manual Opacity Readings

Once you select the Manual Opacity Readings menu, the workstation will prompt you through the steps of setting up a vehicle for test, including the entry of exhaust pipe diameter. To ensure a safe and valid opacity test, the workstation will guide you through the process of visual checks, vehicle preparation and the snap acceleration smoke test procedure just as you experience when performing an opacity test during an inspection. Many of the screens you see will be familiar.

The workstation will then guide you through three snaps. The opacity readings will be triggered using the same mechanism used during the official opacity test. Once the acceleration snaps are completed, the workstation will present all three throttle snap opacity readings and the final average opacity reading on screen. The workstation will prompt the operator to repeat the diagnostic opacity test. If the manual test results indicate that the commercial vehicle will pass its next official test, select "(N)o" to leave the Manual Opacity Readings menu.

	Max Opacity
Snap Acceleration 1	19.8%
Snap Acceleration 2	19.7%
Snap Acceleration 3	19.6%
Average of the three Maximum Opacity Readings 19.7%	

Would you like to repeat the diagnostic Opacity test?

(Yes) (No)

## How to Run Station Manager Reports

There is a report generated by the workstation that lists all completed vehicle inspections performed for a selected date range. This report will also provide the specifics for each inspection, including the vehicle information, the sticker number used and whether a Test Authorization (TA) was consumed. Each vehicle inspection that consumes a TA is considered an inspection where a test fee should have been collected. Once generated, this report can be compared to the station's vehicle repair orders to ensure the accounting of all paid inspections.

With a July 2010 workstation software release, Station Manager reports now run more quickly. From the Workstation Station Menu:

- Select: (1) Test Authorization Management
- Select: (2) Review Test Authorization Inventory
- Type in the dates you are interested in for your report. The workstation shall display entry fields for the following:
  - » "Start Date in MM-DD-YYYY format" and "End Date in MM-DD-YYYY format"

Start Date in MM-DD-YYYY Format: 12/16/2010

End Date in MM-DD-YYYY Format: 12/16/2010

Enter the Starting Date.  
Press Enter without changing to print Today's Report.

Press 'ENTER' to Continue  
or Press 'ESC' to Cancel

- Press <ENTER> to generate a report with the following information:
  - » VIN
  - » Plate
  - » Year
  - » Make
  - » Sticker Number
  - » TA Used (Yes or No)
- Select (P) or click-on the (P)rint button to print a copy of the report.

WUJG4B1Y08029	01/17/	2008	AUD	46 QUATTRO	1882762	N
WUJG4B1Y08028	01/17/	2008	AUD	46 QUATTRO	1882763	Y
WUJG4B1Y08023	07/04/	2008	AUD	46 QUATTRO	1882764	N
WUJG4B1Y08022	07/04/	2008	AUD	46 QUATTRO	1882765	N
WUJG4B1Y08021	07/04/	2008	AUD	46 QUATTRO	1882766	N
WUJG4B1Y08020	08/10/	2008	BMW	3 SERIES	1882767	Y
WUJG4B1Y08019	08/10/	2008	BMW	3 SERIES	1882768	N
WUJG4B1Y08018	08/10/	2008	BMW	3 SERIES	1882769	N
WUJG4B1Y08017	07/17/	2008	AUD	46 QUATTRO	1882770	Y
WUJG4B1Y08016	07/04/	2008	AUD	46 QUATTRO	1882771	N
WUJG4B1Y08015	07/04/	2008	AUD	46 QUATTRO	1882772	N
WUJG4B1Y08014	07/04/	2008	BMW	3 SERIES	1882773	Y

(Close) (Print)

## Inspection Equipment Updates

In November, the Massachusetts Vehicle Check program concluded the evaluation and response to all stations that submitted a written dispute of a workstation replacement component invoice issued earlier this year for components replaced between Jan. 1, 2009 and Jan. 17, 2010.

Each response letter contained a copy of the original invoice, the original dispute letter, photographs of the returned component, and the results from the evaluation of the dispute.

If the returned components were found to be damaged outside of the warranty provisions in the Station Participation Kit, the response letters contained a new invoice, payable within 14 days of receipt or appealable to the Registry of Motor Vehicles.

Now that the backlog of invoices has been dealt with, Parsons/SGS will be issuing invoices for non-warranty replacement parts as soon as the replacement component is returned and tested.

## Parsons Wishes You All The Best in 2011



Pictured from L to R, Back Row: Karyn Hoffenberg (Program Office), JeanneDeree (Inspector/Repair Technician Training Coordinator, Program Office), Paul Jannoni (Medford MAC L-1), John Morrissey (MAC Manager, Program Office), Ada Romero (Program Office), Phil Hughes (Tewksbury MAC L-1), Tomeeka Farrington (Program Office), Tom Nesbit (Program Manager, Program Office), Steve Shea (Fitchburg MAC L-1), Rob Waterman (West Springfield MAC L-1).

Front Row: Billy Smits (Braintree MAC L-1), Haskins Hobson (Deputy Program Manager, Program Office), Tony Girard (Commercial Inspector Trainer), Kathy Lovell (Braintree MAC Customer Service Representative), Dan Deroy (Pocasset MAC L-1)

## Change of Address/Save a Tree



Please keep us up to date with current information to help us ensure that you continue to receive this Inspection Update. If you have moved or would prefer to receive the newsletter by e-mail, please check the appropriate box and send this information to: Massachusetts Vehicle Check Program, 55 Messina Drive, Unit C, Braintree, MA 02184. You may also fax changes to (866) 873-8932 or e-mail them to [info@massvehiclecheck.state.ma.us](mailto:info@massvehiclecheck.state.ma.us).

- Change of Address
- Save a Tree, use E-mail
- New Repair Shop
- Phone Number Change

Station Name \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone \_\_\_\_\_

Fax \_\_\_\_\_

MASSACHUSETTS



VEHICLE CHECK

Cleaner Air • Safer Roads

**Inspection Update  
Massachusetts Vehicle Check Program**

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Braintree, MA 02184

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Permit #112  
Carol Stream, IL

**Two Year Anniversary Details and License Plate Inspection Reminders Inside!**

**Massachusetts Vehicle Check Program At A Glance**

Inspection Statistics			Count	Failure Rate	Enforcement Statistics		Count
Non-Commercial Safety Inspections			1,245,377	6.1%	Violations Issued to Inspectors		164
Commercial Safety Inspections			42,157	5.5%	Violations Issued to Stations		183
7D Safety Inspections			540	3.0%	Inspector Privileges Revoked		1
OBD Emissions Inspections			1,028,730	6.9%	Inspector Required to Retrain		3
Opacity Emissions Inspections			28,189	3.0%	Inspectors Suspended		26
Emissions Waivers Issued			1		Stations Suspended		37
Repair Hardship Extensions Issued			28		Penalties Assessed		\$230,000
Hotline and Training Statistics			Count		Licensed Stations		Count
Motorist Calls Received			3,846		Class A Stations		1,216
Inspection Station Calls Received			8,951		Class B Stations		176
Initial Non-Comm. Inspectors Trained			290		Class C Stations		43
Initial Commercial Inspectors Trained			46		Class D Stations		210
Initial 7D Inspectors Trained			10		Class E Stations		10
Initial Motorcycle Inspectors Trained			12		Registered Emissions Repair Shops		303

For period 07/01/2010 to 09/30/2010



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