



## Illinois EPA Announces Cost Savings in Vehicle Testing Program

### Six Stations to Close July 1

The Illinois Environmental Protection Agency (IEPA) and Envirotest Illinois have developed a plan that will return 31 million dollars in cost savings to the state. The plan includes the closing of six emission test stations on July 1, 2004.

The current 28 testing stations in the Chicago metropolitan area will be reduced to 23 on July 1 with five stations closing this year. The stations to be closed July 1 are Aurora, Schaumburg, Streamwood, Wheeling, and Chicago – 14<sup>th</sup> Place. The seven test stations in the Metro East area will be reduced to six with the closing of the Glen Carbon station on July 1. In addition, stations at 76<sup>th</sup> Street in Chicago and at Hillside will be closed no later than October 1, 2005.

The station closings were based on a careful network analysis to ensure the least possible impact on motorist convenience. At least 80 percent of vehicle owners subject to testing will still live within five miles of a testing station and 95 percent will be within 12 miles of a station.

The program is expanding the use of OBD technology and creating lanes that can be designated OBD only lanes. These lane reconfigurations, along with station closings make it possible to return cost savings to the state. With the capacity to test more vehicles, OBD only lanes will allow the program to test the same number vehicles with fewer stations, reduce test times and improve test speed for many motorists.

“This agreement will result in continued cuts in air pollution from motor vehicles, benefiting public health in our two largest metropolitan areas, while meeting Governor Blagojevich’s commitment to curb costs,” said Illinois EPA Director Renee Cipriano.

“Envirotest is pleased to join the IEPA in putting forth a thoughtful, responsible plan to achieve savings for the State of Illinois,” said Envirotest President and CEO Michael Chambrello. “We are committed to helping Illinois achieve its goals on many fronts, including fiscal, public health and environmental,” continued Chambrello.

The federally mandated testing program is part of the state’s ongoing program for clean air progress in the Chicago and Metro East areas. The vehicle-testing program results in a reduction of more than 12 percent in the pollutants from cars that contribute to smog and soot in the air. That translates into 26 tons per day of smog-forming volatile organic compounds, the equivalent of the emissions from 650,000 cars or 375 medium-sized factories. In addition, the

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# FREE

## 2004 Outreach Seminars

### How to Fix an IM240 Failure

College of Lake County (Grayslake)  
Moraine Valley (Palos Hills)

#### Part 1

Aug. 12 (Thurs)  
Nov. 1 (Mon)

#### Part 2

Aug. 26 (Thurs)  
Nov. 15 (Mon)

#### Part 3

Sept. 9 (Thurs)  
Nov. 29 (Mon)



*Al Santini answers questions during the break at a recent seminar.*

A must for all technicians diagnosing and repairing IM240 failures. Focuses on what every vehicle must have to pass an IM240 test:

- ⊙ A functioning oxygen sensor
- ⊙ Fuel control with no misfires
- ⊙ An 80 percent efficient catalytic converter

Proven methods, techniques and proper testing of oxygen sensors and fuel control, lean and rich settings, the relationship of fuel trim to emissions testing and how to determine when a vehicle has been properly repaired is discussed, along with fuel injection and testing, using digital storage oscilloscopes and current probes. Also covered is compression and ignition problems, different methods of testing catalytic converters, and what causes hydrocarbon and carbon monoxide failures.

### How to Fix an OBDII Failure

Moraine Valley (Palos Hills)  
College of DuPage (Glen Ellyn)

#### Part 1

Jul. 26 (Mon)  
Nov. 3 (Wed)

#### Part 2

Jul. 27 (Tues)  
Nov. 4 (Thurs)

Two-night seminar devoted to the introduction and overview of the OBDII system, readiness monitors, DTC types and conditions, drive cycles and using freeze frame data and fuel trim diagnosis. It also covers diagnosis and repair of oxygen sensor, EGR, and EVAP systems. Misfire detection and catalytic converter monitors are also discussed (Repeat from 2003 with enhancements).

**As an incentive to attend the FREE OBDII seminars, the Illinois EPA and Envirotest Illinois will provide one NCVECS OBDII drive trace CD to techs that attend the two-night seminar.**

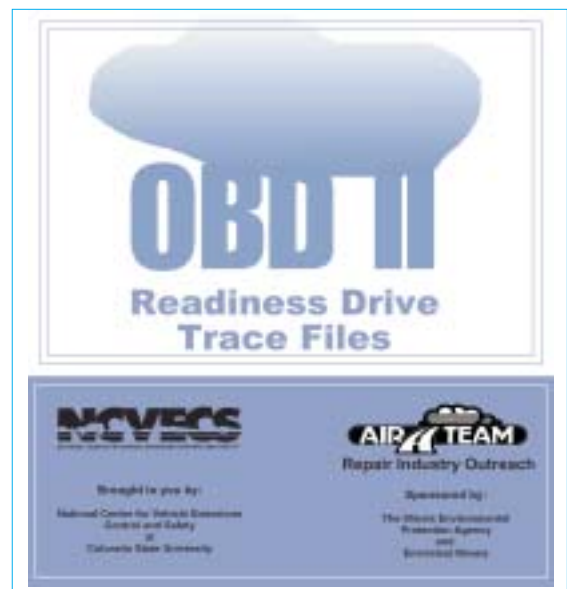
*Air Repair* is published by  
Envirotest Illinois, Inc.

Send all address changes, mailing requests and letters to the editor to:  
*Air Repair*  
Envirotest Illinois, Inc.  
130 E. Hill Street  
Villa Park, IL 60181

e-mail: AR@il.etest.com  
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Repair Industry Outreach  
847-758-3434





### How to Diagnose and Repair OBDII P0300 Codes

|   |                 |
|---|-----------------|
| State of Illinois Regional Complex (Collinsville) | Jun. 21 (Mon)   |
| Morton College (Cicero)                           | Jun. 24 (Thurs) |
| Truman College (Chicago)                          | Aug. 23 (Mon)   |
| Joliet Junior College (Joliet)                    | Oct. 21 (Thurs) |
| Elgin Community College (Elgin)                   | Dec. 1 (Wed)    |



Al Santini discusses the Repair Diagnostic Report.

One-night seminar devoted to understanding the misfire detection monitor, using the oxygen sensor, fuel trim and scanner data as a baseline for misfire repairs. Using a DSO to monitor compression, ignition and fuel is also discussed. **P03xx codes account for approximately 45 percent of all codes.**



### An Introduction to the Digital Storage Oscilloscope (DSO) with Emissions Applications

|   |                 |
|---|-----------------|
| State of Illinois Regional Complex (Collinsville) | Jun. 22 (Tues)  |
| College of Lake County (Grayslake)                | Jul. 29 (Thurs) |
| Elgin Community College (Elgin)                   | Aug. 24 (Tues)  |
| Morton College (Cicero)                           | Oct. 19 (Tues)  |
| Joliet Junior College (Joliet)                    | Dec. 9 (Thurs)  |

One-night seminar devoted to the introduction to using a DSO. It includes setting up, capturing & interpreting patterns, using multi-trace capability, current probes, vacuum testing and using a vacuum transducer.

### Shop Management for Emissions Success (New for 2004)

|   |                |
|---|----------------|
| Morton College (Cicero)                           | Aug. 9 (Mon)   |
| Joliet Junior College (Joliet)                    | Aug. 10 (Tues) |
| College of DuPage (Grayslake)                     | Sept. 7 (Tues) |
| State of Illinois Regional Complex (Collinsville) | Oct. 4 (Mon)   |
| Truman College (Chicago)                          | Oct. 7 (Thurs) |
| College of Lake County (Grayslake)                | Dec. 7 (Tues)  |

One-night devoted to everyone behind the counter that comes in contact with customers. Shop Owners, Service Managers and Service Writers are given helpful suggestions on managing/ taking control of emission failures.

This seminar focuses on:

- ⊗ The emissions tests and what it takes to pass each one
- ⊗ Reading the results
- ⊗ Talking with customers
- ⊗ CATs and the test
- ⊗ Why repair emission failures
- ⊗ Estimating repair costs
- ⊗ Tools that make the job easier and more profitable
- ⊗ Illinois success
- ⊗ Other shop successes



**Seminars are sponsored by the Illinois EPA and Envirotest Illinois and are FREE! Advance registration is required by calling (847) 758-3434.**

# National Automotive Service Task Force Information Access for All Technicians

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The staff at *Air Repair* recently interviewed John Cabaniss, chairman of the National Automotive Service Task Force (NASTF) to find out more and report to you.

**AIR REPAIR:** John, we have visited the NASTF website and there is a great deal of useful information there to assist service technicians. But what is NASTF and what's the background?

**JOHN:** The NASTF is a not-for-profit, no-dues task force established to facilitate the identification and correction of gaps in the availability and accessibility of auto service information, service training, diagnostic tools and equipment, and communications for the benefit of automotive service professionals.

NASTF is a voluntary, cooperative effort among the automotive service industry, the equipment and tool industry, and automotive manufacturers. NASTF was started in November of 2000 with about 20 leaders of the



[www.nastf.org](http://www.nastf.org)

automotive service industry in attendance, including representatives of the Service Technicians Society, International Automotive Technicians Network, Alliance of Automotive Service Providers, Automotive Service Association, Automotive Service Councils of California, Equipment & Tool Institute, Alliance of Automobile Manufacturers, and Association of International Automobile Manufacturers, to name a few. Participation has grown dramatically with over 100 organizations now involved including auto manufacturers, trade associations, dealers, independent shops, tool companies, trainers, technicians, and government agencies. NASTF meets twice each year in March and November.

**AIR REPAIR:** What prompted the creation of NASTF?

**JOHN:** After on-board diagnostics systems were introduced on vehicles in the mid 1990s,

there was a great deal of controversy and concern in the aftermarket that auto manufacturers were withholding (or would be) service information from the independent aftermarket in favor of having repairs done at their franchised dealers. In fact, in 1998 and 1999, a group was established in Arizona, which was later called the Arizona Pilot Program, in which representatives of the aftermarket and the auto manufacturers got together to discuss these issues. During these discussions, it was realized that nearly all information was truly available but often technicians were not informed about how to access the information. So accessibility was the real issue. As part of the Arizona project, we initiated what came to be known as the OEM service information matrix, which identified the OEM sources of service information, providing contacts and usually toll-free numbers. As this project was winding down in 1999, we started talking about continuing the useful dialogue and that led to the formation of NASTF the following year.

**AIR REPAIR:** What types of activities is NASTF involved in?

**JOHN:** At the initial meeting in 2000, we set up four standing committees to work on service information, tools, training, and communications. We identified volunteers to chair each committee with the charge to expand the membership and start having meetings via conference calls to identify problems or gaps in information, tools, and training.

Our first activity was to expand the OEM service information matrix to cover all manufacturers and post the matrix on the Internet at the iATN website. Along with it, we posted a complaint form, so that a technician could report any problems he/she was having in getting the information needed. We update this matrix quarterly.

The next activity was the launch of the NASTF website where users can find information about

NASTF, meeting minutes, a link to the service information matrix, a link to the tool matrix, a training matrix, and other information. Probably one of the most useful items on the website for technicians is that we have links to all of the OEM service websites conveniently in one place. So all a technician needs to remember or to bookmark is [www.nastf.org](http://www.nastf.org). From there he can easily navigate to GM, Ford, Toyota, Honda, and all other OEM's service websites.

**AIR REPAIR:** What about progress on tools and tool information?

**JOHN:** In that effort, the Equipment & Tool Institute has led the charge. First, all manufacturers now offer for sale all dealer tools to independents. Second, through the NASTF committee OEMs have worked with ETI to make all emissions and non-emissions data-stream tool information available to tool companies, so they have the information they need to design and build more generic tools. We are quickly moving to the point where this activity has become an automatic part of every auto manufacturer's introduction of new products.

**AIR REPAIR:** What about training?

**JOHN:** We are also making progress on training. Again the automakers are making available all of their training manuals, videotapes, etc. This enables any trainer or technician to purchase them. However, the training area has some complicated twists and turns. Some areas of the country are lucky in having great training networks already in place. Other areas may not be as lucky. So part of the training issue is getting local assessments and getting those areas that need better training to make the necessary changes. There also have to be incentives for technicians to get training and for shop owners to provide the opportunities to their employees. ASE or other technicians certification programs are also an important factor. These are the types of issues that the committee is just beginning to wrestle with.

**AIR REPAIR:** Well, that just leaves the communications committee. What is that about?

**JOHN:** When we started the NASTF, we realized immediately that the biggest challenge is to get recognition of what we were trying to do, to get others interested in helping us, and to keep the momentum going. The communications committee's charge is to get information out in any way it can to technicians, shop owners, trainers, and anyone else who has an interest in the automotive service business. Because we are a volunteer group, we have no resources for advertising, so we depend primarily on the NASTF participants themselves to distribute information to their constituencies, members, friends, and colleagues. We have gotten great support from iATN, the ASC of California, the Automotive Service Association, the Equipment & Tool Institute, and many others. And we have had some great stories in *Motor Age*, *Motor*, and other trade publications. Also, NASTF issues press releases on significant activities when appropriate. One of the biggest obstacles is that today we are all confronted with information overload, junk mail, and e-mail spam, so our first reaction is often to ignore new information. We need consistent, constant messages coming from credible sources to combat this.

Despite the progress, recognition and participation are still our biggest challenges. We need all the help we can to get the word out to technicians and others about NASTF, why they should be interested, and what they can do to help us and to help themselves.

**AIR REPAIR:** What can technicians do to help?

**JOHN:** The biggest thing is to use the NASTF website and the automaker websites when they need factory service information. If they have a problem getting the information, tools, or

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training they need, then use the complaint form on the website to let us about it.

And spread the word. One of the best methods for getting information is to hear it from a friend or colleague. A trusted, credible source is invaluable. If they are members of a local trade group or association, have them get involved in NASTF, too, and spread the word to the other members.

**AIR REPAIR:** John, you represent a number of the auto manufacturers, and a lot of people are surprised that you are chairing the NASTF. Why is that? What is in this for the automakers?

**JOHN:** Sometimes I wonder about why I'm doing it, too. But the simple answer is that I care about it and making it work. It's important work. When NASTF was formed, I agreed to be chairman, partly because no one else wanted the job.

For the manufacturers themselves, it is a customer issue. The automakers need to have satisfied customers. They know that 75% or more of their customers choose to have repairs and service done at independent shops. So it is in their own best interests to make sure that these technicians have the information, training, and tools they need to properly diagnose and repair the vehicles and keep THEIR customers satisfied. Because they want them back in the same new car showroom the next time they are in the market for a vehicle.

*John Cabaniss is Director, Environment & Energy, at the Association of International Automobile Manufacturers. He has worked for AIAM since 1995. Before that, he worked for the U.S. Environmental Protection Agency for 15 years in EPA's motor vehicle program. Much of his time at EPA was dealing with vehicle I/M programs.* 

## Preconditioning No Longer Necessary For IM240


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*By Jim Wellman, Envirotec Repair Industry Liaison*

On or about July 1, 2004 when you are working on a customer's vehicle and take it to the emissions testing station and ask for preconditioning on the vehicle, you will be told that preconditioning is no longer an option. The reason for this is that the second chance test parameters will have changed. Second chance testing has always been a part of the lane software at the test stations. The problem was the parameters were such that it affected very few vehicles. With the new parameters, if the vehicle is in need of preconditioning, the first test will act as preconditioning for the second test. Second chance testing is a back-to-back test. The vehicle does not leave the lane.

The old parameters required that you have a wait time in access of 20 minutes and the failed gases be less than 150% of the standard. With the new parameters the wait time has been eliminated and the failed gases now allowed are less than 200% of the standards. See the example below.

|                             | Old Standards   | New Standards   |
|-----------------------------|-----------------|-----------------|
| Passing Standards           | 0.80 HC 15.0 CO | 0.80 HC 15.0 CO |
| Failing Standards-Less Than | 1.20 HC 22.5 CO | 1.60 HC 30.0 CO |

Beta testing proved that this system is very effective. Now instead of 30 or 40 seconds of preconditioning the vehicle is preconditioned for 240 seconds under better conditions. The pass rate was very high even for first test vehicles. 

# Three Strikes and It's Out

By Scott Kendall

If you are like me, you are a little apprehensive about replacing an expensive catalytic converter based solely on an OBDII trouble code. The thought of incorrectly installing an expensive part of any kind on customer's vehicle has always made me cautious. I suppose that if you work on only one brand of vehicle, you would become familiar with the tendencies of that

brand, and it would not be an issue. But to those of us that can see emissions failures on many different makes and models on a daily basis, it is a little tougher.

When I get a vehicle in that has failed the OBDII test with a catalytic converter code, I try whenever possible to check the converter three different ways, and I am not talking about using a four-gas

analyzer as one of the tests either.

I start by reading the codes with my scan tool. The next test also involves the scan tool. What I am referring to is reading the Mode 6 data. Mode 6 is engineering data that not all scan tools can access, and it is not available on

every make and model of vehicle. I use a Vetronics Mastertech Scanner, which offers full access to any Mode 6 data. It is accessed through the generic OBD II Section. After I check to see if there is any relevant Mode 6 data, I scope the post O<sub>2</sub> sensor on the affected CAT with my DSO as the third test.

As an example, I will detail the test process, which I used on a 1997 Mercury Grand Marquis that is owned by a longtime customer. The MIL

(malfunction indicator lamp) was illuminated, and in the PCM's memory there was a code P0430 for Catalyst Efficiency Low Bank 2.

After reading the code P0430 and then checking the Freeze Frame Data from the generic section, I next selected the **Systems Tests** category and then **Other Results** to find any Mode 6 data that the Grand Marquis had to offer. When **Other Results** is selected, the screen will show all of the Mode 6 tests that have been run on that particular vehicle. (Figure 1) The tests are categorized by Test ID (TID) and then Component ID (CID). At the end of each **TID** and **CID** listing is either a **Pass** or **Fail**. On the Mastertech Scanner, if you highlight any of the tests that are listed, then press the star and help keys simultaneously, you will see the test results for that particular test, either pass or fail, as a numeric value.

In the case of the Grand Marquis, there was relevant data available for a Catalyst failure on bank 2. It was **TID 10** and **CID 21**. (Figure 2). It shows a maximum value listed as 51 and a current value or test value of 53, so it is a borderline failure. But it doesn't end there. Since this Grand Marquis has in excess of 100,000 miles on it common sense would suggest that perhaps the catalytic converter on bank one could be on the verge of failure also. A check of the Mode 6 data for bank one, which is **TID 10** and **CID 11**, showed a current value of 53 verses a maximum allowable value of 53. This showed a catalytic converter that was operating at the very top of its test threshold. For most Mode 6 tests there are high and low thresholds listed as numeric values and if it is numerically out of range either high or low it is considered a failure.

Test ID 10 for this particular vehicle is a Catalyst switch-ratio test. Meaning that the PCM divides the number of post CAT O<sub>2</sub>

*Continued on page 8.*



Figure 1.



Figure 2.

*Continued from page 7.*

switches into the number of pre CAT O<sub>2</sub> switches and arrives at a test result with a numeric value from 0.0 to 1.0. What it is essentially comparing is the pre and post CAT O<sub>2</sub> signals to see how much oxygen the CAT can store. A figure of 0.0 being the best possible oxygen storage capability and 1.0 the least ability. The numeric value viewed on the scanner is multiplied by .0156 to get the exact switching-ratio. When you do the math using the CID result of 53 times .0156 you get .8268, which is near the top of the acceptable threshold of 1.0.

At this point I moved on to the third test, scoping the post O<sub>2</sub> CAT sensors with my DSO. I captured both post CAT sensors. Both CATs were fully lit off and the engine was maintaining 1500 RPM when the traces were captured. Both traces looked the same and were channeling more than you would expect to see from a post CAT sensor if the CATs are storing oxygen the way that they should. The CATs were not storing much oxygen which was obvious looking at the trace. This test confirmed that both CATs should be replaced.

Keep in mind that up until now the PCM has only identified the bank 2 CAT as having failed, but there are several questions that beg for an answer at this point. Based on the Mode 6 and DSO test results, how long do you think it will be before the MIL illuminates and a Code P0420 for a CAT failure on bank 1 is stored in memory? Why did the OBDII system only flag the CAT on bank two and not bank one?

If and when the MIL illuminates in the near future for the bank one catalytic converter, what will your customer's reaction be? If you put yourself in his position, the MIL is on again and like before the car exhibits no drivability concerns and he has just spent a lot of money to have a catalytic converter replaced. You are now telling him that he needs to spend the same amount of money again for what to him sounds like the same problem! Do you think he will

know or care what the difference is between codes P0430 and P0420? Is he likely to wave the repair invoice at you questioning your competence and honesty?

Because of the Mode 6 data that I extracted from the Grand Marquis, I was able to prevent this kind of fiasco and give my customer the "Big Picture." He knew exactly what to expect and could make an educated decision based on his financial situation. Good customers are very hard to come by, so I make every effort to keep them informed and satisfied.

This is the real benefit of Mode 6 data, as a predictor of future failures. It is not intended or recommended that a part be condemned based solely on Mode 6 test results. It is, however, another test result to be used along with a DSO trace or a trouble code to confirm a failure. Mode 6 data is not available on all vehicles and those that do offer it don't always offer test data for all emission components. It is sometimes available, however, for everything from EVAP to O<sub>2</sub> tests. In some cases the Mode 6 data is listed in hexadecimal code and a conversion chart is needed to make sense of it.

A lot of techs reading this may have heard of Mode 6 but don't know how to access or interpret the test results. There have been classes in the area put on by a fellow working tech named Rolland Trowbridge. Rolland compiled a great deal of test data and information on what the results mean and put it all in a book that is given out as part of his class. Without this information, the data is meaningless. Ford Motor Company has released a lot of Mode 6 information that is available on IATN. And incidentally the Ford Mode 6 data also offers misfire tests allowing you to calculate the number of misfires before the MIL is illuminated. Anyone interested in taking a Mode 6 class should call Tim at Automotive Seminars. The phone number is 800-450-0402.

Scott Kendall

Co-Owner Tahoe Automotive

Certified Master Auto Tech L1 Certified 

# How To Check A Vehicle That Won't Communicate

By Jim Wellman, Envirotec Repair Industry Liaison

**Editor's note:** *There are two sides to an OBDII system, the manufacturer's or vehicle-specific side and the generic or global side. The OBDII test performed in the test lane only deals with the generic/global side, and this article looks at the generic/global side in case you encounter a vehicle that will not communicate with the test lane and/or your scan tool.*

Occasionally a vehicle may leave the test station with a failed test because there was a

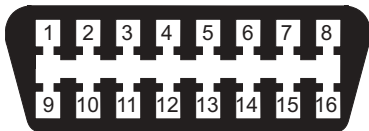


Figure 1. OBDII connector pins

communication problem between the vehicle and the test lane. This happens about 0.1 percent of the time. If your scanner is not self-powered

with its own internal battery, you may not be able to read the data coming from the computer. The following information on testing the OBDII connector (Figure 1) will help you deal with this problem.

The first thing you want to verify is power and ground. To check the ground circuits, disable the vehicle so that it will not start. Do a volt drop check on the system ground (which is Pin #4) to the battery negative with the engine cranking. This will give you a good dynamic test. The volt drop should be less than 0.2 volts. Then perform the same test on Pin #5. Pin #5

is the sensor signal ground and may not be used on all vehicles. Check your wiring diagram for confirmation. The voltage reading you get (while cranking) on Pin #5 will depend on the amount of resistance across the computer and should be close to what you see on Pin #4. Pin #16 should have system (battery) voltage with the engine running.

The next step is to verify the data signal with a DSO. (The data transmission rate occurs so quickly that a multimeter will not see the signal. Even if it does recognize it in "peak detect" mode, the value is averaged). Connect the DSO between signal and ground or Bus+ and Bus-. The signal will resemble a square waveform pattern (Figure 2) and should be 5 to 7 volts high, and may require a time base less than 100 microseconds per division to recognize the signal as being present. This is done with the engine running. The pins that are used for this will vary depending on the manufacturer and the protocol that is used. The protocol that is used can usually be determined by what pins are present in the OBD II connector. There are four protocols we are concerned with presently. The four protocols are:

- ⊙ J1850 VPW (variable pulse width) (10.4kbps)

The VPW system is used on most GM vehicles and sends data out on Pin #2 (SAE J1850 line (Bus+)) only. This system is also used on some Fords and Chryslers and may use Pin #10.

- ⊙ J1850 PWM (pulse width modulation) (41.6kbps)

The PWM system is used on most Ford vehicles and sends data out on Pin #2 (SAE J1850 line (Bus+)) and Pin #10 (SAE J1850 line (Bus-)) This signal will be inverted on Pin #10 and is not used on all PWM systems.

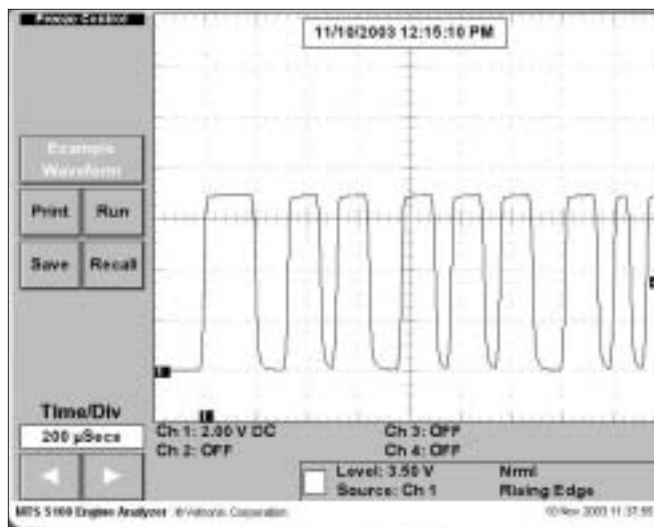


Figure 2.

Continued on page 10.

## How to Check a Vehicle That Won't Communicate


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- ⊙ ISO 9141-2 (International Standards Organization) (10.4kbps)
- ⊙ KWP2000 (Key Word Protocol) (Newer Version of ISO 9141)

The ISO and KWP systems are similar. The ISO system is used on most Chryslers and Imports. The KWP system is used on some Imports. These systems send data out on Pin #7 (K line of ISO 9141-2 & KWP 2000). Pin #15 may also be a part of this system (L line of ISO 9141-2 & KWP 2000). Pin #15 is not always used.

The following web sites may be helpful in making a determination of the type of protocol that is being used on the vehicle you are working with:

- ⊙ [http://www.scantool.net/scanned\\_list.htm](http://www.scantool.net/scanned_list.htm)
- ⊙ <http://www.obd-2.com/dlc.html> this site also has OBDII connector locations.
- ⊙ <http://www.obd-2.de/dl/probs.txt>
- ⊙ <http://www.ertools.org/files/public/generic-protocols-04-1-04.htm>

Thanks to George Generke, Al Santini and John Thorton for the help in verifying the information in this article. 

## Illinois EPA Announces Cost Savings in Vehicle Testing Program

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testing results in an estimated yearly reduction of 260 tons of benzene, which has been linked to cancer.

Prior to the station closures, vehicle owners will be notified of alternate stations they may visit. Information about station hours and locations will also be available on the program website <http://www.epa.state.il.us/air/vim/> or by calling IEPA's Air Team hotline at (847) 758-3400. For added convenience, each Envirotest station will continue to operate a toll free number for motorists to call in on for real-time information about the station they are preparing to visit. The numbers are provided in the test notices and on the Illinois EPA's web site at [www.epa.state.il.us](http://www.epa.state.il.us).

### Closing Stations and the Nearest Alternative Station(s)

|                        | Station Affected                | Closing Date    | Station Nearest Alternate   |
|------------------------|---------------------------------|-----------------|---|
| Northeastern Illinois* | Aurora                          | July 1, 2004    | Naperville (435 Weston Ridge Road)                                      |
|                        | Chicago/14th Place              | July 1, 2004    | Chicago/43rd Street (1344 W. 43rd Street)                               |
|                        | Schaumburg                      | July 1, 2004    | Palatine (508 South Hicks Road)   |
|                        | Streamwood                      | July 1, 2004    | South Elgin (745 Schneider Drive)                                       |
|                        | Wheeling                        | July 1, 2004    | Lincolnshire (580 Bond Street)  |
|                        | Chicago/76 <sup>th</sup> Street | By October 2005 | Bedford Park (5231 W. 70 <sup>th</sup> Place)                           |
|                        | Hillside                        | By October 2005 | Chicago/Fillmore (5618 W. Fillmore)                                     |
| Metro East**           | Glen Carbon                     | July 1, 2004    | Wood River (1710 Vaughn Road) or Pontoon Beach (1000 E. Chain of Rocks) |

\* **Hours of operation for all stations in Northeastern Illinois will remain the same:**  
Monday - Friday 8 AM - 6 PM; Saturday 8 AM - 1 PM

\*\* **Hours of operation for Metro-East stations beginning July 1 will be:**  
Wood River: Monday-Friday, 8 AM - 6 PM; Saturday 8 AM - 1 PM  
Pontoon Beach: Tuesday & Thursday 8 AM - 6 PM; Saturday 8 AM - 1 PM  
Collinsville: Tuesday & Thursday 8 AM - 6 PM; Wednesday & Saturday 8 AM - 1 PM  
East St. Louis: Monday, Wednesday & Friday 8 AM - 6 PM  
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# Difficult-to-Set Readiness Monitors

We've heard from a number of technicians who became frustrated when trying to set readiness monitors. The readiness monitors on some vehicles are harder to set than others, and in general, the monitors on 1996 and 1997 vehicles take longer to set than newer vehicles. Here are some key points technicians should be aware of.


Some early OBDII systems are known to have intermittent readiness status, and thus, the Illinois vehicle emissions test stations do not reject these vehicles when the required number of monitors are "not ready". As a result, it is not necessary (and in some cases, impossible) to set some or all of the noncontinuous readiness monitors in these vehicles. The following table details these vehicles, but it is important to understand that **this list is subject to change:**

| Model year  | Make       | Models                            |
|-------------|------------|-----------------------------------|
| 1996        | Chrysler   | Cirrus, Concorde, LHS, New Yorker |
| 1996        | Dodge      | Avenger, Intrepid, Neon, Stratus  |
| 1996 - 1997 | Eagle      | Talon                             |
| 1996        | Eagle      | Vision                            |
| 1996 - 1998 | Hyundai    | Sonata                            |
| 1996-1998   | Mitsubishi | all models                        |
| 1996        | Plymouth   | Neon                              |
| 1996        | Porsche    | all models                        |
| 1996 - 1997 | Saab       | 900S                              |
| 1996        | Subaru     | all models                        |
| 1997        | Toyota     | Paseo, Tercel<br>*see note below  |
| 1996 - 1997 | Volvo      | 850, 850R, 960                    |
| 1998        | Volvo      | S70, S80, S90, V70, V90           |

**\*Note:** The status of the catalyst monitors on 1997 Toyota Paseos and Tercels is ignored in the test lane, but not more than two of the remaining noncontinuous monitors can be "not ready" at the time of an Illinois emissions test. There are a number of resources technicians can use to help set readiness monitors. These resources include publications, technical service

bulletins, the Colorado State drive trace CD, and subscription services (such as All Data, Mitchell-On-Demand, etc.)

- ⊙ Motor Information Systems sells a 600 page OBDII Drive Cycle Guide. ([www.motor.com](http://www.motor.com))
- ⊙ The 2004 edition of the *Mitchell Emission Control Application Guide* has a helpful section on the vehicles with monitors that are difficult to set. ([www.mitchell1.com](http://www.mitchell1.com))
- ⊙ The National Automotive Service Task Force (NASTF) website includes a wealth of information and links to OEM service websites. (See our interview of NASTF's John Cabaniss on page 4.)
- ⊙ The drive trace CD developed by the National Center for Vehicle Emissions Control and Safety (NCVECS) at Colorado State University is available for sale on their website ([www.ncvecs.colostate.edu](http://www.ncvecs.colostate.edu)). HOWEVER, technicians can receive one free by attending both nights of the "How to Fix an OBDII Failure" seminar sponsored by the Illinois EPA and Envirotest Illinois. See page 2 for more information about these FREE seminars.
- ⊙ Manufacturers continually issue and revise technical service bulletins (TSB). Checking for TSBs is usually an important step in the repair of any OBDII problem.

Technicians should make use of all of the available resources to help find drive trace information that works for them. 

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