

If you are looking for past issues, [Click here](#)

eAir REPAIR



August 2011

Misfire – DTCs

2001 Honda S2000

By: Tony Barcham from Car-X Auto Service

Recently a 2001 Honda S2000 came to my shop for emission repair with codes P0300, P0301, P0302, P0303 and 60k on the odometer. The car was running a little bit rough, the COP ignition coils were producing enough spark, and they were reasonably all equal. I looked at my fuel trims. They were – 20% too rich, and the computer was trying to reduce the fuel. What am I missing? Clogged converter? The 16 psi vacuum gauge reading on the intake manifold did lead me to a compression check which was 150 psi on cylinders 1, 2, and 3 and 165 psi on cylinder 4, which is less than the manufacturer's specifications. After that, a leak down test was performed and found leaking exhaust valves on all cylinders and the intake valve on others. Did I have a timing or VTEC issue? This system has no hydraulic lifters, and after removing the valve cover and checking the valve lash, the feeler gauge would not slide between the rocker arm and the valve. After adjusting all valves, the car ran very smooth, and my fuel trims were within 5%.



Hesitation & Misfire, Lean Running P0171, P0300

By: Stace Stremski from Standard Generator Service Inc.

In This Issue

[Misfire – DTCs](#)

[2001 Honda S2000](#)

[Hesitation & Misfire, Lean Running P0171, P0300](#)

Tech Tip of the Month

[Use Dashboard Forum as Information Resource](#)

2011 Seminars

[Computers, Information, and Access... to SUCCESS!](#)

[Computer Reprogramming in 2011](#)

[Asian Driveability](#)

[Top Illinois DTC Diagnoses](#)

[Readiness Monitor Challenges](#)

[Communication on my Scan Tool?](#)

Quick Links

[Air Repair Newsletter Archives](#)

[Test Station Locations](#)

[Check Station Wait Times](#)

[Repair Shop Report Card](#)

Share Your Tips

Email your tips or case studies to: EPA.Repair.Outreach@illinois.gov

2002 Toyota RAV4 with severe hesitation and a +25 LT fuel trim. I cleared the fuel trim and it was barely running. Fuel injectors not flowing sufficient fuel is a pattern failure on 1.8 & 2.0 Toyota 1az-fe engines, assuming fuel pressure is within specs and MAF sensor tests good. I tried cleaning these injectors five times using different solvents at different pressures. It made no difference on each vehicle I encountered. I have personally repaired three vehicles with this same problem and replaced all four injectors. This resolved the issue of hesitation, DTC P0171 or P0174 and +25 or more fuel trims. You must perform a fuel injector flow test with tester. I used an OTC Injector Pulse with 10ms or 50 pulses. My readings with the faulty injectors started with fuel pressure at 49 lbs and ended at 40 lbs of pressure. After installing new injectors and starting at 49 lbs of pressure, the pressure ended at an acceptable 33 lbs. I spent many of hours on this problem and hope you will benefit from reading this article.

Tech Tip of the Month

From: the Illinois EPA Repair Industry Outreach Team

Use Dashboard Forum as Information Resource

If you have a repair that you are having problems with, try using the Dashboard Forum. The forum is a proven resource to tap into the expertise of your fellow technicians. Remember when posting to the Forum:

- Be specific (plate number, year, make, model, engine size)
- Include all of the repair history
- Include your diagnosis
- Include what you have done so far
- Be courteous and use forum etiquette
- Post a conclusion so others can learn

2011 Seminars

All seminars are from 6 pm – 10 pm on dates below.

They are sponsored by the Illinois EPA for the repair industry, and they are free!

Register now for 2011!

Computers, Information, and Access... to SUCCESS!

Presented by: Scott Shotton

Technicians, service writers and owners, don't pass this up! Technology, different job titles and different job responsibilities make today's automotive workplace a harsh environment. Communication is essential in the automotive repair industry today. This class was established to offer the best information available to owners, service writers and technicians to make day-to-day business productive. The dashboard, OE sites, free references, etc. will be covered. There is much room for conversation about individual situations, in fact it is encouraged. You will leave with valuable knowledge for your business.

Topics Covered:

1. Computers in the shop. Possible hardware configurations (taking security and ROI into account.)
2. The internet. Which computers and when.
3. The Dashboard. How it can benefit you.
4. Technical Resources
 1. Technicians
 2. Service Writers
 3. Owners
 4. General Operations... PROFIT

All of these topics will be presented in a case study basis that technicians are familiar with,

but adding the service writer aspect to make it a whole team effort.

Date	Location
August 3rd, (Wednesday)	State of Illinois Regional Headquarters Complex Collinsville, IL
December 13th, (Tuesday)	Oakton Community College Des Plaines, IL

Computer Reprogramming in 2011

Presented by: Scot Manna

This seminar will cover current information regarding "generic" re-programming for General Motors, Ford, and Chrysler vehicles. The latest information regarding SAE J-2534 standards in computer reprogramming will be presented along with the necessary steps required to perform a successful re-flash procedure. OEM website access and software downloading will be illustrated through step-by-step actual vehicle software update processes for each manufacturer. If you plan on using a generic tool to update domestic vehicle computers, you should not miss this seminar.

Date	Location
September 28th, (Wednesday)	College of DuPage Glen Ellyn, IL
November 15th, (Tuesday)	State of Illinois Regional Headquarters Complex Collinsville, IL

Asian Driveability

Presented by: John Thorton

Using a case study format, a wide variety of diagnostic techniques used to diagnose check engine lamp complaints on late model Asian vehicles will be discussed. DTC concerns to be covered include misfire, fuel trim, cam timing, evaporative systems and much more. Scan tools, scopes, gas analyzers and service information are some of the tools which will be incorporated into each of the case studies. The attending technician will be shown how to diagnose common, and not so common, MIL issues on Asian vehicles. A detailed handout supporting the discussion will be provided.

Date	Location
October 27th, (Thursday)	Morton College Cicero, IL
December 1st, (Thursday)	Joliet Junior College Joliet, IL

Top Illinois DTC Diagnoses

Presented by: Ken Zanders

This seminar will address the top Illinois codes, offering unique suggestions for interpreting and ultimately repairing these faults. It serves as an introduction to using what is called the "descriptor" when dealing with the various codes and the characteristics of the systems you are working on. This seminar will serve as a great introduction to the base understanding of the more advanced systems that will enter many shops in the very near future. This is a must attend seminar for the serious emissions specialist.

Date	Location
August 1st, (Monday)	Morton College Cicero, IL
September 7th, (Wednesday)	State of Illinois Regional Headquarters Complex Collinsville, IL

Readiness Monitor Challenges

Presented by: Scot Manna

This seminar will address the problem of OBD emissions test rejects due to monitor status being “not ready.” First retest rejects count against a shop's grade, so making sure monitors run to completion is critical. Case studies of vehicles with difficult to set monitors will be studied. A strategy for addressing vehicles that won't run monitors will be discussed, along with using scan tools and Mode 6, to help determine a solution to this often challenging problem. Vehicles that won't run monitors can be one of the most difficult diagnostic challenges a technician may face. This is a critical class to attend.

Date	Location
September 1st, (Thursday)	Morton College Cicero, IL
September 20th, (Tuesday) ** Note: date change **	Oakton Community College Des Plaines, IL
September 19th, (Monday)	Joliet Junior College Joliet, IL
October 24th, (Monday)	Lake County High Schools Technology Campus Grayslake, IL
November 10th, (Thursday)	College of DuPage Glen Ellyn, IL
November 16th, (Wednesday)	State of Illinois Regional Headquarters Complex Collinsville, IL
November 21st, (Monday)	Moraine Valley Community College Palos Hills, IL

Communication on my Scan Tool?

Presented by: Ken Zanders

This seminar will take a look at various protocols used on various makes and models. The ultimate goal is to address the no communication failures as identified by the Illinois EPA. This seminar also offers an opportunity to learn about the newest communication issues on new vehicle products. A suggested procedure will be offered to assist in addressing these failures in a generic format to promote a better understanding of these systems.

Date	Location
September 8th, (Thursday)	State of Illinois Regional Headquarters Complex Collinsville, IL
October 3rd, (Monday)	Moraine Valley Community College Palos Hills, IL
October 5th, (Wednesday)	Oakton Community College Des Plaines, IL
October 11th, (Tuesday)	College of DuPage Glen Ellyn, IL
November 7th, (Monday)	Joliet Junior College Joliet, IL
December 5th, (Monday)	Lake County High Schools Technology Campus Grayslake, IL
December 8th, (Thursday)	Morton College Cicero, IL