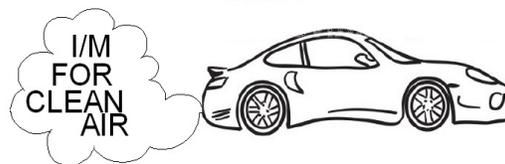




UTAH COUNTY TECHNICAL BULLETIN

February, 2014-1



BYPASS CODE 201 RESCINDED

By now all analyzers should have software version 1.47 installed. The latest software uses the “fuel type” entry to determine the proper test procedure to use on alternative fuel and dual fuel vehicles. Therefore bypass code 201 should no longer be used. Use of any OBDII bypass codes must be pre-authorized by our office.

1996-98 OBDI HEAVY DUTY VEHICLES

Heavy duty vehicles 1996-2007 are now receiving a hybrid OBD/TSI inspection, if they are OBDII compliant. Some 1996-98 HD trucks (particularly Ford and Dodge) are OBDI compliant and therefore do not have the proper J1962 connector. These vehicles can easily be identified by the Emission Control label stating OBDI compliance. The analyzer will now prompt you on heavy duty vehicles with the question: Does the vehicle have an OBDII connector? This question should be answered “No” for only those vehicles manufactured without a J1962 connector and were not certified as OBDII compliant. All other HD vehicles that were manufactured as OBDII compliant should receive a “Yes” answer.

THE MISLEADING NATURE OF THE PO420-434 Codes

In the last tech bulletin we discussed the prevalence of catalyst efficiency codes and the importance of repairing them properly. It is important to remember that these codes may be set by problems other than a faulty catalytic converter.

Catalytic converters can be very expensive, so before you replace them there are some basic diagnostics to perform to make sure the catalyst replacement is warranted. First, be sure that the catalyst efficiency code is the only code present; if not, diagnosis and repair of the other codes is necessary, as they may be causing a false catalyst code. The reason for this is the catalytic converter is the end component in the emission control device chain. Basically, if there is a mechanical malfunction or a problem upstream with one of the sensors in the engine or exhaust, it can cause either too much or too little fuel to enter the engine thereby negatively impacting proper catalytic converter operation.

If the engine is getting too little fuel it causes a lean condition, which raises combustion temperatures and, in turn, raises exhaust temperatures. Since converters operate properly only within a certain temperature range (900-1,400° F), extreme temperatures lower the efficiency of the catalyst and can trigger the false catalyst DTC.

Rich fuel conditions, and subsequent rich exhaust can coat the catalyst material, cooling it, which prevents the catalytic reaction from occurring. Without the catalytic reaction the overall efficiency will be low, resulting in a catalyst DTC.

If the vehicle has multiple DTC's, including catalyst codes, always repair the other systems first and verify the repairs before addressing the catalyst codes. After a rich fuel condition has been repaired, and the vehicle driven, the catalytic converter may be partially rejuvenated enough to not set a code.

PROPER EVAP TAMPER INSPECTION

Over the past few decades vehicle inspection and repair has undeniably become more high-tech and, to some extent, more difficult for the technicians. EVAP is one of the systems that has become much more difficult to visually examine. The charcoal canister on many modern cars are hidden behind body panels or placed on top of the fuel tank. In configurations like this a visual check of the canister is not possible. Inspectors are expected to attempt to visually inspect the portion of the system that they can see; including canisters, lines, hoses, valves, etc., to the point where they may disappear into the body. Inspectors are not required, or advised, to disassemble a vehicle while performing an inspection.

There has been some confusion regarding the significance of the green EVAP test ports that started showing up on vehicles in the mid 90's. These test ports were used for testing and diagnosing the EVAP system by pressurizing the system and monitoring the rate of pressure decay, thereby detecting a possible leak. Enhanced OBDII has made this invasive test procedure all but obsolete and by 2007 a gradual decline of these test ports began (depending on original emissions certification). If present, the green test port is only an individual component of the overall EVAP system and it's presence alone does not constitute a passing EVAP system visual inspection.

CLARIFICATION OF OBDII SYSTEM TAMPER

There seems to be some confusion regarding the "OBDII System" item that was added to the visual tampering inspection list. This item should be marked "F" (Fail) if you determine that all or part of the OBDII system has been removed, illegally modified, rendered inoperable or defeated.

Some examples of a <u>Failure</u> would be:	Some examples that would <u>NOT</u> be a failure:
Missing ALDL	ALDL present but not working (no comm)
O ² sensor extenders installed	MIL illuminated with Key On Engine Running
* O ² simulator installed	MIL bulb check failure
* System component monitors deactivated	Corroded battery terminals
* Readiness monitors hard coded to always "Ready"	Aftermarket air intake installed
* Note: Technicians are not required to look for this type of tampering. However if you have knowledge of this tampering or if you detect this type of tampering you may fail the vehicle.	Insurance company data logger installed
	CARB approved performance tune installed

TECH TIP VE0064

Thermostat, Thermostat, Thermostat

We've mentioned this problem in previous tech bulletins but still many of the cars that come to us with difficulty getting ready have one thing in common - thermostats! They either have a faulty thermostat or the wrong temperature thermostat installed. In many instances these vehicle owners have spent hundreds of dollars at repair shops and spent countless hours driving drive cycles and the only problem is the engine temp is below threshold. Come on guys, an engine running at 160 degrees will never run the monitors! This inexpensive, and easily repairable, item has cost owners considerable grief.

