

A Monthly Publication for GM Dealership Service Professionals

# **Differential Cooler**



### **Techline News**

# **TIS 2 Web Update**

#### **TIS 2 Web Launches SPS**

GM Service and Parts Operations (GMSPO) has recently launched the next phase of the TIS 2 Web. Service Programming Systems (SPS) has now been added to the suite of TIS 2 Web applications along with Tech 2 software download. As part of an initiative to make all service applications available over the Internet and optimize your dealership's MPI hardware, TIS 2 Web is providing technicians access to the latest vehicle updates possible.

#### The Benefits of SPS over the Internet

Having SPS available on TIS 2 Web allows GM the ability to quickly release updates for all vehicle lines, which means technicians will have access to the latest calibrations available. This improved update process helps technicians to work more efficiently and 'Fix It Right The First Time'.

#### How to Get Ready

The Techline PC must have Internet access and meet the minimum hardware and network specifications to function properly when using TIS 2 Web or any service application. These specifications can be found at http://service.gm.com/techlineinfo/techlinepc.html.

Also, technicians must have their own individual DealerWorld ID and Password to log on to GM DealerWorld http://www.gmdealerworld.com. The dealership's Partner Security Coordinator can create the IDs and provide the appropriate

continued on page 2

This month (April 2006) a differential cooler assembly is available for the Cadillac STS-V. The part number is 15868857.

The system is designed to reduce the operating temperature of the rear differential fluid when the STS-V is driven at extended high speed or in competitive driving. The STS-V comes with control logic to operate the system when high heat generation conditions are met. The wiring harness has provisions for the cooler, making it an easy installation. Installation time is less than 2 hours.

The differential lubricant pump and cooler assembly is located under the vehicle and is mounted to the rear storage compartment well. The cooler module assembly consists of a pump, a heat exchanger, an electric fan and assorted hoses/fittings. All components except the external lines and fittings are located in the Cooler Module.

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**GM** Service and Parts Operations

### Differential Cooler — from page 1

Oil is pulled from the differential and pumped through a hose to the cooler/heat exchanger. The differential oil is cooled by dissipating heat as the 12 volt electric fan blows outside air over the heat exchanger. The cooled differential oil then returns to the differential.

*TIP:* The pump and electric fan can be turned on using the Tech 2 or suitable scan tool.

The differential cooler system has a maintenance feature that operates the system for approximately 15 seconds under certain conditions during initial vehicle operation. It is normal to hear the system run during this maintenance cycle.

If the vehicle is equipped with this system, rear differential fluid capacity is an additional 0.31 L (0.23 qt).

- Thanks to Darren Bohne and Tobin Davis

#### Techline News — from page 1

credentials to access TIS 2 Web under the Service tab in GM DealerWorld. Upon accessing SPS from TIS 2 Web, technicians will find that updates have been made to improve the usability of SPS while keeping its familiar functionality.

*TIP*: In Canada, TIS 2 Web is accessed from the GMinfoNET. Technicians must have their own Autopartners ID and Password to log on to the GMInfoNET.

*TIP*: In Mexico, TIS 2 Web is accessed from E-Dealers.

#### Using TIS 2 Web For All SPS Events

Dealers should begin using TIS 2 Web immediately for all service programming events and Tech 2 software downloads. As the remaining applications within TIS such as Tech 2 View and Snap Shot are added to TIS 2 Web, TIS 2 Web will become the primary service diagnostic and reprogramming resource made available to technicians. Future communications will inform you regarding updates to TIS 2 Web.

**Cooler** location

When a programming event is completed, a screen will appear containing a warranty claim code. This code must be added to the Failure Code/OBDII field on the warranty claim for all SPS events. Refer to bulletin 06-08-47-001 for details.



If there are any questions, please contact the Techline Customer Support Center (TCSC) at 1.888.337.1010 (prompt 3) in the US. In Canada, 1.800.828.6860 English or 1.800.503.3222 French.

 Thanks to Mike Waszczenko and Devin Koski

### **Tech 2 Navigation Changes**

For CD version 26.005, under the TECH 2 path "Diagnostics > (7) 2007 > LD Trk, MPV, Incomplete," the VIN character designations have been removed.

The NAO CD is used all over the world and includes vehicles not sold in North America. Some of these vehicles do not use the same VIN designation as North

America. This change was made because some new vehicles have been added that would have conflicted with the existing navigation. The VIN designations are obsolete and would have caused confusing menus.

- Thanks to Brian Buck

Select one of	entification f the following t Make(s)
Chevrolet Truck GMC Truck Buick Cadillac SAAB	



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# **Armrest Angle**

On the Chevrolet HHR, the armrest attached to the seatback has two positions, up and down. In the down position, the angle of the arrmrest depends on how much or

how little the seatback is tilted. There is no independent adjustment for the armrest position.

This is normal operation and no repair should be attempted.

*TIP*: The armrest is guided by a pin-in-slot arrangement. If the pin comes out of the slot due to overloading, the pin can be returned to the slot and the armrest becomes fully functional again.

- Thanks to Dana Rush



Armrest position with seatback upright (left) and seatback tilted (right)

# **Navigation Disc Update Program**

To improve customer satisfaction with the factory installed DVD Navigation System, GM is announcing a new Navigation Disc Update Program and a new GM Navigation Disc Center, which launches on March 15, 2006.

Owners of all 2006 and later vehicles (except Saab) with a factory installed navigation system are eligible to receive two free annual updates. Owners will be contacted approximately 10 months after delivery and again at the second anniversary date of delivery.

Certified used vehicle customers with a factory installed navigation system will receive one free update after delivery.

The owner must indicate that they want the update in one of two ways:

- using website www.gmnavdisc.com

- by phoning 1.877.628.3472

*TIP:* Navigation discs will no longer be available through SPO. Dealers will be able to order replacement DVDs through the web or by contacting the GM Navigation Disc Center.

*TIP*: Owners of 2005 and earlier vehicles can order an update or replacement through the web or toll free number at market price.

*TIP:* The Navigation Disc Center is also the expertise resource for navigation system questions.

- Thanks to Steve Falko

# **EGR** Valve Kit and Reprogramming

Bulletin 06-06-04-002 has been released to deal with an EGR condition involving the SES light. It may be accompanied by DTC P1404 and/or DTC P0404 which may have led to previous EGR valve and PCM replacements.

The bulletin applies to 2005-06 Chevrolet Malibu built prior to August 1, 2005 and Pontiac G6 built prior to September 1, 2005 with 3.5L V6 Engine (VIN 8 – RPO LX9).

The EGR valve kit, p/n 89018175, is used to convert an LX9 engine used in the Chevrolet Malibu and Pontiac G6 equipped with a Delphi EGR valve to a Siemens valve. The kit contains all necessary parts for conversion.

EGR Valve Kit 89018175		
EGR Valve	12581876	
EGR Gasket	12593632	
Pipe Assembly, EGR Valve	12586606	
Wiring Harness Connector, EGR Valve (includes terminals and wire leads)	15306175	

The powertrain control module (PCM) calibration must be updated for the Siemens EGR valve to work correctly. Failure to install an updated calibration when using this conversion kit may cause PCM diagnostic codes to set,

# Remote Unlock Inoperative

Some owners may comment that the door of their 2003-06 Chevrolet SSR will not unlock with the key remote. This may happen after the vehicle is washed and parked in freezing temperatures.

The front side door actuator (bell crank) bracket assembly may freeze where it rotates. If this is the condition, replace both front side door actuator bracket assemblies (p/n 15865377).

- Thanks to Dan Oden

# **Hood Closing**

This information applies to the 2007 full-size utilities, which use a centermounted support strut (gas spring) for the hood.



Before closing the hood, be sure all the filler caps are properly installed. Then bring the hood from full open to within 6 inches (150 mm) of the closed position, pause, then push the front center of the hood with a swift, firm motion to fully close the hood.

- Thanks to Dave Roland

resulting in a Service Engine Soon indicator lamp to illuminate.

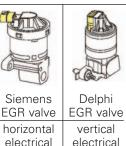
#### **EGR** Valve Identification

If a Siemens valve is already installed, it is not necessary to install this kit. Individual com-

ponents are serviced.

#### Instructions

Refer to bulletin 06-06-04-002 for complete installation and programming instructions.



- Thanks to

Jim Kelly and Duane Raymond

# Water Leaks

A bulletin is being prepared to explain how to locate and repair water leaks in the 2007 full-size utilities. Here are highlights.

A-Pillar — moisture between the top of the A-pillar trim and headliner.

Run water over the front of the rubber roof ditch molding. If a leak is observed, remove the ditch molding and look for a void in the sealer between the roof ditch sealer melt strip and the sealer patch. If a void exists, fill the void with sealer and retest with running water.







#### Kickpad Carpet 1 — moisture in kickpad area.

Remove the kickpad and sill plate. Lift the carpet. Look for sealer in contact with the park brake grommet. Remove sealer and replace the grommet.

Run water on the outside of the park brake grommet in the engine compartment. Run water onto the center of the cowl screen between the windshield wipers at the base of the windshield.

*TIP*: If the leak is still present, see the next procedure.



Moisture location at kickpad

**Kick-Pad Carpet 2** — moisture in kickpad area, and sealer has been removed from the park brake grommet area (see above).

Remove the cowl screen and look into the top of the plenum, using a shop light. Observe the sealer in the fore/aft seam between the cowl side and plenum lower.

If there are voids in the sealer, add sealer as necessary and retest with running water.

- Thanks to Saundra Massingille

### **Underhood Lamp**

Corvettes are now leaving the assembly plant with the underhood lamp disconnected to protect the battery during the shipping process.

An information sheet is attached to the instrument cluster as a reminder to



Location of park brake grommet



Sealer in contact with grommet





Under Hood Lamp Connection

ATTN: DEALER

The under hood lamp is unplugge

to protect the battery during the shipping process. To connect the lamp, please follow these steps.

1. Open hood; under hood lamp

plug is located forward of the radiator on the passenger side

2. Locate plug taped to the

(Figure 1).

connect the lamp during new vehicle preparation.

Locate the lamp plug attached to the radiator housing and remove the yellow tape. Plug it into the wiring harness on the radiator housing. Check lamp operation.

- Thanks to Art Spong

# **MAF Sensor**

Some early 2006 Chevrolet Corvette Z06 air induction system MAF sensors were attached to the air induction housing with five-lobed Torx Plus tamper-resistant fasteners. These fasteners have a post in the center of the lobes.

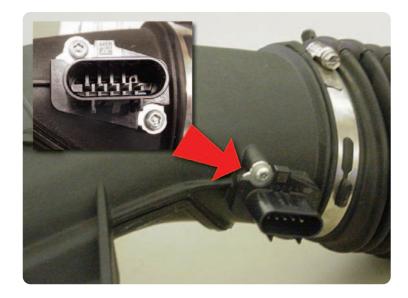
If it becomes necessary to remove the MAF sensor and you don't have the appropriate removal tool, use a thin cut-off wheel on a die grinder to create a slot in the fastener head.

*TIP:* The air induction housing must be removed from the vehicle before grinding.

Once the slot is cut, use a straight blade screwdriver to remove each fastener.

GM p/n 11589093 is available as a replacement fastener. This service fastener has a T20 Torx head.

- Thanks to Dave Libby



# Inflatable Restraint Steering Wheel Module Coil Noise

Owners of some 2003-06 C/Kvehicles may experience a noise (rubbing, scraping, clicking, etc.) coming from the steering column area while turning the steering wheel.

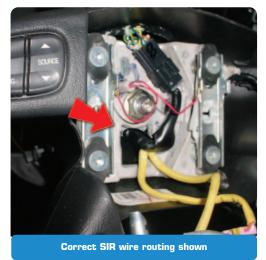
Improper installation of the Inflatable Restraint Steering Wheel Module Coil could cause a noise concern. To avoid unnecessary replacement of the coil, use the following checklist for proper coil installation before replacing a suspect coil.

- 1. Remove the steering column trim (SI document 1762533)
- Disable the SIR system and remove the SIR module from the steering wheel (SI documents 1425970 and 332742). Check that SIR and/or redundant control wiring has not been tucked behind the steering wheel.

*TIP:* The process of removing the SIR module may be enough to free up wires that have been tucked behind the steering wheel.

Install the SIR module and re-check for noise.

3. If SIR and redundant control wiring is routed properly and the noise is still present, remove the steering wheel (SI document 822725).



 Check that the coil retaining ring is properly seated. If the retaining ring is not properly seated, correct the condition and re-check for noise. 5. If the retaining ring is properly seated and the noise is still present, check that the coil wiring harness is properly routed along the steering



**Coil retaining ring location** 

column. Any excess force or tension on the outer housing of the coil due to improper routing could cause noise. If wiring is improperly routed, correct the concern and re-check for noise.

6. If the retaining ring and all wiring is installed correctly and noise is still present, perform the coil centering procedure (SI document 822781). Re-install the coil and re-check for noise.

*TIP*: A coil that is off center by as little as 1 or 2 revolutions could be the source of the noise.



7. If the noise has not been eliminated by following the steps above, only then should the coil be replaced.

– Thanks to Kevin Larson

Wiring harness routing

# Truck Front Suspension Z Height Revisited

A new procedure is now available for measuring Z height on the Colorado, Canyon, Hummer H3 and 2007 full-size trucks. It should be used for these vehicles as well as future products, as indicated in the appropriate vehicle Trim Height Inspection Procedure in SI for those vehicles.

One of the required preliminary measurements before performing a front end alignment is checking the front suspension Z height. This height setting is critical for proper camber, caster and toe settings as well as overall vehicle ride height.

*TIP:* In addition to alignment issues, extremely incorrect Z height can contribute to a third order wheel tire vibration on vehicles equipped with front drive axles.

2005 TechLink explained how to measure truck front suspension Z height, using the SI procedure and specifications. It explained how to use a carpenter's level to extend the ball joint reference plane directly underneath the appropriate control arm attachment bolt for accurate measurement.

That procedure is still valid for most current and older trucks.

Always consult SI for appropriate procedures and specifications for the vehicle you are working on.

In Trim Height Inspection Procedures, SI provides a specification from the center of one of the lower control arm attaching bolts to an imaginary plane extending from the bottom edge of the steering knuckle.

Here's a method of measuring this dimension. It will give accurate results using a 4 foot (1.2 m) carpenter's level and a tape measure.

Prepare the vehicle:

- Sitting on an alignment rack
- Suspension fully supporting the vehicle
- Pins out of the pivot pads
- Tire pressure adjusted to certification label specification
- Doors, hood, trunk all closed
- Full tank of fuel

*TIP*: It is necessary to measure Z height on each side of the vehicle. Do one side, then repeat the procedure for the other side.

Jounce the front and rear suspension to obtain at least 1.5-inch (3.8 cm) deflection and allow the vehicle to settle.

Set the top edge of the level on the reference surface of the steering knuckle (C) and extend the level directly under the **rear** end of the **front** attachment bolt of the lower control arm (A). While keeping the level in contact with the knuckle reference surface, adjust the level up/down until the bubble indicates it is horizontally level. Then extend the tape measure straight down from the center of

the attachment bolt. The point where the tape measure and level intersect is your first measurement.

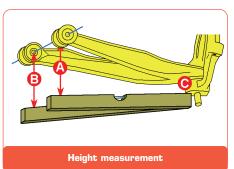
Now keep the top edge of the level on the reference surface of the steering knuckle (C) and move the level directly under the **front** end of the **rear** attachment bolt of the lower control arm (B). Repeat the measurement as described earlier.

Average the two readings (add A and B together, then divide by 2) and write down the result. This is the vehicle's Z height. Compare this number with the published Z height specification.

*TIP:* You can obtain statistically greater accuracy if you repeat the procedure described above a total of 3 times and average the results (add them together, then divide by 3). The result is the vehicle's Z height. Compare this number with the published Z height specification.

*TIP*: It may be necessary to cut a notch approximately 3 inches long by 1-1/2-inch deep (7.6 cm by 3.8 cm) in one end of the level to clear the wheel rim and still maintain contact with the level working surface against the steering knuckle reference surface.

- Thanks to Dan Stress and Ken Peacock



### **TAC** Tips

### Rear Main Oil Seal Leak

This information applies to 2005 Buick Terraza, Chevrolet Uplander, Pontiac Montana SV6 and Saturn Relay.

These vehicles may have a large, repeat rear main oil seal leak which may not be easily duplicated while vehicle is idling. The leak may be present only while vehicle is being driven.

The rear main bearing may exhibit excessive clearance, caused by excessive bearing wear. This may be aggravated by high-end engine RPM limitations related to valve spring oscillation/float as described in bulletin 05-06-01-036.

- 1. Verify engine oil is at proper level, not overfilled.
- 2. Verify proper operation of the crankcase PCV system.
- 3. Replace rear main bearing.
- 4. Replace rear main seal following bulletin 05-06-01-019B, and utilizing the new service tool described in the bulletin
- 5. Replace all valve springs using p/n 12599294 as detailed in bulletin 05-06-01-036.
- Thanks to Ronald Mitchell

### Fold and Tumble Seat

This information applies to the 2007 Cadillac Escalade, Chevrolet Tahoe and GMC Yukon with RPO (ARS).

One or both of the following conditions may affect the power fold and tumble second row seats:

- 1. The seat bottom will not flip forward on the second stage of the fold and tumble seat.
- 2. The seat back will not fold back to the upright position after the rear seat bottom is latched.

The outer striker may not be fully latching into the seat bottom. To repair this condition, use an adjustable wrench to rework the outer striker (closest to



the door ) 1-2 mm (0.04-0.08 in) forward toward the front of the vehicle. This should center the striker with the seat bottom latch.

Thanks to Paul Radzwilowicz

#### Part Number Correction

An incorrect part number appeared in the Axle Vent Hose Fluid Leak article (Feb. 2006, page 7). The correct part number for the filter is 5651682.

### **TAC**Tips

### 4WD Models With Noise, Vibration on Dry Pavement

Owners of some 1996-2007 light duty trucks and utilities equipped with four wheel drive (4WD) may comment about a groan, growl, or moan coming from the vehicle when operating the vehicle in 4WD.

The vibration that is heard or felt is a result of the front axle being excited to resonance at its natural frequency. This is a combination of the transfer case chain link frequency, engine firing frequency, tire circumference variation, and various other tolerances built into the 4WD system.

A groan, growl or moan noise on deceleration while in 4WD is also the result of loading the transfer case chain, which is a normal operating characteristic. This is an example of a transfer case link frequency noted above.

On certain models, such as 3/4 and 1 ton vehicle, tire pressures can vary from front to rear, based on the manufacturer's specifications.

Example: the manufacturer's specifications for tire pressures on a 2003 K2500 Suburban are front: 50 PSI, rear: 80 PSI.

The difference in tire pressures affects the rolling tire circumference from front to rear, which can increase driveline noise while in 4WD. This is a normal operating characteristic.

For test purposes, drop the tire pressure in the rear to match the front. If the noise is reduced or eliminated, this confirms the difference in tire pressures from front to rear can affect the noise when operated in 4WD. Set the rear tire pressure back to the manufacturer's specification.

For vehicles with same tire pressures front to rear, swap tires from an identically built vehicle that does not seem to exhibit the concern and re-evaluate both vehicles.

No repairs are recommended for this condition.

For more information regarding driveline noises while in 4WD, refer to the latest version of bulletin 01-04-18-001D.

- Thanks to Rusty Sampsel

### **Camshaft Actuator System Debris**

This information applies to 2005-06 Buick Rainier, Chevrolet TrailBlazer, GMC Envoy and Saab 9-7x with 4.2L Engine (VIN S-RPO LL8).

On rare occasions, a rough idle or running concern may be encountered with a P0014 and /or P0017 DTC. Due to the rough idle, a P0106 DTC may also be stored. This may be due to debris in the camshaft actuator system, which may be caused by a missing camshaft actuator solenoid screen or a worn crankshaft thrust bearing.

*TIP*: If the condition is due to a worn crankshaft thrust bearing, some customers may also comment on a drive belt noise.

Follow SI diagnostics and repair as necessary. If the SI diagnostics do not isolate the cause of this concern,

ensure that the screens are in place.

- A Screen for advance pressure to camshaft actuator
- B Screen for pressurized oil from oil pump
- C Screen for retard pressure to camshaft actuator



If any of the screens is missing, replace the camshaft actuator solenoid and change the engine oil and filter.

If all screens are present, measure the crankshaft end play to ensure that it is within the specification of 0.0044 - 0.0153 in. (0.112 - 0.388 mm). Typically, if excessive crankshaft end play is causing this concern, it will be obviously out of specification by .050 in. (1.3 mm) or more and there will be metal in the engine oil. If crankshaft end play is obviously excessive, disassemble the engine and inspect all bearings and journals, the crankshaft, the oil pump, and all valvetrain components for obvious damage from excessive metal in the engine oil.

If the engine block has been damaged due to contact with the crankshaft, contact the PQC at 1.866.654.7654 for engine replacement authorization.

If there is no engine block damage, determine what it will cost to repair the engine, including time to thoroughly clean all of the oil galleys in the cylinder head and engine block. Then, determine what it will cost to replace the engine and contact PQC to review the cost analysis figures as outlined in 02-07-30-029F.

If crankshaft end play is within specification, replace the camshaft actuator solenoid.

- Thanks to Jamie Parkhurst

### Code PO171 and No Engine Performance Concerns

This information applies to the 2004-06 Chevrolet Colorado, GMC Canyon and 2006 Hummer H3.

On rare occasions, a SES light may be experienced with a P0171 and no engine performance concerns. Low MAF sensor grams and excessive long term fuel trim may be noted at a hot idle.

If the SI diagnostics do not isolate a concern, the following information may help.

- Inspect the AIR intake system for rolled connections, cracks, or loose clamps between the MAF sensor and throttle body and repair.
- If the long term fuel trim is consistently over 10% during an extended hot idle, temporarily plug the PCV vacuum pipe

at the left rear of the cam cover, reset the fuel trims and note the long term fuel trim again after an extended hot idle.

If the fuel trim stays below 10%, the PCV system may be drawing in unmetered fresh air through:

- the cam cover
- air intake snorkel
- air cleaner resonator
- PCV dirty air hose rubber connector
- PCV fresh air hose.

Inspect all of these areas for concern and repair as necessary.

 If this concern was not present before the air cleaner resonator (on top of the cam cover) was removed during recent repairs, the PCV fresh air hose may not be fully seated to the tube on the right rear of cam cover or to the air cleaner resonator.

If this concern was not present before

the cam cover was removed for internal engine repairs and there is no problem found on step 2, there may be a cam cover or cam cover gasket concern.

- 4. If the long term fuel trim stays above 10% with the PCV vacuum pipe plugged, temporarily remove the air filter element, reset the fuel trims and evaluate the fuel trim after an extended hot idle. If the fuel trim remains around 0% with the air filter element removed, there is an issue with the air filter that is causing lower than normal MAF readings. Replace the air filter and evaluate the concern.
- If none of the above helps, inspect the throttle body gasket. If it is mispositioned, it may cause an intermittent vacuum leak.

*TIP:* Any of the above items can cause unmetered air to enter the engine, resulting in a lean concern and a P0171 DTC.

- Thanks to Jamie Parkhurst

### Car Issues – Fix It Right the First Time

Model Year(s)	Vehicle Line(s) / Condition	Do This	Don't Do This	Reference Information / Bulletin
2005	Chevrolet Corvette w/Navigation Radio – FM Radio Static or No Reception	Have customer test radio when condition occurs by switching from FM to AM and back to FM. If this clears signal, no repairs required.	Don't replace radio and/or antenna module.	05-08-44-014A
2005	Cobalt, Pursuit (Canada Only) – CD Inoperative or Radio Displays "Locked"	Reprogram U1C radio for "locked" message on control head.	Don't replace radio assembly.	05-08-44-010B
2005-2006	G6 w/Panoramic Sunroof – Potential Noise Issues	Refer to bulletin.	Refer to bulletin.	05-08-67-014
2005	Corvette – Erratic Fuel Gauge	Use new software release to add buffer to fuel sender system.	Don't replace fuel sender, fuel module or fuel tank.	05-08-49-027
2005	Cobalt, Pursuit (Canada Only), ION, HHR – Transmission Control Module (TCM) Shorted to Battery Voltage During Diagnosis and/or Service	Remove TCM harness from TCM prior to removing it from TCM holding bracket.	Don't remove TCM from its bracket without first disconnecting TCM wiring harness. Don't allow TCM to contact positive battery post.	05-07-30-016A
2005	VUE, Equinox LT/LS – Sunroof will not Close from Vent, Partly Opened, or Fully Opened Position	Replace sunroof control module.	Don't replace sunroof module, motor or switch.	05-08-67-010A
2005-2006	Uplander, Terraza, Relay, Montana SV6 – High Effort to Sound Horn, Horn Only Sounds When Certain Spots are Pressed	Replace horn pad springs.	Don't replace inflatable restraint steering wheel module.	05-08-54-001
2005	Grand Prix, LaCrosse/Allure – Front Brake Moan and/or Groan Noise During Brake Apply	Confirm that noise is coming from front brakes – then replace front brake pads	Don't resurface front rotors.	05-05-23-006
2004-2005	Grand Prix (June 2004, all 2005), LaCrosse/Allure (all 2005) – Blower Motor Inoperative or Intermittent, Blower Speed May Drop or Blower Continues to Run After Key Off	Install 330MFD capacitor between LPM circuit to ground.	Don't replace LPM, blower motor or HVAC control head.	05-01-39-001A
1999-2004	All Cars and Trucks – Brake Warranty, Service and Procedures	Issue One: Refinish brake rotor. Issue Two: Measure for LRO	Issue One: Don't replace brake rotors. Issue Two: Don't measure for LRO	00-05-22-002D
2002-2005	Cars and Trucks – Multiple Driveability Symptoms/Clogged Fuel Injectors	Clean fuel injectors as described in Bulletin.	Don't replace fuel injectors.	03-06-04-030A
2002-2005	Cars and Trucks – Multiple Driveability Symptoms/Clogged Fuel Injectors	Clean fuel injectors as described in Bulletin.	Don't replace fuel injectors.	03-06-04-030A

### Truck Issues – Fix It Right the First Time (new issues in **bold**)

Model Year(s)	Vehicle Line(s) / Condition	Do This	Don't Do This	Reference Information / Bulletin
1997-2005	2005 & Prior Cars and Trucks – Low Tire Pressure Due to Leaking Cast Aluminum Wheels	Seal cast aluminum wheels.	Don't replace cast aluminum wheels.	05-03-10-003
1999-2006	All Fullsize and Midsize Pickups/Utilities, Vans and H2, H3 – Brake Issues	Burnish rotors for cosmetic brake corrosion.	Don't resurface brake rotors for cosmetic corrosion.	00-05-22-002F
2002	TrailBlazers, Envoys, Bravada – Essential Tool for HVAC Mode Door Actuator Replacement	Use GE-47676 to replace HVAC mode door actuator.	Don't replace cam assembly.	05-01-38-001A
2003-2005	SSR – Door Will Not Open From Inside Door Handle	Replace door handle hinge support.	Don't replace door panel.	05-08-64-026
2004-2005	Colorado/Canyon – Side Door window Glass Clips Fall Off	Replace door window glass.	Don't re-attach door window glass clips.	04-08-64-022
2001-2005	Chevrolet/GMC 36 Series Cab/Chassis – DTC P1172 or P2636, Fuel Gauge Reads Empty, SES Light On	Modify fuel tank balance line.	Don't replace fuel tank unit, PCM or fuel transfer pump.	05-06-04-008A
2004-2005	All Cars and Trucks – State-of-Charge Upon Delivery of a New Vehicle	Check battery's state-of-charge using J-42000 or J-42000-EU.	Don't remove and replace battery.	02-06-03-009A
2002-2004	Silverado, Suburban, Tahoe, Sierra, Yukon/XL, Escalade EXT – Rough Idle, Misfire, MIL DTC P0300	Measure intake manifold for warpage across two runner ports only. Replace upper manifold gasket with teal-green gasket.	Don't measure intake manifold for warpage across all four intake runner ports. Don't replace upper intake manifold gasket with orange-colored gaskets.	05-06-04-029
2001-2003	Fullsize Pickups – Injector Replacement for High Flow Rates	Use Bulletin 04-06-04-007A for injectors with high fuel return rates. Use Special Policy 04039 for all 01-02 vehicles.	Don't replace 8 injectors for any complaint other than high fuel return rates. All other injector failures are fix as failed.	Special Policy 04039

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Know-How	10206.05D Emerging Issues	May 11, 2006 9:30 AM and 12:30 PM Eastern Time		
Broadcasts	New Model Features	For Web NMF courses, log on to the GM Training Website		
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– Thanks to Tracy Rozman