

A Monthly Publication for GM Dealership Service Professionals

# Midtronics PSC 550 Battery Maintainer Now Essential

- Being shipped to all dealers in 4th quarter of 2008



Successful programming requires a stable supply of battery voltage. If voltage falls too low during SPS events, programming may cease and ECU damage may occur.

Advanced technology vehicles such as the 2-Mode Hybrid require a sequential SPS event where as many as 6 discrete modules are programmed in one event taking 45 to 90 minutes. In these cases, even a fully charged battery is not sufficient to maintain system voltage during a sequential event.

For these reasons, it's recommended that an external power supply be used during all programming events. However, stable voltage is critical during programming. Any fluctuation, spiking or loss of voltage will interrupt programming, which could cause the controller to lock up. Two critical items are:

- Precise voltage control
- Clean DC (AC eliminated)

The PSC 550 Maintainer (also called the SPS Programming Support Tool EL-49642) meets these requirements. The main function of this tool is to act as a clean power supply during programming to avoid module failures.

*TIP:* The PSC 550 Maintainer is now the only available maintainer in the GMDE program because it has been determined that hybrid vehicles, along with future

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Midtronics PSC 550

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### **Techline News**

## 2009 Model Year Vehicle Identification Number (VIN) Information

Refer to bulletin 08-00-89-031.

Starting with the 2009 model year, GM will discontinue the production and mailing of printed Vehicle Identification Number (VIN) cards. The information needed to decipher the VIN codes for all GM vehicles will be provided electronically in the Service Information (SI) application, GM GlobalConnect (US dealers) and on the ACDelco website.

*IMPORTANT:* For dealers in Canada, VIN information is also available on GM infoNET in English and French languages and will be migrated to GM GlobalConnect in the near future.

To access the VIN decoding information in SI:

- 1. At the SI home page, build a vehicle with division, make, and model year.
- 2. Select the Service Manual.
- 3. Select the General Information section (service category type).
- 4. Select the General Information sub-section (service category).
- 5. Select the Introduction Service Information Type Qualifier.
- 6. Select the document for VIN decode.

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**GM** Service and Parts Operations

### Locating VIN Card Information In GM GlobalConnect (US Dealers)

GM GlobalConnect users may ask their Partner Security Coordinator (PSC) to add a link to their user profile titled Vehicle Identification Number (VIN) Information, available under the Service Tab. The VIN card information is available from the current model back to 1972.

### VIN Information On The ACDELCO Website

*IMPORTANT:* VIN information is available on the web without any password, account or login requirements. This method of access should now be used as the primary source for government agencies, customers, independent repair facilities, and any other outside body that requires GM VIN decoding information.

- To access GM VIN information on the web:
- 1. Direct your internet browser to www.acdelcotechconnect.com.
- 2. On the home page, click the link along the left side of the page labeled GM VIN Information.

*IMPORTANT*: 2009 VIN information will not be available until mid-October 2008.

3. You may access VIN information ranging from 1972 to the current model year by clicking on the model year you wish to view from the displayed list. The information on the web is presented as an electronic version of the familiar VIN card in the identical format (.pdf file).

- Thanks to Lisa Scott

## **Crosshatch Appearance**

This information applies to the driven sprocket support assembly p/n 24209098 used in the 4T65E transmission (RPO MN7, M15, M76).

The machined crosshatch appearance on the inner seal surface is considered normal for this part.



## Vibe Automatic Transmission

On a 2009 Vibe with automatic transmission MVA, MVB, and MVD, a new WS automatic transmission fluid is required. Refer to bulletin 08-07-30-037A for details. Mixing with the old T-IV ATF will cause shifting concerns.

ADDITIONAL TIP: The MVA, MVB, MVD SRTA transmissions do not come with torque converters. Torque converters must be ordered separately if needed.

- Thanks to Bob Martin



GM TechLink is a monthly magazine for all GM retail technicians and service consultants providing timely information to help increase knowledge about GM products and improve the performance of the service department.

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General Motors service tips are intended for use by professional technicians, not a "do-it-yourselfer." They are written to inform those technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions and know-how to do a job properly and safely. If a condition is described, do not assume that the bulletin applies to your vehicle or that your vehicle will have that condition. See a General Motors dealer servicing your brand of General Motors vehicle for information on whether your vehicle may benefit from the information.

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## **Ceramic Brake Rotors**



The ZR1 Corvette is equipped with ceramic brake rotors, which offer a number of benefits over cast iron rotors:

- No fading
- Wet effectiveness
- No thermal deflection
- Consistent pedal travel
- No corrosion
- Increased rotor life
- No thermal cracks
- Reduction of mass

These brake rotors must be discarded when their mass (weight) drops below the acceptable minimum. Accurate measurement of the brake rotor mass is required to ensure safe operation and braking system performance.

*IMPORTANT:* The ceramic rotor cannot be machined.

The ZR1 ceramic brake rotors should be visually checked for damage and measured as well as weighed at every

pad replacement. They should also be inspected any time potentially damaging materials or road hazards are encountered.



Tire cleaners

and dressings should not be allowed to contact the rotors. Only soap and water or alcohol should be used for cleaning the rotors. Loose material can be removed with a stiff brush. The crossdrilled holes can be cleared by hand with a pin or drill bit that is no larger than 5 millimeters in diameter. Be careful to avoid chipping or damaging the rotor surface.

### **Rotor Protectors**

Foam rotor covers are included with each car to protect rotors during various

service procedures. Dealers should acquire a set of their own for use when servicing the ZR1.



To prevent damage to the ceramic rotor, install a foam rotor protector before removing any wheel. Protectors can be installed through the spokes of the wheel.

*IMPORTANT:* Disc brake rotor protectors MUST be installed before tire and wheel assembly removal to avoid ceramic brake rotor damage due to contact between the tire and wheel assembly and the rotor. If the ceramic brake rotor is damaged, replacement may be required.

### **Checking Rotor Mass**

The rotors must be weighed before every pad replacement to confirm that the rotor mass is above the minimum (discard) weight embossed on the rotor. The rotor must be replaced if the mass is below the minimum weight.

*TIP:* The minimum mass is unique for each rotor.

Special tool CH-48897 is a scale that accurately measures the mass of the brake rotor to determine its suitability for re-use. Before each measure-



ment cycle, use the supplied calibrated weight to calibrate the scale.

There are 10 millimeter threaded holes in the rotor. If necessary, use bolts to

slowly push the rotor off of the hub. NEVER pry or use a hammer to remove the rotor.

Before weighing, remove loose material from the rotor and clear the cross drilled holes. DO NOT use any liquids to clean the rotors before weighing. The rotors may absorb some of the liquid, which could lead to inaccurate

### **Inspecting Rotors**

measurements.

**Measurement** – In addition to weighing the rotors, they should also be measured. The minimum thickness must be measured in the swept area of the rotor. The minimum thickness is stamped

on the rotor hub. **Chips** – The rotor must be inspected for damage. Measure chips along the rotor edge against the following criteria:

Maximum width/depth permitted	1mm
Maximum length permitted	10mm
Maximum quantity of damages permitted	3

**Grooves** – If at any time the rotor has contacted the backing plate due to excessively worn pads, the rotor should be replaced.

### **Brake Pads**

Brake pad inspection is required whenever tires are replaced. Replace pads when they are worn to 2 millimeters of remaining material. New brake pads are 10 millimeters thick.

The ZR1 has an electronic pad wear sensor system. When the pads are worn enough to activate a sensor, a CHANGE BRAKE PADS message is displayed on the Driver Information Center. Replacement sensors are included with new pads.

When replacing ZR1 brake pads, be sure to use brake pad spreaders to compress the caliper pistons into their bores. Using screwdrivers or other tools to compress the pistons can damage the ceramic rotors.

### **Brake Burnishing**

Ceramic rotors are more sensitive to the need for burnishing (bedding) the pads than cast iron rotors. Insufficient burnishing may result in reduced performance and reduced pad and disc life.

### **Specifications**

Rotor discard weight	Discard weight indicated on rotor*		
Rotor discard	Front	35.5mm	
thickness	Rear	33.5mm	
Rotor maximum	Front	0.80mm	
lateral runout	Rear	0.80mm	
Rotor maximum	Front	0.00mm	
allowable scoring	Rear	0.00mm	
Rotor maximum	Front	0.20mm	
variation	Rear	0.20mm	
Rotor thickness, new	Front	36mm	
	Rear	34mm	

\* Each brake rotor is marked with a unique discard weight. This weight is indicated on the carrier section of the rotor, and can vary for each rotor in an axle set.

 Thanks to Brad Thacher, Kiley Stites and Kevin Willcock

## **New Greaseless Intermediate Shaft**

The 2009 Malibu, G6 and AURA are being built with new intermediate steering shafts (I-shaft) that do not use grease at the sliding interface. The sliding interface consists of a 10 tooth plastic over-molded male shaft and a 10 tooth female shaft that is painted with a corrosion resistant autophoretic coating. The sliding interface was designed to operate without grease. Applying any type of grease or foreign substance to the sliding interface will significantly degrade the performance of the part. DO NOT APPLY GREASE TO THE INTERMEDIATE STEERING SHAFT SLIDING INTERFACE.

Two different I-shafts are being produced, one for vehicles equipped with hydraulic power steering and another for vehicles equipped with electric column power steering. Both I-shafts have a female tube that is painted black, which makes them easy to identify.

New I-shafts have also been released for service. The service parts also have a black female shaft. The service I-shafts are the same as those used in production and should never have grease applied to the sliding interface.

- Thanks to Jason Piepho and Todd Allen



B New shaft with black coating

## **Automatic Transmission Overfill**

TIP: Be sure to observe this information when performing PDI or adding fluid after a repair on the affected vehicles (Acadia, Enclave, Outlook, Malibu, Aura, Vue, Equinox, Torrent and G6).

On these vehicles, be sure the 6T70/75 transmission is at proper temperature when measuring the fluid level. If the transmission is cold when measured, the result will be an overfill that could lead to transmission overheat in mountainous areas or when pulling a trailer.

Check the transmission fluid level when the transmission fluid temperature is between 180°F and 200°F (82°C and 93°C). CAUTION: Use Dexron VI transmission fluid only. Failure to use the proper fluid may result in transmission internal damage. Refer to document 1769362 in SI for the complete procedure.

- Thanks to Henry Steaban

# Proper Tire Inflation During PDI

Due to seasonal temperature changes, tire pressures MUST be rechecked at the time of delivery. Refer to Bulletin 07-03-16-004.

IMPORTANT: As a rule of thumb, tire pressure will change about 7 kPa (1 psi) for every 6°C (10°F) decrease in temperature, dropping when it gets colder outside, rising when it gets warmer.

This means that if tire pressure is set to the placard specification when the vehicle is prepped indoors, tire pressure will drop when the vehicle is taken outside to a lower temperature. If the drop is great enough, the resulting tire pressure may now be low enough to cause the Tire Pressure Monitor system to indicate low pressure. If this happens just after a customer has taken delivery of a new vehicle, it will result in an unnecessarily dissatisfied customer.

The correct action to avoid a Check Tire Pressure message due to extreme temperature changes is to do the followina:

- Use an accurate, high quality tire pressure gauge.
- Let the vehicle sit and adjust the tire pressure to the specified value when the tire temperature is at the lowest expected temperature.
- Never set the tire pressure below the placard value regardless of tire temperature or ambient temperature.

**IMPORTANT:** On extremely cold days, if setting the tire pressure of a vehicle that has been indoors, it may be necessary to compensate for the low outside temperature by adding 21-27 kPa (3-4 psi) more than the placard pressure. At some later time, when convenient and when the tires are cold (outdoors), the pressure should be re-checked and adjusted to the placard pressures if necessary.

- Thanks to Brian Bartnick

## **No Crank/ No Start**

Some owners of a 2008 Tahoe or Yukon Hybrid with RPO HP2 may experience a no crank/no start condition with DTC U1812 set in the Battery Pack Control Module (BPCM). If the vehicle does not crank and the customer holds. the key in the crank position for longer than three seconds, it is possible for the DTC: U1812 to set.

If you have a vehicle with this condition, use the Tech 2 scan tool to clear the code. If the code clears and does not immediately reset upon turning to the crank position, follow the no crank diagnosis (document 2010546) in SI. Do not try to replace the battery pack to resolve this concern.

TIP: If you erase the DTC U1812 and the code resets without cranking for longer than three seconds, follow normal diagnosis in SI.

Thanks to Paul Radzwilowicz

## **Integral Connector Position** Assurance (CPA) Update

Many connectors used on Supplemental Inflatable Restraint (SIR) inflators are equipped with an integral connector position assurance (CPA). These connectors must be handled properly to ensure proper operation and to avoid damage.

TIP: The FCI connection system was described in the August 2005 TechLink. You may want to review this information in the archives of the *TechLink* website.

TIP: It is possible that a combination of different connectors may be used on a given vehicle.

Another new connection system by Molex is now in use on the Chevrolet Malibu and will also be used on some future vehicles. Here are some details.

The new Molex connector is manufactured in three configurations. These ole.

configurations are intentionally not interchangeat
Each configuration is embossed with a code
number (1, 2 or 3), has a unique body color, and
has a unique keying tab.

Code 1	Black
Code 2	Blue
Code 3	Yellow

**Removing Connector** 

To remove the connector, lift the CPA to the pre-

set position. You can use a terminal pick, small screwdriver or your fingers. Then remove the connector from the inflator.

IMPORTANT: Do not remove the CPA from the connector. If it is removed, it will be damaged and the connector will have to be replaced. There is no replacement CPA. Order a new pigtail and splice it into the harness.

### **Installing Connector**

When reconnecting the connector, press the connector back into place on the module and continue to press the CPA into its locked position. Due to the configuration of the keying tab, only the correct connector can be installed.

- Thanks to John Roberts



p/n 54590003

## **Replacement CPA**

There is a replacement CPA for the FCI connector used on some airbag inflators. It is available as p/n 54590003.



**Broken connector** 



Molex connectors A Code number B Colored body C Keying tab



CPA lifted for removal



Pressing CPA to lock

## **Electrochromatic Outside Rearview** Mirror Performance

Owners may comment that the electrochromatic (auto-dimming) outside rearview mirror used on the driver's side of many GM vehicles is slower to defrost than the passenger side outside rearview mirror.

This is a normal condition. The glass on the driver's side electrochromatic mirror is twice as thick as the traditional glass on the passenger side mirror. The heating elements for the mirrors on both sides draw the same wattage. Therefore, the driver's side mirror will take approximately twice as long to defrost as the passenger mirror (approximately 4 minutes versus 2 minutes). Should a customer indicate that the driver's side heated mirror is not functioning correctly, verify its function based upon this information before replacing the mirror.

## ASTRA Radio Conditions

The radio (EHU/Infotainment) of a 2008 Saturn ASTRA beeps and/or or the DIS/DIC (Radio Display/Board Computer) displays a message Radio Safe or Display Safe.

A technician may have removed one or more modules by accident when attempting a repair or may have made an error during programming to activate the Safe function. Review previous repairs for any programming that may have caused this condition.

This condition may occur if the (EHU) radio or the (DIS) display has been replaced and not fully programmed. The radio or display may be in its secure mode and must have the Theft Activated. This can be accomplished by accessing the programming menu of the module (EHU or DIS) that has just been replaced and selecting Theft Activation.

This condition may also occur if the INDEX CODE was not entered correctly during programming causing Display Safe to display on the DIS/DIC. This also can be programmed separately from its own menu option.

Thanks to Jim Loomis

- Thanks to Dan Oden

# **Skipshift Feature Operation - G8**

The Pontiac G8 GXP equipped with a six-speed manual transmission has a skipshift feature. If this feature is misunderstood, proper operation may be interpreted as a fault.

Before performing service to correct a skipshift concern, be sure the owner has read the appropriate section of the owner manual and understands 1 to 4 (skipshift) operation.

### 1 to 4 Shift Operation

Under certain conditions when accelerating from a stop, the transmission cannot be shifted from 1st gear to 2nd gear. A skipshift device in the transmission allows only shifting from 1st to 4th, which helps get the best possible fuel economy.

Skipshift is activated and the indicator lamp is illuminated only if all of these conditions are met:

- engine coolant temperature is higher than 169° F (76° C)
- roadspeed is between 15 and 19 mph (24 and 31 km/h)
- throttle is open 21% or less.

During the time the skipshift feature is operational, a 1 to 4 indicator light in the instrument panel cluster is illuminated and a message is displayed in the Driver Information Center.

Shifting into 4th gear turns off the skipshift feature. After shifting to 4th gear, the transmission may be downshifted to a lower gear if the driver chooses.

*IMPORTANT:* Forcing the shift lever into any gear except 4th when the 1 to 4 shift light comes on may damage the transmission.

Because the window of operation is narrow – 15 to 19 mph (24 to 31 km/h) with throttle open 21% or less – the owner may not notice that the indicator light is illuminated and may think the system is operating incorrectly. Or the owner may encounter a time when skipshift is operating correctly but didn't anticipate it and thinks the transmission has malfunctioned.

- Thanks to Chris Graham

## **Oil Reservoir Rattle**

Some owners of a 2006-09 Corvette Z06 or a 2009 Corvette ZR1 with 6.2L or 7.0L Engine (VINs R, E – RPOs LS9, LS7) may comment on a rattle or tapping type noise that is heard under the hood just above idle, usually 1200 to 2200 RPM. In some cases, this noise may also be heard on the inside of the vehicle and be more pronounced on the passenger side.

This noise may be caused by the internal transfer tube in the engine oil tank hitting the inside of the tank cover. The seal (O-ring) that secures the tube in place may split and slide down the tube, allowing the tube to be loose.

Diagnose the noise by raising the vehicle on a hoist and holding

the throttle at about 1500 RPM to duplicate the condition. Place a stethoscope or Chassis Ears on the side of the engine oil tank. If the noise is detected, perform the procedure outlined below. If the noise is not detected, continue following published diagnostics in SI.

- 1. Remove the engine oil tank from the vehicle. Refer to the Oil Tank Replacement procedure in SI.
- 2. Remove the eight bolts that secure the tank top.
- 3. Separate the tank. Check the seal (O-ring) for proper position and damage. Replace the seal (O-ring) if damaged with P/N 24576940.
- 4. Reinstall the tank top and secure with the eight bolts.
- 5. Install the engine oil tank into the vehicle. Refer to the Oil Tank Replacement procedure in SI.
- Thanks to Jamie Parkhurst



## Engine Oil Pressure MIL

Some owners of a 2007-08 Silverado or Sierra with 6.6L LMM engine may comment that the engine oil pressure MIL is illuminated. There may be a stored DTC P0522. This concern could be caused by a damaged circuit for the EOP sensor at X108. The 5 volt reference circuit 2705 is a very small gauge circuit with extra length between the back of the connector and the conduit clip, making it prone to damage.

Repair as necessary.

- Thanks to Jim Will

## **Convertible Top Operation**

On a 2006-09 Pontiac G6 convertible, the convertible top may be slow moving or inoperative after replacement of the hydraulic pump motor. If the hydraulic lines are not pushed all the way into the new hydraulic pump manifold assembly, the ball cock will not be fully depressed. This allows only minimal fluid flow into the lines.

Make sure all lines are fully seated into the manifold assembly.

- Thanks to John Mason



## Midtronics PSC 550 Battery Maintainer Now Essential

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models, will require the extra capacity that the PSC 550 Maintainer can provide.

### **Technical Features**

The switching power supply design of the quiet, small and compact tool converts 120 volt AC line input to a virtually noise-free, nominal 13.4 volt DC output, up to 55 amps output. The internal breaker protects against reverse battery polarity, brownout, over-temperature and over-current situations for a long and trouble-free tool life.

The PSC 550 Maintainer is shipped with a handy carrying case, which permits using the charger without fear of damage to paint, trim or interior components. The case is designed to allow the charger to be operated while inside the case. With the case cover closed, only the cables are exposed.

#### Easy to Use

With no dials or controls to set, the PSC 550 Maintainer is extremely easy to use. Simply attach the cables to the battery, plug in the charger power cord, flip the ON switch, and it's ready to charge.



It's quiet, small and compact for portability, and the detachable cables facilitate easy field service.

*TIP:* The PSC 550 Maintainer requires a good AC voltage source to deliver its maximum designed output voltage and current. If the unit cannot be plugged directly into a wall socket, use a commercial grade extension cord of at least 14 gauge (12 gauge is preferred) to make sure the unit has an appropriate AC voltage input.

#### **Other Uses**

The PSC 550 Maintainer can be used not only for reprogramming but also to power showroom display vehicles, where repeated demonstrations of electrically operated features can tax a vehicle's battery. Battery power must be maintained or the battery management system will start shutting down these systems.

In the service area, power must be maintained while working on the vehicle for the same reasons. The PSC 550 Maintainer can be used during PDI inspection and during any repair event where long-term electrical draws occur.

### **Additional Information**

For additional information or to order additional units, contact 1.800.GM.TOOLS or go to gmspecialservicetools.spx.com.

#### - Thanks to Will Godfrey and Russ Dobson

## Power Liftgate Inoperative

On a 2008 Enclave, Acadia or OUTLOOK, the power liftgate may be inoperative if the power liftgate strut rod retaining clip is not properly oriented. This may happen if the ball socket of the strut rod was not properly machined (socket may not be deep enough). This can prevent the retaining clip from fully seating, which could allow the strut



rod to disconnect at the motor actuator arm.

Do not replace the power liftgate motor assembly for this concern.

If the power liftgate is inoperative, replace the power liftgate strut rod with current SPO parts. Then perform these steps to verify proper orientation of the retaining clip.

- 1. Cycle the power liftgate 5 times.
- 2. While holding the liftgate halfway open, inspect the strut retaining clip by viewing it through the jack cover opening.
- 3. Verify that the clip has not fallen off or slipped down the shaft of the strut. The clip should be centered over the socket.
- 4. If the clip is not centered, replace the strut rod.
- Thanks to Gary McAdam

## **Engine Oil Leak**

Some owners of a 2007-09 fullsize pickup, utililty or van equipped with 4.8L, 5.3L, 6.0L or 6.2L V8 engine (VINs C, M, L, J, 4, 0, 3, 5, K, Y, 8 or 2 – RPOs LY2, LH6, LY5, LMF, LMG, LC9, LFA, LY6, L76, L92 or L9H) and Engine Oil Cooler System (RPO KC4) may comment on an engine oil leak. You may find fluid leaking from the engine oil cooler pipe to oil pan connection. The leak may be caused by oil pan casting porosity at the engine oil cooler bolt cavity.

Verify that the leak is coming from the engine oil cooler pipe to oil pan connection using oil dye in the engine. Refer to Oil Leak Diagnosis in SI. Clean the suspected area of all residual oil and drive the vehicle to see if the dye begins to appear. If the leak is coming from the engine oil cooler pipe to oil pan connection, perform the procedure outlined below.

- 1. Raise and support the vehicle.
- 2. Remove one engine oil cooler hose/pipe assembly to oil pan bolt.
- 3. Clean the bolt hole with brake cleaner and dry using compressed air.
- 4. Clean the bolt threads and apply Pipe Sealant, Loctite 565 or equivalent, to the bolt threads. Be sure the sealant is applied 360° around the bolt and extends from the tip of the bolt and covers at least 15mm (0.59 in.) of threads.
- 5. Reinstall the bolt and tighten to specification per SI.
- 6. Repeat the above process for the second bolt.
- Thanks to Jim Will

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### Car Issues – Fix It Right the FirstTime

Model Year(s)	Vehicle Line(s) / Condition	Do This	Don't Do This	Reference Information / Bulletin
2006-08	HHR – Water leaks, multitude originating from several different areas	Follow bulletin completely	Don't stray from completing bulletin	07-08-57-001A
2006-08	Impala – Key cannot be removed in Park, shifter cannot be moved	Repair wiring damage and reroute wiring	Don't replace shifter	08-07-30-007A
2003-06	9-3 – Surface coating of ACC panel peels off	Replace buttons or faceplate	Don't replace complete ACC control unit	TSB 870-2700
2006-08	Impala, Monte Carlo – Passenger front seat back popping noise	Replace seat back assembly	Don't replace entire seat back assembly	07-08-50-005B
2008	Lucerne – Front edge of headliner frayed	Install protector with longer adhesive side facing down	Don't install complete headliner	07-08-110-006B
2006-08	All vehicles with TPM – Transfer sensors to replacement wheels	MoveTPM sensors to new wheel	Don't install new TPM sensors	08-03-16-003
2006-08	Vehicles with aluminum wheels – Tire leaking air	Repair wheel and paint	Don't replace wheel	08-03-10-006
2006-08	DTS – Inoperative headlamp.	Replace light bulb or ballast	Don't replace complete headlamp assembly	08-08-42-002
2007-09	DTS – Doors may not open although unlocked	Adjust front and rear inner door latch rods	Don't replace door handle or latch.	08-08-64-015
2007-08	2.8L, 3.6L (VIN T, 7, V) – SES light with DTCs	Install camshaft thrust washer	Don't replace cylinder head	08-06-01-011A



## Truck Issues – Fix It Right the First Time

Model Year(s)	Vehicle Line(s) / Condition	Do This	Don't Do This	Reference Information / Bulletin
2001-04	LB7 Duramax Diesel – Injector high pressure lines corroded	Clean connection area of line and nut of injector high pressure lines as required	Don't replace lines	03-06-04-036A
2007-08	Fullsize utilities – 1500 Series – Power steering fluid leak	Determine source of leak	Don't replace power steering rack	07-02-32-002B
2006-08	Colorado, Canyon, H3 – Loose module, broken tab under passenger seat	Reattach ECU with 3M two-way tape	Don't replace entire ECU and seat sensing pod assembly	08-08-50-003
2004-07	Colorado, Canyon, H3 – Reduced power mode, codes	Check battery state of charge and charge or replace as necessary	Don't replace throttle body, throttle body module, accelerator pedal, accelerator position sensor, PCM, or ignition switch	08-06-04-014
2007-08	Silverado, Sierra – Wet headliner, water leaking past sunroof glass panel seal	Inspect glass panel seal, replace seal	Don't replace sunroof glass panel	PIT 4621
2008	Sierra, Silverado – SES P1174	Reprogram ECM using TIS2Web	Don't replace catalytic converter, PCM, injector(s), fuel rails, fuel pumps	08-06-04-028
2005-08	Trailblazer, 9-7X – Growl, groan, shudder, bind from rear while turning	Replace rear differential fluid with DEXRON LS gear oil	Don't replace differential gear case	08-04-20-002
2007-08	Colorado, Canyon, H3 – Exhaust rattle	Place hose clamp around forward portion of heat shield	Don't replace exhaust/converter pipe assembly	08-06-05-003
2001-09	All vehicles – Identifying aftermarket engine calibrations	Block warranty claim if aftermarket calibration is installed	Don't submit warranty claim if aftermarket calibration is installed	08-06-04-033 – Gas 08-06-04-006B – Diesel
2006-07	Silverado, Sierra, Savanna, Express, Topkick and Kodiak – SES light illuminated.	Clean EGR motor commutator	Don't replace EGR motor or valve assembly	06-06-04-066C

Know-How Broadcasts for December

10208.12D Emerging Issues New Model Features December 11, 2008 9:30 AM and 12:30 PM Eastern Time For Web NMF courses, log on to the GM Training Website (<u>www.gmtraining.com</u>). Select Service Know-How/TechAssists from the menu, then choose New Model Features for a selection of courses.



– Thanks to John Miller