

A Monthly Publication for GM Dealership Service Professionals

# **Fuel Economy Facts and Myths**



As gasoline prices have increased, the consumer has shifted priorities to become increasingly concerned with fuel consumption. Many myths and a few facts about improving fuel economy are making the rounds in various news media and internet postings.

Bulletin 05-00-89-072A contains reasonable and prudent advice to get the most from every gallon or litre of gas and is written with the consumer in mind. You are encouraged to give a copy to your customers and post a copy in your customer lounge. Here are some highlights.

#### WHAT NOT TO DO: Engine and Fuel Additives, Alternate Fuels, and "Miracle" Products

Various unproven products to improve vehicle fuel economy have been reported, ranging from magnets that align molecules to chemical combustion improvers.

The U.S. Federal Trade Commission summarizes results for products tested by the federal government at www.ftc.gov/bcp/edu/pubs/consumer/autos/aut10.shtm. The majority did not work, and for those that showed some effect, the benefit was too small to be cost effective.

continued on page 4

### Techline News

# **Field Product Reports**

This information supplements an updated bulletin on Field Product Reports. (02-00-89-002G). Field Product Reports can now also be emailed to electronicproductreport@gm.com. You can include photos, videos, and sound files. The Field Product Reports need to be submitted on the appropriate form. It is located in DealerWorld, on the Service Applications tab, then Service Forms.

You are the eyes and ears for GM and we depend on you to send us information on product concerns. Informative reports might include any of the categories listed below.

- A photo of a wiring routing concern
- Report issues concerning a new product/component launch.
- Report conditions noted at pre-delivery inspection (PDI).
- Report emerging issues (multiple occurrences of the same problem).
- Report any issues that result in a "walk home."
- Report on current issues that are covered by a published bulletin, when the published procedure does not correct the condition.
- Report on product issues that we are aware of but you have new/additional information.
- Report on any repair that is not easily understood by reviewing labor operation usage.
- Report serviceability issues.
- Report a first time occurrence of a problem that is a customer annoyance.
- Thanks to Melissa Clifford



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**<u>GM</u>** Service and Parts Operations

# **Non-GM Engine Calibrations**

General Motors does not endorse the use of aftermarket (non-GM issued) engine calibrations in any of its gasoline or diesel powered vehicles in North America. When non-GM issued engine control calibrations are detected, steps should be taken to void the Powertrain portion of the New Vehicle Warranty.

Bulletins 08-06-04-006A (diesel engine vehicles) and 08-06-04-033 (gasoline engine vehicles) outline the procedures to be used in identifying the presence of non-GM issued calibrations. Non-GM issued engine calibrations subject driveline components to stresses different from the calibrations to which these components were validated. The stresses resulting from the non-GM calibrations and equipment were not validated by GM and therefore cannot be warranted on any components that are subject to those stresses.

Where a non-GM engine calibration has been verified, current and future repairs to engine, transmission, transfer case, driveline, axle and/or other driveline components are not covered under the terms of the New Vehicle Warranty.

- Thanks to Jay Dankovich

# Airbag MIL and DTCs Caused by Horn Honk

Some owners of a 2007-08 Silverado or Sierra 1500 model may comment that the airbag MIL comes on after repeated use of the horn and the SDM will set DTC B0083 sym 39 (Left Front Electronic Front End Sensor – Internal Electronic Failure). The root case may be the left front electronic sensor responding to the horn frequency during repeated or long horn honks.

During normal operation, the SDM records the learned trace ID from each of the front end sensors. When DTC B0083 Sym 39 is set, the SDM will no longer accept valid information from the left front end sensor.

If the DTC was set due to repeated or long horn honks, the front electronic sensor may become operational again by following this procedure to reset the learned trace ID:

- 1. Remove the right front end sensor.
- 2. Unplug the left front end sensor.
- 3. Plug the right front end sensor into the left harness.
- Turn the ignition key on for at least 20 seconds (left side learns right sensor trace ID).
- 5. Turn the ignition key off.



- 6. Reinstall the right front end sensor in its place and plug both sensors in.
- 7. Turn ignition key on (Left side relearns left sensor trace ID).
- 8. Clear DTCs.

If B0083 sym 39 returns after clearing the DTCs, replace the sensor.

If the DTC does not return, the cause could be from repeated or long horn honks. To correct this, install rubber washers p/n 11588485 to insulate the left horn at its mounting location.

- Thanks to Jim Will

# **TCC** Surge

The owner of a 2007-08 Cobalt or G5 or a 2007 ION equipped with a 4T45E transaxle may experience a TCC surge or chuggle in third or fourth gear.

Reprogram the TCM with the selectable calibration in TIS2Web described as "calibration for customer complaints of excessive TCC surge in 3rd/4th gear."

- Thanks to Ron Mitchell



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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GM TechLink on the Web: GM DealerWorld

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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# **Tips for Servicing 0.64 Terminals**

If you've been following the various stories in TechLink about electrical terminals over the past few years, you know that numerous new types of terminal and connector systems have been introduced (TechLink, Sept. 2002. June 2003, Feb. 2004, Jan. 2005).



Several types of 0.64 mm terminals are offered by several suppliers. There are slight differences between them. Some are round, but most are of a square design. The information here is intended to clarify these differences.

A male device or header terminal that will mate with the 0.64 female terminals is a 0.64 mm square terminal. The GM corporate intent is to use only the Yazaki,

Kaizen or AIT 0.64 terminal cavity design in the future. You will see more of this style terminal in the future, supplied by a number of terminal manufacturers.

A new crimp tool J-38125-643 has been released. It will crimp both the Kaizen and AIT square

design and Bosch round 0.64 terminals with or without cable seals.

TIP: It is not recommended to attempt to distinguish between the 0.64 terminal and the 100 terminal just by looking. The best way to be sure is to use the 0.64 test probe (J-35616-64B) initially. If the J-35616-64B probe seems obviously too

small. move to one of the the 100 sized test probes. If a male

100 terminal (or test probe, or anything incorrect) is inserted



C 0.64 test probe

Crimp Tool

J-38125-643

into a 0.64 female, the 0.64 terminal may split. This destroys the terminal's retention capability. When that damaged 0.64 terminal is reconnected, tension may be too low to ensure proper contact and continuity.

### Test Probe

All of these connection systems use the J-35616-64B test probe. There has

been an update to this probe. The latest version has a black wire and a more robust goldplated terminal probe. Use the probe carefully to avoid



damage to the terminal.

*TIP:* The earlier probe has a white or blue wire and a tin terminal probe.

TIP: The J-35616-64B and J-35616-65B test probes are correctly sized to substitute for both the round and square male and female terminals.

- Thanks to John Roberts

## **GM's New Brake Rotor**

All vehicle manufacturers are challenged when trying to design the optimal brake rotor and brake pad combination. These challenges go well beyond the basic braking factors of stopping distance, and rotor and pad wear. Other important customer issues that need to be taken into consideration are the customer's expectations of:

- braking performance
- brake rotor corrosion
- brake pulsation \_
- brake noise
- \_ dust

Designing the ultimate brake rotor and brake pad combination for all of these elements can become a real balancing act.

More aggressive brake pad materials tend to be better for shorter stopping distances, cleaning up rotor corrosion (less "lot rot" pulsation from thickness variation) and typically a longer service life because they tend to wear slower.

("Lot rot" refers to what happens to the brake rotors during the time the vehicle sits on the dealer's lot before customer delivery).

The down side of the aggressive brake pad material is the tendency to create more brake noise and dust issues. They also tend to wear the brake rotor faster. And, if there is high lateral run out (LRO) in the rotor, Wear Induced Thickness Variation Pulsation will develop faster because the pads wear the rotor faster.

With less aggressive brake pad materials, usually the opposite is true. Stopping distances tend to be longer and they are not as good at cleaning up rotor corrosion (more "lot rot" pulsation from thickness variation). Typically, they have a shorter service life because they tend to wear faster.

On the positive side, less aggressive brake pad material tends to create less noise and brake dust issues. They also tend to wear the brake rotor slower. And, if there is high lateral run out (LRO) in the rotor, Wear Induced Thickness Variation Pulsation will develop slower because the pads wear the rotor slower.

### Ferritic Nitro-Carburizing (FNC) Technology

Beginning with the 2009 Cadillac DTS, GM is introducing a new brake rotor technology called Ferritic Nitro-Carburizing (FNC). In this additional step in the manufacturing process, the brake rotor is heat treated to create a hardened outer layer on the surface of the rotor.

This layer reduces rotor rusting (corrosion) and allows the rotor to wear slower.

Also, because this new technology protects against excessive rotor corrosion, the rotor not only aesthetically looks better through open-spoke wheels, it helps reduce thickness variation which creates pulsation specifically due to "lot rot" corrosion.





#### **PQC** Parts Restriction

Due to the implementation of the FNC technology, during the launch timing (August 1 thru October 31, 2008) Engineering needs to be made aware of concerns related to brake pulsation. If a customer brings a 2009 Cadillac DTS in for brake pulsation related to brake pad/rotor, refer to the parts restriction bulletin 08-05-23-006 and follow the diagnostic procedure. If diagnosis leads to brake rotor refinish, DO NOT refinish the rotor. The rotor should be replaced and sent back to the Warranty Parts Center for engineering evaluation. See the bulletin for more details.

- Thanks to Ray Romeo

### Fuel Economy Facts and Myths - continued from page 1

These are some harmful ideas that may damage the vehicle and increase emissions.

Blending Kerosene or Diesel Fuel Into Gasoline – Do not attempt. This may result in inconsistent performance and permanent damage to the vehicle. Both kerosene and diesel fuel are distillate fuels not meant for use in spark ignition engines. They have very low octane and, because they have greater density than gasoline, they will cause heavy engine deposits and degradation of engine oil.

Blending Chemical Solvents Into Gasoline – Do not attempt. These include acetone, ketones, and methanol. These solvents can be incompatible with the vehicle's rubber or sealing components, and may dissolve the vehicle's paint finish. In the case of methanol, corrosion of metal parts in the fuel system also may occur.

Although it is impossible to predict the effects of adding various chemical

additives to gasoline in an attempt to increase fuel economy, often the results can be damaging. These pictures show 6.2L V8 engine components that were run for less than 3000 miles on gasoline that had a small amount (less than 1%) biodiesel added to it.

Damage to vehicle components that result from non-approved or aftermar-



**Contamination on piston** 

ket additives and devices are not covered under the terms of the New Vehicle Warranty. The only fuel additive currently approved by GM is GM Fuel System Treatment Plus, p/n 88861011 (in Canada, 88861012).

#### WHAT TO DO: Maximizing Fuel Economy/Minimizing Costs

The best fuel economy possible is the direct result of proper maintenance and good driving habits. Listed below are GM's recommendations to achieve the best mileage possible.

#### Vehicle Considerations:

**Tire Pressure** – A major contributor to poor fuel economy is under-inflated tires, which create drag that the vehicle's powertrain must overcome. Keeping tires inflated to the proper pressure as shown on the vehicle placard not only serves to increase gas mileage but cuts down on tire wear, further decreasing cost per mile.

Air Filter – The engine can't efficiently draw air through a dirty air filter, which wastes fuel. Recommended change intervals are found in the Owner's Manual.

**Proper Viscosity Starburst Rated Oil** – Always use the proper viscosity oil, described in the Owner's Manual. Oil that has a higher than required viscosity will create more drag on the internal components of the engine, causing more work for it, especially when cold.

*TIP:* Look for the starburst symbol on the front of the bottle, and the SM rating on the API circle on the back label.

*TIP*: GM vehicles DO NOT require additional engine oil additives. Some additives may cause harmful effects to the internal seals and additionally void the terms of the New Car Warranty.

**Top Tier Fuels** – Some fuel manufacturers provide gasoline advertised as Top Tier Detergent Gasoline. These fuels are preferable when and where available. They help to keep fuel injectors and intake valves free of deposits. Clean engines provide optimal fuel economy, performance and reduced emissions. When Top Tier fuels are not available, a bottle of GM Fuel System treatment PLUS, p/n 88861011 (in Canada, 88861012), at oil change time will remove intake system and injector deposits. GM does not recommend any other fuel system cleaner.

*TIP*: DO NOT confuse Top Tier fuels with higher octane fuel (plus/premium grade) commonly sold at most gas stations. Plus/premium fuels are required in some high performance GM vehicles. However, they do not necessarily represent higher detergency present in Top Tier Detergent Gasoline.

*TIP*: For additional information regarding Top Tier fuels and availability, refer to Bulletin 04-06-04-047G for U.S. or 05-06-04-022D for Canada. Also see the current list in the *TechLink* website Reference Guide.

**E85 Fuels** – Only vehicles designated for use with E85 should use E85 blended fuel. These vehicles are certified to run on up to 85% ethanol and 15% gasoline. All other gasoline engines are designed to run on fuel that contains no more than 10% ethanol. Use of fuel containing greater than 10% ethanol in non-E85 designated vehicles can cause driveability issues and Service Engine Soon indicators, as well as increased fuel system corrosion. See Bulletin 05-06-04-035C for additional information.

#### Use the Recommended Grade

**(Octane) Fuel** – Purchasing higher than required octane fuel is a waste of money. Using higher octane fuels in a vehicle that requires regular unleaded fuel will neither increase performance nor improve gas mileage. In all cases, refer to the Owner's Manual and use only the octane rated fuel recommended for the vehicle.

*TIP:* High performance GM vehicles that do require premium fuel (91 octane or higher), MUST use fuel of at least this octane. Use of lower octane fuel may result in reduced performance, knocking, and/or permanent engine damage not covered under the terms of the New Vehicle Warranty.

**Check Engine/Service Engine Soon Light** – When the Check Engine/SES light is on, the vehicle's on-board diagnostics computer has detected something wrong. This may result in increased fuel consumption, increased emissions, and/or driveability concerns.

**Spark Plugs** – Most current GM vehicles have 100,000 mile (160,000 km) service intervals for spark plugs. At that point, change the spark plugs to assure proper running and continued efficient, trouble free operation. Refer to the applicable maintenance schedule for spark plug service intervals on Aveo, Optra, Epica, Vibe, Wave and Astra.

#### **Changes In Driving Habits:**

**Slow Down, Drive Smoothly** – Avoid quick/full throttle acceleration from a standstill and high cruising speeds. While the optimum MPG for highway cruising speed varies from vehicle to vehicle, faster is almost always worse.

*TIP*: On vehicles so equipped, the Driver Information Center Instant Fuel Economy display identifies the best speed range for that vehicle.

**Empty the Trunk** – Carrying unnecessary items in the trunk takes power, and that means more gasoline consumption and reduced performance.

**Avoid Extended Idling** – There is no need to idle the engine until it reaches operating temperature. Idling wastes fuel.

**Combine Trips** – A vehicle uses much more fuel when the engine is cold, especially in winter when the engine takes the longest to warm up. Combine errands or trips so that the vehicle needs to warm up only once.

- Thanks to Jay Dankovich

## Removing 40/60 Rear Bench Seat

This information applies to the 2007-09 Acadia, OUTLOOK, Enclave and Traverse with the EZ entry 40/60 second row seat.

On either the 40% or 60% portion of the seat, when the EZ entry handle is operated, the seat is supposed to move to the EZ entry position: the



A EZ entry handle

cushion is supposed to move forward and upward, and the seatback is supposed to slide forward.

If instead the seatback folds to the flat stow position when the EZ entry handle is operated, it is necessary to remove the seat from the vehicle for



repair. Before this can happen, the seat must be manipulated to the EZ entry position for access to the rear foot mount bolts.

Here's how.

1. Beneath the seat cushion, remove the front lower covers on the inboard and outboard carriages.



 Carefully push down on the release levers on the front carriages. Release both inboard and outboard sides.



TIP: The seat cushion will slide forward and the rear will tilt up when both carriage latches are released.

3. Locate the release levers on the rear carriages. Carefully pull upward on the levers to release the cams, and slide the seatback forward into the EZ entry position.

*TIP*: It is necessary to operate both levers at the same time. This is a two-person task, one to operate each of the two release levers while moving the seatback forward.

- 4. With the seatback moved forward to the EZ entry position, the covers for the rear tracks are exposed. Follow SI procedures to remove the covers.
- 5. Following SI procedures, remove the bolts from the rear mounting feet, then remove the bolts from the front mounts.
- 6. Position the seat in the flat stow position and lift from the vehicle for repair.
- Thanks to Bill Trainor

## **Recrimp Terminals**

This information applies to the 2006-08 Chevrolet HHR with 2.2L or 2.4L engine (VIN D or P).

According to bulletin 08-06-04-022A, some owners may comment that the check engine light is on and an engine reduced power message is displayed in the DIC. A scan tool may reveal DTC P2135 set as current or in history.

This condition may be due to poor terminal crimps within the ECM connector, resulting in resistance in the affected circuits.

Inspect the engine wiring harness for potential shorts to ground in the following locations and repair and reposition the circuits/harness as necessary:

- on the ECM/PCM case and/or on the edge of either ECM/PCM connector body
- at the UBEC bracket
- at the cylinder head plate (power steering pump blockout)
- at the EVAP purge valve bracket
- at the rear of the cylinder head/upper edge of transmission bell housing

If inspection of the engine wiring harness reveals no chafing in the areas identified above, follow SI procedures (document ID 325249) to recrimp the terminals listed in the bulletin. These terminals are located in the ECM connectors.

Use release tool J 38125-213 and J 38125-641 crimp tool (H jaw). Install each terminal back into the correct connector cavity and re-evaluate the concern. For additional information, refer to the Engine Data Sensors – APP and TAC schematics and the Engine Control Module Connector End Views.

- Thanks to Wayne Zigler

### 2006 2.2L L61 Engine

ECM Connector	Function	Pin	Circuit No.
C2	Throttle Position Sensor 1 Signal	58	485
C2	Throttle Position Sensor 2 Signal	36	486
C2	Low Reference	29	1704
C2	Low Reference	31	2752
C2	5 Volt Reference	24	2701
C2	5 Volt Reference	26	1688

#### 2007-08 2.2L L61 Engine

ECM Connector	Function	Pin	Circuit No.	
C2	Throttle Position Sensor 1 Signal	58	485	
C2	Throttle Position Sensor 2 Signal	36	486	
C2	Low Reference	29	1704	
C2	Low Reference	31	2752	
C2	5 Volt Reference	24	2701	
C2	5 Volt Reference	26	1688	

#### 2006-07 2.4L LE5 Engine

ECM Connector		Eurotion	Din		
2007	2008	Function	FIII	Circuit No.	
C2	X2	Throttle Position Sensor 1 Signal	57	485	
C2	X2	Throttle Position Sensor 2 Signal	59	486	
C2	X2	Low Reference	40	2752	
C2	X2	5 Volt Reference	53	2701	

#### 2008 2.4L LE5 Engine

ECM Connector	Function	Pin	Circuit No.
X2	Throttle Position Sensor 1 Signal	57	485
X2	Throttle Position Sensor 2 Signal	59	486
X2	Low Reference	40	2752
X2	5 Volt Reference	53	2701

# Lifting the Corvette ZR1

**IMPORTANT:** Some of the ZR1 carbon fiber trim is not installed to the vehicle at the assembly plant, to avoid shipping damage. The rocker moldings, front valance panels and rear wheel flare moldings must be installed at the dealership during new vehicle preparation. Once the rocker moldings and valance are installed, the vehicle's ground clearance can be as little as 4 3/4 inches (12 cm). And clearance between the top of the lift arm and the bottom of the car may be as little as 1/8 inch (0.3 cm).

Brake cooling air deflectors, which are shipped with the rotor protectors, are installed to the front lower control arms during new vehicle preparation. Once installed, these items and the air deflector below the radiator also affect ground clearance.

Due to the low ground clearance, it's necessary to be extra careful when driving the vehicle onto a ramp (such as an alignment rack) or when using a hydraulic lift. Carbon fiber is brittle and easily damaged. It bends very little before breaking. And replacement parts are extremely costly.

Lifts are not all alike. Heights, adjustability, dimensions, and floor contour can vary, so specific instructions are not possible. Here are some useful guidelines.



#### **ZR1** Dimensions

Refer to the illustration. The ground clearances under the front valance and rocker panel moldings are very low. And due to the front overhang, the approach angle is shallow.

TIP: Allow the suspension to settle before taking measurements. Compare the vehicle's dimensions with your lift or alignment rack to determine what accommodations are needed to lift the vehicle without damage.

### **Lifting Tips**

It may be necessary to drive all four of the ZR1's tires onto low ramps to allow the lift arms to fit under the vehicle, and provide the necessary clearance for the rocker moldings.

On a lift with telescoping lift arms, check the height of the outer (larger) por-



**Drive onto low ramps** 

tion -- it may contact the rocker panel even if the smaller (inner) portion clears.

It may be necessary to thread the lift pads down to the lowest position for clearance before swinging the lift arms under the car. Then thread the pads up to place them closer to



the lift points on the vehicle before raising the lift. Reverse the procedure when lowering.

### **Alignment Rack Tips**

Due to the shallow approach angle below the front valance, the valance may contact the ramp on the alignment rack.

To prevent this, it may be necessary to extend the ramps to reduce the angle. A ratio of at least 8.5 inches of length to each 1 inch of height is recommended. This means that if the surface of the alignment rack is 10 inches from the floor, the approach ramp must be at least 85 inches long.

TIP: Even with the ramp extended, be careful. A

floor with a center drain or





other irregularities may affect the relationship of the vehicle to the ramp.



- Thanks to Will Godfrey, Art Spong, Randy Stewart and Terry Goll

## **Camshaft Timing Drive Versions** and Camshaft Holding Tools -**High Feature V6**

The High Feature V6 (HFV6) engine, introduced in 2004, is a double overhead cam (DOHC) design and is used in various GM vehicles.



The camshaft drive system consists of one primary timing drive chain driven by the crankshaft sprocket. The primary timing drive chain drives two intermediate drive shaft sprockets, which in turn drive an intake and an exhaust camshaft in each cylinder head.

From the initial production of the HFV6, there have been four timing drive systems.

#### **Camshaft Locking Tools**

To accommodate servicing the various timing drive configurations, two different sets of camshaft locking tools have been introduced.

IMPORTANT: EN-46105 and EN-48383 are NOT interchangeable.

EN-46105 was required from the first HFV6 in 2004 through mid-2007 on all engines with roller secondary timing chains. EN-46105 is used to hold the camshafts in the correct position while installing the secondary drive chains.

During the 2007 model year, 7.7 mm stacked-plate inverted tooth (IT) timing chains for secondary camshaft drives were phased in on all vehicles. The IT chains require EN-48383 for correct camshaft positioning because of a different camshaft angle requirement.



EN-48383

Design	Model Year(s)	Timing Drive Type	Other	Camshaft Locking Tool
1st	2004	Primary - Roller chain Secondary - Roller chain	_	EN-46105
2nd	2005-06	Primary - Inverted tooth (IT) Secondary - Roller design	_	EN-46105
Зrd	Early 2007, some vehicles	Primary - Inverted tooth (IT) Secondary - Roller design	New camshaft position actuators and sensors	EN-46105
4th	Mid 2007-09 all vehicles	Primary - Inverted tooth (IT) Secondary - Inverted tooth (IT)	New camshaft position actuators and sensors	EN-48383



#### EN-48383 Usage

Refer to SI for the detailed procedure for each engine. Here are some highlights regarding the camshaft locking tool for 4th design engines, which use the IT secondary chains.

EN-48383 consists of three pieces:

	EN-48383-1	LH cams, stage 1
	EN-48383-2	LH cams, stage 2
•••	EN-48383-3	RH cams, stage 2

EN-48383-1 holds the cams on the left head. It holds the cam flats parallel, to ensure correct positioning as the first cam secondary chain is installed.

When the right side chain is being installed (called Stage 2 timing), EN-48383-2 is used to hold the left head cams with the flats angled, to prevent the left chain from reacting under spring pressure against the primary chain as the right secondary chain is installed.

At the same time, EN-48383-3 is used on the cams on the right head to hold them with the 2.5 degree angle between them to help ensure correct chain positioning.

- Thanks to Andy Waddell

# Intermittent Radio Preset

The owner of a 2007-08 Saab 9-3 or 2006-08 9-5 with "Black Tie" radio may comment that a radio preset (usually no. 2) is intermittent or inoperative and is most noticeable after a key cycle.

This issue may occur if the owner has mixed station presets (AM/FM and XM) programmed into one of the FAVORITES menus. When the ignition switch is cycled, the preset will not function until another preset is used first. When the steering

wheel controls are used after a key cycle, the preset may be skipped. If any other presets are selected before using the suspect preset, the radio will function normally.

NO PARTS SHOULD BE REPLACED. To alleviate the concern, SPS-program the radio with the latest software from TIS2Web.

Thanks to Jeff Gorenflo

	Car Issues – Fix It Right the	First lime		
Model Year(s)	Vehicle Line(s) / Condition	Do This	Don't Do This	Reference Information / Bulletin
2003-07	ION, Cobalt, G5 – Water leak at dome light sunroof switch	Adjust sunroof	Don't replace entire sunroof module	06-08-67-019
2006-08	HHR – Water leaks	Follow bulletin completely	Don't stray from completing bulletin	07-08-57-001A
2004-08	SRX – Creak/rattle from front of sunroof glass panel	Repair threads with Helicoil insert	Don't replace front sunroof glass panel	07-08-67-007
2006-08	All except Saab and Saturn – Replacing batteries on vehicles in dealership inventory	Maintain battery for vehicles in inventory	Don't allow battery to discharge through lack of maintenance	
2006-07	HHR – Condenser and cooling tubes damaged by debris	Install plastic protector		08-06-02-001
2006-08	HHR – Intermittent SES, reduced engine power	Repair 4 TPS circuits in ECM connector C2	Don't replace ECM or throttle body	08-06-04-022
2004-09	Corvette, XLR – Rear axle clunk and/or chatter noise on turns	Drain and fill rear axle using Dexron LS Gear Oil	Don't replace differential clutch discs, remove any axle covers	07-04-20-002A
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	All vehicles with aluminum wheels – Tire leaking air	Repair wheel and paint	Don't replace wheel	08-03-10-006
2006-08	Lucerne, DTS – Center console ashtray binds, loose	Replace ashtray assembly only	Don't replace console trim panel	08-08-110-008

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### 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	Silverado, Sierra, Avalanche, Suburban, Tahoe, Yukon – Service 4wd message, DTC B2725	Replace IP switch	Don't replace transfer case control module	PIP 4101
2007-08	Fullsize utilities, pickups – Apparent steering rack 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 P060E, P1516, P2135 or P2138	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	Tahoe, Yukon, Escalade, Avalanche, Sierra, Silverado – Squeaking/itching in upper door area	Clean top of door frame and install 3M Squeak Reduction Tape	Don't replace upper door sill	06-08-64-035D
2008	Sierra, Silverado – SES P1174	Update PCM calibration	Don't replace catalytic converter, PCM, injectors, fuel rails, fuel pumps	08-06-04-028
2005-08	TrailBlazer, 9-7X – Growl, groan, shudder, bind from rear when making turns	Drain and fill rear axle with Dexron LS Gear Oil	Don't replace differential gear case	08-04-20-002
2007-08	Colorado, Canyon, H3 – Exhaust rattle at 2,600 RPM	Place hose clamp around forward portion of heat shield	Don't replace exhaust/converter pipe assembly	08-06-05-003
2007-08	Enclave, OUTLOOK, Acadia – Rear sunroof drain hose separated; water not draining from front drain	Install drain hose extension, plug holes in roof, check drain tubes for plugging	Don't replace sunroof module or glass	07-08-57-002E

Know-How Broadcasts for September

10208.09D Emerging Issues New Model Features September 11, 2008 9:30 AM and 12:30 PM Eastern Time For Web NMF courses, log on to the GM Training Website (www.gmtraining.com). Select Service Know-How/TechAssists from the menu, then choose New Model Features for a selection of courses.



– Thanks to John Miller