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Integrated Center Stack (ICS)

Among the many changes and improvements in the 2008 Cadillac CTS is a newly-designed radio and HVAC control module configuration known as the Integrated Center Stack (ICS). The ICS system used in the CTS consists of three main components:

- the Radio/HVAC Control Assembly (or Infotainment Faceplate Control)
- the Radio
- the HVAC Control Module.

TIP: Inside General Motors, this Integrated Center Stack (ICS) is sometimes referred to as the "Silverbox" configuration.

RADIO/HVAC CONTROL ASSEMBLY

Integrated Center Stack (ICS)

The Radio/HVAC Control Assembly is a separate component from the Radio and the HVAC Control Module. The Control Assembly contains the radio control knobs and buttons for all audio functions. In addition, the HVAC controls are part of the Control Assembly, including driver and passenger temperature control switches and heated or heated-vented seat, if so equipped

There are two basic Control Assembly designs with several button configurations depending on the vehicle options (XM radio, heated seat, heated and vented seat, and heated windshield washer).

continued on page 4

Hybrid Vehicle DTCs

This information applies to the 2007 Saturn Aura Hybrid with 2.4L Engine (VIN 5 – RPO LAT).

On rare occasions, DTCs U0111 and U1897 may be experienced shortly after the BECM is reprogrammed. Typically, this occurs when performing service policy 07141 and reprogramming the BECM. This may occur if the vehicle required two BECM programming events, but only one BECM programming event was completed.

If DTCs U0111 and U1897 occur shortly after programming the BECM, review 07141 again and determine if two BECM programming events should have been performed.

If two programming events were required, the following two selections would have been displayed on the Supported Controller Screen of TIS 2 Web:

- BECM Hybrid Battery Voltage Correction
- BECM Hybrid Battery Software Enhancement

If both of these selections were displayed, but only one of them was completed, perform both BECM programming events as outlined in 07141 and re-evaluate the concern.

If both programming events were not necessary, or if this concern is still present after performing both programming events, perform the SI diagnostics for these DTCs and repair as necessary.

– *Thanks to Jamie Parkhurst*

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Contents

GM Service and Parts Operations

Reverse Lamp Inoperative

On a 2003-08 Saab 9-3, the left side reverse lamp may not illuminate. There is no power to the circuit. There may be no change if the Rear Electrical Center (REC) is swapped.

The circuit for the left side reverse lamp is also tied into the rear view mirror auto-dim circuit. In the REC, connectors H2 pin 11 and T-C pin 1 are the same circuit, as they are jumped together internally. (See reverse lamp schematic.) This circuit supplies a signal to the rear view mirror to disable the auto-dim feature when backing up. If the REC sees any circuit shorted to ground, it will disable the circuit by removing the voltage for protection. The REC will continue to disable the circuit until the concern has been rectified. Verify the integrity of the circuit in question for shorting to ground. The rear view mirror may be improperly installed, trapping the wiring between the mirror and the body, pinching the wires and shorting the circuit to ground.

– *Thanks to Jeff Gorenflo*

Front Suspension Noise

2003-08 Saab 9-3 Sedan

2004-08 Saab 9-3 Convertible

2006-08 Saab 9-3 Combi

A popping or clicking type noise may be heard coming from the front suspension area. It may be described as a light metallic or tin like sound, typically heard while turning at slow speeds.

Follow normal diagnostic procedures, including Chassis Ears if available. If the noise is resonating from the hub/lower strut area, remove the front backing plates/dust shields and enlarge the mounting holes to prevent any bind/slip-stick condition from occurring. Re-assemble, then test drive to verify the repair.

– *Thanks to Jeff Gorenflo*

GM Approved Oil Lists on *TechLink* Website

Updated versions of the GM6094M and GM4718M Approved Engine Oils lists have been posted in the Reference Guide section of the *TechLink* website.

Watch for further updates of these lists.

– *Thanks to Matt Snider*

Tire Pressure Monitor System Bulletin

Bulletin 07-03-16-004 was just released to provide additional information about the Tire Pressure Monitor System (TPM) that is standard equipment on all 2008 US vehicles (except Saturn Astra) and optional on some vehicles in previous model years.

Here are some highlights. See the bulletin for complete details.

Before performing service on a TPM system, it's important to distinguish between the two instrument panel messages related to TPM operation.

A Check Tire Pressure/Low Tire Pressure message indicates that tire pressure needs to be corrected and that the TPM system is operating as designed. This does not indicate a need for diagnosis and correction, other than correctly inflating the tires.

A Service Tire Monitor message indicates that there is a condition that should be diagnosed and corrected. System codes will set.

The bulletin explains the effect of outside temperature on tire pressure. Typically, tire pressure changes 7 kPa (1 psi) for every 6° C (10° F). Pressure drops as temperature drops. A Check Tire Pressure message is displayed if tire pressure is at 75% of the recommended pressure. A drop of a few degrees of temperature may be sufficient to cause the message to display. As the tires warm up, the message may turn off. This is normal operation and does not call for repair, other than correctly inflating the tires.

The bulletin includes tips on using the TPM Tester J 46079.

The bulletin also includes an extensive FAQ section, which may be shared with a customer to further assist them in understanding the operation of the TPM system, to avoid unnecessary customer concerns

– *Thanks to Alan Srodawa and Hassan Abdallah*

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Introduction to Bluetooth Technology

Bluetooth® technology will be available on most General Motors vehicles beginning in model year 2009 as either optional or standard equipment. The Bluetooth functionality will be accessed via the OnStar Module.

Bluetooth is a wireless technology that enables connectivity between multiple electronic devices (i.e. cellular phone and vehicle) using a 2.4 GHz radio spectrum that has a range of approximately 30 feet.

With Bluetooth technology, customers can experience hands-free calling as their Bluetooth capable cellular phones are wirelessly connected to the vehicle. It will allow customers to place and receive calls using the steering wheel controls and voice recognition. The vehicle audio system will allow listening to a call through the vehicle speakers and adjusting volume through steering wheel or radio controls.

Bluetooth Functionality in General Motors Vehicle

Bluetooth functionality requires steering wheel controls, but not all vehicles with steering wheel controls will have Bluetooth functionality. To utilize the vehicle's Bluetooth system, a Bluetooth equipped cellular phone is required. Based on the cellular phone manufacturer's implementation of Bluetooth, not all phones will support all functionality. Not all Bluetooth cellular phones are guaranteed to work with the vehicle's Bluetooth system. Cellular phones will be tested for vehicle compatibility and a list will be provided via a website.

Pairing Bluetooth Cellular Phone to Vehicle

In order to work, the cellular phone must be paired to the vehicle. Up to five devices can be paired to the vehicle at one time, but only one can be connected at any given time. To pair a phone, the customer must know how to operate the Bluetooth functionality of their phone. The pairing process must be done only one time for each phone, unless that phone's information is deleted. For safety reasons, the pairing process is disabled while the vehicle is moving.

Portability Benefits of Bluetooth

Once the Bluetooth cellular phone has been paired with the vehicle, it will automatically connect to the vehicle when the ignition is turned on.

With the General Motors Bluetooth technology, a phone conversation is maintained regardless of whether the owner is getting into or leaving the vehicle.

A cellular phone that is in use when getting into the vehicle will automatically switch to hands-free mode. And when exiting, the hands-free call automatically transfers to the phone so the call can continue on the cellular phone after exiting.

Features Supported by the General Motors Bluetooth Technology

- Make a call using digits, redial, or name tags (phone number saved to a nametag via voice recognition)
- Receive a call – answer call, ignore call
- Call waiting
- Three-way calling – initiated from the hands-free system
- Mute a call
- Send a number during a call – used when calling a menu-driven phone system
- Transfer a call – transfer call from vehicle to cellular phone and vice versa
- Voice pass-thru – allows access to the voice recognition commands on the cellular phone

This is the first in a series of *TechLink* articles about Bluetooth. Additional information will be available as the vehicles get ready to launch. The additional information will include the Bluetooth test tool available to purchase, the website, Customer Assistance Center (CAC), and Technical Assistance Center (TAC).

– *Thanks to Howard Owens*

Clutch Pedal Position Sensor

This information applies to the clutch pedal position sensor (CPPS) used on the 2006-07 Pontiac G6 with manual transmission and all 2008 platforms with manual transmissions. A bulletin will be released to detail this important procedure.

The CPPS learn procedure must be performed to relearn the CPPS value for a depressed clutch after any of the following:

- ECM reprogramming
- ECM replacement
- Clutch pedal position sensor (CPPS) replacement
- Clutch pedal replacement
- Any procedure that alters the CPPS to clutch pedal alignment

WARNING: Replacement or reprogramming of the ECM or replacement of the clutch pedal position sensor (CPPS) or clutch pedal requires that a CPPS learn procedure be performed. Failure to perform the CPPS learn procedure may result in vehicle movement if the vehicle is in gear and the starter motor is accidentally engaged.

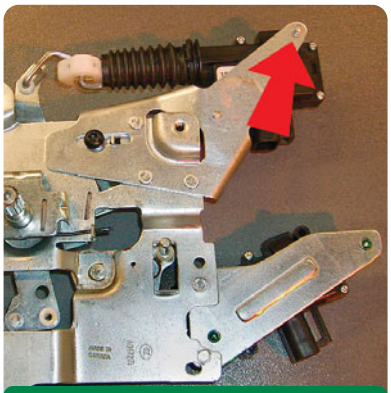
– *Thanks to Bob Vandenbush and Ian MacEwen*

Rattle From Right Side Power Sliding Door

The owners of some 2007 Terraza, Uplander, Montana or RELAY models may comment of a rattle from the right side power sliding door while driving.

A protruding rivet on the outside of the interior latch assembly can contact the door sheetmetal, causing a rattle type noise. To repair, install foam tape to the door sheetmetal to insulate the rivet.

– *Thanks to Jeff Gorenflo*



Rivet on power sliding door latch assembly

Mushroom end of rivet contacts sliding door inner panel

Integrated Center Stack (ICS) – continued from page 1

- Non-navigation systems include a monochrome main display as part of the Control Assembly.
- Navigation systems do not include a main display as part of the Control Assembly. The display is separate and attaches to instrument panel together with the Display Module Actuator as an assembly.

TIP: As with current radios, if a replacement part is required, the Control Assembly part number can be retrieved using the Tech 2.

Control Assembly removed

BASE AND UPLEVEL RADIOS

The Radio functions much the same as any conventional radio – it receives the transmitted radio signal through the antenna, decodes the message the signal contains, amplifies this signal, then sends it to the speakers or remote amplifier. The radio receiver also processes information from recorded playback media (e.g., CD, MP3, DVD disc). All ICS radios are attached to the vehicle in a location similar to conventional radios.

The ICS radio system differs slightly from past radios. As always, the operator is able to control system power, volume, fade, balance, bass, and treble equalizations. The operator interfaces with the radio system through the buttons and control knobs located on the Control Assembly. Unlike past radios however, when the operator turns a knob or pushes a button, a module in the Control Assembly sends a signal to the Radio on a dedicated serial communications circuit.

TIP: This circuit is part of a wiring harness that connects the Control Assembly and Radio, but is not part of the other vehicle serial communication circuits.

HARD DISK DRIVE (HDD) AND NAVIGATION RADIOS

Some ICS Radios are now equipped with a hard disk drive (RPO U2S and UAV). These radios are able to record songs from Audio CDs, MP3 / WMA discs, and USB mass storage devices. The hard drive has a 40GB memory capacity. A portion of the HDD is used for the storage of radio system files and navigation map data on navigation radios. The remainder of the HDD capacity is available for the storage of media files.

Radio and navigation display

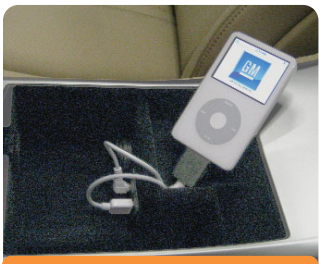
Radios with HDD are able to play back audiobook content downloaded from www.audible.com. This content can be transferred into the HDD either by burning it to a CD or copying it to a USB storage device and then recording it to the HDD.

TIP: The audible.com playback requires activation of the vehicle as a player for the downloaded content. The radio system activates the audible.com system when information is found on either a CD inserted into the CD/DVD-A player or if a USB storage device is connected. The Vehicle Identification Number (VIN) number is required in order to activate the vehicle.

TIP: If the Radio needs to be replaced, the hard drive does not have to be cleared before sending the radio back to the Electronic Service Center. The scan tool can be used to clear the hard drive if desired.

AUXILIARY JACK/USB ADAPTER

An Aux jack/USB adapter is located in the rear of the center console bin. The 3.5 mm auxiliary stereo jack is an input for analog signals, and the USB connector allows playback of digital audio media, from remote devices (e.g., laptop computer, iPod, MP3 player, etc.). When the Aux Jack and USB are used together with an iPod interface cable (p/n: 25908035), the Control Assembly controls can be used for iPod media file navigation.



iPod in console

HVAC CONTROL MODULE

The HVAC Control Module is a GMLAN device that interfaces with the HVAC air distribution system to maintain air temperature and distribution settings. This module is attached to the passenger hush panel below the glove compartment. As with the Radio, the operator interface dials and buttons for the HVAC Control Module are part of the Control Assembly. Button presses are communicated from the ICS to the Radio on the dedicated serial communication line. The Radio then communicates the information to the HVAC Control Module over GMLAN serial communications.

In a reverse manner, HVAC temperature selection, blower speed and other information is communicated to the Radio by the HVAC Control Module. The Radio then sends this information to the Control Assembly and the HVAC display areas are updated.

OTHER CONTROL ASSEMBLY INTERACTIONS

Heated and Vented Seats

Seat temperature requests are made with the buttons on the Control Assembly, and sent over the dedicated serial communication line to the Radio. The Radio places the request on GMLAN serial communications, which is received by the Memory Seat Module (MSM). As often as needed, the MSM sends seat temperature setting status to the Radio, and the Radio communicates with the Control Assembly and the seat displays are updated.

Passenger Presence Indicators

Passenger Presence System Air Bag On/Off indicator information is sent to the Radio from the Restraints system control modules over GMLAN serial data. The Radio communicates the information to the Control Assembly, which then turns on the correct indicator. Lighting intensity of these indicators is also controlled by the Control Assembly.

Hazard, Heated Windshield Washer and Traction

The Hazard, Heated Windshield Washer, and Traction buttons are not detected by the Control Assembly electronics and are not communicated to the Radio. These switches are wired directly to their respective modules. However, the Control Assembly does control backlighting of these switches.

– *Thanks to Nohr Tillman and Steve Falko*

TRAINING TIP

For service removal recommendations of the Integrated Center Stack, review the following Know-How Emerging Issues video.

December 2007
EI Course 10207.12D.

It has tips on how to remove the ICS without damaging the surrounding trim panels. This will lead to reduced warranty costs and improved customer satisfaction.

Automatic Transmission Shift Linkage Adjustment

This information applies to the 2004-08 SRX, 2005-08 STS and 2006-08 CTS equipped with automatic transmissions.

Many automatic transmission shift control related concerns can be corrected with linkage adjustment.

DO NOT replace a shifter assembly without first attempting to correct the condition with the linkage adjustment procedure. Refer to SI for the proper service procedures.

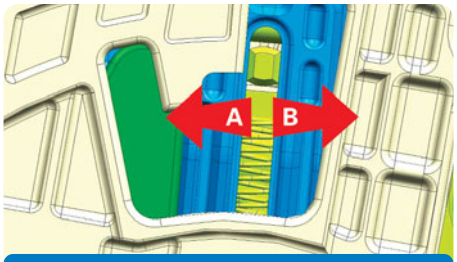
TIP: Symptoms of forward-biased adjustments include cluster blanking out in Drive, and Tap Mode not functioning. Ensure that the linkage is adjusted properly when Drive blanks out, or Tap Mode does not function.

TIP: Symptoms of reverse-biased adjustment include the inability to remove the key, or inability to exit Accessory Mode. Ensure that the linkage is adjusted properly when there is the inability to remove the key, or inability to exit Accessory Mode.

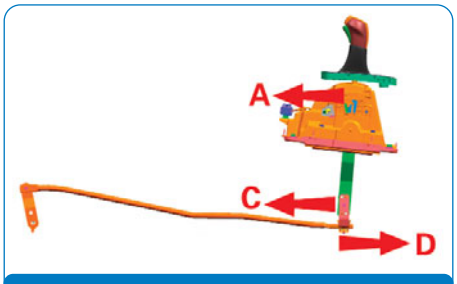
TIP: When diagnosing a binding shift control system, disconnect the linkage from the shifter assembly and check the shifter assembly for smooth operation independently from the linkage. The transmission should be in Park during evaluation.

The linkage adjustment procedure is critical for proper transmission operation; therefore, several checks need to be performed after the linkage is adjusted:

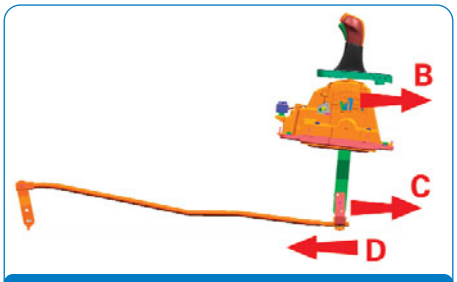
- Inspect the operation of the starting system with the shift lever in each position. The engine should crank only when the lever is in the Park or Neutral position.
- Ensure that the feel of the shift detents align with the gear indicator.
- When in each gear, apply the button and release. Then slightly reposition the handle fore-and-aft in the vehicle. The button pawl will make a clicking noise if it is caught on a control mechanism gate. The button should not get caught up on the control mechanism gate in any gear. Readjust and retest if necessary.



Adjustment issues
A Forward Biased B Rearward Biased



Desired Movement for Correction – Adjustment Forward Biased
A Forward biased
C J-bracket
D Linkage



Desired Movement for Correction – Adjustment Rearward Biased
B Rearward biased
C J-bracket
D Linkage

- Return the lever to the Park position and check for proper engagement. Park position should feel solid and not spongy. The shift lever should not be bottomed out on the stop bumper when engaging the Park position. Readjust and retest if necessary.
- With the ignition on and the engine not running, ensure a smooth transition from position D to Tap Mode and back. Ensure that the DIC changes to the gear indicator mode. If the DIC does not change to gear indicator mode, or any binding or rough spots are felt, repeat the linkage adjustment procedure and retest the system.

If any of the following conditions exist after performing the linkage adjustment, the shifter may need to be replaced. Refer to bulletin 41276.

- The shifter binds when putting the vehicle into gear or Park
- The ignition key sticks or is hard to remove from the ignition lock cylinder (SRX only)
- The Shift to Park message is constantly displayed on the DIC when the shifter is in the Park position
- Dead battery
- The Tap Shift functions may experience a delay when operating the Tap-Up or Tap-Down mode
- The Tap Shift functions are inoperative
- The MIL/SES light is illuminated with one of the following DTCs:
- DTC P0815 – Upshift Switch Circuit
- DTC P0816 – Downshift Switch Circuit
- DTC P0826 – Up and Down Shift Switch Circuit
- DTC P1876 – Up and Down Shift Enable Switch Circuit Low Voltage

– *Thanks to Ken Billette*

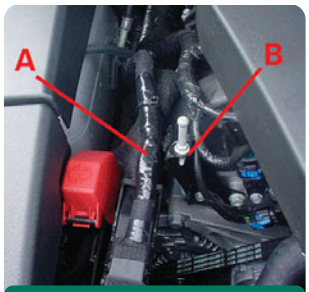
Reduced Engine Power

Some owners of a 2008 CTS may comment that the Malfunction Indicator Lamp (MIL) and or Reduced Engine Power is displayed on the Driver Information Center. Further investigation may reveal one or more of the following DTCs are stored: P0087, P0089, P0451, P0452, P0628. The cause may be the engine wire harness chafing on the passenger front engine cover/sight shield ball stud bracket.

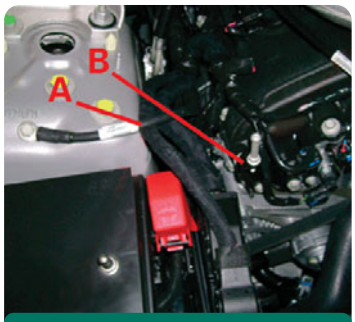
Inspect the engine wire harness breakout for the engine control module for chafing on the passenger front engine cover/sight shield ball stud bracket.

Repair the wiring as necessary. Reroute the harness under the battery negative cable away from the passenger front engine cover/sight shield ball stud bracket.

– *Thanks to Mike Ciarkowski*



A Engine wire harness breakout
B Ball stud bracket



A Battery negative cable
B Ball stud bracket

Lubricating the Spare Tire Carrier on the Hummer H2

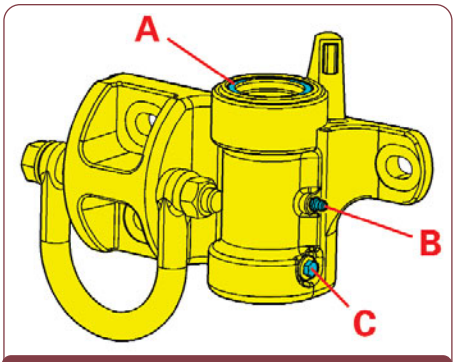
Here are some tips about lubricating the spare tire carrier hinge assembly on the Hummer H2. See SI document 1559969 and bulletin 08-03-10-001 for additional information.

IMPORTANT: Under normal conditions, the hinge assembly will NOT require lubrication.

TIP: There is a special grease for the carrier that should be used especially if the hinge is being lubricated because of poor cold weather performance. You must use special lubricant GM p/n 89022180 (Canadian p/n 89022181).

Remove the M6 set screw and the 1/4 inch plug (if equipped) above the set screw. Install a grease (zerk) fitting where the 1/4 inch plug was located. Some vehicles have the zerk fitting installed during assembly. Apply grease and rotate the swing arm to ensure a uniform coating over the internal bushing.

When the grease begins exiting the set screw hole, stop applying grease and reinstall the set screw. Tighten the set screw to 9 N·m (80 lb in).



Spare tire carrier hinge assembly
A Casting grease seal
B Zerk fitting
C Set screw

Begin applying grease again, using the zerk fitting, and continue articulating the swing arm until grease is just visible on the casting grease seal.

TIP: DO not allow the swing arm to lift during lubrication. If the swing arm lifts, remove the set screw and apply downward pressure while rotating the swing arm. Continue until the swing arm makes contact with the casting.

The hinge is now primed with the correct amount of grease. Tighten the set screw to 9 N·m (80 lb in).

– *Thanks to Larry Yaw*

Side Object Detection System Tips

This information applies to 2008 Lucerne, DTS and STS with RPO UFT.

IMPORTANT: B1000.F2 Side Object Detection Frequency Calibration Failure can store in early built vehicles during assembly and should be ignored if found in history. Do not replace SOD sensors.

These troubleshooting tips supplement normal diagnostic procedures:

TIP: Review the Object Detection Description and Operation (SOD). Begin all diagnostics with the Circuit/System Verification in the Side Object Sensor Malfunction Diagnostic Information and Procedures, if no DTCs related to the system are current.

TIP: If the concern is intermittent, question the customer closely regarding the operation of the SOD icons in the mirrors and any messages displayed on the Driver Information Center (DIC). Be sure the customer has read the entire Side Blind Zone Alert section of the owner manual and understands the capabilities and limitations of the system.

TIP: Occasional missed or false alerts or poor operation in rain are normal and do not require service; do not replace SOD sensors. However, to ensure optimum performance, sensors should be removed for cleaning. Remove dirt build-up, contamination, etc., from around the sensors and brackets. Remove labels and stickers from both sides of the fascia.

TIP: If CLEAN SIDE BLIND ZONE ALERT SYSTEM is displayed, clean both sides of the fascia (inside and outside) and both sensors of any contamination (mud, snow, ice, dirt, bumper stickers, labels, etc.) and retest; do not replace SOD sensors.

TIP: SOD sensors can be swapped from left to right in order to aid in isolating the cause of a concern, but they cannot be swapped from vehicle to vehicle. DTC B1015.00 Vehicle Identification Number (VIN) Information Error will store. The VIN is learned and stored in the sensors within a few ignition cycles of having been installed for the first time.

TIP: The left SOD sensor will not communicate on the Low Speed GMLAN if the right SOD sensor does not. If neither sensor communicates, begin testing at the right sensor.

– *Thanks to Michael Ciarkowski*

Fan Roar

This information applies to the following vehicles with engine RPO codes LL8 (I6), LS2 (6.0 V8), LH6 (5.3 V8), LLV (2.9 I4) and LLR (3.7 I5).

– 2007-08 Colorado, Canyon, H3
– 2008 TrailBlazer, Envoy, 9-7x

Some customers may comment of a roaring noise from the engine compartment. This typically occurs on cold starts and goes away as the engine reaches normal operating temperatures. This is normal operation of a new bi-metallic cooling fan used on these engines.

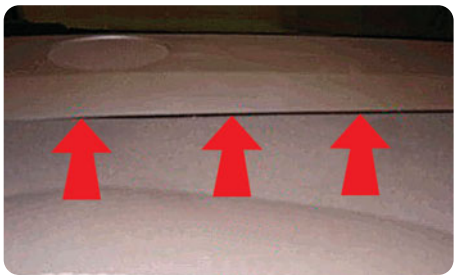
No repair attempts should be made. This information is available in the owner manual, Section 5, Service and Appearance Care, Cooling System.

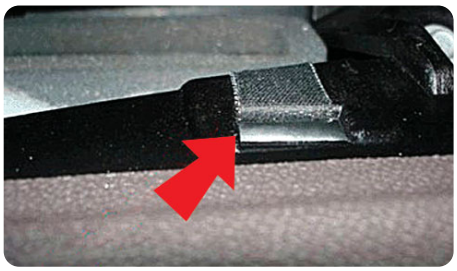
TIP: See SI document 835016 (Colorado, Canyon, H3) and SI document 1490779 (TrailBlazer, Envoy, 9-7x).

– *Thanks to Dino Poulos*

Instrument Panel Gap

Some owners of a 2007-08 SRX may comment that the instrument panel (IP) upper trim panel has a gap to the IP. The cause may be insufficient friction between the retaining clip and the cut-out in the IP panel.





It is NOT necessary to replace the instrument panel upper trim panel. Apply one strip of 3M friction tape (p/n 03407NA) or cloth electrical tape to one side of the retaining clip opening. There are 6 openings that will need tape. After tape is applied, the effort needed to seat the clips is increased.

TIP: Do not use vinyl electrical tape, as it does not provide enough friction.

– *Thanks to Michael Ciarkowski*

OnStar Backup Battery

This article first ran in the May 2006 issue of *TechLink*. Since that time, additional vehicles have been added, so here's updated information.

A number of GM vehicles are equipped with an OnStar Backup Battery (BUB)

- Impala and Monte Carlo, 2006 and later
- Equinox and Torrent, 2007 and later
- VUE, Astra and G8, 2008 and later

TIP: Other vehicles may be added at a later date.

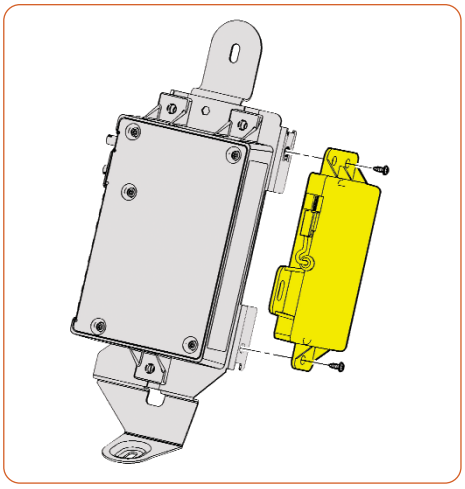
The BUB is a non-rechargeable, lithium battery with a lifespan of approximately 4 years and is designed to maintain an open circuit voltage between 16V and 9V throughout this period. This allows the battery to power the basic functions of the VCIM for least one 200-second (5 minute) phone call at the end of the 4 year span, should a main vehicle battery loss occur.

The BUB voltage is checked every ignition cycle. If the BUB fails the check or if the BUB has had current drawn from it, the OnStar LED next to the control buttons changes from green to red and a DTC is set, either B1446 or B1447.

Service Precaution

Do not disconnect the vehicle battery with the ignition key in the run position.

With the ignition key in the Run position, the OnStar module is awake on the data bus. The OnStar module is also awake after the ignition key is removed, until Reserve Accessory Power (RAP) times out, or the driver door is opened. If the vehicle battery is disconnected with the OnStar module awake, the OnStar module senses a vehicle power failure, as could occur in a crash, and draws current from the BUB. When the vehicle battery is reconnected, the OnStar LED is red and a DTC is set. Because the BUB has had a current drain and there is no way of telling how long the drain was, the BUB must be replaced.



Refer to Accessories in SI for OnStar battery replacement information.

– *Thanks to Howard Owens*

Gauge Sweep

The owner of a 2007-08 Acadia or OUTLOOK or a 2008 Enclave may comment that the gauges on the Instrument Panel Cluster (IPC) do not WOW (Gauge Sweep) when the ignition is turned on

This may be a normal condition, depending on when the vehicle was built. Vehicles built in September 2007 and later should have the WOW (Gauge Sweep) feature turned on in the IPC. If the vehicle in question was built before September 2007 and the gauges do not WOW (Gauge Sweep), do not replace the IPC for this concern. This is the normal operation.

– *Thanks to Ron Erman*

Auto Volume Error

Some owners of a 2007-08 Corvette equipped with US8 Radio and U66 Speaker System may comment of an Auto Volume Error message displayed on the radio when the Auto Volume button is pressed. The concern may be intermittent and will occur when the button is pressed with the ignition in RAP or ACC mode. This is due to the Vehicle Speed Sensor (VSS) message not being sent to the radio in these specific ignition modes.

This is normal operation. The vehicle must have the engine running or be in Ignition On Engine Off mode for at least 2 to 5 seconds before the Auto Volume selections will appear. Replacing the radio or any other component will not correct this concern.

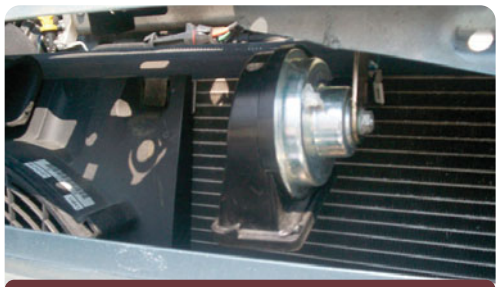
– *Thanks to Dino Poulos*

Inoperative Horn

On a 2000-05 Saturn L-Series, the horn may be inoperative, weak or muffled. The horn may have been replaced previously with an updated unit.

These conditions may be due to water intrusion. Install the updated horn in the alternate location identified in the following procedure.

TIP: The updated horn is smaller and has a water deflector covering the opening.



Original location

New location

1. If the horn has not been updated to the latest part, it will need to be changed to insure clearance in the new location.
2. Remove the horn and bracket from the inner fender.
3. Remove the grill.
4. Using the existing bracket, mount the horn to the underside of the top radiator core support on the driver's side.
5. Lengthen the wiring as needed to reach the new location. Use splice sleeves from the Terminal Repair Kit.

TIP: Be sure the horn does not contact the condenser or grill, and properly secure all wiring.

– *Thanks to Jeff Gorenflo*

Car Issues – Fix It Right the First Time

Model Year(s)	Vehicle Line(s) /Condition	Do This	Don't Do This	Reference Information / Bulletin
2005-07	XLR, Corvette – Dead battery, no crank/ no start	Reprogram RCDLR	Don't replace RCDLR	07-06-03-001B
2006-07	HHR – Front and rear carpet wet, water/blower motor inoperative	Install new butyl patch	Don't reinstall old butyl patch using RTV	07-08-57-001A
2006-07	G6 Coupe – Interior water leak	Re-route both rear drain hoses, re-connect and tie strap	Don't reconnect hoses without properly rerouting and securing with tie strap	07015
2006-07	Lucerne – Poor headliner fit in rear	Repair headliner	Don't replace headliner	PIC4189
2006-07	Lucerne – Front or rear door trim panel, map pocket squeaks	Install new retainers	Don't replace door trim	06-08-64-034
2005-07	STS – Cushion moves sideways when turning	Put tape on sides of hook on seat cushion frame	Don't replace seat adjuster	06-08-50-010
2004-07	SRX – Turn signals flash fast, front turn signal inoperative	Bulb and socket for turn signal are available separately	Don't replace complete fog lamp assembly	Parts Catalog
2006-07	Lucerne – Noise when making turns at slow speeds	Align I-shaft to steering column	Don't replace intermediate shaft or steering gear	06-02-35-009E

Truck Issues – Fix It Right the First Time

Model Year(s)	Vehicle Line(s) /Condition	Do This	Don't Do This	Reference Information / Bulletin
2007	Acadia, Enclave, OUTLOOK – Power driver seat jerks when moved	Burnish track by moving seat forward and rearward 30 times with heavy load	Don't replace seat track	07-08-50-016
2003-07	Kodiak, TopKick, HTR, HVR, HXR – Armrest being pulled off door panel	Replace armrest and install improved fasteners	Don't replace door panel assembly or reuse old fasteners	07-08-64-016
2007-08	Fullsize utilities – Apparent steering rack leak may be excess fluid	Determine source of leak	Don't replace power steering rack	07-02-32-002C
2001-04	LB7 Duramax Diesel – Injector high pressure lines corroded	Clean connection area of line and nut	Don't replace lines	03-06-04-036A
2007-08	Silverado, Sierra – Service 4WD message, DTC B2725	Replace IP switch	Don't replace transfer case module	PIP4101
2007	Silverado, Sierra – Fuel gauge erratic, DTC P0463	Replace fuel level sensor	Don't replace PCM, fuel sender, instrument cluster, fuel tank, wiring or fuel system relay	PIT4294C
2007	Fullsize utilities – Passenger airbag door not flush with IP	Reposition locking tabs	Don't replace passenger airbag	06-09-41-004B

Know-How Broadcasts for March

10208.03D Emerging Issues	March 13, 2008	9:30 AM and 12:30 PM Eastern Time
New Model Features	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.	

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– Thanks to John Miller