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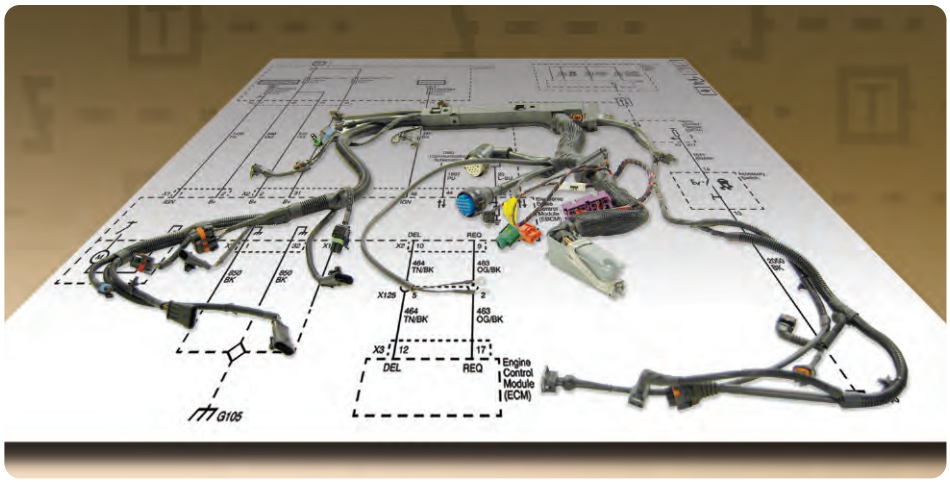
Schematics



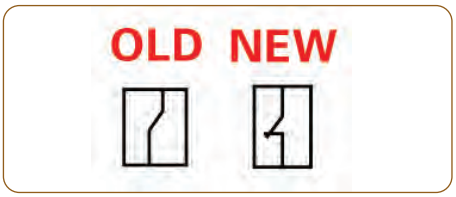
For the 2008 model year, GM will have one common service schematic format worldwide, fully implemented first in North America. Actually, it was previewed in the 2007 Silverado/Sierra and 2007 Acadia/OUTLOOK service information.

The new format, significantly based on today's familiar schematics, is built to work in conjunction with the new diagnostic format. Here are highlights of what's different:

- Schematic Symbols
- Harness Item Naming
- Splice Depiction
- Option Depiction
- Circuit Function Symbols
- Relay Pin Information
- Subsystem Circuit Details
- What's Not on a Schematic?
- Future Enhancements

SCHEMATIC SYMBOLS

Some schematic component symbols have changed. The majority are very similar to what you've seen previously. Here's an example of one slight difference, a normally closed switch:



Switch actuator schematic symbols are new. Switch actuators depict switch operation: push, pull, rotate, or slide. There are also symbols for switches affected by pressure, temperature, or volume. These symbols are shown connecting to the switch arcs.

continued on page 4

Techline News

New Service Programming Features for TIS 2 Web

Recently, TIS 2 Web made available two new features:

- The ability to use the Tech 2 as a J2534 service programming device.
- Clear DTC selection at the end of a programming event.

TIP: SAE J2534 is a recommended industry standard for pass-thru programming.

J2534 Tech 2 pass-thru programming is the successor to Legacy pass-thru programming. This new programming method provides a number of benefits such as improved programming speed and reliability. GM Service Operations recommends using this programming method for all SPS procedures.

To utilize the J2534 pass-thru feature, follow the simple installation instructions when prompted.

The Clear All DTC function is available at the end of a programming

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TECHlink GM

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GM Service and Parts Operations

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event at the Final Instructions screen. This function eliminates the need to manually clear DTCs for each controller with the Tech 2. A reminder message is displayed in the Preparing for Communications screen before the programming process is started.

TIP: Because all DTC and Freeze Frame data will be cleared, it is recommended to record any appropriate DTC information before making the selection.

The Clear DTC function is limited to Class 2 and GMLAN vehicle protocols. Vehicles with other protocols or those combined with other protocols still require DTCs to be cleared manually. This will typically be done as part of the module setup procedure. It is good practice to confirm all codes are cleared using the Tech 2 after each programming event or module setup. The function is available only when at least one Class 2 or GMLAN controller is recognized on the vehicle.

– *Thanks to Mike Waszczenko*

Techline Customer Support Center (TCSC) Announces New Hours

Beginning Saturday, September 1, 2007, the Techline Customer Support Center (TCSC) begins a pilot program to include Saturday hours of operation for all U.S. dealerships. The team of dedicated technical consultants will be available on Saturdays to resolve Techline concerns,including accessory kits, SPS, TIS 2 Web, Tech 2, SI and MDI.

TIP: Have all pertinent information available when you call, including dealer code, VIN, and applicable error code.

Please continue to contact us at 888.337.1010, prompt 3, from 8 a.m. - 8 p.m. EST, Monday through Saturday.

– *Thanks to Diane Harris*

Bulletin Categories

This is a list of the current bulletin categories found in SI and a brief description of the information contained in each.

Informational bulletins convey information about a particular subject and include, but are not limited to, the following:

- Accessory installation information
- Repair tips for use of tools, adhesives, etc.
- OnStar information
- Technical Assistance information
- GM Training course information
- Newly released part

Service Manual Update (SMU) bulletins are published when a very significant change has been made to a procedure in SI after the printed service manual is available.

Technical bulletins address the 3 Cs – complaint, cause and correction. They provide specific repair instructions and contain necessary part and labor operation information.

Field Product Reminder bulletins are published monthly. They provide a summary of top issues for car and truck with a reference to the specific bulletin, PI, recall, etc.

Exchange bulletins pertain to part restrictions or situations in which the parts cannot be scrapped and must be returned to General Motors. Most frequently, exchange programs are implemented for the first six months for new engines, transmissions, etc.

Warranty Administration bulletins provide information related to submission of warranty claims, new labor operations, component warranties (battery, tires, etc.), coverage codes, etc.

Engineering Information (EI) bulletins are published on issues in which engineering in unable to determine a root cause due to returned parts being NTF (no trouble found) and/or unable to duplicate the customer concern. Engineering Informational bulletins are technical in nature and request information from the technician during diagnosis.

TIP: Whenever a technical bulletin is authored, the subject of the bulletin reflects the customer concern and/or a keyword which the technician may use to search for the information. The most efficient and easiest way to find information is to use the key word search feature in SI. This will provide results of all bulletins, regardless of the published category.

– *Thanks to Ann Briedis*

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Steering Wheel Off Center

Some owners of a full-size 2007 pickup or utility (1500 only) may comment that the steering wheel is out of position (turned to the left or right) while driving straight ahead.

The threaded joint between the inner tie rod and the rack may have loosened. Although testing has shown it to be unlikely that the joint will unscrew (separate) during normal driving maneuvers, the steering wheel alignment may be affected.

If the steering wheel is turned to the left while driving straight ahead, remove the right hand steering gear convoluted boot clamps. After exposing the tie rod connection to the rack bar, use a paint pen or marker to place an indexing mark from the tie rod to the rack bar. Check the torque-to-tighten on the tie rod to rack bar attachment by applying 50 Nm torque in a clockwise direction. Do not exceed 50 Nm. The use of an appropriate sized crowfoot maybe necessary.

Refer to the Inner Tie Rod Replace service procedure document 1862697 for proper torque procedure, to prevent internal gear damage while checking the torque-to-tighten.

If the steering wheel is turned to the right while driving straight ahead, conduct the same analysis described above on the left hand tie rod.

1. Inspect the inner tie rod and the rack bar for a change in position of the index mark with respect to each other. If any position change is observed:
   A. If the gear serial number has a 6 in the seventh digit position from the right (i.e. TNR###6#####) replace both the left hand and the right hand inner tie rods. Install a new crimp clamp (p/n 11562064) to secure the boot to the steering gear. Reuse the spring clamp to secure the convoluted boots to the tie rods.
   B. If the gear serial number has a 7 in the seventh digit position from the right (i.e. TNR###7#####), replace the short gear.

   TIP: In both cases, reuse the outer tie rod ends.

   C. Align steering wheel and set toe.
2. If no relative motion is observed between the tie rod and the rack bar during the 50 Nm torque-to-tighten analysis, do not replace any steering components. Reattach the tie rod boot to the rack housing with a new crimp clamp (p/n 11562064). Align the steering wheel and set toe.

– *Thanks to Jim Will and Steve Love*

Universal Home Remote Update

Beginning with the 2007 model year, GM has changed suppliers for the Universal Home Remote (UHR) option UG1 for numerous GM vehicle platforms. The product trade name for the new system is Car2U™ Home Automation System from Lear.

TIP: The new Lear system can be identified visually by the three round LEDs above the buttons. The earlier JCI system had a single triangular LED.

TIP: See the March 2007 issue of *TechLink* for details.

Here are some helpful tips to use when there are programming issues with the Car2U system. It is important to use all of the resources available to resolve the programming issue before replacing the UHR unit in the vehicle.

TIP: The Lear UHR installed in early production vehicles cannot communicate with the J-41540 tester (*see table at bottom right for date). If you encounter one of these vehicles, testing is not possible. A later model UHR must be installed.

Issue	Do This	Don't Do This
UHR will not program to vehicle owner's opener	Verify which UHR is installed in the vehicle: – Lear (3 round LEDs) – JCI (1 triangular LED)	Don't replace UHR until you verify that correct programming instructions were tried by vehicle owner
	Verify that vehicle owner is using correct programming procedure.	
	Instruct vehicle owner to contact Lear Hot Line at 866.572.2728 for assistance.	
	Review correct programming instructions with vehicle owner	
Vehicle owner cannot get Lear UHR to work with a community gate.	Lear will assist in getting gate to work. Instruct vehicle owner to contact Lear Hot Line at 866.572.2728.	Don't replace UHR
Vehicle owner programmed the Lear UHR using the Lear instructions but the opener still does not work.	Instruct vehicle owner to contact Lear Hot Line at 866.572.2728 for assistance.	Don't replace UHR
Service technician has tried to test Lear UHR with J-41540 and cannot get unit to respond. Verify date of vehicle (*see table below) to determine if vehicle has later UHR with updated software for diagnostic tool.	Vehicle has early UHR – contact Lear Hot Line at 866.572.2728 for assistance	Don't attempt to test early UHR
	Vehicle has later UHR – contact Lear Hot Line at 866.572.2728 for assistance	Don't replace UHR

***Timing of UHR Diagnostic Software Update**

Vehicle	Later UHR Installed
Corvette, XLR, SRX, and MY2007 CTS	Vehicles built after November 2006
Tahoe, Yukon/XL/Denali/XLDenali, Escalade/EXT/ESV, Avalanche, Suburban,	Vehicles built after March 2007
Sierra, Silverado	Vehicles built after March 2007
Malibu, Aura, Impala, STS	Vehicles built after April 2007
Lucerne, DTS, H2	Software change incorporated for MY 08

– *Thanks to Doug Daugherty*

Schematics – *continued from page 1*

Switch Actuator Examples

Symbol	Switch Actuator
	Push
	Pull
	Rotate
	Slide
P	Pressure
T	Temperature
L	Volume

HARNESS ITEM NAMING

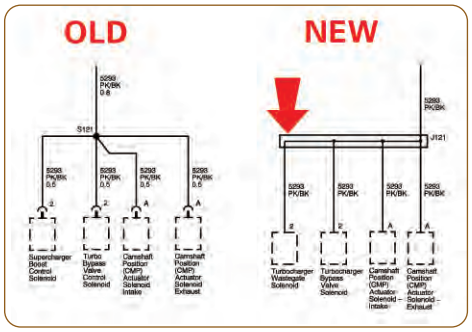
Here's the difference in the way harness items are named

OLD	NEW
Component Connectors	
C1, C2, C3	X1, X2, X3
C100, C200, C300	X100, X200, X300
Splices	
S100, S200, S300	J100, J200, J300
Splice Packs	
SP100, SP200, SP300	JX100, JX200, JX300
Grounds	
G100, G200, G300	G100, G200, G300

TIP: The way items are numbered remains the same, although the prefixes have changed.

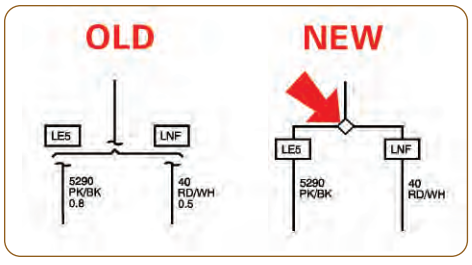
SPLICE DEPICTION

Splices are shown physically, so the number of wires coming out of a splice matches that of the harness. Now, splices are shown in a horizontal box. The wires are straighter, so the schematic is easier to read.



OPTION DEPICTION

Brackets are no longer used to separate options. An option decision diamond is the point at which the circuit branches out to identify the differences between the optional information. And, the option codes are placed directly over the wires they pertain to.



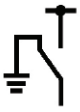
Options that are packaged together are identified with the following:

TIP: A single option does not use the plus sign; it just gets the option code.

Definition	OLD	NEW
With	w/	+
Without	w/o	- (Minus sign)
or	/	/

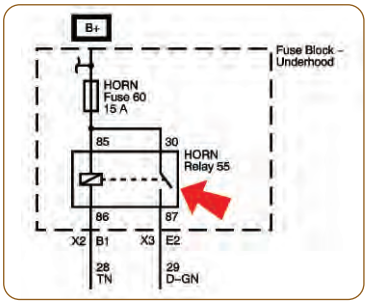
CIRCUIT FUNCTION SYMBOLS

Circuit function symbols are not new, but usage is more frequent. There are five core circuit types within diagnostics. The circuit function symbols align with those circuit types:

Diagnostic Circuit Type	Circuit Type Definition	Schematic Symbol
Voltage	Battery	B+
	Ignition	IGN
	AC	xV AC
	Reference Voltage	xV
Serial Data	Class 2	
	GM LAN	
	UART	
Signal	Signal	
		
Control	Control	
		
		
Ground	Low Reference	
	Ground	

RELAY PIN INFORMATION

Relay pin information is included on schematics as well as on the top views of fuse blocks within the electrical center identification views. Relays within fuse blocks have the pins 30, 85,



86, 87, 87A shown next to the relay. This properly identifies where to test within the fuse block when included in diagnostics.

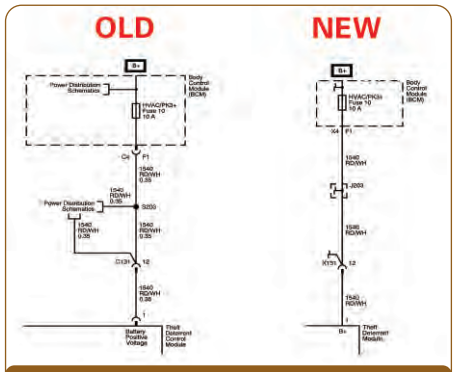
TIP: For relays taped to a harness or clipped to a bracket, the connector pin numbers are shown instead of the relay pin numbers.

SUBSYSTEM CIRCUIT DETAILS

Previously the level of detail shown within a subsystem schematic varied, specifically in the Ground and Serial Data areas. Three main areas are different when shown within a subsystem schematic – power supply circuits, ground circuits, and serial data circuits.

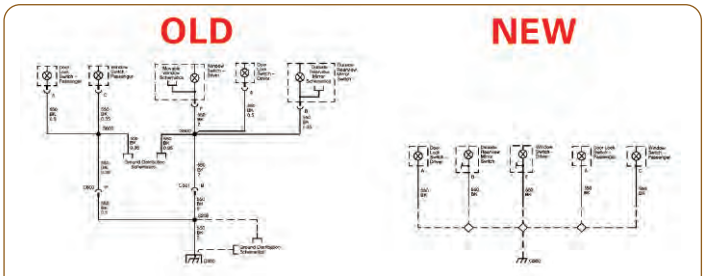
TIP: The power distribution schematics, ground distribution schematics, and data communication schematics show all of the circuit details that they did previously.

Power supply circuits within a subsystem schematic show all aspects of the circuit that may affect the subsystem's functionality, but are shown differently. To see all of the circuit detail, click on the fuse symbol to go to the Power Distribution schematic where the circuit is shown in detail.



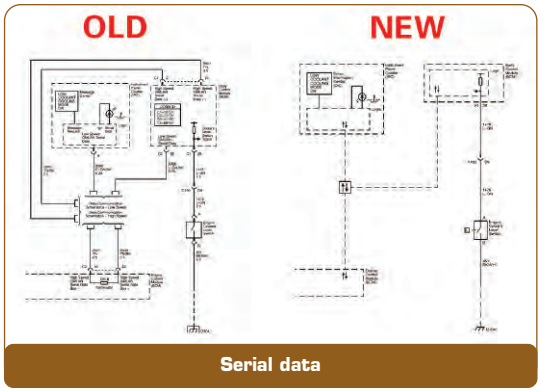
Power supply

Ground circuits within a subsystem schematic show a wire coming out of the component as a solid wire transitioning to a dashed wire, connecting to a ground symbol. The dashed wire represents additional harness item detail, such as splices and inline harness connections between the component and the ground point. Components that are on the same schematic page that go to the same ground point are connected using the option diamond symbol. To see all of the circuit detail, click on the ground symbol to go to the Ground Distribution schematic where the circuit is shown in detail.



Ground

Serial data circuits within a subsystem schematic are shown functionally. They are included to depict the relationship between the components that receive signals and other components that take some action based upon those signals. In the past, circuit detail was shown to represent this relationship. Generally, a circuit malfunction within a serial data circuit affects the functionality of more than one subsystem, and the diagnostics would likely lead to the Data Communications section for diagnosis of a U-type DTC.



Serial data

The serial data circuits are depicted as a dashed wire from each of the components that are "talking" to each other. The dashed wires join at a serial data symbol. To see all of the circuit detail, click on the serial data symbol to go to the Data Communication Schematics where the circuit is shown in detail.

WHAT'S NOT ON A SCHEMATIC?

The following are no longer on schematics:

Connector Terminal Symbols – The terminal symbol at a component where the connector attaches directly to the component is not shown as a half circle. These symbols are shown only if the component has a pigtail connection and is shown for inline harness connections.

CONN ID Boxes – These were the little boxes indicating, for instance, that C1 was a 24 BK connector and C2 was a 24 GY connector. This information is shown in the connector end view pinout tables.

Wire Diameter Sizes – The wire sizes have been moved to the connector end view pinout tables. The wire size precedes the wire color.

Circuit Functional Names – This text went next to the circuit function symbol. In some instances, another icon is used as necessary to depict the function. For example, an arrow pointing to the left is used to describe left. The full text circuit functional name appears in the connector end view pinout tables as previously.

Important Icons – These were triangular icons with an exclamation point in them, typically shown next to twisted wires, linked to a table that listed the wire twist specification. The wire twist specification (typically 9, 10, or 12) are now shown directly on the schematic above the wire twist symbol.

FUTURE ENHANCEMENT

Schematic Electronic Navigation – significantly improves navigating from a schematic to supporting information.

Common Schematic Layout – provides more of a consistent look for the same subsystem between vehicles.

Look for these changes in SI on the 2008 model year schematics.

– *Thanks to Lou Winters*

Navigation System Routes

This information applies to 2007 Chevrolet and GMC full-size utilities with Navigation Radio (RPO U3U or UVB).

The owner may comment that the navigation system gives out-of-the-way or indirect routes to destinations or Points of Interest (POI).

The route can be influenced by the Route Preference options that are selected. Some systems come from the assembly plant defaulted not to allow the use of toll roads.

Be sure the customer is aware of these options. Instructions to change the Route Preferences are available in Navigation System owner manual.

– *Thanks to Paul Radzwilowicz*

Door Switch Programming

Bulletin 06-08-64-014 originally applied to the 2007 Escalade, Tahoe and Yukon. The 2006-07 Lucerne and DTS have now been added.

Some customers may comment on any of the following conditions:

- Front door locks inoperative
- Passenger power window inoperative
- Door courtesy lamps inoperative
- Heated/cooled seat indicators inoperative
- Or any other driver or passenger door function issue that can be resolved by an ignition cycle.

TIP: Customers may comment that a vehicle ignition cycle typically cures the symptoms.

Do not replace the driver door switch or passenger door switch. These conditions may be due to a software anomaly within the driver and passenger door switches.

Reprogramming

Using SPS and Pass-Thru method, reprogram the driver door switch (DDS) and passenger door switch (PDS) with updated software calibrations.

TIP: As always, be sure your Tech 2 is updated with the latest software version. New service calibrations were released with TIS satellite data update version 2.75 / 2006.

After the reprogramming is completed, check and clear all DTCs that may have set as a result of the programming process.

– *Thanks to Grant Lumsden*

Local Interconnect Network (LIN) Window Motors

This information applies to these vehicles:

2006+ Cadillac DTS

2007+ Cadillac SRX

2008+ Cadillac CTS (front windows)

2009+ Full-size Utilities (with LIN front window motors)

2007+ Saturn Outlook (with LIN left front window motor)

2007+ GMC Acadia (with LIN front window motors)

2008+ Buick Enclave (with LIN front window motors)

These vehicles can be equipped with window motors that are controlled through the LIN (Local Interconnect Network) serial data bus. Any time a window motor is replaced, it must be programmed following these steps:

1. *TIP:* Do not perform this step on the 2006-07 Cadillac DTS.

Using the Tech 2, perform the Special Function – Power Window Motor Programming under the Driver (or Passenger) Door Switch options. This procedure downloads the proper calibrations from the door module to the window motor.

2. *TIP:* Do not perform this step on the Utilities, CTS or 2006-07 DTS.

Remove battery voltage from the window motor for 30 seconds.

3. Normalize the window motor to allow the window motor to learn the normal travel range of the window.

To do this, push the window switch down until the window is fully down, then continue holding the switch for 3 seconds. Next, pull the window switch up until the window is fully up, then continue holding the switch for 3 seconds.

TIP: Perform this step any time the window motor loses battery voltage.

The window motor programming and setup is now complete.

Failure to complete these steps can result in loss of window functionality, and/or DTCs B320A/B/C with FTBs .42 and .4B can be set in the respective Door Switch (door control module).

– *Thanks to Grant Lumsden*

Engine Compartment Sight Shield

On the 2008 CTS, the engine compartment sight shields must be installed correctly to prevent the shields from contacting the inner hood liner.

During new vehicle PDI, or during service, when either the right or left side engine compartment sight shield is removed, follow these steps for installation:

1. Starting at the rear of the shield, install the shield to the shock tower brace. Ensure that the rear tab of the shield is engaged securely to the bottom side of the brace.
2. Ensure that the outboard edge of the shield lies under the hood seal.
3. Secure the shield to the fingers on the air box cover (LH side) and the ball stud (RH side).

– *Thanks to Ken Billette*

Tab engaged to brace

Under hood seal

Power Liftgate

On a full-size 2007 utility with Power Lift Gate (RPO E61), some customers may state that the power liftgate will power open but will not power close. This may be intermittent.

Check for chafed wiring at connector C405. Look underneath the rear headliner assembly where the harness makes a sharp turn. Remove the rear headliner assembly and inspect all wiring, and repair wires as needed. Insulate any sharp edges and reroute harness as needed.

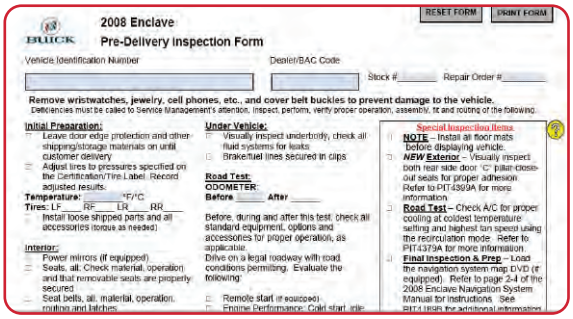
– *Thanks to Paul Radzwilowicz*

Pre-Delivery Inspection On-Line Form Enhancements (U.S. only)

In a continuing effort to improve new vehicle quality at the time of delivery, several enhancements have been made to the electronic PDI forms located on GM DealerWorld. The changes make the forms more user-friendly and help save time when researching the Special Inspection Items listed.

TIP: These changes apply to all 2008 MY forms and any 2007 MY forms that have recently been updated.

- 2007 MY and 2008 MY forms have been separated. 2008 MY forms are shown in red, 2007 MY forms in gray/black.
- Fields for VIN, Dealer/BAC Code, Stock Number, Repair Order Number, Temperature, Voltage, Odometer, Technician Name, and Date can now be typed in directly on the PDI form before printing (highlighted in blue boxes). A copy of the form must be printed for the technician to complete. Retain the completed form in the dealer service file per Policy & Procedures.



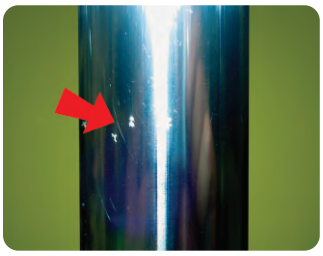
TIP: Data typed into the form cannot be saved.

- Print and Reset buttons have been added to the form.
- Documents referred to in the Special Inspection Items section are now easily available for viewing and printing directly from the PDI form. Just mouse-over the yellow question mark for instructions, or click on the paperclip icon on the left navigation panel to view the list of available documents. Then double click on the desired item. Before this enhancement, it was necessary to go to SI or an owner manual to review the information referred to in the Special Inspection Items.

TIP: Special Inspection Items can change frequently. Always use the most current version of the PDI form to ensure a quality delivery.

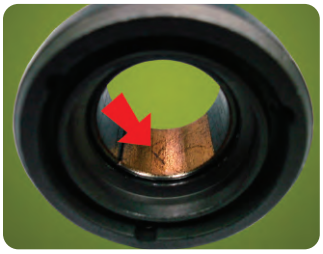
– *Thanks to Diana Sancya*

Strut Leak



Engineering has discovered that a front suspension strut oil leak can result if the strut center (rod) nut is used as a connection for the ground cable when jump starting a vehicle.

The investigation was conducted on damaged struts from VUE, Equinox and Torrent vehicles.



An electric spark between the rod guide and rod can damage the chrome plating, which in turn damages the oil seal, contributing to oil leakage.

The remote positive terminal, prominently identified with red, is located at the UBEC, on the left side of the vehicle. The center nut of the nearby strut is a tempting and convenient place to connect the ground cable.

DO NOT use the strut as a ground when jump starting a vehicle. In the case of the VUE, Equinox and Torrent, a remote (unmarked) negative terminal is located in the front of the engine compartment near the engine oil dipstick. This location is shown in the owner's manual.

– *Thanks to Angelo Girolamo, Jay Gersabeck, Ravi Balusu, Ron LeBourdais and Chul Won Jeong*

AC Inoperative

On an Enclave, Acadia or Outlook, the air conditioner (AC) may be inoperative or blows warm air. This can be caused by a low state of refrigerant charge. If a low charge is found, check for leaks at the front Thermal Expansion Valve (TXV).

If a leak is found, do not replace the TXV. Replace the four seals at the TXV (two on back side of TXV at evaporator core fittings and two on front side at condenser tube and evaporator hose connections). Follow the instructions in SI for Thermal Expansion Valve Replacement.

IMPORTANT: Be sure the TXV mounting surface is clean and free of debris and lint before reinstalling the TXV. Be sure to properly torque the fasteners for the TXV.

Bolts	attach TXV to evaporator	5 Nm (44 lb in)
Nut	attaches lines to TXV	20 Nm (15 lb ft)

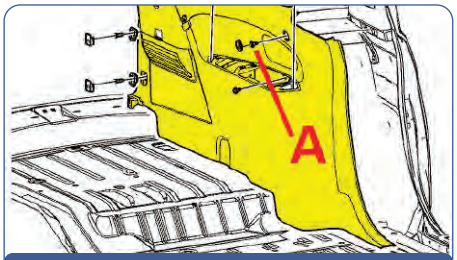
– *Thanks to Ron Erman*

Trim Panel Cracks

On the Acadia, Outlook and Enclave, the quarter trim panel has screw fasteners around the cargo screen retainer hook just above the speaker grille that must be removed before attempting to remove the panel. If the screws are not removed, the panel will crack in the area around the fastener location.

The location of the fasteners can be found in SI document 1903783 for Acadia and Outlook and 1899889 for the Enclave.

– *Thanks to Gary McAdam*



A Screw above speaker grille

Car Issues – Fix It Right the First Time

Model Year(s)	Vehicle Line(s) / Condition	Do This	Don't Do This	Reference Information / Bulletin
2006	HHR – A/C does not cool, noise from engine compartment and/or IP	Check refrigerant charge, replace A/C lines	Don't change A/C compressor	06-01-38-004B
2003-07	VUE, Equinox, Torrent – Ignition lock cylinder sticks or binds	Clean ignition cylinder lock and housing	Don't replace ignition cylinder lock and key	06-02-35-016
2000-07	Impala, Monte Carlo – Vent vanes mispositioned, do not move uniformly	Install A/C vent vanes into locating holes	Don't replace I/P cluster trim plate assembly	06-01-39-010
2006-07	Lucerne – Poor headliner fit in rear	Repair headliner	Don't replace headliner	PIC4189
2005-07	STS with Navigation Radio (RPO YQ4) – Numerous operating conditions	Reflash radio	Don't replace radio	05-08-126-001A
2002-07	ION, VUE, Equinox, Torrent, G5, Pursuit (Canada), Cobalt – Front bottom seat cover loose	Repair seat cover	Don't replace seat cover	06-08-50-005A
2005-07	XLR, Corvette – Dead battery or no crank	Reprogram RCDLR	Don't replace RCDLR	07-06-03-001B
2006-07	Lucerne – Noise when making turns at slow speeds	Align I-shaft to steering column	Don't replace intermediate shaft or steering gear	06-02-35-009D
2005-07	Malibu, G6, AURA, Grand Prix, Lacrosse, ION, VUE – Air bag light on	Remove PPS and passenger seat bottom cushion assembly and allow to air dry	Don't replace PSS cushion and module assembly	06-09-41-008A
2006-07	Cobalt, G5, SKY, HHR, Solstice, VUE, ION (U1C radio) – AM radio reception quality	Reprogram radio	Don't replace radio	06-08-44-016C

Truck 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	TrailBlazer, Envoy, Rainier, 9-7X – Headliner drops down and comes loose around sunroof opening	Repair headliner	Don't replace headliner	06-08-110-003A
2007	Full-size utility – Third row seat squeak in tumble position	Position escutcheon, install foam flock tape	Don't replace seat adjuster	07-08-50-004
2002-07	RPO LL8 engine – Misfire, SES light, codes set	Inspect for build-up on spark plug boot, replace AIP seal	Don't return vehicle without replacing AIP seal	06-06-04-048
2002-07	Rainier, TrailBlazer, Envoy, Bravada – Steering gear squeak or fluid leak at pinion seal	Install steering gear stub shaft bearing kit	Don't replace steering gear	04-02-32-001A
2006-07	Rainier, TrailBlazer, Envoy, 9-7X – Shift indicator does not show correct gear	Readjust shift cable	Don't replace shift cable, P/N switch, or shift assembly	PIT4108A 06-07-30-029
2007	Escalade, Yukon, Tahoe, Suburban – Clips available only with pipe bundle	Replace clip, O-rings and spacer	Don't replace heater pipe bundle	07-01-37-002

Powertrain – Fix It Right the First Time

Model Year(s)	Vehicle Line(s) / Condition	Do This	Don't Do This	Reference Information / Bulletin
2002-06	Rendezvous, Terraza, Venture, Uplander, Silhouette, Aztek, Montana, RELAY – Moan or groan from RDM during turning maneuvers	Perform refill procedure	Don't replace RDM if it passes tests in SI	06-04-114-001
2007	Gen IV Engines – PCV hoses cracked/split, rough idle and/or codes set	Replace defective PCV hoses	Don't replace related components	PIP3918
2001-04	LB7 Duramax Diesel – Injector high pressure lines replaced for external corrosion	Clean connection of line and nut	Don't replace lines	03-06-04-036A

Know-How Broadcasts for October

10207.10D Emerging Issues	October 11, 2007	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 Tracy Rozman