

A Monthly Publication for GM Dealership Service Professionals

Fuel Contamination in Returnless Fuel Systems

Common additives in gasoline today include detergents, corrosion inhibitors, demulsifiers, deposit controls, antioxidants and metal deactivators. The focus of these additives is on emissions reduction through better engine performance. These additives are regulated to ensure that the finished fuel will not contribute to fuel system failure. However, additive breakdown in gasoline can result in fuel system contamination, poor engine performance and eventual failure of the fuel pump and other components.

In fact, since the Environmental Protection Agency (EPA) first established the minimum additive performance standards in 1995, most gasoline marketers have actually reduced the concentration level of detergent additive in their gasoline by up to 50%.

Modern returnless fuel systems also were developed to lower emissions. By not returning hot fuel from the engine to the fuel tank, the internal temperature of the fuel tank is reduced, lowering evaporative emissions. But since the returnless fuel system does not have a fuel return line that returns fuel back to the fuel tank, it is easier for fuel contaminants to become trapped in the fuel rail and cause engine misfires and other performance conditions.

4-Cylinder Engines

One example of fuel contamination may be found on some 2010-2012 LaCrosse, Equinox, Terrain; 2011-2012 Regal, Cruze; 2004-2011 Aveo; 2004-2005 Cavalier, Sunfire; 2005-2010 Cobalt; 2006-2011 HHR; 2004-2012 Malibu; 2012 Sonic; 2007-2010 G3 (Wave), G5, AURA, AURA Hybrid; 2006-2010 G6; 2005-2006 Pursuit

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CIECHLINEnews

GM Techline Approves Windows 7 Professional, 64 bit

GM Customer Care and Aftersales has approved the use of the Windows[®] 7 Professional, 64 bit, operating system (OS) for all Techline applications, which includes TIS2Web, Service Programming (SPS), GDS 2, Tech 2 Software Download, Tech2Win and Service Information (SI). The 64-bit version of Windows handles large amounts of random access memory (RAM) more effectively than a 32-bit system. A 64bit processor is required.

TIP: Techline applications perform well on Windows 7 Professional, 32 bit and 64 bit. The use of 64 bit is optional, not required.

The GM Dealership Infrastructure Guidelines have been updated with the latest operating system specifications. To view the guidelines, visit www.gmdesolutions.com. Click Techline IT Solutions > GM IT Standards. (In Canada, go to the Service Library

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Customer Care and Aftersales

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(Canada only); 2003-2010 Vibe; 2008-2009 Astra; 2003-2010 ION; 2004-2010 VUE; and 2007-2010 VUE Hybrid models; equipped with a 4-cylinder engine (RPOs 2H0, L61, L91, LAF, LAP, LAT, LAX, LAY, LE5, LE8, LE9, LHU, LNF, LNK, LSJ, LUJ, LUU, LUV, LUW, LV6, LXT, or LXV).

An intermittent engine misfire may occur on cylinder 1 during or following a left turn or on cylinder 4 during or following a right turn. The misfire may typically last up to 10 seconds. An illuminated MIL and DTCs P0300, P0301, and/or P0304 may also be present if the misfire lasts long enough.

Any fuel contaminants that make it to the fuel rail tend to gather over the #1 fuel injector inlet when turning left and over the #4 fuel injector inlet when turning right. Some random misfires at idle also may occur on the cylinder next to the fuel feed line (#1 or #4 depending on the model) as contaminants enter the fuel rail from the fuel tank.

If fuel contamination is suspected for these models, inspect the inside of the fuel rail and/or fuel tank for fuel contamination. If this condition occurs intermittently, it is unlikely that fuel contamination will be found by simply taking a fuel sample from the fuel feed line/fuel pressure test port. Typically, it will be necessary to turn the engine off as the misfire is occurring, carefully remove the fuel rail (while keeping the fuel in the rail), and drain it into a clear container for inspection. Also inspect the inside of the fuel tank for fuel contamination.

TIP: The Aveo and Vibe have an access cover under the rear seat so the fuel pump module can be removed for inspection without removing the fuel tank.

Inline Truck Engines

Another example of fuel contamination may be found on some 2005-2007 Rainier; 2006-2012 Colorado, Canyon; 2005-2009 TrailBlazer, Envoy; and 2006-2010 H3 models; equipped with an inline 2.8L, 2.9L, 3.5L, 3.7L, or 4.2L engine (RPOs LK5, LLV, L52, LLR, or LL8).

If the engine misfires, possibly when coming to a stop or during acceleration, it may be caused by contaminated fuel. Fuel contamination may cause a misfire on cylinder 1 during or shortly after deceleration, or on the opposite end cylinder during or following hard acceleration. Due to the returnless fuel rail system, fuel contaminates may become trapped in the fuel rail and eventually pass through the #1 fuel injector during deceleration and through the opposite end fuel injector on acceleration. The injector at the end will depend on the RPO of the engine. Inspect the inside of the fuel rail and fuel tank for signs of fuel contamination. If the vehicle is driven for an extended time with contamination in the fuel rail, it may result in a sticking valve.

If sticking valves are a concern after cleaning the fuel system, do not replace the cylinder head or valves. Clean the valves using the cleaning procedures listed in #PIP3146. The vehicle should be driven a minimum of 50 miles (80 km) before evaluating the vehicle again in order to allow the fuel additive to work.



Intake valve (right) using gasoline with the legal minimum additive.

TIP: The entire fuel system must be flushed and the fuel tank removed, emptied and cleaned. If the fuel tank is only drained, the condition may return within a few hundred miles.

Fuel System Cleaning

If fuel contamination is present, refer to the Fuel System Cleaning procedure in the appropriate Service Information and clean the inside of the fuel tank, fuel lines, and fuel rail.

Once the entire fuel system is cleaned and reassembled, clean the fuel injectors by

following the Fuel Injector Cleaning Procedure in the Service Information.

Any time fuel contamination is the cause of an engine performance condition, advise customers to only use fuel from high quality, high volume TOP TIER gasoline stations. Fuel contamination repairs are not considered warranty repairs.

Thanks to John Kopec and Alan Salisbury

General Motors, BMW, Honda, Toyota, Volkswagen



and Audi developed the standards for TOP TIER detergent gasoline in 2004 when it was determined that the current EPA minimum detergent requirements do not go far enough to ensure optimal engine performance.

Since most gasoline marketers have actually reduced the concentration level of detergent additive in their gasoline, the use of TOP TIER gas can have a big impact on emissions and engine performance, especially where deposit-related conditions may be suspected.

Low quality gasoline with minimum additive packages can build up deposits on fuel injectors and on intake valves. The intention of the TOP TIER detergent gasoline standards is to create a benefit for both the vehicle and driver.

For a current list of gasoline brands that meet the TOP TIER standards, visit www.toptiergas.com.

CIECHLINEnews

Windows 7 Professional, 64 bit

under Tools, Processes and Equipment on GlobalConnect.)

TIP: The Pontiac Vibe programming software, Calibration Update Wizard (CUW), will not function on a Windows 7 Professional, 64 bit, operating system.

The recommended web browser for Techline applications continues to be Internet Explorer (IE) 8. At this time, IE 9 has not been approved for use due to software conflicts between the browser and Techline. A date for approval has not been determined.

Any questions about the Dealership Infrastructure Guidelines can be directed to the Techline Customer Support Center at 1-800-828-6860 (English) or 1-800-503-3222 (French), or to GM DESolutions at 1-800-GM-TOOLS.

(•) Thanks to Lisa Scott

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Hard Brake Pedal at Start-up or Idle

On some 2011-2012 Cruze models, the brake pedal may be hard to depress with the engine running and the vehicle stopped or idling. This condition may be caused by the Brake Booster Electronic Vacuum Pump (EVP) running continuously or being inoperative due to a restriction in the EVP vent hose.

Before replacing the brake booster or master cylinder, check for an EVP hose restriction.

With engine and ignition off, apply or pump the brake pedal three times. Turn on the ignition with the engine off. The EVP should be heard running at the driver's front wheel opening. The pump should run for up to approximately 10 seconds and then turn off; with a maximum run time of 20 seconds.

If the pump does not run or continues to run more than 20 seconds, disconnect the small rubber hose from the back of the EVP. This EVP vent hose is approximately 9mm in diameter. Once the rubber hose is disconnected, the EVP may stop running almost immediately.

Connect a vacuum pump to the vent hose and apply vacuum. The hose should not restrict or hold vacuum.

If the hose holds vacuum, check the routing of the hose. It may be misrouted behind the EVP mounting bracket, into an opening in the frame rail, or trapped under the ABS bracket. The hose should be routed upward and behind the Brake Pressure Modulator Valve (BPMV) and to the right of the brake booster. Reroute and secure the hose as needed.



EVP hose with correct routing: A. EVP Vent Hose B. EVP



A. Driver front wheel opening B. Brake booster vacuum hose outlet C. EVP

- **D. EVP connector**
- E. EVP vent hose

For 2012 models, a new design EVP vent hose will be inserted in a grommet that is installed in the frame forward of the EVP mounting bracket.

Pump Inspection

To confirm the integrity of the EVP, disconnect the two-wire grey connector slightly forward of the EVP on the bracket. If the terminals look green in color or indicate signs of overheating, or if the EVP did not run, replace the pump.

EVP Power Brake Booster Pump Replacement

- Remove the small diameter exhaust vent/muffler attachment from the new replacement part.
- 2. Install the 9mm diameter remote-mounted exhaust vent hose.



Thanks to Christopher Crumb

eAssist Parts Restriction

The following parts for the 2012 LaCrosse and Regal with eAssist (RPO HP6) are on restriction through the GM Technical Assistance Center (TAC):

Part Name	Part Number
Generator and A/C Compressor Belt	12646670
Drive Belt Tensioner	12633829
Auxiliary Transmission Fluid Pump	24241057
Starter Generator (MGU)	24261691
Generator Control and Battery Module	24259770

If diagnosis leads to the replacement of any of the parts listed above, contact TAC at 1-877-446-8227 (U.S.) and use the Action Center prompt or Hybrid prompt. In Canada, call 1-800-263-7740 (English) or 1-800-263-7960 (French). Before calling TAC, follow all diagnosis guidelines. The servicing technician must provide TAC with detailed information.

Prior to servicing any high voltage components or connections, perform the High Voltage Disabling procedure. Be sure to wear the recommended Personal Protection Equipment.

TIP: Do not clear DTCs prior to capturing data and calling TAC.

If DTCs are present and the service procedure gives direction to remove internal components, stop and capture snapshot stored data. Testdrive the vehicle with the GDS and the MDI connected and capture a snapshot of the Hybrid Powertrain Control Module and BECM data when the condition occurs.

If any diagnostic procedure gives direction to remove internal components, stop and call TAC. Internal components should not be removed at this time.

S Thanks to Brian Ciaverella

Accessory Hitch Trailering Package

The instruction sheet included with the Accessory Hitch Trailering Package (part number 19245492) for the 2010-2012 Equinox is incorrect.

The instruction sheet states that programming is required and to contact the Techline Customer Support Center (TCSC). This step is not required and it is not necessary to contact the TCSC.

Thanks to Ann Briedis

Shorter Front Bumper Fascia Air Deflector Available

The 2011 Volt features a low front bumper fascia air deflector that is designed to direct airflow around the vehicle, improving fuel economy. Some owners may be concerned about the low ground clearance of the front air deflector and that it contacts the ground on short inclines.



A shorter front bumper fascia air deflector (part number 20993998) with a higher ground clearance is now available for service. The shorter air deflector brings the ground clearance up to 125 mm (4.9 in) from the original clearance of 95 mm (3.7 in).



Install these two screws first when installing the air deflector.

When installing the shorter air deflector, there are two preinstalled screws that need to be removed from the wheelhouse liner. Reinstall these screws first when installing the new air deflector.

Also, the air deflector must be fully seated into the "C" channel (it is a tight fit) on the lower fascia as part of the assembly to ensure a quality fit.

TIP: Before installing the screws, line up all three pieces of the air deflector to the fascia. Verify all holes line up and that each screw catches the retaining nut.

Work from the center section of the assembly to reduce any possible bowing when installing the screws.



Ensure each screw catches the retaining nut.

Thanks to Ashmi Haria

Wheel Speed Sensor Harness

On some 2010-2011 LaCrosse models, a Service Suspension System message may be displayed on the Driver Information Center. In addition, any of the following DTCs may be set: C0575, C0580, C0595, C0600, C0670, C0675 and/or C0870 with the following symptom codes: sym02, 05 or 0A.

Check the harness to either the left front or right front acceleration sensor and/or damper actuator, which may be wearing on the drive axle or any of the front suspension components. Circuits may also become open due to flexing of the harness at the knuckle attaching clip.

If this condition is present, replace the front wheel speed sensor harness at X113 for the left side and at X114 for the right side. Make sure the new harness is routed properly to prevent further contact from occurring. The new harness is shorter and does not attach to the steering knuckle.

Thanks to Chris Crumb



A/C System Data for Diagnosis

If technical assistance is required during diagnosis of a poor A/C performance condition on a GM passenger car or truck, A/C system data should be gathered before contacting GM TAC.

The following information will be helpful in assisting with diagnosing the A/C system:

- A/C high and low pressures
- Outside temperature
- Humidity
- Vent temperature

If the unit is equipped with an Automatic HVAC system, also use a scan tool to get the following readings:

- · Inside temperature sensor reading
- Outside temperature sensor reading
- Duct temperature sensor readings
- Evaporator temperature sensor reading (if equipped)
- S Thanks to James Miller

Various Electrical Conditions with Random DTCs

On the 2011 Volt, some of the following conditions may be present:

- Door locks cycle at times
- · Hesitation or lag while driving
- Loss of communication with multiple modules on the vehicle
- Vehicle will not start and several relays under the hood are clicking when trying to start the vehicle
- Service Engine Soon MIL illuminated
- One or all the following DTCs are set: C0562 SYM71, U0100, U0121, P0513, P0AB9, U0101, U1818, U1839, U183B, U184B, U1849, U1850, U1876, U1879, P163B, P0562, P069E, P0AC4, P0186A, P1E00, P1EA9, P148C, P0751, P0752, P0756, P0757, P0776, P0777, P077B, P0796, P0797, P079A, P079B, P079C, P2714, P2715



Check for a loose ground at G113.



A shorter bolt may be needed if the mounting bolt is tight but the ground eyelet is loose.

If one or all of these conditions are present, check for a loose ground at G113. If the ground is loose, check the mounting bolt for G113. This is the main ground wire located on the rear of the transmission bell housing. This can easily be checked by grabbing the wire and trying to move it by hand.

If the mounting bolt is tight but the G113 ground eyelet is still loose, remove the mounting bolt and install a shorter-size bolt with the same threads. Some vehicle drive units had a pilot hole that was not fully machined and a shorter bolt is needed to address these conditions.

S Thanks to Paul Radzwilowicz

Auto Stop/Auto Start Hybrid Data

If there is a concern regarding the duration of an Auto Stop event on 2007-2009 AURA Hybrid, VUE Hybrid, or 2008-2010 Malibu Hybrid models (RPO HP7), review the Hybrid Data list available in the Engine Control Module to help determine why the Auto Stop event ended.

TIP: Maximum Auto Stop time is two minutes under ideal conditions.

The Hybrid Data list contains several parameters that are directly related to the Auto Stop/Auto Start feature. The list can be found using the Tech 2 under ECM/Data Display/Hybrid Data. Look for "Eng Auto Start Reason," which will list the last command that caused the Auto Start feature to engage. This parameter will be overwritten the next time Auto Start is engaged and replaced with the new/current command.

These are the available listed parameters: Brake Pedal Position (BPP), Accelerator Pedal Position (APP), Trans Range Time, Auto Stop Time, Hybrid Batt Stat, Aux Transmission Fluid Pressure (TFP) Pump, Coast Speed Low, Coast Speed High, Brake Boost Vacuum (BBV) Low, Coast Speed Inc, 12V Batt Hi Amp, 12V Batt Lo Amp, Fault, Engine Coolant Temperature (ECT) Low, Device Control, A/C Request, Engine Coolant Temperature (ECT) High, and Engine Control.

Some of the data (such as A/C or defrost engagement) will not be displayed when using the "Eng Auto Start Reason." The A/C inhibit has its own Tech 2 menu/data stream titled "A/C Request Signal Yes or No" that can be viewed separately or in conjunction with other parameters using the graphing feature.

TIP: If operating the vehicle in high outside temperatures or humidity, the Auto Stop feature can be maximized by using recirculation in the economy A/C mode.

Factors that influence the Auto Stop duration include:

- Normal A/C mode or defrost is selected
- Hybrid Battery State of Charge (SOC) is below 70%
- Battery discharge power capability is greater than minimum required for Auto Start (6200 watts).
- 12 Volt battery is not fully charged
- Brake is not fully applied or the throttle is above 0
- Vehicle is not fully stopped
- Vehicle is in Reverse, Neutral or Park
- Map sensor
- Road grade is less than 18 percent
- Brake booster vacuum is too low
- Hood switch is closed
- High outside ambient temperature or humidity
- Engine coolant is less than 121°C (250°F)
- Ambient outside temperature must be above -15°C (5°F)

S Thanks to Brian Ciaverella

Convertible Top Water Leak

Water may leak into some 2011 Camaro Convertibles and accumulate in the rear floor pan area on either the left or right side of the vehicle. This could be caused by an improperly positioned water management bag or folding top cover.

TIP: When the water management bag has standing water in it, such as after a car wash or heavy rain, a sloshing noise on acceleration, deceleration or braking may be heard. This noise is normal and will go away after a few stops as the water makes its way to the drains.

Everything to the inside of the quarter glass is considered a dry area; water should not be in the dry area. By design, water may be on the outside, or wet area, of the quarter glass and in the area of the quarter glass regulator from which the front drain spills.



A. Dry area on the inside of the quarter glass B. Wet area on the outside of the quarter glass

Perform the following inspections on both sides of the vehicle:

 With an assistant running water over the top of the car, lift up the headliner while in the back seat at the area behind the quarter window. Confirm the water is draining into the water management bag. If the water doesn't drain into the water management bag, verify that the plastic water diverter that is sewn into the top is on the wet side of the trim

 Verify the water management bag is properly attached to the body sheet metal panel.



Correct position of the plastic water diverter



Incorrect position of the plastic water diverter



Water management bag (A) properly (left) and improperly (right) attached to the sheet metal panel (B).

• Inspect the front drain for proper installation and that it is fully seated in the body sheet metal panel. This may be difficult to confirm due to the limited space and visibility in this area.



TIP: It is normal for the quarter glass window to contact this drain when the window is rolled down. Modifications should not be made for this. The drain will not fall out of the body sheet metal unless the drain is not fully seated.

• Verify the presence and proper location of foam tape on both the left and right side #5 bow brackets.



Foam tape on left and right side #5 bow brackets

(5) Thanks to Jeremy Richardson



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Low Vehicle Trim Height under Heavy Load

A low trim height under heavy load on some 2001-2012 Escalade, Escalade ESV, Escalade EXT, Avalanche, Tahoe, Suburban LD, Yukon, Yukon XL LD, Yukon Denali, and Yukon Denali XL models, equipped with RPO Z55 or Z95, may be caused by a pinched wire or inoperative Automatic Level Control (ALC) pressure sensor.

Do not replace the complete air compressor assembly for either of these conditions.

Pinched Wire

On 2009 and earlier model year vehicles, a Service Suspension System message may be displayed on the Driver Information Center (DIC) along with the low rear suspension ride height.

When checking for DTCs, the Electronic Suspension Control (ESC) module will have DTC C0696 or C0711 set. This condition may be caused by the wiring to the Automatic Level Control (ALC) pressure sensor being shorted to ground.



Pinched wire between the compressor assembly and frame.

TIP: The air compressor assembly may need to be removed from the vehicle to determine if the wiring is possibly pinched between the compressor assembly and frame.

Repair any damaged or shorted circuits and reposition the wiring. Be sure to position the wiring so it does not get damaged again during the compressor assembly installation.

Moisture in Sensor

If a Service Suspension System message is displayed on the DIC with a low rear suspension ride height with a heavy payload and DTC C0711 is set, it also may be the result of moisture getting into the ALC pressure sensor. Moisture in the sensor will cause an internal fault.

Follow diagnostic procedures to determine if the ALC pressure sensor needs to be replaced. The sensor is no longer serviced separately. For sensor replacement, install a complete air filter, dryer, and sensor assembly (part number 20982305). Installing this complete assembly will provide a better repair than replacing the sensor only.



For sensor replacement, install a complete air filter, dryer, and sensor assembly.

TIP: Ensure the sensor wiring is routed under and around the air filter, dryer, and sensor assembly to prevent damage along the vehicle frame during compressor assembly installation.



Route the sensor wiring (A) under and around the assembly to protect it from damage.

September 8, 2011

) Thanks to Jim Will

10211.09D Emerging Issues

To view Emerging Issues seminars:

Log in to www.gmtraining.com, select Service Know-How/ TECHAssist from the menu, select Emerging Issues, and then Searchable Streaming Video to choose the current Emerging Issues seminar or past programs.

September 2011

Service

Know-How



Car Issues – Fix It Right the First Time

Model Year(s)	Vehicle Line(s)/Condition	Do This	Don't Do This	Reference Information/Bulletin
2008- 2011	Camaro, Caprice PPV, Cruze, Equinox, G8, LaCrosse, Regal, Terrain, Volt – Key cutting procedure for obtaining replacement key	Information only	Information only	09-00-89-029G
2006- 2011	G8 – Coolant loss from cylinder head coolant bleed passage	Seal cylinder head coolant leak with bolt on cover	Replace cylinder head	11-06-02-001
2005- 2012	All Vehicles – Revised Customer Concern Not Duplicated (CCND)/Verified labor operation numbers/How to submit CCND transactions in GWM	Follow the bulletin for the correct CCND labor operation	Use old CCND labor operations	06-00-89-026G
2006- 2012	All Vehicles – Interior cleaning	Use GM cleaners to remove dirt/stains	Replace parts without trying cleaning first	06-00-89-029G
1998- 2012	All Vehicles – Use new replacement fasteners with conductive finish	Use new replacement fasteners	Use GM non- approved fasteners	10-08-45-001C
2010- 2011	Malibu – Water leak into driver/passenger footwell or within IP and/or lower dash panel insulators	Use this information to assist in diagnosis and repair of vehicle water leak	Overlook roof ditch that may cause water leak	PI0096A
2010- 2011	Malibu – Power steering or reduced power message displayed in DIC; DTC C0475 or P2138 set	Ensure no water leak exists if C0475 or P2138 is set	Do not address DTCs without ensuring no water leak exists	PI0116A

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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
2004- 2012	Canyon, Colorado – Front manual seat(s) won't adjust forward or rearward	Check the seat adjuster bar pin attachment to adjuster block and ensure that the inboard and outboard seat tracks are parallel to each other	Replace the seat track/adjuster assembly	10-08-50-006A
2010- 2011	Avalanche, Sierra, Silverado, Suburban, Tahoe, Yukon, Yukon Denali, Yukon XL, Yukon XL Denali – Excessive cabin moisture/reduced window clearing, non responsive HVAC control	Reprogram HVAC control module	Replace module, actuator, or recharge	11-01-38-001A
1999- 2012	Sierra, Silverado – Noise from underbody over bumps	Install updated cable	Grease attachments	11-08-61-002A
2007- 2011	Avalanche, Corvette, Escalade, H2, Sierra, Silverado, Suburban, Tahoe, XLR, Yukon, Yukon Denali, Yukon XL, Yukon XL Denali – Loss of high speed GMLAN communications, intermittent no crank, IP gauge fluctuation, intermittent door lock cycling/chime operation, various IP warning lamps illuminated, transmission may not shift	Repair wiring or connector	Replace modules	08-07-30-021F
2008- 2011	Acadia, Enclave, OUTLOOK, Traverse – Noise when turning steering wheel at slow speeds	After verifying the noise is normal, advise the customer that this noise is not detrimental to the proper and safe operation of the power steering system	Replace any parts for this condition at this time	P10029D
2007- 2011	Acadia, Camaro, CTS, Enclave, Equinox, G6, G8, LaCrosse, Malibu, OUTLOOK, SRX, STS, Terrain, Torrent, Traverse, VUE – Intermittent engine hesitation or flutter without DTCs	Correct camshaft position sensor - bank 1 exhaust or bank 1 intake harness connector terminals	Replace crank sensor and/or ECM	P10090C
2003- 2009	Savana, Express – Release of steering linkage inner tie rod kit for service	Replace only tie rod end if needed	Replace entire steering gear	PI0495
2009- 2011	Escalade, Silverado, Suburban, Tahoe, Sierra, Yukon, Yukon XL – Perceived fluid leak at steering gear adjuster plug	Clean steering gear and add UV dye to check for leaks	Replace gear	PI0510

GM Customer Care and Aftersales