GM TECH Link

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A Monthly Publication for GM Dealership Service Professionals

The Return of the . . . Caprice Police Patrol Vehicle

Don't look now, but a legendary name in law enforcement is back as Chevrolet introduces the 2011 Caprice Police Patrol Vehicle (PPV). Available in two new models, it was developed specifically for law enforcement with input from police officers. Deliveries of the unmarked Detective model (RPO 9C3) began in April, with the Police model (RPO 9C1) arriving in June.

These two Caprices are essentially alike, differing only in details specific to the needs of detectives or patrol officers.

For diagnostic purposes, communication with both models is done using the Tech 2 and CANdi module. GDS 2 does not communicate with the Caprice.

Powertrain

Initially, all Caprice PPVs will be delivered with a 6.0L V8 engine (RPO L77). A V6 will be available in 2012.

The V8 engine produces 355 HP and 384 lb.-ft. of torque. It features E85 FlexFuel capability and Active Fuel Management. The air conditioning is cut off at wide open throttle.

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TECHLINE news

Building a Bookmark Remote Button

While using the GDS2 recorded data feature on a laptop computer to help diagnose a vehicle condition during a test drive, it can be somewhat difficult to hit the button on the screen to tag a bookmark. The solution may be to make your own remote button with a computer mouse.

To create the remote button using an optical mouse (the type with the red light on the bottom), tape over the bottom of the mouse so the light will not pick up any movement. If you're using an old ball-style mouse, just remove the ball.

Before beginning the test drive, move the cursor on the laptop screen to point to the Bookmark button.

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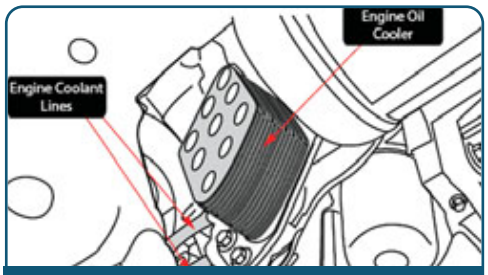
Engine oil, transmission and power steering coolers are all standard, as are electric cooling fans and ethylene-propylene-diene monomer (EPDM) coolant hoses.

A six-speed 6L80E automatic transmission is used. It provides protection against over-revving when low gear is manually selected. A Sport shift mode provides delayed upshifts and earlier downshifts, when maximum engine power and transmission responsiveness are required.



The oil-to-coolant engine oil cooler system is mounted on the left side of the lower engine block forward of the oil filter.

On the RPO 9C1 Police model, the transmission can be placed into Sport mode by pressing the Sport Mode button in front of the shift lever.

On the RPO 9C3 Detective model, move the shift lever over from D (Drive) to the right quadrant to activate the Sport mode. If the shift lever is not moved forward or rearward, the vehicle remains in Sport mode.

The rear drive Caprice PPF is equipped with a 2.92 rear axle ratio with a standard limited slip differential.

TIP: StabiliTrak® and Traction Control are deactivated when the Police Performance mode is engaged.

Body, Chassis and Suspension

The unitized body structure features extensive use of high strength and ultra-high strength steel and engineered energy load paths to enhance crash protection.

Flexible Front End Module

A Flexible Front End Module (FEM) design creates simpler and faster damage repair. Compared with traditional front end designs that have welded upper cross members, beams and radiator supports, the Caprice PPV features a bolt-on and -off design that saves repair costs due to a reduction in cutting, welding and painting. With the FEM removed, a walk-in front end allows easier repair and servicing of major body and engine components.

A standard four-wheel independent suspension with front and rear stabilizer bars features heavy-duty components and is tuned to deliver responsive high-performance driving characteristics.

Wheels are heavy-duty steel and mounted with speed-rated P235/50R18 blackwall tires. A compact spare is included. Recommended tire pressure is 39 psi/269 kPa (front) and 44 psi/303 kPa (rear). The Tire Pressure Monitor (TPM) system warning activates when pressures fall 25% below those specifications.

Rear wheel brake disc protection cover

TIP: A full-size spare tire is available, but the TPM sensor is not programmed. This accommodates fleet usage, in which spare tires may be frequently switched from vehicle to vehicle.

Four-wheel anti-lock heavy-duty disc brakes are used, and are police-calibrated. Brake rotors are 13.58 inches in diameter.

TIP: Vehicles are shipped with protection covers on the brake discs of the rear wheels only. With the vehicle on a hoist, rotate the wheel while at the same time pulling the torn end of the cover away from the brake disc and wheel. Ensure that all material is removed and repeat for the other wheel.

Electrical System

The electrical system is powered by a 170-amp high output generator with idle boost (transmission in Neutral or Park).

A 110-amp ignition and main power supply wiring harness is located under the lower right side of the instrument panel. One 50-amp battery power circuit and two 30-amp relay controlled circuits are in a five foot coil provided for customer connection. Included in the harness are signal circuits for ignition power (HOT

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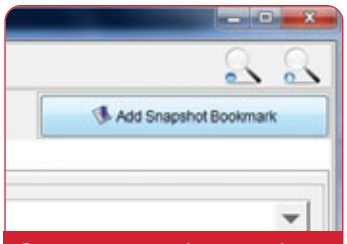
Building a Bookmark Remote Button

Next, if there is a mouse currently plugged into the laptop computer, remove it. Plug in the modified mouse that will be used as a remote button. The cursor on the screen will not move with the modified mouse connected, so you can use the mouse button as a remote to trigger the bookmark without looking at the laptop computer while driving.



Create a remote button using a mouse to make it easier to tag a bookmark during a test drive.

Thanks to Mike Campbell and Matt Singer

in START/RUN and ACCESSORY/RUN), vehicle radio mute, vehicle speed signal and park-enable.

There is also a 120-amp power supply in the trunk with a ground stud.

Primary Battery

The primary battery is located in a compartment on the driver's side of the trunk.

An external vent carries gases outside the passenger compartment. If the battery is replaced, be sure the replacement battery incorporates the external ventilation feature and be sure the ventilation tube is properly installed.

Primary battery in trunk with blue transit isolation connector

To ensure that the battery is delivered in the best possible condition, a blue transit isolation connector is located above the battery in the vehicle trunk. When the vehicle is shipped, it is disconnected, isolating circuits which contribute to parasitic battery drain. This connector should remain disconnected if the vehicle is stored for a period of time before delivery.

TIP: During the pre-delivery inspection, the transit isolation connector must be connected to enable operation of the radio, HVAC, instrument cluster, and central locking. Connect the two blue mating connectors until a click is heard. After connecting, lightly pull to confirm the connection and that the connector halves cannot be easily separated.

An auxiliary battery with 600 CCA and 70-amp hour rating is available to power customer-installed accessory equipment. It is located on the passenger side of the trunk and also has an external vent. The auxiliary battery is connected to the vehicle's charging system through an isolation relay to prevent electrical loads from depleting the primary battery if the engine is not running and the ignition is off.

Seats

The Caprice PPV was developed specifically for police duty. Seats are contoured to accommodate equipment belts and to provide easy entrance and exit. High-wear, low-friction fabric bolsters help prevent premature seat wear.

Specially-developed, contoured front seats

Five-passenger seating (front bucket seats) allows space in the center section of the instrument panel for mounting custom equipment. Power seats are standard (8-way driver and 4-way passenger).

Keys

The standard key configuration is a two-sided, side-milled key with an integrated Remote Keyless Entry transmitter. The panic button on the transmitter is disabled. A remote vehicle start option is available.

TIP: Refer to Bulletin 09-00-89-029 for key cutting information.

Two key RPOs are available that provide common keys for the complete vehicle fleet. These keys are common to the door locks and ignition. Refer to the Service Information for the Key Learn Procedure and Remote Transmitter Learn Procedure.

TIP: The common key RPOs are not compatible with Impala and Tahoe police vehicles.

Special PPV Features

The Caprice PPV is available with several unique standard or optional features. Be sure to familiarize yourself with the normal operation of these features.

Stealth Mode – Exterior and interior lamps can be turned off by momentary rotation of headlamps switch to OFF (U.S. only).

Trap Speed Feature – Traps (stores) certified vehicle speed in the digital speedometer by steering wheel controls when following another vehicle. Trap Speed can be disabled with the Driver Information Center. The analog speedometer is certified to 160 mph (257 km/h).

OnStar – The Caprice PPV is not equipped with OnStar.

Option Code 7Y6 – Dome and courtesy lamps will not operate when doors are opened when this option is ordered.

Head Curtain Air Bags – Standard front-seat only head curtain air bags allow the use of full-width prisoner partitions. Combined front and rear head curtain air bags are available.

Option Code SGT – Limits vehicle top speed to 130 mph (209 km/h) when this option is ordered.

Option Code VVS – Deletes daytime running lamps and automatic headlamps (U.S. only).

Infotainment – The Map, Nav, Aux, and Media buttons on the AM/FM radio are inoperable for all North American Caprices.

Radio Programming – The EL-50334-10 USB Programming Cable is required for all radio programming.

Remote Keyless Entry – When the Unlock or Lock button is depressed, no exterior lamps or audible sounds are activated; however, the interior standard equipment dome lamp will illuminate at night unless option 7Y6, inoperative dome and courtesy lamps, is ordered.

Door Locks – The automatic door locking/unlocking feature is disabled, but can be reprogrammed by the customer to enable the feature.

Thanks to Ange Girolamo and Brad Thacher

Tech2Win Application Puts the Tech 2 on Your Computer

Tech2Win, an application version of the Tech 2 and CANdi (Control Area Network diagnostic interface) module, will be available soon for GM dealerships.

Tech2Win functions like the Tech 2 on a PC

Tech2Win can be loaded onto a service department Techline PC or notebook computer via TIS2Web. While not a replacement for the Tech 2, it's a new resource that provides additional convenience and diagnostic capability for the service department.

When using the Tech2Win application, vehicle communication is performed using the Multiple Diagnostic Interface (MDI). It enables technicians to take advantage of the computing power of their PC or notebook computer as well as the speed of the MDI, providing faster operation than a Tech 2 with a CANdi module. By loading the application on a PC that also has GDS 2 installed, technicians can have all diagnostic tools available quickly and easily on one computer.

In addition, loaded on a notebook computer, Tech2Win can be used during a vehicle road test, offering a larger screen with all of the Tech 2 tool functionality. It also supports touch screen functionality. If the computer with the Tech2Win application has a touch screen, all Tech2Win functions can be accessed via the touch screen.

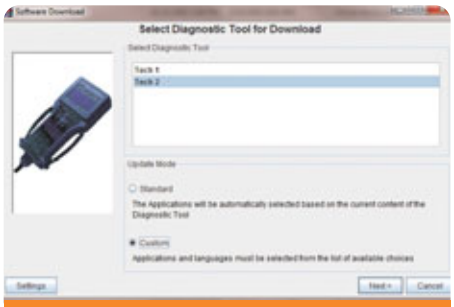
Tech2Win Features

The Tech2Win application offers all of the features and functions of the Tech 2.

Tech2Win:

- Is used for diagnostics only. Service programming is still performed through TIS2Web SPS.
- Includes the same vehicle coverage as the Tech 2. GDS 2 still must be used when servicing Global A vehicles (Camaro, Equinox, Cruze, Volt, LaCrosse, Regal, Terrain and SRX).
- Requires a license that must be updated every 30 days, similar to the license renewal of GDS 2.
- Requires PC and notebook computer specifications that meet or exceed the current minimum Techline hardware specifications. Review the latest specifications and guidelines at www.gmdesolutions.com. (In Canada, the IT guidelines are in the Service Library under Tools, Processes and Equipment on Global Connect.)

Access for All



Tech2Win is accessed through the Tech 2 software download link on TIS2Web.

The Tech2Win application does not require any special access or other tools or software. When selecting the Tech 2 software download on TIS2Web, a prompt will ask if you want to install Tech2Win. It can be installed on multiple PCs in the dealership. There is no limit to the number of installations, but each PC requires the monthly license update through TIS2Web.

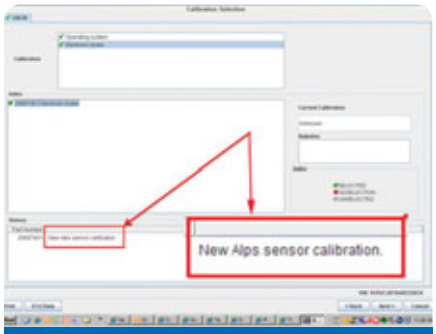
After installing the Tech2Win application, a software download also will be required to download the diagnostic software for the desired vehicle coverage, including GM North America, Saab, and Saturn ASTRA.

The initial rollout of the Tech2Win application begins this month. A complete rollout to all GM dealerships will take place in June. Look for more details about installation and operation of Tech2Win in *TechLink* next month as well as in the May Emerging Issues seminar on www.gmtraining.com (U.S. only).

Thanks to Mike Waszczenko

Steering Wheel Position Sensor

If a Steering Wheel Position Sensor (SWPS) has been replaced on a 2010 Escalade, Avalanche, Silverado, Suburban, Tahoe, Sierra, Yukon, Yukon Denali, Yukon XL, or Yukon Denali XL and current DTC C0455 or C0710 is set while turning the steering wheel, the incorrect SWPS may be installed.



Calibration listing

For the 2010 models, there are 1st and 2nd design SWPS, depending on the EBCM calibrations. When replacing the SWPS, use the original part number removed to obtain the correct replacement part.

If the original SWPS part number is unknown, follow this generic guideline to help determine the correct SWPS.

1. Using TIS2Web, check the EBCM calibrations. If the calibration listed shows "New Alps Sensor Calibration," the 2nd design SWPS should be used.
2. If the calibration does NOT show "New Alps Sensor Calibration," the 1st design SWPS should be used.
3. Use the following chart to help determine the correct part number.

All models (except 2500/3500 Silverado and Sierra)	1st Design 15886733
All 2500/3500 Silverado and Sierra	1st Design 25855607
All models	2nd Design 20910871 (TIS2Web will show "New Alps Sensor Calibration")

Thanks to Jim Will

BAS Low Battery Voltage and No Charge Conditions

Hybrid battery pack behind the rear seat.

When replacing the batteries and reinstalling the cables or voltage sensors on the 2008-10 Malibu Hybrid and 2007-09 AURA Hybrid and VUE Hybrid, it's important to note the polarity and positive or negative nodes.

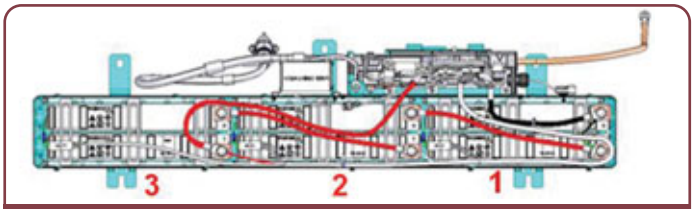
After servicing the battery pack on these models equipped with the Belt Alternator System (BAS) Hybrid system, a low battery voltage or a no charge condition may occur with or without the following DTCs:

P0AF8, P0AFB, P0A9C, P0AC6, P0ACB, P0AE9, P1A19, P1A1C, P0A9D, P0A9E, P0AC7, P0AC8, P0ACC, P0ACD, P0AEA, P0AEB, P0BC3, P0BC4, P0C35, P0C36, P1A0C, P1A0D, P1A22, P1A23, P1A29, P1A2A, P1A30, P1A31, P1A25, P1A2C, P1A33, P1A0E, P1A0F, P1A26, P1A27, P1A47, P1A4E, P1A59.

This procedure and illustrations are similar to the Service Information regarding making 36V connections.

The hybrid battery pack is located under the load floor rear compartment cover.

The hybrid battery pack, as shown without the cover, illustrates the battery cables and layout of the three batteries — left, center, and right.



Hybrid battery pack:
1. Right battery 2. Center battery
3. Left battery

The red voltage sensor lead and the 36V positive cable are attached to the positive terminal of battery 3 (left).

Battery 2 (center) has the white voltage sensor lead attached to its positive terminal with a cable that runs to the battery 3 negative terminal.

Battery 1 (right) has the black voltage sensor lead attached to the negative terminal with the negative cable. The voltage vsensor (green lead) and positive cable from battery 2 cable attach to the positive terminal.

Battery 3 with the voltage sensor (red lead) and 36V cable attached to the positive terminal

TIP: The markings can be covered by the bus bar, making it confusing when the cables and voltage sensors are reinstalled.

Battery DTCs P1A26, P1A22, P1A29, P1A30, etc. may be present after battery replacement.

In the following illustration, on the left, a voltage sensor and cable are attached to the positive terminal. On the right, the bus bar is located on the negative terminal.

Voltage sensor and cable are attached to the positive terminal (left) and the bus bar is located on the negative terminal (right)

Check the battery temperature sensor installation. The newer batteries have a larger cavity to accept the temperature sensors. The temperature sensors must be inserted into the cavity up to the heat shrink in order for them to be retained properly.

If DTCs P0AF8 or P0AFB are setting, check that the 200 amp fuse located on the negative battery cable is not cracked and that the composite nut is properly torqued and seated in the ring terminal. Also check the BECM and contactor connections.

Thanks to Brian Ciaverella

Intermittent Battery Draw, Dead Battery or HVAC Odor

On some 2007-2010 OUTLOOK; 2008-2011 Enclave; 2009-2011 Traverse; and 2007-2011 Acadia, Silverado, Avalanche, Suburban, Tahoe, Sierra, Yukon, Yukon Denali, and Escalade models, an intermittent no crank condition may be found due to a dead battery.

A recent Engineering study has shown that the vehicles identified above could experience a dead battery as a result of the HVAC afterblow function being turned on at the dealership (refer to Service Information document 1865501).

The afterblow calibration may cause the blower motor to operate in a series of operating cycles which, over time, may cause the battery to drain. This is more likely to occur if the vehicle is not driven long enough between ignition cycles to maintain a sufficient battery state of charge.

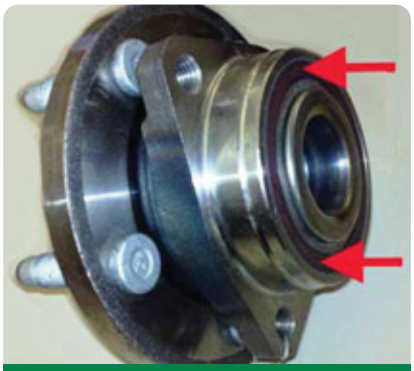
Until further notice, it is recommended that the afterblow feature not be enabled, to prevent the potential of a dead battery. Also disable the afterblow feature if a vehicle has an intermittent dead battery condition that cannot be duplicated.

Thanks to James Miller

Wheel Speed Sensor Diagnostic Aid

On some 2007-2010 OUTLOOK; 2007-2011 Acadia; 2008-2011 Enclave, CTS/CTS-V; 2009-2011 Traverse; 2010-2011 LaCrosse, Camaro, CTS Wagon, SRX, Equinox, Terrain; 2011 Regal, Camaro Convertible, CTS/CTS-V Coupe, Cruze, and Volt models, the following DTCs or Symptom codes may be set: C0035, C0040, C0045, C0050, with symptom bytes 18, 5A, 0F. The ABS, Service Traction Control System, and/or Service StabiliTrak lights also may be illuminated.

This condition may be caused by single or multiple pieces of ferrous metallic debris stuck to the wheel speed sensor magnetic encoder ring.



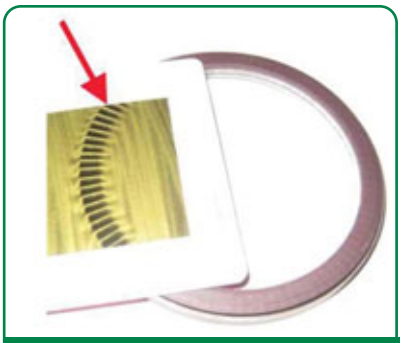
New bearing design with magnetized nitrile rubber ring

Instead of a traditional mechanical-type tooth tone wheel, some new model vehicles use a wheel speed sensor tone wheel made of a magnetized nitrile rubber ring, typically brown in color. This magnetic encoder ring is now part of the inboard bearing hub assembly.

The magnetic encoder consists of multiple North and South pole pairs surrounding the outer circumference. When the magnetic encoder ring rotates and passes by the wheel speed sensor head, it generates a sine wave in the wheel speed sensor. The wheel speed sensor converts an analog signal to a digital square wave, and typical digital signal values switch between 7mA (Low) and 14mA (High) DC current.

Encoder Ring Cleaning

Inspect and clean any debris from the encoder ring using the following procedure. This inspection and cleaning procedure is supporting information to the SI wheel speed sensor diagnostic mechanical fault table. In most cases the DTCs C0035-C0050 with symptom bytes 18, 5A, 0F can be repaired by removing or cleaning any accumulated debris on the magnetic encoder ring, located on the inboard side of the bearing hub.



Magnetic encoder ring with North and South poles shown

TIP: Most repairs can be performed without replacement of the bearing hub assembly or wheel speed sensor. Be careful not to damage the bearing outer seal when brushing or cleaning the magnetic encoder debris.

Typical debris on the magnetic encoder ring before cleaning

Do not use any type of magnetic tool to remove the debris from the bearing magnetic encoder. An external magnet can damage the encoder.

1. Based on the specific EBCM Wheel Speed Sensor DTC code, inspect the appropriate corner magnetic encoder ring for possible debris.
   - C0035 Left Front Corner
   - C0040 Right Front Corner
   - C0045 Left Rear Corner
   - C0050 Right Rear Corner
2. If debris is found, gently use a dry nylon soft bristle brush to remove the foreign debris from the magnetic encoder ring. If debris was removed, proceed to step 3.

If debris still remains, wash the encoder ring using a mild soap detergent and wipe dry.

Magnetic encoder ring after cleaning

3. Connect a scan tool to the vehicle. Turn on the ignition. Clear the DTCs.
4. Perform vehicle diagnostic repair verification procedure for DTC C0035-C0050. Refer to the appropriate Service Information.

Thanks to Christopher Hightower and Brian Quinn

Service StabiliTrak Message Displayed at Startup

A 2010-11 Camaro may have an intermittent Service StabiliTrak message in the Driver Information Center (DIC) only at startup, and then the message will disappear within seconds of starting the engine. This message is displayed during the bulb check of the other instrument cluster indicators. This message will not remain on and no DTCs will be stored in the Electronic Brake Control Module (EBCM).

This condition will occur only under specific sequences of ignition switch operation. For instance, the driver may quickly flick and release the ignition switch during Start/Crank mode. After the ignition switch is released and the engine starts, the DIC Service StabiliTrak message may then be displayed. The condition may not occur each time this ignition switch sequence is performed.

If no EBCM DTCs are stored and the Service StabiliTrak message is displayed only at startup for a few seconds, then no repairs should be performed.

Engineering has identified the condition and has verified it is normal under this specific ignition switch sequence of operation. A software change is being developed. No parts should be changed to resolve this concern.

Thanks to Jeremy Richardson

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Rear Axle Chatter Noise

A noise may be heard on some 2010-11 Camaros (built before August 25, 2010) when coasting backward and turning the steering wheel. The noise may be noticed only at low speeds of approximately 3 mph (5 km/h), with the vehicle coasting backward, and with some steering input. Transmission gear position is not a factor. This condition is most commonly evident when backing out of a downhill driveway, coasting and turning the steering wheel. The noise is caused by the ABS pump motor priming.

TIP: The condition will not occur if coasting straight backward. Steering wheel input is necessary to experience this condition.

TIP: This noise condition should not be confused with the concern listed in the current version of PI0137, which could likely have similar customer comments.

To determine which issue is occurring, temporarily remove the 25A F40U fuse from the UBEC and back the vehicle at slow speeds of approximately 3 mph (5 km/h) while providing some steering input. If the noise is not present while the fuse is removed, reinstall the fuse, clear all DTCs that set due to the fuse removal and continue with the repair.

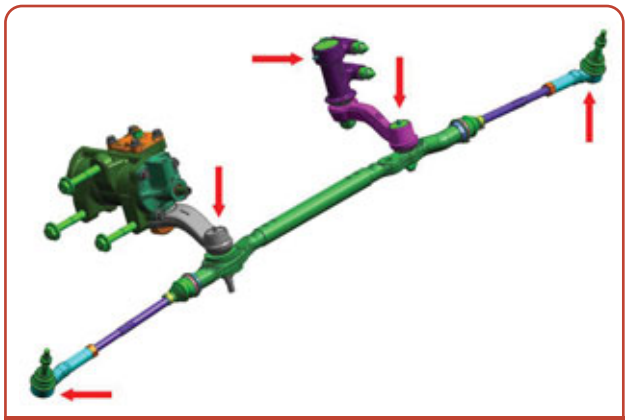
Do not replace any parts for this condition.

An updated EBCM calibration is available to resolve this condition. The calibration is available in TIS2Web.

Thanks to Jeremy Richardson

Heavy-Duty Truck Regular Maintenance

All GM vehicles have regular maintenance schedules included in the Owner Manuals. In many vehicles, there are few or no zerk fittings for lubrication of suspension/driveline components. However, full-size GM trucks and vans still have front steering and suspension lube points, including control arm ball joints on the heavy-duty trucks and vans. When performing maintenance, it's important that required points are lubricated.



Pitman arm and linkage grease fittings

As detailed in the Owner Manual — which can be found in the Service Information for each model — under Scheduled Maintenance/Every Engine Oil Change, vehicles used in severe commercial operating conditions require lubrication on a regular basis every 3,000 miles/5,000 km or more.

For example, there are five grease fittings that should not be overlooked on the pitman arm and linkage of the HD trucks and vans. Grease should be applied until it's observed that the grease boots are expanding.

There are also additional increased maintenance schedules for other components depending on usage. Be sure to check the Owner Manual when performing regular maintenance services.

Thanks to B.J. Lackey

Service Know-How

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Car Issues – Fix It Right the First Time

Model Year(s)	Vehicle Line(s)/Condition	Do This	Don't Do This	Reference Information/Bulletin
2010 - 2011	LaCrosse, SRX – Noise and/or boom at highway speeds	Calibrate the rear drive control module	Replaced the rear drive module or prop shaft	PI0046A
2011	Cruze – MIL On with Possible DTC P0101, P0172, P2270 and/or rattle noise from air box cleaner assembly	Check for blocked air inlet	Replace O2 sensor	PI0400
2011	VOLT – Engine oil leak at front engine cover	Check for porosity in front cover and replace if necessary	Replace the engine for oil leak from cover	PI0403
2008 - 2011	Corvette, XLR, XLR-V – Click noise heard from passenger side floor area when brake pedal is pressed	Check the part number on the relay	If the relay has 12193606 stamped on it, do not replace the relay	08-05-22-007A
2011	LaCrosse – Service AWD System appears in DIC after BCM replacement or programming	Configure the IPC	Replace the BCM again	PI0389
2010 – 2011	Camaro – Rear axle chatter type noise on low speed turns	Drain and refill rear differential	Replace the differential or limited slip clutch plates	PI0137A
2010 - 2011	Corvette – Incorrect lower air deflectors installed	Follow the directions to alter the existing deflector	Replace the lower deflector	PI0394
2004 - 2011	Acadia, Camaro, CTS, Enclave, Equinox, G6, G8, LaCrosse, Malibu, OUTLOOK, SRX, STS, Terrain, Torrent, Traverse, VUE – Intermittent engine hesitation or flutter without DTC	Inspect and correct intake CMP sensor bank 1 connector terminals for intermittent conditions or poor connection	Replace ECM or crank sensor	PI0090B
2011	Camaro – Inspection of convertible water management bag during PDI	Inspect the water management bag for interference with the top number 5 bow	Operate the top without performing PI0406. Failure to do so may result in a damaged top number 5 bow	PI0406
2011	CTS – Differential gear whine, hum noise or pinion gear whine from rear axle	Install prop shaft center support bearing isolator kit	Replace RDM or other parts	PI0350B
2011	VOLT – Vehicle fuels slowly, cannot refuel or fuel pump shuts off before tank is full	Instruct owner to fully insert nozzle to prevent premature shut off	Replace any EVAP components	PI0390
2011	Regal – Delayed transmission engagement into drive and reverse until engine rpm is increased to 1200-1500 rpm, no DTCs stored in TCM	Perform the TCM reset drive procedure	Replace the transmission	11-07-30-001
2010 - 2011	LaCrosse – Driver-side and/or passenger-side outside rearview power mirror system switches inoperative	Replaced the mirror or passenger's window switch and the mirror actuator	Replace just the switch	PI0391
2009 - 2011	DTS – Front parking assist indicator illuminated, audible chime sounds when entering intersection	Verify concern at specific intersection	Replace any components until reprogramming the park assist module and verification of resolution	11-08-127-001
2010 - 2011	Camaro – MIL Illuminated, DTC P018B, P018C, P018D, P0231, P0232, P023F, P0627, P0628, P0629, P0641, P06A6, P064A, P069E or P2635, intermittent hesitation or low power	Inspect terminals for low terminal tension and replace as necessary	Replace the fuel pump control module	PI0311A
2011	Camaro – Water leak in rear compartment/trunk - convertible top water management bag repair	Repair the water management bag as required	Replace the water management bag	PI0397
2008 – 2012	All Vehicles – Rear vision camera display concerns - distortion, blurry or fuzzy video image	Clean the lens of the camera	Replace the camera	PI0385
2011	Cruze – MIL On, DTC P2070, intake manifold tuning control valve stuck open	Check for any interference with the actuator arm	Replace the manifold	PI0404
2010 – 2011	Impala, Lucerne – MIL On with DTC P0974: 1-2 shift solenoid control circuit high voltage, or P0977: 2-3 shift solenoid control circuit high voltage	Replace both shift solenoids	Replace just the failed solenoid	PI0402

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 - 2010	Avalanche, Escalade models, Suburban, Tahoe, Yukon models – Fuel tank hard to fill – EVAP CVS valve	Install revised EVAP CVS valve assembly and jumper harness per instructions	Do NOT attempt any other modifications	09-06-04-028C
2008 - 2012	Acadia, Avalanche, CTS, CTS Sport Wagon, Equinox, Outlook, Sierra, Silverado, Suburban, Terrain, Traverse, Yukon models – Rearview mirror controls	Check that the inside rear view mirror electrical connection is fully seated	Replace the rear view mirror assembly	PI0384
2011	Sierra, Silverado – Frame labels visible	Carefully remove frame labels during PDI	Leave frame labels on at delivery	PI0369
2007 - 2009	Avalanche, Escalade models, G8, Sierra, Suburban, Tahoe, Yukon models – Engine oil consumption	For 2009 models replace left hand valve cover.	Replace valve lifters for 2009 models	10-06-01-008B
2008	Tahoe, Yukon – Rumbling noise passenger compartment	Reprogram the TCM	Balance tires, align exhaust, add weights to the exhaust, or replace components	11-07-30-002
2007 - 2011	Avalanche, Escalade models, Sierra, Silverado, Suburban, Tahoe, Yukon models – Revised transfer case front output shaft seal and slinger installation tool	Use the revised tool	Misinstall the seal by using the old tool	PI0396
2011	Express, Savana, Sierra, Silverado – Exhaust leak, oily substance on exhaust downpipe	Align the exhaust or replace the exhaust downpipe	Replace the catalytic converter	PI0235B
2010	Express, Savana – No crank, dead battery	Check for a short in the UBEC and replace if a short is found	Replace battery before checking for a short	PI0028A
2010 - 2011	Equinox, Terrain – SIR light On, DTC set in SDM	Install the terminals and connector body kit	Replace the SDM, side sensors or air bag modules	11-09-41-001
2007 - 2009	Acadia, AURA, Enclave, Equinox, G6, Malibu, OUTLOOK, Torrent, Traverse, VUE – No Reverse, 3rd or 5th	Disassemble the transmission to evaluate the damage	Replace the transmission without evaluating the ability to make repairs	09-07-30-012B
2011	Equinox, Terrain – No crank, dead battery	If OnStar LED light is not on when started, replace the OnStar Module	Reflash the module	PI0412
2007 - 2011	Sierra, Silverado – Wind noise from rear interior of vehicle	Modify back-of-cab insulator pad	Replace chassis-related components	10-08-58-001E
2003 - 2006	Escalade models, Suburban, Tahoe, Yukon models – Transfer case drive chain and sprocket revision	Replace both sprockets and chain due to the size change	Use different size sprockets and chain	11-04-21-004
2010 - 2011	Traverse – Poor fit of IP center trim plate	Move IP trim panels per instructions	Replace IP or IP trim	PI0387
2004 - 2011	Canyon, Colorado, Sierra, Silverado – Accessory soft tonneau cover loose	Order service parts to repair tonneau cover	Replace tonneau cover	PI0383A
2008, 2007	Acadia, AURA, Enclave, Equinox, G6, Malibu, Outlook, VUE – Transmission slips after repair	Remove and inspect the upper channel plate for the presence of the slot	Replace the valve body, torque converter or transmission	PI0380A
2007 - 2011	Avalanche, Escalade models, Sierra, Silverado, Suburban, Tahoe, Yukon models – Muffler heat shield buzz	Replace band clamps for buzz noise on muffler	Replace muffler	07-06-05-001I
2010	Equinox, Terrain – Driver seat cushion cover wrinkled	Replace BOTH the driver seat cushion and the cover	Replace the cover only	PI0392
2010 - 2011	Equinox, Terrain – Parking brake cable squeaking noise	Replace the rear left side parking brake cable	Add any tape to fix this concern	PI0382
2010 - 2011	Avalanche, Sierra, Silverado, Suburban, Tahoe, Yukon models – Excessive cabin moisture, reduced window clearing	Reprogram HVAC module	Replace module or other HVAC components	11-01-38-001
2007 - 2011	Acadia, Enclave, OUTLOOK, Traverse – Ignition switch difficult to turn	Review with customer that the key can bind when the wheels are turned off center	Replace the ignition switch	PI0416
2007 - 2011	Acadia, OUTLOOK, Traverse – Manual seat adjuster jerky operation	Locate and repair the front seat track hooks	Replace the seat track assembly	10-08-50-005C