



# Service Bulletin

File in Section: -

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## PRELIMINARY INFORMATION

**Subject:** New Model Features and Service Guide

**Models:** 2015 Chevrolet Suburban and Tahoe  
2015 GMC Yukon, Yukon XL, Yukon Denali and Yukon XL Denali  
Equipped with 8 Cylinder, GEN 5, 5.3L, SIDI VVT, AFM, E85 MAX, Aluminum, — RPO L83  
Equipped with 8 Cylinder, GEN 5, 6.2L, SIDI VVT, AFM, Aluminum, — RPO L86  
Equipped with Hydra-Matic™ 6L80 6-Speed Automatic Transmission — RPO MYC  
Equipped with 2WD or 4WD

### Overview of the Light Duty Full-Size Utility Vehicles

#### Bulletin Purpose

The purpose of this bulletin is to help the Service and Sales Department Personnel become familiar with the new 2015 Chevrolet and GMC light duty full-size utility vehicles, their new features and describe the action the Service Department personnel will need to take to ensure that they are able to fully service these vehicles.

#### Featured Highlights

The vehicles have been redesigned from the ground up. Vehicle frame and body structure have been improved to provide greatly increased body stiffness. Advanced sound deadening materials are strategically used throughout the vehicle. Side doors are now inlaid and utilize continuous triple seals to ensure quiet operation. Vehicle aerodynamic improvements and the brand new EcoTech-3 engines offering enhanced AFM capability in all speed ranges contribute to greater fuel efficiency. The Yukon Denali and Yukon XL Denali that are equipped with the 6.2L engine have standard active noise cancellation. New suspension tuning, electric power steering, brake system improvements and new body mounts combine to offer a confident and inspiring driving experience.

The following are some of the full-size truck enhancements, which may be standard or available, depending on the Model:

- Push Button Start/Stop
- Keyless Access System
- Manual Tilt Steering Column or Manual Tilt and Telescopic Steering Column
- Power Tilt and Telescoping Steering Column
- Heated Steering Wheel
- Heated and Cooled Front Seats
- Power Adjustable Pedals
- Global A Electrical Architecture
- Rear Compartment Fuse Block
- 150-Amp Generator Standard on 5.3L, 170-Amp Generator Optional on 5.3L Fleet and Standard on 6.2L
- Power Outlet 110 Volt, 1.1 Amp, 150 Watt - Alternating Current
- Standard RainSense™ Front Wipers with ON/OFF Capability
- Third Row Seat Belts Attached to the Body Structure Instead of the Seats
- Unique Combination of Hydraulic, Shear and Compression Body Mounts
- Magnetic Ride Control that Interacts with the Tow/Haul Mode for Enhanced Towing Characteristics — Requires 20-in or 22-in wheels with 5.3L, Standard for 6.2L
- Assistance Systems for Driving
- Enhanced Security Systems
- Acoustic Laminated Windshields and Front Door Windows
- Standard Aluminum Hood and Liftgate
- Color Head-Up Display

- Blu-ray™ Disk System with Single Overhead 9-inch Screen for Tahoe and Yukon and a Second Overhead 9-inch Screen included for Suburban and Yukon XL Models
- GM Exclusive Duralife™ Corrosion Resistant Brake Rotors
- 8-inch Diagonal Customizable Driver Display in Cluster
- Child-View Mirror



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### **2015 Chevrolet Suburban and Tahoe**

The 2015 Suburban marks 80 years of the original SUV and was designed to make a striking first impression. Bold styling and an athletic, connected-to-the-road feel set the Suburban and Tahoe apart from the crowd. Suburban and Tahoe models include the LS, LT and LTZ. Details include standard halogen projector beam headlamps and the Chevrolet signature dual port grille, chrome on uplevel models. High-intensity discharge (HID) headlamps and light-emitting diode daytime running lamps are standard on the LTZ, along with an exclusive chrome grille surround. A hidden rear wiper system is tucked under the rear spoiler at the roofline and offers selectable auto-wipe in reverse gear. On both vehicles, the B-pillars have been trimmed forward slightly and the C-pillars have been trimmed rearward to enlarge rear door access. In addition the seats have been repositioned in the first and second rows, making it easier to get in and out of the vehicles, especially when climbing into the third row. LTZ models offer

available power retractable side assist steps with perimeter lighting, which helps passengers to get in and out more easily and safely. There is also the convenience of available keyless entry and push-button start, which allows the Customer to enter and start the Suburban with the simple touch of a button.

The vehicle interiors feature an acoustic-laminated windshield and inlaid doors with triple seals to help reduce wind and exterior noise in the cabin. Noise reduction efforts include isolating noise in the engine compartment and using acoustic wheel liners to absorb road and stone throw noise. Engineers also added exterior/interior dash insulation and a thicker floor barrier in critical areas to isolate exhaust and underbody noise. Storage in the center console is large enough to fit a laptop computer or hanging files. The available 8-inch diagonal color touch-screen slides up to reveal lockable space behind the display to store cell phones, wallets or other valuables. The interior is equipped with up to six USB ports and six power outlets, including a 110-volt three-prong outlet, to support electronic devices of all kinds. If equipped with this power outlet, it can be used to plug in electrical equipment that uses a maximum limit of 150 watts.

The LS and LT models feature standard 18-inch bright machined-aluminum wheels. The LTZ is outfitted with a choice of standard 20-inch polished aluminum wheels (also available on LT), available 20-inch chrome wheels or available 22-inch painted aluminum wheels with chrome inserts that add a stylish accent.

Enhancing cargo convenience, the interior is available with power-release second row and power fold-flat third row seats, providing up to 121.1 cubic feet of cargo space in Suburban models with the rear seats folded. With the second row and third row seats folded flat, Tahoe offers an available 94.7 cu. ft. (2.68 cubic meters) of cargo space.

Seating for nine is available on LS models. The Suburban 2WD has up to 8,300 lbs. (3,765 kg) trailering capability and the 4WD up to 8,000 lbs (3,629 kg) trailering capability. The Tahoe 2WD maximum trailering capability is 8,600 lbs (3,901 kg) and the 4WD is 8,400 lbs (3,810 kg). Maximum trailer weight ratings are calculated assuming a base vehicle, except for any option(s) necessary to achieve the rating, plus driver. The weight of optional equipment, passengers, cargo and required trailering equipment will reduce the maximum trailer weight your vehicle can tow. See your dealer for details.





## 2015 GMC Yukon XL



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## 2015 Yukon Denali

From its confident, aerodynamic proportions to its premium accents and refined finish, the all new 2015 Yukon and Yukon XL exterior has been completely redesigned to make a powerful and lasting impression. Yukon and Yukon XL lives up to its looks with superior capability, comfort, and towing capacity.

New features include a bold, refined exterior design, detailed GMC-specific grille and chrome grille surround, standard projector beam headlamps, full LED turn signals and daytime running lamps featuring GMC's graphic light signature and full LED tail lamps.



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HID headlamps are standard on the Denali models. They create a distinctive appearance, with the front and rear C-shaped LED signature lighting. Fog lamps are equipped with chrome surround.

A programmable power rear liftgate is available, that allows liftgate height adjustment and opening or closing the liftgate with a simple touch of a button from inside or outside the vehicle or on the remote. A hidden rear wiper system is tucked under the rear spoiler at the roofline.

The Yukon XL Denali is available with a multicolor head-up display (HUD) that projects important vehicle data onto the windshield at driver eye level.

18-inch aluminum wheels are standard, 20-inch and 22-inch aluminum wheels are available.

The unparalleled driving experience of the Yukon XL stems from its strikingly quiet cabin. There is no quieter SUV in its class. To achieve this, GMC engineers concentrated on every aspect of the vehicle, with innovations that include: inlaid doors and redesigned mirrors for reduced wind noise and improved aerodynamics, acoustic-laminated windshield and front-door windows, triple-sealed doors, a valved exhaust system that drastically reduces interior noise and vibration and textile liners in front- and rear-wheel houses.

The interior features authentic aluminum trim, contrast stitching on console and doors, manual-tilt steering wheel (power-tilt and telescoping standard on SLT models), three distinct heating and cooling zones for maximum passenger comfort, available front cooled seats, front and second row heated seat and available power-adjustable pedals and an optional heated steering wheel.

The Yukon XL 2WD has a maximum trailering capability of up to 8,300 lbs (3,765 kg) and the 4WD up to 8,000 lbs (3,629 kg). The Yukon XL Denali 2WD has a maximum trailering capability of up to 8,100 lbs (3,674 kg) and the 4WD up to 7,900 lbs (3,583 kg). The Yukon 2WD has a maximum trailering capability of up to 8,500 lbs (3,856 kg) and the 4WD up to 8,200 lbs (3,720 kg). The Yukon Denali 2WD has a maximum trailering capability of up to 8,400 lbs (3,810 kg) and the 4WD up to 8,100 lbs (3,674 kg). Maximum trailer weight ratings are calculated assuming a base vehicle, except for any option(s) necessary to achieve the rating, plus the driver. The weight of optional equipment, passengers, cargo and required trailering equipment will reduce the maximum trailer weight your vehicle can tow. See your dealer for details.

## **Pre-Delivery Inspection (PDI) and Preparation**

Performing a quality pre-delivery inspection (PDI) is one of the most important functions the Service Agent (Dealer) Personnel can do for the customer. Most customers consider the condition of their new vehicle during delivery as a direct reflection of the Retailer and their Service Department.

A quality PDI is essential to improving a customer's perception of your facility and increasing his/her satisfaction with their new vehicle. These forms contain the same generic PDI steps as before, but also include a section for Special Inspection Items. This Special Inspection Items section is updated frequently and contains special items to look for during the PDI process.

In the United States and Canada to access the PDI forms depending on the vehicle, perform the following action:

- For the 2015 Suburban PDI form, Go to: Global Connect > Pre-Delivery Inspection Forms > 2015 Chevrolet Pre-Delivery Inspection Forms > 2015 Suburban
- For the 2015 Tahoe PDI form, Go to: Global Connect > Pre-Delivery Inspection Forms > 2015 Chevrolet Pre-Delivery Inspection Forms > 2015 Tahoe
- For the 2015 Yukon, Yukon Denali forms, Go to: Global Connect > Pre-Delivery Inspection Forms > 2015 GMC Pre-Delivery Inspection Forms > 2015 Yukon, Yukon Denali.
- For the 2015 Yukon XL, Yukon XL Denali forms, Go to: Global Connect > Pre-Delivery Inspection Forms > 2015 GMC Pre-Delivery Inspection Forms > 2015 Yukon XL, Yukon XL Denali.

## PDI Form News

If a PDI Form does not completely load or you cannot scroll to the second page please try one of the following. Click the browsers refresh button or close the PDI Form window & reopen it.

The OnStar section of the PDI Form has been revised. After you have verified the OnStar function indicator light is green perform the following check:

OnStar White Phone Button - Press & listen for "OnStar Ready" - say "Help" to Verify the system responds with the help menu. (if equipped)

Warranty Code Generated By EL-50313 Midtronics GR8 Battery Tester/Charger Required for Claim Processing On Labor Operation N0110 and Battery Part Restriction (North America ONLY)

03-06-03-004J  
02-08-04-015A

Tire Pressure Monitor System Information for Customers

[TPMS Information Letter](#)

**NEW** - Owner's Manuals are available online in a PDF format that correspond to the printed Owner's Manual. Getting to Know (GTK) Guides, Infotainment Manuals and Vehicle Brochures can also be downloaded or printed. There are also links for How To Videos too. The videos show how to use a vehicles features & functions. (North America ONLY)

[Buck Owner's Manuals & How To Videos](#)  
[Cadillac Owner's Manuals & How To Videos](#)  
[Chevrolet Owner's Manuals & How To Videos](#)  
[GMC Owner's Manuals & How To Videos](#)



Adobe Reader - The latest Adobe Reader updates are available at -

[get.adobe.com/reader](http://get.adobe.com/reader)

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In the United States, the Getting to Know (GTK) Guides, Infotainment Manuals and Vehicle Brochures can also be downloaded or printed from Global Connect, using the links in the **PDI Form News** section.

### Customer Education

It is imperative that the customer be well informed about the unique features and operational characteristics of their newly redesigned 2015 Full-Size Vehicle. For the Sales Team Personnel to be fully prepared, they should review this New Model Features and Service Guide and use the Getting to Know (GTK) Your Vehicle guide (available in the U.S. Only) as an outline when presenting these vehicles to the Customer. The Service and Parts Leadership, Service Writers and Service Technicians should familiarize themselves with these materials to avoid attempting repair of normal operating characteristics.

### Available Product Training

The majority of the systems found on the Full-Size Vehicles are taught in GM's core curriculum from a conceptual theory and operation perspective.

To access **all** of the available training courses visit the following website:

- In the United States go to > [www.centerlearning.com](http://www.centerlearning.com)
- In Canada go to > [www.gmprocanada.com](http://www.gmprocanada.com)

### Training Course Name and System RPO - Course Number and Description

| Course Name - System RPO | Course Number and Description   |
|--------------------------|---|
| Engines                  | #10315.20W 2015 C/K Truck and SUV New Model Features<br>#16440.18D Engines New and Updates for RPOs LT1, LV3, LUZ, LKW, LF3, L83, L86**<br>#16043.05D "Gen V" Series Engine Characteristics & Servicing (Canada Only) |
| Transmission             | #17440.15D New and Updates for the 8L90 Automatic Transmission  |
| Electric Power Steering  | #13041.15W2 GM Steering Systems and Diagnosis 2<br>#10213.10D - October 2013 Emerging Issues Transcript   |

## Training Course Name and System RPO - Course Number and Description (cont'd)

| Course Name - System RPO  | Course Number and Description   |
|---|---|
| Entertainment - Infotainment - Audio Systems<br>Radio - Infotainment System, Uplevel with Connectivity - RPO IO5<br>Digital Audio Systems-S-Band And HD - RPO U2M<br>Inductive Portable Wireless Charging - RPO K4C                                     | #19047.20W2 R3 Entertainment Systems 2 (Including MOST) Network**<br>#19047.20W3 Entertainment Systems 3**<br>#19047.22D R2 Infotainment Operation, Diagnosis and Service (VCT)**<br>#19047.23D MOST Network Diagnostics and Infotainment System Programming (VCT)**<br>#19047.19H Advanced Entertainment Operation & Diagnosis (Canada Only) |
| Bluetooth Technology - Programming<br>Bluetooth for Phone, Personal Cellphone Connectivity to Vehicle Audio System<br>Bluetooth Technology, Functions and Features Diagnosing and Methods of Radio Programming (USB Programming, Scan Tool Programming) | #19047.20W2 R3 Entertainment Systems 2 (Including MOST) Network**<br>#19047.16H Entertainment Systems Certification (Canada Only)<br>#19047.19H Advanced Entertainment Operation & Diagnosis (Canada Only)  |
| Driver Information<br>Display Instrument– Driver Info Enhanced (Multi Color Graphic) - RPO UDD  | #19047.20W-R3 Entertainment Systems 2 (Including MOST Network)<br>#19047.19H Advanced Entertainment Operation & Diagnosis (Canada Only)   |
| Driver Assistance Systems<br>Camera - Rear View - RPO UVC<br>Sensor Indicator-Forward Collision Alert - RPO UEU<br>Sensor Indicator-Lane Departure Warning - RPO UFL<br>Sensor Indicator- Rear Parking Assist - RPO UD7                                 | #22048.42 GM Safety Systems (Includes All Course Components W1 + W2 + W3 + H)<br>#22048.16H GM Safety Systems Certification (Canada Only)   |

\*\*Not Available in Canada

## Dexos 1™ Engine Oil



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**Notice:** Failure to use the recommended engine oil and correct viscosity or its equivalent can result in engine damage not covered by the vehicle warranty.

Use and ask for engine oils with the dexos 1™ certification mark (shown above). Oils meeting the requirements of the vehicle will have the dexos 1™ certification mark on the container. This certification mark indicates that the oil has been approved to the dexos 1™ specification. If you are unsure that the oil has been approved to the dexos 1™ specification, check with your service provider or use the website address provided below to determine if the oil is approved to the dexos 1™ specification.



Refer to this General Motors website for dexos 1™ information about the different licensed brands that are currently available: <http://www.gmdexos.com>

### Viscosity Grade

SAE 0W-20 is the recommended viscosity grade for the 5.3L and 6.2L engines.

### Engine Oil with Filter Capacity

The engine oil capacity is 8.0 qt (7.6 L). The engine oil capacity with an oil filter is 8.5 qt (8.0 L).

### Oil Life Monitor System

All full-size utility vehicles feature GM's oil life monitor system, which better protects engines by recommending oil changes based on a computer software algorithm using actual engine operating conditions and can save the vehicle owner money by avoiding unnecessary oil changes.

## Infotainment Features



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### View of 8-inch Infotainment Screen raised to reveal lockable storage space.

- Chevrolet MyLink / GMC IntelliLink uses a Bluetooth® or USB connection to link a smartphone, cell phone, USB flash drive or portable audio player/iPod™ to the touch-screen infotainment display. MyLink / IntelliLink enables streaming audio through a smartphone and hands-free voice control. Music also can be played from a USB flash drive.

**Notice:** To Canadian Service Agents, the following URL link is a United States website that is presented in English only. Canadian carriers are not listed directly, however when identified the phone model functions are similar.

- Before using a Bluetooth® enabled device in the vehicle, it must be paired with the in-vehicle Bluetooth® system. Not all devices will support all functions. For more information, visit: [www.gmtotalconnect.com](http://www.gmtotalconnect.com)
- In the United States, for assistance with Bluetooth® pairing, application downloading and installation, mobile device compatibility and operation of the MyLink system, contact customer assistance at 1-855-4-SUPPORT (855-478-7767) or visit: [www.chevrolet.com/mylink](http://www.chevrolet.com/mylink)
- In the United States, for assistance with Bluetooth® pairing, application downloading and installation, mobile device compatibility and operation of the IntelliLink system, visit: <http://www.gmc.com/intellilink-infotainment-system.html>
- In Canada for English assistance with Bluetooth® pairing, application downloading and installation, mobile device compatibility and operation of the Infotainment system, contact customer assistance at 1-800-263-3777 or visit: [www.gm.ca/gm/english/vehicles/chevrolet/infotainment/](http://www.gm.ca/gm/english/vehicles/chevrolet/infotainment/) (Chevrolet MyLink) or visit: [www.gm.ca/gm/english/vehicles/gmc/infotainment/](http://www.gm.ca/gm/english/vehicles/gmc/infotainment/) (GMC IntelliLink)
- In Canada for French assistance with Bluetooth® pairing, application downloading and installation, mobile device compatibility and operation of the Infotainment system, contact customer assistance at 1-800-263-3777 or visit: [www.gm.ca/gm/french/vehicles/chevrolet/infotainment/](http://www.gm.ca/gm/french/vehicles/chevrolet/infotainment/) (Chevrolet MyLink) or visit: [www.gm.ca/gm/french/vehicles/gmc/infotainment/](http://www.gm.ca/gm/french/vehicles/gmc/infotainment/) (GMC IntelliLink)



The next-generation infotainment systems feature radios with either a 4.2-inch (107 mm) color screen display or an 8-inch (203 mm) color touch-screen display, both are housed in the center stack.

#### **4.2-inch (107 mm) Color Display Radio — RPO IO3**

- 4.2-inch (107 mm) color display — This radio is controlled by using the audio system buttons. The display is not a touch screen.
- Favorite Pages displays from one to five pages of favorite radio stations.
- Up to 25 radio stations from AM/FM and Sirius XM Radio® can be stored in any order, on up to five pages.
- Six speaker system — RPO UQS, with locations in the first and second rows.
- Rear Vision Camera view displayed on the infotainment screen.
- Bluetooth® connectivity through the OnStar® module — HVAC blower speed reduction for Bluetooth® phone calls in addition to OnStar® calls.

#### **8-inch (203 mm) Color Touch-Screen Display Radio — RPO IO5 and RPO IO6**

- 8-inch (203 mm) color touch-screen display — This radio is controlled by using the audio system buttons and touch screen.
- Storing Favorites — Up to 60 radio stations from AM/FM and Sirius XM Radio®, media (song, artist, album and genre) can be stored in any order.
- Changeable theme capability — RPO IO6 only.
- Natural Voice Recognition — Control the music source and make phone calls hands free, after pairing your Bluetooth enabled phone.
- Nine speaker system with amplifier — RPO UQG.
- Bose ten speaker system with amplifier — RPO UQA, with locations in the first, second and third rows.
- Bose speaker system with amplifier and surround sound — RPO UQS.
- Active noise cancellation included with Bose systems — RPO UQA or UQS when equipped with the 6.2L engine.
- Rear Vision Camera view displayed on the infotainment screen (Rear Cross Traffic Alert and Dynamic Guidelines).
- Compass or embedded Navigation using the NAV button.

#### **Using and Personalizing the Infotainment System**

For information about using and personalizing the Infotainment System for these vehicles, refer to the following Owner Manual Supplements in the glove box or in SI:

#### **Cleaning High Gloss Surfaces or Vehicle Displays**

For vehicles with high gloss surfaces or vehicle displays, use a microfiber cloth to wipe surfaces. Before wiping the surface with the microfiber cloth, use a soft bristle brush to remove dirt that could scratch the surface. Then use the microfiber cloth by gently rubbing to clean. Never use window cleaners or solvents. Periodically hand wash the microfiber cloth separately, using mild soap. Do not use bleach or fabric softener. Rinse thoroughly and air dry before next use.

## Rear-Seat Entertainment System with 9-inch Diagonal Screen and Blu-ray™ Playback



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Depending on the model, the available Rear-Seat Entertainment system with Blu-ray™ playback keeps backseat passengers engaged and entertained for even the longest rides, courtesy of two screens, one located in the second row and one located in the third row.

## Engines — Transmission



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### View of the 6.2L V-8 Engine

The Suburban, Tahoe, Yukon and Yukon XL will be available with a powerful and efficient EcoTec3 5.3L V-8 engine. The Yukon Denali and Yukon XL Denali will be available with the EcoTec3 6.2L V-8 engine. Either engine choice will be matched with the proven, efficient Hydra-Matic™ 6L80 6-speed transmission — RPO MYC.

These engines feature three state-of-the-art technologies — Direct Injection (DI), Cylinder Deactivation, also known as Active Fuel Management (AFM) and continuously Variable Valve Timing (VVT), to make the most of power, torque and efficiency across a broad range of operating conditions.

**Notice: This engine is E85 capable.**

- The 5.3L V-8 is SAE certified at 355 hp (250 kW) @ 5,600 rpm and 383 lb.-ft. of torque (519 Nm) @ 4,100 rpm. The 5.3L has EPA estimated fuel economy of 16 mpg city, 23 mpg highway (2 WD), 16 mpg city, 22 mpg highway (4 WD).

Canada's EnerGuide fuel consumption for the 5.3L V-8 is 14.9 L/100 km city and 10.1 L/100 km highway (all 2 WD) and 15.1 L/100 km city and 10.4 L/100 km highway (all 4 WD except Suburban) and 15.4 L/100 km city, 10.8 L/100 km highway (4 WD Suburban).

**Notice: This engine is not E85 capable.**

- The 6.2L is SAE certified at 420 hp (313 kW) @ 5600 rpm and 460 lb.-ft. of torque (623 Nm) @ 4,100 rpm. The 6.2L has EPA estimated fuel economy of 15 mpg city, 21 mpg highway (2 WD), 14 mpg city 21 mpg highway (4 WD).

Canada's EnerGuide fuel consumption for the 6.2L V-8 is 16.2 L/100 km city and 11.4 L/100 km highway (2 WD), 16.8 L/100 km city, 11.7 L/100 km highway (4 WD).

Premium fuel is recommended, but not required for the 6.2L V8 engine.

## Why New Engine Technologies Are Generating Noises

All of the following are normal operating characteristics:

### Direct Injection (DI) / High Pressure Fuel Pump / Fuel Injectors

The new Small Block Generation 5 engine family incorporates a new fuel system technology known as Direct Injection (DI). With DI, fuel is injected directly into the cylinder using a high pressure fuel system. DI provides many benefits in improving engine efficiency. In particular, DI improves power, torque, and most importantly fuel efficiency. This technology is standard equipment on the 5.3L V8, and 6.2L V8.

The high pressure fuel system does have unique operating characteristics, in particular the noise emanating from the high pressure fuel pump can result in a subtle ticking noise that is apparent when the vehicle is idling. The sound is more evident when outside around the vehicle, when the hood is open or the vehicle is operated in a drive-thru. The sound may be more noticeable during a cold start, but lessens once the engine is warm. A slightly higher pitched clicking sound is the fuel injectors pulsing **ON** and **OFF** under the high fuel pressures. These sounds are a normal characteristics of the DI high pressure fuel system.

Another operating characteristic is a slightly longer crank time when the engine is started. The increased crank time is the result of the time required to build high pressure in the fuel system before the engine starts.

### Split Pulse Injection

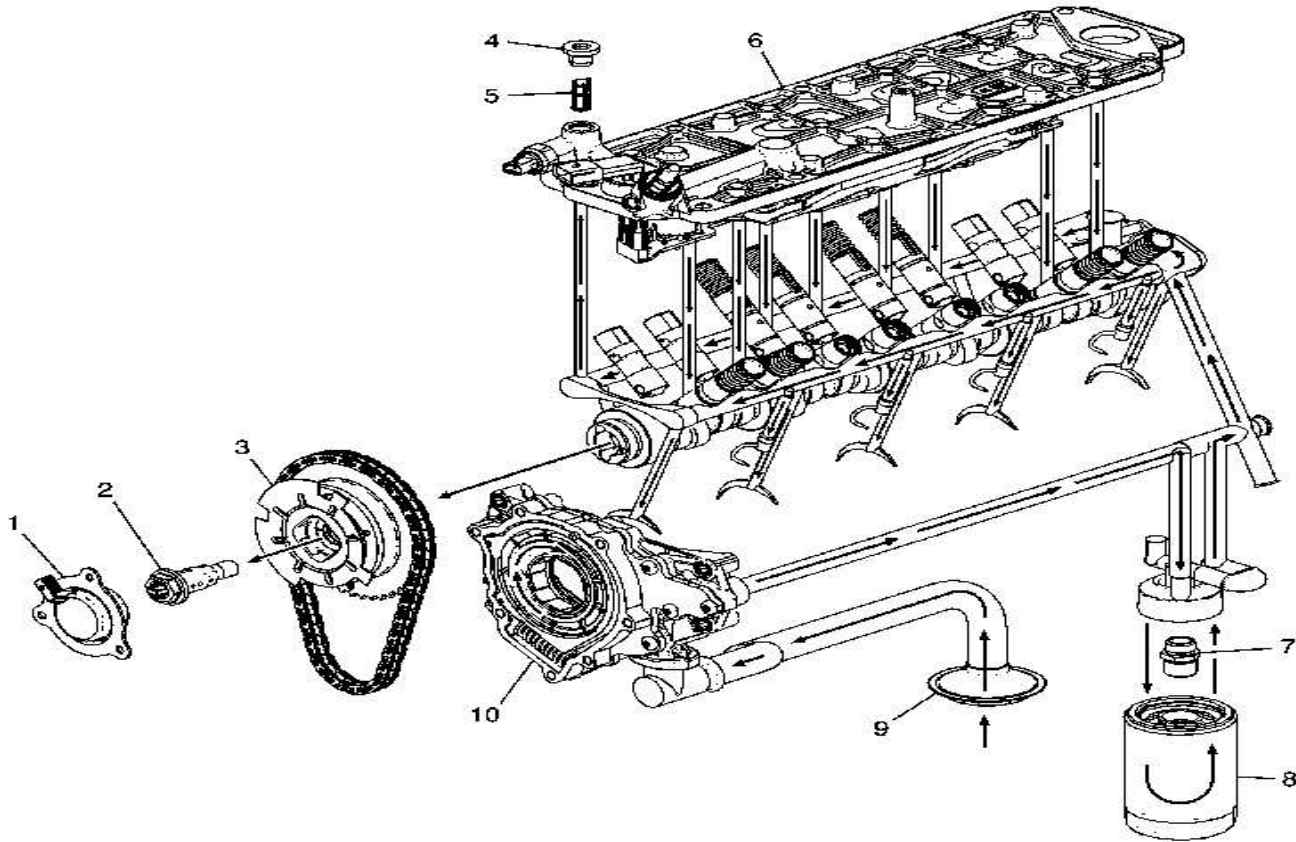
The Split Pulse Injection used on these engines aggressively controls fuel and spark in order to get the catalytic converters hot as soon as possible during a cold start, to meet emission requirements. While doing this a tick noise may be generated that is heard at the fender well. The customer may mistake this for a lifter tick. This noise will be heard for about a minute. It is controlled by a timer in the engine control module (ECM). At the end of the controlled time it will shut off and the noise will be gone.

### Oil Pump Cold Start Rasp

The oil pump design has changed from a gerotor gear type pump to a two speed vane type pump for fuel economy reasons. At temperatures of 32°F (0°C) or colder, when the engine has been sitting for few hours it is possible to have air enter the pump through normal oil drainback. Upon startup the owner may hear a short Rasp or Rrrrp coming from the front of the engine. It is most often heard from outside the vehicle during a remote start.

# Variable Displacement Two-Stage Vane-Type Oil Pump — Oil Pressure Gauge Needle Oscillation

## Variable Displacement Two-Stage Vane-Type Oil Pump



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The variable displacement two-stage vane-type oil pump is new to the EcoTec3 engines used in the 2015 Full-Size Utility Vehicles.

Engine lubrication is supplied by the variable displacement two-stage vane-type oil pump assembly (10). An oil control solenoid valve, controlled by the engine control module (ECM), and mounted to the oil pump provides two stage functionality. The oil pump is mounted on the front of the engine block and driven directly by the crankshaft sprocket. The pump rotor and vanes rotate and draw oil from the oil pan sump through a pick-up screen and pipe (9). The oil is pressurized as it passes through the pump and is sent through the engine block lower oil gallery.

Pressurized oil is directed through the engine block lower oil gallery to the full flow oil filter (8) where harmful contaminants are removed. A bypass valve is incorporated into the oil filter, which permits oil flow in the event the filter becomes restricted.

Oil is then directed from the filter to the upper main oil galleries and the valve lifter oil manifold assembly (6). Oil from the left upper oil gallery is directed to the crankshaft and camshaft bearings. Oil that has entered both the upper main oil galleries also pressurizes the valve lifter assemblies and is then pumped through the pushrods to lubricate the valve rocker arms and valve stems. Oil returning to the pan is directed by the crankshaft oil deflector. The oil pressure sensor (11) is located at the top front of the engine.

An oil passage at camshaft bearing location 2 permits oil flow into the center of the camshaft. Oil enters the camshaft exiting at the front and into the camshaft position (CMP) actuator solenoid valve (2). The CMP valve spool position is controlled by the engine control module (ECM) and CMP magnet (1). When commanded by the ECM, the CMP magnet repositions the CMP actuator solenoid valve spool directing pressurized oil into the CMP actuator to control valve timing.

### Instrument Cluster Oil Pressure Gauge Needle Oscillation Due to Two-Stage Oil Pump Self Test

After a **cold soak**, when the engine is first started and the vehicle is driven, the ECM will perform a functionality test of the two stage oil pump.



This functionality test will occur three times in a short time span and can be observed on the oil pressure gauge as a brief increase (spike) in the oil pressure gauge needle. Upon completion of the three tests, the self test will not occur again until after the engine is turned **OFF** and another **cold soak** has completed. The **EXCEPTION** to this self test occurs if the vehicle has come to a stop **BEFORE** the three tests have been completed. If that occurs, the self test will run again until the test can complete.

Additionally, at 3,500 RPM or greater, the two-stage oil pump switches over to **high stage** and the oil pressure gauge needle will move to the **high** position.

## Flexible Fuel Sensor — 5.3L V-8

The flexible fuel sensor measures the ethanol-gasoline ratio of the fuel being used in a flexible fuel (E85 capable) engine. Flexible fuel vehicles can be operated with a blend of ethanol and gasoline, up to 85 percent ethanol.

The flexible fuel sensor uses quick-connect incoming and outgoing fuel connections. All fuel passes through the flexible fuel sensor before continuing on to the fuel rail. The flexible fuel sensor **measures** the two different fuel related parameters, and sends an electrical signal to the engine control module (ECM) to indicate ethanol percentage, and fuel temperature. The sensor **measures** the actual percentage of ethanol in the fuel. Because of this it is no longer necessary to wait for an empty fuel tank in order to refill with E85.

## New Synthetic Rear Axle Gear Oil for 2015

**Notice: DO NOT use any axle gear oil other than the part numbers identified in this section.**

The new synthetic axle gear oil is a 75W85 viscosity.

- In the United States use GM P/N 19300457
- In Canada use GM P/N 19300458

## Brakes – New Brake Fluid for 2015

**Notice: DO NOT use any brake fluid other than the part numbers identified in this section.**

The new brake fluid has enhanced corrosion inhibitors and significant improvements in lubricity, engineered to eliminate master cylinder squeak/noise.

- In the United States use GM P/N 19299818
- In Canada use GM P/N 19299819

## Brakes – Performance Enhancement Systems

### Duralife™ Brake Rotors

The full-size utility vehicles utilize a TRW EBC460 4-wheel disc brake antilock brake system (ABS) with Duralife™ brake rotors.

Duralife™ brake rotors – a GM-exclusive technology – feature a hardened and strengthened surface to reduce corrosion. Duralife™ brake rotors are expected to last twice as long as conventional rotors and provide quieter braking with less vibration.

The electronic brake control module and the brake pressure modulator are serviced separately. The brake pressure modulator uses a four circuit configuration to control hydraulic pressure to each wheel independently.

### Performance Enhancement Systems

Depending on options, the following additional vehicle performance enhancement systems are provided:

- Traction Control System (TCS) and StabiliTrak™
- Dynamic Rear Proportioning
- Hill Descent Control System — RPO JHD (Export Only)
- Hill Start Assist (HSA)
- Cornering Brake Control
- Hydraulic Brake Assist
- Optimized Hydraulic Braking System
- Intelligent Brake Assist
- Integrated Trailer Brake Control System — RPO JL1
- Trailer Sway Control
- Auto Grade Braking
- Automatic Locking Rear Differential

## **Traction Control System (TCS) and StabiliTrak™**

The full-size utility vehicles come standard with a Traction Control System (TCS), and the StabiliTrak™ Electronic Stability Control System. StabiliTrak™ compares steering input with vehicle response to help the driver keep the vehicle on the path being steered and maintain traction. These systems help limit wheel spin and assist the driver in maintaining control, especially on slippery road conditions. Both systems turn **ON** automatically when the vehicle is started and begins to move.

The systems may be heard or felt while they are operating or while performing diagnostic checks. This is normal and does not mean there is a problem with the vehicle.

1. To turn **OFF** TCS, press and release the TC/ESC button to the left of the steering wheel. The traction control **OFF** light will display in the instrument cluster.
2. To turn **OFF** both TCS and StabiliTrak™, press and **HOLD** the TC/ESC button until the TC and ESC indicators illuminate in the instrument cluster and the appropriate DIC message displays.
3. To turn **ON** both systems, press and release the button again.

## **Dynamic Rear Proportioning**

The dynamic rear proportioning is a control system that replaces the mechanical proportioning valve. Under certain driving conditions the electronic brake control module (EBCM) will reduce the rear wheel brake pressure by commanding the appropriate solenoid valves ON and OFF.

## **Hill Descent Control System (Export Only)**

The hill descent control system allows a smooth and controlled hill descent in rough terrain without the driver needing to touch the brake pedal. The vehicle will automatically decelerate to a low speed and remain at that speed while activated. Some noise or vibration from the brake system may be apparent when the system is active. The descent control system may be activated, if equipped, by pressing the button on the console. To activate, press the button when traveling at speeds less than 30 mph (50 km/h). To deactivate, press the button on the console, the brake pedal, or the accelerator. Descent control enables the vehicle to descend using the ABS to control each wheel's speed. If the vehicle accelerates without driver input, the system automatically applies the brakes to slow the vehicle down to the desired speed.

## **Hill Start Assist (HSA)**

Hill Start Assist is automatically engaged when the vehicle is on a grade of 5 percent or more. It holds the brakes for approximately 1.5 seconds or until the gas pedal is pressed, helping to prevent rollback, and is particularly effective when towing.

HSA allows the driver to launch the vehicle without a roll back while moving the foot from the brake pedal to the accelerator pedal. The EBCM calculates the brake pressure, which is needed to hold the vehicle on an incline and locks that pressure for a certain time by commanding the appropriate solenoid valves ON and OFF when the brake pedal is released. HSA is activated when the EBCM determines that the driver wishes to move the vehicle up-hill, either backwards or forwards.

## **Cornering Brake Control**

Cornering brake control is a slip control function that is intended to improve the vehicle's lateral/yaw stability during combined braking and cornering situations. The EBCM will reduce the brake pressure to the inside wheels by commanding the appropriate solenoid valves ON and OFF.

## **Hydraulic Brake Assist**

The hydraulic brake assist function is designed to support the driver in emergency braking situations. The EBCM receives inputs from the brake pressure sensor. When the EBCM senses an emergency braking situation, the electronic brake control module will actively increase the brake pressure to a specific maximum.

## **Optimized Hydraulic Braking System**

With some engines the EBCM monitors the vacuum in the brake booster with a vacuum sensor and controls a brake booster vacuum pump depending on vacuum sensor input. It also has a hydraulic brake boost feature which supplements the brake system to maintain consistent brake performance under conditions of low brake booster vacuum.

Low brake booster vacuum conditions can be caused by any of the following conditions: initial start up after the vehicle has been parked for several hours, very frequent brake stops, or high altitude driving. The hydraulic brake boost system activates only during a brake apply under low vacuum conditions. In this case the EBCM will actively increase and control the hydraulic brake pressure by turning the pump motor ON and the appropriate solenoid valves ON and OFF. When hydraulic brake boost is active, a series of rapid pulsations is felt in the brake pedal.

## **Intelligent Brake Assist**

The intelligent brake assist function is designed to provide limited braking to help prevent front and rear low speed collisions. The EBCM receives inputs from the brake pedal position sensor, wheel speed sensors, short range radar and ultrasonic sensors to detect a collision. When the EBCM senses a possible collision, it will actively increase the hydraulic brake pressure to apply the brakes.

## Trailer Brake Control System

A trailer brake control system is used to control the amount of trailer braking power that is made available to trailers with brakes that require a controlled output electrical signal for actuation. The trailer brake control system determines the trailer brake system type, as either Electric Brake or Electric Over Hydraulic Brake automatically.

## Trailer Sway Control

Working in conjunction with StabiliTrak, this feature senses conditions of trailer sway and intervenes with braking and/or reduced engine power to bring the trailer under control. Trailer sway control will detect any vehicle **yaw (rotation)** instability, caused by an attached trailer. When instability is detected, the EBCM attempts to correct the vehicle's yaw motion by applying brake pressure to one or more of the wheels. The engine torque may be reduced also, if necessary to slow down the vehicle.

## Auto Grade Braking

When auto grade braking is engaged, the transmission automatically downshifts during deceleration to use engine compression to assist in braking. In addition to slowing the vehicle more efficiently, auto grade braking reduces brake rotor temperature and minimizes brake effort.

## Automatic Locking Rear Differential

This segment-exclusive feature provides drivers with increased safety and confidence when traveling on wet or icy roads, gravel, mud and dirt.

## Body Features

### Wheelhouse Liners

The new design wheelhouse liners are standard equipment on the front and rear of the vehicle. The wheelhouse liners are created from a fiber. This fiber design improves sound deadening and reduces interior cabin noise created from objects that would be thrown against them by the tires from road debris. Typical road debris will not stick to these wheelhouse liners.

## HVAC — RPO CJ4

### Heating and A/C Operation

The heating and A/C system provides heated and cooled air to the interior of the vehicle. The A/C system will also remove humidity from the interior and reduce windshield fogging. Regardless of the temperature setting, the following can affect the rate that the HVAC system can achieve the desired temperature:

- Recirculation actuator setting
- Difference between inside and desired temperature
- Blower motor speed setting
- Mode setting.

### Auto Defog

The climate control system may have a sensor to automatically detect high humidity inside the vehicle. When high humidity is detected, the climate control system may adjust to outside air supply and turn on the air conditioner. If the climate control system does not detect possible window fogging, it returns to normal operation.

Some customers may comment that they were in a HVAC mode **other** than defrost and the blower speed was manually adjusted to the lowest setting. After selecting the defrost mode to clear the windows, the blower will ramp up to high and they were unable to manually adjust the blower speed lower. This feature is intended to allow for the fastest window clearing possible.

⇒ If the customer turns the blower knob lower to reduce blower speed it will not respond. However, if they first adjust the blower speed higher, then they will be able to adjust the blower speed to a lower setting.

The system is operating as designed and no repairs should be attempted.

### HVAC Function During a Remote Start Event

During a remote start event, the HVAC system, and the heated or cooled seats may turn **ON** to begin improving cabin comfort for present environmental conditions. The calibrated HVAC parameters may drive the system from a range of Full Defrost, to Full Front System A/C, depending on ambient temperatures, weather conditions and other inputs, such as the length of time that the engine has been turned **OFF**. The rear defog may also be turned **ON** if the conditions warrant.

The heated steering wheel will not activate during a remote start, regardless of the conditions.

# Electric Power Steering System

## Electric Power Steering System Operation

These vehicles have an electric power steering system. It does not have power steering fluid. Regular maintenance is not required. If power steering assist is lost due to a system malfunction, the vehicle can be steered, but may require increased effort.

If the steering assist is used for an extended period of time, power assist may be reduced. If the steering wheel is turned until it reaches the end of its travel, and is held in that position for an extended period of time, power steering assist may be reduced. Normal use of the power steering assist should return when the system cools down.

The belt driven electric power steering system consists of the following components:

- The integrated electromechanical power steering unit, containing the power steering control module, its sensors, the power steering motor, a belt drive and a ball nut mechanism.
- The steering gear (rack and pinion).

The power steering control module is part of the power steering assist motor assembly and is replaceable as a complete unit independent of the steering gear assembly. The torque sensor is integrated with the steering gear pinion and is serviced as part of the steering gear.

The belt driven electric power steering system reduces the amount of effort needed to steer the vehicle utilizing the power steering control module to control the power steering motor to maneuver the steering gear. The power steering control module also uses a combination of the torque sensor, motor rotational sensor, battery voltage circuit and serial data circuit to perform the system functions. The power steering control module monitors vehicle speed and engine speed from the engine control module via the serial data circuit to determine the amount of steering assist needed to steer the vehicle. At low speeds more assist is provided for easy turning during parking maneuvers. At higher speeds less assist is provided for improved road feel and directional stability.

## Smooth Road Shake Compensation

The power steering control module has a software feature referred to as Smooth Road Shake Compensation that reduces steering wheel vibration caused by an imbalance from the front tire/wheel assemblies. The vibration transmitted to the steering wheel is referred to as Smooth Road Shake and is a phenomenon that occurs only at highway speeds and on smooth roads. The power steering control module employs active controls to sense and reduce the periodic torque component applied to the steering wheel caused by the wheel imbalance force. This software feature will compensate for a specific range of imbalance. If the imbalance is above a certain level, the power steering control module will disable the smooth road shake compensation and set a DTC C044B to indicate that it has been disabled.

## Steering Wheel Torque Lock — Turning the Ignition Key

Steering wheel torque lock, which makes it difficult to turn the ignition key can occur anytime the steering wheel is not **“Parked”** in the straight ahead position when turning the ignition **OFF**. Apply pressure to the steering wheel in a rotational direction to relieve the tension in order to turn the ignition key easily.

## Steering Wheel Lead/Pull

At a constant highway speed on a typical straight road, lead/pull is the amount of effort required at the steering wheel to maintain the vehicle's straight path.

The electronic brake control module (EBCM) receives serial data message inputs from the steering wheel angle sensor. The steering wheel angle sensor signal is used to calculate the intended driving direction and compensates for road crown.

The steering wheel angle sensor does not require centering often. However, if the steering wheel angle sensor is not correctly centered it may create a lead/pull condition.

⇒ If this condition is encountered, always perform the Steering Angle Sensor Centering procedure in SI **BEFORE** performing a wheel alignment.



## Color Head-Up Display (HUD)



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The color Head-Up Display (HUD) projects some of the vehicle operating information on the windshield. The HUD controls are located on the left side of the instrument panel.

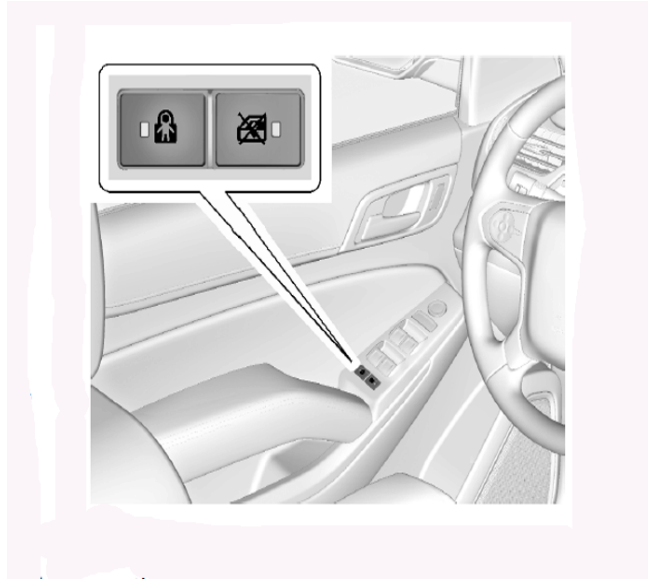
**HUD** Lift up or press down on the **HUD** button to adjust the position of the image on the windshield. The image cannot be adjusted side-to-side.

**INFO** Press the **INFO** button to select a display view.

+ – Lift **UP** or press **DOWN** on this button to brighten or dim the display. Hold the button **DOWN** to turn **OFF** the display.

## Rear Door Safety Locks

The rear door safety locks prevent passengers from opening the rear doors from inside the vehicle.



3970347

Press the **Safety Lock** button to activate the safety locks on the rear doors. The vehicle must be **ON**, in **ACC/ACCESSORY**, or in retained accessory power (**RAP**). The safety lock indicator light turns **ON** when activated.

⇒ If the indicator light flashes, the feature may not be working properly, **OR** a rear seat occupant may have pulled the inside door handle at the same time the safety lock button was pressed.

## Heated and Cooled Front Seats



3967480

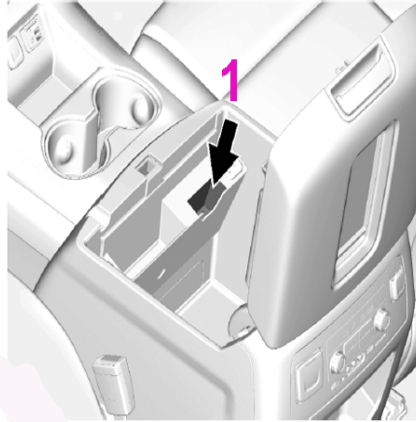
The heated and cooled front seat buttons are on the center stack below the climate control system. To operate the feature, the engine must be running.

During a remote start, the heated or cooled seats can be turned **ON** automatically. When it is cold outside, the heated seats turn **ON**, and when it is hot outside the cooled seats turn **ON**. The heated or cooled seats are canceled when the ignition is turned **ON**. Press the heated or cooled seat button to use the heated or cooled seats after the vehicle is started.

## Starting the Vehicle with a Low Transmitter Battery

If the transmitter battery is weak or if there is interference with the transmitter signal, the DIC may display one of the following messages:

- NO REMOTE DETECTED
  - NO REMOTE KEY WAS DETECTED PLACE KEY IN TRANSMITTER POCKET THEN START YOUR VEHICLE
1. Open the center console storage area and the storage tray.



3970402

2. Place the transmitter in the transmitter pocket/insert (1).
3. With the vehicle in **P** (Park) or **N** (Neutral) press the brake pedal and then press the ENGINE START/STOP button.
4. Replace the transmitter battery as soon as possible.

## Replace Battery in Remote Key Message Displayed in DIC

**Caution:** When replacing the battery in the remote keyless entry (RKE) transmitter, do not touch any of the circuitry on the transmitter. Static electricity from your body could damage the transmitter.

Replace the battery in the transmitter as soon as possible when the **REPLACE BATTERY IN REMOTE KEY** message displays in the DIC.

Depending on the Model, to replace the transmitter battery perform either of the following:



3462544

1. Separate and remove the back cover of the transmitter using a flat, thin object, such as a coin.



3462565

2. Press and slide the battery down toward the pocket of the transmitter in the direction of the key ring. Do not use a metal object.
3. Remove the battery.
4. Insert the new battery, positive side facing up. Replace with a CR2032 or equivalent battery.
5. Push together the transmitter back cover top side first, and then the bottom toward the key ring.

**OR**





3967519

**Notice:** DO NOT pull the key out of the transmitter without pressing the button.

1. Press the button on the side of the transmitter to remove the key.



3967929

**Notice:** DO NOT use the key slot.

2. With the key removed, separate and remove the back cover of the transmitter using a flat thin object, such as a coin.
3. Lift the battery with a flat object.
4. Remove the battery.
5. Insert the new battery, positive side toward the back cover. Replace with a CR2032 or equivalent battery.
6. Push together the transmitter.

## Electrical Architecture

### Global Diagnostic System 2 (GDS 2)

The 2015 full-size utility vehicles utilize GM's Global A electrical architecture, which is common with other newer GM vehicles. This architecture requires the use of the Global Diagnostic System 2 (GDS 2) software and the Multiple Diagnostic Interface (MDI) module.

Service Agents requiring assistance in the process of installing GDS 2 and the MDI should contact the Techline Customer Support Center @1-800-828-6860 (English) or 1-800-503-3222 (French).

## Generator

The engine drive belt drives the generator which has an isolated pulley, engineered to reduce drive belt noise. If there is a diagnosed failure of the generator, it must be replaced as an assembly.

## Cold Cranking Amperage (CCA)

**Notice:** An underhood electrical center is positioned on top of the battery. Technicians when performing the PDI or Battery Charging and Testing may be unable to see the CCA label on top of the battery.

The cold cranking amperage is an indication of the ability of the battery to crank the engine at cold temperatures. A new larger battery has been utilized for these vehicles. The new battery has a **720 CCA, 80 Ah** rating for the 5.3L and the 6.2L. If equipped with an auxiliary battery, it has a **730 CCA, 70 Ah** rating.

## Environment Identification

### Environment Identifier

**Notice:** DO NOT swap modules in an attempt to diagnose a vehicle condition.

When certain modules are programmed and configured during installation, the module learns a specific environment identifier which is unique to the vehicle. The environment identifier is used to **prevent** swapping modules between vehicles. If an incorrect immobilizer identifier or a specific number of incorrect environment identifiers are sent or received, vehicle starting is disabled.

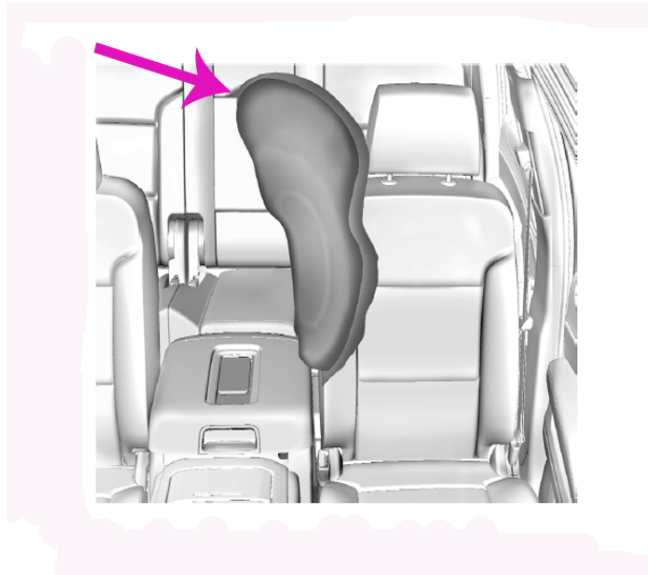
For more information, refer to > Safety and Security > Immobilizer > Description and Operation > Immobilizer Description and Operation in SI.

## Airbag System

Airbags are designed to supplement the protection provided by the three-point safety belts.

The full-size utility vehicles have the following airbags:

- A frontal airbag for the driver.
- A frontal airbag for the front outboard passenger.
- A seat-mounted side impact airbag for the driver.
- A seat-mounted side impact airbag for the front outboard passenger.
- A roof-rail airbag for the driver and for the second and third row passengers seated directly behind the driver.
- A roof-rail airbag for the front outboard passenger and the second and third row passengers seated directly behind the front outboard passenger.



3970438

- Depending on the Model, the vehicle may also have the following airbag: A front center airbag to protect the driver and front outboard passenger. The front center airbag is in the inboard side of the driver seatback.

All of the airbags in the vehicle will have the word AIRBAG on the trim or on a label near the deployment opening.

For frontal airbags, the word AIRBAG is on the center of the steering wheel for the driver and on the instrument panel for the front outboard passenger.

For seat-mounted side impact airbags, the word AIRBAG is on the seatback closest to the door.

For roof-rail airbags, the word AIRBAG is on the ceiling or trim.

## Driver Information Center (DIC) (Uplevel) — Oil Life Remaining



3967521

### View of the Yukon Denali Driver Information Center.

The DIC displays are shown in the center of the instrument cluster in the Info app. The displays show the status of many vehicle systems. The controls for the DIC are on the right steering wheel control.

### Typical DIC Info Page



3490811

The Info pages on the DIC can be turned **ON** or **OFF** through the Settings menu. Some items may not be available for your particular vehicle and some may not be turned ON by default but can be turned ON through the Settings app.

Press the “checkmark” icon while an item is highlighted to select or deselect that item. When an item is selected, a checkmark will appear next to it.

## Oil Life Remaining



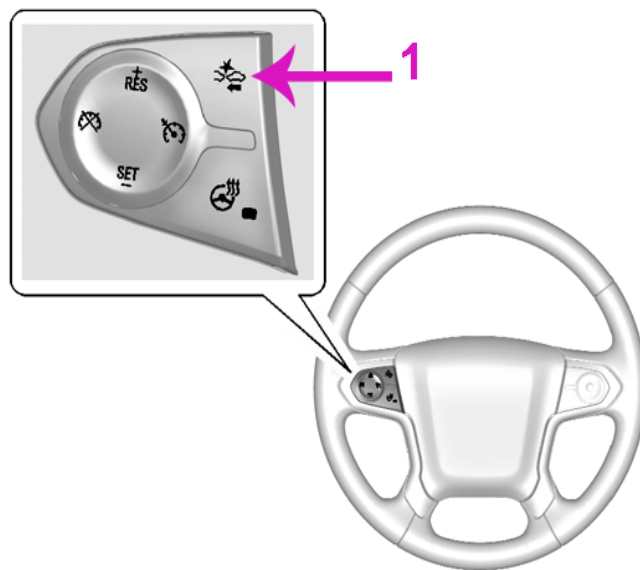
3493826

This display shows an estimate of the oil's remaining useful life. If OIL LIFE 96% Remaining is displayed, that means 96% of the current oil life remains. The Oil Life display must be reset after each oil change. It will not reset itself. Do not reset the Oil Life display at any time other than when the oil has just been changed.

## Driver Assist Technologies

Depending on the Model, the vehicle has a network of cameras, radar and ultrasonic sensors that work together to help avoid crashes or reduce crash damage by improving their vision and awareness of road hazards while driving, backing, and parking, even braking automatically if sensors predict the vehicle is at risk of crashing. Some driver assistance features alert the driver of obstacles by beeping, some with visual indicators. If equipped with the Safety Alert Seat, the driver seat cushion can provide a vibrating pulse alert instead of beeping depending on the notification selected in the Vehicle Personalization Menu. Refer to Vehicle Personalization in the Owner Manual.

### Adaptive Cruise Control (ACC) Follow Distance Gap



3459700

If equipped, Adaptive Cruise Control (ACC) uses radar technology to enhance traditional cruise control by enabling the vehicle to maintain a driver selected Follow Distance Gap and assisting the driver in avoiding following other vehicles too closely. It automatically maintains the Follow Distance Gap by controlling vehicle acceleration and



applying limited braking when needed, even slowing the vehicle down to as low as approximately 17 mph (27 km/h), then requiring driver brake input to fully stop if needed behind a vehicle stopping ahead. Even when using ACC, the driver is warned of the collision risk with a series of six flashing red lights that reflect off the windshield and a series of front speaker beeps.

Press the Follow Distance Gap button to select a follow distance gap (or time) for ACC of Far, Medium or Near.

### Forward Collision Alert (FCA) System — Collision Alert — Tailgating Alert

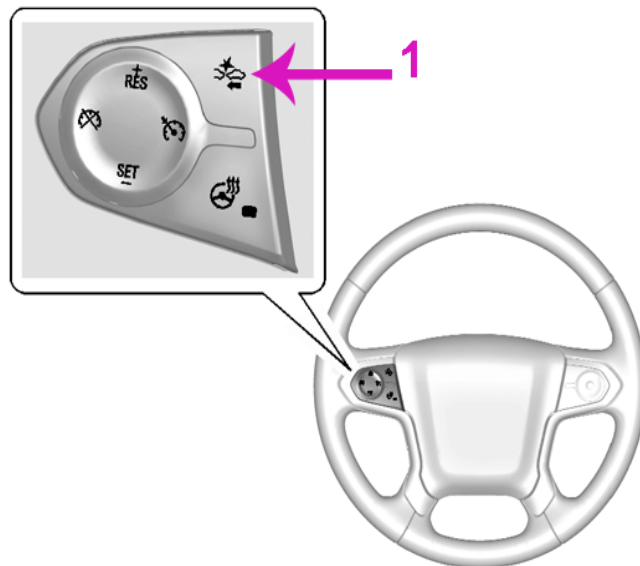


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**Notice:** FCA is a warning system only and does not apply the brakes. The FCA system may help to avoid or reduce the harm caused by front-end crashes.

When approaching a vehicle directly ahead too quickly, the system flashes a visual alert and pulses the Safety Alert Seat. The **Vehicle Ahead** indicator will illuminate in green on the instrument cluster when a vehicle is detected and will illuminate in amber when following a vehicle ahead too closely. If your vehicle approaches another vehicle too rapidly, the automobile indicator will flash, a visual alert will flash on the windshield and the Safety Alert Seat will pulse.

FCA detects vehicles within a distance of approximately 197 ft (60 m) and operates at speeds above 25 mph (40 km/h). FCA warnings will not occur unless the FCA system detects a vehicle ahead. The vehicle ahead indicator will display green when a vehicle is detected in front. Vehicles may not be detected on curves, highway exit ramps, or hills, or due to poor visibility. FCA will not detect another vehicle ahead until it is completely in the driving lane.



3459700

Press the collision alert button on the steering wheel to set the FCA timing to Far, Medium, Near, or OFF. The first button press shows the current setting on the DIC. Additional button presses will change this setting. The chosen setting will remain until it is changed and will affect the timing of both the Collision Alert and the Tailgating Alert features. The timing of both alerts will vary based on vehicle speed. The faster the vehicle speed, the farther away the alert will occur. Consider traffic and weather conditions when selecting the alert timing. The range of selectable alert timing may not be appropriate for all drivers and driving conditions.

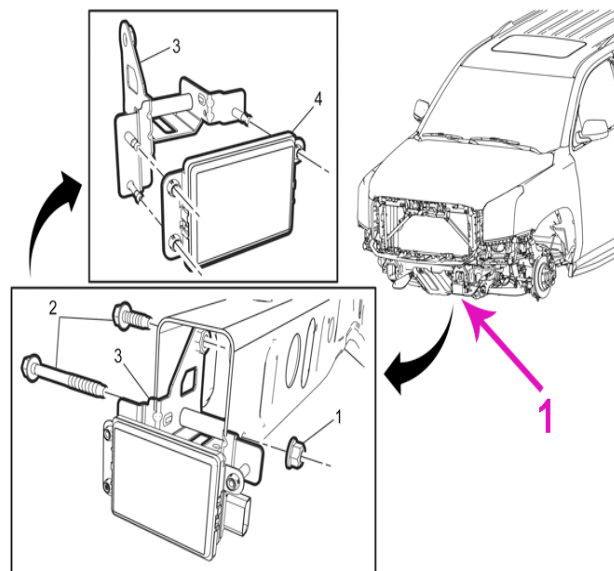
### Collision Alert

When your vehicle approaches another detected vehicle too rapidly, the red FCA display will flash on the windshield. Also, eight rapid high-pitched beeps will sound from the front, or both sides of the Safety Alert Seat will pulse five times. When this Collision Alert occurs, the brake system may prepare for driver braking to occur more rapidly which can cause a brief, mild deceleration. Continue to apply the brake pedal as needed. Cruise control may be disengaged when the Collision Alert occurs.

### Tailgating Alert

The vehicle ahead indicator will display amber when you are following a vehicle ahead much too closely.

### Unnecessary Alerts — Cleaning the System



3970932

FCA may provide unnecessary alerts for turning vehicles, vehicles in other lanes, objects that are not vehicles, or shadows. These alerts are normal operation and the vehicle does not need service. If the FCA system does not seem to operate properly, cleaning the outside of the windshield in front of the camera sensor may correct the issue and/or the front fascia in front of the Forward Range Radar Module (1). The module is located on the front driver side of the chassis.

### Active Emergency Braking System

If the vehicle has Adaptive Cruise Control (ACC) it also has the Active Emergency Braking System, which includes Intelligent Brake Assist (IBA) and the Automatic Collision Preparation (ACP) System. These systems can provide a boost to braking or automatically brake the vehicle to help avoid or lessen the severity of crashes when driving in a forward gear.

### Intelligent Brake Assist (IBA)

IBA may activate when the brake pedal is applied quickly by providing a boost to braking based on the speed of approach and distance to a vehicle ahead. Minor brake pedal pulsations or pedal movement during this time is normal and the brake pedal should continue to be applied as needed. IBA will automatically disengage only when the brake pedal is released.

### Automatic Collision Preparation (ACP) System

When driving in a forward gear above 5 mph (9 km/h), ACP may help reduce crash damage by applying the brakes. It has a detection range of approximately 197 ft (60 m). This front automatic braking can only occur if a vehicle is detected. This is shown by the FCA vehicle ahead indicator being illuminated.

### **Brake Preparation**

When quickly approaching a vehicle ahead, Brake Preparation reduces brake response time by having the brake system prepared for driver braking to occur more rapidly.

### **Automatic Braking**

If ACP detects it is about to crash with the vehicle you are following that is moving or has come to a stop, and the brakes have not been applied, it may automatically brake hard. This can help to reduce crash damage and it may even help to avoid some very low speed crashes. Automatic Braking may slow the vehicle to a complete stop to try to avoid a potential crash. The vehicle will only hold at a stop briefly. A firm press of the accelerator pedal will also release Automatic Braking.

### **Side Blind Zone Alert (SBZA)**



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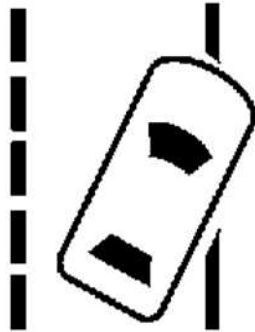
If equipped, the SBZA system is a lane-changing aid that assists drivers with avoiding crashes that occur with vehicles in the side blind zone (or spot) areas. When the vehicle is moving forward, the left or right side mirror display will light up if a vehicle is detected in that blind zone. If the turn signal is activated and a vehicle is also detected on the same side, the display will flash as an extra warning not to change lanes. Since this system is part of the Lane Change Alert system, read the entire Lane Change Alert section in the Owner Manual within Driving and Operating before using this feature.

### **Lane Change Alert (LCA)**

If equipped, the Lane Change Alert (LCA) system is a lane-changing aid that assists drivers with avoiding lane change crashes that occur with vehicles in the side blind zone (or spot) areas or with vehicles rapidly approaching these areas from behind. The LCA warning display will light up in the corresponding outside side mirror and will flash if the turn signal is **ON**.

### **Lane Departure Warning (LDW)**

If equipped, LDW may help avoid crashes due to unintentional lane departures. LDW uses a camera sensor on the windshield ahead of the rearview mirror to detect the lane markings. It only operates at speeds of 35 mph (56 km/h) or greater. It may provide a warning if the vehicle is crossing a detected lane marking without using a turn signal in the lane departure direction. When the vehicle is started, the LDW indicator on the instrument cluster will turn **ON** briefly.



3462114

To turn LDW **ON** and **OFF**, press the **Lane Departure Warning** button on the left side of the instrument panel.

If LDW is **ON**, the LDW indicator will appear green if the system detects a left or right lane marking while the vehicle is traveling at 35 mph (56 km/h) or greater. If the vehicle crosses a detected lane marking without using the turn signal in the lane departure direction, this indicator will change to amber and flash. In addition, three beeps will be sounded from the left or right side, or the Safety Alert Seat will pulse three times on either the left or right side of the seat, depending on the lane departure direction.

⇒ If the LDW camera system does not seem to operate properly, cleaning the outside of the windshield in front of the camera sensor may correct the issue.

### Safety Alert Seat



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The Safety Alert Seat will pulse the left side, right side or both seat cushion bolsters to alert the driver of a dangerous situation.

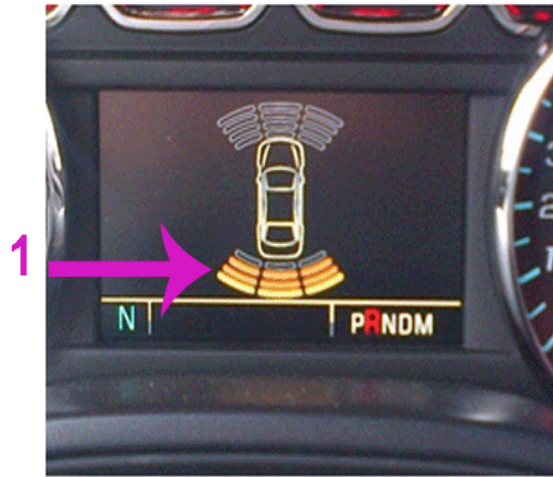


## Assistance Systems for Parking or Backing — Instrument Cluster Parking Assist Display

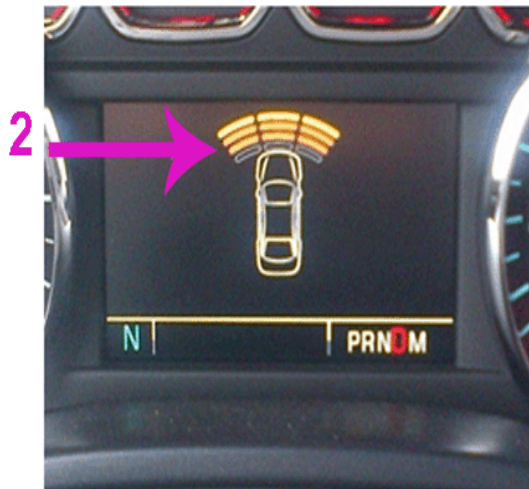
### Rear Parking Assist — Front Parking Assist

If equipped, the Rear Parking Assist (RPA) and the Front Parking Assist (FPA) systems, operate at speeds of less than 5 mph (8 km/h) and detect objects that are 10 in (25 cm) high off the ground and below bumper level, using the sensors in the bumpers. RPA detects objects up to 8 ft (2.5 m) behind the vehicle, and FPA detects objects up to 1.2 m (4 ft) in front of the vehicle. These detection distances may be less during warmer or humid weather.

### Instrument Cluster Parking Assist Display



3459525



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The vehicle may have an instrument cluster (IC) parking assist display for the Rear Parking Assist (1), with bars that show “distance to object” and on some vehicles, an IC display for the Front Parking Assist (2). As the object gets closer, **more bars** will illuminate.

When an object is first detected in the rear (1), one beep will be heard from the rear, or both sides of the Safety Alert Seat will pulse two times. When an object is very close, such as less than 2 ft (0.6 m) in the vehicle rear (1), or less than 1 ft (0.3 m) in the vehicle front (2), a continuous beep will sound from the front or rear, or both sides of the Safety Alert Seat will pulse five times. Beeps for Front Park Assist are higher pitched than for Rear Park Assist.

## Rear Vision Camera — Rear Parking Assist — Rear Cross Traffic Alert

When the vehicle is in **R** (Reverse), the Rear Vision Camera (RVC), Rear Parking Assist and Rear Cross Traffic Alert (RCTA), if equipped may help the driver to avoid a crash or to reduce crash damage. When the vehicle is shifted into **R**, the RVC displays an image of the area behind the vehicle in the center stack screen. The previous screen displays when the vehicle is shifted out of **R** after a short delay. To return to the previous screen sooner, press a button on the infotainment system, shift into **P** (Park), or reach a vehicle speed of 5 mph (8 km/h).



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Displayed images may be farther or closer than they appear. The area displayed is limited and objects that are close to either corner of the bumper or under the bumper do not display. A warning triangle may display on the center stack screen to show where the Ultrasonic Rear Parking Assist (URPA) has detected an object. This triangle changes from amber to red and increases in size the closer the object.



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On vehicles equipped with Rear Cross Traffic Alert (RCTA), a red warning triangle with an arrow may also display on the center stack screen to warn of traffic coming from either direction. This system detects objects coming from up to 66 ft (20 m) from the left or right side of the vehicle. When an object is detected, three beeps sound from the left or right side, depending on the direction of the detected vehicle. With URPA, as the vehicle backs up at speeds of less than 5 mph (8 km/h), the system detects objects up to 8 ft (2.5 m) behind the vehicle that are within a zone 10 in (25 cm) high off the ground and below bumper level.

## Rear Vision Camera with Dynamic Guidelines Assists in Parking Maneuvers



3971050

Using the display in the center stack screen with dynamic guidelines laid over the video image, a natural view of objects directly behind the vehicle are provided. The video image can be used to assist in parking maneuvers.

## ENHANCED SECURITY PACKAGE

**Notice:** NEVER leave an occupant or a pet in the vehicle when these enhanced security systems are activated.

These vehicles are available with a new advanced vehicle security system that includes:

- Glass-breakage sensors located in the two rear quarter-panel windows and the liftgate
- Ultrasonic interior motion detectors located in the overhead console
- A vehicle inclination sensor helping to prevent the vehicle from being illegally towed
- An alarm that activates only when it is fully armed using the vehicle's remote key fob lock button or the power lock switch
- A high-pitched siren that sounds completely different from the vehicle horn

## Blind Spot Mirror

If equipped, there is a small convex mirror built into the upper and outer corner of the driver outside rearview mirror. It can show objects that may be in the vehicle's blind zone.

## Passenger Compartment Air Filter

The passenger compartment air filter removes dust, pollen and other airborne irritants from the outside air that is pulled into the vehicle. Inspect the air filter every 22,500 miles (36,000 km) or two years, whichever comes first and replace it if necessary. Replacement may also be needed if there is a reduction in air flow, excessive window fogging, the vehicle is operated in extreme dusty conditions or odors. To change the filter, perform the following:

1. Open the glove box completely.
2. Disconnect the glove box door dampener string from the glove box door assembly.
3. Remove the six screws and remove the access plate.
4. Release the two tabs holding the service door. Open the service door and remove the old filter.
5. Install the new air filter.
6. Close the service door and secure the tabs.
7. Reverse the steps to reinstall the glove box.

## New Larger Rear Axle Ring Gear Sizes and Available Ratios

The vehicles have new larger rear axle ring gear sizes and available ratios as follows:

- V8 5.3L Engine — 9.5 inches with 3.08 ratio — RPO GU4
- V8 5.3L Engine — 9.5 inches with 3.42 ratio — RPO GU6
- V8 6.2L Engine — 9.76 inches with 3.42 ratio — RPO GU6

These axles use SAE 75W85 Synthetic Gear Oil, GM P/N 19300457, in Canada GM P/N 19300458.

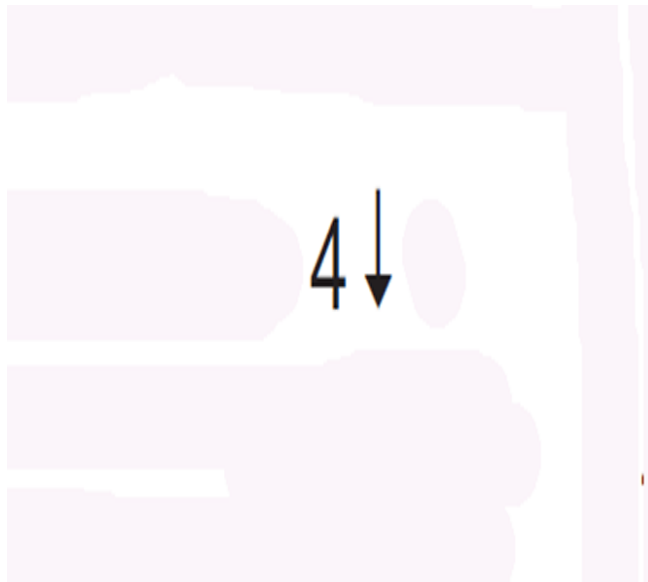
## Towing a Disabled Vehicle

Incorrectly towing a disabled vehicle may cause damage. The damage would not be covered by the vehicle warranty. Have the vehicle towed on a flatbed car carrier. A wheel lift tow truck could damage the vehicle. Consult your dealer or a professional towing service if the disabled vehicle must be towed.

## Recreational Vehicle Towing

Recreational vehicle towing means towing the vehicle behind another vehicle, such as a motor home. The two most common types of recreational vehicle towing are dinghy and dolly towing. Dinghy towing is towing the vehicle with all four wheels on the ground. Dolly towing is towing the vehicle with two wheels on the ground and two wheels on a dolly.

**Two-wheel-drive vehicles should not be towed with all four wheels on the ground.**



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**ONLY dinghy tow four-wheel-drive vehicles with a two-speed transfer case (RPO NQH) that have a N (Neutral) and a Four-Wheel Drive Low setting (shown).**

## Special Tools

The following new tools which were released for the 2014 Silverado and Sierra will be used for the 2015 Suburban, Tahoe, Yukon Models and Yukon XL Models:

| Tool #      | Description  |
|-------------|--|
| CH-41805    | Ball Joint Replacement Kit   |
| DT-45380    | Transfer Case Rear Bushing Remover and Installer (Use for Transfer Case - MP 1222/1225/1226-NQG) |
| DT-48734    | Extension Housing Bushing Replacer (Use for Transfer Case - MP 1625/1626-NQF)                    |
| DT-51173    | Pinion Shim Selection Adapter Kit  |
| EN-46999-15 | Active Fuel Management Tester Harness – Small Block V6   |
| EN-46999-18 | Active Fuel Management Tester Air Adapter  |
| EN-46999-20 | Active Fuel Management Tester Harness – Small Block V8   |



| <b>Tool #</b> | <b>Description</b>                     |
|---------------|--|
| EN-49248      | Injector Rail Assembly Remover         |
| EN-51091      | Crank Front Oil Seal Installer         |
| EN-51092      | Fuel Pump Installation Gauge           |
| EN-51096      | Seal Remover (Rear Crank Seal)         |
| EN-51097      | Injector Retaining Clip Replacer       |
| EN-51105      | Injector Seal Installer Adapters       |
| EN-51267      | Oil Pump Housing Aligner               |
| EN-41479-10   | Crankshaft Rear Seal Installer Adapter |
| EN-42385-50   | Head Bolt Thread Repair Kit            |

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