



Service Bulletin

INFORMATION

Subject: 2018 Chevrolet Traverse New Model Features

Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		From:	To:	From:	To:		
Chevrolet	Traverse	2018	2018	All	All	Gasoline, 2.0L, L4, DI, DOHC, VVT, DCVCP, ATSS, Turbocharged — RPO LTG	9T65, Automatic, 9-Speed, GEN 1 — RPO M3V (FWD Only with the 2.0L)
						Gasoline, 3.6L, V6, DI, DOHC, ATSS — RPO LFY	9T65, Automatic, 9-Speed, GEN 1 — RPO M3V (AWD or FWD with the 3.6L)

Involved Countries	United States, U.S. Virgin Islands, Puerto Rico, Canada, Mexico, Central America, Russia, Kazakhstan, Belarus, Qatar, Bahrain, UAE, Oman, Kuwait, Saudi Arabia, Lebanon, Jordan, Yemen, Iraq, Algeria, Libya, Morocco, Peru, Chile, Colombia, and Israel
--------------------	--

Overview



Chevrolet Traverse

Bulletin Purpose

This is a special bulletin to introduce the 2018 Chevrolet Traverse. The purpose of this bulletin is to help the Service Department Personnel become familiar with some of the vehicle's new features and to describe some of the action they will need to take to service this vehicle.

Overview

The all-new Traverse features a bold and refined design with seating for up to eight passengers. It's expected to offer the segment's best third-row legroom and maximum cargo space. Premium interior and exterior design cues and new technologies abound, including available exclusive D-Opt headlamps that provide a natural daylight effect with a seamless light quality. New technologies and all-new trim levels will expand customer choice. The new 3.6L V6 engine is standard and comes with FWD and available AWD. The 2.0L turbocharged engine is available on the RS model with FWD only. Switchable AWD on all models, except the RS model equipped with the 2.0L turbocharged engine. The High Country model is equipped with Twin Clutch AWD — RPO G99. Both engines are paired with a 9-speed automatic transmission that offers smoother shifting and improved fuel economy. Intelligent Stop/Start technology is standard on all models. A sunroof is available on the LT and Premier models and standard on the High Country. Overall weight reduction of approximately 362 lbs (164 kg) when equipped with the 2.0L engine from the previous model. This Traverse is stronger and lighter in weight than the one it replaces. The weight reduction comes mostly from the use of thinner-gauge high-strength steels, combined with optimization of the geometry (or topology) of the structure, which brings fuel economy and safety benefits and makes the vehicle more nimble. Traverse is equipped with Chevrolet MyLink™, Apple CarPlay™ and Android Auto™ compatibility, and an available OnStar® 4G LTE Wi-Fi connection that can connect up to seven devices to easily access apps, stream music or work on the go, on a signal that's more powerful than a smartphone.

Vehicle Trim Levels



LS

- Chrome-accented grille with black inserts.
- HID bi-function projector beam headlamps.
- Signature LED Daytime Running Lamps.
- 18-inch Bright Silver painted aluminum wheels.
- Black lower moldings.
- 8 passenger seating.



LT

- Available sunroof.
- Chrome-accented grille with chrome inserts.
- Body-color side mirrors with LED turn signal indicator.
- Halogen fog lamps.
- Available 20-inch aluminum wheels.
- Black front and Silver painted rear roof rails.
- Seating for up to 8 (with available second-row bench).



RS

- Black bowties.
- Signature Black Ice grille and fog lamp bezel.
- 20-inch Dark Android painted aluminum wheels.
- Gloss Black window trim.
- Black roof rails.



Premier

- Available D-optic headlamps.
- Available sunroof.
- Chrome-accented grille with chrome inserts.
- 20-inch machined-face Light Argent Metallic aluminum wheels.
- Body-color side-mirrors with LED turn signal indicator.
- Body-color lower moldings with chrome inserts.
- Silver front and chrome rear roof rails.



Redline

- 20-inch High-Gloss Black wheels with Red stripes.
- Black bowties and signature Black and Red badging.
- Signature Black Ice grille and fog lamp bezel.
- Gloss Black window trim.
- Black roof rails.
- Painted black lower moldings with Black Ice Inserts.



High Country

- Available D-optic headlamps.
- Unique chrome High Country grille.
- IntelliBeam® headlamps.
- 20-inch polished aluminum wheels.
- High Country Jet Black/Loft Brown interior.
- Power-folding third-row seat.
- Standard equipment sunroof.
- Equipped with every safety and convenience package offered in the Traverse lineup.

Airbag System

Overview

Airbags are designed to supplement the protection provided by seat belts. Even though today's airbags are also designed to help reduce the risk of injury from the force of an inflating airbag, all airbags must inflate very quickly to do their job. Everyone in the vehicle should wear a seat belt properly whether or not there is an airbag for that person. All vehicle airbags have the word AIRBAG on the trim or on a label near the deployment opening. The airbags are located in the following positions:

- A frontal airbag for the driver.
- A frontal airbag for the front outboard passenger.
- A front center airbag for the driver and 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 for the second and third row passengers seated directly behind the front outboard passenger.

Airbag Readiness Light

The Airbag Readiness Light displays in the instrument cluster if there is an electrical problem with the airbag system. The system check includes the airbag sensors, passenger sensing system, the pretensioners, the airbag modules, the wiring, and the crash sensing and diagnostic module (SDM). The airbag readiness light turns **ON** for several seconds when the vehicle is started. If the light does not turn **ON**, have it repaired immediately.

Brakes

Description and Operation

All models have four-wheel disc brakes with Duralife™ brake rotors. The vehicle is equipped with a TRW EBC460 disc brake system. The electronic brake control module (EBCM) 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.

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

- **Antilock Brake System:** When wheel slip is detected during a brake application, an antilock brake system (ABS) event occurs. During ABS braking, hydraulic pressure in the individual wheel circuits is controlled to prevent any wheel from slipping. A separate hydraulic line and specific solenoid valves are provided for each wheel. The ABS can decrease, hold, or increase hydraulic pressure to each wheel. The ABS does not increase hydraulic pressure above the amount which is transmitted by the master cylinder during braking.
- **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.
- **Dynamic Rear Proportioning:** The dynamic rear proportioning is a control system that replaces the mechanical proportioning valve. Under certain driving conditions the EBCM will reduce the rear wheel brake pressure by commanding the appropriate solenoid valves ON and OFF.
- **Hill Hold Start Assist:** The hill hold start assist 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. Hill Hold Start Assist is activated when the EBCM determines that the driver wishes to move the vehicle up-hill, either backwards or forwards.
- **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 EBCM will actively increase the brake pressure to a specific maximum.
- **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.
- **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 include 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.
- **Stability Control:** Stability control provides added stability during aggressive maneuvers. Yaw rate is the rate of rotation about the vehicle's vertical axis. The stability control is activated when the EBCM determines that the desired yaw rate does not match the actual yaw rate as measured by the yaw rate sensor. The difference between the desired yaw rate and the actual yaw rate is the yaw rate error, which is a measurement of over steer or under steer. When a yaw rate error is detected, the EBCM attempts to correct the vehicle's yaw motion by applying brake pressure to one or more of the wheels. The amount of brake pressure which is applied varies, depending on the correction required. Stability control can be manually disabled or enabled by pressing and holding the traction control switch for five seconds.
- **Traction Control:** When drive wheel slip is noted, the EBCM will enter traction control mode. First, the EBCM requests the engine control module (ECM) to reduce the amount of torque to the drive wheels via a serial data message. The ECM reduces torque to the drive wheels and reports the amount of delivered torque. If the engine torque reduction does not reduce drive wheel slip, the EBCM will actively apply the brakes on the slipping drive wheel. During traction control braking, hydraulic pressure in each drive wheel circuit is controlled to prevent the drive wheels from slipping. The EBCM commands the pump motor and appropriate solenoid valves ON and OFF to apply brake pressure to the slipping wheel. Traction control can be manually disabled or enabled by pressing the traction control switch.
- **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 type (Electric Brake or Electric Over Hydraulic Brake) automatically.
- **Trailer Sway Control:** The trailer sway control will detect any vehicle yaw 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 it is necessary to slow down the vehicle.

Duralife™ Brake Rotors

The vehicle is equipped with Duralife™ Ferritic Nitro-Carburized (FNC) brake rotors and low drag brake calipers. Application of the FNC technology involves an additional manufacturing process that heats the rotors at 1,040°F (560°C) for up to 24 hours in a giant oven. Inside the nitrogen-rich atmosphere, nitrogen atoms bond to the surface of the steel rotor, hardening and strengthening the rotor. This unique surface treatment, equivalent to one-tenth the width of a human hair, creates sufficient friction and allows for effective braking performance while providing corrosion protection and allowing the brake rotor to wear much slower. Over time, the buildup of rust can also lead to brake pedal and/or steering wheel shudder. GM is the

only company that has found a way to effectively treat brake rotors using FNC technology.

Electric Parking Brake



The electric parking brake (EPB) switch is in the center console, which takes the place of the manual parking brake system including the foot pedal cables and release handle. The EPB can always be activated, even if the ignition is OFF. To prevent draining the battery, avoid repeated cycles of EPB system when the engine is not running.

Electric Parking Brake Apply

To apply the EPB:

1. Be sure the vehicle is at a complete stop.
2. Lift up the EPB switch momentarily.

If the EPB is applied while the vehicle is moving, the vehicle will decelerate as long as the switch is pulled. If the switch is pulled until the vehicle comes to a stop, the EPB will remain applied.

The vehicle may automatically apply the EPB in some situations when the vehicle is not moving. This is normal, and is done to periodically verify the correct operation of the EPB system.

Electric Parking Brake Release

To release the EPB:

1. Place the ignition in ON or ACC/ACCESSORY.
2. Apply and hold the brake pedal.
3. Press the EPB switch momentarily.

Automatic Electric Parking Brake Release

The EPB will automatically release if the vehicle is running, placed into gear, and an attempt is made to drive away. Avoid rapid acceleration when EPB is applied, to preserve parking brake lining life.

D-Optic Headlamps



D-Optic headlamps are standard on the Premier and High Country and it represents an industry-first use of LED D-Optic headlamps. D-Optic headlamps, get their name from the backward D shape of the light guides. There are nine light guides, three large, four medium and two small per headlamp. Each has an LED behind it. The two large optics located toward the outside of the vehicle provide low-beam function. Four small-sized optics spread the low-beam light across the road. The third large optic is the high-beam function. Two medium-sized optics spread the high-beam light. While light output of an HID and LED D-Optic headlamp is fairly similar, the D-Optic has a cool white appearance on the road, giving it an aesthetically pleasing daylight appearance to the eye. The D-Optic headlamp also has a smoother and more even beam pattern, i.e., fewer dark spots or streaks on the road than an HID headlamp.

Electric Power Steering

Electric Power Steering (EPS)

The vehicle has electric power steering with Active Return Assist. If power steering assist is lost due to a system malfunction, the vehicle can be steered, but it may require increased effort. If the steering assist is used for an extended period of time while the vehicle is not moving, power assist may be reduced. If the steering wheel is turned until it reaches the end of its travel and is held against that position for an extended period of time, power steering assist may be reduced. If the steering assist is used for an extended period of time, power assist may be reduced. Normal use of the power steering assist should return when the system cools down.

Additional EPS advantages over a hydraulic system include:

- Excellent response and on-center characteristics.
- Power is used only when the vehicle is actually turning, as opposed to a constantly running hydraulic power steering pump, which positively impacts fuel economy.
- Variable-effort steering increases the level of power assistance during low-speed maneuvers, such as parking, and decreases the level of power assistance at higher speeds.
- No need for a pump which eliminates fluid leaks and the need to check the power steering fluid level.
- Noise reduction, because there is no pump or fluid flowing through hoses and valves.

Engine — 2.0L Turbocharged Gasoline — RPO LTG



Typical View of the 2.0L Turbocharged Engine — RPO LTG

Overview

Performance from GM's Ecotec family of engines continues to advance with the 2.0L Turbocharged — RPO LTG, which is based on a generation of large displacement four cylinder engines which are designed for greater efficiency. The turbocharger generates up to 20 pounds (138 kPa) of boost and its twin-scroll design helps optimize the usable power from the engine, virtually eliminating turbo lag and helping deliver a broad power band. It also gives the engine the rapid throttle responsiveness associated with a higher displacement naturally aspirated high performance engine. Electronically controlled turbocharger supporting components including the wastegate and bypass valve, help optimize performance and efficiency.

Engine Component Description

- Cam-Driven High Pressure Fuel Pump:** A high pressure, cam-driven fuel pump provides the higher fuel pressure required by the direct injection system. The engine mounted fuel pump is augmented by a conventional electrically operated supply pump in the fuel tank. The fuel delivery system features a high-pressure stainless steel feed line and a pressure regulated fuel rail without a conventional fuel return line from the engine to the tank. Fuel pressure varies from about 750 psi (5,171 kPa) at idle to 2,250 psi (15,513 kPa) at wide open throttle (WOT).
- Cylinder Block:** The sand-cast aluminum 319T7 cylinder block is a superior refinement of previous Ecotec engine block castings. It is dimensionally similar with previous Ecotec turbo block variants, while providing improved structural support, as well as enabling greater control of noise, vibration and harshness. The main bearing bulkheads, which support the crank bearings, as well as the cylinder bore walls have been significantly strengthened to support increased engine loads. Refinements to the oil distribution system enable improved oil flow throughout the engine and an expansion of the coolant jacket, along with the use of cast-in-place bore liners, allows more precise bore roundness and improves the block's ability to dissipate heat.
- Cylinder Head — Rotocast Aluminum with Sodium Filled Exhaust Valves:** The Ecotec 2.0L turbo's A356T6 aluminum cylinder head is cast using a Rotocast process for high strength, reduced machining and improved port flow. The head is also designed specifically for direct injection. The 2.0L turbo head has unique injector mounting locations below the ports. Apart from injector installation, the head has conventional port and combustion chamber designs, both are optimized for direct injection and high boost pressure. The head uses stainless steel intake valves that are nitrided for improved durability and undercut to improve flow and reduce weight. The exhaust valves have sodium filled stems that promote valve cooling. At normal engine operating temperatures, the sodium inside the valve stem fuses and becomes liquid. The liquid sodium improves conductivity, promoting heat transfer away from the valve face and valve guide to the cooler end of the stem, where it more readily dissipates. This helps maintain a lower, more uniform valve temperature, reducing wear on the valve guide for better alignment and a consistent seal between the valve seat and valve face over the life of the engine. The exhaust manifold is mounted to the cylinder head and is made of cast stainless steel. It is extremely durable and delivers exceptional airflow qualities.
- DOHC with Continuously Variable Valve Timing:** Overhead cams are the most direct, efficient means of operating the valves, while four valves per cylinder increase airflow in and out of the engine. This arrangement is integrated on the lightweight aluminum cylinder head. Continuously variable valve timing optimizes the engine's turbocharging system by adjusting valve timing at lower rpm for improved turbo response and greater torque delivery. Both the intake and exhaust cams have hydraulically operated vane-type phasers that are managed by a solenoid and directed by the engine control module (ECM). The phasers turn the camshaft relative to the drive sprocket, allowing intake and exhaust valve timing to be adjusted independently. Cam phasing changes the timing of valve operation as conditions such as rpm and engine load change.

load vary. This provides an outstanding balance of smooth torque delivery over a broad rpm range, high specific output and improves fuel consumption.

- **Ignition System:** The ignition system is coil-on-plug.
- **Rotating Assembly:** The crankshaft is made of drop forged steel with induction heat-treated fillets and cross-drilled chamfered oil passages for racing grade lubrication characteristics. Forged powdered metal connecting rods incorporate a larger, forged I-beam cross section for added strength in this turbocharged application. The pistons in the 2.0L turbo are lightweight cast aluminum, which reduces reciprocating mass inside the engine. This enhances efficiency and the feeling of performance as the rpm increases. The tops of the pistons have a dish shape that deflects injected fuel. Each piston has its own directed jet that sprays oil toward its skirt, coating its underside and the cylinder wall with an additional layer of lubricant. The extra lubrication cools the pistons, reduces both friction and operational noise and bolsters engine durability.
- **Side Direct Fuel Injection:** Side direct fuel injection moves the point where fuel feeds into an engine cylinder closer to the point where it ignites, enabling greater combustion efficiency. It fosters a more complete burn of the fuel in the air-fuel mixture, and operates at a lower temperature than conventional port injection. This allows the mixture to be leaner (less fuel and more air), so less fuel is required to produce the equivalent horsepower of a conventional, port-injection fuel system. Direct injection also delivers reduced emissions, particularly cold-start emissions, by about 25 percent. The higher compression ratio with direct injection is possible because of a cooling effect as the injected fuel vaporizes in the combustion chamber, which reduces the charge temperature to lessen the likelihood of spark knock. The direct injection fuel injectors have been developed to withstand the greater heat and pressure inside the combustion chamber, and feature multiple outlets for best injection control.
- **Two Stage Variable Displacement Oil Pump:** The variable flow oiling system helps maximize fuel efficiency. Rather than the linear operation of a conventional fixed flow pump, it is accomplished with a crankshaft driven oil pump that matches the oil supply to the engine load. The engine's variable flow pump changes its capacity based on the engine's demand for oil. This prevents using energy to pump oil that is not required for proper engine operation. An engine oil cooler helps maintain optimum oil temperatures. It has a heat exchanger incorporated into the oil filter housing. Coolant to the heat exchanger is provided by the engine's coolant circuit. The design optimizes oil cooling with a minimal pressure loss. During the cold starting, the system also enables faster heating of the engine oil for an earlier reduction of internal engine friction.
- **Twin-Scroll Turbocharger:** An advanced, electronically controlled turbocharger with a unique twin-scroll design is used to increase power in the engine. Each of the two scrolls on the turbine is fed by a separate exhaust passage, one from cylinders one and four, the other from cylinders two and three and virtually eliminates turbo lag at low engine speeds, giving the engine immediate throttle response associated with a naturally aspirated high-performance engine. The turbocharger generates a maximum boost of approximately 20 psi (138 kPa). Because direct injection cools the intake process it allows the engine to safely operate at higher boost and a relatively higher compression (9.5:1) rather than a conventional turbo engine, increasing both output and efficiency.
 - **Air-to-Air Charge Air Cooler:** The turbocharger intake system is supported by an air-to-air charge air cooler system, which uses fresh air drawn through a heat exchanger to reduce the temperature of the hot compressed air exiting the turbo compressor, prior to delivery to the engine combustion system. Inlet air temperature can be reduced by up to 100°C (180°F), which enhances performance. This is due to the higher density of oxygen in the cooled air, which promotes optimal combustion. The charge air cooler is connected to the turbocharger and to the throttle body by flexible ductwork that requires the use of special high torque fastening clamps. In order to prevent any type of air leak when servicing the ductwork, the tightening specifications, cleanliness and proper positioning of the clamps are critical, and must be strictly adhered to.
 - **Cam-Driven Vacuum Pump:** A cam-driven vacuum pump ensures the availability of vacuum under all conditions, especially under boost, when the engine produces the opposite of vacuum. The pump is mounted at the rear of the cylinder head and is driven by the exhaust camshaft.

Engine Specifications

- **Displacement:** 2.0L (1,998cc) — (122 cubic inches)
- **Bore x Stroke :** 3.39 inches (86 mm) x 3.39 inches (86 mm)
- **Compression Ratio:** 9.5:1
- **Firing Order:** 1-3-4-2
- **Horsepower:** 255 Horsepower (190 kW) @ 5,500 rpm (GM Estimate)
- **Torque:** 295 lb ft (400 Nm) @ 3,000 rpm (GM Estimate)
- **Maximum Engine Speed:** 7,000 rpm

- **Valves:** 2 intake and 2 exhaust valves per cylinder
- **Valve Lifters:** Hydraulic roller finger follower
- **Emissions controls:** Evaporative system, Catalytic converters (close coupled and underfloor) and Positive Crankcase Ventilation (PCV)
- **Recommended Fuel:** For the 2.0L engine, use premium unleaded gasoline meeting ASTM specification D4814 with a posted octane rating 93, which is highly recommended for the best performance and fuel economy.

Engine — 3.6L Gasoline — RPO LFY



Typical View of the 3.6L Engine — RPO LFY

Engine Component Description

The High Feature V6 (VIN Code Identifier **3** for both cars and trucks) RPO LFY is a 3.6 L variable valve timing (VVT) engine with direct injection (DI). The engine has E85-compatible valves and seats with special materials and coatings that require slightly different service procedures from gasoline valves. The DI system places the high pressure injectors in the cylinder heads. The engine has 2 intake and 2 exhaust valves per cylinder and uses a dual overhead cam design with individual intake and exhaust camshafts. A camshaft position actuator is mounted on each camshaft. The cylinders are arranged in 2 banks of 3 at a 60 degree angle. The right bank of cylinders are number 1-3-5 and the left bank of cylinders are 2-4-6, viewed from the flywheel end of the engine.

- **Camshaft Drive System:** The camshaft drive system consists of one primary timing drive chain driven by the crankshaft sprocket. The primary timing drive chain drives two intermediate drive shaft sprockets. Each oil-pressure-fed intermediate drive shaft sprocket drives separate secondary timing drive chains. Each secondary timing drive chain drives the respective cylinder head's intake and exhaust camshaft position actuators. The primary timing drive chain uses two stationary timing drive chain guides and a hydraulically-actuated tensioner with built-in shoe. The tensioner minimizes timing drive chain noise and provides accurate valve action by keeping slack out of the timing drive chains and continuously adjusting for timing drive chain wear. The tensioner incorporates a plunger that adjusts out with wear allowing only a minimal amount of backlash. The tensioner is equipped with an oiling jet to spray oil onto the timing components during engine operation. The secondary timing drive chains use a stationary timing drive chain guide and movable timing drive chain shoe. The secondary timing drive chain shoe is under tension from a hydraulically-actuated tensioner. All tensioners are sealed to the head or block using a rubber coated steel gasket. The gasket traps an adequate oil reserve to ensure quiet start-up.
- **Camshaft Position Actuator System:** The engine incorporates a camshaft position actuator for each intake and exhaust camshaft. Camshaft phasing changes valve timing as engine operating conditions vary. Dual camshaft phasing allows the further optimization of performance, fuel economy and emissions without compromising overall engine response and driveability. Variable valve timing also contributes to a reduction in exhaust emissions. It optimizes exhaust and inlet valve overlap and eliminates the need for an exhaust gas recirculation (EGR) system. The camshaft position actuator is a hydraulic vane-type actuator that changes the camshaft lobe timing relative to the camshaft drive sprocket. Engine oil is directed by a camshaft position actuator oil control valve to the appropriate passages in the camshaft position actuator. Oil acting on the vane in the camshaft position actuator rotates the camshaft relative to the sprocket. At idle, both camshafts are at the default or "home" position. At this position, the exhaust camshaft is fully advanced and the intake is fully retarded to minimize valve overlap for smooth idle. An internal lock pin locks the inner rotor to the outer camshaft position actuator housing at idle and maintains this position during start-up conditions. Under other engine operating conditions, the camshaft position actuator is controlled by the engine control module (ECM) to deliver optimal intake and exhaust valve timing for performance, driveability and fuel economy. The camshaft position actuator incorporates an integral trigger wheel, which is sensed by the camshaft position sensor mounted in the front cover, to

accurately determine the position of each camshaft. The exhaust camshaft position actuator has a different internal configuration than the intake camshaft position actuator since the exhaust camshaft position actuator phases in the opposite direction relative to the inlet camshaft position actuator. The camshaft position actuator oil control valve (OCV) directs oil from the oil feed in the head to the appropriate camshaft position actuator oil passages. There is one OCV for each camshaft position actuator. The OCV is sealed and mounted to the front cover. The ported end of the OCV is inserted into the cylinder head with a sliding fit. A filter screen protects each OCV oil port from any contamination in the oil supply. The camshaft front journal has several drilled oil holes to allow camshaft position actuator control oil to transfer from the cylinder head to the camshaft position actuator. The center camshaft bolt hole is counterbored to allow oil to flow around the camshaft bolt and to the camshaft position actuator. Oil in this oil passage is used to move the camshaft position actuator to the default or home position. Radially outward from the center of the journal is a set of 4 drilled camshaft position actuator oil holes. Oil in this group of oil holes is used to move the camshaft from the default position to a specific set position as determined by the ECM. Seal rings are used at the front and rear of the front camshaft journal to prevent oil leakage from the camshaft position actuator hydraulic system. The seal is made from a plastic compound that resists wear and has a diagonal end gap to enhance sealing. The camshaft position actuator is mounted to the front end of the camshaft and the timing notch in the nose of the camshaft aligns with the dowel pin in the camshaft position actuator to ensure proper cam timing and camshaft position actuator oil hole alignment.

- **Connecting Rods and Pistons:** The connecting rods are steel and have full floating piston pins. The piston pins are a slip fit in the bronze bushed connecting rod. Round wire retainers are used to retain the piston pin into the piston. The cast aluminum pistons incorporate a polymer-coated skirt to reduce friction. The piston uses two low tension compression rings and one multi-piece oil control ring. The top of the piston contains a shaped portion for the direct injection system to aid in fuel-air charge mixture and even combustion.
- **Crankshaft:** The crankshaft is a hardened, forged steel design with 4 main bearings. Crankshaft thrust is controlled by the upper portion of number 3 main bearing. The crankshaft position reluctor wheel is pressed onto the rear of the crankshaft in front of the rear main journal. A micro encapsulated adhesive is used on the reluctor wheel to aid retention. The crankshaft is internally balanced, and has an integral oil pump drive machined into the nose in front of the front main journal.
- **Cylinder Block:** The cylinder block is constructed of aluminum alloy by precision sand-casting with cast in place iron cylinder liners. Each main bearing cap incorporates 6 bolts bolting the cap into the engine block. Along with 2 outer and 2 inner bolts, 2 side bolts are used in the deep skirt block. To prevent aeration, oil return from the valvetrain and cylinder heads is channeled away from the rotating and reciprocating components through oil drain back passages incorporated into the cylinder heads and engine block. Pressure-actuated piston oil cooling jets are mounted between opposing cylinders. A knock sensor is located on the each side of the exterior of the engine block. The crankshaft position sensor is located on the right side of the exterior of the engine block.
- **Cylinder Heads:** The cylinder heads are cast aluminum with powdered metal valve seat inserts and valve guides. The cylinder heads also feature integrated exhaust manifolds; the exhaust manifolds are incorporated into the head casting. Two intake valves and two exhaust valves are actuated by roller finger followers pivoting on a stationary hydraulic lash adjuster (SHLA). The intake valves in the LFY engine are slightly larger than those in the LFW engine to allow the additional air necessary for a 3.6L displacement engine. Separate exhaust and intake camshafts are supported by bearings machined into the cylinder head. The front camshaft bearing cap is used as a thrust control surface for each camshaft. Each spark plug is shielded by a tube that is pressed into the cylinder head. Each spark plug ignition coil wire is also mounted through the spark plug tube. The engine coolant temperature (ECT) sensor is threaded into the cylinder head. With direct injection the high pressure injectors are located in machined bores below the intake ports. A stainless steel, high pressure fuel rail is attached to the intake side of the head.
- **Right and Left Bank Designation:** Right hand (RH) and left hand (LH) designation through the engine mechanical section are viewed from the rear, non-front-cover side, of the engine or from inside the vehicle. These banks are also referred to as Bank 1 (RH) and Bank 2 (LH).

Engine Specifications

- **Displacement:** 3.6L (220 ci)
- **Bore x Stroke :** 3.70 inches (94 mm) x 3.37 inches (85.6 mm)
- **Compression Ratio:** 11.5:1
- **Firing Order:** 1-2-3-4-5-6
- **Horsepower:** 305 Horsepower (227 kW) @ 6,800 rpm (GM Estimate)
- **Torque:** 260 lb ft (351 Nm) @ 2,800 rpm (GM Estimate)
- **Valves:** 2 intake and 2 exhaust valves per cylinder
- **Emissions controls:** Evaporative system, Catalytic converters (close coupled and underfloor) and Positive Crankcase Ventilation (PCV)
- **Recommended Fuel:** For the 3.6L engine, use regular unleaded gasoline meeting ASTM specification D4814 with a posted octane rating of

87 or higher.

Engine Oil — dexos1®



Ask for and use engine oils that meet the dexos® specification. Engine oils that have been approved by GM as meeting the dexos1® specification are marked with either of the approved logos as shown. For additional information, visit this General Motors website: <http://www.gmdexos.com>

Viscosity Grade

2.0L — RPO LTG Engine: Use ACDelco® dexos1® SAE 5W-30 viscosity grade engine oil. In an area of extreme cold, where the temperature is less than -20°F (-29°C), use SAE 0W-30 viscosity grade engine oil. An oil of this viscosity grade will provide easier cold starting for the engine at these colder temperatures.

3.6L — RPO LFY Engine: Use ACDelco® dexos1® SAE 5W-30 viscosity grade engine oil. In an area of extreme cold, where the temperature is less than -20°F (-29°C), use SAE 0W-30 viscosity grade engine oil. An oil of this viscosity grade will provide easier cold starting for the engine at these colder temperatures.

Engine Oil Life System

The vehicle features GM's engine oil life 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.

Engine — Intelligent Stop/Start

Overview

Intelligent stop/start technology is similar to the stop/start system found on vehicles in the current Chevrolet portfolio. However, it offers quieter engine stops/starts with fewer vibrations, making them more seamless to customers. Its operating system also can recognize certain driving maneuvers, such as backing into a garage or parking lot situations, and better helps determine whether or not the vehicle needs to be in a stop/start situation. Both engines come with standard fuel-saving intelligent stop/start technology, which shuts down the engine in certain conditions to reduce fuel consumption. There are no buttons to push or procedures to learn. Stop/start automatically shuts down the engine when the vehicle comes to a stop under certain driving conditions, such as at a stoplight. The engine automatically restarts when the driver takes their foot off the brake. An advanced algorithm determines when driving conditions are optimal for shut-off. The system monitors vehicle speed, climate control system operation and other conditions to determine whether it is efficient to shut **OFF** the engine. In some cases, such as heavy stop-and-go traffic, the engine will not shut down. The engine-stop function is not indefinite. The engine automatically restarts after approximately two minutes if the driver hasn't remove their foot from the brake pedal. The technology also reduces emissions.

Unique components used with stop/start include:

- A tandem-solenoid starter that enables the engine to restart quicker and more smoothly, even if the engine hasn't come to a complete stop.
- A unique DC-DC module that maintains voltage during a stop/start event to avoid lighting fluctuations and potential resets/noise in the audio/infotainment system.
- An electronically controlled accumulator retains the transmission fluid pressure to keep the clutches engaged for immediate takeoff when the driver removes their foot from the brake pedal.
- An engine mount system that dampens the vibrations associated with a restart, helping to deliver smooth, nearly imperceptible performance.

HVAC

The Traverse will feature a standard tri-zone automatic climate control system, two zones in the front row and one zone in the second row a feature that will help keep all occupants comfortable. Controls are in the front and second rows. Front-seat passengers can also control the second-row settings from the center stack touch-screen display. The system features four front outlets and four rear outlets, with two in the second row and two in the third row. It's equipped with a new refrigerant called R-1234yf, that's more environmentally friendly than traditional refrigerant R-134a. A new brushless blower motor helps eliminate the ticks and hums an HVAC system can create, providing a quieter cabin.

IntelliBeam® Headlamps

IntelliBeam® headlamps let drivers enjoy the benefits of better road illumination and improved visibility from the vehicle's high beams without the inconvenience of constantly switching them ON or OFF. This advanced headlamp technology uses an optical sensor integrated in the interior mirror mounting to automatically detect when the driving environment has become too dark for normal headlamp operation, and then seamlessly activate the high beams. IntelliBeam® headlamps also detect the intensity of approaching light (e.g., that from an oncoming vehicle) and temporarily switch to normal beams so the approaching driver's vision is not impaired by the high beams. In addition, the feature switches to normal beams when Traverse comes to a stop, such as at an intersection or stop sign. The feature can be overridden anytime the driver chooses by manually switching from normal to high beams or vice versa.

OnStar® with 4G LTE and Wi-Fi

With OnStar® 4G LTE and Wi-Fi, up to seven devices such as smartphones, tablets and laptops can be connected to high-speed Internet through the vehicle's built-in Wi-Fi hotspot. The built-in 4G LTE Wi-Fi hotspot has a 3GB/3-month trial (may not be available in all countries); whichever comes first and comes standard on all models, (high-speed internet may not be available in all areas). The powerful OnStar® connection also enables improved access to existing OnStar® safety and security services, including the ability to transmit voice and data simultaneously. That means OnStar® advisors can run a diagnostic check without ever leaving the call, making customer interactions quicker and more seamless. It's the most comprehensive in-vehicle safety and connectivity system available. For assistance, press the blue OnStar® button or call 1-888-4-ONSTAR (1-888-466-7827).

Power Liftgate — Hands Free



Notice: The Chevrolet bowtie logo may not be visible in all conditions, such as on snow-covered ground, gravel or on a bright, sunny day, however, the hands-free functionality will still work.

With the available power liftgate with hands-free functionality, customers can open and close the liftgate by simply using a kicking motion (i.e., forward and up, like kicking a soccer ball) to interrupt the Chevrolet bowtie that is projected onto the ground by an LED lamp under the rear bumper. This is a great convenience when approaching the vehicle with hands full or when unloading items from the rear cargo area. When the key fob is within 10 feet (3 m) of the back of the vehicle, a 4-inch wide Chevrolet bowtie will be projected in white light onto the ground. The hands-free power liftgate also includes a new programmable memory height that can be set for easy reach or to accommodate areas with low ceilings.

The center high-mounted stop lamp (CHMSL), located at the top of the liftgate, has nine LEDs. The license lamps are incandescent bulbs; however they switch to LED if the vehicle is equipped with the available Rear Camera Mirror.

Radio — Chevrolet MyLink™

Overview



The Traverse is equipped with Chevrolet MyLink™ which offers Apple CarPlay™ and Android Auto™ compatibility, and depending on the model is equipped with either the standard 7-inch (179 mm) or an available 8-inch (203 mm) diagonal color touch-screen display. Traverse's touch-screen display and center controls are oriented vertically to make them easy to see and use. For more information about the MyLink™ system visit my.chevrolet.com/learn and in Canada, visit chevrolet.ca/owner-centre.html OR fr.chevrolet.ca/owner-centre.html

Chevrolet MyLink™ with 7-Inch Diagonal Color Touch Screen — RPO IOB

This 7-inch diagonal color touch-screen display is heavily reliant on the customer's brought-in media devices (e.g., smartphones, MP3 players, etc) to provide content and features. Voice recognition, for example, is not embedded into the vehicle. Instead, when the customer uses the steering wheel-mounted voice control button, he/she will pass-through to his/her connected smartphone and leverage the voice recognition capabilities of that device. Factory-installed Navigation is not available with Chevrolet MyLink™ with the 7-inch diagonal touch-screen. However, the system's compatibility with Apple CarPlay™ and Android Auto™ lets customers with compatible phones project Navigation from certain smartphone apps or the touch-screen display.

Features include:

- 7-inch diagonal, capacitive touch-screen offers a high-resolution, full-color display.
- Physical buttons and knobs, in addition to touch-screen options, let the occupants easily and quickly control basic infotainment functions.
- A simple and intuitive icon-based interface that's similar to many consumer electronics.
- Hands-free calling with access to address book through Bluetooth® wireless technology for select phones.
- Apple CarPlay and Android Auto compatibility.
- Bluetooth® audio streaming.
- Smartphone voice recognition pass-through.
- Siri® Eyes Free.

Chevrolet MyLink™ with 8-Inch Diagonal Color Touch Screen — RPO IO5

The 8-inch diagonal capacitive-touch screen display offers the most complete and intuitive experience for customers. It provides maximum functionality to accommodate their needs while working to minimize distraction with features that allow them to keep their focus on the road and off their phone. This is an enhanced version of the 8-inch MyLink™ system that is found on several other models in the current Chevrolet portfolio. It features several performance upgrades and new features, such as the ability to download in-vehicle apps.

Features include:

- 8-inch diagonal, capacitive touch-screen offers a high-resolution, full-color display.
- In-vehicle apps via Shop.
- Fast, accurate voice recognition (embedded and pass-through), now including partial name speech recognition.
- Enhanced radio tuning flexibility allowing the customer to directly tune to stations (AM/FM/SiriusXM®).
- Ability to browse Bluetooth® audio files, similar to USB browsing.
- Supports Teen Driver.
- Cluster integration: Many of the functions available on the 8-inch diagonal color touch-screen display are also available within a 4.2-inch diagonal high-resolution color cluster display.
- Hands-free calling with access to address book through Bluetooth® wireless technology.
- Bluetooth® audio streaming for up to 10 devices.
- Ability to store up to 60 radio presets, songs, genres, albums, artists, destinations and playlists for quick and easy access.
- Gesture recognition control that lets drivers use their fingertips to navigate through menus and within screens by flinging, clicking and dragging and swiping.
- Natural language voice recognition control that lets drivers use conversational voice commands to control the phone and audio system

(embedded and pass-through).

- OnStar® integration.
- If multiple media devices are in the vehicle and connected by the USB, MyMedia will aggregate the music contained on each into one playlist for easy access.
- iTunes® Tagging for SiriusXM® Satellite Radio.
- XM Satellite Radio All Access Trial Package (with subscription).
- SiriusXM TuneSelect.
- Text Message Alerts.
- Siri® Eyes Free control for iPhone® running iOS 6 or later.

Chevrolet MyLink™ with 8-Inch Diagonal Color Touch Screen and Navigation — RPO IO6

The 8-inch diagonal capacitive-touch screen display can be enhanced with available embedded Navigation to help customers conveniently route to destinations with uncomplicated turn-by-turn directions. The Navigation features can be accessed using the touch-screen, voice command or within the cluster using steering wheel-mounted buttons. The system also offers fast searches of more than 1.5 million Points of Interest (POI). Navigation also lets drivers store individual POI in their area, such as a specific Starbucks® location, and gives them turn-by-turn route guidance. When using the route guidance feature, drivers can cancel the route and turn voice prompts on or off via the touch-screen. They will also see what street they are currently driving on and a next maneuver indication in the center stack display.

Navigation features include:

- 3-D map views for most major U.S. cities and attractions.
- Maps come loaded on the system and are upgradeable via USB
- Map updates are available once per year and must be purchased through the map data supplier's website (<http://allthingsnav.navigation.com>)
- Drivers can zoom in and out on a map via the zoom icon on the touch-screen or by turning the radio dial.
- Ability to save destinations to favorites.
- Multiple ways to search for destinations and easy-to-find icons to mute Navigation voice or cancel route.
- Drivers can search for destinations by address, intersection, points of interest, recent routes or from within their stored vehicle contacts.
- SiriusXM NavTraffic and Travel Link® (with subscription) adds traffic, weather, fuel price information and movie listings to the Navigation system.

Hidden Storage Bin



The 8-inch (203 mm) diagonal color touch-screen has a flat design that's similar to a tablet. It also articulates to reveal a hidden storage bin and an additional USB port. The bin can be protected with **valet mode**, which lets an unfamiliar person take the wheel but shields personal items and information from prying eyes. Using valet mode, the touch-screen doubles as a PIN-activated, retractable faceplate over the secure storage bin. Traverse owners will be able to access valet mode through the Settings menu via a four-digit code, much like on a hotel safe. A confirmation entry of the code simultaneously locks the bin and secures personal information.

Rear Seat Reminder Look in Rear Seat



Typical View of a Rear Seat Reminder Look in Rear Seat Message

If equipped, the Rear Seat Reminder Look in Rear Seat message displays under certain conditions indicating there may be an item or passenger in the rear seat. The Rear Seat Reminder system works by monitoring the operation of the rear doors. The feature is intended to activate when the rear door is **opened and closed** within 10 minutes before the vehicle is started or if the rear door is **opened and closed** while the vehicle is running. Under these circumstances, the next time the vehicle is turned **OFF** after a door activation, the vehicle will sound five audible chimes and display a message in the DIC that states: **Rear Seat Reminder Look in Rear Seat**.

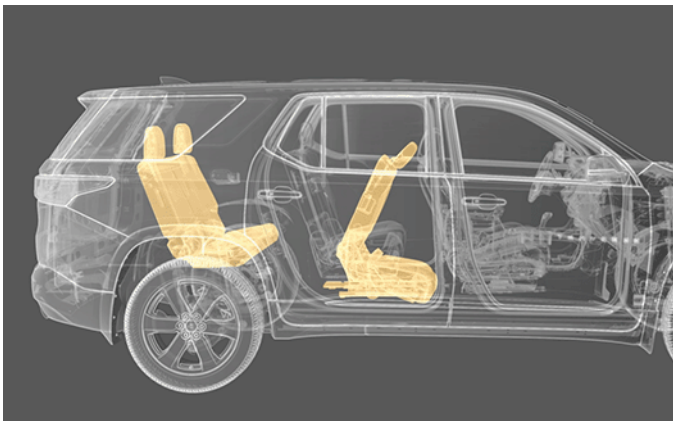
Safety — Driving/Parking Assistance Systems

Warning: DO NOT rely on the Driver Assistance Systems. These systems do not replace the need for paying attention and driving safely. You may not hear or feel alerts or warnings provided by these systems. Failure to use proper care when driving may result in injury, death, or vehicle damage.

- **Cruise Control:** The cruise control lets the vehicle maintain a speed of about 25 mph (40 km/h) or more without keeping your foot on the accelerator. Cruise control does not work at speeds of less than 25 mph (40 km/h).
- **Forward Automatic Braking:** If the vehicle has Forward Collision Alert (FCA), it also has Forward Automatic Braking (FAB), which includes Intelligent Brake Assist (IBA). When the system detects a vehicle ahead in your path that is traveling in the same direction that you may be about to crash into, it can provide a boost to braking or automatically brake the vehicle. This can help avoid or lessen the severity of crashes when driving in a forward gear. Depending on the situation, the vehicle may automatically brake moderately or hard. This forward automatic braking can only occur if a vehicle is detected. This is shown by the FCA vehicle ahead indicator being illuminated. The system works when driving in a forward gear between 5 mph (8 km/h) and 50 mph (80 km/h), or on vehicles with Adaptive Cruise Control (ACC), above 2 mph (3 km/h). It can detect vehicles up to approximately 197 ft (60 m).
- **Forward Collision Alert:** If equipped, the FCA system may help to avoid or reduce the harm caused by front-end crashes. When approaching a vehicle ahead too quickly, FCA provides a red flashing alert on the windshield and rapidly beeps. FCA also lights an amber visual alert if following another vehicle much too closely. FCA detects vehicles within a distance of approximately 197 ft (60 m) and operates at speeds above 5 mph (8 km/h). If the vehicle has Adaptive Cruise Control (ACC), it can detect vehicles to distances of approximately 360 ft (110 m) and operates at all speeds. FCA is a warning system and does not apply the brakes.
- **Lane Change Alert:** If equipped, the Lane Change Alert (LCA) system is a lane-changing aid that assists drivers with avoiding lane change crashes that occur with moving 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:** Lane Departure Warning (LDW) may help avoid crashes due to unintentional lane departures. It may provide a warning if the vehicle is crossing a detected lane marking without using a turn signal in the lane departure direction. This system is part of the Lane Keep Assist (LKA) system.
- **Lane Keep Assist:** If equipped, Lane Keep Assist (LKA) may help avoid crashes due to unintentional lane departures. It may assist by gently turning the steering wheel if the vehicle approaches a detected lane marking without using a turn signal in that direction. It may also provide a Lane Departure Warning (LDW) system alert as the lane marking is crossed. The LKA system will not assist or provide an LDW alert if it detects that you are actively steering. Override LKA by turning the steering wheel. LKA uses a camera to detect lane markings between 37 mph (60 km/h) and 112 mph (180 km/h).

- **Rear Cross Traffic Alert:** If equipped, Rear Cross Traffic Alert (RCTA) shows a red warning triangle with a left or right pointing arrow on the infotainment display to warn of traffic coming from the left or right. This system detects objects coming from up to 20 m (65 ft) from the left or right side of the vehicle. When an object is detected, three beeps sound from the left or right, depending on the direction of the detected vehicle. Use caution while backing up when towing a trailer, as the RCTA detection zones that extend out from the back of the vehicle do not move further back when a trailer is towed.
- **Rear Parking Assist :** If equipped, Rear Parking Assist (RPA) uses sensors on the rear bumper to assist with parking and avoiding objects while in **R** (Reverse). It operates at speeds less than 5 mph (8 km/h). The instrument cluster may have a parking assist display with bars that show “distance to object” and object location information for RPA. As the object gets closer, more bars light up and the bars change color from yellow to amber to red. When an object is first detected in the rear, one beep will be heard from the rear. When an object is very close less than 2 ft (0.6 m) in the vehicle rear, five beeps will sound.
- **Rear Vision Camera:** When the vehicle is shifted into **R** (Reverse), the Rear Vision Camera (RVC) displays an image of the area behind the vehicle in the infotainment display. 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 display, shift into **P** (Park), or reach a vehicle speed of 5 mph (8 km/h). Select Guidance Lines on the camera screen to enable or disable the guidance lines.
- **Front Pedestrian Braking:** If equipped, the Front Pedestrian Braking (FPB) system may help avoid or reduce the harm caused by front-end crashes with nearby pedestrians when driving in a forward gear. FPB displays an amber indicator, when a nearby pedestrian is detected directly ahead. When approaching a detected pedestrian too quickly, FPB provides a red flashing alert on the windshield and rapidly beeps. FPB can provide a boost to braking or automatically brake the vehicle. This system includes Intelligent Brake Assist (IBA), and the Forward Automatic Braking (FAB) system may also respond to pedestrians. The FPB system can detect and alert to pedestrians in a forward gear at speeds between 8 km/h (5 mph) and 80 km/h (50 mph). During daytime driving, the system detects pedestrians up to a distance of approximately 40 m (131 ft). During nighttime driving, system performance is very limited.
- **Side Blind Zone Alert:** If equipped, the Side Blind Zone Alert (SBZA) system is a lane-changing aid that assists drivers with avoiding crashes that occur with moving vehicles in the side blind zone (or spot) areas. When the vehicle is in a forward gear, the left or right side mirror display will light up if a moving 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. This system is part of the LCA system.

Smart Slide Seating



The enhanced Smart Slide second-row seat on the **passenger side** of the vehicle can be slid and angled forward, allowing passengers easy access to the third-row seats — even when a car seat is in place.

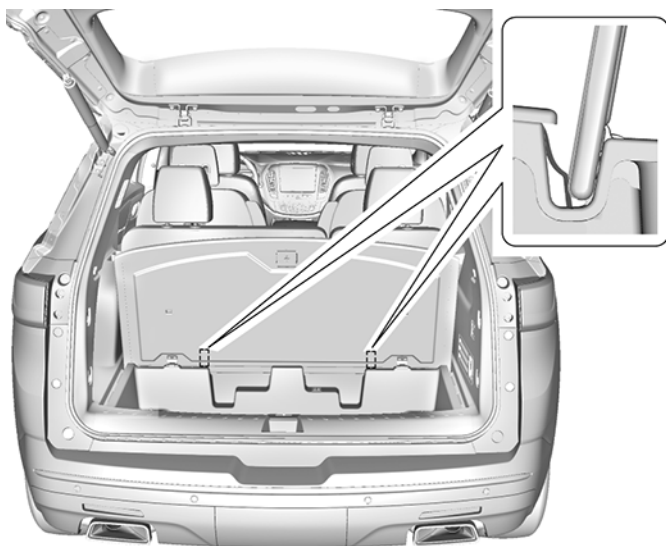
Storage — Cargo Management System

Beneath the rear load floor above the spare tire is a subfloor compartment that offers about 3.2 cu. ft. of additional storage space. The area is 10 inches (254 mm) deep, with a carpet-lined split cover that can be folded in half or removed altogether. The spare tire is located in another level low so the items in the subfloor compartment are kept separate and clean. This area is a great place to conceal larger personal items, such as a laptop or a small purse and is always accessible, even when the seats are folded down. There are four tie-downs that can be used to help secure items in the cargo area. When there is a need to transport larger items, they can manually fold down the second- and third-row seats to create a flat load floor with a folded angle of just 3 degrees. For added convenience, the High Country model has a standard power folding third row, controlled by button located on the passenger-side of the cargo area.

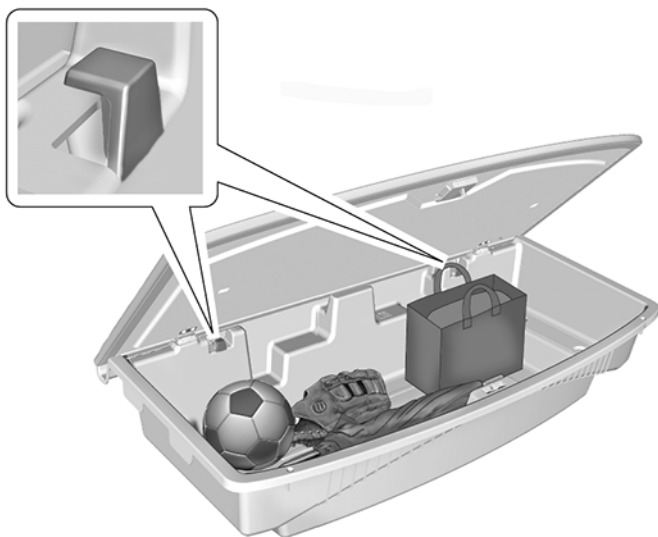
Cargo Management System

To access, perform the following:

1. Lift the load floor to access the cargo management system.



2. The hold open devices on the cargo bin allow the load floor to remain open without removal.

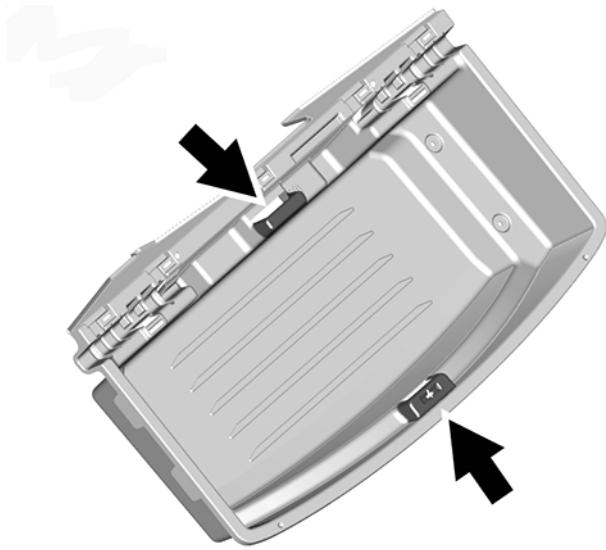


3. The cargo management system is used to organize storage in the cargo area. There are two convenience hooks that can support up to 11 (5 kg).
4. After storing items in the cargo management system, make sure to properly latch the load floor.

Spare Tire Removal

To access the spare tire, the cargo management system must be removed.

1. Open the cargo cover.
2. Remove the four wing nuts.



3. Lift up on the handles on both sides to remove the cargo management system to access the spare tire.
4. The storage bin can be placed on the lowered third row seats while accessing the spare tire.

Spare Tire Installation

1. Install the cargo management system in the vehicle.
2. Install the four wing nuts.

Warning: An improperly latched cargo cover, or cargo cover left in the open position, could separate during a crash or sudden maneuver potentially impacting vehicle occupants. Someone could be injured. Be sure to return the cover to the closed position and latch before driving.

3. Make sure to properly latch the load door.

Surround Vision

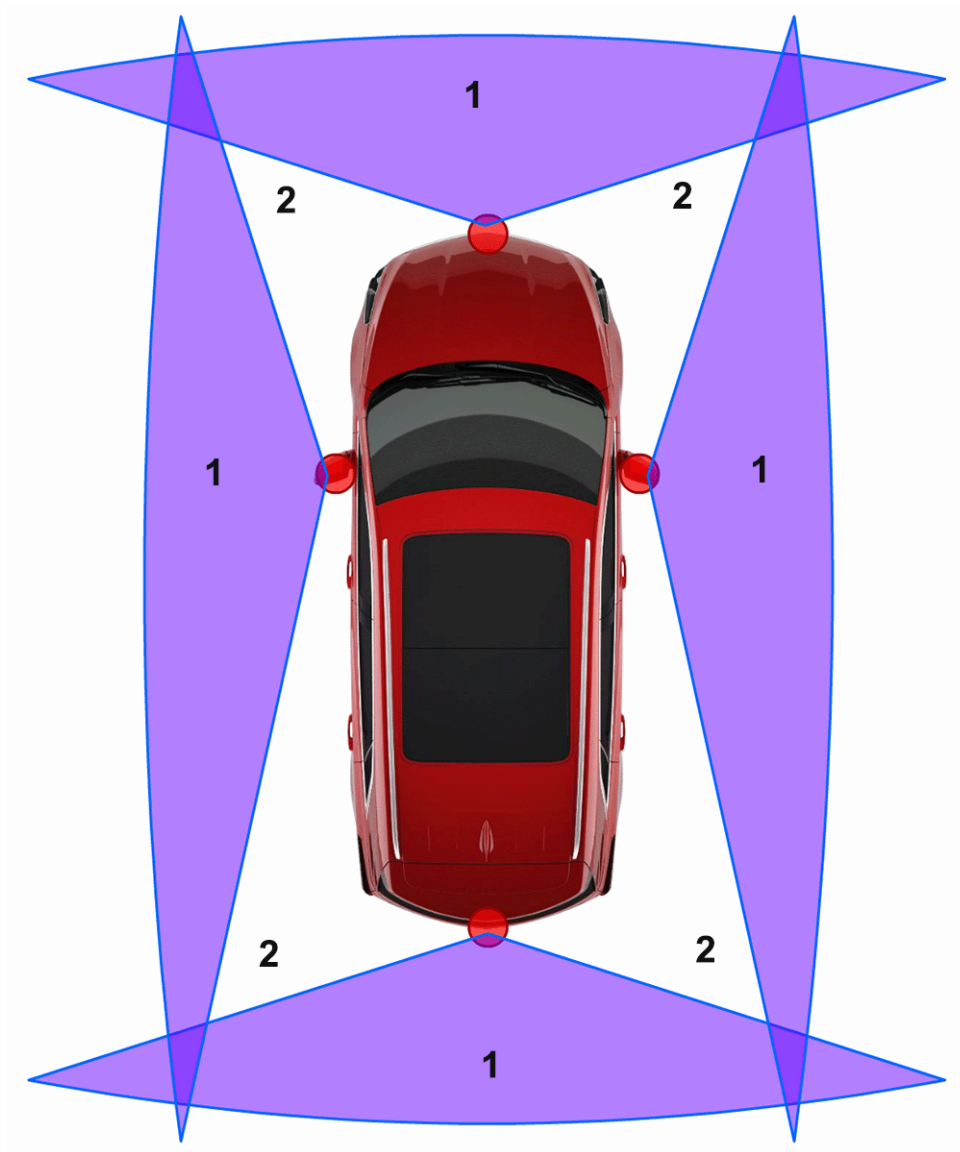
Surround Vision



Notice: The Surround Vision cameras have blind spots and will not display all objects near the corners of the vehicle. Folding side mirrors that are out of position will not display the Surround Vision view correctly.

New for the 2018 Traverse is Surround Vision, a technology that provides a literal look at the vehicle's perimeter. The system uses strategically located cameras on all sides of the vehicle to provide a 360-degree **bird's eye** view of the vehicle, helping drivers quickly view the surrounding area at a glance, for more confident maneuvering when reversing, parking or trailering. Surround Vision displays this image of the area surrounding the vehicle, along with the front or rear camera views in the infotainment display.

Surround Vision Viewing Areas



1 Areas displayed by Surround Vision.

2 Areas not displayed by Surround Vision.

Switchable All-Wheel Drive

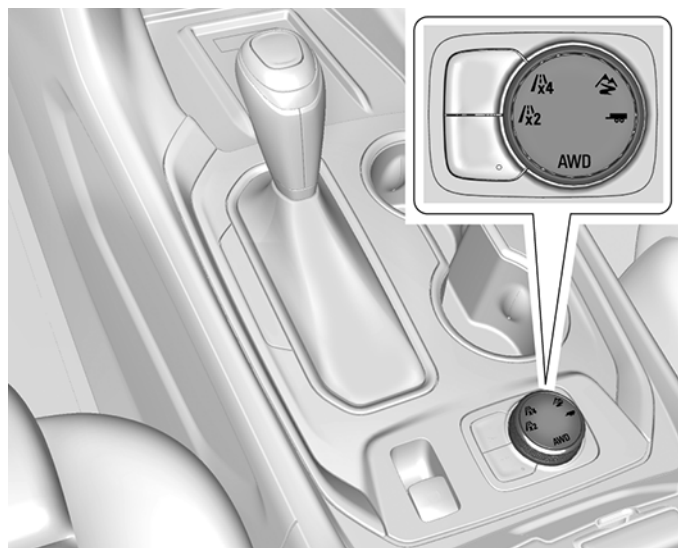
Switchable All-Wheel Drive (AWD) Overview

Switchable AWD technology is a great benefit for improved traction and control because it distributes torque to all four tires on a vehicle. Its advantages are unmistakable and also has a big impact on fuel economy. Switchable AWD lets the customer switch between FWD and AWD operation when conditions dictate, without having to stop the vehicle. The AWD Mode will stay selected until the mode is changed. If the customer switches to FWD, the system efficiently disconnects virtually all of the AWD components from the drivetrain so the gears and prop shafts stop spinning to save fuel and reduce emissions. AWD capability is still available, ready for the driver to engage it when necessary, but they must remember to engage AWD when needed, as the system does not react to road conditions automatically. However, if the system senses that the customer may be stuck or losing traction, a DIC alert will remind them to engage AWD.

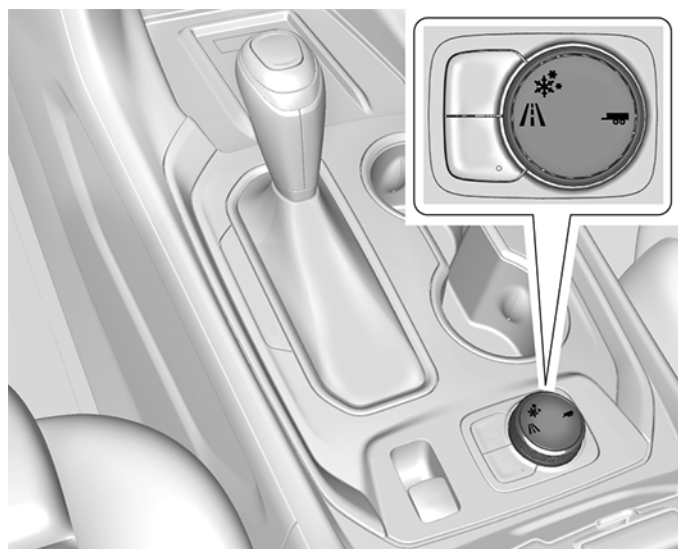
Driver Mode Control (Traction Select)

One of Traverse's most useful ride and handling enhancements is the implementation of Traction Select, which, with the simple turn of a console-mounted rotary dial, lets customers select the mode in which they want the vehicle to operate. Based on the mode chosen, it adjusts the vehicle's throttle response, shift mapping and stability control to maximize performance in varying road and surface conditions. If equipped with Front-Wheel Drive (FWD), the Driver Mode Control may have the following mode selections: FWD, Snow, and Tow/Haul. If equipped with All-Wheel Drive (AWD), the Driver Mode Control may have the following mode selections: FWD, Snow, Tow/Haul, and AWD.

the Driver Mode Control may have AWD, Two-Wheel Drive (2WD), Off-Road, and Tow/Haul. Turn the control knob on the console to make a mode selection. The icons on the knob will illuminate to indicate which mode is active. A DIC message will display and indicate what mode is ON when switching to different modes.



Control Knob AWD



Control Knob FWD

- **NORMAL:** This is the setting for everyday driving. The vehicle is either in FWD for non AWD vehicles, or Two-Wheel Drive for AWD vehicles. This mode will remain active through future ignition cycles. Use this mode for normal driving conditions. This is the most fuel efficient driving mode.
- **4X4 / SNOW:** 4x4 mode (AWD) and Snow mode (FWD) offer better control when snow and ice makes road conditions slippery.
- **OFF-ROAD:** Available on AWD models, Off-Road mode sends more torque to the rear wheels for improved driving on snow, grass, gravel or loose dirt. When Off Road (AWD models only) is selected the vehicle will default back to Normal on the next ignition cycle.
- **TOW / HAUL:** When equipped with the available trailering package, Tow/Haul mode keeps Traverse in a lower gear, offering more torque when pulling a trailer. When Tow/Haul (if equipped) is selected, the vehicle will default back to Normal on the next ignition cycle.

Teen Driver

Teen Driver Feature

Teen Driver is a configurable feature supported by Chevrolet MyLink™ that lets parents manage certain vehicle settings to encourage safer driving

their teenager. Using a PIN to configure settings for one or more key fobs, parents can set a volume limiter for the radio and a set maximum speed warning that will deliver a visual warning and an audible chime when the configured speed limit is exceeded. In addition, a visible warning will be displayed until the vehicle's speed drops below the threshold. An additional, optional speed limiter can be set. When Teen Driver is active, the radio is muted if the teen (or front passenger) is not wearing his/her safety belt, and all equipped active safety systems are defaulted to **ON** providing a safer driving experience.

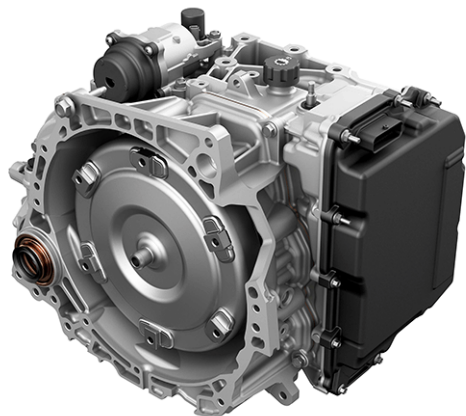
Teen Driver Report Card



Teen Driver also provides parents with awareness of their teenager's driving habits through a Report Card feature. The in-vehicle Report Card will report the distance driven and maximum speed, as well as indicate which of the Teen Driver warnings were activated. If the vehicle is equipped with available Forward Collision Alert or Low-Speed Forward Automatic Braking, the Report Card will show how often the safety alerts were triggered.

Transmission

9T65 Automatic 9-Speed — RPO M3V



Typical View of the 9T65

The 9T65 is a fully automatic, 9-speed, transverse mounted, electronic-controlled transmission. It consists primarily of a 4-element torque converter, a compound planetary gear set, friction and mechanical clutch assemblies, and a hydraulic pressurization and control system.

The 4-element torque converter contains a pump, a turbine, a pressure plate splined to the turbine, and a stator assembly. The torque converter acts as a fluid coupling to smoothly transmit power from the engine to the transmission. It also hydraulically provides additional torque multiplication when required. The pressure plate, when applied, provides a mechanical direct drive coupling of the engine to the transmission. The planetary gear sets provide the 9 forward gear ratios and reverse. Changing gear ratios is fully automatic and is accomplished through the use of a transmission control module (TCM). The TCM receives and monitors various electronic sensor inputs and uses this information to shift the transmission at the optimum time.

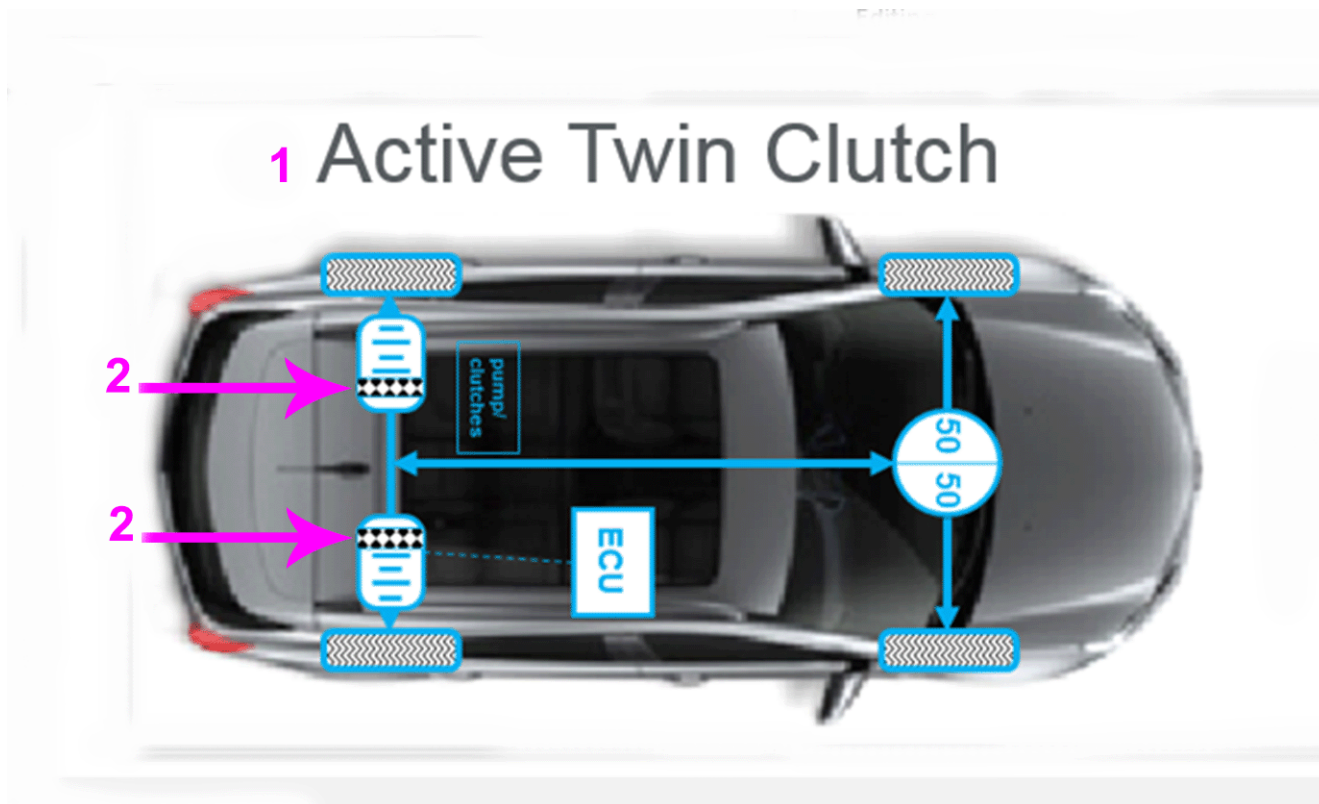
Use DEXRON®-VI Transmission Fluid in the 9T65.

Twin-Clutch Advanced AWD

Overview

The High Country will feature a twin-clutch Advanced AWD system that independently controls torque to each rear wheel, giving drivers superior control with less brake intervention, if any at all. The LS, LT, Premier and Redline AWD models will be equipped with single-clutch AWD. Advanced AWD is automatic and always engaged when AWD mode is selected.

Twin-Clutch Advanced AWD Advantages



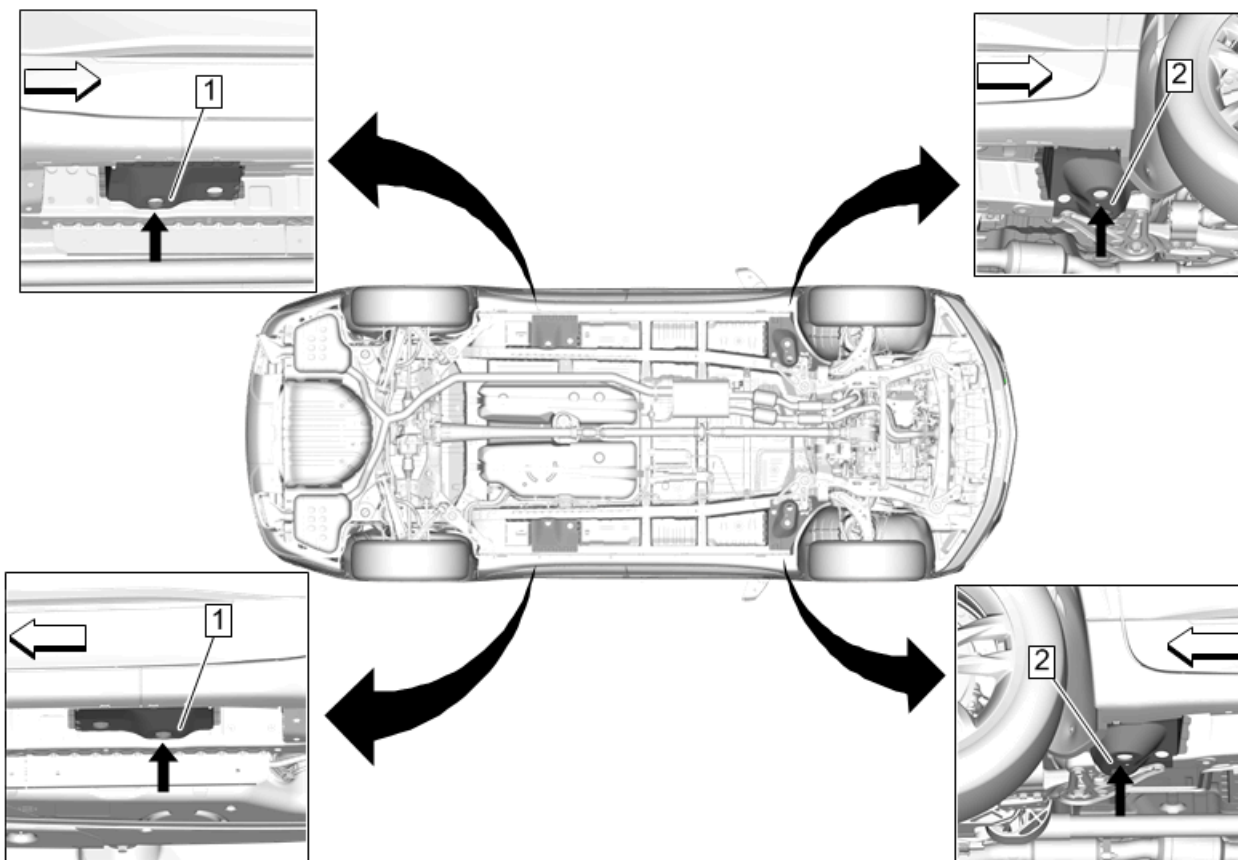
The Active Twin Clutch (1) Advanced AWD system delivers greater handling, stability and driver confidence by preemptively and **electronically** splitting the torque as needed between the rear wheels using twin clutches (2) to provide additional traction, stability and control versus a 50/50 split in a single clutch system.

It provides the following benefits:

- Enhanced traction, stability and performance during vehicle acceleration and cornering during dry normal conditions.
- Optimal handling and improved traction in wet/snowy/icy conditions.
- Improved vehicle response when road traction is not uniform, such as when the right side of the vehicle is on ice and the left side is on dry pavement.
- Active Twin Clutch with active torque bias has increased capability to add stability across all driving conditions.
- A fuel economy benefit is realized by not pushing torque when it is not needed.

Lifting the Vehicle

Vehicle Lifting – Frame Contact Lift



Front Lift Pads: When lifting the vehicle with a frame-contact lift, place the front lift pads on the front compartment outer side rail extension (2), as shown.

Rear Lift Pads: When lifting the vehicle with a frame-contact lift, place the rear lift pads on the underbody rear side rail extension (1), as shown.

Service Tips

Exterior

These service procedures differ from the previous model year vehicle. Please review.

- **Outside Rearview Mirror Fasteners:** Fastening design is bolt through door sheet metal, no studs on mirror base.
- **Rear Door Upper Reveal Moldings:** “Football” clips on run channel/glass assembly hold molding in place. Use trim stick and twist (do not pull straight off) to release molding or clips will break. Aluminum upper molding will bend easily if caution is not used.
- **Roof Rack/Ditch Moldings:** Studs through roof hold on the roof rack. The headliner will need to be removed to service. Ditch moldings are now clipped in and it is hard to prevent damaging them when removing. They may require replacement when servicing.

Interior

These service procedures differ from the previous model year vehicle. Please review.

- **Door Trim Removal:** Two screws located at the bottom of the door trim must be removed in order to remove the door trim.
- **Headliner Material:** More robust headliner material, easier to remove by tilting headliner down on RH side and remove through the liftgate opening.



- **Headliner Removal:** Must remove ¼ trim on RH side to prevent the rear air duct from breaking the integrated duct work in the headliner.
- **Overhead Console:** Care should be taken when pulling down the garage door opener bezel to prevent damage to the wiring harness connector. Since the harness is glued to the headliner, carefully removing the bezel will prevent damage to the connector.
- **One Piece Glovebox:** One piece glovebox that incorporates into the knee bolster means that the console needs to be removed to service the glovebox.
- **Steering Wheel Shroud:** Steering wheel shroud is incorporated into the cluster trim as a one piece unit that will require removal of the steering wheel to service.
- **Driver Airbag:** Driver airbag removal will require turning the wheel left, right, then bottom side up to release spring fasteners in order to remove.

Special Tools

The following new tools were released for the 2018 Traverse:

Special Tools — Tool Number and Description

Tool Number	Description
DT-48022	Bushing Installer
DT-51834	Seal Installer, RH Input & Pinion Cassette
DT-51835	Seal Installer, LH Input & IDS Cassette
EN-51332	Fuel Line Release Tool

Training Courses

The majority of the systems found on this vehicle are taught in GM's core curriculum from a conceptual theory and operation perspective. The North American technical training core curriculum structure is system based.

To access **all** of the available training courses in the United States, visit the following website: **www.centerlearning.com**

In Canada, Go to: **GM GlobalConnect and select Centre of Learning**

Training Course Name or System — Course Number and Description

Course Name or System	Course Number and Description
-----------------------	-------------------------------

New Model Feature	#10318.41W — 2018 Chevrolet Traverse New Model Feature (WBT) (United States and Canada) (Available Approximately 1st Quarter of 2017)
Brakes	#15045.18W6 — BM Braking Systems 6 (United States and Canada)
Engines	#16440.17D-V — Engines: New and Updates for LCV, LTG and LL0 #16440.22D — Engines: New and Updates for RPO's LFY, LV1, LHN, LYX, L5P and LH7
Infotainment	#19047.23D-R2 — MOST Network Diagnostics and Infotainment Systems Programming
Transmission	#17440.17D — New & Updates for 9T50 and 10R90 & ETRS for Aisin Af-50 Automatic Transmissions
Safety Systems	#22048.42W3 GM Safety Systems 3 (United States and Canada)
Safety Systems	#22048.42W2-R2 — Safety Systems 2 (Available Q1 2017) (Surround Vision)

Version Information

Version	1
Modified	

Trademark Footnotes

ACDelco® is a Registered Trademark of General Motors LLC

Android™ is a Trademark of Google Inc.

Android Auto™ is a Trademark of Google Inc.

Apple® is a Registered Trademark of Apple Inc.

Apple CarPlay™ is a Trademark of Apple Inc.

The Bluetooth® Word Mark and Logos are Registered Trademarks Owned by Bluetooth SIG, Inc.

Chevrolet MyLink™ is a Trademark of General Motors LLC

dexos® is a Registered Trademark of General Motors LLC

dexos1® is a Registered Trademark of General Motors LLC

dexos1® Icons are Registered Logos of General Motors LLC

DEXRON®-VI is a Registered Trademark of General Motors LLC

Duralife™ is a Trademark of General Motors LLC

Google® is a Registered Trademark of Google Inc.

IntelliBeam® is a Registered Trademark of General Motors LLC

iPhone® is a Registered Trademark of Apple Inc.

OnStar® is a Registered Trademark of OnStar LLC

Siri® is a Registered Trademark of Apple Inc.

GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your GM dealer for information on whether your vehicle may benefit from this information.



WE SUPPORT VOLUNTARY TECHNICIAN CERTIFICATION