

Service Bulletin

File in Section:

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INFORMATION

2018 Buick Enclave New Model Features Subject:

Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		From:	To:	From:	To:	Engine.	fransmission.
Buick	Enclave	2018	2018	All	All	Gasoline, 3.6L, V6, DI, DOHC, ATSS — RPO LFY	9T65, Automatic, 9- Speed, GEN 1 — RPO M3W

Involved Countries United States, Canada and Mexico	
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Overview





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Buick Enclave Avenir

Bulletin Purpose

This is a special bulletin to introduce the 2018 Buick Enclave. 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 it.

Overview

Versatile functionality, spaciousness and intuitive technologies mark the next evolution of the Buick Enclave. More third-row space, improved towing capability and a combination of safety technologies, useful interior features and premium materials are highlights included on Buick's all-new seven passenger

Buick Enclave Avenir

midsize luxury SUV. IntelliBeam® headlamps available on Premium and Avenir models also allow drivers to experience better road illumination and improved visibility without having to manually switch the high beams ON and OFF. Within a visually lower and slimmer body, the Enclave boasts more interior space. QuietTuning and active noise cancellation enhancements help to reduce, block and absorb noise, keeping it from entering the cabin. An available 10-speaker Bose™ Premium sound system with new components, new tuning and a redesigned bass enclosure further enhances the sound experience. It also features a longer wheelbase than the previous generation, however its turning circle is 1.4 feet (0.42 m) tighter than before, pairing the space customers need with increased maneuverability. The all-new body structure was built for safety, strength and mass efficiency, and there are 17 radar, camera and ultrasonic sensors when fully equipped. A standard 3.6L V-6 engine with stop/start technology is paired with a nine-speed automatic transmission, providing a towing capacity of 1,500 pounds (680 kg) and up to 5,000 pounds (2,268 kg) with the factory-installed towing package. Standard MacPherson strut front and five-link rear suspension are tuned for a refined. isolated ride. Available intelligent AWD with active twin-clutch rear differential and Buick's first switchable AWD improve control and efficiency. Standard safety equipment on all 2018 Enclaves includes a rear vision camera (RVC), rear park assist (RPA) and seven air bags, including a front center side airbag. Among the available crash-avoidance technologies are Forward Collision Alert (FCA), Rear Cross Traffic Alert (RCTA), Lane Keep Assist (LKA) with Lane Departure Warning (LDW), Safety Alert Seat, Following Distance Indicator and Front Park Assist (FPA).

Air Ionizer

An all-new air ionizer eliminates odors and provides higher air quality. The air ionizer works by producing negatively charged particles that attract air-born contaminants and break down their structure, cleaning the cabin air. The ionizer can help address external and internal odors and reduce bacteria, viruses, dust, debris and pollen, while also helping improve driver alertness. The ionizer itself requires no maintenance or replacement, but the traditional cabin filter that sits in the vehicle does need to be serviced according to the Maintenance Schedule in the Owner Manual. The air ionizer is standard on Essence. Premium and Avenir. If the climate control system is ON and the ionizer is enabled, Ionizer ON will be displayed. To turn the ionizer ON or OFF, refer to the Owner Manual > Instruments and Controls > Vehicle Personalization > Climate and Air Quality > Procedure.

Evonik Acrylite® Technology

Extensive use of LEDs is integrated into Buick's first application of Evonik Acrylite® technology and bi-functional LED projector headlamps and LED tail lamps. Evonik has developed a special system for the production of silica glass to manufacture lenses of high optical clarity and outstanding density against water vapor.

Hands Free Power Programmable Liftgate

Standard equipment on every 2018 Enclave includes keyless entry, remote start, push button start and a hands free power-programmable liftgate with a Buick tri-shield logo illuminating the ground below the hidden sensor, tri-zone automatic climate control, universal home remote, six USB ports and more.

Mirrors

The exterior mirrors have the following features:

- Automatic tilt down in reverse.
- Power adjustable and folding with driver side memory.
- Driver side auto dimming.
- Integrated LED turn signals.
- Heated.

Seating

The second and third row seating folds flat to create a wide and nearly flat load floor. An optional power folding third row makes reconfiguring more convenient.

Vehicle Trim Levels

Note: Available trim levels and equipment content may differ in Canada. Refer to the GM Canada Vehicle Order Guide.

Available in four trim levels, the Enclave, Essence, Premium and Avenir. The Avenir is the model from Buick's new luxury sub-brand.

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:

- Frontal airbag for the driver.
- Frontal airbag for the front outboard passenger.
- Front center airbag for the driver and front outboard passenger (in the inboard side of the driver seatback).
- Seat-mounted side impact airbag for the driver.
- Seat-mounted side impact airbag for the front outboard passenger.
- Roof-rail airbag for the driver and for the second and third row passengers seated directly behind the driver.
- 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 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 Apply

The electric parking brake has a switch in the dashboard, which takes the place of the manual parking brake system, the foot pedal and release handle. In case of insufficient electrical power, the electric parking brake cannot be applied or released. The electric parking brake can be applied any time the vehicle is stopped or in motion. The electric parking brake is applied by momentarily lifting up on the park brake control switch. The red park brake light will momentarily flash while the parking brake is being applied. Once fully applied, the red park brake light will turn ON. If the electric parking brake is applied while the vehicle is in motion, a chime will sound, and the message "Release Park Brake Switch" will be displayed. The vehicle may automatically apply the electric parking brake in some situations when the vehicle is not moving. This is normal, and is done to periodically check the correct operation of the electric parking brake system.

Electric Parking Brake Release

To release the electric parking brake, turn the ignition switch to the ON or RUN position, apply and hold the brake pedal, and push momentarily on the park brake control switch. When the electric parking brake is released the red park brake light turns OFF.

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 — 3.6L Gasoline — RPO LFY



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Typical View of the 3.6L Engine — RPO LFY

Engine Component Description

The High Feature 3.6 L V6 — RPO LFY is a variable valve timing (VVT) engine with direct injection (DI). 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 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 iournal 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.



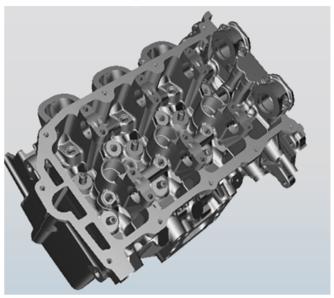
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• **Crankshaft:** The crankshaft is a hardened, forged steel design with 4 main bearings. Crankshaft thrust is controlled by the upper portion of the number 3 main bearing. The crankshaft position reluctor wheel is pressed onto the rear of the crankshaft 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.



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• **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 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.



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- Cylinder Heads: The cylinder heads are cast aluminum with powdered metal valve seat inserts and valve guides. They also feature integrated exhaust manifolds that 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 used in the 3.0L — RPO LFW engine, to allow the additional air flow required by 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: 310 Horsepower (231 kW) @ 6,800 rpm
- Torque: 266 lb ft (361 Nm) @ 2,800 rpm
- 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:** Regular unleaded gasoline.

Engine Oil — dexos1®



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CIEXCES APPROVED

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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

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.

Intelligent Stop/Start

Overview

Intelligent Stop/Start technology is similar to the stop/ start system found on other GM vehicles, however it offers quieter engine stops/starts with fewer vibrations, making them less noticeable to customers. Its operating system can also 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. 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 stop/start system is used to improve fuel efficiency in stop/start driving. The vehicle automatically shuts down the

engine in appropriate conditions at a traffic light, for example, resulting in zero tail pipe emissions and saving fuel which otherwise is used idling the engine when stationary. The engine instantly restarts when the driver is ready to move away. As soon as the driver prepares to move away, either by releasing the brake pedal and/or depressing the accelerator pedal, the engine will start. It only takes the system around 0.3 s to start the engine. To support the increased number of engine starts, the starter motor is upgraded with a high performance electric motor and a stronger pinion engagement mechanism with reduced noise levels. Along with the upgraded starter motor, advanced battery technology is required to ensure the vehicle's battery can handle the frequent charge and discharge cycles common with stop/start operation. There is a battery sensor module connected to the battery which continually monitors the battery charge and state of health. The ECM uses this information from the battery sensor module to determine if the battery charge and state of health is sufficient for a stop/start condition.

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 vehicle will feature a 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. The auxiliary A/C system operates from the vehicles primary A/C system. The front or primary A/C system must be ON to allow the rear A/C system to function. 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 tics 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 activates the high beams. IntelliBeam® headlamps also detect the intensity of approaching light (e.g., that from an oncoming vehicle) and temporarily switches 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 the vehicle comes to a stop, such as at an intersection or stop sign. The feature can be overridden anytime the driver chooses to do so 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



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Notice: The Buick Tri-Shield 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 Buick Tri-Shield that is projected onto the ground by an LED lamp under the rear bumper. This great convenience can be used 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 Tri-Shield will be projected in white light onto the ground. The hands-free power liftgate also includes a programmable memory height that can be set for easy reach or to accommodate areas with low ceilings.

Setting the 3/4 Mode

To change the position the liftgate stops at when opening perform the following:

- 1. Select MAX or 3/4 mode and power open the liftgate.
- 2. Stop the liftgate movement at the desired height by pressing any liftgate switch. Manually adjust the liftgate position if needed.
- 3. Press and hold the liftgate switch to the left of the latch at the bottom of the liftgate until the turn signals flash and a beep sounds. This indicates the setting has been recorded.

The liftgate cannot be set below a minimum programmable height. If there is no light flash or sound, then the height adjustment may be too low.

Radio — Buick IntelliLink™

IntelliLink[™] Radio Overview — RPO IO5 and RPO IO6

Every 2018 Enclave is equipped with IntelliLink[™] and has a frameless 8-inch (203 mm) diagonal, capacitive touch-screen, high resolution color display, which offers Apple CarPlay[™] and Android Auto[™] compatibility, which allows certified smartphone content and apps to be displayed and accessed on the vehicle's centerstack touch-screen display.

8-Inch Diagonal Color Touch Screen — RPO IO5

The frameless 8-inch (203 mm) diagonal, capacitive touch-screen, high resolution color display offers a 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. It features several performance upgrades and new features, such as the ability to download in-vehicle apps.

Features include:

- 8-inch (203 mm) 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 the 4.2-inch diagonal 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.
- SiriusXM TuneSelect.
- Text Message Alerts.
- Siri® Eyes Free control for iPhone® running iOS 6 or later.

8-Inch Diagonal Color Touch Screen and Navigation — RPO IO6



The 8-inch (203 mm) diagonal, capacitive touch-screen, high-resolution color 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. Visit: https://here.navigation.com/ north-america/
- 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.

Rear Seat Reminder Look in Rear Seat

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.

- Adaptive Cruise Control: If equipped with Adaptive Cruise Control (ACC), it allows for selecting the cruise control set speed and following gap. ACC uses a radar sensor to detect other vehicles. The following gap is the following time (or distance) between your vehicle and a vehicle detected directly ahead in your path, moving in the same direction. If no vehicle is detected in your path, ACC works like regular cruise control.
- 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 (4 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.
- Front Vision Camera: If equipped, a view of the area in front of the vehicle displays. The view displays after shifting from **R** (Reverse) to a forward gear, or by touching CAMERA in the infotainment display, and when the vehicle is moving forward slower than 5 mph (8 km/h). If equipped, the Front Vision Camera also displays when the Parking Assist system detects an object within 12 in (30 cm).
- Intelligent Brake Assist: 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.

- 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, 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 65 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, or three Safety Alert Seat pulses occur on the left or right side, 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. 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.



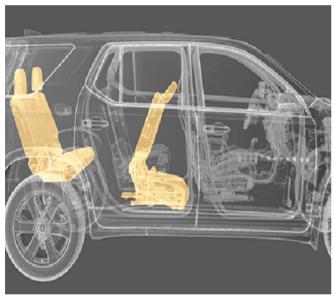
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- Rear Camera Mirror: If equipped, the Rear Camera Mirror (RCM) allows the driver to choose between the traditional rear view image, or a camera display that eliminates obstructions like heads or seats while improving the rear vision by an estimated 300%. This automatic dimming mirror (when OFF) provides a *wide angle* camera view of the area behind the vehicle. Pull the tab at the bottom of the mirror rearward to turn ON the display. Push the tab forward to turn it OFF. Adjust the mirror for a clear view of the area behind the vehicle while the display is OFF. The camera that provides the rear camera mirror image is above the license plate, next to the Rear Vision Camera (RVC).
- Rear Vision Camera: When the vehicle is shifted into R, 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 8 mph (12 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 or pulses the driver seat. 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 5 mph (8 km/h) and 50 mph (80 km/h). During daytime driving, the system detects

pedestrians up to a distance of approximately 131 ft (40 m). During nighttime driving, system performance is very limited.

- **Safety Alert Seat:** The Safety Alert Seat vibrates on one or both sides of the seat when there is a pending concern. It may be used either in place of or in addition to audible warnings.
- 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.

SmartSlide Seating



4857903

Warning: Remove the child from the child restraint before moving the seat forward for third row entry or exit. Failure to do so may result in injury to the child.

The enhanced SmartSlide 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 forward-facing child restraint is installed using the LATCH system. Remove a rear-facing child restraint before moving the seat for third row entry or exit.

Storage — Cargo Management System

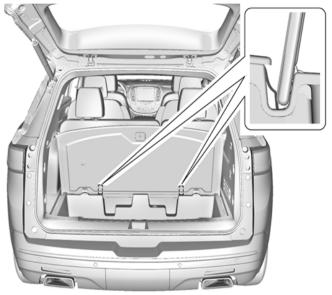
Beneath the rear load floor above the spare tire is a subfloor compartment that offers about 3.2 cu. ft. of additional storage space. The area is 10 inches (254 mm) deep. The spare tire is located in another level

lower, 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 available power folding third row is controlled by buttons located on the passenger-side of the cargo area.

Cargo Management System

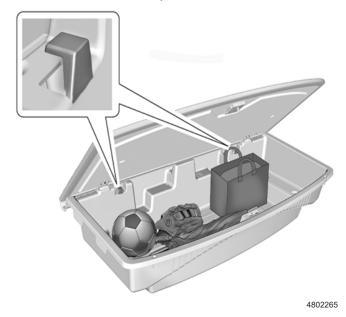
To access, perform the following:

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



4802146

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



- The cargo management system is used to organize storage in the cargo area. There are two convenience hooks that can support up to 11 lb (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.



4802504

- 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



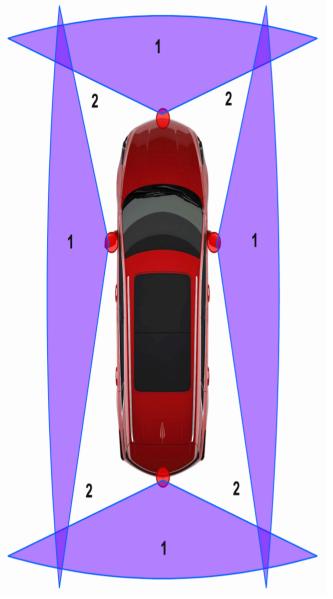
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Typical Surround Vision View

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 Enclave 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



4451337

Areas displayed by Surround Vision. 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

If equipped, the vehicle may have the following modes: All-Wheel Drive (AWD), Sport, Tow/Haul or both Sport and Tow/Haul. Vehicles with Sport & Tow/Haul will only have one selectable button (Tow/Haul). Selecting this option will engage both the Sport features as well as the Tow/Haul features. When not in AWD, the vehicle is in Front-Wheel Drive (FWD) which will provide better fuel economy. All drive modes will have a display mode ON message except FWD. Driver Mode Control attempts to add a sportier feel, provide a more comfortable ride, or assist in different weather conditions or terrain. This system simultaneously changes the software calibration of various sub-systems. Depending on the option package, available features, and mode selected, the suspension, steering, and powertrain will change calibrations to achieve the desired mode characteristics.

Teen Driver

Teen Driver Feature

Teen Driver is a configurable feature supported by Buick IntelliLink[™] that lets parents manage certain vehicle settings to encourage safer driving by 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 advise the parent on some parameters such as: Distance Driven, Maximum Speed, Wide Open Throttle, Traction Control, Stability Control as well as indicate which of the Teen Driver warnings were activated. If the vehicle is equipped with Forward Collision Alert or Forward Automatic Braking, the Report Card will show how often the safety alerts were triggered.

Transmission

9T65 Automatic 9-Speed — RPO M3W



4674586

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.

Transmission Control Module

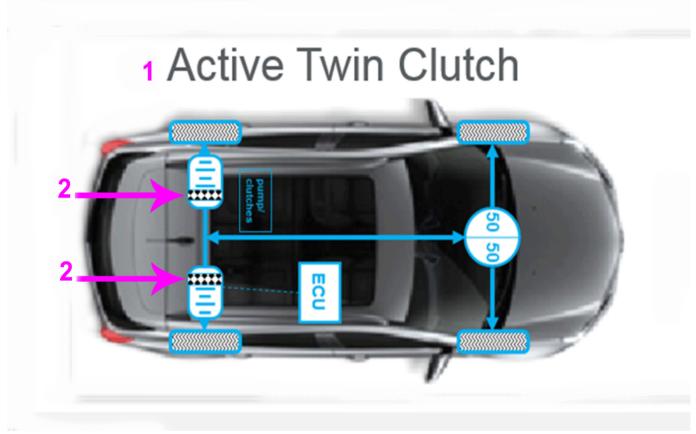
The Transmission Control Module (TCM) is a standalone unit mounted on a bracket near the transmission. It monitors various electronic sensor inputs, commands shift solenoids and variable bleed pressure control solenoids to control shift timing and feel and controls the TCC apply and release.

Advanced AWD Active Twin Clutch

Overview

The Advanced AWD Active Twin Clutch system independently controls torque to each rear wheel, giving drivers superior control with less brake intervention, if any at all. It is fully integrated with brake-based traction control and yaw stability control. Advanced AWD is automatic and always engaged when the AWD mode is selected.

System Operation



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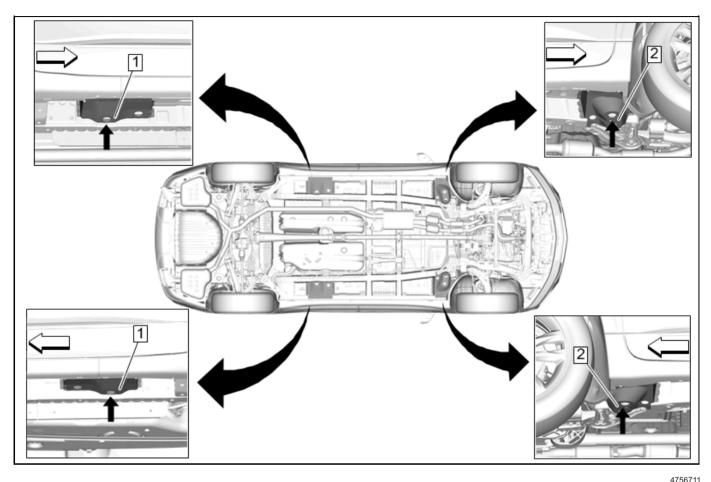
The Active Twin Clutch (1) Advanced AWD system delivers greater handling, stability and driver confidence by preemptively and *electronically* splitting the torque as needed between the rear wheels using twin clutches (2) to provide additional traction, stability and control versus a 50/50 split in a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



4806951

- Headliner Removal: Must remove ¹/₄ 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 Enclave:

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

Course Name or System	Course Number and Description	
New Model Feature	Not Available	
Brakes	#15045.18W6 — GM Braking Systems 6 (United States and Canada)	
Engines	#16440.22D — Engines: New and Updates for RPO's LFY, LV1, LHN, LYX, L5P and LH7 (United States Only)	
Infotainment	#19047.23D-R2 — MOST Network Diagnostics and Infotainment Systems Programming (United States Only)	
Transmission	#17440.17D — New & Updates for 9T50 and 10R90 & ETRS for Aisin AF50-8 Automatic Transmissions (United States Only)	
Safety Systems	#22048.42W3 GM Safety Systems 3 (United States and Canada)	
Safety Systems	#22048.42W2-R2 — GM Safety Systems 2 (Surround Vision, United States and Canada)	

Training Course Name or System — Course Number and Description

Version Information

Version	1
Modified	

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