All-New 2017 GMC Acadia

The all-new 2017 Acadia takes on the heart of the midsize crossover segment. It features seating for up to seven passengers with several different models, including the premium Acadia Denali. The new All Terrain model features enhanced off-road capability while providing seating for five and added cargo capability.

Powertrain

The new 2.5L 4-cylinder engine (RPO LCV) standard on the Acadia produces 194 horsepower and 190 lb-ft. of torque. It includes Auto Stop/Start technology to increase efficiency in stop-and-go driving. The engine is paired with the Hydra-Matic™ 6T50 6-speed automatic transmission.

The 2.5L engine features a high pressure direct injection fuel system, dual overhead camshafts with continuously variable valve timing, electronic throttle control, and pistons with jet-spray oil cooling. When equipped with this engine, the vehicle also has Active Grille Shutters.

The new available 3.6L V6 engine (RPO LGX) is more powerful and efficient than the current model. It generates 310 horsepower and 271 lb.-ft. of torque while offering an estimated 4,000 pounds (1,814 kg) of towing capability with the available towing package. The 3.6L engine is mated to the Hydra-Matic™ 6T70 6-speed automatic transmission.

The new engine design represents the latest version of GM’s DOHC...
V6 engine family and incorporates Active Fuel Management (AFM) along with direct injection (DI) and continuously variable valve timing (VVT).

The 2.5L engine uses dexos 5W-20 engine oil and the 3.6L engine uses dexos 5W-30 engine oil.

The advanced Active Twin Clutch All-Wheel-Drive (AWD) system on the Acadia All Terrain model electronically splits torque between the rear wheels when needed to provide additional control versus a 50/50 split in a single clutch system. It provides enhanced traction, stability and performance during vehicle acceleration and cornering as well as improved traction in wet or slippery conditions.

It also has a specific All Terrain mode in place of the Off-Road mode on the drive mode selector, which offers enhanced hill-climb capability and unique tuning.

Acadia models also feature a MacPherson strut front suspension with a five-link rear suspension, a rack mounted electric power steering system and, on SLT2 and Denali models, an electronically controlled continuous damping system.

**Interior Features**

The split-folding second-row seating improves on the original Smart Slide feature of the current model. It includes the capability of the curbside seat sliding and tilting forward even with a forward-facing child seat in place.

The 50/50-split, two-passenger third row seat folds flat for a completely flat load floor behind the second row. Levers at the rear of the vehicle make it easier to fold the second and third row seats.

**Safety Features**

New active safety features that are available on Acadia include Lane Keep Assist, Front Park Assist, Front Pedestrian Braking, Forward Automatic Braking, Lane Change Alert, Safety Alert Seat, Surround Vision and IntelliBeam. These features are designed to help make drivers more aware of their surroundings and help avoid potential crash situations.

The available Active Tow system helps make hitching up easier by employing the Rear Vision Camera (RVC) with dynamic guidelines to help line up the Acadia’s hitch with the trailer. Using the screen buttons, it also offers a view of the trailer while driving above 5 mph. The view is exited automatically after eight seconds.

**New Technology**

The Acadia offers a hands-free power liftgate on Denali models. To open or close the liftgate hands-free, kick your foot straight under the left (driver’s side) corner of the rear bumper. The Remote Keyless Entry transmitter must be within three feet of the liftgate.

The IntelliLink system in the Acadia offers support for Apple CarPlay™ and Android™ Auto support as well as available OnStar 4G LTE with Wi-Fi. It’s available with a 7-inch or 8-inch diagonal touch screen.

The Rear Seat Reminder feature on the Acadia provides a DIC message and warning chime when exiting the vehicle if the rear doors have been opened during the ignition cycle. The system does not actually detect objects in the rear seat, but detects when a rear door was opened and closed, indicating there may be something in the rear seat.

**Special Tools**

The following new tools were released for the 2017 Acadia:

<table>
<thead>
<tr>
<th>Special Tools — Tool Number and Description</th>
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<tbody>
<tr>
<td>DT-47791-B Converter Seal Driver</td>
<td></td>
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<tr>
<td>DT-49131 Seal Staking Tool</td>
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</tr>
<tr>
<td>EN-42385-70 Head Bolt Thread Repair Torque Plate</td>
<td></td>
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<tr>
<td>EN-44226-5 Crankshaft Protector Button</td>
<td></td>
</tr>
<tr>
<td>EN-46335-A Valve Spring Compressor (On-vehicle)</td>
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<tr>
<td>EN-49941 Piston Pin Retainer Remover</td>
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<tr>
<td>EN-51333 Timing Chain Retainer Set</td>
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<td>EN-51766 Rear Seal Installation Pilot</td>
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<tr>
<td>DT-51329-A Driveshaft Remover</td>
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<tr>
<td>DT-51834 Seal Installer, RH Input &amp; Pinion Cassette</td>
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<tr>
<td>DT-51835 Seal Installer, LH Input &amp; IDS Cassette</td>
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For additional information on the all-new 2017 Acadia, refer to Bulletin #16-NA-135.

(©) Thanks to Sherman Dixon and Tom Burlingame
Be Aware of Engineering Information Bulletins and Part Restrictions

Technicians should always check the appropriate Service Information, including Preliminary Information and Bulletins, before every repair to ensure they are following the latest procedures, using the correct part numbers and are aware of any new information that may have been recently released regarding diagnosis, repairs, or components that may currently be on exchange or part restriction.

It’s also important to run a Global Warranty Management/Investigate Vehicle History (GWM/IVH) link on the vehicle. If the vehicle has been flagged for Engineering Information, it will be identified in the search.

Engineering Information

To help obtain specific information about repair processes and component failures first hand from technicians, GM uses an “Engineering Information” (EI) process. This enables GM to gain critical information that can be used to help determine the “root cause” of a vehicle condition as well as develop and validate a repair.

The EI process compensates the dealership/technician for their time and effort to provide the technical information. The EI process is covered in Bulletin #04-00-89-053F.

Exchanges and Part Restrictions

Parts that are placed on restriction or exchange, as part of GM’s ongoing quality improvement process, require technicians to contact the GM Technical Assistance Center (TAC) or, in some cases, receive replacement authorization from the Product Quality Center (PQC). New parts that are available only in limited quantities also may be placed on restriction.

When calling TAC or PQC, a variety of supporting information is required to ensure the proper diagnosis and repairs are being made and parts are not being replaced unnecessarily. If the replacement part is authorized, it’s shipped for next day arrival. The part on restriction may need to be shipped back for analysis.

Exchanges and part restrictions can end at any time based on a number of factors. Again, check the Service Information for the latest information before making repairs and to determine if it’s necessary to set aside parts for return.

For more information about the process for exchanges and part restrictions, refer to Bulletins #02-07-30-029Z, #12-07-30-001E, #99-00-89-019M and #08-08-44-029F.

New List of Information

To help dealerships stay up-to-date, a list of current EI Processes, Exchanges and Part Restrictions now in effect is available on the TechLink website.

The information on this list is updated regularly, so check the Service Information often to ensure you have the latest information.

(®) Thanks to Dave Peacy

Engine Stop/Start Operation after Repairs

The automatic engine Stop/Start system (RPO KL9) may be inoperable after repairs on some 2016 Encore, Envision, ATS, CTS, CT6, Cruze (VIN B), Malibu (VIN Z) and 2017 XT5 and Acadia models.

The Stop/Start system is inoperable after a Stop/Start repair or any repair that required the 12V battery negative cable to be disconnected. There will not be any Driver Information Center messages or any DTCs set.

This condition is due to the learn procedure that needs to be completed on the Battery Sensor Module. It will be necessary to park the vehicle for three hours after the vehicle’s system sleep cycle, and without the vehicle being driven, to allow the learn procedure to be completed on the Battery Sensor Module.

If the vehicle is being returned to the customer before the learn procedure has been completed, advise the customer that the Stop/Start system will not operate until the vehicle has sat for three hours undisturbed after the system sleep cycle.

(®) Thanks to Dallas Walton

Instrument Cluster DIC Display Dims

The Driver Information Center (DIC) display in the instrument cluster of some 2014 Silverado 1500, Sierra 1500; 2015-2016 Silverado, Tahoe, Suburban, and Sierra models, equipped with the base instrument cluster (RPO UDC), may dim or fade when the interior is very warm — due to sun load or extended heater operation — or after extended vehicle use.

The DIC display is designed to dim with high temperature exposure in order to protect the display from damage.

If the DIC display is dimming due to high temperature exposure, it is operating as designed. No repairs are necessary.

(®) Thanks to Jim Will
Corvette Power Steering Gear Cooling Duct Installation

The 2014-2016 Corvette is designed to deliver outstanding performance on the track with minimal changes needed to get the car ready to meet the demands of track driving.

Driving the vehicle on the track during hot days may result in drivers feeling a reduction in steering assist. A Driver Information Center message of “Service Power Steering Gear” may appear and DTC C0176 (Control Module Temperature Sensor High) may be set. These conditions may be caused by an increase in temperature with the steering gear, which is typical during prolonged driving in a track environment.

A new power steering gear cooling duct can be installed to help cool the power steering gear. There are several modifications that must be made before installation. Refer to #PI1535A for complete details on cooling duct installation and part numbers.

The new front compartment air deflector must be cut as shown in the illustration:

Cut the air deflector to the following dimensions:

#1 – 25.4 mm (1 in.)
#2 – 19.05 mm (0.75 in.)
#3 – 152.4 mm (6 in.)
#4 – 50.8 mm (2 in.)

Remove the support arm from the cooling duct and cut the duct 50.8 mm (2 in.) after the second bend.

Also cut the duct at 50.8 mm (2 in.) up from the top of the hole.

Once the duct has been cut, position it in the air deflector slot. It should come out of the slot 25.4 mm (1 in.). Drill two holes through the air deflector and duct and rivet the parts together.

Dry fit the modified cooling duct to the vehicle to check that enough of the duct is cut to allow it to sit between the steering motor and the lower rack. This may require multiple cuts to the duct and several test fittings to ensure proper positioning.

Thanks to Jeff Strausser
Audio Speaker Noise or Poor Sound

The audio speaker quality may be poor with a buzzing sound or rattle occurring while listening to any music source on some 2015-2016 Colorado and Canyon models. These conditions may be caused by the trim, moldings or water deflectors located in the area of a speaker and may not require speaker replacement.

Before beginning diagnosis, determine the operating conditions that may be contributing to the noise, such as the type of music, audio source, vehicle temperature, time of day, or any outside factors. Also check for any audio system-related DTCs.

**TIP:** Do not remove any trim or door panels prior to beginning diagnosis because their removal may mask the root cause of the condition.

**Speaker Test**

Music CDs do not hold tone long enough to diagnose trim rattles, so it may be necessary to obtain a GM Test CD, part number J39916-CD. Most trim rattles are caused by bass frequencies in the range of 50-80 Hz, which is included on this CD.

Insert the GM Test CD and play various tracks corresponding to the type of music the customer was listening to when the condition occurred. Try to isolate the speaker that is experiencing the condition.

When diagnosing a door speaker, be sure to close the doors and windows. If there is noise when closing the door, determine the cause of the noise before any speaker repairs are made.

**Loose Trim**

To diagnose any interior trim, apply hand pressure to the trim area. If the sound changes, the trim may be causing the rattle or buzz noise. The interface between a door and the instrument panel, such as from loose door trim or a water deflector, may cause the rattle or buzz noise. Inspect for any loose panels, screw covers or contact between trim panels.

**Water Shield**

If the rattle is heard within the door trim, check several locations on the trim with your hand.

If the sound changes when pressure is applied, check the water shield position, inspect the door clips for any damage, remove any loose tape from harnesses or the door trim, and inspect the bottom of the door for any loose material.

If the rattle is caused by the water shield, install two 100 mm (4 in.) long layers of 1” x 9/16” adhesive backed foam shim stock to compress the water shield. The foam shipping blocks installed on new vehicle door edges can be used. Be sure that any added foam does not interfere with the window or door lock operation.

For additional information, refer to Bulletin #16-NA-079.

Thanks to Hassan Abdallah and Sherri Lang

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