The 2017 Cadillac XT5 is an all-new midsize 5-passenger luxury crossover replacing the SRX model. It uses a unique chassis and structure that is 278 lbs. (126 kg) lighter than its predecessor, but with a two-inch (5 cm) longer wheel-base and a one-inch (2.5 cm) wider track.

**New Powertrain**

The XT5 is powered by the new 3.6L V6 engine (RPO LGX) with direct injection (DI), dual overhead camshafts (DOHC) and variable valve timing (VVT). It generates 310 horsepower and 270 lb.-ft. of torque. It features Stop/Start technology that automatically stops and starts the engine at traffic stops, saving fuel and reducing emissions.

**TIP:** Drivers may notice a detent/click in the accelerator pedal at roughly 3/4 of pedal travel. This built-in detent provides feedback to minimize transmission shifting, allowing for improved fuel economy and smoother operation. Pressing to the detent will allow a more relaxed acceleration rate. When pressing through the detent, the transmission will downshift aggressively.

The 3.6L V6 is linked to the new Aisin AF50-8 8-speed automatic transmission with Electronic Precision Shift (RPO MRC). Electronic Precision Shift is a shift-by-wire system that uses an electronically controlled transmission shifter, which reduces noise and vibration and provides more space under the center console. There is no cable or linkage, with the chassis control module monitoring the position of the shift lever and communicating information to the transmission range control module.

An optional new Active Twin Clutch AWD system allows for the transfer of up to 100 percent of available torque to either the front or rear axles. The system’s electronically controlled rear differential can then direct that torque to either
Continued from page 1

wheel laterally. This design is especially helpful when encountering roads where there is more water, ice or snow on one side.

The AWD system also has a new disconnect feature that disables the rear drive unit, leaving the vehicle in FWD mode for better fuel efficiency and reduced emissions.

Continuous Damping Control

The suspension features a MacPherson Strut design up front and a five-link independent design in the rear. An available Continuous Damping Control (CDC) system manages ride control in real time.

Standard on vehicles equipped with 20-inch wheels, Continuous Damping Control is an electronic suspension control system that monitors vehicle speed, steering wheel position, engine torque, brake pressure, the suspension position sensors and the multi-axis sensor to determine the proper damping forces. The module uses these inputs to separately control each of the shock absorbers. Changes of the damping forces can be accomplished within milliseconds. Suspension characteristics can be changed at any time by activating the Sport Mode or Tour Mode.

The CDC shock absorbers have integrated actuators that are PWM-controlled to change the amount of damping provided. The suspension control module varies the amount of current. A higher current provides a higher rate of damping and stiffens the suspension. Less current reduces the rate of damping. The shock absorber uses a proportioning valve to control the amount of damping. Opening the valve allows more oil flow and softens the damping while closing the valve restricts the oil flow and firms the damping.

Safety Features

Available parking assistance systems include Rear Vision Camera, Rear Parking Assist, Front Parking Assist, Surround Vision, Front Vision Camera, Rear Automatic Braking and Backing Warning System, Rear Cross Traffic Alert, and Automatic Parking Assist.

Available driver assistance systems include Adaptive Cruise Control, Forward Collision Alert, Intelligent Brake Assist, Lane Change Alert with Side Blind Zone Alert, Lane Keep Assist with Lane Departure Warning, and Safety Alert Seat.

The XT5 comes equipped with a TRW EBC460 antilock brake system. The electronic brake control module and brake pressure modulator are serviced separately. Brake control systems include electronic stability control, traction control, dynamic rear proportioning, hill hold start assist, cornering brake control, trailer brake control and trailer sway control.

Rear Camera Mirror

A new feature that debuts on the XT5 is Cadillac’s patented new Rear Camera Mirror (standard on Platinum models). A high-dynamic range camera records wider images behind the car and streams them to video-processing software, which removes obstacles such as the roof, rear pillars and rear seat passengers, to project an unobstructed view.

The images are projected on a 1280- x 240-pixel LCD display, with the system enhancing the driver’s rear vision by an estimated 300 percent. The mirror can be changed to a traditional electrochromatic rearview mirror by flipping the toggle on the bottom of the mirror.

The camera that provides the Rear Camera Mirror image is above the license plate, next to the Rear Vision Camera. A water-shedding hydrophobic coating is applied to the camera to keep it clean to maintain visibility regardless of the driving conditions.

Upgraded Cadillac CUE

The Cadillac CUE system has been upgraded for the XT5. A faster and more powerful processor provides enhanced response and accuracy. The XT5 comes with an 8-inch (203 mm) diagonal color-touch display.

The Cadillac CUE system features a large touch display.
All-New 2017 Cadillac XT5 Luxury Crossover

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Special Tools

The following new tools were released for the 2017 XT5.

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<thead>
<tr>
<th>Tool Number</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>DT-51329-A</td>
<td>Driveshaft Remover</td>
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<tr>
<td>DT-51834</td>
<td>Seal Installer, RH Input &amp; Pinion Cassette</td>
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<tr>
<td>DT-51835</td>
<td>Seal Installer, LH Input &amp; IDS Cassette</td>
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<tr>
<td>EN-42385-70</td>
<td>Head Bolt Thread Repair Torque Plate</td>
</tr>
<tr>
<td>EN-51766</td>
<td>Rear Seal Installation Pilot</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Tool Number</th>
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</thead>
<tbody>
<tr>
<td>EN-44226-5</td>
<td>Crankshaft Protector Button</td>
</tr>
<tr>
<td>EN-46335-A</td>
<td>Valve Spring Compressor (On-vehicle)</td>
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<tr>
<td>EN-49941</td>
<td>Piston Pin Retainer Remover</td>
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<tr>
<td>EN-51333</td>
<td>Timing Chain Retainer Set</td>
</tr>
<tr>
<td>EN-51766</td>
<td>Rear Seal Installation Pilot</td>
</tr>
</tbody>
</table>

Special Tools

The following new tools were released for the 2017 XT5.

New 3.6L V6 Engine with Auto Stop/Start Technology

The new 3.6L V6 engine (RPO LGX) — standard on the 2017 XT5 — ushers in new benchmarks for efficiency, refinement and durability.

The engine’s clean-sheet redesign represents the fourth generation of GM’s acclaimed DOHC V6 family and incorporates new features, including Active Fuel Management (AFM), also known as cylinder deactivation, as well as Auto Stop/Start technology, both of which enhance fuel economy.

Performance and efficiency are further optimized by technologies introduced on previous generations, including direct injection (DI) and continuously variable valve timing (VVT).

The 3.6L engine produces 310 horsepower and 270 lb-ft. of torque running on regular unleaded fuel with a posted octane rating of 87 or higher.

New Components

The cylinder heads are a two piece design consisting of a head and a camshaft carrier that are cast aluminum with powdered metal valve seat inserts and valve guides. The two piece design allows for the AFM System.

In the RPO LGX engine, the valves and seats are constructed with specialized materials and coatings, and the exhaust valves are sodium filled for robustness. The cylinder heads also feature a “high-tumble” port design, and are sealed with LGX specific head gaskets. The head gaskets are also specific to the LH and RH sides.

The engine also has unique higher-flow fuel injectors and fuel pump. The cylinder head has a larger bore for the new larger diameter fuel pump follower that operates the higher-flow pump. The fuel injectors are retained to the fuel rail in a new “twist-lock” retention scheme that does not require special tools for service.

The new engine has unique oil pans depending on orientation, with the pans being separated into an upper (traditional aluminum) and lower (stamped steel) pan. This configuration helps with noise and mass concerns. It also affords some serviceability improvements through not needing to remove the entire upper pan for some service procedures.

TIP: The engine’s crankshaft balancer may appear that it is wobbling or vibrating, or that the mounting bolt appears incorrectly centered on the balancer. This is simply an optical illusion likely caused, in part, by the contrasting colors of the silver crankshaft balancer bolt and the black balancer. Performance is not affected and no replacement of parts is necessary.

Active Fuel Management

AFM components include the camshafts, valves, switching roller finger followers (SRFF), also known as the valve switching rocker arms, dual-feed hydraulic lash adjusters and an oil control valve (OCV), which is also known as the valve rocker arm oil control valve.

AFM saves fuel by seamlessly and automatically switching from 6- to 4-cylinder mode under low or moderate loads. Depending on engine RPM, the ECM sends a signal to the OCV, commanding it either on or off. With the AFM system on, the OCV directs oil to the dual-feed hydraulic lash adjuster, unlatching the SRFF and creating zero lift, thereby not allowing the valves to open on cylinders two and five. AFM is active at this time.

With the AFM system off, the OCV is not active and no oil is directed to the dual-feed hydraulic lash adjuster. The SRFF operate as normal rocker arms. AFM is inactive at this time.

Auto Stop/Start

When the brake pedal is applied and the vehicle is at a complete stop, the Auto Stop/Start system may turn off the engine, depending on operating conditions, including minimum vehicle speed, engine and transmission operating temperature, ambient temperature, battery charge, and HVAC settings. When the engine is off, the tachometer will read AUTO STOP. Upon releasing the brake pedal or applying the accelerator, the engine will restart. After parking the vehicle and turning off the ignition, the tachometer will read off.

Thanks to Tom Burlingame and Sherman Dixon
Blu-ray Discs Not Playing

Certain Universal Studios Blu-ray discs released after October 2015 may not start playing when the Play icon is pressed on some 2013-2016 SRX, XTS, and 2014-2016 Escalade, LaCrosse, Silverado, Tahoe, and Yukon models equipped with the Rear Seat Entertainment system (RPO UWG, UWJ or U42).

When users select “Play,” to begin playing an affected Blu-ray disc, the disc menu disappears and the menu background animation continues to loop.

Advise owners that GM is aware of the condition with these Blu-ray discs and is working on a solution. In the interim, owners can work around this condition by viewing the chapter or scene selection menu and choosing the first chapter or scene to begin playing the movie.

Thanks to Dave Gumpert

Digital Angle Gauge Required for Corvette Rear Wheel Alignment

As part of a rear wheel alignment on the 2014-2016 Corvette for track events and competitive driving, the rear wheel caster must be set. To measure rear wheel caster, a digital angle gauge and an adapter, which attaches the gauge to the rear knuckles, are required. The gauge must be capable of accurately measuring to 0.1 degree. It must also have a calibration feature and a magnetic base so it will attach to the adapter.

Adjusting rear caster was not part of the alignment process on the 6th generation Corvette. For the C7 Corvette introduced in 2014, the rear caster adjustment allows for the ideal suspension geometry regardless of factory build variation. Rear caster accuracy and symmetry is an important aspect of the ride steer performance. Even small changes in rear steering angle can have a big effect of vehicle handling.

Digital Angle Gauge

The digital angle gauge required to measure the caster angle is available through GM Tools and Equipment but is not an essential tool for the Corvette as there are several suppliers available in the aftermarket.

Tool suppliers that offer the gauge include:

- GM Tools and Equipment: order tool number CH-47960, Digital Angle Gauge, directly from gmtoolsandequipment.com
- Wixey WR300; contact support@wixey.com
- iGauging AngleCube; contact info@iGaging.com or call 1-949-366-5708

Digital Angle Gauge Adapter

The Digital Angle Gauge Adapter, CH-47960-10, is custom-designed to fit the Corvette knuckle. It is not available in the aftermarket and was shipped to all authorized Corvette dealerships as part of the essential tool package for Corvette for the 2014 model year.

Digital angle gauge and adapter installed to the knuckle.

Available as Loan Tools (U.S.)

Both the Digital Angle Gauge, CH-47960, and the mounting adapter, CH-47960-10, are available through the new GM Loan Tool Program. The Loan Tool Program enables dealerships to request a special tool through the GM Special Tools Website.

Dealerships must access the GM Special Tools website through the GlobalConnect link in order to enable the Loan Tool button on the website. Once ordered through the website, the tools will be sent to the dealership the next business day.

Rear Wheel Alignment

When performing the rear wheel alignment, adjust the camber settings first, followed by the caster and toe settings. Follow the appropriate Service Information procedure for each adjustment, including using the alignment specifications provided.

Before installing the gauge mounting adapter to the knuckle, use a soft nylon bristle brush to clean debris from the adapter holes. Install the digital angle gauge and the gauge mounting adapter as a unit to the knuckle.

Use an alignment machine to measure rear wheel camber and the digital angle gauge to measure rear wheel caster. Rotate the cam bolts to the required camber and caster settings, maintaining the settings while tightening the cam bolt nuts.

Thanks to Jeff Strausser
Corvette Competitive Driving Wheel Alignment Tips

Some 2014-2016 Corvette owners may want the vehicle’s wheel alignment set-up for track events and competitive driving. The vehicle must be returned back to the original specifications after the driving events. Changing the alignment for driving events is not covered under the GM warranty.

**TIP:** Using these wheel alignment settings may cause excessive tire wear. Remind customers to only use these wheel alignment settings for track events or competitive driving.

The following track event and competitive driving wheel alignment settings apply to vehicles equipped with the Z51 package, Z06 models and Grand Sport models. When performing the wheel alignment, do not adjust the trim height.

The alignment should be performed by first removing washers between the upper control arms and frame.

- **Z51** – Remove a maximum of one washer per front upper control arm bolt and one washer per rear upper control arm bolt.
- **Z06** – Remove a maximum of one washer per front upper control arm bolt. Do not remove washers from the rear upper control arm bolts.
- **Grand Sport** – Do not remove washers from the front or rear upper control arm bolts.

Adjust the lower control arm cam bolts until alignment is within the alignment specifications listed in the appropriate Service Information. The Owner Manual Track Events and Competitive Driving section does not list a +/- tolerance for any of the alignment specs.

**Front (per corner)**
- Caster: +7.0 degrees
- Camber: –2.0 degrees
- Toe: 0.05 degrees toe in

**Rear (per corner)**
- Caster: 0 degrees
- Camber: –2.0 degrees
- Toe: 0.05 degrees toe in
- Thrust Angle: 0 degrees

Thanks to Jeff Strausser

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Transmission Electrical or Communication DTCs

Some 2005-2010 Cobalt, 2005-2011 HHR, and 2005-2006 Pursuit models may have transmission-related electrical or communication DTCs that may be intermittent and difficult to duplicate.

Check the transmission wiring harness located beneath the engine cover. It may have a bare spot or be pinched at the engine block near the oil filter.

If no wiring concern is found, check the 20-way connector for proper connection/pin fit and fully reseat the connector.

Thanks to Tom Ellison

GM TechLink is published for all GM retail technicians and service consultants to provide timely information to help increase knowledge about GM products and improve the performance of the service department.

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TAC Builds on Customer Satisfaction Improvements

Customer service is at the forefront of the goals at the U.S. GM Technical Assistance Center (TAC). Every TAC consultant strives to provide top quality service each time a technician calls for diagnostic help with a vehicle.

These efforts are paying off. For the past eight months, TAC has exceeded the service level goal of 70 percent of calls answered within 60 seconds.

Survey Results

Earlier this year, new survey results indicated TAC achieved a customer satisfaction rate of 88 percent for 2015. At TAC, the survey results are taken very seriously, and feedback that is provided — positive or negative — is always appreciated. TAC surveys are reviewed to help identify areas where continued improvements are needed as well as to help determine how recently implemented changes are working. Callers are encouraged to provide TAC with their current email address to ensure participation in the next survey.

In March, TAC introduced a slimmed down phone prompt system, which is designed to reduce the number of prompts needed to get to a TAC consultant. The new system:

• Removed unnecessary layers and selections
• Clearly identified the need for a TAC consultant vs. a Techline consultant

Training Update

At the end of April, 109 TAC consultants have achieved Bronze Certification within TAC, indicating a total of 324.25 hours of training. The goal is to achieve Master Certification throughout TAC. This certification training is in addition to the more than 3,100 technical training hours taken in 2016.

In addition, all new consultants will be required to take and successfully pass a series of technical training classes geared toward optimizing their current technical aptitude. This will ensure all TAC new hires are ready and able to take calls for their respective lines of business with an added level of confidence in order to provide the best possible support to all TAC callers.

The success of the TAC depends on our relationship with everyone in the dealership service department. We will continue to strive for improvements to help provide an outstanding customer experience.

(Thank you) Thanks to Elizabeth Belland

Charge Air Cooler Coupler O-ring Seal

Reduced engine power may be noticed on some 2013-2016 Regal, ATS, Malibu; 2014-2016 CTS; and 2016 CT6 models equipped with the 2.0L engine (RPO LTG). DTCs P015B (HO2S Delayed Response Lean to Rich Bank 1 Sensor 1) and/or P1101 (Intake Air Flow System Performance) may be set.

If these conditions are found, check for a missing or damaged O-ring seal in the charge air cooler coupler, located on the passenger side of the charge air cooler where the air duct inserts into the coupler.

(Thank you) Thanks to David Rutkowski

Service Know-How

10216.05D Emerging Issues – May 12, 2016

A review of the latest service topics from Brand Quality and Engineering, including a look at the convertible top operation of the 2016 Camaro and Cascada.

To view Emerging Issues seminars:

• Log in to www.centerlearning.com
  – Select Resources > Service Know-How/TECHAssist > Emerging Issues > Searchable Streaming Video; or
  – Select Catalog to search for the course number, and then select View > Take or Continue Course