The compact sedan measures about three inches longer and nearly an inch shorter (in height) than the previous model. In addition, a strong yet light body structure — resulting from a curb weight that’s about 250 lbs. (113 kg) less than its predecessor — enhances the Cruze’s agility and efficiency.

**Efficient Power**

Under the hood resides a standard all-new Ecotec 1.4L turbocharged four cylinder engine (RPO LE2) that employs direct fuel injection, variable valve timing and available Stop/Start technology (on 6-speed automatic transmission-equipped models). It generates 153-hp and delivers up to an estimated 42 mpg (5.6 L/100km) on the highway.

**TIP:** The hood release uses a double-pull mechanism. With the driver's door open, pull and release the handle on the lower-left side of the instrument panel. Pull and release the handle again to fully open the hood. There is not a secondary latch under the hood.

continued on page 3
The 2016 GM Globally Approved Refinish Materials Manual is now available in the Service Information.

Each year, GM evaluates and tests new paint systems and new or improved products. The paint systems that pass this annual testing process are published in the GM Globally Approved Refinish Materials Manual.

The manual can be viewed by clicking the “Select and view a Unit Repair, Specialty Publication, or Transmission Technical Guide” link on the Service Information home page. On the Unit Repair Manual page, the 2016 GM Globally Approved Refinish Materials Manual is listed under the Performance Parts Manuals on the bottom-left of the page.

TIP: This manual is available on the Genuine GM Parts website for access by sublet body shops.

The 2016 GM Globally Approved Refinish Materials Manual was the first domestic car company to set a specification for aftermarket paint finishes. Dealerships are required to use only materials and methods that meet GM Standard GMW15406 when repairing, replacing, or refinishing vehicles. The products listed in the manual have been approved by GM following a thorough, standardized test process to meet the GMW15406M Specification.

The manual provides additional information on paint manufacturers that have met the GM standard as well as detailed information about approved refinish materials.

Thanks to Robert Hiser
To keep passengers entertained and connected, the Cruze features an intuitive next-generation MyLink infotainment system replete with a 7-inch diagonal color touch display, Apple CarPlay and Android Auto compatibility, and available 4G LTE Wi-Fi. Wireless charging also is available. The charging pocket is located on the center console. The phone should be placed in the pocket with the screen facing the rear of the vehicle.

"Tech savvy" also applies to the sedan’s many safety features, such as available Side Blind Zone Alert with Lane Change Alert, Lane Keep Assist with Lane Departure Warning, and Forward Collision Alert, which utilize advanced radar and camera-based technologies to help drivers avoid a crash.

Vehicle Lifting

When servicing the Cruze’s underbody, the use of a Low Profile Lift Arms System may be required to avoid unwanted contact with the vehicle’s body and structure, depending on the lift equipment used.

Front Lift Pads: When lifting the vehicle with a frame-contact lift, place the front lift pads on the rocker outer panel weld flange.

Rear Lift Pads: Place the rear pads on the rocker outer panel weld flange.

If raising the vehicle from the front or rear with a service jack, use the same frame contact locations as for the front and rear lift pads.

For additional information about the new 2016 Cruze, refer to Bulletin #16-NA-053.

© Thanks to Bill Taylor and Sherman Dixon
Air Filter Box Seal Leak

On some 2014-2016 Corvette, Silverado, Sierra; 2015-2016 Escalade models, Yukon models; and 2016 CTS and Camaro equipped with a V8 engine (RPOs LT1, LT4, L83, L86, LV1, LV3), the MIL may be illuminated and DTCs P0420 (Catalyst System Low Efficiency) and P0430 (Catalyst System Low Efficiency Bank 2) may be set. These conditions may be caused by excessive dirt/debris entering the air filter box and bypassing the seal of the air filter, causing damage to the H02 sensor element and blocking the catalytic converter.

Do not replace any parts for these conditions until the air filter housing has been validated to be completely sealed.

Inspect the air housing cover for any missing tabs or fasteners. Also remove the air filter housing cover and inspect the seal around the filter as well as the air filter sealing surface for signs of not contacting the air filter seal.

In addition, look for dirt/debris in the air filter housing cover bypassing the air filter.

If dirt/debris is bypassing the air filter due to a faulty seal, replace the air filter. If the air filter housing is not properly sealing, refer to the appropriate Service Information for additional diagnostic procedures.

Thanks to Tracy Lucas

Ignition Switch Return

Service inventory of ignition switch part number D1426D (15242754) with a package date code of 15350 and prior should be returned. For replacement, order the same part number.

The first two digits of the date code (15) represent the year 2015. The last three digits (350) are the Julian day of production. The Julian Date code is located in the upper-right corner of the label.

These parts with a package date code of 15350 and prior should not be installed on vehicles currently being repaired. Check the date code before installation of the ignition switch.

Thanks to Charles Hensley

Intermittent Radio Conditions

Several intermittent radio conditions — a static noise from the radio speakers, Android Auto connection issues and Sirius XM reverting to channel XM1 — may occur on some 2016 Camaro, Cruze, Malibu, Spark, Silverado and Sierra models equipped with Chevrolet MyLink or GMC IntelliLink radios (RPO IOA, IOB).

If these conditions are found, a new radio calibration is available in TIS2Web: New Software to Address Audio Buzzing and Static Issues. USB and SPS programming of the radio is required.

TIP: If programming a Spark, it will be necessary to select GM Korea within TIS2Web to select the vehicle.

Thanks to Jamie Parkhurst
Using an Insulation Multimeter

Similar to typical 12V vehicle systems, loss of isolation on the high voltage system of the Volt, ELR and Spark EV can be as simple as a direct conductor-to-chassis short. However, unlike 12V systems, the potential within high voltage systems means that insulation breakdown is also a cause for loss of isolation. Insulation breakdown typically occurs only when high voltages and/or current is present.

An Insulation Multimeter (EL-50772) must be used to test the isolation capability of high voltage components and circuits. An insulation breakdown cannot be diagnosed with a typical digital multimeter (DMM) because high voltage is not used by the DMM when measuring resistance. An Insulation Multimeter uses its own built-in high voltage.

**TIP:** Always perform the high voltage disable procedure as published in the appropriate GM Service Information before servicing high voltage components and wiring and always wear the proper personal protective equipment.

**Diagnosis with an Insulation Multimeter**

The EL-50772 Insulation Multimeter tests the isolation capability of high voltage components and circuits. For correct test results, the functions of the Insulation Multimeter must be used properly.

**Plug into the correct ports** – It is critical that the correct ports (1, 2) are used for insulation testing. This is easy to get wrong, especially if the EL-50772 is used for standard DMM testing too. Do not use ports 3 and 4 for insulation testing. Also, if port 1 and port 4 are mistakenly used, continuity testing will still function, but the insulation test will always appear to pass.

**Always test at the 500V range** – With the test leads not connected to anything, press and hold the insulation test button to know how your meter displays an infinite measurement. The EL-50772 will display 550MΩ when measuring an open circuit while set to the 500V range.

**See how your meter displays continuity** – With the test leads connected together, press and hold the insulation test button. The EL-50772 will display 0.0Ω.

**A good ground reference is needed** – When possible, use an alligator clamp to attach the ground lead. Typically, the reference point will be to the vehicle chassis, except cable testing, which requires connection to the cable shield termination at the connector and not to the chassis.

**Verify the ground connection** – Prior to every test measurement, verify the ground connection at a suitable ground location near the test point. The EL-50772 should display 0.0Ω, indicating continuity.

**Large capacitance or inductance testing** – When testing components with large capacitance or inductance, such as certain modules and larger motor stators, it may be necessary to hold the insulation test button for a few seconds until the maximum resistance value is displayed.

**More Information**

For more information about loss of isolation testing, U.S. dealerships can check out the March 2015 edition of the Emerging Issues seminar (10215.03D). It includes a video demonstration using an Insulation Multimeter.

The EL-50772 Insulation Multimeter (Fluke 1857) is available through GM Dealer Equipment. Equivalent tools also are available from other sources.

© Thanks to Keith Newbury and Paul Radzwilowicz
OnStar Advanced Diagnostics Update

For 2016, OnStar is expanding vehicle availability of its Advanced Diagnostics and Proactive Alerts services.

Diagnostic Alerts
Diagnostic Alerts help keep customers (who are enrolled in the service) informed of key vehicle systems, such as the engine, transmission and ABS, with a status report available in real-time by email or text. The service is available on most 2015 and 2016 GM models.

The alerts are generated by an onboard diagnostic/sensing system that can be analyzed using the appropriate Service Information.

Diagnostic Alerts include:
- Real-time maintenance and diagnostics that supplement a customer’s monthly Diagnostics Report
- Alert types that may cover oil life, flat tire, bulb outages, odometer-based maintenance, diesel exhaust fluid (if equipped), Diagnostic Trouble Codes (DTC) and critically low battery charge.
- Various methods of notifying customers, including email, text message and Dealer Maintenance Notification (DMN) — based on a customer’s preference when enrolling in the Advanced Diagnostics service.

Any DTCs that would have triggered an alert would also have been accompanied by the illumination of a Malfunction Indicator Lamp on the instrument cluster, with the exception of an exterior bulb outage.

New Diagnostic Alerts
There are three new Diagnostic Alerts — Low Oil Maintenance (if less than or equal to 5%), Diesel Exhaust Fluid (75 miles or 120 km until empty) and Bulb Outage (1 per filament bulb outage). These alerts are sent to customers in their monthly Diagnostics Reports and are also sent to dealerships as part of their DMN leads.

DTCs Set during Service
With Diagnostic Alerts notifying customers of DTCs, they may receive alerts from their vehicle when it is being serviced if a DTC is set during repairs. Disconnecting components or electrical connectors as required during some service procedures may set a DTC. Customers should be advised to disregard real-time alerts that are sent while their vehicle is being serviced.

Proactive Alerts
Proactive Alerts give customers peace of mind knowing that their vehicle’s key starting and fuel system components will not degrade without their knowledge, with notifications provided before a problem occurs. The alerts are designed to help predict specific types of issues based on information collected from the vehicle. (Not all issues will produce alerts.)

Currently offered on V6-equipped 2015-2016 Equinox and Terrain models and the 2016 Corvette, Proactive Alerts will soon become available on 2016 Silverado, Suburban, Tahoe, Sierra, Yukon models and Escalade models.

TIP: Customers must at least have the OnStar Basic Plan to enroll in the service.

Proactive Alerts monitor the performance of:
- Engine cranking system (battery and starter motor performance)
- Fuel delivery system (in-tank fuel pump module and fuel pressure sensor performance)

Notifications before a Failure
When a covered component is detected as having degraded performance, an alert is generated. This is designed to happen before customers experience an issue with the vehicle. Some Proactive Alert messages may be generated without customers noticing any symptoms.

Customers will be notified in real-time via email and/or text message. An in-vehicle audio alert over the infotainment system also may be provided.

Unlike Diagnostic Alerts, Proactive Alerts are not generated by the vehicle’s onboard diagnostics system. While the data is collected from that system, it is analyzed off-board.

Currently, no associated DTCs are stored on the vehicle. Diagnosis of these alerts are covered under Bulletin #PI1250 in the Service Information.

One of the covered components is the 12-volt starting battery. Because these alerts can be triggered before the vehicle exhibits symptoms, the Proactive Alert battery replace labor operation does not require the warranty code that’s generated by the EL-50313 (GR8). Consequently, it’s important that dealerships follow the bulletin and use the appropriate labor operations.

For more information on Proactive Alerts, including a list of dealership FAQs, refer to the Advanced Diagnostics course (GCF00.115-0D/OnStar-Advanced Diagnostics) available on the GM Center of Learning at www.centerlearning.com

Thanks to Len Tillard
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**Service Know-How**

**10216.04D Emerging Issues – April 14, 2016**

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
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