



Service Bulletin

File in Section: -

Bulletin No.: PI1308

Date: September, 2014

PRELIMINARY INFORMATION

Subject: New Model Enhancements

Models: 2015 Cadillac ATS Coupe, ATS Sedan, CTS Sedan (VIN A)
Safety and Technology Enhancements

2015 ATS Coupe



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2015 CTS Sedan



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Bulletin Purpose

The purpose of this bulletin is to help the Service and Sales Personnel become familiar with the new safety and technology enhancements of the 2015 Cadillac ATS Coupe, ATS Sedan and CTS Sedan (VIN A).

Safety and Technology Enhancements

- Cadillac DockSpot™ Wireless Inductive Phone Charging
- OnStar® 4G LTE Connectivity with Built-in Wi-Fi Hotspot
- Connecting to a Wireless Network Using OnStar® — Service Set Identifier (SSID) and Password (PASS)
- General Motors Family Link (U.S.)
- Text Message Alerts Integrated with Cadillac CUE
- Soft Stop Plus — New Door Glass Feature
- Automatic Parking Assist (APA) Adds Perpendicular Parking
- Lane Keep Assist (LKA)
- Lane Change Alert (LCA)
- Electric Power Steering

Available Product Training

The majority of the systems found on the ATS Coupe, ATS Sedan and CTS Sedan are taught in GM's core curriculum from a conceptual theory and operation perspective.

To access **all** of the available training courses visit the following website:

- In the United States go to > www.centerlearning.com
- In Canada go to > www.gmprocanada.com

Training Course Name and System RPO - Course Number and Description

Course Name - System RPO	Course Number and Description
2015 Cadillac CTS New Model Launch	#10315.92W 2015 Cadillac CTS New Model Launch
2014 SKH Seminar September Emerging Issues	#10214.09D 2014 SKH Seminar September Emerging Issues
Electric Power Steering	#13041.15W2 GM Steering Systems and Diagnosis 2
OnStar® Generation 10	#19040.39W2 OnStar Systems 2
Wireless Inductive Charging	19047.23W3-R2 Entertainment Systems 3
Entertainment - Infotainment - Audio Systems Radio - Infotainment System, Uplevel with Connectivity - RPO IO5 Digital Audio Systems-S-Band And HD - RPO U2M	#19047.20W2 R3 Entertainment Systems 2 (Including MOST) Network** #19047.20W3 Entertainment Systems 3** #19047.22D R2 Infotainment Operation, Diagnosis and Service (VCT)** #19047.23D MOST Network Diagnostics and Infotainment System Programming (VCT)** #19047.19H Advanced Entertainment Operation & Diagnosis (Canada Only)
Bluetooth Technology - Programming Bluetooth for Phone, Personal Cellphone Connectivity to Vehicle Audio System Bluetooth Technology, Functions and Features Diagnosing and Methods of Radio Programming (USB Programming, Scan Tool Programming)	#19047.20W2 R3 Entertainment Systems 2 (Including MOST) Network** #19047.16H Entertainment Systems Certification (Canada Only) #19047.19H Advanced Entertainment Operation & Diagnosis (Canada Only)
Driver Information Display Instrument– Driver Info Enhanced (Multi Color Graphic) - RPO UDD	#19047.20W-R3 Entertainment Systems 2 (Including MOST Network) #19047.19H Advanced Entertainment Operation & Diagnosis (Canada Only)
Driver Assistance Systems Camera - Rear View - RPO UVC Sensor Indicator-Forward Collision Alert - RPO UEU Sensor Indicator-Lane Departure Warning - RPO UFL Sensor Indicator- Rear Parking Assist - RPO UD7	#22048.42 GM Safety Systems (Includes All Course Components W1 + W2 + W3 + H) #22048.16H GM Safety Systems Certification (Canada Only)
Driver Assistance Systems Lane Keep Assist (LKA)	#10214.07D 2014 SKH Seminar July Emerging Issues

**Not Available in Canada

Cadillac DockSpot™ Wireless Inductive Phone Charging

Cadillac DockSpot™ is a new mobile device wireless inductive charging system for smartphones. Compatible with Powermat and other in-phone wireless charging technologies, this convenient new feature eliminates the need for charging cords. An increasing number of smartphones have wireless charging either embedded or as an option. To charge a compatible device using the wireless inductive charging system, the device is simply placed on the rubberized pad.

The system is capable of charging the batteries of many aftermarket devices, including cell phones, PDAs, pagers, MP3 players, etc.

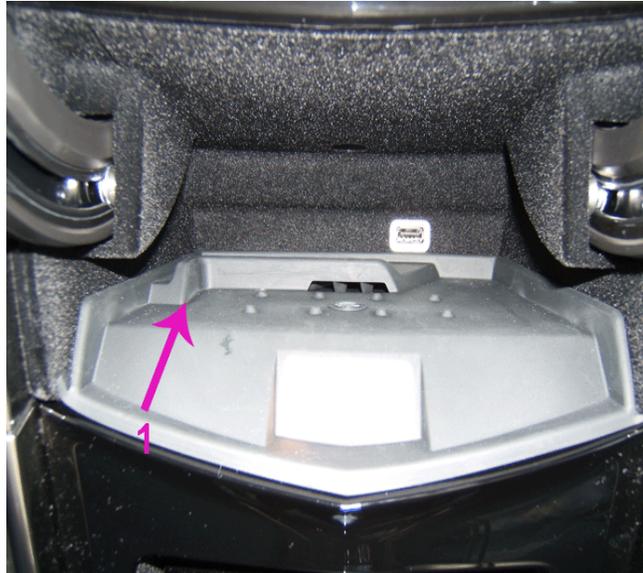
A compatible device is one that is compliant with the Power Matters Alliance (PMA) or Wireless Power Consortium's (WPC) Qi Standard, meaning that it is equipped with a PMA or Qi wireless charge "**receiver**" that will work with the charge "**transmitter**" installed in the vehicle. A device may use built-in charging circuitry or an adapter (an external plug-in device which contains the charging circuitry).

When the Interruptible Retained Accessory Power (IRAP) relay is closed (when the vehicle ignition is in **Run** or **Accessory** position), the system is able to detect the device, establish communications with the device to confirm it is a compatible device, and then deliver charging power to the device via the wireless interface.

If a non-compatible device or metallic foreign object is detected, the system will not transfer power. The charger monitors its internal temperature and will shut down if the charger temperature exceeds 185°F (85°C).

The BCM will detect that the device battery is charging and send a serial data message to the infotainment touch screen, which will indicate a device is currently charging. When the battery charging symbol is toggling **ON** and **OFF**, it indicates a thermal limit has been reached and the device will not charge. Charging may also be interrupted while driving over rough conditions. Reposition the mobile device to continue charging.

DockSpot™ Charging Surface Location



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The DockSpot™ charging surface (1) is located inside the storage bin behind the motorized center instrument panel faceplate.

Charging a Device

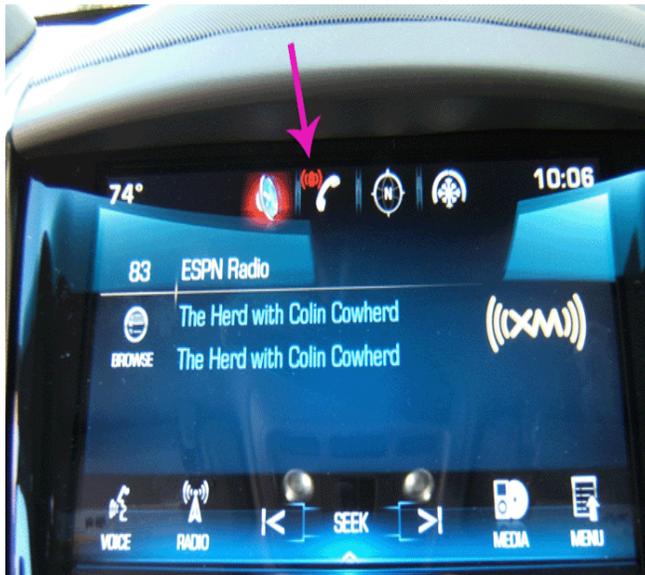
1. Raise the motorized center instrument panel faceplate.
2. Remove **ALL** objects from the DockSpot™ charging surface.



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Notice: There is a charging coil located in the center of the DockSpot™ charging surface and the mobile device has a charging coil typically near the center of the device. These coils must be aligned in order for charging to proceed.

3. With the device face up, place it on the DockSpot™ charging surface. Align the device with the left rear corner of the DockSpot™.



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4. Ensure that the battery charging symbol is illuminated on the infotainment touch screen, indicating the device is charging. If necessary move it around slightly until the battery charging symbol illuminates.
 - ⇒ If the battery charging symbol does not illuminate, verify the device is properly positioned on the DockSpot™ charging surface. It may be necessary to rotate it 180 degrees to help establish a connection. The use of a protective case may require more precise placement or it may inhibit charging. If necessary, remove the case.

DockSpot™ Wireless Inductive Phone Charging System Diagnostics

For any mobile device wireless charging system concerns, refer to Circuit/System Verification and Testing in the appropriate Service Information. A scan tool cannot be used since the system is not connected to any control module. No DTCs or data parameters are available.

GM Wireless Inductive Charging Compatible Devices

For the latest information about mobile device compatibility with the wireless inductive charging system, go to: www.gmtotalconnect.com

The following Table provides information on some of the most popular devices that have built-in wireless charging capability or have wireless charging adapters:

Phone	Built-In	Back Cover Model
Apple iPhone® 4/4S	-	Energizer Model: IC-IP4G
Apple iPhone® 5/5S	-	Duracell Powermat REC000078
Google Nexus 5	X	N/A
HTC Incredible 2	-	HTC6350-WLDR
LG G2	X	N/A
LG Spectrum 2	X	N/A
Motorola Droid 4	-	Motorola Model: MOTDRD4-WLDR
Motorola Droid Bionic	-	Motorola Model: MOTBIO-WLDR
Motorola Droid Maxx	X	N/A
Motorola Droid Mini	X	N/A
Motorola Moto X	-	Incipio MT231
Nokia Lumia 920	X	N/A
Nokia Lumia 928	X	N/A
Samsung Galaxy S3	-	Duracell/ Powermat Rec000072
Samsung Galaxy S4	-	Incipio Model: SA-069-SLV Incipio Model: SA-069-BLK Samsung Model: EP-C19501WK
Samsung Galaxy S5	-	Samsung Model: EP-VG900BBU Samsung Model: EP-CG9001BA
Samsung Note 3	-	Samsung Model: EP-CN9001WU

OnStar® 4G LTE Connectivity with Built-in Wi-Fi Hotspot

The available OnStar® 4G LTE with built-in Wi-Fi Hotspot will support up to seven mobile devices such as smartphones, tablets, and laptops, so they can be connected to high speed Internet allowing passengers to access the content they want. OnStar® with 4G LTE offers a strong, reliable signal, and it's built-in, so it's easy to use. Plus, it's connected to your vehicle battery, so you're always fully charged for the adventure ahead.

The most powerful OnStar® connection ever also enables improved access to existing OnStar® safety and security services, including the ability to transmit voice and data simultaneously. That means that 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.

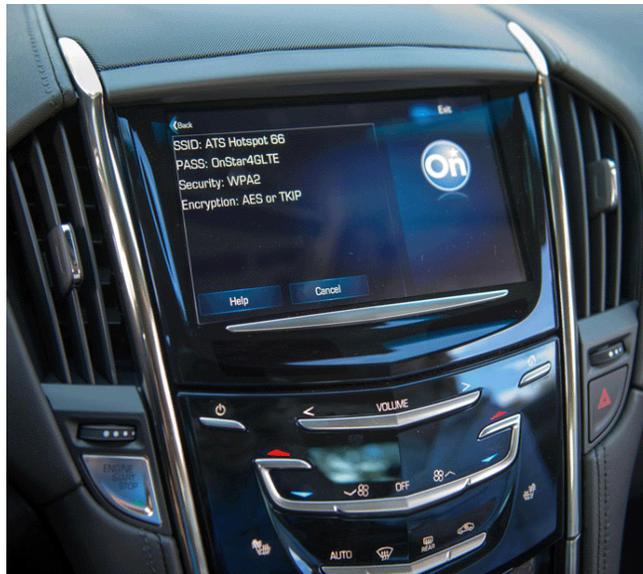
Connecting to a Wireless Network Using OnStar® — Service Set Identifier (SSID) and Password (PASS)

The Service Set Identifier (SSID) also known as a Network Name or Wi-Fi Hotspot is used to uniquely identify any given wireless network. It is the IP address for a wireless network. To connect to a wireless network, perform the following actions:



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1. To get the OnStar® Wi-Fi Service Set Identifier (SSID) and Password (PASS) also known as the Encryption Key, press the Voice Command button on the CUE Infotainment screen and say or select: **Wi-Fi settings**.



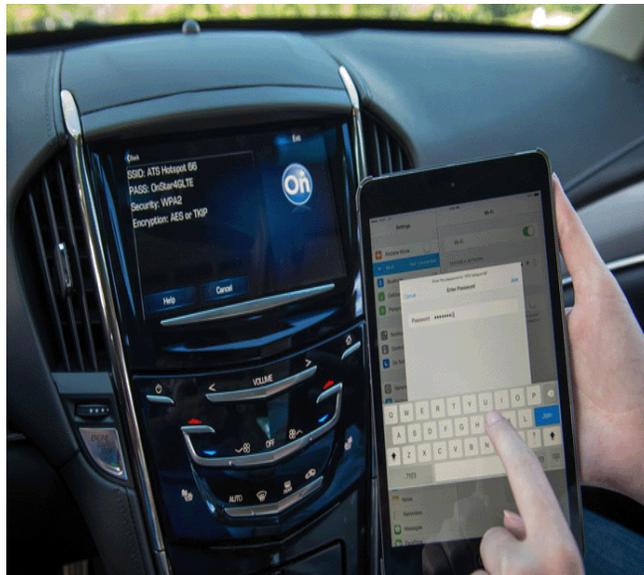
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2. OnStar® will display the SSID and PASS information also known as a Profile on the CUE Infotainment screen.



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3. The screen of the device to be connected will ask you to select a network. Select the SSID (Hotspot) that is displayed.



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4. The screen of the device to be connected will ask you to enter the password. Enter the PASS that is displayed.
5. Perform Step 3 and Step 4 for any other devices to be connected to the wireless network.

General Motors Family Link (U.S.)

The General Motors Family Link system does not involve controls on the car itself. Instead it lets parents stipulate where the teenager can drive. Once you set that perimeter online, you will get a text message if your teenager decides on a sudden road trip and crosses that digital barrier. You also can locate the vehicle at any time by going onto the system's web site.

Family Link is a \$3.99 per month add-on to the GM OnStar® service, which calls emergency services if you are in a crash and also provides navigation service. At the OnStar® web site, you also can set up text messages for specific locations, for instance to tell you that your teenager has arrived at school at 8 a.m. daily.

Text Message Alerts Integrated with Cadillac CUE

This feature is available for 2015 ATS and CTS with the CUE radio infotainment system — RPO I05 and RPO I06. Text Message is supported by Apple iPhones® and most Android devices. It is not supported for Windows and HTC Incredible 2 phones. A list of supported Bluetooth® devices is available at this website: www.gmtotalconnect.com

The system supports the same language as the selected Text Display Language via the vehicle settings menu. The selected supported speech language will attempt to read out the text even if it is not the same language. (Ex: Read Portuguese text with an English speech engine). Text messages cannot be read if the vehicle is moving.

Apple® Devices

Customer iPhone® Steps: Go to: Settings > Bluetooth > Find connected device such as Cadillac CUE, press the i, enable show notifications. Exit out of all screens and go back to home screen.

Customer In-Vehicle Steps: Using the HMI phone pairing screen, disconnect (uncheck) and reconnect (check) your phone from the system. Only new incoming text while connected will be shown. iPhone® does not enable the system to reply to text messages with predefined messages.

Android and Blackberry Devices

Customer Android Steps: Enable Bluetooth pairing on phone > Customer needs to accept MAP profile request, and phone book access after pairing device with HMI System. Some phones require dragging down the notification page to accept the MAP profile request.

⇒ If the customer does not accept the MAP profile request, the text message inbox will be grayed out and no content will be available.

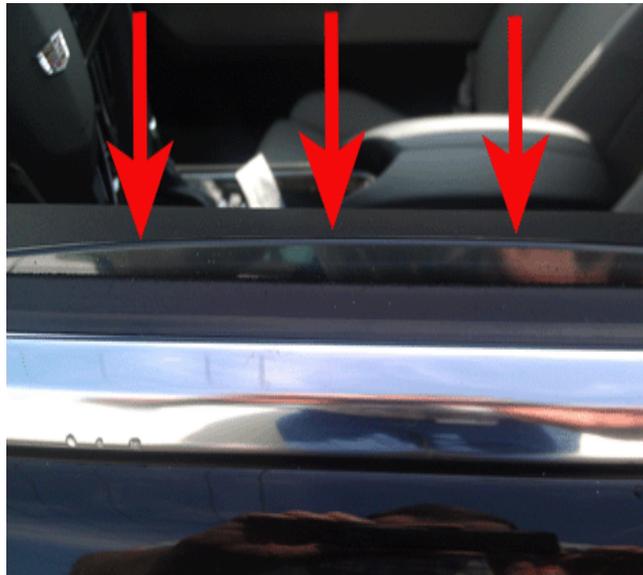
Android devices can reply with predefined messages.

Soft Stop Plus — New Door Glass Feature — ATS Coupe Only

To improve on door closing vibration and sound quality, GM has implemented a new feature called Soft Stop Plus. This feature allows more glass engagement to belt line seals on door closing. The operation of Soft Stop Plus is different than previous door glass operation. Express down, and supervised down (holding the switch) will both stop the glass above the belt line. The second express or supervised switch command will lower the glass below the belt line seal position. The Comfort Open feature (using key fob to open all windows) will stop the glass above the belt line seal position.

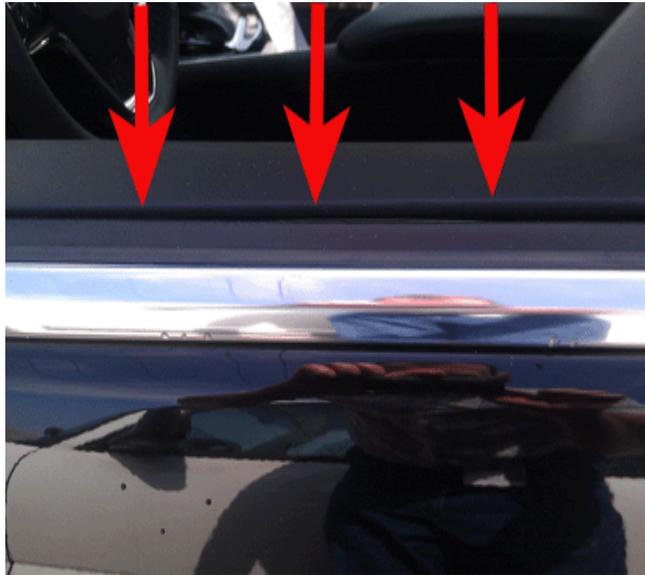
The glass will go to full down every 50 cycles of the switch to recalibrate. The window has the same operation with the door open or closed.

There may be small differences between the left and right sides of the glass height above the belt line. Some variation of the height is influenced by weather and temperature conditions and is normal. Reference the following pictures.



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Door Glass Stopped In Soft Stop Plus Position After First Command Of Switch.



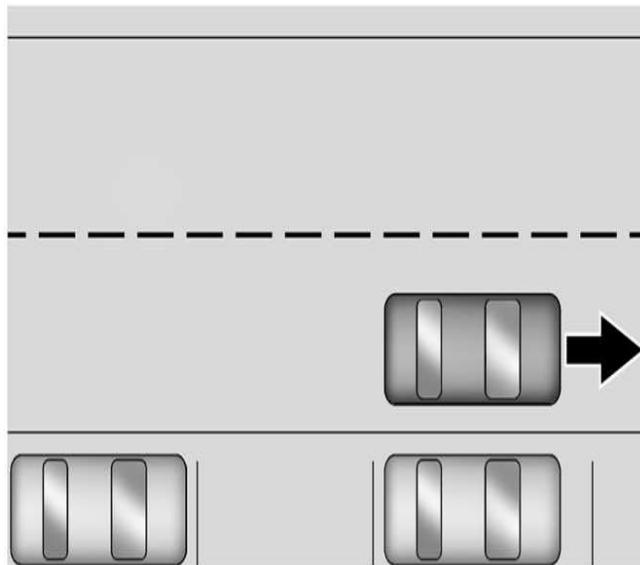
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Door Glass Stopped Below Belt Line After Second Command Of Switch.

Automatic Parking Assist (APA) Adds Perpendicular Parking — CTS Sedan Only

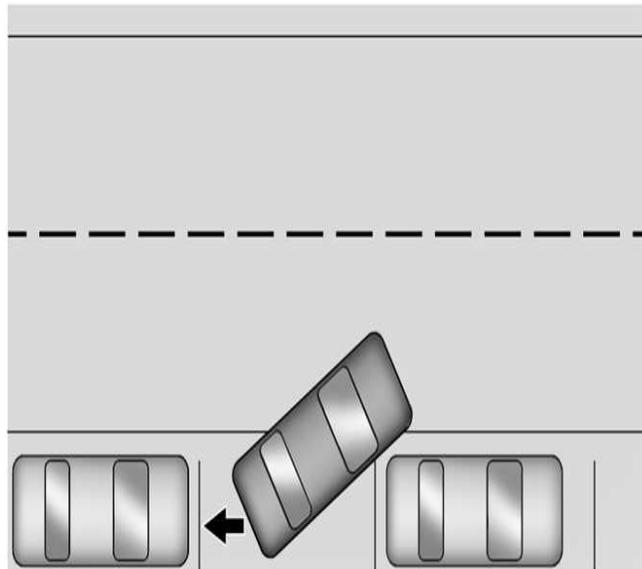
If equipped, the Automatic Parking Assist (APA) helps to search for and maneuver the vehicle into parallel or perpendicular parking spots using automatic steering, DIC displays, and beeps. When using APA, you must still shift gears, and control the brakes and accelerator. The Driver information Center (DIC) and audible beeps help to guide parking maneuvers.

1. When the vehicle speed is less than 18 mph (29 km/h), press the APA button to enable the system to begin searching for a space that is large enough to park in. The system cannot detect whether it is a legal parking space.
 - ⇒ If you need to cancel APA, press the APA button again.
2. If the vehicle is equipped with perpendicular parking mode, press and hold the APA button during the search process to switch the APA parking mode between perpendicular and parallel parking.
3. APA searches for parking spaces to the right of the vehicle. To search for a parking space to the left, turn **ON** the left turn signal.



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4. After completely passing a large enough space bordered by two vehicles or other objects, an audible beep occurs and a red symbol displays in the DIC.



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5. APA will instruct the vehicle to stop once a large enough space is found. Follow the instructions in the DIC. When instructed to drive in **R** (Reverse), shift to **R** to engage the automatic steering. The steering wheel will briefly vibrate as a reminder to remove hands from the steering wheel. Check surroundings and continue braking or accelerating as needed, and be prepared to stop to avoid vehicles, pedestrians, or objects.
 - ⇒ If the vehicle is in **R**, but does not steer into the expected space, this may be because the system is maneuvering the vehicle into a previously detected space. The APA system does not need service.
6. If the vehicle speed exceeds 6 mph (10 km/h), APA is automatically disengaged and automatic steering will turn **OFF**. A DIC progress arrow displays the status of the parking maneuver. Depending on the space size, additional maneuvers may be required, and there will be additional instructions. When changing gears, allow the automatic steering to complete before continuing the parking maneuver. Upon successful completion of a maneuver, APA will beep and display a PARKING COMPLETE message. Place the vehicle in **P** (Park).

APA may automatically disengage if any of the following occurs:

- The steering wheel is used by the driver.
- The maximum allowed speed is exceeded.
- There is a failure with the APA system.
- Electronic stability control or antilock brakes are activated.
- A high priority vehicle message is displayed in the DIC.
- An incoming call is received through a connected phone. Disconnect the phone from the vehicle to prevent APA from disengaging.

When the System Does Not Seem to Work Properly

The APA may require a short period of driving along curves to calibrate.

Lane Keep Assist (LKA)

Warning: *Using Lane Keep Assist (LKA) while towing a trailer or on slippery roads could cause loss of control of the vehicle and a crash. Turn the system OFF.*

LKA is available on the 2015 Cadillac ATS Coupe, ATS sedan and the CTS Sedan.

Overview



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LKA is designed to assist the driver in keeping the vehicle from drifting out of an identified lane. The electric power steering (EPS) provides a gentle steering push-back to the vehicle when an unintended lane departure is detected without the turn signal being ON. Owners unfamiliar with this new feature may be alarmed when the steering wheel appears to move without warning.

LKA System Operation

The front view camera which is located behind the windshield in front of the mirror, is used to detect lane markings within a distance of approximately 197 ft (60 m) between speeds of 37 mph (60 km/h) and 112 mph (180 kmh). LKA operates using parameters gathered by the vehicle's Active Safety Control Module. These parameters include the frontview camera, lateral offset of the vehicle, relative yaw angle, time to line crossing, velocity, steering angle and yaw rate. When an unintended lane departure is calculated, based on these parameters, the system operates the vehicle's electric power steering gear to steer the vehicle back into the intended lane.

The Active Safety Control Module communicates on a dedicated object bus to all four radar sensor modules and the frontview camera module. A fault on the object bus may result in multiple DTCs since the Active Safety Control Module may not be able to communicate with some or all modules on the bus. If there is a DTC set in any of the modules that the Active Safety Control Module uses as inputs, it will send a Service Driver Assist System message to the Driver Information Center on the instrument cluster.

LKA will not assist or provide a lane departure alert if it detects that the driver is actively steering. LKA does not continuously steer the vehicle, but rather provides steering pushback, keeping the vehicle in the intended lane, using the electric power steering.

The driver can override the event by applying 1.1 Nm to 1.5 Nm of torque to the steering wheel. The LKA event is complete after the vehicle fully returns to the lane.

LKA Indicator Lamp



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The LKA indicator lamp on the instrument cluster illuminates green when the feature is ready to provide assist. The symbol is solid amber when intervention is occurring. It flashes amber to indicate a Lane Departure Warning. The flashing amber is accompanied by three beeps, or the driver seat will pulse three times on the right or left, depending on the lane departure direction.

LKA Button — Enabling and Disabling



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The LKA button will illuminate when the system is enabled. ATS shown.

For the ATS, to turn LKA **ON** and **OFF**, press the LKA button to the left of the steering wheel.

For the CTS, to turn LKA **ON** and **OFF**, press the LKA button on the center stack.

Servicing a Vehicle with LKA

When servicing a vehicle with LKA, Technicians must be aware that the front wheels could move without warning if the vehicle is running and in gear while raised on a hoist.

When the System Does Not Seem to Work Properly

System performance may be affected by the following:

- Close vehicles ahead.
- Sudden lighting changes, such as when driving through tunnels.
- Banked roads.
- Roads with poor lane markings, such as two lane roads.

If the LKA system is not functioning properly when lane markings are clearly visible, cleaning the windshield may help.

LKA assistance and/or LDW alerts may occur due to tar marks, shadows, cracks in the road, temporary or construction lane markings, or other road imperfections. This is normal system operation; the vehicle does not need service. Turn LKA **OFF** if these conditions continue.

Lane Change Alert (LCA)

LCA System Overview



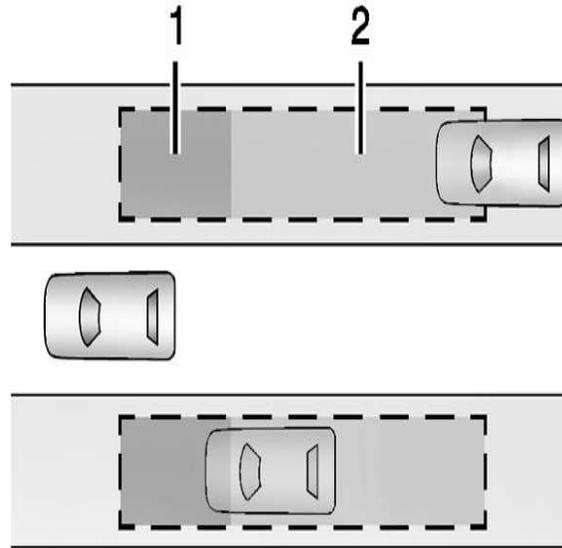
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LCA Display Illuminated in Right Outside Side Mirror

The Lane Change Alert (LCA) system is a lane changing aid that assists drivers with avoiding lane change crashes that occur with vehicles in the side blind zone (or spot) areas or with vehicles rapidly approaching these areas from behind. When the vehicle is started, both outside mirror LCA displays will briefly illuminate to indicate the system is operating. When the vehicle is moving forward, the left or right side mirror LCA display will illuminate if a vehicle is detected in the next lane over in that blind zone or rapidly approaching that zone. If the turn signal is activated in the same direction as a detected vehicle the display will flash as an extra warning not to change lanes. Before making a lane change, check the LCA display, check mirrors, glance over your shoulder, and use the turn signals.

LCA can be disabled through vehicle personalization. See **Collision/Detection Systems** under Vehicle Personalization. If LCA is disabled by the driver, the LCA mirror displays will not illuminate.

LCA Detection Zones



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1. SBZA Detection Zone
2. LCA Detection Zone

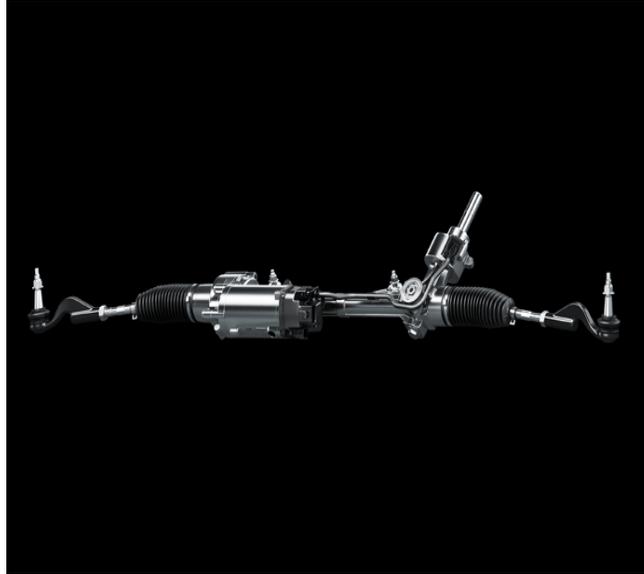
The LCA sensor covers a zone of approximately one lane over from both sides of the vehicle, or 11 ft (3.5 m). The height of the zone is approximately between 1.5 ft (0.5 m) and 6 ft (2 m) off the ground. The Side Blind Zone Alert (SBZA) warning area starts at approximately the middle of the vehicle and goes back 16 ft (5 m). Drivers are also warned of vehicles rapidly approaching from up to 82 ft (25 m) behind the vehicle.

When the System Does Not Seem to Work Properly

The LCA system requires some driving for the system to calibrate to maximum performance. This calibration may occur more quickly if the vehicle is driving on a straight highway road with traffic and roadside objects such as guardrails and barriers.

- LCA displays may not illuminate when passing a vehicle quickly or when towing a trailer. The LCA detection zones that extend back from the side of the vehicle do not move further back when a trailer is towed. Use caution while changing lanes when towing a trailer. LCA may alert to objects attached to the vehicle, such as a trailer, bicycle, or object extending out to either side of the vehicle. Attached objects may also interfere with the detection of vehicles. This is normal system operation.
- LCA may not always alert the driver to vehicles in the next lane over, especially in wet conditions or when driving on sharp curves. This is normal system operation.
- The system may illuminate due to guardrails, signs, trees, shrubs, and other non-moving objects. This is normal system operation.
- LCA may not operate when the LCA sensors in the left or right corners of the rear bumper are covered with mud, dirt, snow, ice, or slush, or in heavy rainstorms. For cleaning instructions, see "Washing the Vehicle" under Exterior Care. If the DIC still displays the system unavailable message after cleaning both sides of the vehicle toward the rear corners of the vehicle, see your dealer.
- If the LCA displays do not illuminate when vehicles are in the side blind zone or rapidly approaching this zone and the system is clean, the system may need service. Take the vehicle to your dealer.

Electric Power Steering



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The belt driven electric power steering system reduces the amount of effort needed to steer the vehicle by utilizing the power steering control module to control the power steering motor to maneuver the steering rack.

The premium ZF Lenksysteme electric power steering that equips the 2015 ATS sedan and coupe has improved torsional stiffness and low operating friction to enhance the feel of the wheel with almost perfect linear response. The steering column and intermediate shaft feature stiff, direct-acting and low-friction ball bearing designs for a more immediate, connected to the road feel for the driver.

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DockSpot™ is a Trademark of General Motors LLC

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