



# CT6

# Owner's Manual

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## Introduction



The names, logos, emblems, slogans, vehicle model names, and vehicle body designs appearing in this manual including, but not limited to, GM, the GM logo, CADILLAC, the CADILLAC Emblem, and CT6 are trademarks and/or service marks of General Motors LLC, its subsidiaries, affiliates, or licensors.

This manual describes features that may or may not be on the vehicle because of optional equipment that was not purchased on the vehicle, model variants, country specifications, features/applications that may not be

available in your region, or changes subsequent to the printing of this owner's manual.

Refer to the purchase documentation relating to your specific vehicle to confirm the features.

Keep this manual in the vehicle for quick reference.

### Using this Manual

To quickly locate information about the vehicle, use the Index in the back of the manual. It is an alphabetical list of what is in the manual and the page number where it can be found.

### Danger, Warning, and Caution

Warning messages found on vehicle labels and in this manual describe hazards and what to do to avoid or reduce them.



#### **Danger**

Danger indicates a hazard with a high level of risk which will result in serious injury or death.



#### **Warning**

Warning indicates a hazard that could result in injury or death.

#### **Caution**


Caution indicates a hazard that could result in property or vehicle damage.





A circle with a slash through it is a safety symbol which means “Do Not,” “Do not do this,” or “Do not let this happen.”

## Symbols

The vehicle has components and labels that use symbols instead of text. Symbols are shown along with the text describing the operation or information relating to a specific component, control, message, gauge, or indicator.

 : Shown when the owner's manual has additional instructions or information.

 : Shown when the service manual has additional instructions or information.

 : Shown when there is more information on another page — “see page.”


### Vehicle Symbol Chart


Here are some additional symbols that may be found on the vehicle and what they mean. See the features in this manual for information.


 : Airbag Readiness Light


 : Air Conditioning


 : Antilock Brake System (ABS)

 : Brake System Warning Light

 : Charging System

 : Cruise Control


 : Do Not Puncture


 : Do Not Service


 : Engine Coolant Temperature


 : Exterior Lamps


 : Flame/Fire Prohibited


 : Fuel Gauge


 : Fuses

 : Headlamp Main/Dipped-Beam Changer

 : LATCH System Child Restraints

 : Malfunction Indicator Lamp

 : Oil Pressure

 : Power

 : Remote Vehicle Start

 : Seat Belt Reminders

 : Tyre Pressure Monitor

 : Traction Control/StabiliTrak

 : Under Pressure

 : Windscreen Washer Fluid



## NOTES

## In Brief

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### Vehicle Features

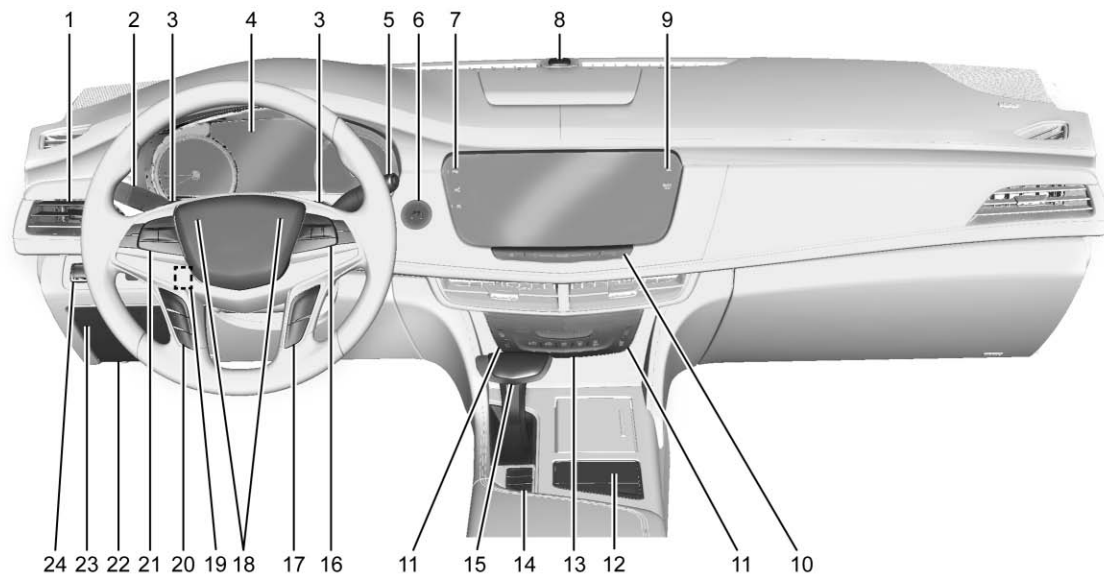
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## Instrument Panel

### Instrument Panel Overview



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2. *Exterior Lamp Controls* ⇨ 158.  
Indicator Lever. See *Indicator and Lane-Change Signals* ⇨ 161.  
*Fog Lamps* ⇨ 162.
3. *Tap Shift Controls (If Equipped)*. See *Manual Mode* ⇨ 199.
4. *Instrument Cluster (Base Level)* ⇨ 119 or *Instrument Cluster (Uplevel)* ⇨ 122.  
Driver Information Centre (DIC) Display. See *Driver Information Centre (DIC)* ⇨ 140.
5. *Windscreen Wiper/Washer* ⇨ 112.
6. *ENGINE START/STOP Button*. See *Ignition Positions* ⇨ 191.
7. *Parking Assist Button*. See *Assistance Systems for Parking or Reversing* ⇨ 217.  
Automatic Parking Assist (APA) Button (If Equipped). See *Assistance Systems for Parking or Reversing* ⇨ 217.
8. *Automatic Engine Stop/Start Disable Switch (If Equipped)*. See *Starting the Engine* ⇨ 192.
8. *Light Sensor*. See *Automatic Headlamp System* ⇨ 160.
9. *Hazard Warning Flashers* ⇨ 161.  
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10. *Infotainment* ⇨ 166.
11. *Heated and Ventilated Front Seats* ⇨ 63 (If Equipped).
12. *Infotainment Touch Pad*. See the infotainment manual.
13. *Automatic Climate Control System (Quad Zone)* ⇨ 167 or *Automatic Climate Control System (Dual Zone)* ⇨ 174.
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15. *Shift Lever*. See *Automatic Transmission* ⇨ 197.
16. *Driver Information Centre (DIC) Controls*. See *Driver Information Centre (DIC)* ⇨ 140.
17. *Steering Wheel Controls*. See the infotainment manual.
18. *Horn* ⇨ 112.
19. *Steering Wheel Adjustment* ⇨ 111 (Out of View).
20. *Forward Collision Alert (FCA) System* ⇨ 223 (If Equipped).  
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21. *Cruise Control* ⇨ 206.  
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Phone Button. See "Steering Wheel Controls" in the infotainment manual.

- 22. Data Link Connector (DLC) (Out of View). See *Malfunction Indicator Lamp (Check Engine Light)* ⇨ 131.
- 23. *Instrument Panel Storage* ⇨ 107.  
*Instrument Panel Fuse Block* ⇨ 264.
- 24. *Electric Parking Brake* ⇨ 201.  
*Instrument Panel Illumination Control* ⇨ 162 (Out of View).  
*Head-Up Display (HUD)* ⇨ 142 (If Equipped) (Out of View).

## Initial Drive Information

This section provides a brief overview about some of the important features that may or may not be on your specific vehicle.

For more detailed information, refer to each of the features which can be found later in this owner's manual.

## Stop/Start System

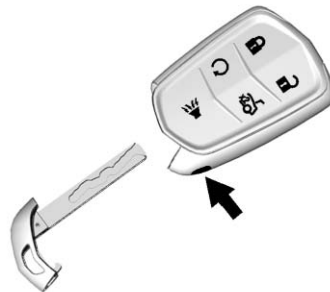
The vehicle has a fuel saving stop/start system to shut off the engine and help conserve fuel.

When the brakes are applied and the vehicle is at a complete stop, the engine may turn off. When the brake pedal is released or the accelerator pedal is pushed, the engine will restart.


If equipped, the automatic engine stop/start function can be disabled by touching (A) on the centre console. See *Starting the Engine* ⇨ 192.

## Remote Keyless Entry (RKE) System

The Remote Keyless Entry (RKE) transmitter may work up to 60 m (197 ft) away.





Press the button to remove the key. The key can be used for the driver door.


Press  to unlock the driver door or all doors, depending on the vehicle personalisation settings. The fuel flap will also be unlocked, if equipped.


Press  to lock all doors.

Unlock feedback can be personalised.  
See *Vehicle Personalisation* ⇨ 146.

Press  twice quickly to open the boot.

Press  and release to initiate vehicle locator.

Press and hold  for more than three seconds to sound the panic alarm.



Press  again to cancel the panic alarm.

See *Keys* ⇨ 27 and *Remote Keyless Entry (RKE) System Operation* ⇨ 28.

## Remote Vehicle Start

The engine can be started from outside of the vehicle.

### Starting the Vehicle

1. Press and release  on the RKE transmitter.
2. Immediately press and hold  for at least four seconds or until the indicator lamps flash.


Start the vehicle normally after entering.

When the vehicle starts, the parking lights will turn on.

Remote start can be extended.

### Cancelling a Remote Start

To cancel a remote start, do one of the following:

- Press and hold  until the parking lamps turn off.
- Turn on the hazard warning lights.
- Turn the vehicle on and then off.

See *Remote Vehicle Start* ⇨ 33.

## Door Locks

### Keyless Access



Press the button on the door handle and pull the handle when the Remote Keyless Entry (RKE) transmitter is within 1 m (3 ft). See *Remote Keyless Entry (RKE) System Operation* ⇨ 28.

## Manual Operation



From outside, use the key in the driver door. The key lock cylinder is covered by a cap. See *Door Locks* ⇨ 35.

From the inside rear doors, push down on the door lock knob on top of the door. To unlock a door, pull once on the door handle to unlock it, and again to open it.

## Power Door Locks

From outside, press  or  on the RKE transmitter.



From inside, press  or . See *Power Door Locks* ⇨ 37.

## Boot



To open the boot:

- Press .
- Press twice quickly on the Remote Keyless Entry (RKE) transmitter.
- Press the touch pad on the rear of the boot above the number plate after unlocking all doors.

If equipped, these will also open the power boot. See *Boot* ⇨ 39.

## Windows

The power windows work when the ignition is on, in ACC/ACCESSORY, or when Retained Accessory Power (RAP) is active. See *Retained Accessory Power (RAP)* ⇨ 194.

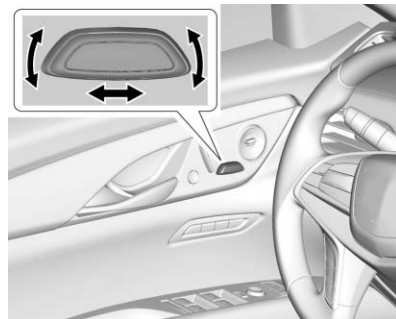


Using the window switch, press to open or pull to close the window.

The windows may be temporarily disabled if they are used repeatedly within a short time.

## Seat Adjustment

### Power Seats



Platinum Seat Shown, Base and Uplevel Seats Similar

To adjust the seat:

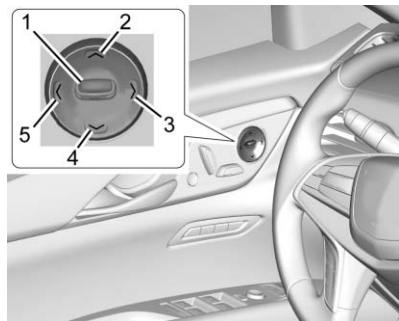
- Move the seat forward or rearward by sliding the control forward or rearward.
- Raise or lower the front part of the seat cushion by moving the front of the control up or down.
- Raise or lower the seat by moving the rear of the control up or down.

See *Electrically Operated Seat Adjustment* ⇨ 58.

See *Thigh Support Adjustment* ⇨ 59.

## Uplevel Seat Adjustment

If equipped, the ignition must be on to use all uplevel seat features.



Platinum Seat Shown, Uplevel Seat Similar

1. Feature Select
2. Up
3. Forward
4. Down
5. Rearward

- Press Feature Select (1) to display seat adjustments on the infotainment display. Press and release or hold to scroll through features.
- Press Up (2) to make upward adjustments of the selected feature.
- Press Forward (3) to make forward adjustments of the selected feature.
- Press Down (4) to make downward adjustments of the selected feature.
- Press Rearward (5) to make rearward adjustments of the selected feature.

## Reclining Seat Backrests



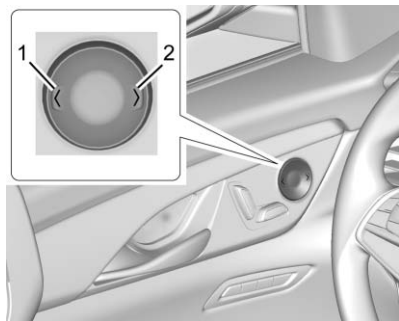
Platinum Seat Shown, Base and Uplevel Seats Similar

To adjust the seat back:

- Tilt the top of the control rearward to recline.
- Tilt the top of the control forward to raise.

See *Reclining Seat Backrests* ⇨ 60.

## Base Lumbar Adjustment

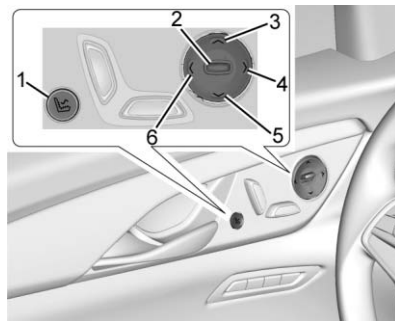


Base Seat

To adjust lumbar support, if equipped:

- Press Forward (2) to move lumbar support forward.
- Press Rearward (1) to move lumbar support rearward.

## Massage



Platinum Driver Seat Shown,  
Passenger Seat Similar

If equipped, the ignition must be on to use the massage feature.

To activate and adjust the massage feature:

1. Toggle the centre selection control (2) to view available massage adjustment options on the infotainment display.
2. Select massage feature.
3. Press the control up (3) or down (5) to select the massage type.

4. Press the control forward (4) or rearward (6) to change the intensity.
5. Press the massage control button (1) to recall the last massage type and intensity.

See *Massage* ⇨ 65.



## Memory Features



Platinum Driver Seat Shown,  
Passenger Seat Similar

If equipped, memory seats allow two drivers to store and recall their unique seat positions for driving the vehicle, and a shared exit position for getting out of the vehicle. Other feature

positions may also be set, such as power mirrors and power steering wheel. Memory positions are linked to RKE transmitter 1 or 2 for automatic memory recalls.

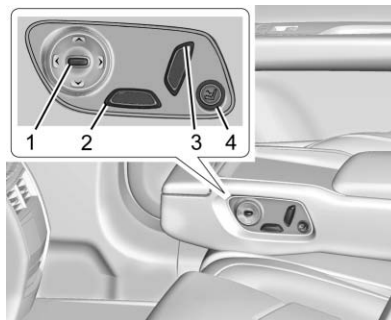
Before storing, adjust all available memory feature positions. Turn the ignition on and then press and release SET; a beep will sound. Then immediately press and hold 1, 2, or  (Exit) on the driver door until two beeps sound. To manually recall these positions, press and hold 1, 2, or  until the saved position is reached.

When Auto Memory Recall is enabled in the personalisation menu, positions previously stored to memory buttons 1 and 2 are recalled when the ignition is changed from OFF to ON/RUN or ACC/ACCESSORY.

When Easy Exit Options is enabled in the personalisation menu, the feature automatically recalls the current driver's previously stored exit position when exiting the vehicle. See *Memory Seats* ⇨ 60.

## Second Row Seats

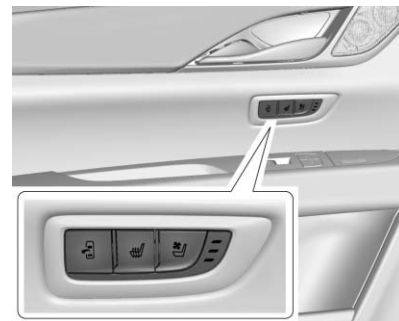
If equipped, the armrest may have seat adjustment controls.




1. Backrest Display and Lumbar Adjustment Control
2. Power Seat Adjustment
3. Power Seat Adjustment
4. Massage

See *Rear Seats* ⇨ 65.

## Easy Exit



If equipped, press  to tilt the front of the seat fully downward and to move the entire seat fully rearward. The seat will also move to this position when the rear door is opened.

## Heated and Ventilated Seats



If equipped, the buttons are near the climate controls on the centre stack. To operate, the ignition must be on.

Press or to heat the driver or passenger seat cushion and seatback.

Press or to heat the driver or passenger backrest only.

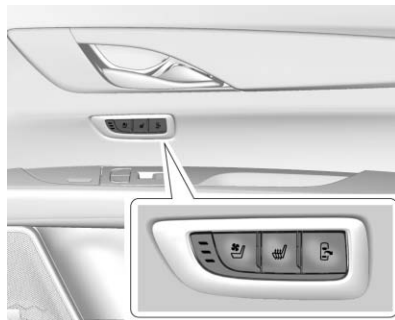
Press or to ventilate the driver or passenger seat.

Press the button once for the highest setting. With each press of the button, the seat will change to the next lower

setting, and then to the off setting. The indicator lights above the buttons indicate three for the highest setting and one for the lowest. If the front heated seats are on high, the level may automatically be lowered after approximately 30 minutes.

See *Heated and Ventilated Front Seats* ⇨ 63.

## Heated and Ventilated Rear Seats



If equipped, the buttons are on the rear passenger doors.

With the ignition on, press or to heat the left or right outboard seat cushion.

With the ignition on, press or to ventilate the left or right outboard seat.

See *Heated and Ventilated Rear Seats* ⇨ 67.

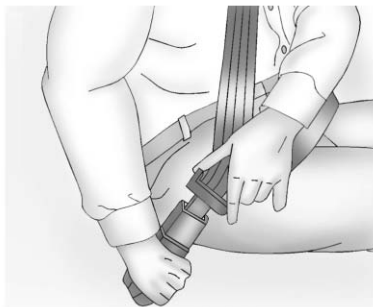
## Head Restraint Adjustment

Do not drive until the head restraints for all occupants are installed and adjusted properly.

To achieve a comfortable seating position, change the seatback recline angle as little as necessary while keeping the seat and the head restraint height in the proper position.

See *Head Restraints* ⇨ 56 and *Electrically Operated Seat Adjustment* ⇨ 58.

## Seat Belts



Refer to the following sections for important information on how to use seat belts properly:

- *Seat Belts* ⇨ 68.
- *How to Wear Seat Belts Properly* ⇨ 69.
- *Three-Point Belt* ⇨ 70.
- *ISOFIX Child Restraint Systems* ⇨ 99.

## Passenger Sensing System



The passenger sensing system turns off the front outboard passenger frontal airbag and knee airbag under certain conditions. No other airbag is affected by the passenger sensing system. See *Passenger Sensing System* ⇨ 81.

The passenger airbag status indicator will light on the overhead console when the vehicle is started. See *Passenger Airbag Status Indicator* ⇨ 130.

## Mirror Adjustment

### Exterior Mirror



1. Move the selector switch to L (Left) or R (Right) to choose the driver or passenger mirror.
2. Press one of the four arrows to move the mirror.
3. Move the selector switch to ● to deselect the mirror.

The vehicle has power folding mirrors. See *Power Mirrors* ⇨ 46.

## Interior Mirror

### Adjustment

Adjust the rearview mirror for a clear view of the area behind your vehicle.

### Automatic Dimming Rearview Mirror

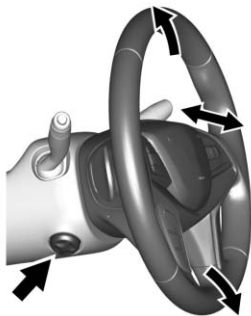
Automatic dimming reduces the glare of headlights from behind. The dimming feature comes on when the vehicle is started.

### Rear Camera Mirror

If equipped, this automatic dimming rear-view mirror provides a wide angle camera view of the area behind the vehicle. For ease of use, adjust the mirror for a clear view of the area behind the vehicle while the display is off. See *Rear Camera Mirror* ⇨ 48.

## Steering Wheel Adjustment

### Power Tilt and Telescoping Steering Wheel



Press the control to move the tilt and telescoping steering wheel up and down or forward and rearward.

Do not adjust the steering wheel while driving.


## Interior Lighting


### Dome Lamp

The dome lamp is in the overhead console.



To change the dome lamp settings, press:

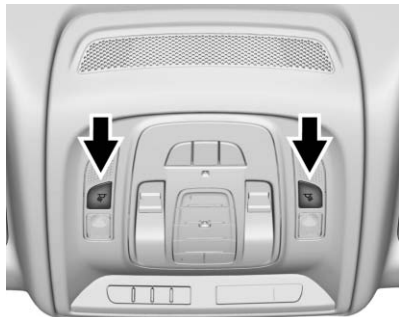
 **OFF** : Turns the lamp off, even when a door is open.

 **ON/OFF** : Turns the lamp on or off.

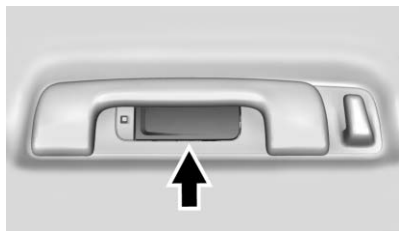
### Reading Lamps

There are front and rear reading lamps on the overhead console and over the rear passenger doors. These lamps come on automatically when any door is opened.

To manually turn the reading lamps on or off:



Press ☞ or ☜ next to each overhead console reading lamp.



Press the lamp lenses over the rear passenger doors.

For more information on interior lighting, see *Instrument Panel Illumination Control* ⇨ 162.

## Exterior Lighting



The exterior lamp control is on the indicator lever.

Turn the control to the following positions:

☞ : Turns off the exterior lamps. The knob returns to the AUTO position after it is released. Turn to ☞ again to reactivate the AUTO mode.

**AUTO** : Automatically turns the exterior lamps on and off, depending on outside lighting.

☞☞ : Turns on the parking lamps including all lamps, except the headlamps.

☞☞☞ : Turns on the headlamps together with the parking lamps and instrument panel lights.

See:

- *Exterior Lamp Controls* ⇨ 158.
- *Indicator and Lane-Change Signals* ⇨ 161.

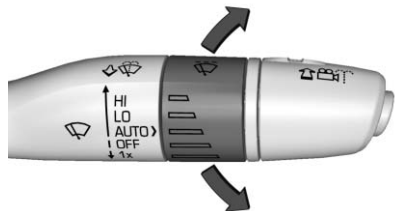
## Windscreen Wiper/Washer



With the ignition on or in ACC/ACCESSORY, move the lever up or down to select the wiper speed.

**HI** : Use for fast wipes.

**LO** : Use for slow wipes.



**AUTO** : Use this setting for intermittent wipes when Rainsense is disabled, or for Rainsense wipes when it is enabled. For intermittent wipes, move the lever up to AUTO, then turn the band on the wiper lever up for more frequent wipes or down for less frequent wipes.


If Rainsense is enabled in vehicle personalisation, move the lever up to AUTO, then turn the band on the wiper lever to adjust the sensitivity to moisture.

- Turn the band up for more sensitivity to moisture.
- Turn the band down for less sensitivity to moisture.
- Move the windscreen wiper lever out of the AUTO position to deactivate Rainsense.

To enable or disable this feature, see "Rainsense Wipers" under *Vehicle Personalisation* ⇨ 146.

**OFF** : Use to turn the wipers off.

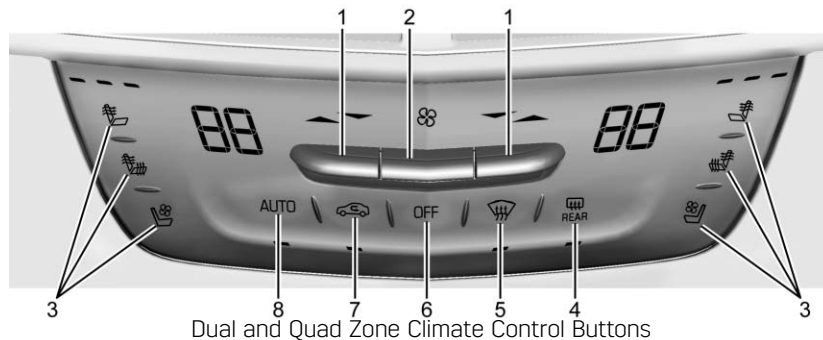
**1X** : For a single wipe, briefly move the stalk down. For several wipes, hold the stalk down.

 : Pull the stalk toward you to spray windscreen washer fluid and activate the wipers.

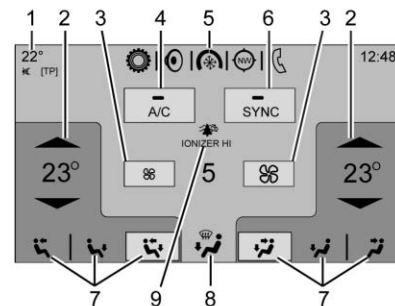
See *Windscreen Wiper/Washer* ⇨ 112.

## Climate Controls

The climate control buttons on the centre console and on the climate control display are used to adjust the heating, cooling, and ventilation.



- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. Driver and Passenger Temperature Controls</li> <li>2. Fan Control</li> <li>3. Driver and Passenger Heated and Ventilated Seats (If Equipped)</li> <li>4. Rear Window Demister</li> </ol> | <ol style="list-style-type: none"> <li>5. Defrost</li> <li>6. OFF (Fan)</li> <li>7. Recirculation</li> <li>8. AUTO (Automatic Operation)</li> </ol> |
|--|---|



1. Outside Temperature Display
2. Driver and Passenger Temperature Controls
3. Fan Control
4. A/C (Air Conditioning)
5. Climate Control Selection (Application Tray Button)
6. SYNC (Synchronised Temperature)
7. Driver and Passenger Air Delivery Mode Controls
8. Demist

9. Ioniser Status Indicator (If Equipped)

See *Automatic Climate Control System (Quad Zone)* ⇨ 167 or *Automatic Climate Control System (Dual Zone)* ⇨ 174.

## Transmission

### Tap Shift

Vehicles equipped with Tap Shift allow shifting an automatic transmission similar to a manual gearbox. Tap Shift can be enabled through the gear lever or the Tap Shift controls on the back of the steering wheel. See *Manual Mode* ⇨ 199.

## Vehicle Features

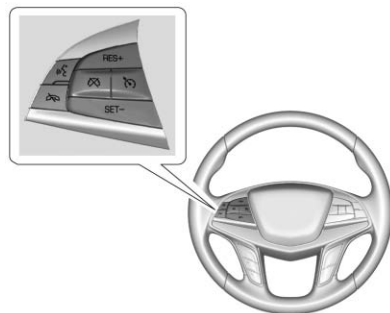
### Infotainment System


See the infotainment manual for information on the radio, audio players, rear seat infotainment, phone, navigation system, and voice or speech recognition. It also includes information on settings.

### Steering Wheel Controls

The infotainment system can be operated by using the steering wheel controls. See "Steering Wheel Controls" in the infotainment manual.

## Cruise Control



 : Press to turn the system on and off. A white indicator appears in the instrument cluster when turned on.

**RES+ :** If there is a set speed in memory, press briefly to resume to that speed or press and hold to accelerate. If the cruise control is already active, use to increase vehicle speed. To increase speed by 1 km/h (1 mph), press RES+ to the first detent. To increase speed to the next 5 km/h (5 mph) mark on the speedometer, press RES+ to the second detent.

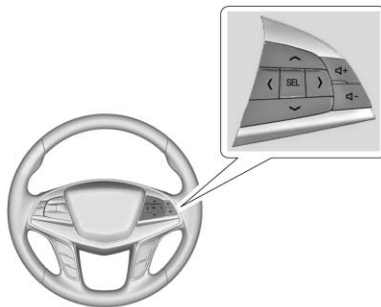
**SET-** : Press briefly to set the speed and activate cruise control. If the cruise control is already active, use to decrease vehicle speed. To decrease speed by 1 km/h (1 mph), press SET- to the first detent. To decrease speed to the next 5 km/h (5 mph) mark on the speedometer, press SET- to the second detent.

**⊗** : Press to disengage cruise control without erasing the set speed from memory.

See *Cruise Control* ⇨ 206 or *Adaptive Cruise Control* ⇨ 209 (if equipped).

## Driver Information Centre (DIC)

The DIC display is in the instrument cluster. It shows the status of many vehicle systems.




**^ or v** : Press to go to the previous or next selection.

**< or >** : Press to move between the interactive display zones in the cluster. Press **<** to go back to the previous menu.

**SEL** : Press to open a menu or select a menu item. Press and hold to reset values on certain screens.

See *Driver Information Centre (DIC)* ⇨ 140.

## Forward Collision Alert (FCA) System

If equipped, FCA may help avoid or reduce the harm caused by front-end crashes. FCA provides a green indicator, , when a vehicle is detected ahead. This indicator displays amber if you follow a vehicle much too closely. When approaching a vehicle ahead too quickly, FCA provides a flashing red alert on the windscreen and rapidly beeps or pulses the driver seat.

See *Forward Collision Alert (FCA) System* ⇨ 223.

## Night Vision System

If equipped, this system can help the driver see and alert the driver to pedestrians or large animals ahead of the vehicle beyond the area lit by the headlights.


See *Night Vision System* ⇨ 230.

## Forward Automatic Braking (FAB)

If the vehicle has Forward Collision Alert (FCA), it also has FAB, which includes Intelligent Brake Assist (IBA). When the system detects a vehicle ahead in your path that is travelling 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.

See *Forward Automatic Braking (FAB)* ⇨ 226.

## Front Pedestrian Braking (FPB) System

If equipped, the 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 windscreen

and rapidly beeps or pulses the driver seat. FPB can provide a boost to braking or automatically brake the vehicle.

See *Front Pedestrian Braking (FPB) System* ⇨ 227.

## Lane Keep Assist (LKA)

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 indicator in that direction. It may also provide a Lane Departure Warning (LDW) alert as the lane marking is crossed. The system will not assist or 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 60 km/h (37 mph) and 180 km/h (112 mph).

See *Lane Departure Warning (LDW)* ⇨ 234 and *Lane Keep Assist (LKA)* ⇨ 234.

## Lane Change Alert (LCA)

If equipped, the 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 mirror and will flash if the indicator is on. The Side Blind Zone Alert (SBZA) system is included as part of the LCA system.

See *Side Blind Zone Alert (SBZA)* ⇨ 232 and *Lane Change Alert (LCA)* ⇨ 232.

## Surround Vision

If equipped, views around the vehicle display in the infotainment display to aid with parking and low-speed maneuvers.

See “Surround Vision” under *Assistance Systems for Parking or Reversing* ⇨ 217.

## Front Vision Camera

If equipped, a view of the area in front of the vehicle displays on the infotainment display to aid with parking and low-speed maneuvers.

See “Front Vision Camera” under *Assistance Systems for Parking or Reversing* ⇨ 217.

## Rear Vision Camera (RVC)

If equipped, RVC shows a view of the area behind the vehicle on the infotainment display when the vehicle is shifted into R (Reverse) to aid with parking and low-speed backing manoeuvres.

See *Assistance Systems for Parking or Reversing* ⇨ 217.

## Rear Cross Traffic Alert (RCTA) System

If equipped, the RCTA system uses a triangle with an arrow displayed on the infotainment display to warn of traffic behind your vehicle that may cross your vehicle's path while in R (Reverse). In addition, beeps will sound, or the driver seat will pulse.

See *Assistance Systems for Parking or Reversing* ⇨ 217.

## Parking Assist

If equipped, Rear Parking Assist (RPA) uses sensors on the rear bumper to assist with parking and avoiding objects while in R (Reverse).


It operates at speeds less than 8 km/h (5 mph). RPA may show a warning triangle on the infotainment display and a graphic on the instrument cluster to provide the object distance. In addition, multiple beeps or seat pulses may occur if very close to an object.

The vehicle may also have the Front Parking Assist system.

See *Assistance Systems for Parking or Reversing* ⇨ 217.

## Automatic Parking Assist (APA)

If equipped, the APA system helps to search for and maneuver the vehicle into parallel or perpendicular parking spots using automatic steering,

displays, and beeps. When the vehicle speed is below 30 km/h (18 mph), touch  to enable the system.

See “Automatic Parking Assist (APA)” under *Assistance Systems for Parking or Reversing* ⇨ 217.

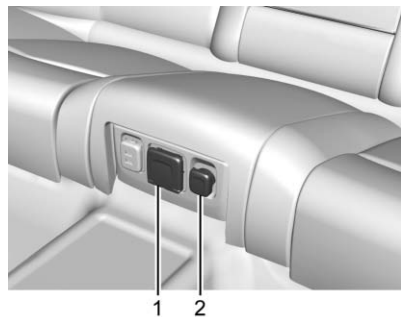
## Reverse Automatic Braking (RAB)

If the vehicle has Adaptive Cruise Control (ACC) it also has the RAB system, which is designed to help avoid or reduce the harm caused by reversing crashes when the vehicle is shifted into R (Reverse). If the system detects the vehicle is reversing too fast to avoid a crash with a detected object behind your vehicle in your path, it may automatically brake hard to a stop.

See *Assistance Systems for Parking or Reversing* ⇨ 217.

## Power Sockets

The 12-volt accessory power outlet can be used to plug in electrical equipment, such as a cell phone or MP3 player.



1. Power Socket 220V/230V Alternating Current
2. Power Outlet 12-Volt Direct Current

The vehicle has an accessory power socket on the rear seat trim panel.

Lift the cover to access the power socket.

See *Power Sockets* ⇨ 115.

## Universal Remote System



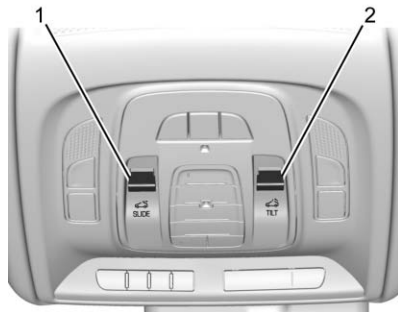
If equipped, this system provides a way to replace up to three remote control transmitters used to activate devices such as garage door openers, security systems, and home automation devices.

Read the instructions completely before attempting to program the Universal Remote system. Because of the steps involved, it may be helpful to have another person available to assist you with programming the Universal Remote system.

See *Universal Remote System Operation* ⇨ 157.


## Sunroof

If equipped with a sunroof, the ignition must be on or in ACC/ACCESSORY, or Retained Accessory Power (RAP) must be active, to operate the sunroof. See *Ignition Positions* ⇨ 191 and *Retained Accessory Power (RAP)* ⇨ 194.





1. SLIDE Switch
2. TILT Switch



## Slide Switch

**Express-Open/Express-Close :** Press the rear or front of  (1) to the second detent and release to express-open or express-close the sunroof.

## Open/Close (Manual Mode) :

Press the rear of  (1) to the first detent and hold to open the sunroof. Press the front of  (1) to the first detent and hold to close the sunroof.

## Tilt Switch

**Vent Feature :** Press and hold the front of  (2) to vent the sunroof. Press and hold the rear of  (2) to close the sunroof vent.







See *Sunroof* ⇨ 53.


## Performance and Maintenance

### Traction Control/Electronic Stability Control

The Traction Control System (TCS) limits wheel spin. The system is on when the vehicle is started.

The StabiliTrak system assists with directional control of the vehicle in difficult driving conditions. The system is on when the vehicle is started.

- To turn off TCS, press and release  on the centre console.  illuminates in the instrument cluster and the appropriate DIC message displays.
- Press and release  again to turn TCS back on.
- To turn off both TCS and StabiliTrak, press and hold  on the centre console until  and  illuminate in the instrument cluster. The appropriate DIC message displays.

- Press and release  again to turn on both systems.

See *Traction Control/Electronic Stability Control* ⇨ 204.

The vehicle has Driver Mode Control. See *Driver Mode Control* ⇨ 205.

### Tyre Pressure Monitor

This vehicle may have a Tyre Pressure Monitor System (TPMS).



The low tyre pressure warning light alerts to a significant loss in pressure of one of the vehicle's tyres. If the warning light comes on, stop as soon as possible and inflate the tyres to the recommended pressure shown on the Tyre and Loading Information label. See *Vehicle Load Limits* ⇨ 186. The warning light will remain on until the tyre pressure is corrected.

The low tyre pressure warning light may come on in cool weather when the vehicle is first started, and then turn off as the vehicle is driven. This may be an early indicator that the tyre pressures are getting low and the tyres need to be inflated to the proper pressure.

The TPMS does not replace normal monthly tyre maintenance. Maintain the correct tyre pressures.

See *Tyre Pressure Monitor System* ⇨ 272.

## Fuel



### Premium Required Fuel

Use 95 RON or higher octane unleaded gasoline in your vehicle. Do not use petrol with an octane rating lower as it may result in vehicle damage and lower fuel economy. See *Fuel* ⇨ 236.

## Engine Oil Life System

The engine oil life system calculates engine oil life based on vehicle use and displays CHANGE ENGINE OIL SOON message when it is time to change the engine oil and filter. The oil life system should be reset to 100% only following an oil change.

### Resetting the Oil Life System

After you change the oil, the oil life system will need to be reset. See your dealer for service.

See *Engine Oil Life System* ⇨ 246.

## Driving for Better Fuel Economy

Driving habits can affect fuel mileage. Here are some driving tips to get the best fuel economy possible.

- Avoid fast starts and accelerate smoothly.
- Brake gradually and avoid abrupt stops.
- Avoid idling the engine for long periods of time.
- When road and weather conditions are appropriate, use cruise control.
- Always follow posted speed limits or drive more slowly when conditions require.
- Keep vehicle tyres properly inflated.
- Combine several trips into a single trip.
- Replace the vehicle's tyres with the same TPC Spec number moulded into the tyre's sidewall near the size.
- Follow recommended scheduled maintenance.

# Keys, Doors, and Windows

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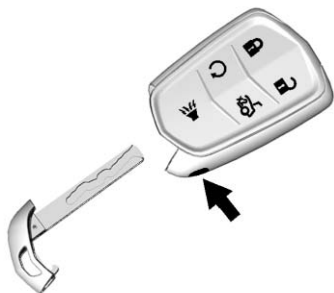
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# Keys and Locks

## Keys

### Warning

Leaving children in a vehicle with a Remote Keyless Entry (RKE) transmitter is dangerous and children or others could be seriously injured or killed. They could operate the power windows or other controls or make the vehicle move. The windows will function with the RKE transmitter in the vehicle, and children or others could be caught in the path of a closing window. Do not leave children in a vehicle with an RKE transmitter.



This key, inside the Remote Keyless Entry (RKE) transmitter, is used for the driver door.

To remove the key, press the button on the side of the transmitter near the bottom, and pull the key out. Never pull the key out without pressing the button.

With an active OnStar subscription, an OnStar Advisor may remotely unlock the vehicle. See *OnStar Overview* ⇨ 324. See your dealer if a new key is needed.

## Remote Keyless Entry (RKE) System

See *Declaration of Conformity* ⇨ 320.

If there is a decrease in the Remote Keyless Entry (RKE) operating range:

- Check the distance. The transmitter may be too far from the vehicle.
- Check the location. Other vehicles or objects may be blocking the signal.
- Check the transmitter's battery. See "Battery Replacement" later in this section.

- If the transmitter is still not working correctly, see your dealer or a qualified technician for service.


## Remote Keyless Entry (RKE) System Operation



The Keyless Access system allows for vehicle entry when the transmitter is within 1 m (3 ft). See "Keyless Access Operation" later in this section.


The RKE transmitter may work up to 60 m (197 ft) away from the vehicle.


Keep in mind that other conditions, such as those previously stated, can impact the performance of the transmitter.





 : Press to lock all doors. The direction indicators may flash on the second press to indicate locking.


If the driver door is open when  is pressed and Unlocked Door Anti-Lockout is enabled through the vehicle personalisation, all doors will lock and then the driver door will immediately unlock. See *Vehicle Personalisation* ⇨ 146. If the passenger door is open when  is pressed, all doors lock.


Pressing  may also arm the alarm system. See *Vehicle Alarm System* ⇨ 43.


If equipped with auto mirror folding, pressing and holding  for one second will fold the mirrors. The auto mirror folding feature will not operate unless it is enabled. See *Vehicle Personalisation* ⇨ 146.


Pressing  will also lock the fuel door.


Press and hold  until the windows fully close. Windows will not operate unless remote window operation is enabled. See *Vehicle Personalisation* ⇨ 146.




 : Press to unlock the driver door. Press unlock again within five seconds to unlock all doors. The RKE transmitter can be programmed to unlock all doors on the first button press. See *Vehicle Personalisation* ⇨ 146. Unlock feedback can be personalised. See *Vehicle Personalisation* ⇨ 146. When remotely unlocking the vehicle at night, the headlamps and reversing lamps will come on for about 30 seconds to light your approach to the vehicle. The indicators may flash to indicate unlocking.

Pressing  will disarm the alarm system. See *Vehicle Alarm System* ⇨ 43.

Pressing  will also unlock the fuel door.

If equipped with auto mirror folding, pressing and holding  for one second will unfold the mirrors. The auto mirror folding feature will not operate unless it is enabled. See *Vehicle Personalisation* ⇨ 146.

Press and hold  until the windows fully open. Windows will not operate unless remote window operation is enabled. See *Vehicle Personalisation* ⇨ 146.

 : Press and release  and then immediately press and hold  for at least four seconds to start the engine from outside the vehicle using the RKE transmitter. See *Remote Vehicle Start* ⇨ 33.

➤: Press and release one time to initiate vehicle locator. The exterior lamps flash and the horn chirps three times. Press and hold ➤ for more than three seconds to sound the panic alarm. The horn sounds and the indicators flash for 30 seconds, or until ➤ is pressed again or the vehicle is started.

🔑: Press twice quickly to open the boot. Press once to stop the boot from moving. See *Boot* ⇨ 39.

### Auto Door Relock

If a door is not opened or the vehicle is not started within three minutes of unlocking the vehicle and disarming the alarm system with the RKE transmitter, all doors are automatically locked and the vehicle alarm system is re-armed.

See *Vehicle Personalisation* ⇨ 146.

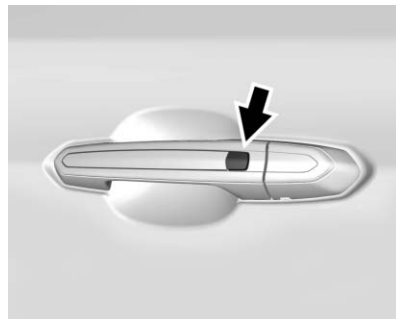
### Keyless Access Operation

The Keyless Access system lets you lock and unlock the doors and access the boot without removing the RKE transmitter from your pocket, purse, briefcase, etc. The RKE transmitter must be within 1 m (3 ft) of the door or boot being opened. If equipped, there will be a button on the outside door handles.

The Keyless Access system can be programmed to unlock all doors on the first lock/unlock press from the driver door. See *Vehicle Personalisation* ⇨ 146.

### Keyless Unlocking/Locking from the Driver Door

When the doors are locked and the RKE transmitter is within 1 m (3 ft) of the door handle, pressing the lock/unlock button on the driver door handle will unlock the driver door. If the lock/unlock button is pressed again within five seconds, all passenger doors will unlock.



Driver Door Shown, Passenger Similar

Pressing the lock/unlock button will cause all doors to lock if any of the following occur:

- It has been more than five seconds since the first lock/unlock button press.
- Two lock/unlock button presses were used to unlock all doors.
- Any vehicle door has opened and all doors are now closed.

### Keyless Unlocking/Locking from the Passenger Doors

When the doors are locked and the RKE transmitter is within 1 m (3 ft) of the door handle, pressing the lock/unlock button on a passenger door handle will unlock all doors. Pressing the lock/unlock button will cause all doors to lock if any of the following occur:

- The lock/unlock button was used to unlock all doors.
- Any vehicle door has opened and all doors are now closed.

### Passive Locking

The Keyless Access system will lock the vehicle several seconds after all doors are closed if the vehicle is off and at least one transmitter has been removed or none remain in the vehicle.



If equipped with a locking fuel door, the fuel door will also lock at this time.

If other electronic devices interfere with the RKE transmitter signal, the vehicle may not detect the RKE

transmitter inside the vehicle. If passive locking is enabled, the doors may lock with the RKE transmitter inside the vehicle. Do not leave the RKE transmitter in an unattended vehicle.

To customise the doors to automatically lock when exiting the vehicle, see *Vehicle Personalisation* ⇨ 146.

### Temporary Disable of Passive Locking Feature

Temporarily disable the passive locking by pressing and holding  on the interior door switch with a door open for at least four seconds, or until three chimes are heard. Passive locking will then remain disabled until  on the interior door is pressed, or until the vehicle is switched on.

### Remote Left in Vehicle Alert

When the vehicle is turned off and a remote is left in the vehicle, the horn will chirp three times after all doors are closed. To turn on or off see *Vehicle Personalisation* ⇨ 146.

### Remote No Longer in Vehicle Alert

If the vehicle is on, with a door open, and then all doors are closed, the vehicle will check for RKE transmitter(s) inside. If an RKE transmitter is not detected, the DIC will display NO REMOTE DETECTED and the horn will chirp three times. This occurs only once each time the vehicle is driven. To turn on or off, see *Vehicle Personalisation* ⇨ 146.

### Keyless Boot Opening

To open the boot, press the touch pad on the rear of the boot above the number plate. The doors must be unlocked or the RKE transmitter must be within 1 m (3 ft).

### Keyed Access

To access a vehicle with a dead transmitter battery, see *Door Locks* ⇨ 35.

### Programming Transmitters to the Vehicle

Only RKE transmitters programmed to this vehicle will work. If a transmitter is lost or stolen, a replacement can be purchased and programmed through

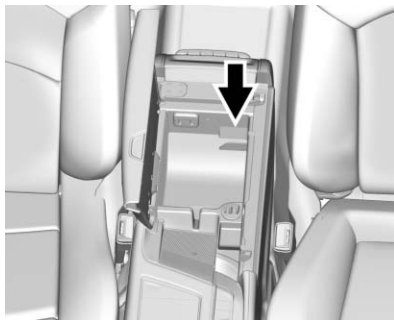
your dealer. When the replacement transmitter is programmed to this vehicle, all remaining transmitters must also be reprogrammed. Any lost or stolen transmitters will no longer work once the new transmitter is programmed. Each vehicle can have up to eight transmitters programmed to it. See your dealer to program transmitters to this vehicle.

### Starting the Vehicle with a Low Transmitter Battery

If the transmitter battery is weak or if there is interference with the signal, the DIC may display NO REMOTE DETECTED or NO REMOTE KEY WAS DETECTED. PLACE KEY IN TRANSMITTER POCKET. THEN START YOUR VEHICLE. when starting the vehicle.

To start the vehicle:

1. Open the centre console storage area.



2. Place the transmitter in the transmitter pocket.
3. With the vehicle in P (Park) or N (Neutral) press the brake pedal and ENGINE START/STOP.

Replace the transmitter battery as soon as possible.

### Battery Replacement

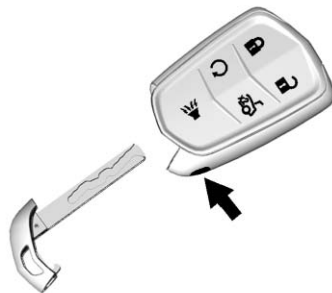
#### Warning

Make sure that you dispose of old batteries in accordance with environmental protection regulations to help protect the environment and your health.

### Caution

When replacing the battery, do not touch any of the circuitry on the transmitter. Static from your body could damage the transmitter.

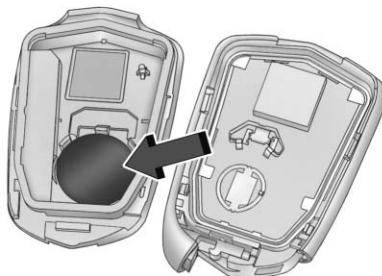
Replace the battery if the REPLACE BATTERY IN REMOTE KEY message displays in the DIC.



1. Press the button on the side of the transmitter near the bottom and pull the key out.




2. Separate the two halves of the transmitter using a flat tool inserted into the bottom centre of the transmitter. Do not use the key slot.



3. Remove the old battery. Do not use a metal object.
4. Insert the new battery on the back housing, positive side facing down. Replace with a CR2032 or equivalent battery.
5. Align the front and back housing, then snap the transmitter together.
6. Reinsert the key.

## Remote Vehicle Start

This feature allows the engine to be started from outside the vehicle.

 : This button will be on the RKE transmitter.

The climate control system will use the previous settings during a remote start. The rear window demister may come on during remote start based on cold ambient conditions. The rear demist indicator light does not come on during remote start.

If equipped, the heated seats and heated steering wheel or ventilated seats may come on when enabled in vehicle personalisation. See *Vehicle Personalisation* ⇨ 146

If equipped, the heated and ventilated front seats may also come on when the vehicle personalisation setting is enabled. See *Heated and Ventilated Front Seats* ⇨ 63.



Laws in some local communities may restrict the use of remote starters. For example, some laws may require a person using remote start to have the vehicle in view. Check local regulations for any requirements.

If your vehicle is low on fuel, do not use the remote start feature. The vehicle may run out of fuel.

The RKE transmitter range may be shorter while the vehicle is running.

Other conditions can affect the performance of the transmitter. See *Remote Keyless Entry (RKE) System* ⇨ 28.

### Starting the Engine Using Remote Start

1. Press and release  on the RKE transmitter.
2. Immediately press and hold  for at least four seconds or until the lamps flash. This confirms the request to remote start the vehicle has been received.

During the remote start, the doors will be locked and the parking lamps will remain on as long as the engine is running.

The engine will shut off after 10 minutes unless a time extension is added or the vehicle is started.

3. Press the brake pedal and start the vehicle to drive.

### Extending Engine Run Time

The engine run time can also be extended by another 10 minutes, if during the first 10 minutes Steps 1 and 2 are repeated while the engine is still running. An extension can be requested 30 seconds after starting. This provides a total of 20 minutes.

The remote start can only be extended once.


When the remote start is extended, the second 10 minute period is added on to the first 10 minutes for a total of 20 minutes.

A maximum of two remote starts, or a remote start with an extension, are allowed between ignition cycles.

The ignition must be turned from on to off before the remote start procedure can be used again.

### Cancelling a Remote Start

To cancel a remote start, do one of the following:

- Press and hold  until the parking lamps turn off.

- Turn on the hazard warning lights.
- Turn the vehicle on and then off.

### Conditions in Which Remote Start Will Not Work

The remote start will not operate if any of the following occur:

- The ignition is in any mode other than OFF.
- A transmitter is in the vehicle.
- The bonnet is not closed.
- The hazard warning flashers are on.
- There is an emission control system malfunction.
- The engine coolant temperature is too high.
- The oil pressure is low.
- Two remote vehicle starts have already been used.
- The vehicle is not in P (Park).

## Door Locks

### Warning

Unlocked doors can be dangerous.



- Passengers, especially children, can easily open the doors and fall out of a moving vehicle. The doors can be unlocked and opened while the vehicle is moving. The chance of being thrown out of the vehicle in a crash is increased if the doors are not locked. So, all passengers should wear seat belts properly and the doors should be locked whenever the vehicle is driven.
- Young children who get into unlocked vehicles may be unable to get out. A child can be overcome by extreme heat and can suffer permanent injuries or even death from heat stroke. Always lock the vehicle whenever leaving it.

(Continued)



### Warning (Continued)

- Outsiders can easily enter through an unlocked door when you slow down or stop the vehicle. Locking the doors can help prevent this from happening.

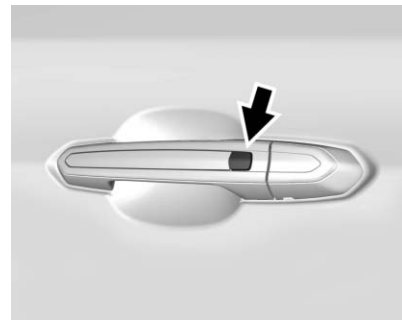
To lock or unlock the door from outside the vehicle:

- Press  or  on the Remote Keyless Entry (RKE) transmitter.
- In the case of a dead battery, use the key in the driver door. The key cylinder is covered with a cap.

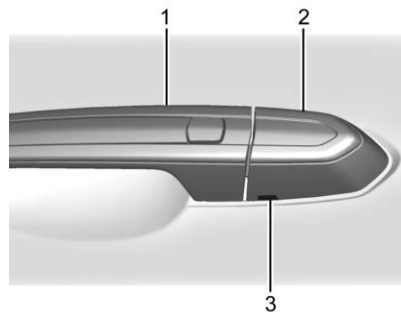
To lock or unlock the door from inside the vehicle:

- Press  or  on the power door lock switch.
- Pulling an interior door handle will unlock the door. Pulling the door handle again unlatches it.

## Keyless Access



Press the lock/unlock button when the RKE transmitter is within 1 m (3 ft) of the driver door handle. When unlocking from the driver door, the first press unlocks that door; press again within five seconds to unlock all passenger doors. See *Remote Keyless Entry (RKE) System Operation* ⇨ 28.

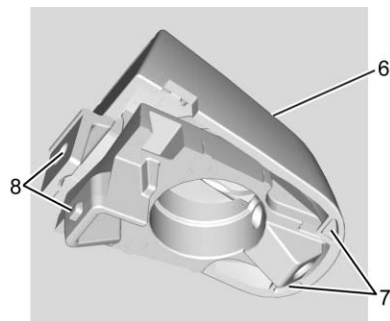
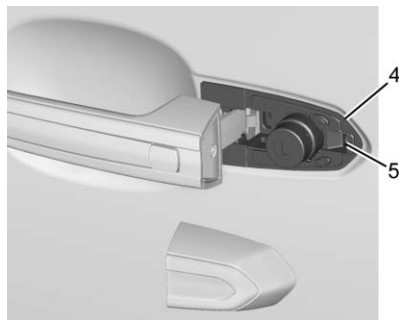
**Driver Door Key Cylinder Access (In Case of Dead Battery)**

To access the key cylinder:

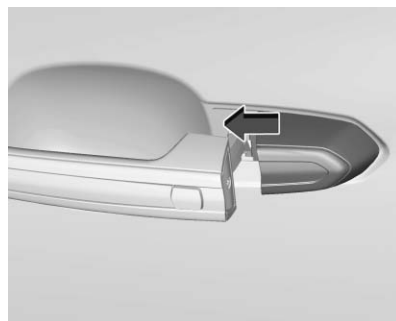
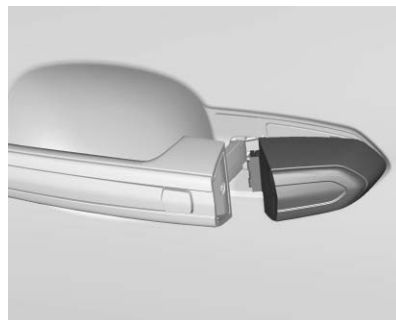
1. Pull the door handle (1) to the open position.
2. Insert the key into the slot (3) on the bottom of the cap (2) and pry outward.
3. Move the cap (2) rearward and remove.
4. Use the key in the cylinder.

To replace the cap:

1. Pull the door handle to the open position.



2. Insert the two tabs (7) at the back of the cap (6) between the seal (4) and the metal base (5).




3. Move the cap forward and press the forward edge to secure the cap in place (8).
4. Release the door handle.


## Free Turning Locks

The door lock cylinder turns freely when either the wrong key is used, or the correct key is not fully inserted. The free-turning door lock feature prevents the lock from being forced open. To reset the lock, turn it to the vertical position with the correct key fully inserted. Remove the key and insert it again. If this does not reset the lock, turn the key halfway around in the cylinder and repeat the reset procedure.

## Power Door Locks




 : Press to lock the doors.

 : Press to unlock the doors.



## Delayed Locking

This feature delays the locking of the doors until five seconds after all doors are closed.

Delayed locking can only be turned on when the Unlocked Door Anti-Lockout has been turned off.

When  is pressed on the power door lock switch while the door is open, a chime will sound three times indicating delayed locking is active.

The doors will lock automatically five seconds after all doors are closed. If a door is reopened before that time, the five-second timer will reset when all doors are closed again.


Press  on the door lock switch again or press  on the RKE transmitter to lock the doors immediately.

This feature can also be programmed. See *Vehicle Personalisation* ⇨ 146.

## Automatic Door Locks

When programmed, the doors will lock automatically when all doors are closed, the ignition is on, and the vehicle is shifted out of P (Park).

To unlock the doors:

- Press  on the power door lock switch.
- Shift the gearbox into P (Park).


Automatic door locking and unlocking can be programmed. See *Vehicle Personalisation* ⇨ 146.

## Lockout Protection

If the ignition is on or in ACC/ACCESSORY, and the power door lock switch is pressed with the driver door open, all the doors will lock and only the driver door will unlock.

If the vehicle is off and locking is requested while a door is open, when all doors are closed the vehicle will check for RKE transmitters inside. If an RKE transmitter is detected and the number of RKE transmitters inside

has not reduced, the driver door will unlock and the horn will chirp three times.

Lockout Protection can be manually overridden with the driver door open by pressing and holding  on the power door lock switch.

### Unlocked Door Anti-Lockout

If Unlocked Door Anti-Lockout is turned on and the vehicle is off, the driver door is open, and locking is requested, all the doors will lock and only the driver door will unlock. The Unlocked Door Anti-Lockout feature can be turned on or off using the vehicle personalisation menus. See *Vehicle Personalisation* ⇨ 146.

## Safety Locks

The rear door safety locks prevent passengers from opening the rear doors from inside the vehicle.

### Manual Safety Locks



If equipped, the safety lock is on the inside edge of the rear doors. To use the safety lock:

1. Move the lever down to the lock position.
2. Close the door.
3. Do the same for the other rear door.

To open a rear door when the safety lock is on:

1. Unlock the door by activating the inside handle, by pressing the power door lock switch, or by using the Remote Keyless Entry (RKE) transmitter.
2. Open the door from the outside.

When the safety lock is enabled, adults and older children will not be able to open the rear door from the inside. Cancel the safety locks to enable the doors to open from the inside.

To cancel the safety lock:

1. Unlock the door and open it from the outside.
2. Move the lever up to unlock. Do the same for the other door.

## Doors

### Boot

#### Warning

Exhaust gases can enter the vehicle if it is driven with the tailgate or boot/hatch open, or with any objects that pass through the seal between the body and the boot/hatch or tailgate. Engine exhaust contains carbon monoxide (CO) which cannot be seen or smelled. It can cause unconsciousness and even death.

If the vehicle must be driven with the tailgate or boot/hatch open:

- Close all of the windows.
- Fully open the air outlets on or under the instrument panel.
- Adjust the climate control system to a setting that brings in only outside air and

(Continued)

#### Warning (Continued)

set the fan speed to the highest setting. See “Climate Control Systems” in the Index.


See *Engine Exhaust* ⇨ 196.

To open the boot, the vehicle must be off or the gear lever must be in P (Park).

#### Manual Boot



- Press  on the driver door.

- Press  twice quickly on the Remote Keyless Entry (RKE) transmitter.



- Press the touch pad on the rear of the boot above the number plate when all doors are unlocked.

For Keyless Access, the boot can be opened while the vehicle is locked by pressing the touch pad above the number plate while the RKE transmitter is within 1 m (3 ft) of the rear of the vehicle. See *Remote Keyless Entry (RKE) System Operation* ⇨ 28.

Close the boot by pulling on the handle. Do not use the handle as a tie-down. Do not press the touch pad while closing the boot; this will cause the boot lid to be unlatched.

The boot has an electric latch. If the vehicle has lost power or the battery is disconnected, the boot will not open. If this happens, use the emergency boot release handle.

### Power Boot

#### Warning

You or others could be injured if caught in the path of the power boot. Make sure there is no one in the way of the power boot as it is opening and closing.

#### Caution



Do not mount any load-carrying accessories, such as a bike rack or luggage carriers, to the boot of a

(Continued)

#### Caution (Continued)


vehicle equipped with the power boot feature. This may damage the power boot system.

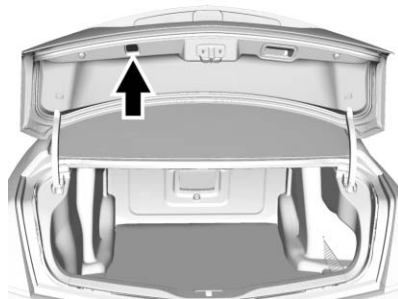
If equipped, to open the power boot:

- Press and release  on the driver door. The driver door must be unlocked, the ignition must be on, or Retained Accessory Power (RAP) must be active.
- Press  twice quickly on the RKE transmitter.
- Press the touch pad on the rear of the boot after unlocking all doors or with the RKE transmitter in range for Keyless Access.

Monitor the boot area to make sure nothing will come in contact or move into the path of the boot lid when power closing.

To close the power boot:

- Press and hold  on the driver door until the boot latches. A chime will sound and a DIC message will display when the operation is complete.



- Press the power boot button on the boot lid.

Press any boot button or the touch pad to stop the power operation. Pressing a boot button again starts the operation in the reverse direction. The touch pad will not close the boot lid.

Do not manually force the boot lid open or closed during a power cycle. The power boot may be temporarily disabled under extreme low temperatures, or after repeated power cycling over a short period of time. The boot can be opened manually.

### Obstacle Detection Features

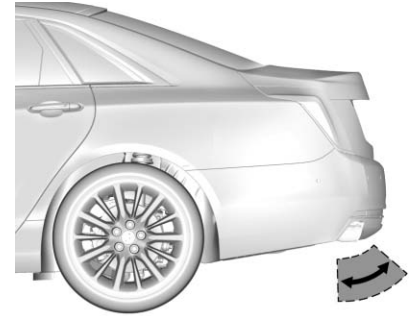
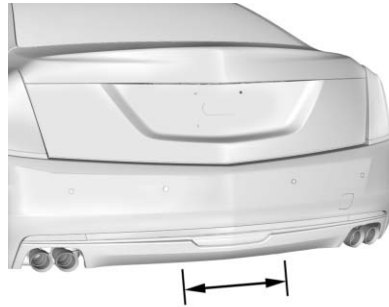
If there is an obstruction during a power open or close cycle, a closing boot will reverse direction and an opening boot will stop power operation. If there are multiple obstructions on the same power cycle, the power function will deactivate. After removing the obstructions, manually close the boot lid to allow normal power operation functions to resume.

If the vehicle is locked and an obstacle prevents the boot from closing and latching, the horn will sound as an alert that the boot did not close.

### Hands-Free Power Boot

If equipped, the power boot may be operated with a kicking motion under the rear bumper. The RKE transmitter must be within 1 m (3 ft).

The hands-free feature will not work while the boot lid is moving. To stop the boot while in motion, use one of the power boot buttons.



To operate, kick your foot straight up in one swift motion under the centre of the rear bumper, then pull it back.

- Do not sweep your foot side to side.
- Do not keep your foot under the bumper; it will not activate.
- Do not touch the boot lid until it has stopped moving.
- This feature may be temporarily disabled under some conditions. If it does not respond to the kick, operate the power boot by another method or start the vehicle and the feature will be re-enabled.

When closing the power boot using this feature, there will be a short delay. The tail lights will flash and a chime will sound. Move away from the boot before it starts moving.

### Rear Seat Pass-Through

Use the rear seat pass-through door when transporting long items. See *Rear Seat Pass-Through Door* ⇨ 68.

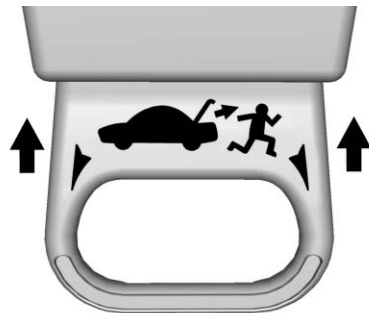
### Emergency Boot Release Handle



### Caution

Do not use the emergency boot release handle as a tie-down or anchor point when securing items in the boot as it could damage the handle.

There is a glow-in-the-dark emergency boot release handle on the boot lid. This handle will glow following exposure to light. Pull the release handle to open the boot from the inside.



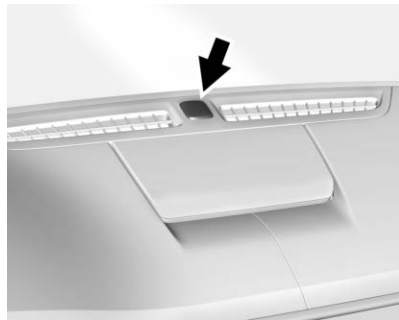
After pulling the emergency trunk release handle, push the handle back into the bezel.

## Vehicle Security

This vehicle has theft-deterrent features; however, they do not make the vehicle impossible to steal.

### Vehicle Alarm System

This vehicle has an anti-theft alarm system.



The indicator light, on the instrument panel near the windscreen, indicates the status of the system.



**Off :** Alarm system is disarmed.

**On Solid :** Vehicle is secured during the delay to arm the system.


**Fast Flash :** Vehicle is unsecured. A door, the bonnet, or the boot is open.

**Slow Flash :** Alarm system is armed.

### Arming the Alarm System

1. Turn off the vehicle.
2. Lock the vehicle in one of three ways:
  - Use the RKE transmitter.
  - Use the Keyless Access system.
  - With a door open, press  on the interior of the door.
3. After 30 seconds the alarm system will arm, and the indicator light will begin to slowly flash indicating the alarm system is operating. Pressing  on the RKE transmitter a second time will bypass the 30-second delay and immediately arm the alarm system.


The vehicle alarm system will not arm if the doors are locked with the key.

If the driver door is opened without first unlocking with the RKE transmitter, the horn will chirp and the lights will flash to indicate pre-alarm. If the vehicle is not started, or the door is not unlocked by pressing  on the RKE transmitter during the 10-second pre-alarm, the alarm will be activated.

The alarm will also be activated if a passenger door, the boot, or the bonnet is opened without first disarming the system. When the alarm is activated, the indicators flash and the horn sounds for about 30 seconds. The alarm system will then re-arm to monitor the next unauthorised event.

### Disarming the Alarm System

To disarm the alarm system or turn off the alarm if it has been activated:


- Press  on the RKE transmitter.
- Unlock the vehicle using the Keyless Access system.
- Start the vehicle.

To avoid setting off the alarm by accident:

- Lock the vehicle after all occupants have left the vehicle and all doors are closed.
- Always unlock a door with the RKE transmitter or use the Keyless Access system.

Unlocking the driver door with the key will not disarm the system or turn off the alarm.

### **How to Detect a Tamper Condition**

If  is pressed on the RKE transmitter and the horn chirps and the lights flash three times, a previous alarm occurred while the system was armed.

If the alarm has been activated, a message will appear on the Driver Information Centre (DIC).

### **Power Sounder, Inclination Sensor and Intrusion Sensor**

In addition to the standard theft-deterrent system features, this system may also have a power sounder, inclination sensor, and intrusion sensor.

The power sounder provides an audible alarm, which is distinct from the vehicle's horn. It has its own power source, and can sound an alarm if the vehicle's battery is compromised.

The inclination sensor can set off the alarm if it senses movement of the vehicle, such as a change in vehicle orientation.

The intrusion sensor monitors the vehicle interior, and can activate the alarm if it senses unauthorised entry into the vehicle's interior. Do not allow passengers or pets to remain in the vehicle when the intrusion sensor is activated.


Before arming the theft-deterrent system and activating the intrusion sensor:

- Make sure all doors and windows are completely closed.
- Secure any loose items such as sunshades.
- Make sure there are no obstructions blocking the sensors in the front overhead console.

### **Inclination and Intrusion Sensors Disable Switch**

It is recommended that the intrusion and inclination sensors be deactivated if pets are left in the vehicle or if the vehicle is being transported.



With the vehicle turned off, press  in the front overhead console. The indicator light will come on momentarily, indicating that these sensors have been disabled for the next alarm system arming cycle.

## Immobiliser

See *Declaration of Conformity* ⇨ 320.

## Immobiliser Operation

This vehicle has a passive theft-deterrent system.

The system does not have to be manually armed or disarmed.

The vehicle is automatically immobilised when the vehicle is turned off.

The immobilisation system is disarmed when the vehicle is started or the ignition is in ACC/ACCESSORY and a valid transmitter is present in the vehicle.



The security light, in the instrument cluster, comes on if there is a problem with arming or disarming the theft-deterrent system.

The system has one or more RKE transmitters matched to an immobiliser control unit in the vehicle. Only a correctly matched RKE transmitter will start the vehicle. If the transmitter is ever damaged, you may not be able to start your vehicle.

When trying to start the vehicle, the security light may come on briefly when the ignition is turned on.

If the engine does not start and the security light stays on, there is a problem with the system. Turn the ignition off and try again.

If the vehicle will not change ignition modes (ACC/ACCESSORY, ON, OFF), and the RKE transmitter appears to be undamaged, try another transmitter. Or, you may try placing the transmitter in the transmitter pocket located in the centre console.

If the ignition modes will not change with the other transmitter, your vehicle needs service. If the ignition does change modes, the first transmitter may be faulty. See your dealer.

It is possible for the immobiliser system to learn new or replacement RKE transmitters. Up to eight transmitters can be programmed for the vehicle. To program additional transmitters, see "Programming Transmitters to the Vehicle" under *Remote Keyless Entry (RKE) System Operation* ⇨ 28.

Do not leave the key or device that disarms or deactivates the theft-deterrent system in the vehicle.

## Exterior Mirrors

### Convex Mirrors

#### **Warning**

A convex mirror can make things, like other vehicles, look farther away than they really are. If you cut too sharply into the right lane, you could hit a vehicle on the right. Check the inside mirror or glance over your shoulder before changing lanes.

The passenger side mirror is convex shaped. A convex mirror's surface is curved so more can be seen from the driver seat.

## Power Mirrors



1. Move the selector switch to L (Left) or R (Right) to choose the driver or passenger mirror.
2. Press one of the four arrows to move the mirror.
3. Move the selector switch to ● to deselect the mirror.

## Memory Mirrors

The vehicle may have memory mirrors. See *Memory Seats* ⇨ 60.

## Lane Change Alert (LCA)

The vehicle may have LCA. See *Lane Change Alert (LCA)* ⇨ 232.

## Indicator


The vehicle has an indicator on the mirror housings. The indicator will flash when an indication is made or the hazard warning flashers are used.


## Folding Mirrors

### Power Folding Mirrors

Press the down arrow on the control pad while the selector switch is at ●. Press again to unfold.

### Auto Mirror Folding

If equipped, with the ignition off, press and hold  on the RKE transmitter for approximately one second to automatically fold the

exterior mirrors. Press and hold  on the RKE transmitter for approximately one second to unfold. See *Remote Keyless Entry (RKE) System Operation* ⇨ 28.

This feature is turned on or off through vehicle personalisation. See *Vehicle Personalisation* ⇨ 146.

## Heated Mirrors

The rear window demister also heats the outside mirrors.



**REAR** : Press to heat the outside mirrors.

See *Automatic Climate Control System (Quad Zone)* ⇨ 167 or *Automatic Climate Control System (Dual Zone)* ⇨ 174.

## Automatic Dimming Mirror

The vehicle has an automatic dimming outside mirror on the driver side. The mirror will adjust for the glare of headlamps behind you.

## Reverse Tilt Mirrors

If equipped with memory seats, the passenger and/or driver mirror tilts to a preselected position when the vehicle is in R (Reverse). This allows the kerb to be seen when parallel parking.

The mirror(s) return to the original position when:

- The vehicle is shifted out of R (Reverse), or remains in R (Reverse) for about 30 seconds.
- The ignition is turned off.
- The vehicle is driven in R (Reverse) above a set speed.

To turn this feature on or off, see *Vehicle Personalisation* ⇨ 146.

## Interior Mirrors

### Interior Rearview Mirrors

Adjust the rearview mirror for a clear view of the area behind your vehicle.

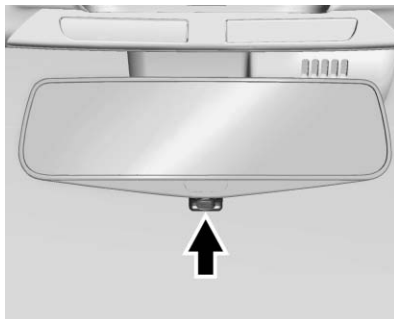
Do not spray glass cleaner directly on the mirror. Use a soft towel dampened with water.

### Automatic Dimming Rear View Mirror

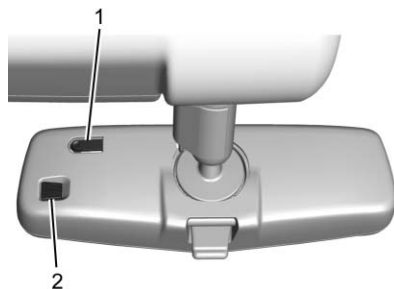
The vehicle has an automatic dimming rear-view mirror. The mirror will automatically reduce the glare from the headlamps from behind. The dimming feature comes on when the vehicle is started.

### Rear Camera Mirror

If equipped, this automatic dimming mirror provides a wide angle camera view of the area behind the vehicle.



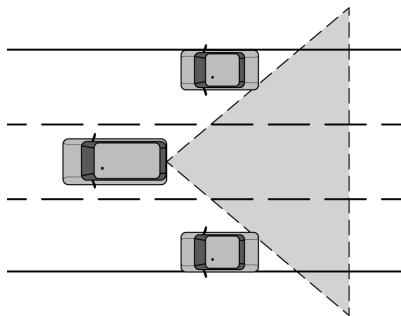
Pull the tab rearward to turn on the display. Push the tab forward to turn it off. When off, the mirror is automatic dimming. Adjust the mirror for a clear view of the area behind the vehicle while the display is off.



To adjust the brightness, press the button (1) on the back of the rear-view mirror without covering the light sensor (2).



Each button press cycles the brightness between five settings.



### **Warning**


The Rear Camera Mirror (RCM) has a limited view. Portions of the road, vehicles, and other objects may not be seen. Do not drive or park the vehicle using only this camera. Objects may appear closer than they are. Check the outside mirrors or glance over your shoulder when making lane changes or merging. Failure to use proper care may result in injury, death, or vehicle damage.



The camera that provides the Rear Camera Mirror (RCM) image is above the license plate, next to the Rear Vision Camera (RVC).

To clean the rear camera, see *Windscreen Wiper/Washer* ⇨ 112.

### **Troubleshooting**

If the tab is in the rearward position and a blue screen and  are displayed in the mirror and the display shuts off, see your retailer for service.

The RCM may not work properly or display a clear image if:

- There is glare from the sun or headlights. This may obstruct objects from view.
- Dirt, snow, or other debris blocks the camera lens. Clean the lens with a soft damp cloth.
- The back of the vehicle has been damaged and the position and mounting angle of the camera has changed.

## Windows

### Warning

Never leave a child, a helpless adult or a pet alone in a vehicle, especially with the windows closed in warm or hot weather. They can be overcome by the extreme heat and suffer permanent injuries or even death from heat stroke.



The vehicle aerodynamics are designed to improve fuel economy performance. This may result in a pulsing sound when either rear window is down and the front windows are up. To reduce the sound, open either a front window or the sunroof, if equipped.

## Power Windows

### Warning

Children could be seriously injured or killed if caught in the path of a closing window. Never leave the Remote Keyless Entry (RKE) transmitter in a vehicle with children. When there are children in the rear seat, use the window lockout switch to prevent operation of the windows. See *Keys* ⇨ 27.

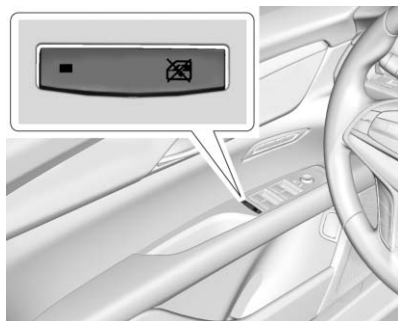


Power windows work when the ignition is on, in ACC/ACCESSORY, or when Retained Accessory Power (RAP) is active. See *Retained Accessory Power (RAP)* ⇨ 194.



Using the window switch, press to open or pull to close the window.

The windows may be temporarily disabled if they are used repeatedly within a short time.

## Window Lockout



This feature stops the rear passenger windows from working.

- Press  to engage the rear window lockout feature. The indicator light is on when engaged.
- Press  again to disengage.

## Window Express Movement

All windows can be opened without holding the window switch. Press the switch down fully and quickly release to express open the window.

If equipped, pull the window switch up fully and quickly release to express close the window.

Briefly press or pull the window switch in the same direction to stop that window's express movement.

## Window Automatic Reversal System

The express-close feature will reverse window movement if it comes in contact with an object. Extreme cold or ice could cause the window to auto-reverse. The window will operate normally after the object or condition is removed.

## Automatic Reversal System Override

### **Warning**

If automatic reversal system override is active, the window will not reverse automatically. You or others could be injured and the window could be damaged. Before using automatic reversal system

(Continued)

## **Warning (Continued)**

override, make sure that all people and obstructions are clear of the window path.

When the engine is on, override the automatic reversal system by pulling and holding the window switch if conditions prevent it from closing.


## **Programming the Power Windows**

Programming may be necessary if the vehicle battery has been disconnected or discharged. If the window is unable to express-up, program each express-close window:

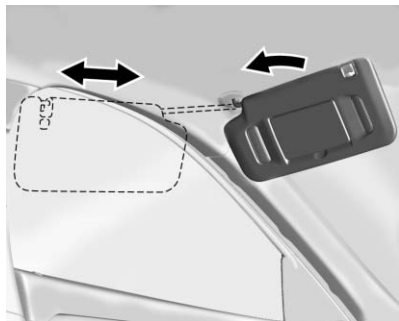
1. Close all doors.
2. Turn the ignition on or to ACC/ACCESSORY.
3. Partially open the window to be programmed. Then close it and continue to pull the switch briefly after the window has fully closed.

4. Open the window and continue to press the switch briefly after the window has fully opened.

### Remote Window Operation

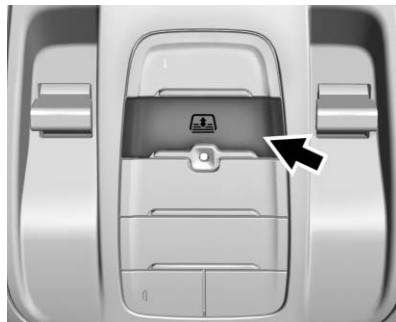
If equipped, this feature allows all the windows to be opened remotely. If enabled in vehicle personalisation, press and hold  on the RKE transmitter. See *Vehicle Personalisation* ⇨ 146.

### Sun Visors



Pull the sun visor down to block glare. Detach the sun visor from the centre mount to pivot to the side window, or to extend along the rod.

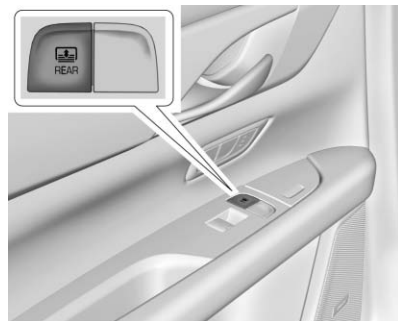
### Rear Window Sunshade



If equipped, press and release the switch. The rear window sunshade will fully extend. To close the sunshade, press and release the switch again. The sunshade will fully close.

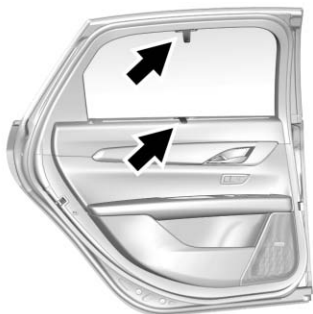
When shifting the vehicle into R (Reverse), the rear window sunshade will automatically retract if

it is extended. It may re-extend after a short delay when shifting into D (Drive).



There is also a control for the rear window sunshade on the rear door panel.

## Rear Passenger Door Sunshades



If equipped, use the handle to pull the sunshade up and attach to the holder at the top of the window.

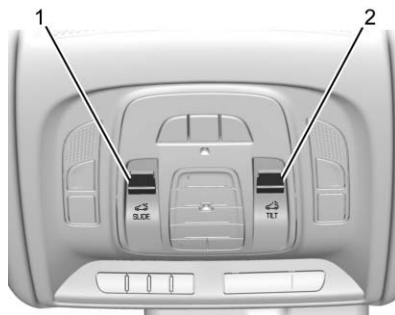
To close the sunshade, use the handle to unhook and hold it while it retracts down.

## Roof

### Sunroof

If equipped with a sunroof, the ignition must be on or in ACC/ACCESSORY, or Retained Accessory Power (RAP) must be active, to operate the sunroof.


See *Ignition Positions* ⇨ 191 and *Retained Accessory Power (RAP)* ⇨ 194.





1. SLIDE Switch
2. TILT Switch

### Slide Switch



#### Express-Open/Express-Close :

Press the rear or front of  SLIDE (1) to the second detent and release to express-open or express-close the sunroof.

#### Open/Close (Manual Mode) :

Press the rear of  SLIDE (1) to the first detent and hold to open the sunroof. Press the front of  SLIDE (1) to the first detent and hold to close the sunroof.

### Tilt Switch

**Vent Feature :** Press and hold the front of  TILT (2) to vent the sunroof. Press and hold the rear of  TILT (2) to close the sunroof vent.

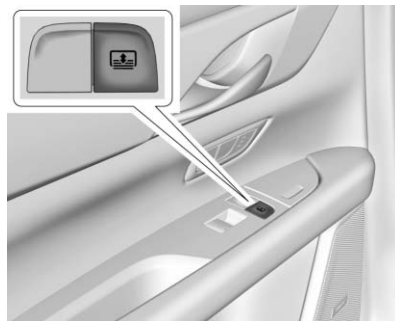
## Power Sunshades



If equipped, press F to open or close the front sunroof sunshade.



If equipped, press R to open or close the rear sunroof sunshade.



The rear door panels have controls for the rear sunroof sunshade. Press to open or close.

## Automatic Reversal System

The sunroof has an automatic reversal system that is only active when the sunroof is operated in express-close mode.

If an object is in the path while express closing, the reversal system will detect an object, stop, and open the sunroof again.

If frost or other conditions prevent closing, override the feature by closing the sunroof in manual mode. To stop movement, release the switch.



Dirt and debris may collect on the sunroof seal or in the track. This could cause an issue with sunroof operation or noise. It could also plug the water drainage system. Periodically open the sunroof and remove any obstacles or loose debris. Wipe the sunroof seal and roof sealing area using a clean cloth, mild soap, and water. Do not remove grease from the sunroof.

If water is seen dripping into the water drainage system, this is normal.

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## Head Restraints

The vehicle's front seats have adjustable head restraints in the outboard seating positions.

### **Warning**

With head restraints that are not installed and adjusted properly, there is a greater chance that occupants will suffer a neck/spinal injury in a crash. Do not drive until the head restraints for all occupants are installed and adjusted properly.

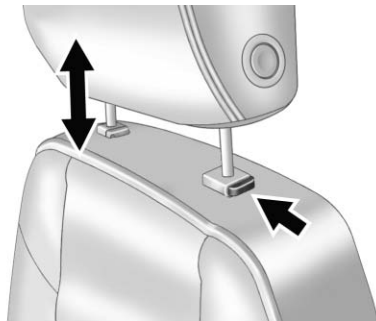
If your vehicle has rear head restraints that fold down, always return them to the full upright position whenever an occupant is seated in the seat.



Adjust the head restraint so that the top of the restraint is at the same height as the top of the occupant's head. This position reduces the chance of a neck injury in a crash.

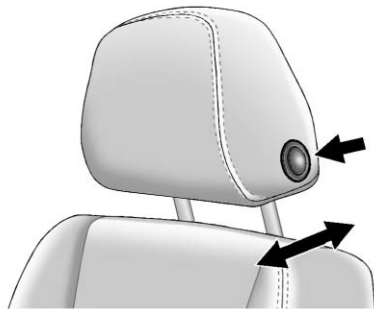
### **Front Seats**

The vehicle's front seats have adjustable head restraints in the outboard seating positions.



Pull the head restraint up to raise it. Try to move the head restraint to make sure that it is locked in place.

To lower the head restraint, press the button located on top of the backrest, and push the head restraint down. Try to move the head restraint after the button is released to make sure that it is locked in place.



The fore and aft position of the head restraint can be adjusted.

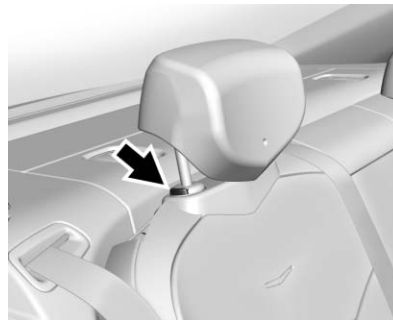
To adjust the head restraint forward and rearward, press the button located on the side facing the head restraint and move it forward or rearward until the desired locking position is reached. Try to move the head restraint after the button is released to make sure that it is locked in place.

The front seat outboard head restraints are not designed to be removed.

## Rear Seats

The vehicle's rear seats have adjustable head restraints in the outboard seating positions.

The height of the head restraint can be adjusted. Pull the head restraint up to raise it. Try to move the head restraint to make sure that it is locked in place.



To lower the head restraint, press the button, located on the top of the seat backrest, and push the head restraint down. Try to move the head restraint after the button is released to make sure that it is locked in place.

Always adjust the head restraint so that the top of the restraint is at the same height as the top of the occupant's head.

Rear outboard head restraints are not removable.

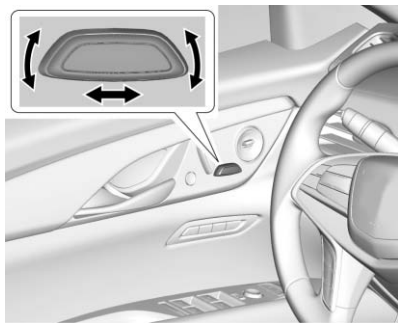
The rear outboard head restraints are not designed to be folded.

## Front Seats

### Electrically Operated Seat Adjustment

#### Warning

You can lose control of the vehicle if you try to adjust a driver seat while the vehicle is moving. Adjust the driver seat only when the vehicle is not moving.



Platinum Seat Shown, Base and Uplevel Seats Similar

To adjust:

- Move the seat forward or rearward by sliding the control forward or rearward.
- Raise or lower the front part of the seat cushion by moving the front of the control up or down.
- Raise or lower the seat by moving the rear of the control up or down.

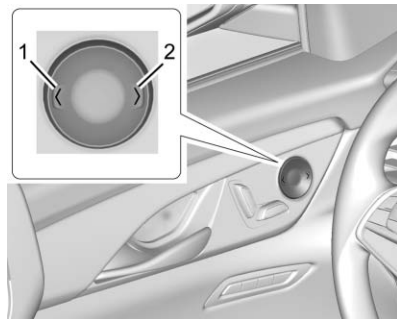
To adjust the seatback, see *Reclining Seat Backrests* ⇨ 60.

To adjust the lumbar support, see *Lumbar Adjustment* ⇨ 58.

Some vehicles are equipped with a feature that activates a vibrating pulse alert in the driver seat to help avoid crashes. See *Driver Assistance Systems* ⇨ 217.

## Lumbar Adjustment

### Base Lumbar Adjustment



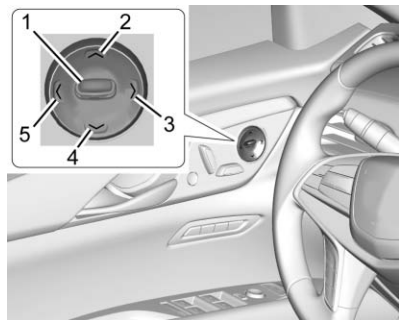
Base Seat

To adjust lumbar support, if equipped:

- Press Forward (2) to move lumbar support forward.
- Press Rearward (1) to move lumbar support rearward.

## Uplevel Lumbar and Upper Back Support Adjustment

If equipped, the ignition must be on to use all up-level seat features.



Platinum Seat

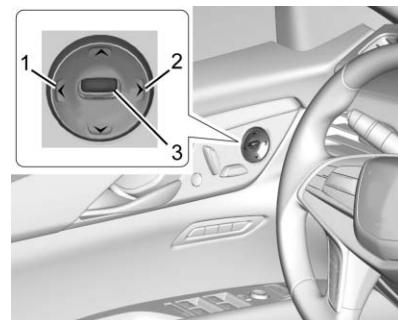
1. Feature Select
  2. Up
  3. Forward
  4. Down
  5. Rearward
1. To adjust lumbar support, if equipped: Toggle the Feature Select (1) to view adjustable seat options on the infotainment display.

2. Select lumbar support.
  - Press Up (2) to move lumbar support upward.
  - Press Forward (3) to move lumbar support forward.
  - Press Down (4) to move lumbar support down.
  - Press Rearward (5) to move lumbar support rearward.

To adjust upper back support, if equipped:

1. Toggle the Feature Select (1) to view adjustable seat options on the infotainment display.
2. Select Upper Back Support.
3. Press Forward (3) to move support forward or Rearward (5) to move support rearward.

## Thigh Support Adjustment



To adjust thigh support, if equipped:

1. Toggle the Feature Select (3) to view adjustable seat options on the infotainment display.
2. Select cushion length adjuster.
3. Press and hold the control forward (2) to increase or rearward (1) to decrease cushion length.

## Reclining Seat Backrests



Platinum Seat Shown, Base and Uplevel Seats Similar

To adjust:

- Tilt the top of the control rearward to recline.
- Tilt the top of the control forward to raise the seatback.

### Warning

Sitting in a reclined position when the vehicle is in motion can be dangerous. Even when fastened, the seat belts cannot do their job.

The shoulder belt will not be against your body. Instead, it will be in front of you. In a crash, you could go into it, receiving neck or other injuries.

The lap belt could go up over your abdomen. The belt forces would be there, not at your pelvic bones. This could cause serious internal injuries.

For proper protection when the vehicle is in motion, have the seatback upright. So sit well back in the seat and wear the seat belt properly.





Do not have a backrest reclined if the vehicle is moving.

## Memory Seats



If equipped, memory seats allow two drivers to store and recall their unique seat positions for driving the vehicle, and a shared exit position for getting out of the vehicle. Other feature positions may also be set, such as power mirrors and power steering wheel. Memory positions are linked to RKE transmitter 1 or 2 for automatic memory recalls.

Before storing, adjust all available memory feature positions. Turn the ignition on and then press and release SET; a beep will sound. Then immediately press and hold 1, 2, or  (Exit) on the driver door until two beeps sound. To manually recall these positions, press and hold 1, 2, or  until the saved position is reached.

The vehicle identifies the current driver's RKE transmitter number (1–8). See *Remote Keyless Entry (RKE) System Operation* ⇨ 28. Only RKE transmitters 1 and 2 can be used for automatic memory recalls. A Driver Information Centre (DIC) welcome message indicating the transmitter number may display for the first few

ignition cycles following a transmitter change. For Auto Memory Recall to work properly, save the positions to the memory button (1 or 2) matching the RKE transmitter number displayed in the DIC welcome message. Carry the linked RKE transmitter when entering the vehicle.

### Vehicle Personalisation Settings

- To have the Auto Memory Recall movement begin when the vehicle is started, select the Settings menu, then Vehicle, then Comfort and Convenience, and then Auto Memory Recall. Select On or Off. See "Auto Memory Recall" later in this section.
- To begin Easy Exit Recall movement when the ignition is turned off and the driver door is opened, or when the ignition is turned off with the driver door already opened, select the Settings menu, then Vehicle, then Comfort and Convenience, and then Easy Exit Options. Select On or Off. See "Easy Exit Recall" later in this section.

- See *Vehicle Personalisation* ⇨ 146 for additional setting information.

### Identifying Driver Number

To identify the driver number:

1. Start the vehicle with the other key or RKE transmitter. The DIC should display the driver number; 1 or 2. Turn the ignition off and remove the key or RKE transmitter from the vehicle.
2. Start the vehicle with the initial key or RKE transmitter. The DIC should display the other driver number not shown in step 1.

### Saving Memory Positions



Read these instructions completely before saving memory positions.

To save preferred driving positions 1 and 2:


1. Turn the ignition on or to ACC/ACCESSORY.


A DIC welcome message may be displayed indicating number 1 or 2 for memory recalls.

2. Adjust all available memory features to the desired driving position.
3. Press and release SET; a beep will sound.
4. Immediately press and hold the 1 or 2 memory button matching the above DIC welcome message until two beeps sound.  
  
If too much time passes between releasing SET and pressing 1, the memory position will not be saved and two beeps will not sound. Repeat steps 3 and 4.  
  
1 or 2 corresponds to the driver number. See "Identifying Driver Number" in this section.
5. Repeat Steps 1–4 for a second driver using 1 or 2.


To save positions for  and easy exit features, repeat Steps 1–4 using . This stores the positions for getting out of the vehicle.

### Manually Recalling Memory Positions

Press and hold 1, 2, or  to recall the previously stored memory positions.

To stop manual recall movement, release 1, 2, or . Recall can also be stopped by pressing a power seat, SET, power mirror, or power steering wheel control. The driver or passenger side mirror must be selected.

### Auto Memory Recall

If equipped with memory seat 1, 2 or  buttons on the passenger door, those positions must be recalled manually. They will not be linked to an RKE transmitter.


The vehicle identifies the number of the current driver's RKE transmitter (1–8). See *Remote Keyless Entry (RKE) System Operation* ⇨ 28. If the RKE transmitter is 1 or 2, and Auto Memory Recall is programmed on in vehicle personalisation, the positions saved to the same memory button number 1 or 2 are automatically recalled when the ignition is turned on, or turned from OFF to ACC/

ACCESSORY. RKE transmitters 3–8 will not provide automatic memory recalls.

To turn Auto Memory Recall on or off, see "Vehicle Personalisation Settings" earlier in this section and *Vehicle Personalisation* ⇨ 146.

The transmission must be in P (Park) to initiate Auto Memory Recall. Auto Memory Recall will complete if the vehicle is shifted out of P (Park) prior to reaching the stored memory position.


To stop Auto Memory Recall movement, turn the ignition off or press any of the following memory controls:


- Power seat
- Memory SET, 1, 2, or 
- Power mirror, with the driver or passenger side mirror selected
- Power steering wheel

If the stored memory seat position does not automatically recall or recalls to the wrong positions, the driver's RKE transmitter number (1 or 2) may not match the memory button

number that positions were saved to. Try storing the position to the other memory button or try the other RKE transmitter.


### Easy Exit Recall

Easy Exit Recall is not linked to an RKE transmitter. The position stored to  is used for all drivers. To turn Easy Exit Recall on or off, see "Vehicle Personalisation Settings" earlier in this section and *Vehicle Personalisation* ⇨ 146.

If turned on, the positions saved to  are automatically recalled when one of the following occurs:

- The vehicle is turned off and the driver's door is opened within a short time.
- The vehicle is turned off with the driver's door open.

To stop Easy Exit Recall movement, press any of the following memory controls:

- Power seat
- Memory SET, 1, 2, or 

- Power mirror, with the driver or passenger side mirror selected
- Power steering wheel

### Obstructions

If something has blocked the driver seat and/or power steering wheel while recalling a memory position, the recall may stop. Remove the obstruction and try the recall again. If the memory position still does not recall, see your retailer for service.

## Heated and Ventilated Front Seats

### Warning

If temperature change or pain to the skin cannot be felt, the seat heater may cause burns. To reduce the risk of burns, use care when using the seat heater, especially for long periods of time. Do not place anything on the seat that insulates against heat, such as a blanket, cushion, cover, or similar item. This



(Continued)



### Warning (Continued)



may cause the seat heater to overheat. An overheated seat heater may cause a burn or may damage the seat.



If equipped, the buttons are near the climate controls on the centre stack. To operate, the ignition must be on.

Press  or  to heat the driver or passenger seat cushion and backrest.

Press  or  to heat the driver or passenger backrest only.

Press  or  to ventilate the driver or passenger seat.

Press the button once for the highest setting. With each press of the button, the seat will change to the next lower setting, and then to the off setting. The indicator lights next to the buttons indicate three for the highest setting and one for the lowest. If the front heated seats are on high, the level may automatically be lowered after approximately 30 minutes.

When this feature is off, the heated and ventilated seat symbols on the buttons are white. A ventilated seat has a fan that pulls or pushes air through the seat. The air is not cooled. When a heated seat is turned on, the symbol turns red. When a ventilated seat is turned on, the symbol turns blue.

The passenger seat may take longer to heat up.

### **Auto Heated and Ventiladed Seats**

If the vehicle is equipped with auto heated or ventilated seats, and the ignition is on, this feature will

automatically activate the heated or ventilated seats at the level required by the vehicle's interior temperature.

The active high, medium, low, or off heated or ventilated seat level will be indicated by the manual heated and ventilated seat buttons on the centre console. Use the manual heated and ventilated seat buttons on the centre console to turn auto heated or ventilated seats off. If the passenger seat is unoccupied, the auto heated or ventilated seats feature will not activate that seat. The auto heated and ventilated seats feature can be programmed to always be enabled when the vehicle is on. If equipped with a heated steering wheel, the auto heated steering wheel activation will follow the heated seat auto activation and the heated steering wheel indicator will follow the state of the steering wheel heat.

See *Vehicle Personalisation* ⇨ 146.

### **Remote Start Heated and Ventiladed Seats**

If equipped, the heated seats will turn on automatically during a remote start if it is cold outside and the

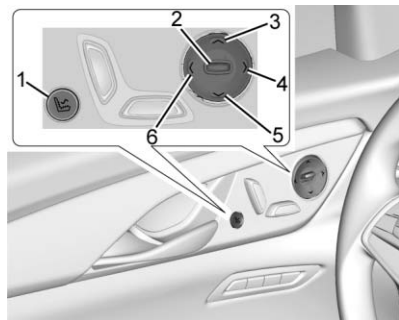
ventilated seats will turn on automatically if it is hot outside. If equipped, the heated steering wheel will turn on automatically during a remote start if it is cold outside. The heated and ventilated seat indicators and heated steering wheel indicator may not come on during this operation.

The heated and ventilated seats and heated steering wheel may cancel when the vehicle is started. These features can be manually selected after the ignition is turned on.

The temperature performance of an unoccupied seat may be reduced. This is normal.

The heated or ventilated seats will not turn on during a remote start unless they are enabled in the vehicle personalisation menu. See *Remote Vehicle Start* ⇨ 33 and *Vehicle Personalisation* ⇨ 146.

## Massage



Platinum Driver Seat Shown,  
Passenger Seat Similar

If equipped, the ignition must be on to use the massage feature.

To activate and adjust the massage feature:

1. Toggle the center selection control (2) to view adjustable massage options on the infotainment display.
2. Select massage feature.
3. Press the control up (3) or down (5) to select the massage type.
4. Press the control forward (4) or rearward (6) to change the intensity.
5. Press the massage control button (1) to recall the last massage type and intensity.

## Rear Seats

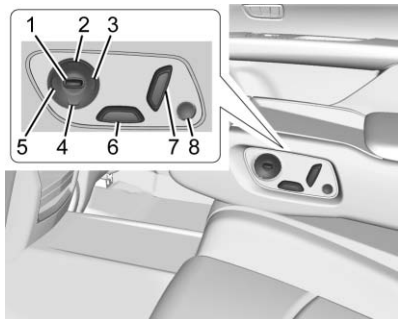
### **Warning**

The power seats will work with the ignition off. Children could operate the power seats and be injured. Never leave children alone in the vehicle.

### **Caution**

Do not adjust the power seat when a child restraint is installed. Adjusting the seat may cause damage to the installed child restraint. Use the window lockout button on the driver door to prevent adjustment of the seat whenever a child restraint is installed.

If equipped, the armrest may have seat adjustment controls. The rear seat adjustment controls are locked when the window lockout switch is engaged.



Platinum Rear Seat

1. Backrest Display and Lumbar Adjustment Control
2. Up
3. Rearward
4. Down
5. Forward
6. Power Seat Adjustment
7. Power Seat Adjustment
8. Massage

When the backrest display control (1) is toggled, a panel display will be activated from the driver or passenger backrest. The rear backrest will automatically recline when the rear seat is moved forward.

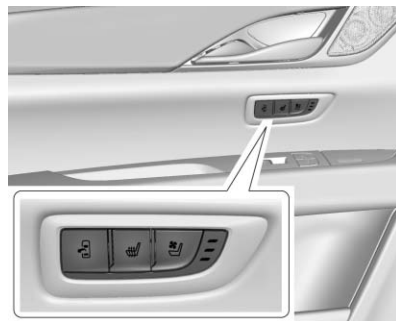
To adjust the seat, if equipped:

- Move the seat forward or rearward by sliding the control (6) forward or rearward or by tilting the control (7) forward or rearward.
- Raise or lower the front part of the seat cushion by moving the front of the control (6) up or down.
- Raise or lower the seat by moving the rear of the control (6) up or down.


To activate the massage feature, if equipped:

1. Press the seatback display control (1).
2. Press up (2) or down (4) to select the massage type.
3. Press forward (5) or rearward (3) to change the intensity.
4. Press the massage control button (8) to recall the last massage type and intensity.

## Easy Exit

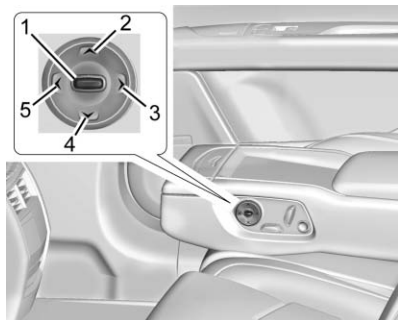


Platinum Seat

If equipped, press  to tilt the front of the seat fully downward and to move the entire seat fully rearward. The seat will also move to this position when the rear door is opened.

## Lumbar Adjustment

If a child restraint is installed, see *Rear Seats* ⇨ 65.



Platinum Rear Seat

If equipped, the armrest may have controls for lumbar and upper back support.

When the centre selection control (1) is toggled, a panel display will be activated from the driver or passenger backrest.

To adjust lumbar support, if equipped:

1. Toggle the centre selection control (1) to view adjustable seat options on the display.
2. Select lumbar support.

3. Press and hold the control forward (5) to increase or rearward (3) to decrease support.
4. Press and hold the control upward (2) to raise or downward (4) to lower the height of the support.

To adjust upper back support, if equipped:

1. Toggle the centre selection control (1) to view adjustable seat options on the display.
2. Select upper back support.
3. Press and hold the control forward (5) to increase or rearward (3) to decrease support.

## Heated and Ventilated Rear Seats



### Warning



If you cannot feel temperature change or pain to the skin, the seat heater may cause burns. See the Warning under *Heated and Ventilated Front Seats* ⇨ 63.



Platinum Seat

If equipped, the buttons are on the rear passenger doors.

With the ignition on, press  or  to heat the left or right outboard seat cushion.

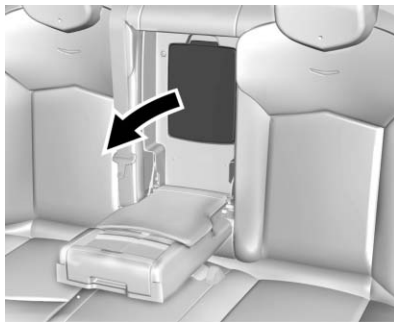
With the ignition on, press  or  to ventilate the left or right outboard seat.

On vehicles without rear climate controls, an indicator light on the button will turn on when the heated or ventilated seat is on. On vehicles with rear climate controls, an

indicator on the climate control display appears when this feature is on.

On vehicles without rear climate controls, press the button again to turn this feature off. The light on the button will turn off. On vehicles with rear climate controls, this feature turns on the heated seat at the highest setting. With each press of the button, the heated seat changes to the next lower setting, and then the off setting. Three lights indicate the highest setting, and one light indicates the lowest. If the heated seats are on high, the level may automatically be lowered after approximately 30 minutes.

## Rear Seat Pass-Through Door



Some vehicles have a rear seat pass-through door in the centre of the rear seatback. Fold down the centre armrest and pull the latch to open the door.

## Seat Belts

This section describes how to use seat belts properly, and some things not to do.

### **Warning**

Do not let anyone travel where a seat belt cannot be worn properly. In a crash, if you or your passenger(s) are not wearing seat belts, injuries can be much worse than if you are wearing seat belts. You can be seriously injured or killed by hitting things inside the vehicle harder or by being ejected from the vehicle. In addition, anyone who is not buckled up can strike other passengers in the vehicle.

It is extremely dangerous to ride in a cargo area, inside or outside of a vehicle. In a collision, passengers riding in these areas are more likely to be seriously injured or killed. Do

(Continued)

**Warning (Continued)**

not allow passengers to travel in any area of the vehicle that is not equipped with seats and seat belts.

Always wear a seat belt, and check that all passenger(s) are restrained properly too.

This vehicle has indicators as a reminder to fasten the seat belts. See *Seat Belt Reminders* ⇨ 129.

**Why Seat Belts Work**

When riding in a vehicle, you travel as fast as the vehicle does. If the vehicle stops suddenly, you keep going until something stops you. It could be the windscreen, the instrument panel, or the seat belts!

When you wear a seat belt, you and the vehicle slow down together. There is more time to stop because you stop over a longer distance and, when worn properly, your strongest bones take the forces from the seat belts. That is why wearing seat belts makes such good sense.

**Questions and Answers About Seat Belts**

**Q: Will I be trapped in the vehicle after a crash if I am wearing a seat belt?**

**A:** You *could* be — whether you are wearing a seat belt or not. Your chances of being conscious during and after a crash, so you *can* unbuckle and get out, are *much* greater if you are belted.

**Q: If my vehicle has airbags, why should I have to wear a seat belt?**

**A:** Airbags are supplemental systems only. They work *with* seat belts — not instead of them. Whether or not an airbag is provided, all occupants still have to buckle up to get the most protection.

Also, in nearly all regions, the law requires wearing seat belts.

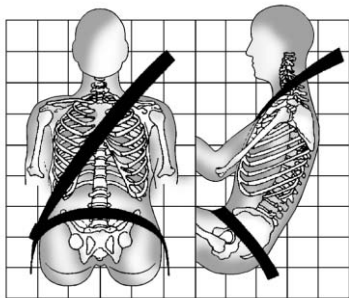
**How to Wear Seat Belts Properly**

This section is only for people of adult size.

There are special things to know about seat belts and children, and there are different rules for smaller children and infants. If a child will be riding in the vehicle, see *Older Children* ⇨ 87 or *Infants and Young Children* ⇨ 88. Follow those rules for everyone's protection.

It is very important for all occupants to buckle up. Statistics show that unbelted people are hurt more often in crashes than those who are wearing seat belts.

There are important things to know about wearing a seat belt properly.



- Sit up straight and always keep your feet on the floor in front of you.
- Always use the correct buckle for your seating position.
- Wear the lap part of the belt low and snug on the hips, just touching the thighs. In a crash, this applies force to the strong

pelvic bones and you would be less likely to slide under the lap belt. If you slid under it, the belt would apply force on your abdomen. This could cause serious or even fatal injuries.

- Wear the shoulder belt over the shoulder and across the chest. These parts of the body are best able to take belt restraining forces. The shoulder belt locks if there is a sudden stop or crash.

#### **Warning**

You can be seriously injured, or even killed, by not wearing your seat belt properly.

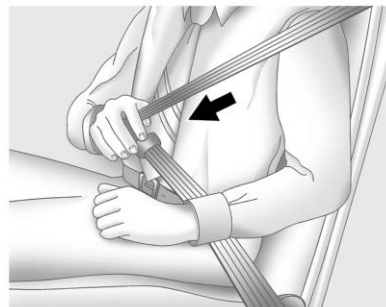
- Never allow the lap or shoulder belt to become loose or twisted.
- Never wear the shoulder belt under both arms or behind your back.
- Never route the lap or shoulder belt over an armrest.

## Three-Point Belt

All seating positions in the vehicle have a lap-shoulder belt.

The following instructions explain how to wear a lap-shoulder belt properly.

1. Adjust the seat, if the seat is adjustable, so you can sit up straight. To see how, see “Seats” earlier in this section.



2. Pick up the latch plate and pull the belt across you. Do not let it get twisted.

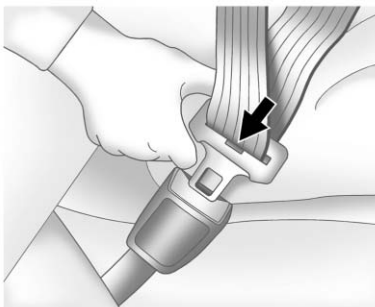
The lap-shoulder belt may lock if you pull the belt across you very quickly. If this happens, let the belt go back slightly to unlock it. Then pull the belt across you more slowly.

If the shoulder portion of the front outboard passenger belt is pulled out all the way, the child restraint locking feature may be engaged. If this happens, let the belt go back all the way and start again.

Engaging the child restraint locking feature in the front outboard seating position may affect the passenger sensing system. See *Passenger Sensing System* ⇨ 81.



If the webbing locks in the catch plate before it reaches the buckle, tilt the catch plate flat to unlock.

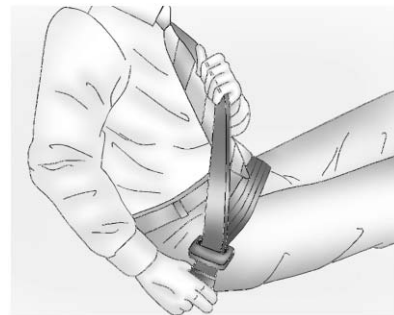


3. Push the latch plate into the buckle until it clicks.

Pull up on the latch plate to make sure it is secure.

Position the release button on the buckle so that the seat belt can be quickly unfastened if necessary.

4. If equipped with a shoulder belt height adjuster, move it to the height that is right for you. See “Shoulder Belt Height Adjuster” later in this section for instructions on use and important safety information.



5. To make the lap part tight, pull up on the shoulder belt.



To unlatch the belt, push the button on the buckle. The belt should return to its stowed position.

Always stow the seat belt slowly. If the seat belt webbing returns quickly to the stowed position, the retractor may lock and cannot be pulled out. If this happens, pull the seat belt straight out firmly to unlock the webbing, and then release it. If the webbing is still locked in the retractor, see your retailer.

Before a door is closed, be sure the seat belt is out of the way. If a door is slammed against a seat belt, damage can occur to both the seat belt and the vehicle.

### Shoulder Belt Height Adjuster

The vehicle has a shoulder belt height adjuster for the driver and front outboard passenger seating positions.

Adjust the height so the shoulder portion of the belt is on the shoulder and not falling off it. The belt should be close to, but not contacting, the neck. Improper shoulder belt height adjustment could reduce the effectiveness of the seat belt in a crash. See *How to Wear Seat Belts Properly* ⇨ 69.



Press the release button and move the height adjuster to the desired position. The adjuster can be moved up by pushing the slide/trim up. After the adjuster is set to the desired position, try to move it down without pushing the release button to make sure it has locked into position.

### Automatic Seat Belt Tightening System

The vehicle may have the Automatic Seat Belt Tightening System.

The system activates during emergency braking and/or sudden driving manoeuvres and releases when driving conditions return to normal.

The system will not activate if the Traction Control/Electronic Stability Control system is not functioning properly. See *Traction Control/Electronic Stability Control* ⇨ 204. If there is a problem with the Automatic Seat Belt Tightening System, a message displays on the Driver Information Centre (DIC). If a system unavailable message displays repeatedly or a service message displays, see your retailer. Other seat belt functions are not affected by the Automatic Seat Belt Tightening System.

### Seat Belt Pretensioners

This vehicle has seat belt pretensioners for front outboard occupants. Although the seat belt pretensioners cannot be seen, they are part of the seat belt assembly. They can help tighten the seat belts during the early stages of a moderate to severe frontal, near frontal, or rear crash if the threshold conditions for pretensioner activation are met. Seat belt pretensioners can also help tighten the seat belts in a side crash or a rollover event.

Pretensioners work only once. If the pretensioners activate in a crash, the pretensioners and probably other parts of the vehicle's seat belt system will need to be replaced. See *Replacing Seat Belt System Parts after a Crash* ⇨ 74.

Do not sit on the outboard seat belt while entering or exiting the vehicle or at any time while sitting in the seat. Sitting on the seat belt can damage the webbing and hardware.

### Rear Seat Belt Comfort Guides

Rear seat belt comfort guides may provide added seat belt comfort for older children who have outgrown booster seats and for some adults. When installed on a shoulder belt, the comfort guide positions the belt away from the neck and head.

Comfort guides may be available through your retailer for the rear outboard seating positions. If available, instructions are included with the guide.

## Seat Belt Use During Pregnancy

Seat belts work for everyone, including pregnant women. Like all occupants, they are more likely to be seriously injured if they do not wear seat belts.



A pregnant woman should wear a lap-shoulder belt, and the lap portion should be worn as low as possible, below the rounding, throughout the pregnancy.

The best way to protect the foetus is to protect the mother. When a seat belt is worn properly, it is more likely

that the foetus will not be hurt in a crash. For pregnant women, as for anyone, the key to making seat belts effective is wearing them properly.

## Safety System Check

Periodically check the seat belt reminder, seat belts, buckles, latch plates, retractors, shoulder belt height adjusters (if equipped), and seat belt anchorages to make sure they are all in working order. Look for any other loose or damaged seat belt system parts that might keep a seat belt system from performing properly. See your dealer to have it repaired. Torn or frayed seat belts may not protect you in a crash. They can rip apart under impact forces. If a belt is torn or frayed, have it replaced immediately.

Make sure the seat belt reminder light is working. See *Seat Belt Reminders* ⇨ 129.

Keep seat belts clean and dry. See *Seat Belt Care* ⇨ 74.

## Seat Belt Care

Keep belts clean and dry.

### Warning

Do not bleach or dye seat belt webbing. It may severely weaken the webbing. In a crash, they might not be able to provide adequate protection. Clean and rinse seat belt webbing only with mild soap and lukewarm water. Allow the webbing to dry.

Seat belts should be properly cared for and maintained.

Seat belt hardware should be kept dry and free of dust or debris. As necessary, exterior hard surfaces and seat belt webbing may be lightly cleaned with mild soap and water. Ensure there is not excessive dust or debris in the mechanism. If dust or debris exists in the system please see the dealer. Parts may need to be replaced to ensure proper functionality of the system.

## Replacing Seat Belt System Parts after a Crash

### Warning

A crash can damage the seat belt system in the vehicle. A damaged seat belt system may not properly protect the person using it, resulting in serious injury or even death in a crash. To help make sure the seat belt systems are working properly after a crash, have them inspected and any necessary replacements made as soon as possible.

After a minor crash, replacement of seat belts may not be necessary. But the seat belt assemblies that were used during any crash may have been stressed or damaged. See your retailer to have the seat belt assemblies inspected or replaced.

New parts and repairs may be necessary even if the seat belt system was not being used at the time of the crash.

Have the seat belt pretensioners checked if the vehicle has been in a crash, or if the airbag readiness light stays on after you start the vehicle or while you are driving. See *Airbag Readiness Light* ⇨ 130.

### **Warning**

Safety procedures must be followed at all times when disposing of the vehicle or vehicle parts. Disposal should be performed only by an authorised service centre, to help protect the environment and your health.

## Airbag System

### Air-Bag System

The vehicle has the following airbags:

- A frontal airbag for the driver
- A frontal airbag for the front outboard passenger
- A knee airbag for the driver
- A knee airbag for the front outboard passenger
- A seat-mounted side impact airbag for the driver
- A seat-mounted side impact airbag for the front outboard passenger
- A roof-rail airbag for the driver and the passenger seated directly behind the driver
- A roof-rail airbag for the front outboard passenger and the passenger seated directly behind the front outboard passenger

All vehicle airbags have the word AIRBAG on the trim or on a label near the deployment opening.

For frontal airbags, the word AIRBAG is on the centre of the steering wheel for the driver and on the instrument panel for the front outboard passenger.

For knee airbags, the word AIRBAG is on the lower part of the instrument panel.

For seat-mounted side impact airbags, the word AIRBAG is on the side of the seatback closest to the door.

For roof-rail airbags, the word AIRBAG is on the ceiling or trim.

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 bag, all airbags must inflate very quickly to do their job.

Here are the most important things to know about the airbag system:

**⚠ Warning**

You can be severely injured or killed in a crash if you are not wearing your seat belt, even with airbags. Airbags are designed to work with seat belts, not replace them. Also, airbags are not designed to inflate in every crash. In some crashes seat belts are the only restraint. See *When Should an Airbag Inflate?* ⇨ 78.

Wearing your seat belt during a crash helps reduce your chance of hitting things inside the vehicle or being ejected from it. Airbags are “supplemental restraints” to the seat belts. Everyone in the vehicle should wear a seat belt properly, whether or not there is an airbag for that person.

**⚠ Warning**

Because airbags inflate with great force and faster than the blink of an eye, anyone who is up against, or very close to, an airbag when it inflates can be seriously injured or killed. Do not sit unnecessarily close to any airbag, as you would be if sitting on the edge of the seat or leaning forward. Seat belts help keep you in position before and during a crash. Always wear a seat belt, even with airbags. The driver should sit as far back as possible while still maintaining control of the vehicle. The seat belts and the front outboard passenger airbags are most effective when you are sitting well back and upright in the seat with both feet on the floor.

Occupants should not lean on or sleep against the door or side windows in seating positions with seat-mounted side impact airbags and/or roof-rail airbags.

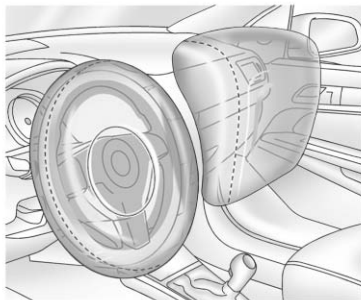
**⚠ Warning**

Children who are up against, or very close to, any airbag when it inflates can be seriously injured or killed. Always secure children properly in the vehicle. To read how, see *Older Children* ⇨ 87 or *Infants and Young Children* ⇨ 88.



There is an airbag readiness light on the instrument cluster, which shows the airbag symbol. The system checks the airbag electrical system for malfunctions. The light tells you if there is an electrical problem. See *Airbag Readiness Light* ⇨ 130.

## Where Are the Airbags?



The driver frontal airbag is in the centre of the steering wheel.

The front outboard passenger frontal airbag is in the passenger side instrument panel.



The driver knee airbag is below the steering column. The front outboard passenger knee airbag is below the glove box.



Driver Side Shown, Passenger Side Similar

The roof-rail airbags for the driver, front outboard passenger, and second row outboard passengers are in the ceiling above the side windows.



Driver Side Shown, Passenger Side  
Similar

The seat-mounted side impact airbags for the driver and front outboard passenger are in the side of the seatbacks closest to the door.

### **Warning**

If something is between an occupant and an airbag, the airbag might not inflate properly or it might force the object into that person causing severe injury or even death. The path of an inflating airbag must be kept clear. Do not

(Continued)

### **Warning (Continued)**

put anything between an occupant and an airbag, and do not attach or put anything on the steering wheel hub or on or near any other airbag covering.

Do not use seat accessories that block the inflation path of a seat-mounted side impact airbag.

Never secure anything to the roof of a vehicle with roof-rail airbags by routing a rope or tie-down through any door or window opening. If you do, the path of an inflating roof-rail airbag will be blocked.

## **When Should an Airbag Inflate?**

This vehicle is equipped with airbags. See *Air-Bag System* ⇨ 75. Airbags are designed to inflate if the impact exceeds the specific airbag system's deployment threshold. Deployment thresholds are used to predict how severe a crash is likely to be in time for the airbags to inflate and help

restrain the occupants. The vehicle has electronic sensors that help the airbag system determine the severity of the impact. Deployment thresholds can vary with specific vehicle design.

Frontal airbags are designed to inflate in moderate to severe frontal or near frontal crashes to help reduce the potential for severe injuries, mainly to the driver's or front outboard passenger's head and chest.

Whether the frontal airbags will or should inflate is not based primarily on how fast the vehicle is travelling. It depends on what is hit, the direction of the impact, and how quickly the vehicle slows down.

Frontal airbags may inflate at different crash speeds depending on whether the vehicle hits an object straight on or at an angle, and whether the object is fixed or moving, rigid or deformable, narrow or wide.

Frontal airbags are not intended to inflate during vehicle rollovers, in rear impacts, or in many side impacts.

In addition, the vehicle has an advanced technology driver frontal airbag. An advanced technology frontal airbag adjusts the restraint according to occupant interaction.

Knee airbags are designed to inflate in moderate to severe frontal or near frontal impacts. Knee airbags are not designed to inflate during vehicle rollovers, in rear impacts, or in many side impacts.

Seat-mounted side impact airbags are designed to inflate in moderate to severe side crashes depending on the location of the impact. Seat-mounted side impact airbags are not designed to inflate in frontal impacts, near frontal impacts, rollovers, or rear impacts. A seat-mounted side impact airbag is designed to inflate on the side of the vehicle that is struck.

Roof-rail airbags are designed to inflate in moderate to severe side crashes depending on the location of the impact. In addition, these roof-rail airbags are designed to inflate during a rollover or in a severe frontal impact. Roof-rail airbags are not designed to inflate in rear impacts.

Both roof-rail airbags will inflate when either side of the vehicle is struck, if the sensing system predicts that the vehicle is about to roll over on its side, or in a severe frontal impact.

In any particular crash, no one can say whether an airbag should have inflated simply because of the vehicle damage or repair costs.

## What Makes an Airbag Inflate?

In a deployment event, the sensing system sends an electrical signal triggering a release of gas from the inflator. Gas from the inflator fills the airbag causing the bag to break out of the cover. The inflator, the airbag, and related hardware are all part of the airbag module.

For airbag locations, see *Where Are the Airbags?* ⇨ 77.

## How Does an Airbag Restrain?

In moderate to severe frontal or near frontal collisions, even belted occupants can contact the steering

wheel or the instrument panel. In moderate to severe side collisions, even belted occupants can contact the inside of the vehicle.

Airbags supplement the protection provided by seat belts by distributing the force of the impact more evenly over the occupant's body.

Rollover capable roof-rail airbags are designed to help contain the head and chest of occupants in the outboard seating positions in the first and second rows. The rollover capable roof-rail airbags are designed to help reduce the risk of full or partial ejection in rollover events, although no system can prevent all such ejections.

But airbags would not help in many types of collisions, primarily because the occupant's motion is not toward those airbags. See *When Should an Airbag Inflate?* ⇨ 78.

Airbags should never be regarded as anything more than a supplement to seat belts.

## What Will You See after an Airbag Inflates?

After frontal, knee, and seat-mounted side impact airbags inflate, they deflate quickly, so quickly that some people may not even realise the airbags have inflated. Roof-rail airbags may still be at least partially inflated for some time after deployment. Some components of the airbag module may be hot for several minutes. For location of the airbags, see *Where Are the Airbags?* ⇨ 77.

The parts of the airbag that come into contact with you may be warm, but not too hot to touch. There may be some smoke and dust coming from the vents in the deflated airbags. Airbag inflation does not prevent the driver from seeing out of the windscreen or being able to steer the vehicle, nor does it prevent people from leaving the vehicle.

### Warning

When an airbag inflates, there may be dust in the air. This dust could cause breathing problems for people with a history of asthma or other breathing trouble. To avoid this, everyone should leave the vehicle as soon as it is safe to do so. If you have breathing problems but cannot get out of the vehicle after an airbag inflates, then get fresh air by opening a window or a door. If you experience breathing problems following an airbag deployment, you should seek medical attention.

The vehicle has a feature that may automatically unlock the doors, turn on the interior lamps and hazard warning lights, and shut off the fuel system after the airbags inflate. The feature may also activate, without airbag inflation, after an event that exceeds a predetermined threshold. You can lock the doors, turn off the

interior lights and turn off the hazard warning flashers by using the controls for those features.

### Warning

A crash severe enough to inflate the airbags may have also damaged important functions in the vehicle, such as the fuel system, brake and steering systems, etc. Even if the vehicle appears to be drivable after a moderate crash, there may be concealed damage that could make it difficult to safely operate the vehicle.

Use caution if you should attempt to restart the engine after a crash has occurred.

In many crashes severe enough to inflate the airbag, windscreens are broken by vehicle deformation. Additional windscreen breakage may also occur from the front outboard passenger airbag.

- Airbags are designed to inflate only once. After an airbag inflates, you will need some new parts for

the airbag system. If you do not get them, the airbag system will not be there to help protect you in another crash. A new system will include airbag modules and possibly other parts. The service manual for the vehicle covers the need to replace other parts.

- The vehicle has a crash sensing and diagnostic module which records information after a crash. See *Vehicle Data Recording and Privacy* ⇨ 322.
- Let only qualified technicians work on the airbag systems. Improper service can mean that an airbag system will not work properly. See your dealer for service.

## Passenger Sensing System

The vehicle has a passenger sensing system for the front outboard passenger position. The passenger airbag status indicator will light on the overhead console when the vehicle is started.



The symbol for on and off will be visible during the system check. When the system check is complete, either the symbol for on or off will be visible. See *Passenger Airbag Status Indicator* ⇨ 130.

The passenger sensing system turns off the front outboard passenger frontal airbag and knee airbag under certain conditions. No other airbag is affected by the passenger sensing system.

The passenger sensing system works with sensors that are part of the front outboard passenger seat and seat belt. The sensors are designed to detect the presence of a properly seated occupant and determine if the front outboard passenger frontal airbag and knee airbag should be allowed to inflate or not.

According to accident statistics, children are safer when properly secured in a rear seat in the correct child restraint for their weight and size.

Whenever possible, children aged 12 and under should be secured in a rear seating position.

Never put a rear-facing child seat in the front. This is because the risk to the rear-facing child is so great, if the airbag inflates.

### **Warning**

A child in a rear-facing child restraint can be seriously injured or killed if the passenger frontal airbag inflates. This is because the back of the rear-facing child restraint would be very close to the inflating airbag. A child in a forward-facing child restraint can be seriously injured or killed if the passenger frontal airbag inflates and the passenger seat is in a forward position.

(Continued)

**Warning (Continued)**

Even if the passenger sensing system has turned off the front outboard passenger airbag(s), no system is fail-safe. No one can guarantee that an airbag will not deploy under some unusual circumstance, even though the airbag(s) are off.

Never put a rear-facing child restraint in the front seat, even if the airbag is off. If securing a forward-facing child restraint in the front outboard passenger seat, always move the seat as far back as it will go. It is better to secure child restraints in the rear seat. Consider using another vehicle to transport the child when a rear seat is not available.

The passenger sensing system is designed to turn off the front outboard passenger frontal airbag and knee airbag if:

- The front outboard passenger seat is unoccupied.

- The system determines that an infant is present in a child restraint.
- A front outboard passenger takes his/her weight off of the seat for a period of time.
- There is a critical problem with the airbag system or the passenger sensing system.

When the passenger sensing system has turned off the front outboard passenger frontal airbag and knee airbag, the off indicator will light and stay lit as a reminder that the airbags are off. See *Passenger Airbag Status Indicator* ⇨ 130.

The passenger sensing system is designed to turn on the front outboard passenger frontal airbag and knee airbag anytime the system senses that a person of adult size is sitting properly in the front outboard passenger seat. When the passenger sensing system has allowed the airbag(s) to be enabled, the on indicator will light and stay lit as a reminder that the airbag(s) are active.

For some children, including children in child restraints, and for very small adults, the passenger sensing system may or may not turn off the front outboard passenger frontal airbag and knee airbag, depending upon the person's seating posture and body build. Everyone in the vehicle who has outgrown child restraints should wear a seat belt properly — whether or not there is an airbag for that person.

**Warning**

If the airbag readiness light ever comes on and stays on, it means that something may be wrong with the airbag system. To help avoid injury to yourself or others, have the vehicle serviced right away. See *Airbag Readiness Light* ⇨ 130 for more information, including important safety information.

**If the On Indicator Is Lit for a Child Restraint**

The passenger sensing system is designed to turn off the front outboard passenger frontal airbag and

knee airbag if the system determines that an infant is present in a child restraint. If a child restraint has been installed and the on indicator is lit:

1. Turn the vehicle off.
2. Remove the child restraint from the vehicle.
3. Remove any additional items from the seat such as blankets, cushions, seat covers, seat heaters, or seat massagers.
4. Reinstall the child restraint following the directions provided by the child restraint manufacturer and refer to *Securing Child Restraints (With the Seat Belt in the Front Seat)* ⇨ 101 or *Securing Child Restraints (With the Seat Belt in the Rear Seat)* ⇨ 99.

Make sure the seat belt retractor is locked by pulling the shoulder belt all the way out of the retractor when installing the child restraint, even if the child restraint is equipped with a seat belt lock-off. When the retractor

lock is set, the belt can be tightened but not pulled out of the retractor.

5. If, after reinstalling the child restraint and restarting the vehicle, the on indicator is still lit, turn the vehicle off. Then slightly recline the vehicle seatback and adjust the seat cushion, if adjustable, to make sure that the vehicle seatback is not pushing the child restraint into the seat cushion.

Also make sure the child restraint is not trapped under the vehicle head restraint. If this happens, adjust the head restraint. See *Head Restraints* ⇨ 56.

6. Restart the vehicle.

The passenger sensing system may or may not turn off the airbags for a child in a child restraint depending upon the child's size. It is better to secure the child restraint in a rear seat. Never put a rear-facing child restraint in the front seat, even if the on indicator is not lit.

### If the Off Indicator Is Lit for an Adult-Sized Occupant



If a person of adult size is sitting in the front outboard passenger seat, but the off indicator is lit, it could be because that person is not sitting properly in the seat or that the child restraint locking feature is engaged. Use the following steps to allow the system to detect that person and enable the front outboard passenger frontal airbag and knee airbag:

1. Turn the vehicle off.

2. Remove any additional material from the seat, such as blankets, cushions, seat covers, seat heaters, or seat massagers.
3. Place the seatback in the fully upright position.
4. Have the person sit upright in the seat, centred on the seat cushion, with legs comfortably extended.
5. If the shoulder portion of the belt is pulled out all the way, the child restraint locking feature will be engaged. This may unintentionally cause the passenger sensing system to turn the airbag off for some adult-sized occupants. If this happens, unbuckle the belt, let the belt go back all the way, and then buckle the belt again without pulling the belt out all the way.
6. Restart the vehicle and have the person remain in this position for two to three minutes after the on indicator is lit.

**Warning**

If the front outboard passenger airbag is turned off for an adult-sized occupant, the airbag will not be able to inflate and help protect that person in a crash, resulting in an increased risk of serious injury or even death. An adult-sized occupant should not ride in the front outboard passenger seat, if the passenger airbag off indicator is lit.

**Additional Factors Affecting System Operation**

Seat belts help keep the passenger in position on the seat during vehicle manoeuvres and braking, which helps the passenger sensing system maintain the passenger airbag status. See “Seat Belts” and “Child Restraints” for additional information about the importance of proper restraint use.

A thick layer of additional material, such as a blanket or cushion, or aftermarket equipment such as seat covers, seat heaters, and seat

massagers can affect how well the passenger sensing system operates. We recommend that you not use seat covers or other aftermarket equipment except when approved by GM for your specific vehicle. See *Adding Equipment to the Airbag-Equipped Vehicle* ⇨ 85 for more information about modifications that can affect how the system operates.

The on indicator may be lit if an object, such as a briefcase, handbag, shopping bag, laptop, or other electronic device is put on an unoccupied seat. If this is not desired remove the object from the seat.

**Warning**

Stowing articles under the passenger seat or between the passenger seat cushion and backrest may interfere with the proper operation of the passenger sensing system.

## Servicing the Airbag-Equipped Vehicle

Airbags affect how the vehicle should be serviced. There are parts of the airbag system in several places around the vehicle. Your dealer and the service manual have information about servicing the vehicle and the airbag system.

### Warning

For up to 10 seconds after the vehicle is turned off and the battery is disconnected, an airbag can still inflate during improper service. You can be injured if you are close to an airbag when it inflates. Avoid yellow connectors. They are probably part of the airbag system. Be sure to follow proper service procedures, and make sure the person performing work for you is qualified to do so.

## Adding Equipment to the Airbag-Equipped Vehicle

Adding accessories that change the vehicle's frame, bumper system, height, front end, or side sheet metal may keep the airbag system from working properly. The operation of the airbag system can also be affected by changing any parts of the front seats, seat belts, airbag sensing and diagnostic module, steering wheel, instrument panel, any of the airbag modules, ceiling or pillar garnish trim, overhead console, front sensors, side impact sensors, or airbag wiring.

Your dealer and the service manual have information about the location of the airbag sensors, sensing and diagnostic module, and airbag wiring.

In addition, the vehicle has a passenger sensing system for the front outboard passenger position, which includes sensors that are part of the passenger seat. The passenger sensing system may not operate properly if the original seat trim is replaced with non-GM covers, upholstery, or trim; or with GM covers, upholstery, or trim designed for a different vehicle. Any

object, such as an aftermarket seat heater or a comfort-enhancing pad or device, installed under or on top of the seat fabric, could also interfere with the operation of the passenger sensing system. This could either prevent proper deployment of the passenger airbag(s) or prevent the passenger sensing system from properly turning off the passenger airbag(s). See *Passenger Sensing System* ⇨ 81.

If the vehicle has rollover roof-rail airbags, see *Different Size Tyres and Wheels* ⇨ 280 for additional important information.

If you have to modify your vehicle because you have a disability and have questions about whether the modifications will affect the vehicle's airbag system, or if you have questions about whether the airbag system will be affected if the vehicle is modified for any other reason, see your dealer.

## Airbag System Check

The airbag system does not need regularly scheduled maintenance or replacement. Make sure the airbag readiness light is working. See *Airbag Readiness Light* ⇨ 130.

### Caution

If an airbag covering is damaged, opened, or broken, the airbag may not work properly. Do not open or break the airbag coverings. If there are any opened or broken airbag coverings, have the airbag covering and/or airbag module replaced. For the location of the airbags, see *Where Are the Airbags?* ⇨ 77. See your dealer for service.

## Replacing Airbag System Parts after a Crash

### Warning

A crash can damage the airbag systems in the vehicle. A damaged airbag system may not properly protect you and your passenger(s) in a crash, resulting in serious injury or even death. To help make sure the airbag systems are working properly after a crash, have them inspected and any necessary replacements made as soon as possible.

If an airbag inflates, you will need to replace airbag system parts. See your dealer for service.

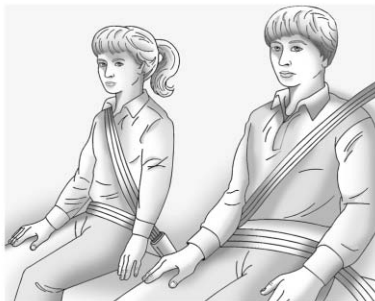
If the airbag readiness light stays on after the vehicle is started or comes on when you are driving, the airbag system may not work properly. Have the vehicle serviced right away. See *Airbag Readiness Light* ⇨ 130.

### Warning

Safety procedures must be followed at all times when disposing of the vehicle or vehicle parts. Disposal should be performed only by an authorised service centre, to help protect the environment and your health.

## Child Restraints

### Older Children



Older children who have outgrown booster seats should wear the vehicle's seat belts.

The manufacturer instructions that come with the booster seat state the weight and height limitations for that booster. Use a booster seat with a lap-shoulder belt until the child passes the fit test below:

- Sit all the way back on the seat. Do the knees bend at the seat edge? If yes, continue. If no, return to the booster seat.
- Fasten the lap-shoulder belt. Does the shoulder belt rest on the shoulder? If yes, continue. If not, try using the rear seat belt comfort guide, if available. See “Rear Seat Belt Comfort Guides” under *Three-Point Belt* ⇨ 70. If a comfort guide is not available, or if the shoulder belt still does not rest on the shoulder, then return to the booster seat.
- Does the lap belt fit low and snug on the hips, touching the thighs? If yes, continue. If no, return to the booster seat.
- Can proper seat belt fit be maintained for the length of the trip? If yes, continue. If no, return to the booster seat.

**Q: What is the proper way to wear seat belts?**

**A:** An older child should wear a lap-shoulder belt and get the additional restraint a shoulder belt

can provide. The shoulder belt should not cross the face or neck. The lap belt should fit snugly below the hips, just touching the top of the thighs. This applies belt force to the child's pelvic bones in a crash. It should never be worn over the abdomen, which could cause severe or even fatal internal injuries in a crash.

Also see “Rear Seat Belt Comfort Guides” under *Three-Point Belt* ⇨ 70.

According to accident statistics, children are safer when properly restrained in a rear seating position.

In a crash, children who are not buckled up can strike other people who are buckled up, or can be thrown out of the vehicle. Older children need to use seat belts properly.

#### **Warning**

Never allow more than one child to wear the same seat belt. The seat belt cannot properly spread the impact forces. In a crash, they can

(Continued)

**Warning (Continued)**

be crushed together and seriously injured. A seat belt must be used by only one person at a time.

**Warning**

Never allow a child to wear the seat belt with the shoulder belt behind their back. A child can be seriously injured by not wearing the lap-shoulder belt properly. In a crash, the child would not be

(Continued)

**Warning (Continued)**

restrained by the shoulder belt. The child could move too far forward increasing the chance of head and neck injury. The child might also slide under the lap belt. The belt force would then be applied right on the abdomen. That could cause serious or fatal injuries. The shoulder belt should go over the shoulder and across the chest.

**Infants and Young Children**

Everyone in a vehicle needs protection! This includes infants and all other children. Neither the distance travelled nor the age and size of the traveller changes the need, for everyone, to use safety restraints.

**Warning**

Children can be seriously injured or strangled if a shoulder belt is wrapped around their neck. The shoulder belt can tighten but cannot be loosened if it is locked. The shoulder belt locks when it is pulled all the way out of the retractor. It unlocks when the shoulder belt is allowed to go all the way back into the retractor, but it cannot do this if it is wrapped around a child's neck. If the shoulder belt is locked and tightened around a child's neck, the only way to loosen the belt is to cut it.

(Continued)

**Warning (Continued)**

Never leave children unattended in a vehicle and never allow children to play with the seat belts.

Every time infants and young children ride in vehicles, they should have the protection provided by appropriate child restraints. Neither the vehicle's seat belt system nor its airbag system is designed for them.

Children who are not restrained properly can strike other people, or can be thrown out of the vehicle.

**Warning**

Never hold an infant or a child while riding in a vehicle. Due to crash forces, an infant or a child will become so heavy it is not possible to hold it during a crash. For example, in a crash at only 40 km/h (25 mph), a 5.5 kg (12 lb) infant will suddenly become a

(Continued)

**Warning (Continued)**

110 kg (240 lb) force on a person's arms. An infant or child should be secured in an appropriate restraint.

**Warning**

Children who are up against, or very close to, any airbag when it inflates can be seriously injured or killed. Never put a rear-facing child restraint in the front outboard seat. Secure a rear-facing child restraint

(Continued)

**Warning (Continued)**

in a rear seat. It is also better to secure a forward-facing child restraint in a rear seat. If you must secure a forward-facing child restraint in the front outboard seat, always move the front passenger seat as far back as it will go.



Child restraints are devices used to restrain, seat, or position children in the vehicle and are sometimes called child seats or car seats.

**There are three basic types of child restraints:**

- Forward-facing child restraints
- Rearward-facing child restraints
- Belt-positioning booster seats

The proper child restraint for your child depends on their size, weight, and age, and also on whether the child restraint is compatible with the vehicle in which it will be used.

For each type of child restraint, there are many different models available. When purchasing a child restraint, be sure it is designed to be used in a motor vehicle. The restraint manufacturer's instructions that come with the restraint state the weight and height limitations for a particular child restraint. In addition, there are many kinds of restraints available for children with special needs.

 **Warning**

To reduce the risk of neck and head injury in a crash, infants and toddlers should be secured in a

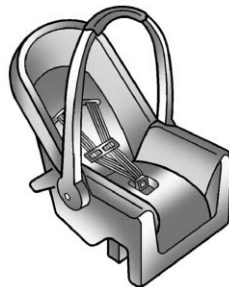
(Continued)

**Warning (Continued)**

rear-facing child restraint until age two, or until they reach the maximum height and weight limits of their child restraint.

 **Warning**

A young child's hipbones are still so small that the vehicle's regular seat belt may not remain low on the hipbones, as it should. Instead, it may settle up around the child's abdomen. In a crash, the belt would apply force on a body area that is unprotected by any bony structure. This alone could cause serious or fatal injuries. To reduce the risk of serious or fatal injuries during a crash, young children should always be secured in appropriate child restraints.

**Child Restraint Systems**

Rear-Facing Infant Restraint

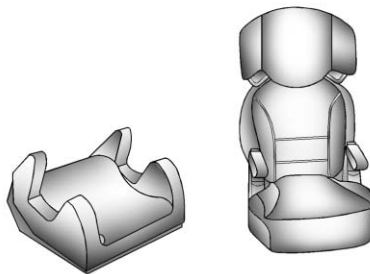
A rear-facing child restraint provides restraint with the seating surface against the back of the infant.

The harness system holds the infant in place and, in a crash, acts to keep the infant positioned in the restraint.



Forward-Facing Child Restraint

A forward-facing child restraint provides restraint for the child's body with the harness.



Booster Seats

A belt-positioning booster seat is used for children who have outgrown their forward-facing child restraint. Boosters are designed to improve the fit of the vehicle's seat belt system until the child is large enough for the vehicle seat belts to fit properly without a booster seat. See the seat belt fit test in *Older Children* ⇨ 87.

## Securing an Add-On Child Restraint in the Vehicle

### Warning

A child can be seriously injured or killed in a crash if the child restraint is not properly secured in the vehicle. Secure the child restraint properly in the vehicle using the vehicle's seat belt or ISOFIX system, following the instructions that came with that child restraint and the instructions in this manual.

To help reduce the chance of injury, the child restraint must be secured in the vehicle. Child restraint systems must be secured in vehicle seats by lap belts or the lap belt portion of a lap-shoulder belt, or by the ISOFIX system. See *ISOFIX Child Restraint Systems* ⇨ 99 for more information. Children can be endangered in a crash if the child restraint is not properly secured in the vehicle.

When securing an add-on child restraint, refer to the instructions that come with the restraint which may be on the restraint itself or in a booklet, or both, and to this manual. The child restraint instructions are important, so if they are not available, obtain a replacement copy from the manufacturer.

Keep in mind that an unsecured child restraint can move around in a collision or sudden stop and injure people in the vehicle. Be sure to properly secure any child restraint in the vehicle - even when no child is in it.

### Securing the Child Within the Child Restraint

#### **Warning**

A child can be seriously injured or killed in a crash if it is not properly secured in the child restraint. Secure the child properly following the instructions that came with that child restraint.

### Where to Put the Restraint

According to accident statistics, children and infants are safer when properly restrained in an appropriate child restraint secured in a rear seating position.

Whenever possible, children aged 12 and under should be secured in a rear seating position.

#### **Danger**

When using a child restraint system on the front passenger seat, the airbag systems for the front passenger seat must be deactivated; if not, the triggering of the airbags poses a risk of fatal injury to the child.

This is especially the case if rear-facing child restraint systems are used on the front passenger seat.



EN: NEVER use a rearward-facing child restraint on a seat protected by an ACTIVE AIRBAG in front of it; DEATH or SERIOUS INJURY to the CHILD can occur.

FR: NE JAMAIS utiliser un siège d'enfant orienté vers l'arrière sur un siège protégé par un COUSSIN GONFLABLE ACTIF placé devant lui, sous peine d'infliger des BLESSURES GRAVES, voire MORTELLES à l'ENFANT.

DE: Nach hinten gerichtete Kindersitze NIEMALS auf einem Sitz verwenden, der durch einen davor befindlichen AKTIVEN AIRBAG geschützt ist, da dies den TOD oder SCHWERE VERLETZUNGEN DES KINDES zur Folge haben kann.

ES: NUNCA utilice un sistema de retención infantil orientado hacia atrás en un asiento protegido por un AIRBAG FRONTAL ACTIVO. Peligro de MUERTE o LESIONES GRAVES para el NIÑO.

SV: Använd ALDRIG en bakåtvänd barnstol på ett säte som skyddas med en framförvarande AKTIV AIRBAG. DÖDSFALL eller ALLVARLIGA SKADOR kan drabba BARNET.

IT: Non usare mai un sistema di sicurezza per bambini rivolto all'indietro su un sedile protetto da AIRBAG ATTIVO di fronte ad esso: pericolo di MORTE o LESIONI GRAVI per il BAMBINO!

NL: Gebruik NOOIT een achterwaarts gericht kinderzitje op een stoel met een ACTIEVE AIRBAG ervoor, om DODELIJK of ERNSTIG LETSEL van het KIND te voorkomen.

DA: Brug ALDRIG en bagudvendt autostol på et forsæde med AKTIV AIRBAG, BARNET kan komme i LIVSFARE eller komme ALVORLIGT TIL SKADE.

CS: NIKDY nepoužívejte dětský zádržný systém instalovaný proti směru jízdy na sedadle, které je chráněno před sedadlem AKTIVNÍM AIRBAGEM. Mohlo by dojít k VÁŽNĚMU PORANĚNÍ nebo ÚMRTÍ DÍTĚTE.

RU: ЗАПРЕЩАЕТСЯ устанавливать детское удерживающее устройство лицом назад на сиденье автомобиля, оборудованном фронтальной подушкой безопасности, если ПОДУШКА НЕ ОТКЛЮЧЕНА! Это может привести к СМЕРТИ или СЕРЬЕЗНЫМ ТРАВМАМ РЕБЕНКА.

FI: ÄLÄ KOSKAAN sijoita taaksepäin suunnattua lasten turvaistuinta istuimelle, jonka edessä on AKTIIVINEN TURVATYYNNY, LAPSI VOI KUOLLA tai VAMMAUTUA VAKAVASTI.

NO: Bakovervendt barnesikringsutstyr må ALDRI brukes på et sete med AKTIV KOLLISJONSPUTE foran, da det kan føre til at BARNET utsettes for LIVSFARE og fare for ALVORLIGE SKADER.

PT: NUNCA use um sistema de retenção para crianças voltado para trás num banco protegido com um AIRBAG ACTIVO na frente do mesmo, poderá ocorrer a PERDA DE VIDA ou FERIMENTOS GRAVES na CRIANÇA.

EL: ΠΟΤΕ μη χρησιμοποιείτε παιδικό κάθισμα ασφαλείας με φορά προς τα πίσω σε κάθισμα που προστατεύεται από μετωπικό ΕΝΕΡΓΟ ΑΕΡΟΣΑΚΟ, διότι το παιδί μπορεί να υποστεί ΘΑΝΑΣΙΜΟ ή ΣΟΒΑΡΟ ΤΡΑΥΜΑΤΙΣΜΟ.

PL: NIE WOLNO montować fotelika dziecięcego zwróconego tyłem do kierunku jazdy na fotelu, przed którym znajduje się WŁĄCZONA PODUSZKA POWIETRZNA.

Niezastosowanie się do tego zalecenia może być przyczyną ŚMIERCI lub POWAŻNYCH OBRAŻEŃ u DZIECKA.

TR: Arkaya bakan bir çocuk emniyet sistemini KESİNLİKLE önünde bir AKTİF HAVA YASTIĞI ile korunmakta olan bir koltukta kullanmayınız. ÇOCUK ÖLEBİLİR veya AĞIR ŞEKİLDE YARALANABİLİR.

UK: НИКОЛИ не використовуйте систему безпеки для дітей, що встановлюється обличчям назад, на сидінні з УВІМКНЕНОЮ ПОДУШКОЮ БЕЗПЕКИ, інакше це може призвести до СМЕРТІ чи СЕРІОЗНОГО ТРАВМУВАННЯ ДИТИНИ.

HU: SOHA ne használjon hátrafelé néző biztonsági gyerekülést előlről AKTÍV LÉGZSÁKKAL védett ülésen, mert a GYERMEK HALÁLÁT vagy KOMOLY SÉRÜLÉSÉT okozhatja.

HR: NIKADA nemojte koristiti sustav zadržavanja za djecu okrenut prema natrag na sjedalu s AKTIVNIM ZRAČNIM JASTUKOM ispred njega, to bi moglo dovesti do SMRTI ili OZBILJNIH OZLJEDA za DIJETE.

SL: NIKOLI ne nameščajte otroškega varnostnega sedeža, obrnjenega v nasprotni smeri vožnje, na sedež z AKTIVNO ČELNO ZRAČNO BLAZINO, saj pri tem obstaja nevarnost RESNIH ali SMRTNIH POŠKODB za OTROKA.

SR: NIKADA ne koristiti bezbednosni sistem za decu u kome su deca okrenuta unazad na sedištu sa AKTIVNIM VAZDUŠNIM JASTUKOM ispred sedišta zato što DETE može da NASTRADA ili da se TEŠKO POVREDI.

MK: НИКОГАШ не користете детско седиште свртено наназад на седиште заштитено со АКТИВНО ВОЗДУШНО ПЕРНИЧЕ пред него, затоа што детето може ДА ЗАГИНЕ или да биде ТЕШКО ПОВРЕДЕНО.

BG: НИКОГА не използвайте детска седалка, гледаща назад, върху седалка, която е защитена чрез АКТИВНА ВЪЗДУШНА ВЪЗГЛАВНИЦА пред нея - може да се стигне до СМЪРТ или СЕРИОЗНО НАРАНЯВАНЕ на ДЕТЕТО.

RO: Nu utilizați NICIODATĂ un scaun pentru copil îndreptat spre partea din spate a mașinii pe un scaun protejat de un AIRBAG ACTIV în fața sa; acest lucru poate duce la DECESUL sau VĂTĂMAREA GRAVĂ a COPILULUI.

SK: NIKDY nepoužívajte detskú sedačku otočenú vzad na sedadle chránenom AKTÍVNÝM AIRBAGOM, pretože môže dôjsť k SMRTI alebo VÁŽNYM ZRANENIAM DIEŤAŤA.

LT: JOKIU BŪDU nemontuokite atgal atgręžtos vaiko tvirtinimo sistemas sėdynėje, prieš kurią įrengta AKTYVI ORO PAGALVĖ, nes VAIKAS GALI ŽŪTI arba RIMTAI SUSIŽALOTI.

LV: NEKĀDĀ GADĪJUMĀ neizmantojiet uz aizmuguri vērstu bērnu sēdekli sēdvietā, kas tiek aizsargāta ar tās priekšā uzstādītu AKTĪVU DROŠĪBAS SPILVENU, jo pretējā gadījumā BĒRNS var gūt SMAGAS TRAUMAS vai IET BOJĀ.

ET: ÄRGE kasutage tahapooles suunatud lapseturvaistet istmel, mille ees on AKTIIVSE TURVAPADJAGA kaitstud iste, sest see võib põhjustada LAPSE SURMA või TÕSISE VIGASTUSE.

MT: QATT tuża trażżin għat-tfal li jħares lejn in-naħa ta' wara fuq sit protett b'AIRBAG ATTIV quddiemu; dan jista' jikkaww l-MEWT jew ĠIEĦ SERJI lit-TFAL.

GA: Ná húsáid srian sábháilteachta linbh cúil RIAMH ar shuíochán a bhfuil mála aeir ag feidhmiú os a chomhair.Tá baol BÁIS nó GORTÚ DONA don PHÁISTE ag baint leis.

When securing a child restraint with the seat belts in a rear seat position, study the instructions that came with the child restraint to make sure it is compatible with this vehicle.

Child restraints and booster seats vary considerably in size, and some may fit in certain seating positions better than others.

Depending on where you place the child restraint and the size of the child restraint, you may not be able to access adjacent seat belts or ISOFIX anchors for additional passengers or child restraints. Adjacent seating positions should not be used if the child restraint prevents access to or interferes with the routing of the seat belt.

Wherever a child restraint is installed, be sure to follow the instructions that came with the child restraint system and secure the child restraint system properly.

Keep in mind that an unsecured child restraint can move around in a collision or sudden stop and injure people in the vehicle. Be sure to properly secure any child restraint in the vehicle - even when no child is in it.

**ISOFIX Child Restraint Systems Installation Suitability**

The following table shows permissible options for fitting an ISOFIX child restraint system with ISOFIX brackets.

Mass Group	Class Size	Fixture	Vehicle ISOFIX Positions			
			Front Passenger	Rear Outboard Passenger (Fixed Seat)	Rear Outboard Passenger (Adjustable Seat)	Rear Centre Passenger
Carrycot	F	ISO/L1	X	X	X	X
	G	ISO/L2	X	X	X	X
0 (up to 10 kg)	E	ISO/R1	X	IUF	IUF	X
0+ (up to 13 kg)	E	ISO/R1	X	IUF	IUF	X
	D	ISO/R2	X	IUF	IUF <sup>2</sup>	X
	C	ISO/R3	X	IUF	IUF <sup>1</sup>	X
I (9 to 18 kg)	D	ISO/R2	X	IUF	IUF <sup>2</sup>	X
	C	ISO/R3	X	IUF	IUF <sup>1</sup>	X
	B	ISO/F2	X	IUF	IUF	X
	B1	ISO/F2X	X	IUF	IUF	X
	A	ISO/F3	X	IUF	IUF	X

Mass Group	Class Size	Fixture	Vehicle ISOFIX Positions			
			Front Passenger	Rear Outboard Passenger (Fixed Seat)	Rear Outboard Passenger (Adjustable Seat)	Rear Centre Passenger
IUF = Suitable for ISOFIX child restraint systems of universal category approved for use in the mass group.						
X = ISOFIX position not suitable for ISOFIX child restraint systems in this mass group and/or this size class.						
1 = Seating position in front of ISOFIX position must be adjusted to 72 mm rearward of full forward seat travel.						
2 = Seating position in front of ISOFIX position must be adjusted to 109 mm rearward of full forward seat travel.						

ISOFIX Size Class and Seat Device:

**A - ISO/F3** : Forward-facing child restraint system for children of maximum size in the weight class 9 to 18 kg.

**B - ISO/F2** : Forward-facing child restraint system for smaller children in the weight class 9 to 18 kg.

**B1 - ISO/F2X** : Forward-facing child restraint system for smaller children in the weight class 9 to 18 kg.

**C - ISO/R3** : Rear-facing child restraint system for children of maximum size in the weight class up to 18 kg.

**D - ISO/R2** : Rear-facing child restraint system for smaller children in the weight class up to 18 kg.

**E - ISO/R1** : Rear-facing child restraint system for young children in the weight class up to 13 kg.

**F - ISO/L1** : Left lateral-facing position child restraint system (carry-cot).

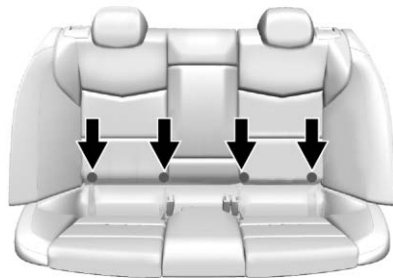
**G - ISO/L2** : Right lateral-facing position child restraint system (carry-cot).


**Child Restraint Systems Installation Suitability**

The following table shows permissible options for fastening a child restraint system with a lap-shoulder belt.

Mass Group		Seating Positions			
		Front Passenger	Rear Left Outboard	Rear Centre	Rear Right Outboard
Group 0	Up to 10 kg	X	U	U	U
Group 0 +	Up to 13 kg	X	U	U	U
Group I	9 to 18 kg	X	U	U	U
Group II	15 to 25 kg	X	U	U	U
Group III	22 to 36 kg	X	U	U	U
U = Suitable for “universal” category restraints approved for use in this mass group.					
X = Seat position not suitable for children in this mass group.					

## ISOFIX Child Restraint Systems



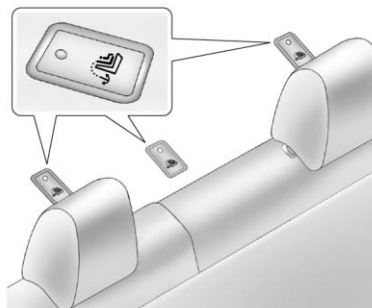
ISOFIX mounting brackets are marked by  on the seat back.


Fasten vehicle-approved ISOFIX child restraint systems to the ISOFIX mounting brackets.

Specific vehicle ISOFIX child restraint system positions are marked in the “ISOFIX Child Restraint Systems Installation Suitability” table. See *Where to Put the Restraint* ⇨ 92.

No more than two ISOFIX child restraint systems can be installed on the rear seats at the same time, though not right next to each other.

### Top Tether Fastening Eyes



Top tether fastening eyes are marked with  for a child seat.

In addition to the ISOFIX mounting, fasten the top tether strap to the top tether fastening eyes.

ISOFIX child restraint systems of universal category positions are marked in the “ISOFIX Child Restraint

Systems Installation Suitability” table by IUF. See *Where to Put the Restraint* ⇨ 92.

## Securing Child Restraints (With the Seat Belt in the Rear Seat)

When securing a child restraint with the seat belts in a rear seat position, study the instructions that came with the child restraint to make sure it is compatible with this vehicle.

If the child restraint has the ISOFIX system, see *ISOFIX Child Restraint Systems* ⇨ 99 for how and where to install the child restraint using ISOFIX. If a child restraint is secured in the vehicle using a seat belt and it uses a top tether, see *ISOFIX Child Restraint Systems* ⇨ 99 for top tether anchor locations.

Do not secure a child seat in a position without a top tether anchor if a national or local law requires that the top tether be anchored, or if the instructions that came with the child restraint say that the top strap must be anchored.

If the child restraint or vehicle seat position does not have the ISOFIX system, you will be using the seat belt to secure the child restraint. Be sure to follow the instructions that came with the child restraint.

If more than one child restraint needs to be installed in the rear seat, be sure to read *Where to Put the Restraint* ⇨ 92.

### **Warning**

The power seats will work with the ignition off. Children could operate the power seats and be injured. Never leave children alone in the vehicle.

### **Caution**

Do not adjust the power seat when a child restraint is installed. Adjusting the seat may cause damage to the installed child restraint. Use the window lockout button on the driver door to

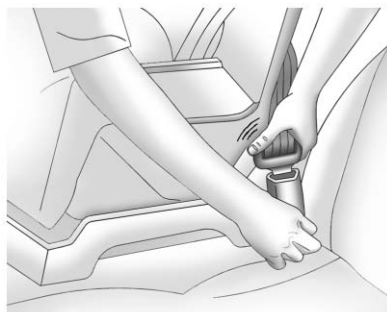
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### **Caution (Continued)**

prevent adjustment of the seat whenever a child restraint is installed.

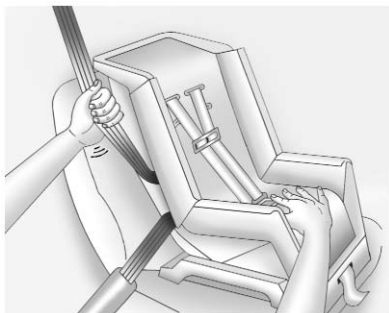
If the rear seat is adjustable, make sure the rear seat is positioned fully rearward before installing a child restraint.

1. Put the child restraint on the seat.
2. Pick up the latch plate, and run the lap and shoulder portions of the vehicle's seat belt through or around the restraint. The child restraint instructions will show you how.



3. Push the latch plate into the buckle until it clicks.

Position the release button on the buckle, away from the child restraint system, so that the seat belt can be quickly unfastened if necessary.



4. Follow the instructions in the child restraint owner's manual to tighten and lock the child restraint using the vehicle seat belt.
5. If the child restraint has a top tether, follow the child restraint manufacturer's instructions regarding the use of the top tether. See *ISOFIX Child Restraint Systems* ⇨ 99.
6. Before placing a child in the child restraint, make sure it is securely held in place. Push and pull the child restraint in different directions to be sure it is secure.

To remove the child restraint, follow the instructions in the child restraint owner's manual to unlock it. Unfasten the vehicle seat belt and let it return to the stowed position. If the top tether is attached to a top tether anchor, disconnect it.

### Securing Child Restraints (With the Seat Belt in the Front Seat)

This vehicle has airbags. A rear seat is a safer place to secure a forward-facing child restraint. See *Where to Put the Restraint* ⇨ 92.

In addition, the vehicle has a passenger sensing system which is designed to turn off the front outboard passenger frontal airbag and knee airbag under certain conditions. See *Passenger Sensing System* ⇨ 81 and *Passenger Airbag Status Indicator* ⇨ 130 for more information, including important safety information.

#### **Danger**

NEVER use a rearward-facing child restraint on a seat protected by an ACTIVE AIRBAG in front of it; DEATH or SERIOUS INJURY to the CHILD can occur.

#### **Danger**

When using a child restraint system on the front passenger seat, the airbag systems for the front passenger seat must be deactivated; if not, the triggering of the airbags poses a risk of fatal injury to the child.

This is especially the case if rear-facing child restraint systems are used on the front passenger seat.



If the child restraint uses a top tether, see *ISOFIX Child Restraint Systems* ⇨ 99 for top tether anchor locations.

Do not secure a child seat in a position without a top tether anchor if a national or local law requires that the top tether be anchored, or if the instructions that come with the child restraint say that the top strap must be anchored.

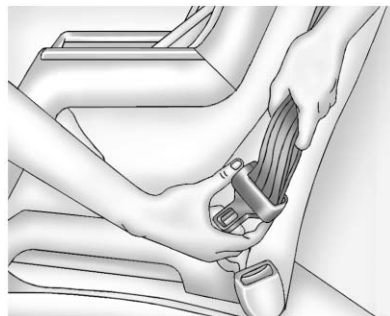
When using the lap-shoulder belt to secure the child restraint in this position, follow the instructions that came with the child restraint and the following instructions:

1. Move the seat as far back as it will go before securing the forward-facing child restraint. Move the seat upward or the

backrest to an upright position, if needed, to get a tight installation of the child restraint.

When the passenger sensing system has turned off the front outboard passenger frontal airbag and knee airbag, the off indicator on the passenger airbag status indicator should light and stay lit when the vehicle is started. See *Passenger Airbag Status Indicator* ⇨ 130.

2. Put the child restraint on the seat.
3. Pick up the latch plate, and run the lap and shoulder portions of the vehicle's seat belt through or around the restraint. The child restraint instructions will show you how.



Tilt the latch plate to adjust the belt if needed.

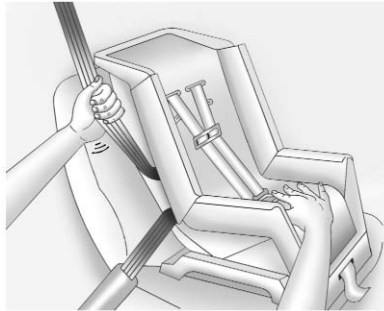


4. Push the latch plate into the buckle until it clicks.

Position the release button on the buckle, away from the child restraint system, so that the seat belt can be quickly unfastened if necessary.



5. Pull the shoulder belt all the way out of the retractor to set the lock. When the retractor lock is set, the belt can be tightened but not pulled out of the retractor.



6. To tighten the belt, push down on the child restraint, pull the shoulder portion of the belt to tighten the lap portion of the belt, and feed the shoulder belt back into the retractor. When installing a forward-facing child restraint, it may be helpful to use your knee to push down on the child restraint as you tighten the belt.

Try to pull the belt out of the retractor to make sure the retractor is locked. If the retractor is not locked, repeat Steps 5 and 6.

7. Before placing a child in the child restraint, make sure it is securely held in place. Refer to your child restraint manufacturer instructions.

If the airbags are off, the off indicator in the passenger airbag status indicator will come on and stay on when the vehicle is started.

If a child restraint has been installed and the on indicator is lit, see “If the On Indicator Is Lit for a Child Restraint” under *Passenger Sensing System* ⇨ 81.

To remove the child restraint, unfasten the vehicle seat belt and let it return to the stowed position.

## Pedestrian Protection System

Your vehicle is equipped with a pedestrian protection system which is designed to lift the rear part of the bonnet when a pedestrian is detected during a frontal impact within the approximate speed range.

When the vehicle is involved in a frontal impact with an object or a pedestrian, sensors in the front bumper determine the force applied by the object to the front bumper.

When the frontal impact speed is approximately between 25 km/h (15 mph) and 50 km/h (31 mph), the pedestrian protection system lifts the rear part of the bonnet to help reduce pedestrian head injuries. Lifting the rear part of the bonnet creates more clearance between the bonnet and the hard components in the engine compartment.

In addition, the front bumper of the vehicle was designed to help reduce the injury to a pedestrian's legs.

### **Warning**

After the bonnet has lifted, the bonnet hinge and latch area may be hot. Do not touch the pedestrian protection system components.

The pedestrian protection system is designed to lift the bonnet only once.

The pedestrian protection system may not activate under the following conditions:

- The pedestrian impact is outside the range of the sensors located on the front bumper.
- The sensors on the front bumper are damaged.
- The path of the lifting bonnet is blocked by snow or ice. Clear any ice or snow from the bonnet before driving.
- Winter fronts, grille covers, or other aftermarket equipment is attached to the bumper.

- Vehicle speed at impact is less than 25 km/h (15 mph) or greater than 50 km/h (31 mph).
- The vehicle impacts a small object.

For other frontal impacts or vehicle speeds, the airbags may also deploy. See *Air-Bag System* ⇨ 75.

After the pedestrian protection system has deployed, the bonnet will remain in the raised position and the driver's view may be reduced by the raised bonnet.

### **Warning**

Do not drive the vehicle when the bonnet is raised.

Operating the vehicle with the bonnet raised can obstruct your view and may cause a collision resulting in damage to the vehicle, damage to other property, personal injury, or even death.

**Caution**

After the pedestrian protection system has deployed, see your dealer for service. The bonnet assembly including hinges, latch, and actuators must be replaced.

If towing service is not available, the bonnet may be repositioned temporarily. See “Temporary Bonnet Repair” following.

The SERVICE PEDESTRIAN PROTECTION SYSTEM message will appear when there is a problem with the pedestrian protection system. See your dealer for service immediately.

During a frontal impact involving a pedestrian, the vehicle may record information about the condition of the vehicle and how it was operated. See *Vehicle Data Recording and Privacy* ⇨ 322.

**Temporary Bonnet Repair**

If the rear of the bonnet is raised, the bonnet may be repositioned temporarily if a towing service is not available.

 **Warning**

Before beginning the procedure, read all the instructions. Failure to read and follow the instructions could injure you or others and damage the vehicle.

 **Warning**

After the bonnet has lifted, the bonnet hinge and latch area may be hot. Do not touch the pedestrian protection system components.

Allow the engine to cool before attempting any repair.

 **Warning**

You or others could be injured when the bonnet is lowered or latched.

Be sure to keep fingers and other body parts away from the edge of the bonnet and wings.

1. Place both hands on top of the right corner of the bonnet near the windscreen and push the bonnet down quickly.  
If the bonnet does not latch, push down again with slightly more force until the bonnet is latched securely.
2. Repeat the previous step to latch the left side of the bonnet.
3. Pull up on the rear corners of the bonnet to make sure the bonnet is latched securely and will not lift.

 **Warning**

Do not drive the vehicle if the bonnet is not securely latched at both rear corners and the front latch.

Operating your vehicle without the bonnet securely latched can lead to a collision resulting in damage to your vehicle, damage to other property, personal injury, or even death.

4. Drive directly to a dealer for service. If you cannot go in for service immediately, have the vehicle towed.

Some noise will occur when the vehicle is driven while the bonnet is temporarily repositioned.

If you do not have the system repaired, the pedestrian protection system will not be operable in the event of another crash or frontal impact involving a pedestrian. See your retailer for service immediately.

 **Warning**

Safety procedures must always be observed when disposing of the vehicle or vehicle parts. Disposal should only be performed by an authorised service centre, to help protect the environment and your health.

# Storage

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## Additional Storage Features

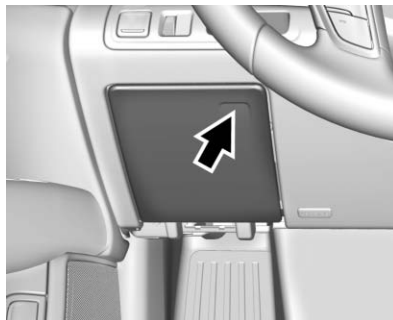
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## Storage Compartments

### Warning

Do not store heavy or sharp objects in storage compartments. In a crash, these objects may cause the cover to open and could result in injury.

## Instrument Panel Storage



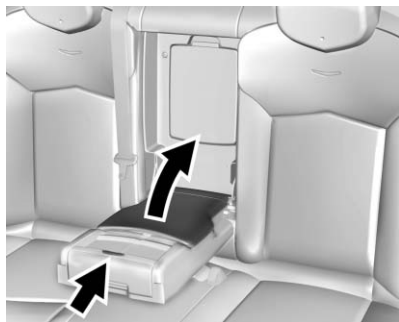
Press to release the cover.

## Glove Box



To open, touch the GLOVE BOX button. Close the glove box manually.

## Armrest Storage

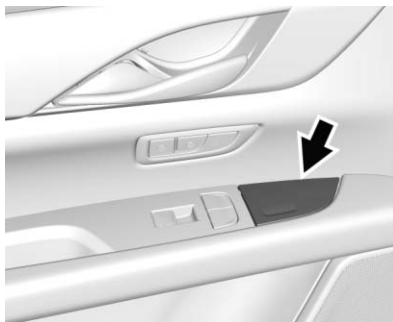


Press the latch to access the storage area in the rear armrest. Press the button to extend the cupholders.

Push the cupholders in to close.

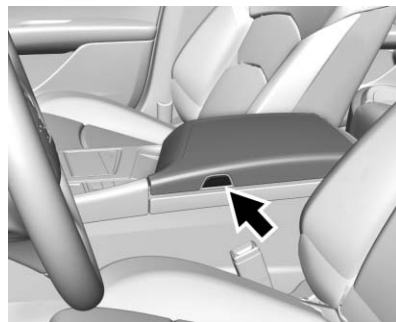
If equipped, there are seat controls on the armrest. See *Rear Seats* ⇨ 65.

## Rear Storage

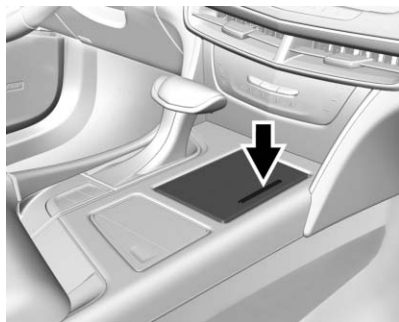


If equipped, press the lid to access the storage compartment in the rear doors.

## Centre Console Storage



Press the button and lift to access the storage area. There is an auxiliary jack and USB port(s) inside. See the infotainment manual.



There are cupholders in the centre console. Push and release on the passenger side of the cover to access the cupholders.

## Additional Storage Features

### Cargo Tie-Downs



The cargo tie-downs can be used to secure small loads and the convenience net. See *Convenience Net* ⇨ 109, if equipped.

### Convenience Net

The vehicle may have a convenience net in the boot. The net is attached to the cargo tie-downs. Put small loads behind the net. It can also be positioned into an envelope to hold smaller items inside. Do not use the net for heavy loads.

# Instruments and Controls

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## Universal Remote System

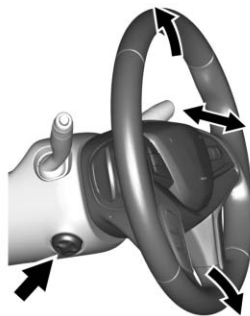
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## Controls

### Steering Wheel Adjustment

#### Power Tilt and Telescoping Steering Wheel



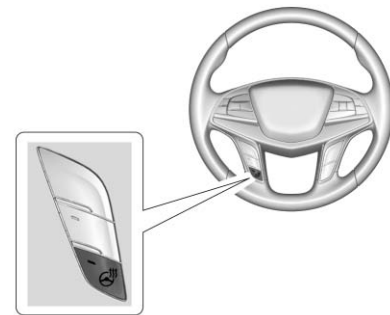
Press the control to move the tilt and telescoping steering wheel up and down or forward and rearward.


Do not adjust the steering wheel while driving.

### Steering Wheel Controls

The infotainment system can be operated by using the steering wheel controls. See "Steering Wheel Controls" in the infotainment manual.

### Heated Steering Wheel



 : If equipped with a heated steering wheel, press to turn on or off. An indicator next to the button is lit when the feature is turned on.

The steering wheel takes about three minutes to start heating.


### Automatic Heated Steering Wheel

If equipped with remote start, the heated steering wheel will turn on automatically during a remote start along with the heated seats when it is cold outside. The heated steering wheel indicator light may not come on.

If equipped with auto-heated seats, the heated steering wheel will turn on when the auto-heated seat is activated. The heated steering wheel indicator will follow the state of the steering wheel heat.

See *Heated and Ventilated Front Seats* ⇨ 63 and *Vehicle Personalisation* ⇨ 146.

### Horn

Press  on the steering wheel pad to sound the horn.

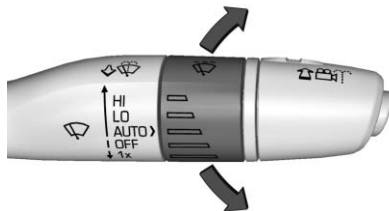
### Windscreen Wiper/Washer



With the ignition on or in ACC/ACCESSORY, move the lever up or down to select the wiper speed.

**HI** : Use for fast wipes.

**LO** : Use for slow wipes.




**AUTO** : Use this setting for intermittent wipes when Rainsense is disabled, or for Rainsense wipes when it is enabled. For intermittent wipes, move the lever up to AUTO, then turn the band on the wiper lever up for more frequent wipes or down for less frequent wipes. If Rainsense is enabled, see "Rainsense" later in this section.

If the windscreen wipers are in use while driving, the exterior lamps come on automatically if the exterior lamp control is in AUTO. The transition time for the lamps coming on varies based on wiper speed. See "Lights On with Wipers" under *Automatic Headlamp System* ⇨ 160.

**OFF** : Use to turn the wipers off.

**1X** : For a single wipe, briefly move the wiper lever down. For several wipes, hold the wiper lever down.

 : Pull the windscreen wiper lever toward you to spray windscreen washer fluid and activate the wipers. The wipers will continue until the lever is released or the maximum wash time is reached. When the windscreen wiper lever is released,

additional wipes may occur depending on how long the windscreen washer had been activated. See *Washer Fluid* ⇨ 252 for information on filling the windscreen washer fluid reservoir.

### **Warning**

In freezing weather, do not use the washer until the windscreen is warmed. Otherwise the washer fluid can form ice on the windscreen, blocking your vision.

Clear snow and ice from the wiper blades and windscreen before using them. If frozen to the windscreen, carefully loosen or thaw them. Damaged blades should be replaced. See *Wiper Blade Replacement* ⇨ 257.

Heavy snow or ice can overload the wiper motor.

### **Wiper Parking**

If the ignition is turned off while the wipers are on LO, HI, or AUTO with Rainsense disabled, they will immediately stop.

If the windscreen wiper lever is then moved to OFF before the driver door is opened or within 10 minutes after the ignition is off, the wipers will restart and move to the base of the windscreen.

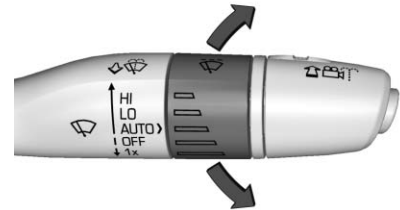
If the ignition is turned off while the wipers are performing wipes due to windscreen washing or Rainsense, the wipers continue to run until they reach the base of the windscreen.

### **Rainsense**

With Rainsense, a sensor near the top centre of the windscreen detects the amount of water on the windscreen and controls the sensitivity of the windscreen wiper.

Keep this area of the windscreen clear of debris to allow for best system performance.

**AUTO** : If Rainsense is enabled, move the windscreen wiper lever to AUTO. Turn the band on the wiper stalk to adjust the sensitivity.



- Turn the band up for more sensitivity to moisture.
- Turn the band down for less sensitivity to moisture.
- Move the windscreen wiper lever out of the AUTO position to deactivate Rainsense.

To enable or disable this feature, see "Rainsense Wipers" under *Vehicle Personalisation* ⇨ 146.

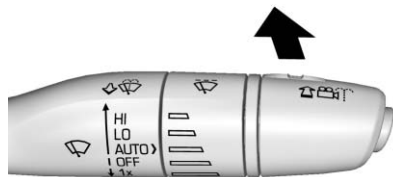
### **Wiper Arm Assembly Protection**

When using an automatic car wash, move the windscreen wiper lever to OFF. This disables the automatic Rainsense windscreen wipers.

With Rainsense, if the transmission is in N (Neutral) and the vehicle speed is very slow, the wipers will automatically stop at the base of the windshield.

The wiper operations return to normal when the transmission is no longer in N (Neutral) or the vehicle speed has increased.

### Rear Camera Washer



If equipped, push the windshield wiper lever forward to spray washer fluid on the rear camera lens. The lever returns to its starting position when released. See *Rear Camera Mirror* ➤ 48.

## Compass

The vehicle may have a compass display on the Driver Information Centre (DIC). The compass receives its heading and other information from the Global Positioning System (GPS) aerial, StabiliTrak<sup>®</sup>, and vehicle speed information.

The compass system is designed to operate for a certain number of miles or degrees of turn before needing a signal from the GPS satellites. When the compass display shows CAL, drive the vehicle for a short distance in an open area where it can receive a GPS signal. The compass system will automatically determine when a GPS signal is restored and provide a heading again.

## Clock

The infotainment system controls are used to access the time and date settings through the menu system. See “Home Page” in the infotainment manual for information about how to use the menu system.

## Setting the Clock

### Time

To set the time:

1. From the Home Page, touch **SETTINGS**, then touch **Time and Date**.
2. Touch **Set Time**, then touch + or - to increase or decrease hours or minutes, and change AM or PM.
3. Touch **12-24 Hr** for a 12 or 24 hour clock.
4. Touch ↶ to go back to the previous menu.

### Date


To set the date:

1. Touch **SETTINGS**, then touch **Time and Date**.
2. Touch **Set Date**, then touch + or - to increase or decrease month, day, or year.
3. Touch ↶ to go back to the previous menu.

## Auto Set

When on, the time and date will automatically update.

To set auto set:

1. Touch SETTINGS, then touch Time and Date.
2. Touch Set Time or Set Date.
3. Touch Auto Set, then select On-Cell Network or Off-Manual to manually set the time and date.
4. Touch  to go back to the previous menu.


If auto set is on, the time displayed on the clock may not update immediately when driving into a new time zone.

## Clock Display

When on, the digital clock will appear on the infotainment display.

To set the clock display:

1. Touch SETTINGS, then touch Time and Date.
2. Touch Clock Display, then select Off or On.

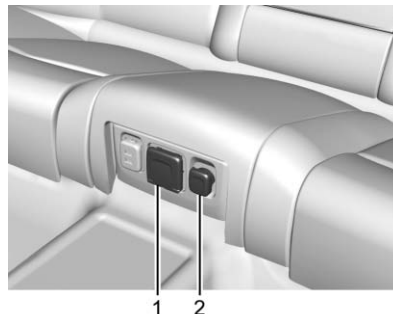
3. Touch  to go back to the previous menu.

## Power Sockets

### Power Outlet 12-Volt Direct Current

The 12-volt accessory power outlet can be used to plug in electrical equipment, such as a cell phone or MP3 player.

The vehicle has an accessory power outlet on the rear seat trim panel.



1. Power Socket 220V/230V Alternating Current
2. Power Outlet 12-Volt Direct Current

Lift the cover to access the accessory power outlet.

Certain accessory power plugs may not be compatible with the accessory power outlet and could overload vehicle or adapter fuses. If a problem is experienced, see your dealer.

When adding electrical equipment, ensure that you follow the proper installation instructions included with the equipment. See *Add-On Electrical Equipment* ⇨ 239.

## Caution

Hanging heavy equipment from the power outlet can cause damage not covered by the vehicle warranty. The power outlets are designed for accessory power plugs only, such as mobile phone charge cords.

Always unplug electrical equipment when not in use and do not plug in equipment that exceeds the maximum 20 amp rating.

### Power Socket 220V/230V Alternating Current

If equipped with this power socket on the rear seat trim panel, it can be used to plug in electrical equipment that uses a maximum limit of 400 watts.

An indicator light on the outlet turns on to show it is in use. The light comes on when the ignition is on, equipment requiring less than 400 watts is plugged into the outlet, and no system fault is detected.

The indicator light does not come on when the ignition is off or if the equipment is not fully seated into the outlet.

If equipment is connected using more than 400 watts or a system fault is detected, a protection circuit shuts off the power supply and the indicator light turns off. To reset the circuit, unplug the item and plug it back in or turn the Retained Accessory Power (RAP) off and then back on. See *Retained Accessory Power (RAP)* ⇨ 194. The power restarts when equipment

using 400 watts or less is plugged into the outlet and a system fault is not detected.

The power outlet is not designed for the following and may not work properly if this equipment is plugged in:

- Equipment with high initial peak wattage, such as compressor-driven refrigerators or electric power tools
- Other equipment requiring an extremely stable power supply, such as microcomputer-controlled electric blankets or touch sensor lamps
- Medical equipment

### Wireless Charging

The vehicle may have wireless charging in the storage under the armrest. The system wirelessly charges one PMA or Qi compatible mobile device. See *Declaration of Conformity* ⇨ 320. To check for phone or other device compatibility, see your retailer for details.



#### Warning

Wireless charging can affect the operation of an implanted pacemaker or other medical devices. If you have one, it is recommended to consult with your doctor before using the wireless charging system.

The vehicle must be on, in ACC/ACCESSORY, or Retained Accessory Power (RAP) must be active. The wireless charging feature may not correctly indicate charging when the vehicle is in RAP. See *Retained Accessory Power (RAP)* ⇨ 194.

The operating temperature is -20 °C (-4 °F) to 60 °C (140 °F) for the charging system and 0 °C (32 °F) to 35 °C (95 °F) for the phone.



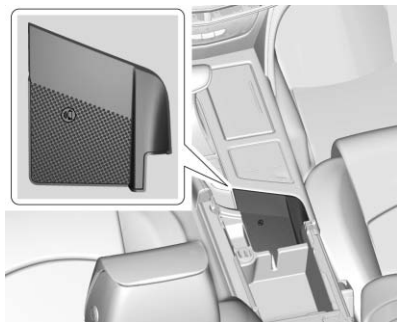
#### Warning

Remove all objects from the charging pad before charging your mobile device. Objects, such as coins, keys, rings, paper clips,





(Continued)

**Warning (Continued)**

or cards, between the phone and charging pad will become very hot. On the rare occasion that the charging system does not detect an object, and the object gets wedged between the phone and charger, remove the phone and allow the object to cool before removing it from the charging pad, to prevent burns.



To charge a mobile device:

1. Remove all objects from the charging pad. The system may not charge if there are any objects between the mobile device and charging pad.
2. Place the mobile device face up on the  symbol on the charging pad and align it to the left wall of the charging bin.
3. The  will appear above the  on the infotainment display. This indicates that the mobile device is properly positioned and charging. If a mobile device is placed on the charging pad and  does not display, remove the mobile device from the pad, turn 180 degrees and wait three seconds before placing/aligning the mobile device on the pad again.

**Cigarette Lighter**

There may be a cigarette lighter inside the center console storage area.

To use the cigarette lighter, push it in all the way, and let go. When it is ready, it will pop back out by itself.

**Caution**

Holding a cigarette lighter in while it is heating does not let the lighter back away from the heating element when it is hot. Damage from overheating can occur to the lighter or heating element, or a fuse could be blown. Do not hold a cigarette lighter in while it is heating.

**Ashtrays**

There are front and rear ashtrays.

**Caution**

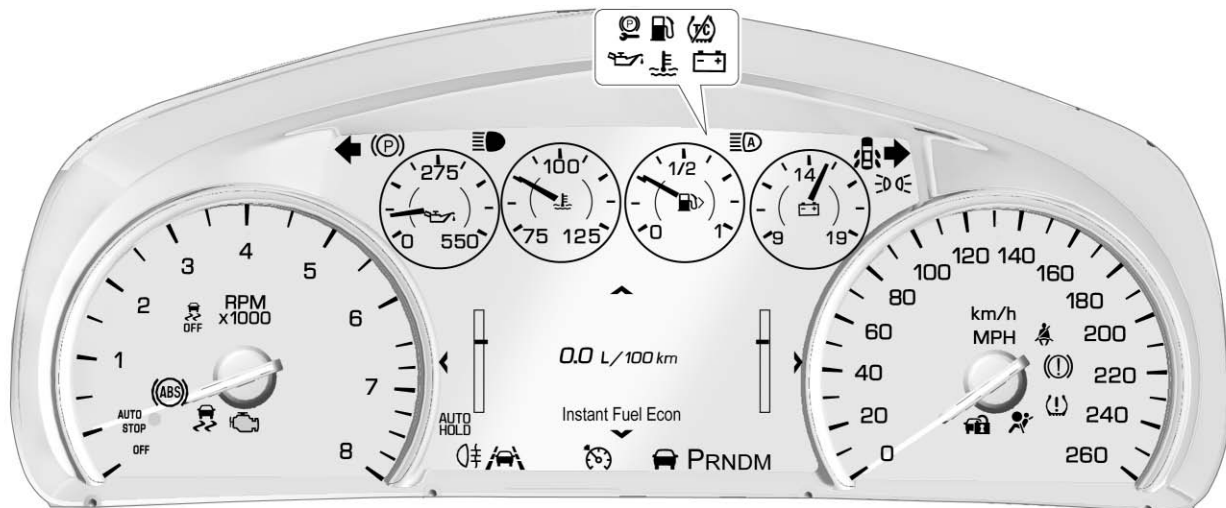
If papers, pins, or other flammable items are put in the ashtray, hot cigarettes or other smoking materials could ignite them and possibly damage the vehicle. Never put flammable items in the ashtray.

# Warning Lights, Gauges, and Indicators

Warning lights and gauges can signal that something is wrong before it becomes serious enough to cause an expensive repair or replacement. Paying attention to the warning lights and gauges could prevent injury.

Some warning lights come on briefly when the engine is started to indicate they are working. When one of the warning lights comes on and stays on while driving, or when one of the gauges shows there may be a problem, check the section that explains what to do. Waiting to do repairs can be costly and even dangerous.

## Instrument Cluster (Base Level)



## Cluster Menu

There is an interactive display area in the centre of the instrument cluster.

Use the right steering wheel control to open and scroll through the different items and displays.

Press  $\leftarrow$  to access the cluster applications. Use  $\wedge$  or  $\vee$  to scroll through the list of available applications. Not all applications will be available on all vehicles.

- **Info App.** This is where the selected Driver Information Centre (DIC) displays can be viewed. See *Driver Information Centre (DIC)* ⇨ 140.
- **Audio**
- **Phone**
- **Navigation**
- **Options**

## Audio

Press SEL to select the Audio app, then press  $\triangleright$  to enter the Audio menu. In the Audio menu browse for music, select from the favourites, or change the audio source. Use  $\wedge$  or  $\vee$  to change the station or go to the next or previous track.

## Phone

Press SEL to select the Phone app, then press  $\triangleright$  to enter the Phone menu. In the Phone menu, if there is no active phone call, view recent calls, or scroll through contacts. If there is an active call, mute the phone or switch to handset operation.

## Navigation

Press SEL to select the Navigation app, then press  $\triangleright$  to enter the Navigation menu. If there is no active route, you can resume the last route and turn the voice prompts on/off. If there is an active route, press SEL to cancel or resume route guidance or turn the voice prompts on or off.

## Options

Press SEL to select the Options app, then press  $\triangleright$  to enter the Options menu. Use  $\wedge$  or  $\vee$  to scroll through items in the Options menu.

**Units :** Press  $\triangleright$  while Units is displayed to enter the Units menu. Choose English or Metric units by pressing SEL while the desired item is highlighted. A checkmark will be displayed next to the selected item.

**Display Themes :** There are two instrument cluster display configurations to choose from: Standard and Technology.

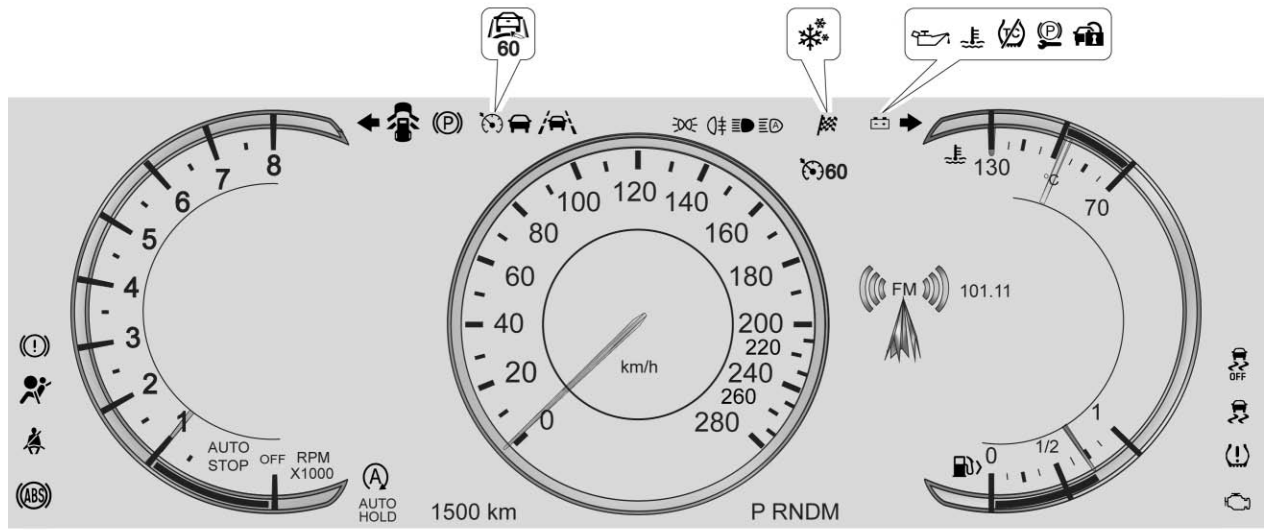
**Info Pages :** Press  $\triangleright$  while Info Pages is displayed to enter the Info Pages menu and select the items to be displayed in the Info app. See *Driver Information Centre (DIC)* ⇨ 140.

**Speed Warning :** The Speed Warning display allows the driver to set a speed that they do not want to exceed. To set the Speed Warning, press  $\triangleright$  when Speed Warning is displayed. Press SEL when Enabled is highlighted. To set the speed, press  $\triangleright$  when Set Speed is highlighted. Press  $\wedge$  or  $\vee$  to adjust the value. Press SEL to set the speed. Once the speed

is set, this feature can be turned off by pressing SEL while viewing this page. If the selected speed limit is exceeded, a pop-up warning is displayed with a chime.

**Software Information :** Displays open source software information.

Instrument Cluster (Uplevel)



Uplevel Balanced Cluster Shown

## Reconfigurable Instrument Cluster

The cluster display layout can be changed.



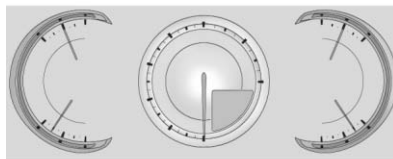
Balanced Configuration

The Balanced configuration has three interactive display zones: one in the centre of each of the gauges.



Enhanced Configuration

The Enhanced configuration has three interactive display zones.



Performance Configuration (If Equipped)

The Performance configuration has two interactive display zones.

Use the five-way control on the right side of the steering wheel to move between the different display zones and scroll through the different displays.

To change the cluster configuration:

1. Find the Options page in one of the interactive display zones on the cluster.
2. Press SEL to enter the Options menu.
3. Scroll down to highlight Display Layout. Then press SEL to select it.

4. Each layout in the menu is represented by a small preview image of the display layout. Scroll up or down and highlight the selection. Press SEL to select the desired cluster configuration.
5. Exit the Display Layout menu by pressing <.

## Cluster Application Displays

The cluster can display information regarding Navigation, Audio, and Phone.

### Navigation

If there is no active route, a compass will be displayed. If there is an active route, press SEL to end route guidance or turn the voice prompts on or off.

### Audio

While the Audio application page is displayed, press SEL to enter the Audio menu. In the Audio menu, search for music, select from favourites, or change the audio source

## Phone

While the Phone application page is displayed, press SEL to enter the Phone menu. In the Phone menu, if there is no active phone call, view recent calls, select from favourites, or scroll through contacts. If there is an active call, mute the phone or switch to handset operation.











## Cluster Options Menu

To enter the cluster Options menu:

1. Use the five-way control on the right side of the steering wheel to find the Options page in one of the interactive display zones on the cluster.
2. Press SEL on the centre of the five-way control to enter the Options menu.

**Units :** Press SEL while Units is highlighted to enter the Units menu. Choose US or metric units by pressing SEL while the desired item is highlighted. A checkmark will be displayed next to the selected item.





**Info Pages :** Press SEL while Info Pages is highlighted to select the items to be displayed in the DIC info displays. See *Driver Information Centre (DIC)* ⇨ 140.



**Fav Button Options :** Press SEL while Fav Button Options is highlighted to select between FAV Primary and SEEK Primary. This selection allows for configuration of the  and  steering wheel controls. When FAV Primary is selected, pressing  and  will go to the next or previous favourite and pressing and holding  and  will seek. When SEEK Primary is selected, pressing  and  will seek and pressing and holding  and  will go to the next or previous favourite.

**Display Layout :** Press SEL while Display Layout is highlighted to change the configuration of the cluster. See "Reconfigurable Instrument Cluster" earlier in this section.

## Head-up Display (HUD) Rotation :

This feature allows for adjusting the angle of the HUD image. Press SEL on the steering wheel controls while Head-up Display Rotation is highlighted to enter Adjust Mode.

Press  or  to adjust the angle of the HUD display. Press  or  to highlight OK, then press SEL to save the setting. Cancel can also be selected to cancel the setting. The vehicle must be in P (Park).

**Speed Warning :** Allows the driver to set a speed that they do not want to exceed. To set the Speed Warning, press SEL when Speed Warning is displayed. Press  or  to adjust the value. This feature can be turned off by pressing and holding SEL while viewing this page. If the selected speed limit is exceeded, a pop-up warning is displayed and a chime may sound.

**Tyre Loading :** Press SEL while Tyre Loading is highlighted to change the tyre loading setting. Choose Light (for comfort pressure up to three people), Eco (for Eco pressure up to three

people), or Max (for full loading) by pressing SEL while the desired item is highlighted.

**Open Source Software :** Press SEL while Open Source Software is highlighted to display open source software information.

## Speedometer

The speedometer shows the vehicle's speed in either kilometres per hour (km/h) or miles per hour (mph).

## Mileometer

The odometer shows how far the vehicle has been driven, in either kilometres or miles.

## Trip Odometer

The trip odometer shows how far the vehicle has been driven since the trip odometer was last reset.

The trip odometer is accessed and reset through the Driver Information Centre (DIC). See *Driver Information Centre (DIC)* ⇨ 140.

## Rev Counter

The tachometer displays the engine speed in revolutions per minute (rpm).

On the base cluster, if the vehicle has the Stop/Start system, when the ignition is on, the tachometer indicates the vehicle status. When pointing to AUTO STOP, the engine is off but the vehicle is on and can move. The engine could auto start at any time. When the indicator points to OFF, the vehicle is off.

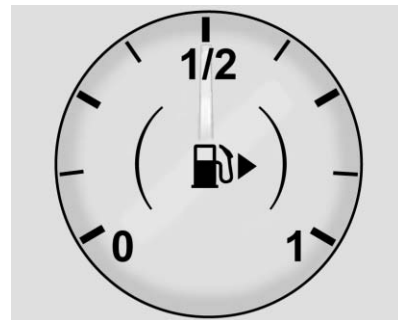
When the engine is on, the tachometer will indicate the engine's revolutions per minute (rpm). The tachometer may vary by several hundred rpm's, during Auto Stop mode, when the engine is shutting off and restarting.

A slight bump may be felt when the transmission is determining the most fuel efficient operating range.

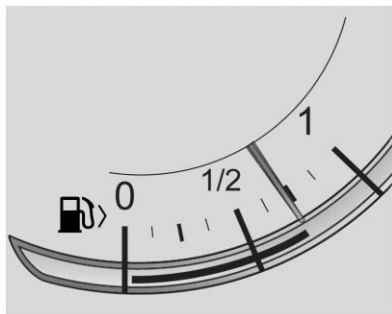
## Caution

If the engine is operated with the rpm in the warning area at the high end of the tachometer, the vehicle could be damaged, and the damage would not be covered by the vehicle warranty. Do not operate the engine with the rpm in the warning area.

## Fuel Gauge



Base Level Standard Theme



Uplevel Balanced Configuration

When the ignition is on, the fuel gauge indicates about how much fuel is left in the tank.

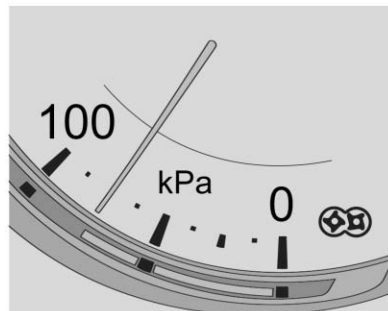
There is an arrow near the fuel gauge pointing to the side of the vehicle the fuel door is on.

When the indicator nears empty, the low fuel light comes on. There still is a little fuel left, but the vehicle should be refuelled soon.

Here are four things that some owners ask about. None of these show a problem with the fuel gauge:

- At the service station, the fuel pump shuts off before the gauge reads full.
- It takes a little more or less fuel to fill up than the gauge indicated. For example, the gauge may have indicated the tank was half full, but it actually took a little more or less than half the tank's capacity to fill the tank.
- The gauge moves a little while turning a corner or speeding up.
- The gauge takes a few seconds to stabilise after the ignition is turned on and goes back to empty when the ignition is turned off.

## Boost Gauge (Performance Configuration Only)

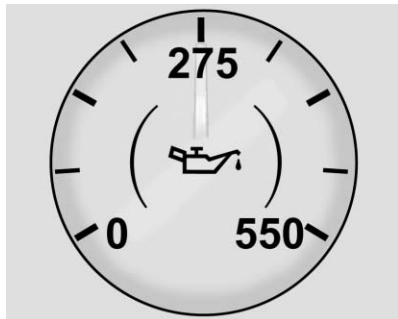


This gauge indicates boost under heavier throttle.

It displays the air pressure level in the intake manifold before it enters the engine's combustion chamber.

The gauge is automatically centred at zero every time the engine is started. Actual boost is displayed from this zero point. Changes in ambient pressure, such as driving in mountains and changing weather, will slightly change the zero reading.

## Engine Oil Pressure Gauge



The engine oil pressure gauge shows the engine oil pressure in kPa (kilopascals) when the engine is running.

Oil pressure can vary with engine speed, outside temperature, and oil viscosity.

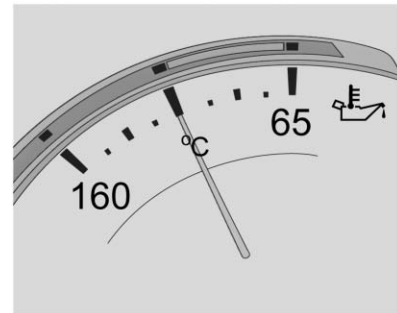
On some models, the oil pump will vary engine oil pressure according to engine needs. Oil pressure may change quickly as the engine speed or load varies. This is normal.

If the oil pressure warning light or Driver Information Centre (DIC) message indicates oil pressure outside the normal operating range, check the vehicle's oil as soon as possible. See *Engine Oil* ⇨ 244.

### Caution

Lack of proper engine oil maintenance can damage the engine. Driving with the engine oil low can also damage the engine. The repairs would not be covered by the vehicle warranty. Check the oil level as soon as possible. Add oil if required, but if the oil level is within the operating range and the oil pressure is still low, have the vehicle serviced. Always follow the maintenance schedule for changing engine oil.

## Engine Oil Temperature Gauge (Performance Configuration Only)

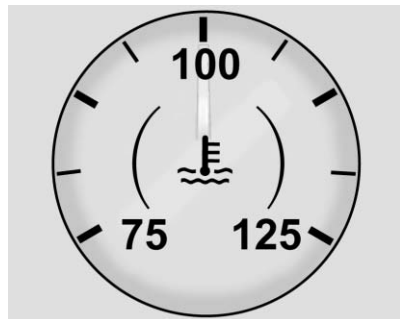


This gauge shows the engine oil temperature.

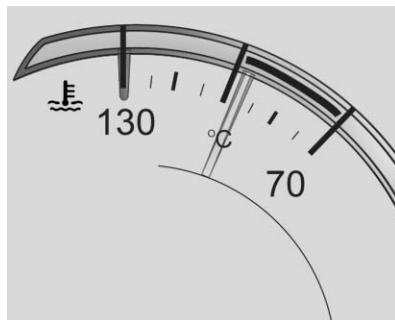
If the gauge pointer moves into the high end, it means that the engine oil has overheated. If the vehicle has been operated under normal driving conditions, pull off the road, stop the vehicle, and turn off the engine as soon as possible.

See *Engine Oil* ⇨ 244.

## Engine Coolant Temperature Gauge



Base Level Standard Theme

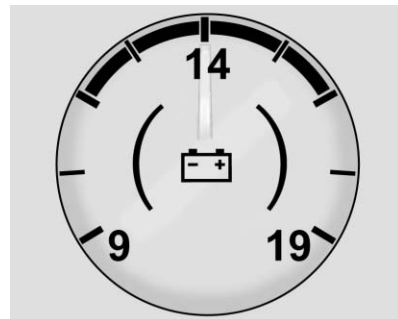


Uplevel Balanced Configuration

This gauge measures the temperature of the vehicle's engine coolant.

While driving under normal operating conditions, if the needle moves into the red area, the engine is too hot. Pull off the road, stop the vehicle, and turn off the engine as soon as possible.

## Voltmeter Gauge (Base Level Cluster Only)



Standard Theme

When the ignition is on, this gauge indicates the battery voltage.

When the engine is running, this gauge shows the condition of the charging system. The gauge can transition from a higher to lower or a lower to higher reading. This is normal. If the vehicle is operating outside the normal operating range, the charging system light comes on. See *Charging System Light* ⇨ 131.

Readings outside the normal operating range can also occur when a large number of electrical accessories are operating in the vehicle and the engine is left idling for an extended period. This condition is normal since the charging system is not able to provide full power at engine idle. As engine speeds are increased, this condition should correct itself as higher engine speeds allow the charging system to create maximum power.

The vehicle can only be driven for a short time with the readings outside the normal operating range. If the vehicle must be driven, turn off all accessories, such as the radio and air conditioner, and unplug all chargers and accessories.

Readings outside the normal operating range indicate a possible problem in the electrical system. Have the vehicle serviced as soon as possible.

## Seat Belt Reminders

### Driver Seat Belt Reminder Light

There is a driver seat belt reminder light on the instrument cluster.



When the vehicle is started, this light flashes and a chime may come on to remind the driver to fasten their seat belt. Then the light stays on solid until the belt is buckled. This cycle may continue several times if the driver remains or becomes unbuckled while the vehicle is moving.

If the driver seat belt is fastened, neither the light nor the chime comes on.

### Passenger Seat Belt Reminder Light

There is a passenger seat belt reminder light near the passenger airbag status indicator. See *Passenger Sensing System* ⇨ 81.



When the vehicle is started, this light flashes and a chime may come on to remind passengers to fasten their seat belt. Then the light stays on solid until the belt is buckled. This cycle continues several times if the passenger remains or becomes unbuckled while the vehicle is moving.

If the passenger seat belt is fastened, neither the chime nor the light comes on.

The front passenger seat belt reminder light and chime may turn on if an object is put on the seat such as a briefcase, handbag, grocery bag, laptop, or other electronic device. To

turn off the reminder light and/or chime, remove the object from the seat or fasten the seat belt.

## Airbag Readiness Light

This light shows if there is an electrical problem with the airbag system. The system check includes the airbag sensor(s), the passenger sensing system, the pretensioners, the airbag modules, the wiring, and the crash sensing and diagnostic module. For more information on the airbag system, see *Air-Bag System* ⇨ 75.



The airbag readiness light comes on for several seconds when the vehicle is started. If the light does not come on then, have it fixed immediately.

### Warning

If the airbag readiness light stays on after the vehicle is started or comes on while driving, it means the airbag system might not be working properly. The airbags in the vehicle might not inflate in a crash, or they could even inflate without a crash. To help avoid injury, have the vehicle serviced right away.

If there is a problem with the airbag system, a Driver Information Centre (DIC) message may also come on.

## Passenger Airbag Status Indicator

The vehicle has a passenger sensing system. See *Passenger Sensing System* ⇨ 81. The overhead console has a passenger airbag status indicator.



When the vehicle is started, the passenger airbag status indicator will light the symbol for on and off for several seconds as a system check. Then, after several more seconds, the status indicator will light either the on or off symbol to let you know the status of the front outboard passenger frontal airbag and knee airbag.

If the on symbol is lit on the passenger airbag status indicator, it means that the front outboard passenger frontal airbag and knee airbag are allowed to inflate.

If the off symbol is lit on the airbag status indicator, it means that the passenger sensing system has turned off the front outboard passenger frontal airbag and knee airbag.

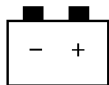
If, after several seconds, both status indicator lights remain on, or if there are no lights at all, there may be a

problem with the lights or the passenger sensing system. See your retailer for service.

### **Warning**

If the airbag readiness light ever comes on and stays on, it means that something may be wrong with the airbag system. To help avoid injury to yourself or others, have the vehicle serviced right away. See *Airbag Readiness Light* ⇨ 130 for more information, including important safety information.

## Charging System Light



On some vehicles the charging system light comes on briefly when the ignition is turned on, but the engine is not running, as a check to show the light is working. It should go out when

the engine is started. For vehicles with a reconfigurable cluster, this light may not come on when the ignition is turned on.

If the light stays on, or comes on while driving, there may be a problem with the electrical charging system. Have it checked by your dealer. Driving while this light is on could drain the battery.

When this light comes on, or is flashing, the Driver Information Centre (DIC) also displays a message.

If a short distance must be driven with the light on, be sure to turn off all accessories, such as the radio and air conditioner.

## Malfunction Indicator Lamp (Check Engine Light)

This light is part of the vehicle's emission control on-board diagnostic system. If this light is on while the engine is running, a malfunction has been detected and the vehicle may require service. The light should come

on to show that it is working when the ignition is in Service Mode. See *Ignition Positions* ⇨ 191.



Malfunctions are often indicated by the system before any problem is noticeable. Being aware of the light and seeking service promptly when it comes on may prevent damage.

### **Caution**

If the vehicle is driven continually with this light on, the emission control system may not work as well, the fuel economy may be lower, and the vehicle may not run smoothly. This could lead to costly repairs that might not be covered by the vehicle warranty.

**Caution**

Modifications to the engine, transmission, exhaust, intake, or fuel system, or the use of replacement tyres that do not meet the original tyre specifications, can cause this light to come on. This could lead to costly repairs not covered by the vehicle warranty. This could also affect the vehicle's ability to pass an Emissions Inspection/Maintenance test. See *Accessories and Modifications* ⇨ 241.

**If the light is flashing :** A malfunction has been detected that could damage the emission control system and increase vehicle emissions. Diagnosis and service may be required.

To help prevent damage, reduce vehicle speed and avoid hard accelerations and uphill gradients. If towing a trailer, reduce the amount of cargo being hauled as soon as possible.

If the light continues to flash, find a safe place to park. Turn the vehicle off and wait at least 10 seconds before restarting the engine. If the light is still flashing, follow the previous guidelines and see your retailer for service as soon as possible.

**If the light is on continuously :** A malfunction has been detected. Diagnosis and service may be required.

Check the following:

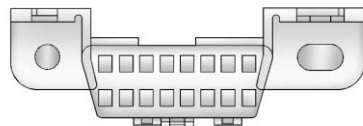
- If fuel has been added to the vehicle using the capless fuel funnel adapter, make sure that it has been removed. See “Filling the Tank with a Portable Gas Can” under *Filling the Tank* ⇨ 236. The diagnostic system can detect if the adapter has been left installed in the vehicle, allowing fuel to evaporate into the atmosphere. A few driving trips with the adapter removed may turn off the light.
- Poor fuel quality can cause inefficient engine operation and poor driveability, which may go away once the engine is warmed

up. If this occurs, change the fuel brand. It may require at least one full tank of the proper fuel to turn the light off. See *Fuel* ⇨ 236.

If the light remains on, see your retailer.

## Emissions Inspection and Maintenance Programs

If the vehicle requires an Emissions Inspection/Maintenance test, the test equipment will likely connect to the vehicle's Data Link Connector (DLC).



The DLC is under the instrument panel to the left of the steering wheel. Connecting devices that are not used to perform an Emissions Inspection/Maintenance test or to service the vehicle may affect vehicle operation. See *Add-On Electrical Equipment* ⇨ 239. See your dealer if assistance is needed.

The vehicle may not pass inspection if:

- The light is on when the engine is running.
- The light does not come on when the ignition is in Service Mode.
- Critical emission control systems have not been completely diagnosed. If this happens, the vehicle would not be ready for inspection and might require several days of routine driving before the system is ready for inspection. This can happen if the 12-volt battery has recently been replaced or run down, or if the vehicle has been recently serviced.

See your retailer if the vehicle will not pass or cannot be made ready for the test.

## Brake System Warning Light

The vehicle brake system consists of two hydraulic circuits. If one circuit is not working, the remaining circuit can

still work to stop the vehicle. For normal braking performance, both circuits need to be working.

If the warning light comes on, there is a problem with the braking system. Have the brake system inspected immediately.



This light should come on briefly when the engine is started. If it does not come on then, have it fixed so it will be ready to warn you if there is a problem.

If the light comes on and stays on, there is a brake problem.

### **Warning**

The brake system might not be working properly if the brake system warning light is on. Driving

(Continued)

### **Warning (Continued)**

with the brake system warning light on can lead to a crash. If the light is still on after the vehicle has been pulled off the road and carefully stopped, have the vehicle towed for service.

## Electric Parking Brake Light



The parking brake status light comes on when the parking brake is applied. If the light continues flashing after the parking brake is released, or while driving, there is a problem with the electric parking brake system or another system. A message may also display in the Driver Information Centre (DIC).

If the light does not come on, or remains flashing, see your dealer.

## Service Electric Parking Brake Light



On some vehicles the service electric parking brake light should come on briefly when the vehicle is started. If it does not come on, have it fixed so it will be ready to warn if there is a problem. For vehicles with the reconfigurable cluster, this light may not come on when the vehicle is started.

If this light stays on, the vehicle should be taken to a retailer as soon as possible. See *Electric Parking Brake* ⇨ 201. A message may also display in the Driver Information Centre (DIC).

## Antilock Brake System (ABS) Warning Light



This light comes on briefly when the engine is started.

If the light does not come on, have it fixed so it will be ready to warn if there is a problem.

If the light comes on while driving, stop as soon as it is safely possible and turn off the vehicle. Then start the engine again to reset the system. If the ABS light stays on, or comes on again while driving, the vehicle needs service. A chime may also sound when the light comes on steady.

If the ABS light is the only light on, the vehicle has regular brakes, but the anti-lock brakes are not functioning.

If both the ABS and the brake system warning light are on, the vehicle's anti-lock brakes are not functioning

and there is a problem with the regular brakes. See your retailer for service.

See *Brake System Warning Light* ⇨ 133.

## Automatic Vehicle Hold (AVH) Light



This light comes on when AVH is turned on. See *Automatic Vehicle Hold (AVH)* ⇨ 203.

## Lane Keep Assist (LKA) Light



For some vehicles, this light comes on briefly while starting the vehicle. If it does not come on, have the vehicle serviced.

For vehicles with the uplevel cluster, this light may not come on when starting the vehicle.

This light is green if LKA is available to assist.

LKA may assist by gently turning the steering wheel if the vehicle approaches a detected lane marking without using the indicator in that direction. The LKA light will turn amber.

This light is amber and flashes as a Lane Departure Warning (LDW) alert, to indicate that the lane marking has been crossed.

See *Lane Keep Assist (LKA)* ⇨ 234.

## Vehicle Ahead Indicator



If equipped, this indicator will display green when a vehicle is detected ahead and amber when you are following a vehicle ahead much too closely.

See *Forward Collision Alert (FCA) System* ⇨ 223.

## Pedestrian Ahead Indicator



If equipped, this indicator will display amber when a nearby pedestrian is detected directly in front of the vehicle.

See *Front Pedestrian Braking (FPB) System* ⇨ 227.

## Traction Off Light



This light comes on briefly while starting the engine. If it does not, have the vehicle serviced by your dealer. If the system is working normally, the indicator light then turns off. For vehicles with a reconfigurable cluster, this light is in the display area and it may not come on when the ignition is turned on.

The traction off light comes on when the Traction Control System (TCS) has been turned off by pressing and releasing the TCS/StabiliTrak button.

This light and the StabiliTrak OFF light come on when StabiliTrak is turned off.

If the TCS is off, wheel spin is not limited. Adjust driving accordingly.

See *Traction Control/Electronic Stability Control* ⇨ 204.

## StabiliTrak OFF Light



This light comes on briefly while starting the engine. If it does not, have the vehicle serviced by your dealer.

This light comes on when the StabiliTrak system is turned off. If StabiliTrak is off, the Traction Control System (TCS) is also off.

If StabiliTrak and TCS are off, the system does not assist in controlling the vehicle. Turn on the TCS and the StabiliTrak systems, and the warning light turns off.

See *Traction Control/Electronic Stability Control* ⇨ 204.

## Traction Control System (TCS)/StabiliTrak Light



This light comes on briefly when the engine is started.

If the light does not come on, have the vehicle serviced by your dealer. If the system is working normally, the indicator light turns off.

If the light is on and not flashing, the TCS and potentially the StabiliTrak system have been disabled. A Driver Information Centre (DIC) message may display. Check the DIC messages to determine which feature(s) is no longer functioning and whether the vehicle requires service.

If the light is on and flashing, the TCS and/or the StabiliTrak system is actively working.

See *Traction Control/Electronic Stability Control* ⇨ 204.

## Engine Coolant Temperature Warning Light



On some vehicles this light comes on briefly while starting the vehicle. If it does not, have the vehicle serviced by the dealer. If the system is working normally the indicator light goes off. For vehicles with the reconfigurable cluster, this light may not come on when starting the vehicle.

### Caution

The engine coolant temperature warning light indicates that the vehicle has overheated. Driving with this light on can damage the engine and it may not be covered by the vehicle warranty. See *Engine Overheating* ⇨ 251.

The engine coolant temperature warning light comes on when the engine has overheated.

If this happens pull over and turn off the engine as soon as possible. See *Engine Overheating* ⇨ 251.

## Tyre Pressure Light



For vehicles with the Tyre Pressure Monitor System (TPMS), this light comes on briefly when the engine is started. It provides information about tyre pressures and the TPMS.

### When the Light Is On Steady

This indicates that one or more of the tyres are significantly underinflated.

A Driver Information Centre (DIC) tyre pressure message may also display. Stop as soon as possible, and inflate

the tyres to the pressure value shown on the Tyre and Loading Information label. See *Tyre Pressure* ⇨ 271.

### When the Light Flashes First and Then Is On Steady

If the light flashes for about a minute and then stays on, there may be a problem with the TPMS. If the problem is not corrected, the light will come on at every ignition cycle. See *Tyre Pressure Monitor Operation* ⇨ 273.

## Engine Oil Pressure Light

### Caution

Lack of proper engine oil maintenance can damage the engine. Driving with the engine oil low can also damage the engine. The repairs would not be covered by the vehicle warranty. Check the oil level as soon as possible. Add oil if required, but if the oil level is within the operating range and the oil pressure is still low, have the

(Continued)

### Caution (Continued)

vehicle serviced. Always follow the maintenance schedule for changing engine oil.



This light should come on briefly as the engine is started. If it does not come on, have the vehicle serviced by your dealer.

If the light comes on and stays on, it means that oil is not flowing through the engine properly. The vehicle could be low on oil and might have some other system problem. See your dealer.

## Low Fuel Warning Light



This light is near the fuel gauge and comes on briefly when the ignition is turned on as a check to show it is working. For vehicles with a reconfigurable cluster, this light is in the display area and may not come on when the ignition is turned on.

It also comes on when the fuel tank is low on fuel. The light turns off when fuel is added. If it does not, have the vehicle serviced.

## Auto Stop Mode (Uplevel Cluster)



This light comes on when the engine is in an Auto Stop.

See *Starting the Engine* ⇨ 192.

## Security Light



On some vehicles the immobiliser light should come on briefly as the engine is started. If it does not come on, have the vehicle serviced by your dealer. If the system is working normally, the indicator light turns off. For vehicles with the reconfigurable cluster, this light may not come on when the engine is started.

If the light stays on and the engine does not start, there could be a problem with the theft-deterrent system. See *Immobiliser Operation* ⇨ 45.

## High-Beam On Light



This light comes on when the high-beam headlamps are in use. See *Headlamp Main/Dipped-Beam Changer* ⇨ 160.

## IntelliBeam® Light



This light comes on when the IntelliBeam system, if equipped, is enabled. See *Exterior Lamp Controls* ⇨ 158.

## Rear Fog Lamp Light



This light comes on when the rear fog lamps are in use.

See *Fog Lamps* ⇨ 162.

## Lamps On Reminder



This light comes on when the exterior lamps are in use. See *Exterior Lamp Controls* ⇨ 158.

## Cruise Control Light



The cruise control light is white when the cruise control is on and ready, and turns green when the cruise control is set and active.

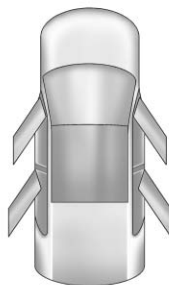
See *Cruise Control* ⇨ 206.

## Adaptive Cruise Control Light



This light is white when the Adaptive Cruise Control (ACC, if equipped) is on and ready, and turns green when the ACC is set and active. See *Adaptive Cruise Control* ⇨ 209.

## Door Ajar Light

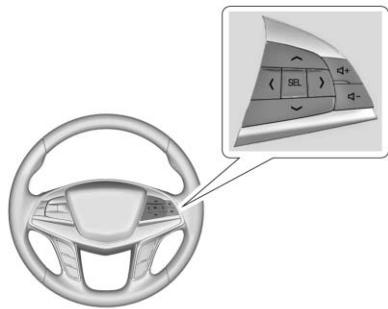


For vehicles equipped with this light, it comes on when a door is open or not securely latched. Before driving, check that all doors are properly closed.

## Information Displays

### Driver Information Centre (DIC)

The DIC is displayed in the instrument cluster. It shows the status of many vehicle systems.



**^ or v** : Move SEL up or down to go to the previous or next selection.

**< or >** : Press to move between the interactive display zones in the cluster. Press **<** to go back to the previous menu.

**SEL** : Press to open a menu or select a menu item. Press and hold to reset values on certain screens.

### DIC Information Display Options

The info displays on the DIC can be turned on or off through the Options menu.

1. Press SEL while viewing the Options page in one of the interactive display zones on the cluster.
2. Scroll to Info Pages and press SEL.
3. Press **^** or **v** to move through the list of possible info displays.
4. Press SEL while an item is highlighted to select or deselect that item. When an item is selected, a checkmark will appear next to it.

### DIC Information Displays

The following is the list of all possible DIC information displays. Some of the information displays may not be available for your particular vehicle.

**Speed (Base Cluster)** : Shows the vehicle speed in either kilometres per hour (km/h) or miles per hour (mph).

**Trip 1 or Trip 2 (Base Cluster) / Trip 1 or Trip 2 and Average Fuel Economy (Uplevel Cluster)** : The Trip display shows the current distance travelled, in either kilometres (km) or miles (mi), since the trip odometer was last reset. The trip odometer can be reset by pressing and holding SEL while this display is active.

The Average Fuel Economy display shows the approximate average litres per 100 kilometres (L/100 km) or miles per gallon (mpg). This number is calculated based on the number of L/100 km (mpg) recorded since the last time this menu item was reset. This number reflects only the approximate average fuel economy that the vehicle has right now, and will change as driving conditions change. The Average Fuel Economy can be reset along with the trip odometer by pressing and holding SEL while this display is active.

**Fuel Range :** Shows the approximate distance the vehicle can be driven without refuelling. LOW will be displayed when the vehicle is low on fuel. The fuel range estimate is based on an average of the vehicle's fuel economy over recent driving history and the amount of fuel remaining in the fuel tank.

**Average Fuel Economy (Base Cluster) :** Shows the approximate average litres per 100 kilometers (L/100 km) or miles per gallon (mpg). This number is calculated based on the number of L/100 km (mpg) recorded since the last time this menu item was reset. This number reflects only the approximate average fuel economy that the vehicle has right now, and will change as driving conditions change. The Average Fuel Economy can be reset by pressing and holding SEL while this display is active.

**Instantaneous Fuel Economy :** Shows the current fuel economy in either litres per 100 kilometers (L/100 km) or miles per gallon (mpg). This number reflects only the approximate

fuel economy that the vehicle has right now and changes frequently as driving conditions change.

**Average Speed :** Shows the average speed of the vehicle in kilometers per hour (km/h) or miles per hour (mph). This average is calculated based on the various vehicle speeds recorded since the last reset of this value. The average speed can be reset by pressing and holding SEL while this display is active.

**Timer :** This display can be used as a timer. To start the timer, press SEL while this display is active. The display will show the amount of time that has passed since the timer was last reset. To stop the timer, press SEL briefly while this display is active and the timer is running. To reset the timer to zero, press and hold SEL while this display is active.

**Compass (Uplevel Cluster) :** Shows the direction the vehicle is driving.

**Driver Efficiency Gauge :** Guide to driving in an efficient manner by keeping the ball green and in the

centre of the gauge. Hard braking or acceleration cause the ball to travel away from the centre of the gauge.

**Traffic Signs :** Shows detected traffic signs.

**Cruise Set Speed :** Shows the speed the cruise control or Adaptive Cruise Control is set to.

**Driver Assistance (Uplevel Cluster) :** May show information for Lane Keep Assist (LKA), Lane Departure Warning (LDW), Adaptive Cruise Control (ACC), and Forward Collision Alert (FCA). The display shows if there is a vehicle detected ahead, and the current FCA timing setting. In addition, when ACC is not engaged, the current follow time to the vehicle ahead is displayed as a time value on this page.

**Battery Voltage :** Shows the current battery voltage.

**Oil Life :** Shows an estimate of the oil's remaining useful life. If REMAINING OIL LIFE 99% is displayed, that means 99% of the current oil life remains.

When the remaining oil life is low, the CHANGE ENGINE OIL SOON message will appear on the display. The oil should be changed as soon as possible. See *Engine Oil* ⇨ 244. In addition to the engine oil life system monitoring the oil life, additional maintenance is recommended. See *Scheduled Maintenance* ⇨ 305.

The Oil Life display must be reset after each oil change. It will not reset itself. Do not reset the Oil Life display accidentally at any time other than when the oil has just been changed. It cannot be reset accurately until the next oil change. See *Engine Oil Life System* ⇨ 246.

**Tyre Loading :** Press SEL while Tyre Loading is highlighted to change the tyre loading setting. Choose Light (for comfort pressure up to three people), Eco (for Eco pressure up to three people), or Max (for full loading) by pressing SEL while the desired item is highlighted.

**Tyre Pressure :** Shows the approximate pressures of all four tyres. Tyre pressure is displayed in either kilopascal (kPa) or in pounds per square inch (psi). If the pressure is low, the value for that tyre is shown in amber. See *Tyre Pressure Monitor System* ⇨ 272 and *Tyre Pressure Monitor Operation* ⇨ 273.

**Vehicle Odometer (Base Cluster) :** Shows the odometer.

**Blank Page :** Allows for no information to be displayed in the cluster info display areas.

## Head-Up Display (HUD)

### Warning

If the HUD image is too bright or too high in your field of view, it may take you more time to see things you need to see when it is dark outside. Be sure to keep the HUD image dim and placed low in your field of view.

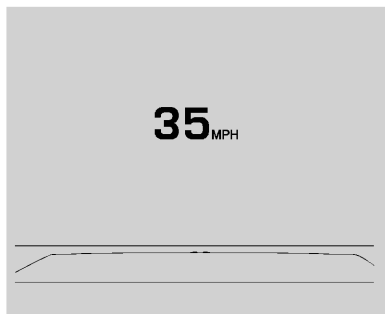
If equipped with HUD, some information concerning the operation of the vehicle is projected onto the windscreen. The image is projected through the HUD lens on top of the instrument panel. The information appears as an image focused out toward the front of the vehicle.

### Caution

If you try to use the HUD image as a parking aid, you may misjudge the distance and damage your vehicle. Do not use the HUD image as a parking aid.

The HUD information can be displayed in various languages in some vehicles. The speedometer reading and other numerical values can be displayed in either English or metric units.

The language selection is changed through the radio and the units of measurement is changed through the instrument cluster. See *Vehicle Personalisation* ⇨ 146 and "Cluster Options Menu" or "Cluster Menu" under *Instrument Cluster (Base Level)* ⇨ 119 or *Instrument Cluster (Uplevel)* ⇨ 122.



HUD Display on the Vehicle Windscreen

The HUD may display some of the following vehicle information and vehicle messages or alerts:

- Speed
- Rev Counter

- Audio
- Phone
- Navigation
- Collision Alert
- Cruise Control
- Lane Keep Assist
- Low Fuel

Some vehicle messages or alerts displayed in the HUD may be cleared by using the steering wheel controls. See *Vehicle Messages* ⇨ 145.



The HUD control is to the left of the steering wheel.

To adjust the HUD image:

1. Adjust the driver seat.
2. Start the engine.
3. Use the following settings to adjust the HUD.

**HUD** : Press down or lift up to centre the HUD image. The HUD image can only be adjusted up and down, not side to side.

**INFO** : Press to select the display view. Each press will change the display view.

**±☀** : Lift up and hold to brighten the display. Press down and hold to dim the display. Hold down to turn the display off.

The HUD image will automatically dim and brighten to compensate for outside lighting. The HUD brightness control can also be adjusted as needed.

The HUD image can temporarily light up depending on the angle and position of the sunlight on the HUD display. This is normal.

Polarised sunglasses could make the HUD image harder to see.

### Head-Up Display (HUD) Rotation Option

This feature allows for adjusting the angle of the HUD image.

Press SEL on the steering wheel controls while Head-up Display Rotation is highlighted to enter Adjust Mode. Press  $\wedge$  or  $\vee$  to adjust the angle of the HUD display. Press  $\leftarrow$  or  $\rightarrow$  to highlight OK, then press SEL to save the setting. CANCEL can also be selected to cancel the setting. The vehicle must be in P (Park).

See *Instrument Cluster (Base Level)*

➔ 119 or *Instrument Cluster (Uplevel)*

➔ 122.

### HUD Views

There are four views in the HUD. Some vehicle information and vehicle messages or alerts may be displayed in any view.



Metric

**Speed View :** This display gives the speedometer reading (in English or metric units), speed limit, Adaptive Cruise Control speed, Lane Departure Warning, and Vehicle Ahead indicator. Some information only appears on vehicles that have these features, and when they are active.



Metric

**Audio/Phone View :** This displays the speed view along with audio/phone information. The current radio station, media type, and incoming calls will be displayed.

All HUD views may briefly display audio information when the driver uses the steering wheel controls to adjust the audio settings appearing in the instrument cluster.

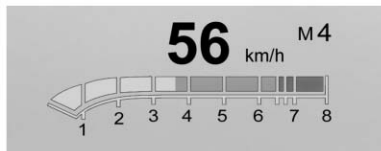
Incoming phone calls appearing in the instrument cluster may also display in any HUD view.



Metric

**Navigation View :** This display includes the information in the speed view along with Turn-by-Turn Navigation information in some vehicles. The compass heading is displayed when navigation routing is not active.

Navigation Turn-by-Turn Alerts shown in the instrument cluster may also be displayed in any HUD view.



Metric

**Performance View :** This displays the speedometer reading, rpm reading, transmission positions, and gear shift indicator.

### Care of the HUD

Clean the inside of the windscreen to remove any dirt or film that could reduce the sharpness or clarity of the HUD image.

Clean the HUD lens with a soft cloth sprayed with glass cleaner. Wipe the lens gently, then dry it.

### HUD Troubleshooting

Check that:

- Nothing is covering the HUD lens.
- HUD brightness setting is not too dim or too bright.
- HUD is adjusted to the proper height.
- Polarised sunglasses are not worn.
- Windscreen and HUD lens are clean.

If the HUD image is not correct, contact your dealer.

The windscreen is part of the HUD system. If the windscreen needs replacing, see *Windshield Replacement* ⇨ 258.

### Vehicle Messages

Messages displayed on the DIC indicate the status of the vehicle or some action that may be needed to correct a condition. Multiple messages may appear one after another.

The messages that do not require immediate action can be acknowledged and cleared by pressing ✓. The messages that require immediate action cannot be cleared until that action is performed.

All messages should be taken seriously; clearing the message does not correct the problem.

If a SERVICE message appears, see your retailer.

Follow the instructions given in the messages. The system displays messages regarding the following topics:

- Service Messages
- Fluid Levels
- Vehicle Security

- Brakes
- Ride Control Systems
- Driver Assistance Systems
- Cruise Control
- Lighting and Bulb Replacement
- Wiper/Washer Systems
- Doors and Windows
- Seat Belts
- Airbag Systems
- Engine and Transmission
- Tyre Pressure
- Battery

## Engine Power Messages

### ENGINE POWER IS REDUCED

This message displays when the vehicle's propulsion power is reduced. Reduced propulsion power can affect the vehicle's ability to accelerate. If this message is on, but there is no observed reduction in performance,

proceed to your destination. The performance may be reduced the next time the vehicle is driven. The vehicle may be driven at a reduced speed while this message is on, but maximum acceleration and speed may be reduced. Anytime this message stays on, or displays repeatedly, the vehicle should be taken to your dealer for service as soon as possible.

## Vehicle Speed Messages

### SPEED LIMITED TO XXX KM/H (MPH)

This message shows that the vehicle speed has been limited to the speed displayed. The limited speed is a protection for various propulsion and vehicle systems, such as lubrication, thermal, suspension, Teen Driver if equipped, or tyres.


## Vehicle Personalisation

Use the audio system controls to access the personalisation menus for customising vehicle features.

The following are all possible personalisation features. Depending on the vehicle, some may not be available.

### Infotainment System Audio System Controls

To access the personalisation menu:

1. Touch **SETTINGS** on the Home Page of the infotainment display.
2. Touch the desired feature to display a list of available options.
3. Touch to select the desired feature setting.
4. Touch  Back to exit or move backward in a menu.

### Personalisation Menus

The following list of menu items may be available:

- Time and Date
- Language

- Valet Mode
- Radio
- Vehicle
- Bluetooth
- Apple CarPlay
- Android Auto
- Voice
- TouchPad
- Display
- Rear Camera
- Return to Factory Settings
- Software Information

Each menu is detailed in the following information.

### **Time and Date**

Manually set the time and date. See *Clock* ⇨ 114.

### **Language**

Select Language, then select from the available language(s).

The selected language will display on the system, and voice recognition will reflect the selected language.

### **Valet Mode**

This will lock the infotainment system and steering wheel controls. It may also limit access to vehicle storage locations, if equipped.

To enable valet mode:

1. Enter a four-digit code on the keypad.
2. Select Enter to go to the confirmation screen.
3. Re-enter the four-digit code.

Touch LOCK or UNLOCK to lock or unlock the system. Touch Back to go back to the previous menu.

The four-digit code can be texted to a paired phone if forgotten by pressing Option on the Valet Mode lock screen.

### **Radio**

Select and the following may display:

- Manage Favourites
- Number of Favourites Shown
- Audible Touch Feedback
- Bose AudioPilot
- Maximum Start-Up Volume

### **Manage Favourites**

This allows favourites to be edited. See "Manage Favourites" in "Settings" under "Radio" in the infotainment manual.

### **Number of Favourites Shown**

Touch to set the number of favourites to display.

Select the desired number or select Auto and the infotainment system will automatically adjust the number of favourites shown.

### **Audible Touch Feedback**

This allows Audible Touch Feedback to be turned on or off.

Select Off or On.

### **Bose Audio Pilot**

This feature adjusts the volume based on the noise in the vehicle. See "Bose AudioPilot Noise Compensation Technology" under "Infotainment System Settings" in the infotainment manual.

Select Off or On.

**Maximum Start Up Volume**

This feature sets the maximum startup volume. If the vehicle is started and the volume is greater than this level, the volume is adjusted to this level.

To set the maximum start-up volume, touch + or - to increase or decrease.

**Vehicle**

Select and the following may display:

- Climate and Air Quality
- Collision / Detection Systems
- Comfort and Convenience
- Lighting
- Power Door Locks
- Remote Lock, Unlock, Start

**Climate and Air Quality**

Select and the following may display:

- Auto Fan Speed
- Air Quality Sensor
- Auto Cooled Seats
- Auto Heated Seats
- Auto Demist

- Auto Rear Demist
- Ionizer

**Auto Fan Speed**

This feature will set the auto fan speed.

Select Low, Medium, or High.

**Air Quality Sensor**

This allows for selection of air quality sensor operation at high or low sensitivity.

Select Off, Low Sensitivity, or High Sensitivity.

**Auto Cooled Seats**

When enabled, this feature will automatically activate ventilated seats at the level required by the interior temperature. See *Heated and Ventiladed Front Seats* ⇨ 63.

Select Off or On.

**Auto Heated Seats**

When enabled, this feature will automatically activate heated seats at the level required by the interior temperature. See *Heated and Ventiladed Front Seats* ⇨ 63.

Select Off or On.

**Auto Demist**

When set to On, the front demist will automatically react to temperature and humidity conditions that may cause fogging.

Select Off or On.

**Auto Rear Demist**

If equipped, this allows the Auto Rear Demist to be turned on or off. This feature will automatically turn on the rear window demister when it is cold outside.

Select Off or On.

**Ionizer**

If equipped and on, this feature purifies the air in the interior of the vehicle. See *Automatic Climate Control System (Quad Zone)* ⇨ 167 or *Automatic Climate Control System (Dual Zone)* ⇨ 174.

Select Off or On.

## Collision/Detection Systems

Select the Collision/Detection Systems menu and the following may be displayed if equipped:

- Alert Type
- Forward Collision System
- Front Pedestrian Detection
- Rear Cross Traffic Alert
- Adaptive Cruise Go Notifier
- Lane Change Alert

### Alert Type

This feature will set crash alerts to beeps or seat vibrations. This setting affects all crash alerts including Forward Collision, Lane Departure Warning, Adaptive Cruise Control, Parking Assist, and Reversing Warning alerts.

Select Beeps or Safety Alert Seat.

### Forward Collision System

This feature will turn on or off the Forward Collision Alert (FCA) and Forward Automatic Braking (FAB). The Off setting disables all FCA and FAB functions. With the Alert and

Brake setting, both FCA and FAB are available. The Alert setting disables FAB. See *Forward Automatic Braking (FAB)* ⇨ 226.

Select Off, Alert, or Alert and Brake.

### Front Pedestrian Detection

This feature will turn on or off the Front Pedestrian Braking (FPB) system alerts and automatic braking. The Off setting disables all FPB functions. With the Alert & Brake setting, system alerts and automatic braking are both available. The Alert setting disables automatic braking. See *Front Pedestrian Braking (FPB) System* ⇨ 227.

Select Off, Alert, or Alert and Brake.

### Rear Cross Traffic Alert

This allows the Rear Cross Traffic Alert feature to be turned on or off.

Select Off or On.

### Adaptive Cruise Go Notifier

This feature will give a reminder that Adaptive Cruise Control provides when it has brought the vehicle to a

complete stop behind another stopping vehicle, and then that vehicle drives on.

Select Off or On.

### Lane Change Alert

This allows the Lane Change Alert feature to be turned on or off.

Select Off or On.

## Comfort and Convenience

Select and the following may display:

- Auto Memory Recall
- Easy Exit Options
- Chime Volume
- Reverse Tilt Mirror
- Auto Mirror Folding
- Rainsense Wipers

### Auto Memory Recall

This feature automatically recalls the current driver's previously stored 1 or 2 button positions when entering the vehicle. See *Memory Seats* ⇨ 60.

Select Off or On.

**Easy Exit Options**

This feature automatically recalls the current driver's previously stored exit button position when exiting the vehicle. See *Memory Seats* ⇨ 60.

Select Off or On.

**Chime Volume**

This allows the selection of the chime volume level.



Touch + or - to adjust the volume.

**Reverse Tilt Mirror**

When on, both the driver and passenger outside mirrors will tilt downward when the vehicle is shifted to R (Reverse) to improve visibility of the ground near the rear wheels. They will return to their previous driving position when the vehicle is shifted out of R (Reverse) or the engine is turned off.

Select Off, On - Driver and Passenger, On - Driver, or On - Passenger.

**Auto Mirror Folding**

When on, the outside mirrors will automatically fold or unfold when the Remote Keyless Entry (RKE) transmitter  or  button is pressed and held.

Select Off or On.

**Rainsense Wipers**

This allows the Rainsense Wipers feature to be disabled or enabled. See "Rainsense" in *Windscreen Wiper/Washer* ⇨ 112.


Select Off or On.

**Lighting**

Select and the following may display:

- Vehicle Locator Lights
- Exit Lighting

**Vehicle Locator Lights**

This feature will flash the exterior lamps and allows some of the exterior lamps and most of the interior lamps to turn on briefly at night when  on the Remote Keyless Entry (RKE) transmitter is pressed to locate the vehicle.

Select Off or On.

**Exit Lighting**

This allows the selection of how long the exterior lamps stay on when leaving the vehicle when it is dark outside.

Select Off, 30 Seconds, 60 Seconds, or 120 Seconds.

**Power Door Locks**

Select and the following may display:

- Unlocked Door Anti-Lockout
- Auto Door Lock
- Delayed Door Lock

**Unlocked Door Anti-Lockout**

When on, this feature will keep the driver door from locking when the door is open. If Off is selected, the Delayed Door Lock menu will be available.

Select Off or On.

### Auto Door Lock

When this feature is turned on, all doors will automatically lock when the vehicle is shifted out of P (Park). The doors will automatically unlock when the vehicle is shifted into P (Park).

Select Off or On.

### Delayed Door Lock

When on, this feature will delay the locking of the doors. To override the delay, press the power door lock switch on the door.

Select Off or On.

### Remote Lock, Unlock, Start

Select and the following may display:

- Remote Unlock Light Feedback
- Remote Door Unlock
- Relock Remote-Unlocked Doors
- Remote Start Auto Cool Seats
- Remote Start Auto Heat Seats
- Remote Window Operation
- Passive Door Unlock
- Passive Door Lock


- Remote Left in Vehicle Alert

### Remote Unlock Light Feedback

When on, the exterior lamps will flash when unlocking the vehicle with the RKE transmitter.

Select Off or Flash Lights.

### Remote Door Unlock

This allows selection of which doors will unlock when pressing  on the RKE transmitter.

Select All Doors or Driver Door.

### Relock Remotely Unlocked Doors

This allows all doors to automatically relock if the doors are unlocked from the RKE transmitter and a door is not opened. See *Remote Keyless Entry (RKE) System Operation* ⇨ 28.

Select Off or On.

### Remote Start Auto Cool Seats

If equipped and turned on, this feature will turn the ventilated seats on when using remote start on warm days.

Select Off or On.


### Remote Start Auto Heat Seats

If equipped and turned on, this feature will turn the heated seats on when using remote start on cold days.

If equipped with Remote Start Heated Steering Wheel, this feature will turn on when the Remote Start Auto Heated Seats turn on.

Select Off or On.

### Remote Window Operation

This allows the windows to be opened when pressing  on the RKE transmitter. See *Remote Keyless Entry (RKE) System Operation* ⇨ 28.

Select Off or On.

### Passive Door Unlock

This allows the selection of what doors will unlock when using the button on the driver door handle to unlock the vehicle.

Select All Doors or Driver Door.

**Passive Door Lock**

This allows passive locking to be turned on or off and selects feedback. See *Remote Keyless Entry (RKE) System Operation* ⇨ 28.

Select Off, On with Horn Chirp, or On.

**Remote Left in Vehicle Alert**

This feature sounds an alert when the RKE transmitter is left in the vehicle. This menu also enables Remote No Longer in Vehicle Alert.

Select Off or On.

**Bluetooth**

Select and the following may display:

- Pair New Device
- Device Management
- Ringtones
- Voice Mail Numbers
- Text Message Alerts

**Pair New Device**

Select to pair a new device. See "Pairing" in "Infotainment Controls" under "Bluetooth" in the infotainment manual.

**Device Management**

Select to connect to a different phone source, disconnect a phone, or delete a phone.

**Ringtones**

Touch to change the ring tone for the specific phone. The phone does not need to be connected to change the ring tone.

**Voice Mail Numbers**

This feature displays the voice mail number for all connected phones. To change the voice mail number, select EDIT. Type a new number, then select SAVE.

**Text Message Alerts**

This feature allows text messages to be received. See "Text Messaging" under "Phone" in the infotainment manual.

Select Off or On.

**Apple CarPlay**

Select and the following may display:

- Apple CarPlay
- Manage Apple CarPlay Devices

**Apple CarPlay**

This feature allows Apple devices to be connected to the infotainment system through a USB port.

Select Off or On.

**Manage Apple CarPlay Devices**

Select to manage Apple devices. Apple CarPlay must be on for this feature to be accessed.

**Android Auto**

Select and the following may display:

- Android Auto
- Manage Android Auto Devices

**Android Auto**

This feature allows Android devices to be connected to the infotainment system through a USB port.

Select Off or On.

**Manage Android Auto Devices**

Select to manage Android devices. Android Auto must be on for this feature to be accessed.

## Voice

Select and the following may display:

- Confidence Threshold
- Prompt Length
- Audio Feedback Speed
- Display "What Can I Say?" Tips

### Confidence Threshold

This feature allows the adjustment of the sensitivity of the speech recognition system.

Select Confirm More or Confirm Less.

### Prompt Length

This feature adjusts the voice prompt length.

Select Short or Long.

### Audio Feedback Speed

This feature adjusts the audio feedback speed.

Select Slow, Medium, or Fast.

### Display "What Can I Say?" Tips

This feature gives voice command tips.

Select Off or On.

## TouchPad

Select and the following may display:

- Tap to Enter
- Haptic Feedback
- TouchPad Surface
- Inversion
- Cursor Tracking Speed

### Tap to Enter

When on, this allows tapping of the touchpad instead of pressing.

Touch to turn On or Off

### Haptic Feedback

When on, feedback will be felt when touching selections on the screen.

Touch to turn On or Off

### TouchPad Surface

Select and the following may display:

- Feature
- Information

### Feature

This feature allows the touchpad to be turned on or off.

Touch to select Enabled or Disabled.

### Information

Touch to read more about the touchpad feature.

### Inversion

Select and the following may display:

- Up/Down
- Left/Right
- Information

### Up/Down

This feature allows the finger gesture to be changed.

Touch to select Default or Inverted.

### Left/Right

This feature allows the finger gesture to be changed.

Touch to select Default or Inverted.

### Information

Touch to read more about the inversion feature.

**Cursor Tracking Speed**

This feature changes the speed of the cursor tracking.

Select Faster, Normal, or Slower.

**Display**

Select and the following may display:

- Proximity Sensing
- Calibrate Touchscreen
- Turn Display Off

**Proximity Sensing**

When on, certain screen icons and features will become visible when a hand approaches the screen.

Select Off, On, or On-Map Only.

**Calibrate Touchscreen**

Select to calibrate the touchscreen, then follow the prompts.

**Turn Display Off**

Select to turn the display off. Touch anywhere on the display area or any faceplate button to turn the display on.

**Rear Camera**

This allows for Rear Park Assist Symbols and Guidance Lines to be turned off or on.

Select Off or On for the desired feature.

See *Assistance Systems for Parking or Reversing* ⇨ 217.

**Return to Factory Settings**

Select and the following may display:

- Restore Vehicle Settings
- Clear All Private Data
- Restore Radio Settings

**Restore Vehicle Settings**

This allows selection of restoring vehicle settings.

Select Restore or Cancel.

**Clear All Private Data**

This allows selection to clear all private information from the vehicle.

Select Delete or Cancel.

**Restore Radio Settings**

This allows selection to restore radio settings.

Select Restore or Cancel.

**Software Information**

Touch to view the version of the infotainment system software.

## Universal Remote System

See *Declaration of Conformity* ⇨ 320.

### Universal Remote System Programming



If equipped, these buttons are in the overhead console.

This system can replace up to three remote control transmitters used to activate devices such as garage door openers, security systems, and home automation devices. These

instructions refer to a garage door opener, but can be used for other devices.

Do not use the Universal Remote system with any garage door opener that does not have the stop and reverse feature. This includes any garage door opener model manufactured before April 1, 1982.

Read these instructions completely before programming the Universal Remote system. It may help to have another person assist with the programming process.

Keep the original hand-held transmitter for use in other vehicles as well as for future programming. Erase the programming when vehicle ownership is terminated. See "Erasing Universal Remote System Buttons" later in this section.

To program a garage door opener, park outside directly in line with and facing the garage door opener receiver. Clear all people and objects near the garage door.

Make sure the hand-held transmitter has a new battery for quick and accurate transmission of the radio-frequency signal.

### Programming the Universal Remote System

The Universal Remote system is compatible with radio-frequency devices operating between 433-434 MHz. If the system being programmed does not operate within this frequency range then a Universal Receiver may be required.

For questions, help programming the Universal Remote system, or ordering of a Universal Receiver, see [www.homelink.com](http://www.homelink.com).

Programming involves time-sensitive actions, and may time out causing the procedure to be repeated.

To program up to three devices:

1. Hold the end of the hand-held transmitter about 3 to 8 cm (1 to 3 in) away from the Universal Remote system buttons with the indicator light in view. The

hand-held transmitter was supplied by the manufacturer of the garage door opener receiver.

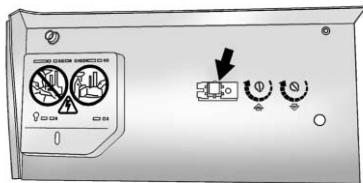
2. At the same time, press and hold both the hand-held transmitter button and one of the three Universal Remote system buttons to be used to operate the garage door. Do not release either button until the indicator light changes from a slow to a rapid flash. Then release both buttons.

Some garage door openers may require substitution of Step 2 with the procedure under "Radio Signals for Some Gate Operators" later in this section.

3. Press and hold the newly programmed Universal Remote system button for five seconds while watching the indicator light and garage door activation.

- If the indicator light stays on continuously or the garage door moves when the button is pressed, then programming is complete. There is no need to complete Steps 4–6.

- If the indicator light does not come on or the garage door does not move, a second button press may be required. For a second time, press and hold the newly programmed button for five seconds. If the light stays on or the garage door moves, programming is complete.
- If the indicator light blinks rapidly for two seconds, then changes to a solid light and the garage door does not move, continue with programming Steps 4–6.



Learn or Smart Button

4. After completing Steps 1–3, locate the Learn or Smart button inside the garage on the garage

door opener receiver. The name and colour of the button may vary by manufacturer.

5. Press and release the Learn or Smart button. Step 6 must be completed within 30 seconds of pressing this button.
6. Inside the vehicle, press and hold the newly programmed Universal Remote system button for two seconds and then release it. If the garage door does not move or the lamp on the garage door opener receiver does not flash, press and hold the same button a second time for two seconds, then release it. Again, if the door does not move or the garage door lamp does not flash, press and hold the same button a third time for two seconds, then release it.

The Universal Remote system should now activate the garage door.

Repeat the process for programming the two remaining buttons.

## **Programming for Some Gate Operators**

For questions or programming help see [www.homelink.com](http://www.homelink.com).

Some gate operators require transmitter signals to time out or quit after several seconds of transmission. This may not be long enough for the Universal Remote system to pick up the signal during programming.

If the programming did not work, replace Step 2 under "Programming the Universal Remote System" with the following:

Press and hold the Universal Remote system button while pressing and releasing the hand-held transmitter button every two seconds until the signal has been successfully accepted by the Universal Remote system. The Universal Remote system indicator light will flash slowly at first and then rapidly. Proceed with Step 3 under "Programming the Universal Remote System" to complete.

## **Universal Remote System Operation**

### **Using the Universal Remote System**

Press and hold the appropriate Universal Remote system button for at least one-half second. The indicator light will come on while the signal is being transmitted.

### **Erasing Universal Remote System Buttons**

Erase all programmed buttons when vehicle ownership is terminated.

To erase:

1. Press and hold the two outside buttons until the indicator light begins to flash. This should take about 10 seconds.
2. Release both buttons.

## **Reprogramming a Single Universal Remote System Button**

To reprogram any of the system buttons:

1. Press and hold any one of the buttons. Do not release the button.
2. The indicator light will begin to flash after 20 seconds. Without releasing the button, proceed with Step 1 under "Programming the Universal Remote System."

# Lighting

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

## Exterior Lighting

### Exterior Lamp Controls





The exterior lamp control is on the indicator lever.

Turn the control to the following positions:

 : Turns off the exterior lamps. The knob returns to the AUTO position after it is released. Turn to  again to reactivate the AUTO mode.

**AUTO** : Automatically turns the exterior lamps on and off, depending on outside lighting.


 : Turns on the parking lamps including all lamps, except the headlamps.

 : Turns on the headlamps together with the parking lamps and instrument panel lights.

### IntelliBeam System

This system turns the vehicle's main beam headlights on and off according to surrounding traffic conditions.


The system turns the main beam headlights on when it is dark enough and there is no other traffic present.

This light  comes on in the instrument cluster when the IntelliBeam system is enabled.

### Turning On and Enabling IntelliBeam



To enable the IntelliBeam system, press the button on the end of the indicator lever when the exterior lamp

control is in the AUTO or  position. The blue main-beam on light appears on the instrument cluster when the main beams are on.

### Driving with IntelliBeam

The system only activates the main beams when driving over 40 km/h (25 mph).

There is a sensor near the top centre of the windscreen that automatically controls the system. Keep this area of the windscreen clear of debris to allow for best system performance.

The main beam headlamps remain on, under the automatic control, until one of the following situations occurs:

- The system detects an approaching vehicle's headlamps.
- The system detects a preceding vehicle's tail lamps.
- The outside light is bright enough that main beam headlamps are not required.
- The vehicle's speed drops below 20 km/h (12 mph).

- The IntelliBeam system is disabled by the main/dipped-beam changer or the flash-to pass feature. If this happens, press the button on the end of the indicator lever to reactivate the IntelliBeam system. The instrument cluster light will come on to indicate the IntelliBeam is reactivated. See *Headlamp Main/Dipped-Beam Changer* ⇨ 160 and *Flash-to-Pass* ⇨ 160.

The main beams may not turn off automatically if the system cannot detect another vehicle's lamps because of any of the following:

- The other vehicle's lamps are missing, damaged, obstructed from view, or otherwise undetected.
- The other vehicle's lamps are covered with dirt, snow, and/or road spray.
- The other vehicle's lamps cannot be detected due to dense exhaust, smoke, fog, snow, road spray, mist, or other airborne obstructions.


- The vehicle's windscreen is dirty, cracked, or obstructed by something that blocks the view of the light sensor.
- The vehicle is loaded such that the front end points upward, causing the light sensor to aim high and not detect headlamps and tail lamps.
- The vehicle is being driven on winding or hilly roads.

The automatic main beam headlights may need to be disabled if any of the above conditions exist.

### Exterior Lamps Off Reminder

A warning chime sounds if the driver door is opened while the ignition is off and the exterior lamps are on.

## Headlamp Main/ Dipped-Beam Changer

 : Push the indicator lever away from you and release, to turn the main beams on. To return to dipped beams, push the stalk again or pull it toward you and release.



This indicator light turns on in the instrument cluster when the high-beam headlamps are on.

## Flash-to-Pass

To flash the main beams, pull the indicator stalk toward you, and release.




## Daytime Running Lamps (DRL)

DRL can make it easier for others to see the front of your vehicle during the day.

If equipped with Light-Emitting Diode (LED) headlights, the dedicated DRL will come on when all of the following conditions are met:

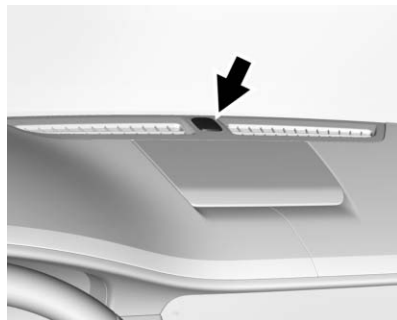
- The ignition is on.
- The exterior lamp control is in AUTO.
- The light sensor determines it is daytime.

When the DRL are on, the tail lights and other lamps will not be on.

The DRL turn off when the headlamps are turned to  or . DRL also turns off when the ignition is off. DRL will turn back on when the exterior lamp control turns back to AUTO or .

## Automatic Headlamp System

When the exterior lamp control is set to AUTO and it is dark enough outside, the headlights come on automatically.



There is a light sensor on top of the instrument panel. Do not cover the sensor.

The system may also turn on the headlamps when driving through a parking garage or tunnel.

If the vehicle is started in a dark garage, the automatic headlamp system comes on immediately. If it is light outside when the vehicle leaves the garage, there is a slight delay before the automatic headlight system changes to the DRL. During that delay, the instrument cluster may not be as bright as usual. Make sure the instrument panel brightness control is

in the full bright position. See *Instrument Panel Illumination Control* ⇨ 162.

When it is bright enough outside, the headlamps will turn off or may change to Daytime Running Lamps (DRL).

The automatic headlamp system turns off when the exterior lamp control is turned to ☺ or the ignition is off.

### Lights On with Wipers

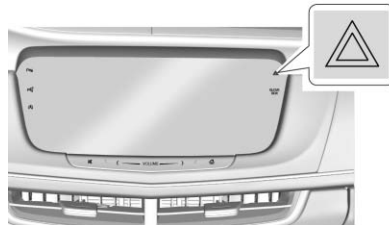
If the windscreen wipers are activated in daylight with the engine on, and the exterior lamp control is in AUTO, the headlamps, parking lamps, and other exterior lamps come on. The transition time for the lamps coming on varies based on wiper speed. When the wipers are not operating, these lamps turn off. Move the exterior lamp control to ☺ or ☹ to disable this feature.

## Headlamp Levelling Control

### Automatic Headlamp Levelling

For vehicles with headlamp levelling, the inclination of the headlamps is adjusted automatically based on vehicle load.

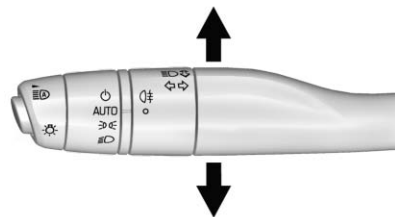
## Hazard Warning Flashers



⚠ : Touch this button to make the front and rear turn signal lamps flash on and off. Touch again to turn the indicators off.

The hazard warning flashers turn on automatically if the airbags deploy.

## Indicator and Lane-Change Signals



Move the lever all the way up or down to signal a turn.

An arrow on the instrument cluster flashes in the direction of the turn or lane change.

Raise or lower the lever until the arrow starts to flash to signal a lane change. Hold it there until the lane change is completed. If the lever is briefly pressed and released, the indicator flashes three times.

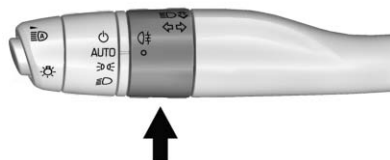
The indicator and lane-change signal can be turned off manually by moving the lever back to its original position.

If after signalling a turn or lane change, the arrow flashes rapidly or does not come on, a signal bulb may be burned out.



Replace any burned out bulbs. If a bulb is not burned out, check the fuse. See *Fuses and Circuit Breakers* ⇨ 261.

## Fog Lamps

### Rear Fog Lamps



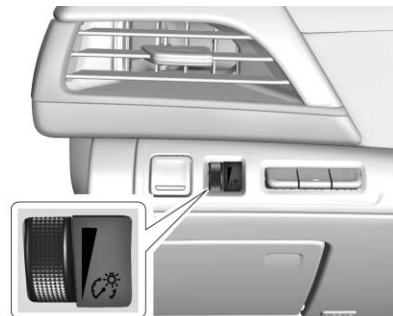
The rear fog lamps make the vehicle more visible from the rear in foggy or misty conditions.

 : Turn the band on the lever to  and release it, to turn the rear fog lamps on or off. The band will return to its original position.


The parking lights and headlights must be on for the rear fog lamps to work.

## Interior Lighting

### Instrument Panel Illumination Control




The brightness of the instrument panel lighting and steering wheel controls can be adjusted.

 : Move the thumbwheel up or down to brighten or dim the lights.

The brightness of the displays automatically adjusts based on outdoor lighting. The instrument panel illumination control will set the lowest level to which the displays will be automatically adjusted.

## Courtesy Lamps


The courtesy lamps come on when any door is opened unless the dome lamp override is activated. To deactivate the dome lamp override, press  OFF and the indicator light on the button will turn off.


## Dome Lamps

The dome lamp is in the overhead console.



To change the dome lamp settings, press:

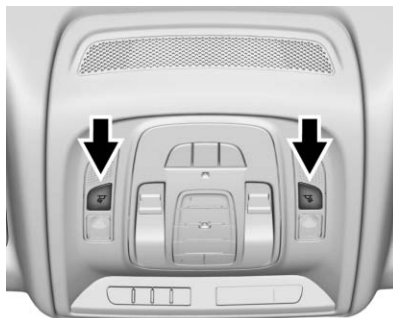
 **OFF** : Turns the lamp off, even when a door is open.



 **ON/OFF** : Turns the lamp on or off.

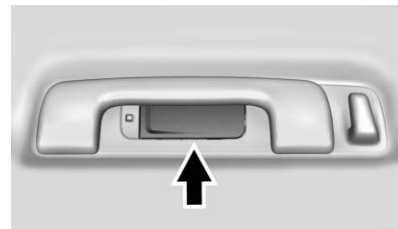
## Reading Lamps

There are front and rear reading lamps on the overhead console and over the rear passenger doors. These lamps come on automatically when any door is opened.

To manually turn the reading lamps on or off:





Press  or  next to each overhead console reading lamp.



Press the lamp lenses over the rear passenger doors.

## Lighting Features

### Entry Lighting

Some exterior lamps and most of the interior lights turn on briefly at night, or in areas of limited lighting when  is pressed on the Remote Keyless Entry (RKE) transmitter. See *Remote Keyless Entry (RKE) System Operation* ⇨ 28. When the driver door is opened, all control lights, Driver Information Centre (DIC) lights, and door pocket lights turn on. After about 30 seconds the exterior lamps turn off, then the remaining interior lights dim to off. Entry lighting can be disabled manually by changing the ignition out of the OFF position, or by pressing  on the RKE transmitter.

This feature can be changed. See “Vehicle Locator Lights” under *Vehicle Personalisation* ⇨ 146.

### Entry Lighting with Approach Detection

If equipped with approach detection, the entry lighting feature will automatically turn on when the RKE

transmitter is detected within approximately 2 m (6 ft) of the vehicle.

If the vehicle has remained parked for an extended period of time with no RKE transmitter use or Keyless Access operation, approach detection will be disabled. To reactivate, press any button on the RKE transmitter or open and close all vehicle doors to re-enable the entry lighting feature on approach.

Approach detection will not work if:

- The vehicle battery is low.
- The ignition is on or in ACC/ACCESSORY.
- Entry lighting is set to Off. See “Vehicle Locator Lights” under *Vehicle Personalisation* ⇨ 146.

Approach detection will not work with a single RKE transmitter if:

- The RKE transmitter is left within a 5 m (16 ft) range of the vehicle for several minutes
- The RKE transmitter is left inside the vehicle and all the doors are closed

To help maximise transmitter battery life, do not store the transmitter within 5 m (16 ft) of the vehicle.

### Exit Lighting

Some exterior lamps and interior lights come on at night, or in areas with limited lighting, when the driver door is opened and the turn signal lever is pulled after the ignition is turned off. The dome lamp comes on after the ignition is changed to the OFF position. The exterior lamps and interior light remain on for a set amount of time, then automatically turn off.

The exterior lamps turn off immediately by turning the exterior lamp control off.

This feature can be changed. See *Vehicle Personalisation* ⇨ 146.

### Battery Power Protection

The battery saver feature is designed to protect the vehicle's battery.

If some interior lamps are left on and the ignition is turned off, the battery rundown protection system automatically turns the lamp off after some time.

## **Exterior Lighting Battery Saver**

The exterior lamps turn off about 10 minutes after the ignition is turned off, if the parking lamps or headlamps have been manually left on. This protects against draining the battery. To restart the 10-minute timer, turn the exterior lamp control to the off position and then back to the parking lamp or headlamp position.

To keep the lamps on for more than 10 minutes, the ignition must be on or in ACC/ACCESSORY.

## Infotainment System

### **Introduction**

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## Introduction

### **Infotainment**

See the infotainment manual for information on the radio, audio players, rear seat infotainment, phone, navigation system, and voice or speech recognition. It also includes information on settings.

## Climate Controls

### Climate Control Systems

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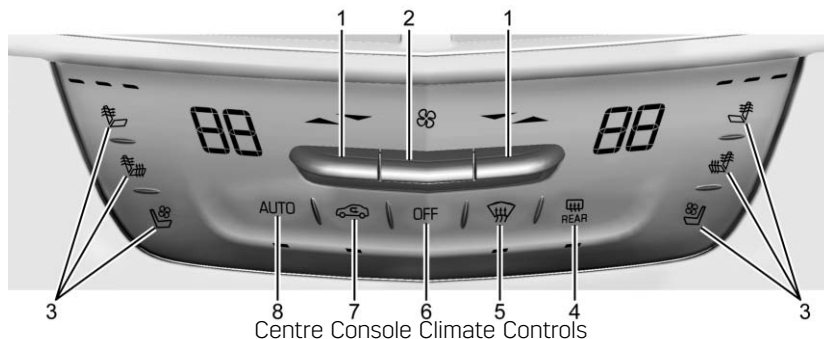
### Maintenance

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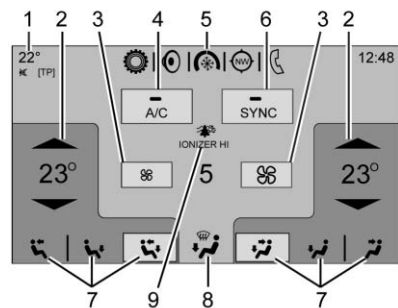
## Climate Control Systems

### Automatic Climate Control System (Quad Zone)

The climate control buttons on the centre console and on the climate control display are used to adjust the heating, cooling, and ventilation.



- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. Driver and Passenger Temperature Controls</li> <li>2. Fan Control</li> <li>3. Driver and Passenger Heated and Ventilated Seats (If Equipped)</li> <li>4. Rear Window Demister</li> <li>5. Defrost</li> </ol> | <ol style="list-style-type: none"> <li>6. OFF (Fan)</li> <li>7. Recirculation</li> <li>8. AUTO (Automatic Operation)</li> </ol> |
|--|---|



Climate Control Display

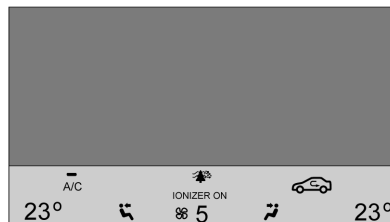
1. Outside Temperature Display
2. Driver and Passenger Temperature Controls
3. Fan Control
4. A/C (Air Conditioning)
5. Climate Control Selection (Application Tray Button)
6. SYNC (Synchronised Temperature)
7. Driver and Passenger Air Delivery Mode Controls
8. Demist

### 9. Ioniser Status Indicator (If Equipped)

#### Climate Control Display

The fan, air delivery mode, air conditioning, driver and passenger temperatures, and SYNC settings can be controlled by touching CLIMATE on the infotainment Home Page or the climate button in the climate control display application tray. A selection can then be made on the front climate control page displayed. See the infotainment manual.

#### Climate Control Status Display



The climate control status display appears briefly when the climate control buttons on the centre console are adjusted.


#### Automatic Operation

The system automatically controls the fan speed, air delivery, air conditioning, and recirculation in order to heat or cool the vehicle to the desired temperature.

When the indicator light is on or AUTO is displayed on the climate control display, the system is in full automatic operation. If the air delivery mode or fan setting is manually adjusted, the auto indicator turns off and the display will show the selected settings. Auto operation can be turned off individually for climate settings.

For automatic operation:

1. Press AUTO.
2. Set the temperature. Allow the system time to stabilise. Then adjust the temperature as needed for best comfort.

To improve fuel efficiency and to cool the vehicle faster, recirculation may be automatically selected in warm weather. The recirculation light will not come on in AUTO mode. Press  to select recirculation; press it again to select outside air.

English units can be changed to metric units through the instrument cluster. See "Cluster Options Menu" or "Cluster Menu" under *Instrument Cluster (Base Level)* ⇨ 119 or *Instrument Cluster (Uplevel)* ⇨ 122.


**OFF** : Press to turn the fan on or off. The temperature control and air delivery mode can still be adjusted.

**▲ / ▼** : The temperature can be adjusted separately for the driver and the passenger. Press to increase or decrease the temperature. Press and hold to rapidly increase or decrease the temperature.

The driver and passenger temperatures can also be adjusted by touching the controls on the climate control display.

**SYNC** : Touch SYNC on the climate control display to link all climate zone settings to the driver settings. When all climate zone settings are linked, the SYNC indicator will be lit. Adjust the driver side temperature control to change the linked temperature. When the front or rear passenger settings are adjusted, the SYNC indicator will turn off.


### Manual Operation


**▲  ▼** : Press or touch the fan buttons on the centre console or climate control display, to increase or decrease the fan speed. Press and hold the buttons to adjust speed more quickly. The fan speed setting displays. Pressing either button cancels automatic fan control and the fan can be controlled manually. Press AUTO to return to automatic operation.


**Driver and Passenger Air Delivery Mode Controls** : When the climate information is displayed, touch the desired air delivery mode on the climate control display to change the direction of the airflow. The selected air delivery mode button is lit.


Touching any of the air delivery buttons cancels automatic air delivery control and the direction of the airflow can be controlled manually. Press AUTO to return to automatic operation.



To change the current mode, select one of the following:

 : Air is directed to the instrument panel outlets.

 : Air is divided between the instrument panel outlets and the floor outlets.

 : Air is directed to the floor outlets. Some air is directed to the windscreen.

 : Clears the windows of mist or moisture. Air is directed to the windscreen and floor outlets.

 : Clears the windscreen of mist or frost more quickly. Air is directed to the windscreen. Press  to turn on or off. Changing the air delivery mode also turns the defrost off.


**A/C** : Touch A/C on the climate control display to turn the automatic air conditioning on or off. If the fan is

turned off or the outside temperature falls below freezing, the air conditioner will not run.

Press AUTO to return to automatic operation and the air conditioner runs as needed.

**Automatic Air Recirculation :** When the AUTO indicator light is on, the air is automatically recirculated as needed to help quickly cool the inside of the vehicle.

The climate control system may have a sensor to detect air pollution. When using automatic air recirculation, the air quality control system may operate. To adjust the sensitivity of the air quality sensor, see "Climate and Air Quality" under *Vehicle Personalisation* ⇨ 146.

 : Press to alternate between recirculating air inside the vehicle or pulling in outside air. The indicator light on the button is lit when recirculation mode is active. This helps to quickly cool the air inside the vehicle or reduce the outside air and odours that might enter.

Pressing this button cancels automatic recirculation. Press AUTO to return to automatic operation; recirculation runs automatically as needed.

Manual recirculation mode is not available when in Defrost or Defog modes.

**Auto Defog :** The climate control system may have a sensor to automatically detect high humidity inside the vehicle. When high humidity is detected, the climate control system may adjust to outside air supply and turn on the air conditioner. If the climate control system does not detect possible window misting, it returns to normal operation. To turn Auto Defog off or on, see "Climate and Air Quality" under *Vehicle Personalisation* ⇨ 146.

**Ionizer :** If equipped with an ioniser, this feature helps to clean the air inside the vehicle and remove contaminants such as pollen, odours, and dust. If the climate control system is on and the ioniser is enabled, the ioniser status indicator will be lit on the climate control

display. To turn the ioniser on or off, see "Climate and Air Quality" under *Vehicle Personalisation* ⇨ 146.

## Rear Window Demister



**REAR :** Press to turn the rear window demister on or off.

The rear window demister can be set to automatic operation. See "Climate and Air Quality" under *Vehicle Personalisation* ⇨ 146. When Auto Rear Demist is selected, the rear window demister turns on automatically when the interior temperature is cold and the outside temperature is about 4 °C (40 °F) and below.



The upper grid lines on the rear window are aerial lines and are not intended to heat when the demister is activated.



The heated outside mirrors turn on when the rear window demister button is on and help to clear mist or frost from the surface of the mirrors.



### Caution

Do not try to clear frost or other material from the inside of the front windscreen and rear window with a razor blade or anything else that is sharp. This may damage the rear window demister grid and affect the radio's ability to pick up stations clearly. The repairs would not be covered by the vehicle warranty.

### Driver and Passenger Heated and Ventilated Seats (If Equipped) :

Press  or  to heat the driver or passenger backrest only.

Press  or  to heat the driver or passenger seat cushion and backrest.

Press  or  to ventilate the driver or passenger seat. See *Heated and Ventilated Front Seats* ⇨ 63.

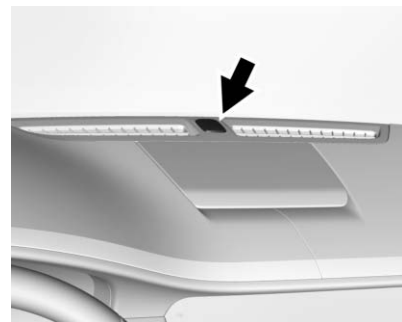
### Remote Start Climate Control

**Operation :** If equipped with the remote start feature, the climate control system may run when the vehicle is started remotely. The system uses the driver's previous settings to heat or cool the inside of the vehicle. The rear window demister may come on during remote start based on cold ambient conditions. The rear window demister indicator light does not come on during a remote start.

If equipped, the heated seats will turn on if it is cold outside or the ventilated seats will turn on if it is hot outside. The heated and ventilated seat indicator lights may not come on during a remote start. If equipped, the heated steering wheel will come on in a remote start if it is cold outside. The heated steering wheel indicator light may not come on.

See *Remote Vehicle Start* ⇨ 33 and *Heated and Ventilated Front Seats* ⇨ 63.

### Sensor



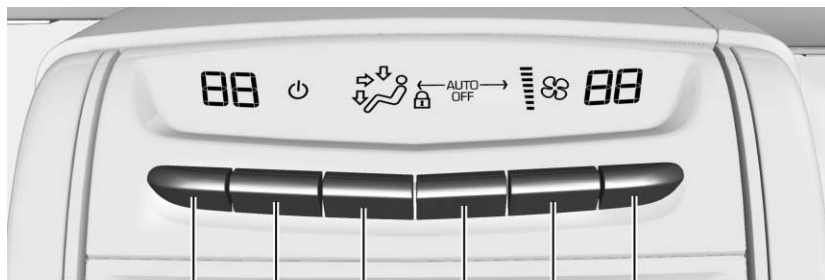
The solar sensor, on top of the instrument panel near the windscreen, monitors the solar heat.

The climate control system uses the sensor information to adjust the temperature, fan speed, recirculation, and air delivery mode for best comfort.


If the sensor is covered, the automatic climate control system may not work properly.

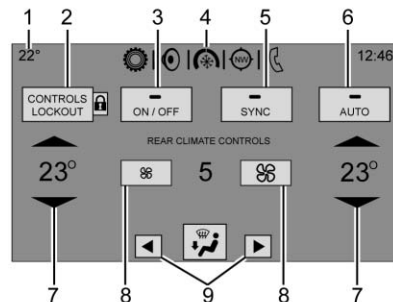
## Rear Climate Control System

The rear climate control system is on the rear of the centre console. The settings can be adjusted with the rear climate control buttons and the rear climate display.



Rear Climate Control Buttons

- |   |                               |
|---|-------------------------------|
| 1. Rear Driver Side and Passenger Side Temperature Controls                                   | 3. Air Delivery Mode Control  |
| 2.  (On/Off) | 4. AUTO (Automatic Operation) |
|   | 5. Fan Control                |





Rear Climate Control Display

1. Outside Temperature Display
2. Rear Control Lockout
3. ON/OFF
4. Climate Control Selection (Application Tray Button)
5. SYNC (Synchronised Temperatures)
6. Rear AUTO (Automatic Operation)
7. Rear Driver Side and Passenger Side Climate Temperature Controls

## 8. Rear Fan Control

## 9. Air Delivery Mode Control

**Rear :** Touch Rear on the Home Page of the infotainment display to open the rear climate control display. The rear climate control settings can now be adjusted from the front passenger area.

 : Press  or touch ON/OFF on the rear climate control display to turn the rear climate control on or off.


**SYNC :** Touch SYNC on the rear climate control display to match the rear climate control temperature to the front climate control driver temperature. The SYNC button will be lit.

**Rear Control Lockout :** Touch to lock or unlock control of the rear climate control system from the rear seat passengers. When locked, the rear climate control can only be adjusted from the front seat.

### Automatic Operation

**AUTO :** Press to turn on or off. The air delivery is controlled automatically. The AUTO indicator appears on the display. If the air delivery mode is manually adjusted, this cancels full automatic operation.

### Manual Operation

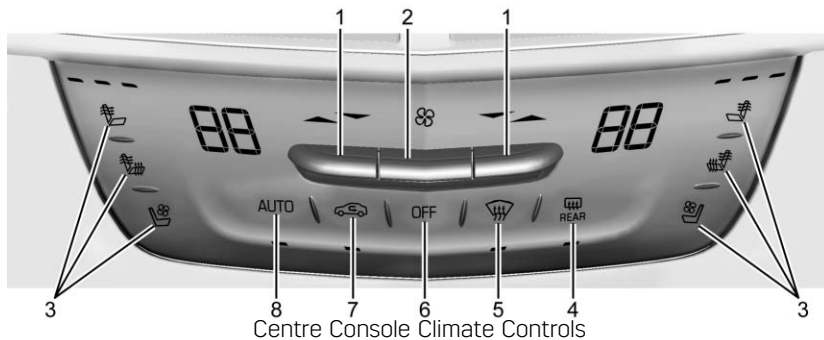
 : Press or press and hold the rear fan button up or down to increase or decrease the rear climate airflow. The rear climate airflow can also be adjusted by touching the fan controls on the front climate control display.

**Temperature Controls :** Press or press and hold the rear temperature control buttons up or down to adjust the rear passenger temperatures. The rear passenger temperatures can also be adjusted by touching + for warmer air or - for cooler air on the front climate control display.

**Air Delivery Mode Control :** Press or press and hold the button up or down to select the desired air delivery mode. Touch the right and left arrows at the bottom of the rear climate control display to change the direction of the airflow in the rear seating area.

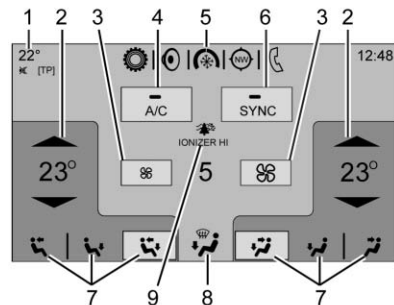
## Automatic Climate Control System (Dual Zone)

The climate control buttons on the centre console and on the climate control display are used to adjust the heating, cooling, and ventilation.



1. Driver and Passenger Temperature Controls
2. Fan Control
3. Driver and Passenger Heated and Ventilated Seats (If Equipped)
4. Rear Window Demister

5. Defrost
6. OFF (Fan)
7. Recirculation
8. AUTO (Automatic Operation)



Climate Control Display

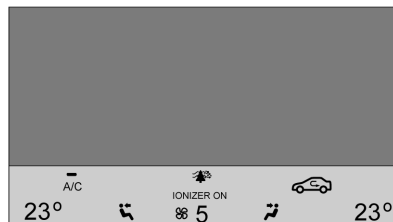
1. Outside Temperature Display
2. Driver and Passenger Temperature Controls
3. Fan Control
4. A/C (Air Conditioning)
5. Climate Control Selection (Application Tray Button)
6. SYNC (Synchronised Temperature)
7. Driver and Passenger Air Delivery Mode Controls
8. Demist

## 9. Ioniser Status Indicator (If Equipped)

### Climate Control Display

The fan, air delivery mode, air conditioning, driver and passenger temperatures, and SYNC settings can be controlled by touching CLIMATE on the infotainment Home Page or the climate button in the climate control display application tray. A selection can then be made on the front climate control page displayed. See the infotainment manual.

### Climate Control Status Display



The climate control status display appears briefly when the climate control buttons on the centre console are adjusted.

### Automatic Operation

The system automatically controls the fan speed, air delivery, air conditioning, and recirculation in order to heat or cool the vehicle to the desired temperature.

When the indicator light is on or AUTO is displayed on the climate control display, the system is in full automatic operation. If the air delivery mode or fan setting is manually adjusted, the auto indicator turns off and the display will show the selected settings. Auto operation can be turned off individually for climate settings.

For automatic operation:

1. Press AUTO.
2. Set the temperature. Allow the system time to stabilise. Then adjust the temperature as needed for best comfort.

To improve fuel efficiency and to cool the vehicle faster, recirculation may be automatically selected in warm weather. The recirculation light will not come on in AUTO mode. Press to select recirculation; press it again to select outside air.

English units can be changed to metric units through the instrument cluster. See "Cluster Options Menu" under *Instrument Cluster (Base Level)* 119 or *Instrument Cluster (Uplevel)* 122.



**OFF** : Press to turn the fan on or off. The temperature control and air delivery mode can still be adjusted.

**▲ / ▼** : The temperature can be adjusted separately for the driver and the passenger. Press up or down to increase or decrease the temperature. Press and hold up or down to rapidly increase or decrease the temperature.

The driver and passenger temperatures can also be adjusted by touching the controls on the climate control display.

**SYNC** : Touch SYNC on the climate control display to link all climate zone settings to the driver settings. When all climate zone settings are linked, the SYNC indicator will be lit. Adjust the driver side temperature control to change the linked temperature. When the front or rear passenger settings are adjusted, the SYNC indicator will turn off.


### Manual Operation


  : Press or touch the fan buttons on the centre console or climate control display, to increase or decrease the fan speed. Press and hold the buttons to adjust speed more quickly. The fan speed setting displays. Pressing either button cancels automatic fan control and the fan can be controlled manually. Press AUTO to return to automatic operation.


**Driver and Passenger Air Delivery Mode Controls** : When the climate information is displayed, touch the desired air delivery mode on the climate control display to change the direction of the airflow. The selected air delivery mode button is lit.


Touching any of the air delivery buttons cancels automatic air delivery control and the direction of the airflow can be controlled manually. Press AUTO to return to automatic operation.



To change the current mode, select one of the following:

 : Air is directed to the instrument panel outlets.

 : Air is divided between the instrument panel outlets and the floor outlets.

 : Air is directed to the floor outlets.

 : Clears the windows of mist or moisture. Air is directed to the windscreen and floor outlets.

 : Clears the windscreen of mist or frost more quickly. Air is directed to the windscreen. Press  to turn on or off. Changing the air delivery mode also turns the defrost off.


**A/C** : Touch A/C on the climate control display to turn the automatic air conditioning on or off. If the fan is

turned off or the outside temperature falls below freezing, the air conditioner will not run.

Press AUTO to return to automatic operation and the air conditioner runs as needed.

**Automatic Air Recirculation** : When the AUTO indicator light is on, the air is automatically recirculated as needed to help quickly cool the inside of the vehicle.

The climate control system may have a sensor to detect air pollution. When using automatic air recirculation, the air quality control system may operate. To adjust the sensitivity of the air quality sensor, see "Climate and Air Quality" under *Vehicle Personalisation* ⇨ 146.

 : Press to alternate between recirculating air inside the vehicle or pulling in outside air. The indicator light on the button is lit when recirculation mode is active. This helps to quickly cool the air inside the vehicle or reduce the outside air and odours that might enter.

Pressing this button cancels automatic recirculation. Press AUTO to return to automatic operation; recirculation runs automatically as needed.


Manual recirculation mode is not available when in Defrost or Defog modes.

**Auto Defog :** The climate control system may have a sensor to automatically detect high humidity inside the vehicle. When high humidity is detected, the climate control system may adjust to outside air supply and turn on the air conditioner. If the climate control system does not detect possible window misting, it returns to normal operation. To turn Auto Defog off or on, see "Climate and Air Quality" under *Vehicle Personalisation* ⇨ 146.

**Ionizer :** If equipped with an ioniser, this feature helps to clean the air inside the vehicle and remove contaminants; such as pollen, odours, and dust. If the climate control system is on and the ioniser is enabled, the ioniser status indicator will be lit on the climate control

display. To turn the ioniser on or off, see "Climate and Air Quality" under *Vehicle Personalisation* ⇨ 146.

### Rear Window Demister

 **REAR :** Press to turn the rear window demister on or off. The rear window defogger only works when the engine is running.

The rear window demister can be set to automatic operation. See "Climate and Air Quality" under *Vehicle Personalisation* ⇨ 146. When Auto Rear Demist is selected, the rear window demister turns on automatically when the interior temperature is cold and the outside temperature is about 4 °C (40 °F) and below.



The upper grid lines on the rear window are aerial lines and are not intended to heat when the demister is activated.



The heated outside mirrors turn on when the rear window demister button is on and help to clear mist or frost from the surface of the mirrors.



### Caution

Do not try to clear frost or other material from the inside of the front windscreen and rear window with a razor blade or anything else that is sharp. This may damage the rear window demister grid and affect the radio's ability to pick up stations clearly. The repairs would not be covered by the vehicle warranty.

### Driver and Passenger Heated and Ventilated Seats (If Equipped) :

Press  or  to heat the driver or passenger backrest only.

Press  or  to heat the driver or passenger seat cushion and backrest.

Press  or  to ventilate the driver or passenger seat. See *Heated and Ventilated Front Seats* ⇨ 63.

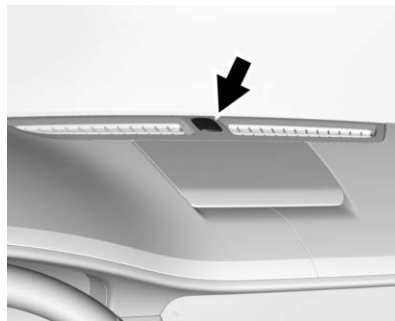
### Remote Start Climate Control

**Operation :** If equipped with the remote start feature, the climate control system may run when the vehicle is started remotely. The system

uses the driver's previous settings to heat or cool the inside of the vehicle. The rear demist may come on during remote start based on cold ambient conditions. The rear demist indicator light does not come on during a remote start.

If equipped, the heated seats will turn on if it is cold outside or the ventilated seats will turn on if it is hot outside. The heated and ventilated seat indicator lights may not come on during a remote start. If equipped, the heated steering wheel will come on in a remote start if it is cold outside. The heated steering wheel indicator light may not come on. See *Remote Vehicle Start* ⇨ 33 and *Heated and Ventilated Front Seats* ⇨ 63.

## Sensor

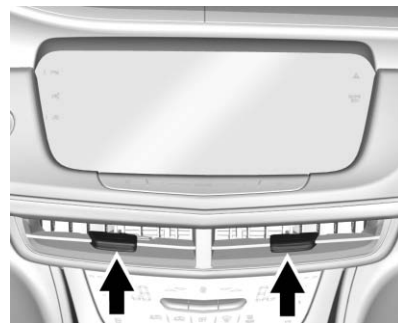


The solar sensor, on top of the instrument panel near the windscreen, monitors the solar heat.

The climate control system uses the sensor information to adjust the temperature, fan speed, recirculation, and air delivery mode for best comfort.

If the sensor is covered, the automatic climate control system may not work properly.

## Air Vents



Adjustable air vents are in the centre and on the sides of the instrument panel, on the rear of the centre console storage, and in the headlining over the rear seats, if equipped.

Move the slider knobs to change the direction of or to close off the airflow.

### Operation Tips

- Clear away any ice, snow, or leaves from air inlets at the base of the windscreen that could block the flow of air into the vehicle.

- Clear snow off the bonnet to improve visibility and help decrease moisture drawn into the vehicle.
- Keep the path under the front seats clear of objects to help circulate the air inside of the vehicle more effectively.
- Use of non-GM approved bonnet air flow deflectors can adversely affect the performance of the system. Check with your dealer before adding equipment to the outside of the vehicle.
- Do not attach any devices to the air vent slats. This restricts airflow and may cause damage to the air vents.

## Maintenance

### Passenger Compartment Air Filter

The filter reduces dust, pollen, and other airborne irritants from outside air that is pulled into the vehicle. The filter should be replaced as part of routine scheduled maintenance. See *Scheduled Maintenance* ⇨ 305.

See your retailer regarding replacement of the filter.

## Service

All vehicles have a label underbonnet that identifies the refrigerant used in the vehicle. The refrigerant system should only be serviced by trained and certified technicians. The air conditioning evaporator should never be repaired or replaced by one from a salvage vehicle. It should only be replaced by a new evaporator to ensure proper and safe operation.

During service, all refrigerants should be reclaimed with proper equipment. Venting refrigerants directly to the atmosphere is harmful to the environment and may also create unsafe conditions based on inhalation, combustion, frostbite, or other health-based concerns.

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## Driving Information

### Distracted Driving

Distraction comes in many forms and can take your focus from the task of driving. Exercise good judgement and do not let other activities divert your attention away from the road. Many local governments have enacted laws regarding driver distraction. Become familiar with the local laws in your area.

To avoid distracted driving, keep your eyes on the road, keep your hands on the steering wheel, and focus your attention on driving.

- Do not use a phone in demanding driving situations. Use a hands-free method to place or receive necessary phone calls.
- Watch the road. Do not read, take notes, or look up information on phones or other electronic devices.
- Designate a front seat passenger to handle potential distractions.

- Become familiar with vehicle features before driving, such as programming favourite radio stations and adjusting climate control and seat settings. Program all trip information into any navigation device prior to driving.
- Wait until the vehicle is parked to retrieve items that have fallen to the floor.
- Stop or park the vehicle to tend to children.
- Keep pets in an appropriate carrier or restraint.
- Avoid stressful conversations while driving, whether with a passenger or on a mobile phone.

#### **Warning**

Taking your eyes off the road too long or too often could cause a crash resulting in injury or death. Focus your attention on driving.

Refer to the infotainment section for more information on using that system and the navigation system, if equipped, including pairing and using a mobile phone.

### Defensive Driving

Defensive driving means “always expect the unexpected.” The first step in driving defensively is to wear the seat belt. See *Seat Belts* ⇨ 68.

- Assume that other road users (pedestrians, bicyclists, and other drivers) are going to be careless and make mistakes. Anticipate what they might do and be ready.
- Allow enough following distance between you and the driver in front of you.
- Focus on the task of driving.

### Control of a Vehicle

Braking, steering, and accelerating are important factors in helping to control a vehicle while driving.

## Braking

Braking action involves perception time and reaction time. Deciding to push the brake pedal is perception time. Actually doing it is reaction time.

Average driver reaction time is about three-quarters of a second. In that time, a vehicle moving at 100 km/h (60 mph) travels 20 m (66 ft), which could be a lot of distance in an emergency.

Helpful braking tips to keep in mind include:

- Keep enough distance between you and the vehicle in front of you.
- Avoid needless heavy braking.
- Keep pace with traffic.

If the engine ever stops while the vehicle is being driven, brake normally but do not pump the brakes. Doing so could make the pedal harder to push down. If the engine stops, there will be some power brake assist but it will be used when the brake is applied.

Once the power assist is used up, it can take longer to stop and the brake pedal will be harder to push.

## Steering

### Variable Effort Steering

The vehicle has a steering system that varies the amount of effort required to steer the vehicle in relation to the speed of the vehicle.

The amount of steering effort required is less at slower speeds to make the vehicle more manoeuvrable and easier to park. At faster speeds, the steering effort increases to provide a sport-like feel to the steering. This provides maximum control and stability.

### Electric Power Steering

The vehicle has electric power steering. It does not have power steering fluid. Regular maintenance is not required.

If power steering assist is lost due to a system malfunction, the vehicle can be steered, but may require increased effort. See your dealer if there is a problem.

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 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.

See your dealer if there is a problem.

## Bend Tips

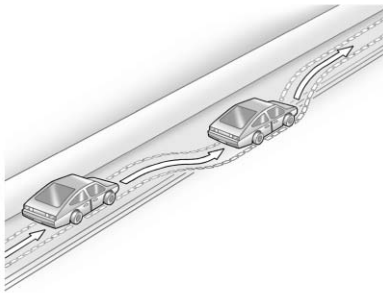
- Take bends at a reasonable speed.
- Reduce speed before entering a bend.
- Maintain a reasonable steady speed through the bend.
- Wait until the vehicle is out of the bend before accelerating gently into the straight.

## Steering in Emergencies

- There are some situations when steering around a problem may be more effective than braking.

- Holding both sides of the steering wheel allows you to turn 180 degrees without removing a hand.
- Antilock Brake System (ABS) allows steering while braking.

## Off-Road Recovery



The vehicle's right wheels can drop off the edge of a road onto the shoulder while driving. Follow these tips:

1. Ease off the accelerator and then, if there is nothing in the way, steer the vehicle so that it straddles the edge of the pavement.

2. Turn the steering wheel about one-eighth of a turn, until the right front tyre contacts the pavement edge.
3. Turn the steering wheel to go straight down the roadway.

## Loss of Control

### Skidding

There are three types of skids that correspond to the vehicle's three control systems:

- Braking Skid - wheels are not rolling.
- Steering or Cornering Skid - too much speed or steering in a bend causes tyres to slip and lose cornering force.
- Acceleration Skid - too much throttle causes the driving wheels to spin.

Defensive drivers avoid most skids by taking reasonable care suited to existing conditions, and by not overdriving those conditions. But skids are always possible.

If the vehicle starts to slide, follow these suggestions:

- Ease your foot off the accelerator pedal and steer the way you want the vehicle to go. The vehicle may straighten out. Be ready for a second skid if it occurs.
- Slow down and adjust your driving according to weather conditions. Stopping distance can be longer and vehicle control can be affected when traction is reduced by water, snow, ice, gravel, or other material on the road. Learn to recognise warning clues - such as enough water, ice, or packed snow on the road to make a mirrored surface - and slow down when you have any doubt.
- Try to avoid sudden steering, acceleration, or braking, including reducing vehicle speed by shifting to a lower gear. Any sudden changes could cause the tyres to slide.

Remember: Antilock brakes help avoid only the braking skid.

## Driving on Wet Roads

Rain and wet roads can reduce vehicle traction and affect your ability to stop and accelerate. Always drive slower in these types of driving conditions and avoid driving through large puddles and deep-standing or flowing water.

### Warning

Wet brakes can cause crashes. They might not work as well in a quick stop and could cause pulling to one side. You could lose control of the vehicle.

After driving through a large puddle of water or a car/vehicle wash, lightly apply the brake pedal until the brakes work normally.

Flowing or rushing water creates strong forces. Driving through flowing water could cause the vehicle to be carried away. If this happens, you and other vehicle occupants could drown. Do not

(Continued)

### Warning (Continued)

ignore police warnings and be very cautious about trying to drive through flowing water.

## Aquaplaning

Aquaplaning is dangerous. Water can build up under the vehicle's tyres so they actually ride on the water. This can happen if the road is wet enough and you are going fast enough. When the vehicle is aquaplaning, it has little or no contact with the road.

There is no hard and fast rule about aquaplaning. The best advice is to slow down when the road is wet.

## Other Rainy Weather Tips

Besides slowing down, other wet weather driving tips include:

- Allow extra following distance.
- Overtake with caution.
- Keep windscreen wiping equipment in good condition.
- Keep the windscreen washer fluid reservoir filled.

- Have good tyres with proper tread depth. See *Tyres* ⇨ 269.
- Turn off cruise control.

## Hill and Mountain Roads

Driving on steep hills or through mountains is different than driving on flat or rolling terrain. Tips include:

- Keep the vehicle serviced and in good shape.
- Check all fluid levels and brakes, tyres, cooling system, and transmission.
- Shift to a lower gear when going down steep or long hills.

### Warning

Using the brakes to slow the vehicle on a long downhill slope can cause brake overheating, can reduce brake performance, and could result in a loss of braking. Shift the transmission to a lower gear to let the engine assist the brakes on a steep downhill slope.

 **Warning**

Coasting downhill in N (Neutral) or with the ignition off is dangerous. This can cause overheating of the brakes and loss of steering. Always have the engine running and the vehicle in gear.

- Drive at speeds that keep the vehicle in its own lane. Do not swing wide or cross the centre line.
- Be alert on top of hills; something could be in your lane (e.g., stalled car, accident).
- Pay attention to special road signs (e.g., falling rocks area, winding roads, long gradients, overtaking or no-overtaking zones) and take appropriate action.

## Winter Driving

### Driving on Snow or Ice

Snow or ice between the tyres and the road creates less traction or grip, so drive carefully. Wet ice can occur at

about 0 °C (32 °F) when freezing rain begins to fall. Avoid driving on wet ice or in freezing rain until roads can be treated.

#### For slippery road driving:

- Accelerate gently. Accelerating too quickly causes the wheels to spin and makes the surface under the tyres slick.
- Turn on Traction Control. See *Traction Control/Electronic Stability Control* ⇨ 204.
- Antilock Brake System (ABS) improves vehicle stability during hard stops, but the brakes should be applied sooner than when on dry pavement. See *Antilock Brake System (ABS)* ⇨ 200.

See *Driver Mode Control* ⇨ 205

- Allow greater following distance and watch for slippery spots. Icy patches can occur on otherwise clear roads in shaded areas. The surface of a curve or an overpass can remain icy when the surrounding roads are clear. Avoid sudden steering manoeuvres and braking while on ice.

- Turn off cruise control.

### Blizzard Conditions

Stop the vehicle in a safe place and signal for help. Stay with the vehicle unless there is help nearby. Get help and keep everyone in the vehicle safe:

- Turn on the hazard warning lights.
- Tie a red cloth to an outside mirror.

 **Warning**

Snow can trap engine exhaust under the vehicle. This may cause exhaust gases to get inside. Engine exhaust contains carbon monoxide (CO), which cannot be seen or smelled. It can cause unconsciousness and even death.

If the vehicle is stuck in snow:

- Clear snow from the base of the vehicle, especially any blocking the exhaust pipe.

(Continued)

**Warning (Continued)**

- Open a window about 5 cm (2 in) on the vehicle side that is away from the wind, to bring in fresh air.
- Fully open the air outlets on or under the instrument panel.
- Adjust the climate control system to circulate the air inside the vehicle and set the fan speed to the highest setting. See “Climate Control Systems.”

For more information about CO, see *Engine Exhaust* ⇨ 196.

To save fuel, run the engine for short periods to warm the vehicle and then shut the engine off and partially close the window. Moving about to keep warm also helps.

If it takes time for help to arrive, when running the engine, push the accelerator pedal slightly so the engine runs faster than the idle speed. This keeps the battery charged to

restart the vehicle and to signal for help with the headlamps. Do this as little as possible, to save fuel.

**If the Vehicle Is Stuck**

Slowly and cautiously spin the wheels to free the vehicle when stuck in sand, mud, ice, or snow.

If stuck too severely for the traction system to free the vehicle, turn the traction system off and use the rocking method. See *Traction Control/Electronic Stability Control* ⇨ 204.

 **Warning**

If the vehicle's tyres spin at high speed, they can explode, and you or others could be injured. The vehicle can overheat, causing an engine compartment fire or other damage. Spin the wheels as little as possible and avoid going above 56 km/h (35 mph).

**Rocking the Vehicle to Get it Out**

Turn the steering wheel left and right to clear the area around the front wheels. Turn off any traction system. Shift back and forth between R (Reverse) and a low forward gear, spinning the wheels as little as possible. To prevent transmission wear, wait until the wheels stop spinning before shifting gears. Release the accelerator pedal while shifting, and press lightly on the accelerator pedal when the transmission is in gear. Slowly spinning the wheels in the forward and reverse directions causes a rocking motion that could free the vehicle. If that does not get the vehicle out after a few tries, it might need to be towed out. If the vehicle does need to be towed out, see *Towing the Vehicle* ⇨ 292.

**Vehicle Load Limits**

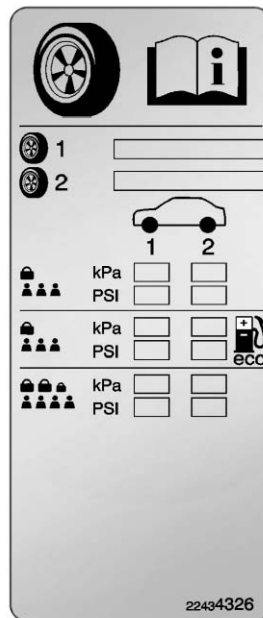
It is very important to know how much weight the vehicle can carry. This weight is called the vehicle capacity weight and includes the weight of all occupants, cargo, and all non-factory-installed options.

Two labels on the vehicle may show how much weight it may properly carry, the Tyre and Loading Information label and the Certification label.

### **Warning**

Do not load the vehicle any heavier than the Gross Vehicle Weight Rating (GVWR), or either the maximum front or rear Gross Axle Weight Rating (GAWR). This can cause systems to break and change the way the vehicle handles. This could cause loss of control and a crash. Overloading can also reduce stopping distance, damage the tyres, and shorten the life of the vehicle.

### **Tyre and Loading Information Label**



Label Example

A vehicle-specific Tyre and Loading Information label is attached to the vehicle's centre pillar (B-pillar). The Tyre and Loading Information label shows the size of the original tyres and the recommended cold tyre inflation pressures. For more information on tyres and inflation, see *Tyres* ⇨ 269 and *Tyre Pressure* ⇨ 271.

There is also important loading information on the Certification label. It may show the Gross Vehicle Weight Rating (GVWR) and the Gross Axle Weight Rating (GAWR) for the front and rear axle. See “Certification Label” later in this section.

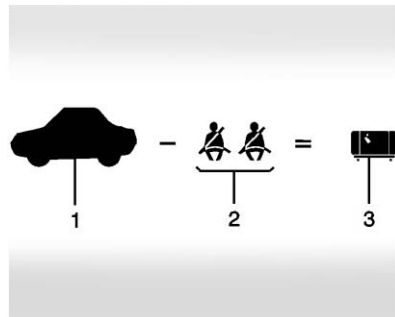
### **“Steps for Determining Correct Load Limit–**

1. Locate the statement “The combined weight of occupants and cargo should

- never exceed XXX kg or XXX lbs.” on your vehicle's placard.
- Determine the combined weight of the driver and passengers that will be riding in your vehicle.
  - Subtract the combined weight of the driver and passengers from XXX kg or XXX lbs.
  - The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the “XXX” amount equals 1400 lbs. and there will be five 150 lb passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lbs. (1400-750 (5 x 150) = 650 lbs.)

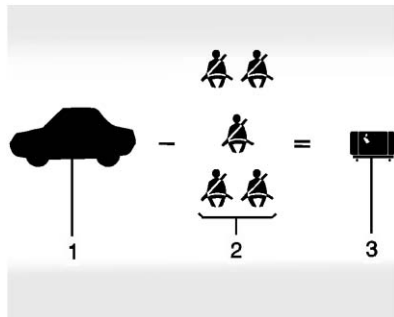
- Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.
- If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.”

This vehicle is neither designed nor intended to tow a trailer.



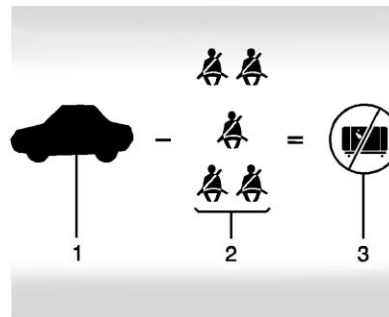
Example 1

- Vehicle Capacity Weight for Example 1 = 453 kg (1,000 lbs).
- Subtract Occupant Weight @ 68 kg (150 lbs) x 2 = 136 kg (300 lbs).
- Available Occupant and Cargo Weight = 317 kg (700 lbs).



Example 2

1. Vehicle Capacity Weight for Example 2 = 453 kg (1,000 lbs).
2. Subtract Occupant Weight @ 68 kg (150 lbs)  $\times$  5 = 340 kg (750 lbs).
3. Available Cargo Weight = 113 kg (250 lbs).



Example 3

1. Vehicle Capacity Weight for Example 3 = 453 kg (1,000 lbs).
2. Subtract Occupant Weight @ 91 kg (200 lbs)  $\times$  5 = 453 kg (1,000 lbs).
3. Available Cargo Weight = 0 kg (0 lbs).

The combined weight of the driver, passengers, and cargo should never exceed the vehicle's capacity weight.

## Certification Label

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
DATE	GVWR	GAWR FRT	GAWR RR
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S. FEDERAL MOTOR VEHICLE SAFETY, BUMPER, AND THEFT PREVENTION STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.			
<input type="text"/>		TYPE: <input type="text"/>	

Label Example

A vehicle-specific Certification label is attached to the vehicle's centre pillar (B-pillar). The label may show the gross weight capacity of the vehicle, called the Gross Vehicle Weight Rating (GVWR). The GVWR includes the weight of the vehicle, all occupants, fuel, and cargo.

 **Warning**

Things inside the vehicle can strike and injure people in a sudden stop or turn, or in a crash.

- Put things in the cargo area of the vehicle. In the cargo area, put them as far forward as possible. Try to spread the weight evenly.
- Never stack heavier things, like suitcases, inside the vehicle so that some of them are above the tops of the seats.
- Do not leave an unsecured child restraint in the vehicle.
- Secure loose items in the vehicle.
- Do not leave a seat folded down unless needed.

## Starting and Operating

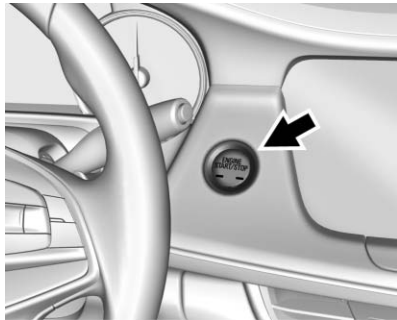
### New Vehicle Run-In

Follow these recommended guidelines during the first 2,400 km (1,500 mi) of driving this vehicle. Parts have a running-in period and performance will be better in the long run.

For the first 2,400 km (1,500 mi):

- Avoid full throttle starts and abrupt stops.
- Do not exceed 4,000 engine rpm.
- Avoid driving at any one constant speed, fast or slow.
- Avoid downshifting to brake or slow the vehicle when the engine speed will exceed 4000 rpm.
- Do not let the engine labour. Never lug the engine in high gear at low speeds.
- Do not participate in track events, sport driving schools, or similar activities during this running-in period.
- Check engine oil with every refuelling and add if necessary. Oil and fuel consumption may be higher than normal during the first 2,400 km (1,500 mi).
- To run in new tyres, drive at moderate speeds and avoid hard cornering for the first 300 km (200 mi). New tyres do not have maximum traction and may tend to slip.
- New brake linings also need a running-in period. Avoid braking hard during the first 300 km (200 mi). This is recommended every time brake linings are replaced.

## Ignition Positions



The vehicle has an electronic keyless ignition with pushbutton start.

The Remote Keyless Entry (RKE) transmitter must be in the vehicle for the system to operate. If the pushbutton start is not working, the vehicle may be near a strong radio antenna signal causing interference to the Keyless Access system. See *Remote Keyless Entry (RKE) System Operation* ⇨ 28.

To shift out of P (Park), the ignition must be on or in ACC/ACCESSORY, and the brake pedal must be applied.

**Stopping the Engine/OFF (No Indicator Lights) :** When the vehicle is stopped, press ENGINE START/STOP once to turn the engine off.

If the vehicle is in P (Park), the ignition will turn off, and Retained Accessory Power (RAP) will remain active. See *Retained Accessory Power (RAP)* ⇨ 194.

If the vehicle is not in P (Park), the ignition will return to ACC/ACCESSORY and display a message in the Driver Information Centre (DIC). When the vehicle is shifted into P (Park), the ignition will turn off.

Do not turn the engine off when the vehicle is moving. This will cause a loss of power assist in the brake and steering systems and disable the airbags.

If the vehicle must be shut off in an emergency:

1. Brake using a firm and steady pressure. Do not pump the brakes repeatedly. This may deplete power assist, requiring increased brake pedal force.

2. Shift the vehicle to N (Neutral). This can be done while the vehicle is moving. After shifting to N (Neutral), firmly apply the brakes and steer the vehicle to a safe location.
3. Come to a complete stop, shift to P (Park), and turn off the ignition.
4. Apply the parking brake. See *Electric Parking Brake* ⇨ 201.

### **Warning**

Turning off the vehicle while moving may cause loss of power assistance in the brake and steering systems and disable the airbags. While driving, only shut the vehicle off in an emergency.

If the vehicle cannot be pulled over, and must be shut off while driving, press and hold ENGINE START/STOP for longer than two seconds, or press twice in five seconds.

**ACC/ACCESSORY (Amber Indicator Light)** : This mode allows you to use some electrical accessories when the engine is off.

With the ignition off, pressing the button once without the brake pedal applied will place the ignition system in ACC/ACCESSORY.

The ignition will switch from ACC/ACCESSORY to off after five minutes to prevent battery discharge.

**ON/RUN/START (Green Indicator Light)** : This mode is for driving and starting. With the ignition off, and the brake pedal applied, pressing the button once will turn the ignition on. Once engine cranking begins, release the button. Engine cranking will continue until the engine starts. See *Starting the Engine* ⇨ 192. The ignition will then remain on.

### Service Mode

This power mode is available for service and diagnostics, and to verify the proper operation of the malfunction indicator lamp as may be required for emission inspection purposes. With the vehicle off, and the

brake pedal not applied, pressing and holding the button for more than five seconds will place the vehicle in Service Mode. The instruments and audio systems will operate as they do when the ignition is on, but the vehicle will not be able to be driven. The engine will not start in Service Mode. Press the button again to turn the ignition off.

## Starting the Engine

Move the gear lever to P (Park) or N (Neutral). To restart the engine when the vehicle is already moving, use N (Neutral) only.

### Caution

Do not try to shift to P (Park) if the vehicle is moving. If you do, you could damage the transmission. Shift to P (Park) only when the vehicle is stopped.

### Caution

If you add electrical parts or accessories, you could change the way the engine operates. Any resulting damage would not be covered by the vehicle warranty. See *Add-On Electrical Equipment* ⇨ 239.

## Starting Procedure

1. With the Keyless Access system, the Remote Keyless Entry (RKE) transmitter must be in the vehicle. Press ENGINE START/STOP with the brake pedal applied. When the engine begins cranking, let go of the button.

The idle speed will go down as the engine gets warm. Do not race the engine immediately after starting it.

If the RKE transmitter is not in the vehicle, if there is interference, or if the RKE battery is low, a Driver Information Centre (DIC)

message will display. See *Remote Keyless Entry (RKE) System Operation* ⇨ 28.

### Caution

Cranking the engine for long periods of time, by returning the ignition to the START position immediately after cranking has ended, can overheat and damage the cranking motor, and drain the battery. Wait at least 15 seconds between each try, to let the cranking motor cool down.

2. If the engine does not start after five to 10 seconds, especially in very cold weather (below -18 °C or 0 °F), it could be flooded with too much petrol. Try pushing the accelerator pedal all the way to the floor and holding it there as you press ENGINE START/STOP. Wait at least 15 seconds between each try, to allow the cranking motor to cool down. When the engine starts, release the accelerator. If the vehicle starts briefly but then stops again, do

the same thing. This clears the extra petrol from the engine. Do not race the engine immediately after starting it. Operate the engine and transmission gently until the oil warms up and lubricates all moving parts.

### Stop/Start System

#### Warning

Exiting the vehicle without first shifting into P (Park) may cause the vehicle to move. You or others may be injured. Because the vehicle may have an auto engine stop/start feature, the vehicle's engine might seem to be shut off; however, once the brake pedal is released, the engine will start up again.

Shift to P (Park) and turn the ignition off before exiting the vehicle.

The vehicle has a fuel saving stop/start system to shut off the engine and help conserve fuel.

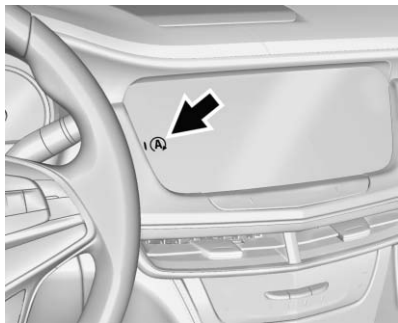
### Auto Stop/Start

When the brakes are applied and the vehicle is at a complete stop, the engine may turn off. When stopped, the tachometer may point to AUTO STOP, or the Auto Stop light may come on in the instrument cluster. See *Rev Counter* ⇨ 125 and *Auto Stop Mode (Uplevel Cluster)* ⇨ 138. When the brake pedal is released or the accelerator pedal is pressed, the engine may restart.

Auto Stop may be deactivated if:

- A minimum vehicle speed is not reached.
- The engine or transmission is not at the required operating temperature.
- The outside temperature is not in the required operating range, typically between -10 °C (14 °F) and 50 °C (122 °F).
- The gear lever is in any gear other than D (Drive).
- The battery has been recently disconnected.
- The battery charge is low.

- The interior comfort level has not reached the required level for the climate control system or demist settings. See *Automatic Climate Control System (Quad Zone)* ⇨ 167 or *Automatic Climate Control System (Dual Zone)* ⇨ 174.
- The Auto Stop time is greater than two minutes.



The automatic engine stop/start function can be disabled by touching **A** on the centre console. The indicator next to the switch will come on when the system is active.

## Retained Accessory Power (RAP)

Some vehicle accessories may be used after the ignition is turned off.

The power windows and sunroof, if equipped, will continue to work for up to 10 minutes or until any door is opened.

The infotainment system will continue to work for 10 minutes, until the driver door is opened, or until the ignition is turned on or placed in ACC/ACCESSORY.

## Shifting Into Park

To shift into P (Park):

1. Hold the brake pedal down and set the parking brake.  
See *Electric Parking Brake* ⇨ 201.
2. Move the shift lever into P (Park) by holding in the button on the shift lever and pushing the lever all the way toward the front of the vehicle.
3. Turn the ignition off.

4. Take the Remote Keyless Entry (RKE) transmitter with you.

## Leaving the Vehicle with the Engine Running

### Warning

It can be dangerous to leave the vehicle with the engine running. It could overheat and catch fire.

It is dangerous to get out of the vehicle if the shift lever is not fully in P (Park) with the parking brake firmly applied. The vehicle can roll.

Do not leave the vehicle when the engine is running. If you have left the engine running, the vehicle can move suddenly. You or others could be injured. To be sure the vehicle will not move, even when you are on fairly level ground, always set the parking brake and move the shift lever to P (Park). See *Shifting Into Park* ⇨ 194.

If you have to leave the vehicle with the engine running, the vehicle must be in P (Park) and the parking brake set. After shifting into P (Park), try to move the shift lever out without first pushing the button on the shift lever.

If you can, the shift lever was not fully locked into P (Park).

### Torque Lock

Torque lock is when the weight of the vehicle puts too much force on the parking pawl in the transmission. This happens when parking on a hill and shifting the transmission into P (Park) is not done properly and then it is difficult to shift out of P (Park). To prevent torque lock, set the parking brake and then shift into P (Park). To find out how, see “Shifting Into Park” listed previously.

If torque lock does occur, the vehicle may need to be pushed uphill by another vehicle to relieve the parking pawl pressure, so you can shift out of P (Park).

### Shifting out of Park

This vehicle is equipped with an electronic shift lock release system. The shift lock release is designed to prevent movement of the shift lever out of P (Park), unless the ignition is on and the brake pedal is applied.

The shift lock release is always functional except in the case of an uncharged or low voltage (less than 9 volt) battery.

If the vehicle has an uncharged battery or a battery with low voltage, try charging or jump starting the battery. See *Jump Starting* ⇨ 289.

To shift out of P (Park):

1. Apply the brake pedal.
2. Release the parking brake. See *Electric Parking Brake* ⇨ 201.
3. Press the shift lever button.
4. Move the shift lever.

If unable to shift out of P (Park):

1. Fully release the shift lever button.
2. While holding down the brake pedal, press the shift lever button again.
3. Move the shift lever.

If the shift lever will not move from P (Park), consult your dealer or a professional towing service.

### Parking over Things That Burn

#### Warning

Things that can burn could touch hot exhaust parts under the vehicle and ignite. Do not park over papers, leaves, dry grass, or other things that can burn.

## Extended Parking

It is better not to park with the vehicle running. If the vehicle is left while running, follow the proper steps to be sure the vehicle will not move and there is adequate ventilation. See *Shifting Into Park* ⇨ 194 and *Engine Exhaust* ⇨ 196.

If the vehicle is left parked while running and the Remote Keyless Entry (RKE) transmitter is outside the vehicle, the vehicle will turn off after one hour. If the vehicle is left parked while running and the RKE transmitter is inside, the vehicle will turn off after two hours.

The timer will reset if the vehicle is taken out of P (Park) while it is running.

## Engine Exhaust

### **Warning**

Engine exhaust contains carbon monoxide (CO), which cannot be seen or smelled. Exposure to CO can cause unconsciousness and even death.

Exhaust may enter the vehicle if:

- The vehicle idles in areas with poor ventilation (parking garages, tunnels, deep snow that may block underbody airflow or exhaust pipes).
- The exhaust smells or sounds strange or different.
- The exhaust system leaks due to corrosion or damage.
- The vehicle exhaust system has been modified, damaged, or improperly repaired.

(Continued)

### **Warning (Continued)**

- There are holes or openings in the vehicle body from damage or aftermarket modifications that are not completely sealed.

If unusual fumes are detected or if it is suspected that exhaust is coming into the vehicle:

- Drive it only with the windows completely down.
- Have the vehicle repaired immediately.

Never park the vehicle with the engine running in an enclosed area such as a garage or a building that has no fresh air ventilation.

## Running the Vehicle While Parked

It is better not to park with the engine running.

If the vehicle is left with the engine running, follow the proper steps to be sure the vehicle will not move.

See *Shifting Into Park* ⇨ 194 and *Engine Exhaust* ⇨ 196.

## Automatic Transmission



There are several different positions for the shift lever.

**P** : This position locks the drive wheels. Use P (Park) when starting the engine because the vehicle cannot move easily.

### **Warning**

It is dangerous to get out of the vehicle if the shift lever is not fully in P (Park) with the parking brake firmly applied. The vehicle can roll.

(Continued)

### **Warning (Continued)**

Do not leave the vehicle when the engine is running. If you have left the engine running, the vehicle can move suddenly. You or others could be injured. To be sure the vehicle will not move, even when you are on fairly level ground, always set the parking brake and move the shift lever to P (Park). See *Shifting Into Park* ⇨ 194.

Make sure the shift lever is fully in P (Park) before starting the engine. The vehicle has an electronic shift lock release system. Fully apply the regular brakes first and then press the shift lever button before shifting from P (Park) when the ignition is on. If you cannot shift out of P (Park), ease pressure on the shift lever and push the shift lever all the way into P (Park) as you maintain brake application. Then press the shift lever button and move the shift lever into another gear. See *Shifting out of Park* ⇨ 195.

**Caution**

Shifting to R (Reverse) while the vehicle is moving forward could damage the transmission. The repairs would not be covered by the vehicle warranty. Shift to R (Reverse) only after the vehicle is stopped.

**R** : Use this gear to reverse.

At low vehicle speeds, R (Reverse) can be used to rock the vehicle back and forth to get out of snow, ice, or sand without damaging the transmission. See *If the Vehicle Is Stuck* ⇨ 186.

**N** : In this position, the engine does not connect to the wheels. To restart the engine when the vehicle is already moving, use N (Neutral) only.

**Warning**

Shifting into a drive gear while the engine is running at high speed is dangerous. Unless your foot is

(Continued)

**Warning (Continued)**

firmly on the brake pedal, the vehicle could move very rapidly. You could lose control and hit people or objects. Do not shift into a drive gear while the engine is running at high speed.

**Caution**

Shifting out of P (Park) or N (Neutral) with the engine running at high speed may damage the transmission. The repairs would not be covered by the vehicle warranty. Be sure the engine is not running at high speed when shifting the vehicle.

**Caution**

A transmission hot message may display if the automatic gearbox fluid is too hot. Driving under this condition can damage the vehicle. Stop and idle the engine to cool the automatic gearbox fluid. This message clears when the gearbox fluid has cooled sufficiently.

**D** : This position is for normal driving. If more power is needed for overtaking, press the accelerator pedal down.

Downshifting the transmission in slippery road conditions could result in skidding. See "Skidding" under *Loss of Control* ⇨ 183.

**M** : This mode can be entered by moving the gear lever from D (Drive) to M (Manual Mode). M (Manual Mode) allows the driver to select gears appropriate for current driving conditions. M (Manual Mode) can be exited by returning the gear lever to D (Drive). See *Manual Mode* ⇨ 199.

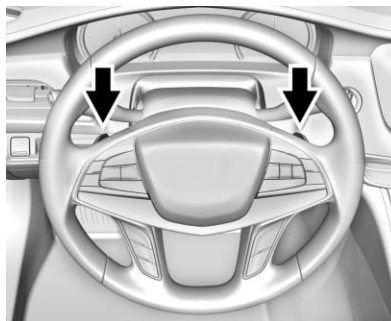
**Caution**

Spinning the tyres or holding the vehicle in one place on a hill using only the accelerator pedal may damage the transmission. The repair will not be covered by the vehicle warranty. If the vehicle is stuck, do not spin the tyres. When stopping on a hill, use the brakes to hold the vehicle in place.

While in Sport Mode, the vehicle monitors driving behaviour and automatically enables performance shift features when spirited driving is detected. These features maintain lower transmission gears to increase available engine braking and improve acceleration response. The vehicle will exit these features and return to normal operation after a short period when no spirited driving is detected. See *Driver Mode Control* ⇨ 205.

**Manual Mode****Tap Shift****Caution**

Driving with the engine at a high rpm without upshifting while using Tap Shift, could damage the vehicle. Always upshift when necessary while using Tap Shift.



Vehicles with Tap Shift have controls on the back of the steering wheel to manually shift the automatic transmission.

To enter Permanent Tap Shift Mode:

1. Move the gear lever from D (Drive) to M (Manual Mode). While in Tap Shift Mode, the M of the PRNDM section of the instrument cluster will become highlighted, and the current gear is indicated.
2. Tap the left control toward the driver to downshift, and the right control toward the driver to upshift. To shift to the lowest available gear, press and hold the left control.
3. To exit, move the gear lever back to D (Drive).

With the gear lever in D (Drive) and not in Permanent Tap Shift Mode, the Tap Shift controls will activate a temporary manual Tap Shift mode, allowing the transmission to be manually shifted. The vehicle exits Temporary Tap Shift Mode after the accelerator pedal is steady for six seconds. Temporary Tap Shift Mode holds a gear longer without exiting when coasting, to provide powertrain braking. The Temporary

Tap Shift Mode can also be deactivated by holding the right upshift control briefly.

While using Tap Shift, the vehicle will have firmer, quicker shifting. You can use this for sport driving or when climbing or descending hills, to stay in gear longer or to downshift for more power or engine braking.

The transmission will only allow you to shift into gears appropriate for the vehicle speed and engine revolutions per minute (rpm). The transmission will not downshift if the engine rpm is too high in the next lower gear, or upshift to the next higher gear when the maximum engine rpm is reached.

If shifting is prevented for any reason, a SHIFT DENIED message will be displayed in the instrument cluster.

When accelerating the vehicle from a stop in snowy and icy conditions, it is suggested to shift into second gear. A higher gear allows the vehicle to gain more traction on slippery surfaces.

## Drive Systems

### All-Wheel Drive

Vehicles with this feature always send engine power to all four wheels. It is fully automatic, and adjusts itself as needed for road conditions.

## Brakes

### Antilock Brake System (ABS)

This vehicle has an Antilock Brake System (ABS), an advanced electronic braking system that helps prevent a braking skid.

When the vehicle begins to drive away, ABS checks itself. A momentary motor or clicking noise may be heard while this test is going on, and it may even be noticed that the brake pedal moves a little. This is normal.



If there is a problem with ABS, this warning light stays on. See *Antilock Brake System (ABS) Warning Light* ⇨ 134.

If driving safely on a wet road and it becomes necessary to slam on the brakes and continue braking to avoid

a sudden obstacle, a computer senses the wheels are slowing down. If one of the wheels is about to stop rolling, the computer will separately work the brakes at each wheel.

ABS can change the brake pressure to each wheel, as required, faster than any driver could. This can help you steer around the obstacle while braking hard.

As the brakes are applied, the computer keeps receiving updates on wheel speed and controls braking pressure accordingly.

Remember: ABS does not change the time needed to get a foot up to the brake pedal or always decrease stopping distance. If you get too close to the vehicle in front of you, there will not be enough time to apply the brakes if that vehicle suddenly slows or stops. Always leave enough room up ahead to stop, even with ABS.

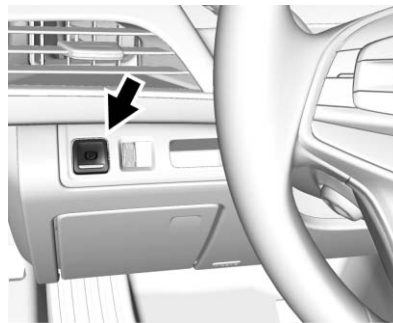
## Using ABS

Do not pump the brakes. Just hold the brake pedal down firmly and let ABS work. You may hear the ABS pump or motor operating and feel the brake pedal pulsate. This is normal.

## Braking in Emergencies

ABS allows you to steer and brake at the same time. In many emergencies, steering can help more than even the very best braking.

## Electric Parking Brake



The vehicle has an Electric Parking Brake (EPB). The EPB can always be activated, even if the ignition is off. To prevent draining the battery, avoid repeated cycles of the EPB system when the engine is not running.

The system has a (P) Electric Parking Brake light, and a (P) Service Parking Brake light. See *Electric Parking Brake Light* ⇨ 133 and *Service Electric Parking Brake Light* ⇨ 134.

Before leaving the vehicle, check for the (P) light to ensure that the parking brake is applied.

## EPB Apply

To apply the EPB:

1. Be sure the vehicle is at a complete stop.
2. Press the EPB switch momentarily.

The (P) light will flash and then stay on once the EPB is fully applied. If the (P) light flashes continuously, then the EPB is only partially applied or there is a problem with the EPB. A DIC message will display. Release

the EPB and try to apply it again. If the light does not come on, or keeps flashing, have the vehicle serviced. Do not drive the vehicle if the (P) light is flashing. See your dealer. See *Electric Parking Brake Light* ⇨ 133.

If the (P) light is on, press the EPB switch and hold it. Continue to hold the switch until the (P) light remains on. If the (P) light remains on, see your retailer.

If the EPB is applied while the vehicle is moving, the vehicle will decelerate as long as the switch is pressed. If the switch is pressed until the vehicle comes to a stop, the EPB will remain applied.

The vehicle may automatically apply the EPB in some situations when the vehicle is not moving. This is normal, and is done to periodically check the correct operation of the EPB system.

If the EPB fails to apply, block the rear wheels to prevent vehicle movement.

## EPB Release

To release the EPB:

1. Turn the ignition on or to ACC/ACCESSORY.
2. Apply and hold the brake pedal.
3. Press the EPB switch momentarily.

The EPB is released when the (P) light is off.

If the (P) light is on, release the EPB by pressing and holding the EPB switch. Continue to hold the switch until the (P) light is off. If either light stays on after release is attempted, see your dealer.

### Caution

Driving with the parking brake on can overheat the brake system and cause premature wear or damage to brake system parts. Make sure that the parking brake is fully released and the brake warning light is off before driving.

## Automatic EPB Release

The EPB will automatically release if the vehicle is running, placed into gear and an attempt is made to drive away. Avoid rapid acceleration when the EPB is applied, to preserve parking brake lining life.

## Brake Assist

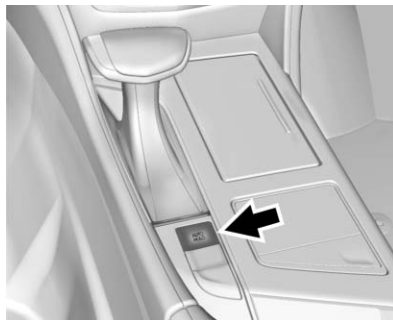
This vehicle has a brake assist feature designed to assist the driver in stopping or decreasing vehicle speed in emergency driving conditions. This feature uses the stability system hydraulic brake control module to supplement the power brake system under conditions where the driver has quickly and forcefully applied the brake pedal in an attempt to quickly stop or slow down the vehicle. The stability system hydraulic brake control module increases brake pressure at each corner of the vehicle until the ABS activates. Minor brake pedal pulsation or pedal movement during this time is normal and the driver should continue to apply the brake pedal as the driving situation dictates. The brake assist feature will

automatically disengage when the brake pedal is released or brake pedal pressure is quickly decreased.

## Hill Start Assist (HSA)

Hill Start Assist (HSA) may automatically activate when the vehicle is stopped on a hill and Automatic Vehicle Hold (AVH) is not enabled. This feature is designed to prevent the vehicle from rolling, either forward or rearward, during vehicle drive off. During the transition from releasing the brake pedal to accelerating to drive off on a hill, HSA holds the braking pressure to prevent rolling. HSA will not activate if the vehicle is in a drive gear and facing downhill or if the vehicle is facing uphill and in R (Reverse).

## Automatic Vehicle Hold (AVH)



Automatic Vehicle Hold (AVH), if equipped, can be turned on by pressing AUTO HOLD with the driver seat belt fastened, the driver door closed, and the engine running. The AVH indicator will come on.

This feature will activate when the vehicle is stopped to prevent it from moving. After the brake pedal has been released and before the accelerator pedal has been pressed, AVH uses braking pressure to hold the vehicle stationary. In addition, the ABS pump motor may activate to build brake pressure to maintain the vehicle at a standstill if necessary.

If AVH is holding the vehicle, the AVH indicator will change to green. Once AVH is active it will hold the vehicle for a defined time period then engage the parking brake. While AVH is holding the vehicle, the parking brake will engage if the driver door is opened or the driver seat belt is unfastened. See *Automatic Vehicle Hold (AVH) Light* ⇨ 134.

## Ride Control Systems

### Traction Control/Electronic Stability Control

#### System Operation

The vehicle has a Traction Control System (TCS) and StabiliTrak, an electronic stability control system. These systems help limit wheel spin and assist the driver in maintaining control, especially on slippery road conditions.

TCS activates if it senses that any of the drive wheels are spinning or beginning to lose traction. When this happens, TCS applies the brakes to the spinning wheels and reduces engine power to limit wheel spin.

StabiliTrak activates when the vehicle senses a difference between the intended path and the direction the vehicle is actually travelling. StabiliTrak selectively applies braking pressure to any one of the vehicle wheel brakes to assist the driver in keeping the vehicle on the intended path.

If cruise control is being used and traction control or StabiliTrak begins to limit wheel spin, cruise control will disengage. Cruise control may be turned back on when road conditions allow.


Both systems come on automatically when the vehicle is started and begins to move. The systems may be heard or felt while they are operating or while performing diagnostic checks. This is normal and does not mean there is a problem with the vehicle.


It is recommended to leave both systems on for normal driving conditions, but it may be necessary to turn TCS off if the vehicle gets stuck in sand, mud, ice, or snow. See *If the Vehicle Is Stuck* ⇨ 186 and “Turning the Systems Off and On” later in this section.




The indicator light for both systems is in the instrument cluster. This light will:

- Flash when TCS is limiting wheel spin
- Flash when StabiliTrak is activated
- Turn on and stay on when either system is not working

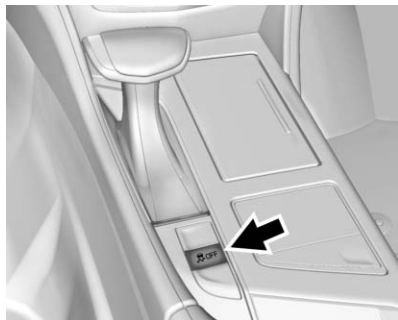
If either system fails to turn on or to activate, a message displays in the Driver Information Centre (DIC), and  comes on and stays on to indicate that the system is inactive and is not assisting the driver in maintaining control. The vehicle is safe to drive, but driving should be adjusted accordingly.

If  comes on and stays on:

1. Stop the vehicle.
2. Turn the engine off and wait 15 seconds.
3. Start the engine.
4. Drive the vehicle.



If  comes on and stays on, the vehicle may need more time to diagnose the problem. If the condition persists, see your dealer.



## Turning the Systems Off and On









### Caution

Do not repeatedly brake or accelerate heavily when TCS is off. The vehicle driveline could be damaged.

To turn off only TCS, press and release . The Traction Off light  displays in the instrument cluster and the appropriate DIC message displays.

To turn TCS on again, press and release . The Traction Off light  displayed in the instrument cluster will turn off.

To turn off both TCS and StabiliTrak, press and hold  until the Traction Off light  and StabiliTrak OFF light  come on and stay on in the instrument cluster. The appropriate DIC message displays.

To turn TCS and StabiliTrak on again, press and release . The Traction Off light  and StabiliTrak OFF light  in the instrument cluster turn off.

Adding accessories can affect vehicle performance. See *Accessories and Modifications* ⇨ 241.

## Driver Mode Control

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.



Press and release MODE to activate the mode menu in the instrument cluster. The first press of the button will show the current mode. Subsequent presses will scroll through the available modes. Select a new

setting whenever driving conditions change. The following modes are available:

### Tour Mode

Use for normal city and highway driving to provide a smooth, soft ride.

If the vehicle is equipped with AWD, the Tour Mode is in between the Sport and the Snow/Ice Modes for a more balanced feel.

### Sport Mode

Use where road conditions or personal preference demand a more controlled response.

When selected, the Sport Mode indicator light will display in the instrument cluster.

When in Sport Mode, the vehicle will shift automatically but may hold a lower gear longer than it would in the normal driving mode based on braking, throttle input, and vehicle lateral acceleration. See *Automatic Transmission* ⇨ 197. The steering, including Active Rear Steer (if equipped), will change to provide more precise control.

If the vehicle is equipped with AWD, Sport Mode sends more torque to the rear wheels.

### Snow/Ice Mode

Use when more traction is needed during slippery conditions. Snow/Ice Mode will use a different accelerator pedal map in order to optimise traction on slippery surfaces.

When selected, the Snow/Ice Mode indicator light will display in the instrument cluster.

This feature is not intended for use when the vehicle is stuck in sand, mud, ice, snow, or gravel. If the vehicle becomes stuck, see *If the Vehicle Is Stuck* ⇨ 186.

If the vehicle is equipped with AWD, Snow/Ice Mode will provide more torque to the front wheels.

## Cruise Control

### Warning

Cruise control can be dangerous where you cannot drive safely at a steady speed. Do not use cruise control on winding roads or in heavy traffic.

Cruise control can be dangerous on slippery roads. On such roads, fast changes in tyre traction can cause excessive wheel slip, and you could lose control. Do not use cruise control on slippery roads.

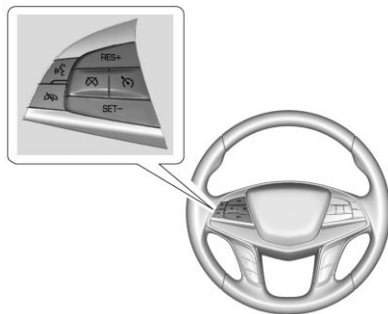
With cruise control, a speed of about 40 km/h (25 mph) or more can be maintained without keeping your foot on the accelerator. Cruise control does not work at speeds below about 40 km/h (25 mph).


If the Traction Control/electronic stability control system begins to limit wheel spin while using cruise control, the cruise control automatically disengages. See *Traction Control/Electronic Stability Control* ⇨ 204. If a

collision alert occurs when cruise control is activated, cruise control is disengaged. See *Forward Collision Alert (FCA) System* ⇨ 223. When road conditions allow cruise control to be safely used, it can be turned back on.

Cruise control will disengage if either TCS or StabiliTrak is turned off.


If the brakes are applied, cruise control disengages.



 : Press to turn the system on and off. A white indicator appears in the instrument cluster when cruise is turned on.



**RES+ :** If there is a set speed in memory, press briefly to resume to that speed or press and hold to accelerate. If the cruise control is already engaged, use to increase vehicle speed. To increase speed by 1 km/h (1 mph), press RES+ to the first detent. To increase speed to the next 5 km/h (5 mph) mark on the speedometer, press RES+ to the second detent.


**SET- :** Press briefly to set the speed and activate cruise control. If the cruise control is already engaged, use to decrease vehicle speed. To decrease speed by 1 km/h (1 mph), press SET- to the first detent. To decrease speed to the next 5 km/h (5 mph) mark on the speedometer, press SET- to the second detent.

 : Press to disengage cruise control without erasing the set speed from memory.

The speedometer reading can be displayed in either English or metric units. See *Instrument Cluster (Base Level)* ⇨ 119 or *Instrument Cluster (Uplevel)* ⇨ 122. The increment value used depends on the units displayed.


## Setting Cruise Control

If  is on when not in use, SET- or RES+ could get pressed and go into cruise when not desired. Keep  off when cruise is not being used.

1. Press .
2. Get up to the desired speed.
3. Press and release SET-. The desired set speed briefly appears in the instrument cluster.
4. Remove your foot from the accelerator.

When the cruise control has been set to the desired speed, a green cruise control indicator appears on the instrument cluster and a cruise set speed message appears on the Head-Up Display (HUD), if equipped.

## Resuming a Set Speed

If the cruise control is set at a desired speed and then the brakes are applied or  is pressed, the cruise control is disengaged without erasing the set speed from memory.

Once the vehicle speed reaches about 40 km/h (25 mph) or more, press RES+ briefly. The vehicle returns to the previous set speed.

### Increasing Speed While Using Cruise Control

Do one of the following:

- Press and hold RES+ until the desired speed is reached, then release it.
- To increase vehicle speed in small increments, briefly press RES+ to the first detent. For each press, the vehicle goes about 1 km/h (1 mph) faster.
- To increase vehicle speed in larger increments, briefly press RES+ to the second detent. For each press, the vehicle speed increases to the next 5 km/h (5 mph) mark on the speedometer.

### Reducing Speed While Using Cruise Control

Do one of the following:

- Press and hold SET- until the desired lower speed is reached, then release it.

- To decrease the vehicle speed in small increments, briefly press SET- to the first detent. For each press, the vehicle goes about 1 km/h (1 mph) slower.
- To decrease the vehicle speed in larger increments, briefly press SET- to the second detent. For each press, the vehicle speed decreases to the next 5 km/h (5 mph) mark on the speedometer.

The cruise control system may automatically brake to slow the vehicle down.

### Overtaking Another Vehicle While Using Cruise Control

Use the accelerator pedal to increase the vehicle speed. When you take your foot off the pedal, the vehicle will slow down to the previous set cruise speed.



While pressing the accelerator pedal or shortly following the release to override cruise, briefly applying SET- will result in cruise set to the current vehicle speed.

### Using Cruise Control on Hills


How well the cruise control will work on hills depends upon the vehicle speed, load, and the steepness of the hills. When going up steep hills, you might have to apply the accelerator pedal to maintain your speed. When going downhill, the cruise control system may automatically brake to slow the vehicle down. Also, you may have to brake or shift to a lower gear to keep your speed down. If the brake pedal is applied, cruise control disengages.

### Ending Cruise Control

There are four ways to end cruise control:

- Step lightly on the brake pedal.
- Press .
- Shift the transmission to N (Neutral).
- Press .

### Erasing Speed Memory

The cruise control set speed is erased from memory if  is pressed or if the ignition is turned off.

## Adaptive Cruise Control

If equipped with Adaptive Cruise Control (ACC), it allows for selecting the cruise control set speed and following gap. Read this entire section before using this system. ACC uses a camera and radar sensors to detect other vehicles. See *Declaration of Conformity* ⇨ 320. 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.

If a vehicle is detected in your path, ACC can speed up the vehicle or apply limited, moderate braking to maintain the selected following gap. To disengage ACC, apply the brake. If the Traction Control System (TCS) or StabiliTrak electronic stability control system activates while ACC is engaged, ACC may automatically disengage. See *Traction Control/Electronic Stability Control* ⇨ 204. When

road conditions allow ACC to be safely used, ACC can be turned back on. ACC will not engage if the TCS or StabiliTrak electronic stability control system is disabled.

### Warning

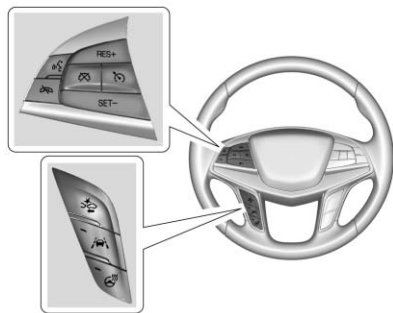
ACC has limited braking ability and may not have time to slow the vehicle down enough to avoid a collision with another vehicle you are following. This can occur when vehicles suddenly slow or stop ahead, or enter your lane. Also see “Alerting the Driver” in this section. Complete attention is always required while driving and you should be ready to take action and apply the brakes. See *Defensive Driving* ⇨ 181.


### Warning

ACC will not detect or brake for children, pedestrians, animals, or other objects.

Do not use ACC when:

- On winding and hilly roads or when the sensors are blocked by snow, ice, or dirt. The system may not detect a vehicle ahead. Keep the entire front of the vehicle clean.
- Visibility is low, such as in mist, rain, or snow conditions. ACC performance is limited under these conditions.
- On slippery roads where fast changes in tyre traction can cause excessive wheel slip.





 : Press to turn the system on or off. The indicator turns white on the instrument cluster when ACC is turned on.

**RES+ :** Press briefly to resume the previous set speed or to increase vehicle speed if ACC is already engaged. To increase speed by 1 km/h (1 mph), press RES+ to the first detent. To increase speed to the next 5 km/h (5 mph) mark on the speedometer, press RES+ to the second detent.

**SET- :** Press briefly to set the speed and activate ACC or to decrease vehicle speed if ACC is already


engaged. To decrease speed by 1 km/h (1 mph), press SET- to the first detent. To decrease speed to the next 5 km/h (5 mph) mark on the speedometer, press SET- to the second detent.

 : Press to disengage ACC without erasing the selected set speed.

 : Press to select a following gap time (or distance) setting for ACC of Far, Medium, or Near.

The speedometer reading can be displayed in either English or metric units. See *Instrument Cluster (Base Level)* ⇨ 119 or *Instrument Cluster (Uplevel)* ⇨ 122. The increment value used depends on the units displayed.

### Switching Between ACC and Regular Cruise Control


To switch between ACC and regular cruise control, press and hold . A Driver Information Display (DIC) message displays. See *Vehicle Messages* ⇨ 145.



ACC Indicator



Regular Cruise Control Indicator

When ACC is engaged, a green ACC indicator will be lit on the instrument cluster and the following gap will be displayed. When the regular cruise control is engaged, a green  indicator will be lit on the instrument cluster; the following gap will not display.

When the vehicle is turned on, the cruise control mode will be set to the last mode used before the vehicle was turned off.

### Warning



Always check the cruise control indicator on the instrument cluster to determine which mode cruise control is in before using the

{Continued}

**Warning (Continued)**

feature. If ACC is not active, the vehicle will not automatically brake for other vehicles, which could cause an accident if the brakes are not applied manually. You and others could be seriously injured or killed.


**Setting Adaptive Cruise Control**

If  is on when not in use, it could get pressed and go into ACC when not desired. Keep  off when cruise is not being used.

Select the set speed desired for ACC. This is the vehicle speed when no vehicle is detected in its path.

While the vehicle is moving, ACC will not set at a speed less than 25 km/h (15 mph), although it can be resumed when driving at lower speeds.

To set ACC while moving:

1. Press .
2. Get up to the desired speed.

3. Press and release SET-.
4. Remove your foot from the accelerator.

After ACC is set, it may immediately apply the brakes if a vehicle ahead is detected closer than the selected following gap.



ACC can also be set while the vehicle is stopped if ACC is on and the brake pedal is applied.

The ACC indicator displays on the instrument cluster and Head-Up Display (HUD), if equipped. When ACC is turned on, the indicator will be lit white. When ACC is engaged, the indicator will turn green.

Be mindful of speed limits, surrounding traffic speeds, and weather conditions when selecting the set speed.

**Resuming a Set Speed**

If ACC is set at a desired speed and then the brakes are applied, ACC is disengaged without erasing the set speed from memory.

To begin using ACC again, press RES+ up briefly.

- If the vehicle is moving, it returns to the previous set speed.
- If the vehicle is stopped with the brake pedal applied, press RES+ and release the brake pedal. ACC will hold the vehicle until RES+ or the accelerator pedal is pressed.

A green ACC indicator and the set speed display on the instrument cluster. The vehicle ahead indicator may be flashing if a vehicle ahead was present and moved. See "Approaching and Following a Vehicle" later in this section.

Once ACC has resumed, if there is no vehicle ahead, if the vehicle ahead is beyond the selected following gap, or if the vehicle has exited a sharp curve, then the vehicle speed will increase to the set speed.

### Increasing Speed While ACC Is at a Set Speed

Do one of the following:

- Use the accelerator to get to the higher speed. Press SET- and release the accelerator pedal. The vehicle will now cruise at the higher speed.

When the accelerator pedal is pressed, ACC will not brake because it is overridden.

A warning message will appear on the Driver Information Centre (DIC) and HUD. See *Vehicle Messages* ⇨ 145.

- Press and hold RES+ until the desired set speed is displayed, then release it.
- To increase speed in small increments, press RES+ to the first detent. For each press, the vehicle goes 1 km/h (1 mph) faster.
- To increase speed in larger increments, press RES+ to the second detent. For each press, the vehicle speed increases to the next 5 km/h (5 mph) mark on the speedometer.

The set speed can also be increased while the vehicle is stopped.

- If stopped with the brake applied, press RES+ until the desired set speed is displayed.
- If ACC is holding the vehicle at a stop and there is another vehicle directly ahead, pressing RES+ will increase the set speed. Pressing RES+ when there is no longer a vehicle ahead will cause ACC to resume.

### Reducing Speed While ACC Is at a Set Speed


Do one of the following:

- Use the brake to get to the desired lower speed. Release the brake and press SET- . The vehicle will now cruise at the lower speed.
- Press and hold SET- until the desired lower speed is reached, then release it.
- To decrease speed in smaller increments, press SET- to the first detent. For each press, the vehicle goes about 1 km/h (1 mph) slower.

- To decrease speed in larger increments, press SET- to the second detent. For each press, the vehicle speed decreases to the next 5 km/h (5 mph) mark on the speedometer.
- To decrease speed while the vehicle is stopped, press SET- until the desired set speed is displayed.

### Selecting the Follow Distance Gap

When a slower moving vehicle is detected ahead within the selected following gap, ACC will adjust the vehicle's speed and attempt to maintain the follow distance gap selected.

Press  on the steering wheel to adjust the following gap. Each press cycles the gap button through three settings: Far, Medium, or Near.

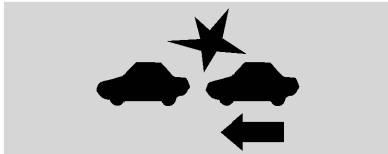
When pressed, the current gap setting displays briefly on the instrument cluster and HUD. The gap setting will be maintained until it is changed.

Since each gap setting corresponds to a following time (Far, Medium, or Near), the following distance will vary based on vehicle speed. The

faster the vehicle speed, the further back your vehicle will follow a vehicle detected ahead. Consider traffic and weather conditions when selecting the following gap. The range of selectable gaps may not be appropriate for all drivers and driving conditions.

Changing the gap setting automatically changes the alert timing sensitivity (Far, Medium, or Near) for the Forward Collision Alert (FCA) feature. See *Forward Collision Alert (FCA) System* ⇨ 223.

### Alerting the Driver



If ACC is engaged, driver action may be required when ACC cannot apply sufficient braking because of approaching a vehicle too rapidly.

When this condition occurs, the collision alert symbol on the HUD will flash on the windscreen. Either eight

beeps will sound from the front, or both sides of the Safety Alert Seat will pulse five times. See "Collision/Detection Systems" under *Vehicle Personalisation* ⇨ 146.

See *Defensive Driving* ⇨ 181.

### Approaching and Following a Vehicle



The vehicle ahead indicator is on the instrument cluster and HUD display. This indicator only displays when a vehicle is detected in your vehicle's path moving in the same direction.

If this indicator is not displaying, ACC will not respond to or brake for vehicles ahead.

ACC automatically slows the vehicle down and adjusts vehicle speed to follow the vehicle in front at the selected follow gap. The vehicle speed increases or decreases to follow the

vehicle in front of you, but will not exceed the set speed. It may apply limited braking, if necessary. When braking is active, the brake lamps will come on. The automatic braking may feel or sound different than if the brakes were applied manually. This is normal.

### Stationary or Very Slow-Moving Objects

#### **Warning**

ACC may not detect and react to stopped or slow-moving vehicles ahead of you. For example, the system may not brake for a vehicle it has never detected moving. This can occur in stop-and-go traffic or when a vehicle suddenly appears due to a vehicle ahead changing lanes. Your vehicle may not stop and could cause a crash. Use caution when using ACC. Your complete attention is always required while driving and you should be ready to take action and apply the brakes.

### ACC Automatically Disengages

ACC may automatically disengage and you will need to manually apply the brakes to slow the vehicle when:

- The sensors are blocked.
- The Traction Control System (TCS) or electronic stability control system has activated or been disabled.
- No traffic or other objects are being detected.
- There is a fault in the system.

The ACC indicator will turn white when ACC is no longer active.

In some cases, when ACC will not activate, regular Cruise Control may be used. See "Switching Between ACC and Regular Cruise Control" earlier in this section. Always consider driving conditions before using either cruise control system.

### Notification to Resume ACC

ACC will maintain a follow gap behind a detected vehicle and slow your vehicle to a stop behind that vehicle.

If the stopped vehicle ahead has driven away and ACC has not resumed, the vehicle ahead indicator will flash as a reminder to check traffic ahead before proceeding. In addition, the left and right sides of the Safety Alert Seat will pulse three times, or three beeps will sound. See "Alert Type" and "Adaptive Cruise Go Notifier" in "Collision/Detection Systems" under *Vehicle Personalisation* ⇨ 146.

When the vehicle ahead drives away, ACC resumes automatically if the stop was brief. If necessary, press RES+ or the accelerator pedal to resume ACC. If stopped for more than two minutes or if the driver door is opened and the driver seat belt is unfastened, the ACC automatically applies the Electric Parking Brake (EPB) to hold the vehicle. The EPB status light will turn on. See *Electric Parking Brake* ⇨ 201. To release the EPB, depress the accelerator pedal.

A DIC warning message may display indicating to shift to P (Park) before exiting the vehicle. See *Vehicle Messages* ⇨ 145.



### Warning

If ACC has stopped the vehicle, and if ACC is disengaged, turned off, or cancelled, the vehicle will no longer be held at a stop. The vehicle can move. When ACC is holding the vehicle at a stop, always be prepared to manually apply the brakes.



### Warning

Leaving the vehicle without placing it in P (Park) can be dangerous. Do not leave the vehicle while it is being held at a stop by ACC. Always place the vehicle in P (Park) and turn off the ignition before leaving the vehicle.

### ACC Override

If using the accelerator pedal while ACC is active, the ACC indicator turns blue on the instrument cluster and in the HUD (if equipped) to indicate that

automatic braking will not occur. ACC will resume operation when the accelerator pedal is not being pressed.

### **Warning**

The ACC will not automatically apply the brakes if your foot is resting on the accelerator pedal. You could crash into a vehicle ahead of you.

## **Bends in the Road**

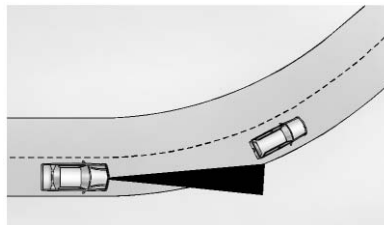
### **Warning**

On bends, ACC may not detect a vehicle ahead in your lane. You could be startled if the vehicle accelerates up to the set speed, especially when following a vehicle exiting or entering exit ramps. You could lose control of the vehicle or crash. Do not use ACC while driving on an entrance or exit ramp. Always be ready to use the brakes if necessary.

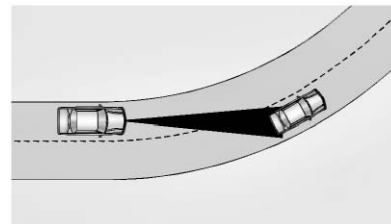
### **Warning**

On bends, ACC may respond to a vehicle in another lane, or may not have time to react to a vehicle in your lane. You could crash into a vehicle ahead of you, or lose control of your vehicle. Give extra attention in bends and be ready to use the brakes if necessary. Select an appropriate speed while driving in bends.

ACC may operate differently in a sharp bend. It may reduce the vehicle speed if the bend is too sharp.



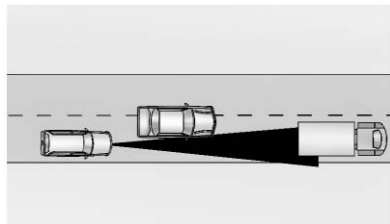
When following a vehicle and entering a bend, ACC may not detect the vehicle ahead and accelerate to the set speed. When this happens, the vehicle ahead indicator will not appear.



ACC may detect a vehicle that is not in your lane and apply the brakes.

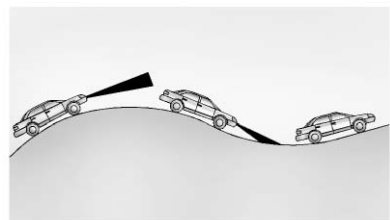
ACC may occasionally provide an alert and/or braking that is considered unnecessary. It could respond to vehicles in different lanes, signs, guardrails, and other stationary objects when entering or exiting a bend. This is normal operation. The vehicle does not need service.

## Other Vehicle Lane Changes



ACC will not detect a vehicle ahead until it is completely in the lane. The brakes may need to be manually applied.

## Do Not Use ACC on Hills and When Towing a Trailer





Do not use ACC when driving on steep hills or when towing a trailer. For towing capability, see *General Towing*


*Information* ⇨ 239. ACC will not detect a vehicle in the lane while driving on steep hills. The driver will often need to take over acceleration and braking on steep hills, especially when towing a trailer. If the brakes are applied, the ACC disengages.

## Disengaging ACC

There are three ways to disengage ACC:

- Step lightly on the brake pedal.
- Press .
- Press .

## Erasing Speed Memory

The ACC set speed is erased from memory if  is pressed or if the ignition is turned off.

## Cleaning the Sensing System

The camera sensor on the windscreen behind the rear-view mirror and the radar sensors on the front of the vehicle can become blocked by snow, ice, dirt, or mud. These areas need to be cleaned for ACC to operate properly.

If ACC will not operate, regular Cruise Control may be available. See "Switching Between ACC and Regular Cruise Control" earlier in this section. Always consider driving conditions before using either cruise control system.

For cleaning instructions, see "Washing the Vehicle" under *Exterior Care* ⇨ 295.

System operation may also be limited under snow, heavy rain, or road spray conditions.

## Driver Assistance Systems

This vehicle may have features that work together to help avoid crashes or reduce crash damage while driving, reversing, and parking. Read this entire section before using these 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. See *Defensive Driving* ⇨ 181.

Under many conditions, these systems will not:

- Detect children, pedestrians, bicyclists, or animals.

(Continued)

### **Warning (Continued)**

- Detect vehicles or objects outside the area monitored by the system.
- Work at all driving speeds.
- Warn you or provide you with enough time to avoid a crash.
- Work under poor visibility or bad weather conditions.
- Work if the detection sensor is not cleaned or is covered by ice, snow, mud, or dirt.
- Work if the detection sensor is covered up, such as with a sticker, magnet, or metal plate.
- Work if the area surrounding the detection sensor is damaged or not properly repaired.

Complete attention is always required while driving, and you should be ready to take action and apply the brakes and/or steer the vehicle to avoid crashes.

### **Audible or Safety Alert Seat**

Some driver assistance features alert the driver of obstacles by beeping. To change the volume of the warning chime, see “Comfort and Convenience” under *Vehicle Personalisation* ⇨ 146.

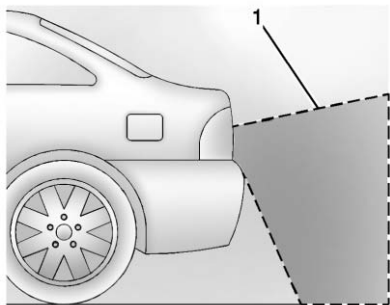
If equipped with the Safety Alert Seat, the driver seat cushion may provide a vibrating pulse alert instead of beeping. To change this, see “Collision/Detection Systems” under *Vehicle Personalisation* ⇨ 146.

### **Assistance Systems for Parking or Reversing**

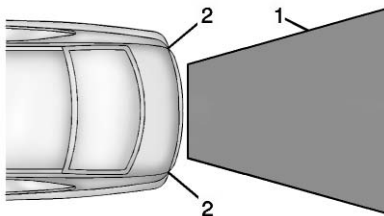
If equipped, the Rear Vision Camera (RVC), Rear Parking Assist (RPA), Front Parking Assist (FPA), Surround Vision, Front Vision Camera, Reverse Automatic Braking (RAB) and Reversing Warning System, Rear Cross Traffic Alert (RCTA), and Automatic Parking Assist (APA) may help the driver park or avoid objects. Always check around the vehicle when parking or backing.

### Rear Vision Camera (RVC)

When the vehicle is shifted into R (Reverse), the 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 (Reverse) after a short delay. To return to the previous screen sooner, press a button on the infotainment system, shift into P (Park), or reach a vehicle speed of 8 km/h (5 mph).



1. View Displayed by the Camera



1. View Displayed by the Camera
2. Corners of the Rear Bumper

Displayed images may be farther or closer than they appear. The area displayed is limited and objects that are close to either corner of the bumper or under the bumper do not display.

A warning triangle may display to show that RPA has detected an object. This triangle changes from amber to red and increases in size the closer the object.

### Surround Vision

If equipped, Surround Vision displays an image of the area surrounding the vehicle, along with the front or rear camera views in the infotainment

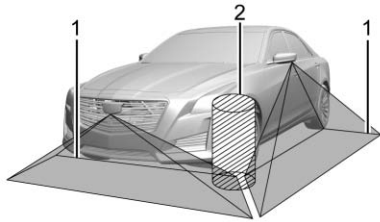
display. The front camera is in the grille or near the front emblem, the side cameras are on the bottom of the outside rearview mirrors, and the rear camera is above the number plate.

### Warning

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 surround view correctly. Always check around the vehicle when parking or backing.

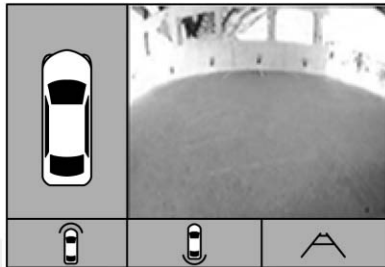


1. Views Displayed by the Surround Vision Cameras
2. Area Not Shown



1. Views Displayed by the Surround Vision Cameras
2. Area Not Shown

### Front Vision Camera



If equipped, a view of the area in front of the vehicle displays in the infotainment display. The view

displays after shifting from R (Reverse) to a forward gear, or by pressing CAMERA in the centre stack, and when the vehicle is moving forward slower than 8 km/h (5 mph). If equipped, the front view camera also displays when the Front Parking Assist system detects an object within 30 cm (12 in).

### Warning

The camera(s) do not display children, pedestrians, bicyclists, crossing traffic, animals, or any other object outside of the cameras' field of view, below the bumper, or under the vehicle. Shown distances may be different from actual distances. Do not drive or park the vehicle using only these camera(s). Always check behind and around the vehicle before driving. Failure to use proper care may result in injury, death, or vehicle damage.

### Parking Assist

With RPA, and if equipped with FPA, as the vehicle moves at speeds of less than 8 km/h (5 mph) the sensors on the bumpers may detect objects up to 2.5 m (8 ft) behind and 1.2 m (4 ft) in front of the vehicle within a zone 25 cm (10 in) high off the ground and below bumper level. These detection distances may be shorter during warmer or humid weather. Blocked sensors will not detect objects and can also cause false detections. Keep the sensors clean of mud, dirt, snow, ice, and slush; and clean sensors after a car wash in freezing temperatures.

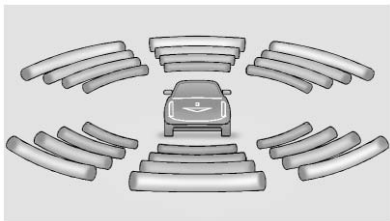
### Warning

The Parking Assist system does not detect children, pedestrians, bicyclists, animals, or objects located below the bumper or that are too close or too far from the vehicle. It is not available at speeds greater than 8 km/h (5 mph). To prevent injury, death or vehicle damage, even with Parking Assist,

(Continued)

**Warning (Continued)**

always check the area around the vehicle and check all mirrors before moving forward or reversing.



The instrument cluster may have a parking assist display with bars that show "distance to object" and object location information for the Parking Assist system. As the object gets closer, more bars light up and the bars change colour from yellow to amber to red.

When an object is first detected in the rear, one beep will be heard from the rear, or both sides of the Safety Alert Seat will pulse two times. When an object is very close ( $<0.6$  m (2 ft) in

the vehicle rear, or  $<0.3$  m (1 ft) in the vehicle front), five beeps will sound from the front or rear depending on object location, or both sides of the Safety Alert Seat will pulse five times. Beeps for FPA are higher pitched than for RPA.

**Backing Warning and Reverse Automatic Braking**

Vehicles with Adaptive Cruise Control (ACC) have the Reversing Warning System and Reverse Automatic Braking (RAB) system. The Reversing Warning part of this system can warn of rear objects when reversing up at speeds greater than 8 km/h (5 mph).

The Reversing Warning System will beep once from the rear when an object is first detected, or pulse twice on both sides of the Safety Alert Seat. When the system detects a potential crash, beeps will be heard from the rear, or five pulses will be felt on both sides of the Safety Alert Seat. There may also be a brief, sharp application of the brakes.

**Warning**

The Reversing Warning System only operates at speeds greater than 8 km/h (5 mph). It does not detect children, pedestrians, bicyclists, animals, or objects below the bumper or that are too close or too far from the vehicle. In some situations, such as at higher reversing speeds, there may not be enough time for the short, sharp application of the vehicle brake system to occur. To prevent injury, death, or vehicle damage, even with the Reversing Warning System, always check the area around the vehicle and check all mirrors before reversing.

When the vehicle is in R (Reverse), if the system detects the vehicle is reversing too fast to avoid a crash with a detected object behind your vehicle in your path, it may automatically brake hard to a stop to help avoid or reduce the harm caused by a reversing crash.

 **Warning**

RAB may not avoid many types of reversing crashes. Do not wait for the automatic braking to apply. This system is not designed to replace driver braking and only works in R (Reverse) when an object is detected directly behind the vehicle. It may not brake or stop in time to avoid a crash. It will not brake for objects when the vehicle is moving at very low speeds. It does not detect children, pedestrians, bicyclists, animals, or objects below the bumper or that are too close or too far from the vehicle. To prevent injury, death, or vehicle damage, even with RAB, always check the area around the vehicle before and while reversing.

Pressing the brake pedal after the vehicle comes to a stop will release RAB. If the brake pedal is not pressed soon after the stop, the Electric Parking Brake (EPB) may be set. When it is safe, press the accelerator pedal firmly at any time to override RAB.

 **Warning**

There may be instances where unexpected or undesired automatic braking occurs. If this happens, either press the brake pedal or firmly press the accelerator pedal to release the brakes from the RAB system. Before releasing the brakes, check the RVC screen and check the area around the vehicle to make sure it is safe to proceed.


**Rear Cross Traffic Alert (RCTA)**

If equipped, RCTA displays a red warning triangle with a left or right pointing arrow on the RVC screen to warn of traffic coming from the left or right. This system detects objects coming from up to 20 m (65 ft) from the left or right-hand side of the vehicle. When an object is detected, either 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 reversing 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.

See *Declaration of Conformity* ⇨ 320.

**Turning the Features On or Off**

Touch  on the faceplate to turn on or off the Front and Rear Parking Assist, Reverse Automatic Braking (RAB), Rear Cross Traffic Alert (RCTA), and the Backing Warning System at the same time. The indicator light next to the button comes on when the features are on and turns off when the features have been disabled.

Turn off parking assist, RCTA, and RAB when towing a trailer.

To turn the RPA symbols or guidance lines (on some models) on or off, see "Rear Camera" under *Vehicle Personalisation* ⇨ 146.

RCTA can also be turned on or off through vehicle personalisation. See "Collision/Detection Systems" under *Vehicle Personalisation* ⇨ 146.

## Automatic Parking Assist (APA)

If equipped, APA searches for and steers the vehicle into parallel and perpendicular parking spots. When using APA, you still have to change gear, while the system applies the brakes and accelerator. A display and audible beeps help to guide parking maneuvers.

Do not use APA when towing a trailer.


### Warning

APA may not detect objects in the parking space, objects that are soft or narrow, objects high off the ground such as flatbed trucks, objects below ground level such as large potholes, or moving objects (e.g. pedestrians). Always verify that the parking space is appropriate for parking a vehicle. APA does not respond to changes in the parking space, such as movement of an adjacent vehicle, or a person or object entering the parking space. APA does not detect or avoid traffic

(Continued)


### Warning (Continued)

that is behind or alongside of the vehicle. Always be prepared to stop the vehicle during the parking manoeuvre.

Touch  on the centre console to enable the system to search for a parking space that is large enough and within 1.5 m (5 ft) of the vehicle. The vehicle speed must be below 30 km/h (18 mph). The system cannot:

- Detect whether it is a legal parking space.
- Park exactly lined up with the vehicle next to it if the spot is approached at an angle or if the parking space is angled.
- Park exactly centred in a spot that is marked too large.
- Always detect short curbs.

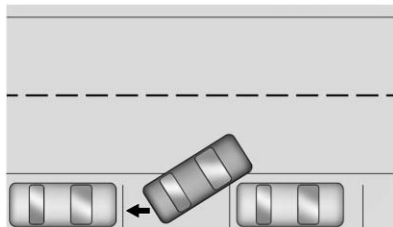
When enabled, APA searches for parallel parking spaces to the right of the vehicle. To search for a parking space to the left, turn on the left indicator or, if available, change the

side selection in the infotainment display. To switch the parking mode between parallel and perpendicular, touch and hold  during the search process or, if available, change the parking mode in the infotainment display.



After completely passing a large enough space, an audible beep occurs. A red stop symbol and a shift to reverse message are displayed.

If the vehicle is in R (Reverse), but does not steer into the expected space, this may be because the system is manoeuvring the vehicle into a previously detected space. The APA system does not need service.




APA will instruct the vehicle to stop once a large enough space is found. Follow the displayed instructions. Shift to R (Reverse) to engage automatic steering. The steering wheel will vibrate briefly as a reminder to remove hands from the steering wheel. APA uses idle speed and braking to park. If idle speed is not sufficient, gently press the accelerator. Check surroundings and be prepared to stop to avoid vehicles, pedestrians, or objects not detected by the system. If the driver brakes, APA will not disengage. Manual steering by the driver automatically disengages APA. The vehicle speed is limited during the parking manoeuvre, maximum 5 km/h (3 mph).

A progress arrow displays the status of the parking maneuver. Depending on the space size, additional manoeuvres may be required, and there will be additional instructions. When changing gears, allow the automatic steering to complete before continuing the parking manoeuvre. APA will beep and display a PARKING COMPLETE message. Apply the brakes and place the vehicle in P (Park).

APA may automatically disengage if:

- 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.
- The driver opens the door with an unfastened seat belt.

To cancel APA, touch  again.

### When the System Does Not Seem to Work Properly

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

### Assistance Systems for Driving

If equipped, when driving the vehicle in a forward gear, Forward Collision Alert (FCA), Lane Departure Warning (LDW), Lane Keep Assist (LKA), Side Blind Zone Alert (SBZA), Lane Change Alert (LCA), the Forward Automatic Braking (FAB) system, the Front Pedestrian Braking (FPB) system and/or the Night Vision system can help to avoid a crash or reduce crash damage.

### Forward Collision Alert (FCA) System

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 windscreen and rapidly beeps or

pulses the driver seat. FCA also lights an amber visual alert if following another vehicle much too closely.

FCA detects vehicles within a distance of approximately 60 m (197 ft) and operates at speeds above 8 km/h (5 mph). If the vehicle has Adaptive Cruise Control (ACC), it can detect vehicles to distances of approximately 110 m (360 ft) and operates at all speeds. See *Adaptive Cruise Control* ⇨ 209.

### **Warning**

FCA is a warning system and does not apply the brakes. When approaching a slower-moving or stopped vehicle ahead too rapidly, or when following a vehicle too closely, FCA may not provide a warning with enough time to help avoid a crash. It also may not provide any warning at all. FCA does not warn of pedestrians, animals, signs, crash barriers, bridges, construction barrels,

(Continued)

### **Warning (Continued)**

or other objects. Be ready to take action and apply the brakes. See *Defensive Driving* ⇨ 181.

FCA can be disabled with either the FCA steering wheel control or, if equipped, through vehicle personalisation. See "Collision/Detection Systems" under *Vehicle Personalisation* ⇨ 146.

### **Detecting the Vehicle Ahead**



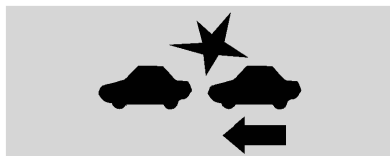
FCA warnings will not occur unless the FCA system detects a vehicle ahead. When a vehicle is detected, the vehicle ahead indicator will display green. Vehicles may not be detected on bends, motorway exit ramps, or hills, due to poor visibility; or if a vehicle ahead is partially blocked by

pedestrians or other objects. FCA will not detect another vehicle ahead until it is completely in the driving lane.

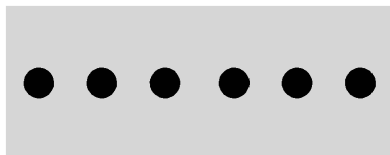
### **Warning**

FCA does not provide a warning to help avoid a crash, unless it detects a vehicle. FCA may not detect a vehicle ahead if the FCA sensor is blocked by dirt, snow, or ice, or if the windscreen is damaged. It may also not detect a vehicle on winding or hilly roads, or in conditions that can limit visibility such as fog, rain, or snow, or if the headlamps or windscreen are not cleaned or in proper condition. Keep the windscreen, headlamps, and FCA sensors clean and in good repair.

## Collision Alert



With Head-Up Display



Without Head-Up Display

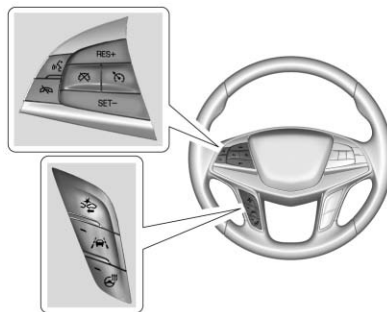
When your vehicle approaches another detected vehicle too rapidly, the red FCA display will flash on the windscreen. Also, eight rapid high-pitched beeps will sound from the front, or both sides of the Safety Alert Seat will pulse five times. When this Collision Alert occurs, the brake system may prepare for driver braking to occur more rapidly which can cause a brief, mild deceleration. Continue to apply the brake pedal as needed. Cruise control may be disengaged when the Collision Alert occurs.


## Tailgating Alert



The vehicle ahead indicator will display amber when you are following a vehicle ahead much too closely.

## Selecting the Alert Timing



The Collision Alert control is on the steering wheel. Press  to set the FCA timing to Far, Medium, or Near, or on some vehicles, Off. The first

button press shows the current setting on the DIC. Additional button presses will change this setting. The chosen setting will remain until it is changed and will affect the timing of both the Collision Alert and the Tailgating Alert features. The timing of both alerts will vary based on vehicle speed. The faster the vehicle speed, the farther away the alert will occur. Consider traffic and weather conditions when selecting the alert timing. The range of selectable alert timings may not be appropriate for all drivers and driving conditions.

If your vehicle is equipped with Adaptive Cruise Control (ACC), changing the FCA timing setting automatically changes the following gap setting (Far, Medium, or Near).

## Following Distance Indicator

The following distance to a moving vehicle ahead in your path is indicated in following time in seconds on the Driver Information Center (DIC). See *Driver Information Centre (DIC)* ⇨ 140. The minimum following time is 0.5 seconds away. If there is no vehicle

detected ahead, or the vehicle ahead is out of sensor range, dashes will be displayed.

### Unnecessary Alerts

FCA may provide unnecessary alerts for turning vehicles, vehicles in other lanes, objects that are not vehicles, or shadows. These alerts are normal operation and the vehicle does not need service.

### Cleaning the System

If the FCA system does not seem to operate properly, cleaning the outside of the windscreen in front of the rear-view mirror, and cleaning the front of the vehicle where radar sensors are located, may correct the issue.

## Forward Automatic Braking (FAB)

If the vehicle has Forward Collision Alert (FCA), it also has FAB, which includes Intelligent Brake Assist (IBA). When the system detects a vehicle ahead in your path that is travelling 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 lit. See *Forward Collision Alert (FCA) System* ⇨ 223.

The system works when driving in a forward gear between 8 km/h (5 mph) and 80 km/h (50 mph), or on vehicles with Adaptive Cruise Control (ACC), above 4 km/h (2 mph). It can detect vehicles up to approximately 60 m (197 ft).

### Warning

FAB is an emergency crash preparation feature and is not designed to avoid crashes. Do not rely on FAB to brake the vehicle.

(Continued)

### Warning (Continued)

FAB will not brake outside of its operating speed range and only responds to detected vehicles.

FAB may not:

- Detect a vehicle ahead on winding or hilly roads.
- Detect all vehicles, especially vehicles with a trailer, tractors, muddy vehicles, etc.
- Detect a vehicle when weather limits visibility, such as in fog, rain, or snow.
- Detect a vehicle ahead if it is partially blocked by pedestrians or other objects.

Complete attention is always required while driving, and you should be ready to take action and apply the brakes and/or steer the vehicle to avoid crashes.

FAB may slow the vehicle to a complete stop to try to avoid a potential crash. If this happens, FAB

may engage the Electric Parking Brake (EPB) to hold the vehicle at a stop. Release the EPB or firmly press the accelerator pedal.

### **Warning**

FAB may automatically brake the vehicle suddenly in situations where it is unexpected and undesired. It could respond to a turning vehicle ahead, guardrails, signs, and other non-moving objects. To override FAB, firmly press the accelerator pedal, if it is safe to do so.

## **Intelligent Brake Assist (IBA)**

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.

### **Warning**

IBA may increase vehicle braking in situations when it may not be necessary. You could block the flow of traffic. If this occurs, take your foot off the brake pedal and then apply the brakes as needed.

FAB and IBA can be disabled through vehicle personalisation. See “Collision/Detection Systems” under *Vehicle Personalisation* ⇨ 146.

### **Warning**

Using FAB or IBA while towing a trailer could cause you to lose control of the vehicle and crash. Turn the system to Alert, or if the vehicle has ACC to Off, when towing a trailer.


A system unavailable message may display if:

- The front of the vehicle or windscreen is not clean.


- Heavy rain or snow is interfering with object detection.
- There is a problem with the StabiliTrak system.

The FAB system does not need service.

## **Front Pedestrian Braking (FPB) System**

If equipped, the 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 windscreen 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. See *Forward Automatic Braking (FAB)* ⇨ 226.

The FPB system can detect and alert to pedestrians in a forward gear at speeds between 8 km/h (5 mph) and 80 km/h (50 mph). During daytime driving, the system detects pedestrians up to a distance of approximately 40 m (131 ft). During night-time driving, system performance is very limited. If the vehicle is equipped with the Night Vision system, during night-time driving, the vehicle can detect and alert to pedestrians whenever in a forward gear.

 **Warning**

FPB does not provide an alert or automatically brake the vehicle, unless it detects a pedestrian. FPB may not detect pedestrians, including children:

- When the pedestrian is not directly ahead, fully visible, or standing upright, or when part of a group.

[Continued]

**Warning (Continued)**

- Due to poor visibility, including night-time conditions, mist, rain, or snow.
- If the FPB sensor is blocked by dirt, snow, or ice.
- If the headlights or windscreen are not cleaned or in proper condition.

Be ready to take action and apply the brakes. For more information, see *Defensive Driving* ⇨ 181. Keep the windscreen, headlights, and FPB sensor clean and in good repair.

FPB can be set to Off, Alert, or Alert & Brake through vehicle personalisation. See “Front Pedestrian Detection” in “Collision/Detection Systems” under *Vehicle Personalisation* ⇨ 146.

**Detecting the Pedestrian Ahead**

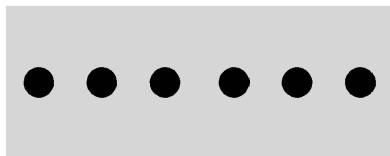


FPB alerts and automatic braking will not occur unless the FPB system detects a pedestrian. When a nearby pedestrian is detected directly in front of the vehicle, the pedestrian ahead indicator will display amber.

**Front Pedestrian Alert**



With Head-Up Display



Without Head-Up Display

When the vehicle approaches a pedestrian ahead too rapidly, the red FPB alert display will flash on the windscreen. Eight rapid high-pitched beeps will sound from the front, or both sides of the Safety Alert Seat will pulse five times. When this Pedestrian Alert occurs, the brake system may prepare for driver braking to occur more rapidly which can cause a brief, mild deceleration. Continue to apply the brake pedal as needed. Cruise control may be disengaged when the Front Pedestrian Alert occurs.

### Automatic Braking

If FPB detects it is about to crash into a pedestrian directly ahead, and the brakes have not been applied, FPB may automatically brake moderately or brake hard. This can help to avoid some very low speed pedestrian

crashes or reduce pedestrian injury. FPB can automatically brake to detected pedestrians between 8 km/h (5 mph) and 80 km/h (50 mph). Automatic braking levels may be reduced under certain conditions, such as higher speeds. If also equipped with the Night Vision system, pedestrians detected by the Night Vision system will not cause automatic braking to occur.

If this happens, Automatic Braking may engage the Electric Parking Brake (EPB) to hold the vehicle at a stop. Release the EPB. A firm press of the accelerator pedal will also release Automatic Braking and the EPB.

### Warning

FPB may alert or automatically brake the vehicle suddenly in situations where it is unexpected and undesired. It could falsely alert or brake for objects similar in shape or size to pedestrians, including shadows. This is normal operation and the vehicle does not need

(Continued)

### Warning (Continued)

service. To override Automatic Braking, firmly press the accelerator pedal, if it is safe to do so.

Automatic Braking can be disabled through vehicle personalisation. See “Front Pedestrian Detection” in “Collision/Detection Systems” under *Vehicle Personalisation* ⇨ 146.

### Warning

Using the Front Pedestrian Braking system while towing a trailer could cause you to lose control of the vehicle and crash. Turn the system to Alert or Off when towing a trailer.

### Cleaning the System

If FPB does not seem to operate properly, cleaning the outside of the windscreen in front of the rear-view mirror may correct the issue.

## Night Vision System

If equipped, this system can help the driver see and alert the driver to pedestrians or large animals ahead of the vehicle beyond the area lit by the headlights. A thermal heat image of the view ahead is displayed when it is dark enough outside. If a pedestrian or large animal is detected more than 25 m (82 ft) away, an amber pedestrian or animal icon displays and a box appears around the pedestrian or animal. When the system detects that the vehicle is approaching a pedestrian ahead much too quickly, the box changes to red.

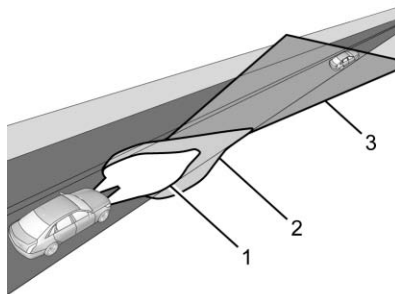


With the Front Pedestrian Braking system turned on, Night Vision provides a red Head-Up Display (HUD) alert when the system detects that the

vehicle is approaching a pedestrian ahead much too quickly. In addition, an alert beeps or the Safety Alert Seat pulses, if equipped. See *Front Pedestrian Braking (FPB) System* ⇨ 227.

### Warning

The system does not detect all objects or the vehicle distance from objects. The system may not provide a warning with enough time to help avoid a crash.



1. Dipped Beam Headlights
2. Main Beam Headlights

### 3. Night Vision System

By selecting a view on the instrument cluster, the Night Vision image can be displayed. See *Instrument Cluster (Base Level)* ⇨ 119 or *Instrument Cluster (Uplevel)* ⇨ 122. The Night Vision system can operate only if:

- The ignition is on.
- The vehicle is in P (Park) or a forward gear.
- It is dark enough outside.
- The headlights are on.




Adjust the instrument panel brightness to make the image no brighter than necessary. Turn the image off by selecting another view on the instrument cluster.

Warm objects, such as pedestrians, animals, and other moving vehicles, should appear whiter on the Night Vision display. Cold objects, such as the sky, signs, and parked vehicles, should appear darker. Night Vision only shows objects that are warmer or colder than the surroundings. It does not detect brake lamps, indicator signals, hazard warning lights, traffic lights, or sign information.

Use this system as an aid by occasionally glancing at the image. Do not stare at the image or use the image under well-lit conditions.

### **Warning**

Do not stare at the image while driving as this might cause important objects ahead not to be seen. You could crash, and you or others could be injured.

When a pedestrian or large animal is detected, an amber box displays around the pedestrian or animal on the Night Vision display and an amber pedestrian icon, , or animal icon, , displays on the instrument cluster. This pedestrian icon is also shown on the Head-Up Display (HUD). When the system detects the vehicle is approaching a pedestrian much too quickly, the amber box turns red, and a red flashing icon, , displays on the HUD with rapid beeping or pulsing of the Safety Alert Seat, if equipped.

System pedestrian icons, beeps, and (if equipped) Safety Alert Seat pulses can be set to Off through vehicle personalisation by turning off the Front Pedestrian Braking system. See “Front Pedestrian Detection” in “Collision/Detection Systems” under *Vehicle Personalisation* ⇨ 146.

### **Warning**

The Night Vision system does not automatically brake the vehicle. It does not provide alerts unless it detects a pedestrian or large animal. The system may not detect pedestrians, including children, or animals:


- If they are less than 25 m (82 ft) away.
- If they are not directly ahead in the sensor coverage area, fully visible, standing upright, or part of a group.

(Continued)

### **Warning (Continued)**

- If the pedestrian or animal is moving too quickly through the field of view, such as a bicyclist.
- If the pedestrian is wearing certain types of clothing.
- If headlights are off, except when parked.
- If the outside temperature is higher than 30 °C (86 °F).
- Due to poor visibility, including in heavy mist, rain, or snow.
- If the sensor is blocked by dirt, snow, rain, or ice.

Be ready to take action and apply the brakes. For more information, see *Defensive Driving* ⇨ 181. Keep the Night Vision sensor clean and in good repair.

Pedestrian detection may not be available in high outside temperatures. An amber icon, , displays. The system does not need service.

In rain, snow, or mist the image may not be clear and the direction of the road ahead may not be seen. In more severe weather conditions, the image may be unclear and unusable. The system does not need service.

Keep the system sensor clean by activating the windscreen washer up to five times when it is dark enough for the system to operate. If the Night Vision image still looks blurry, use a soft wet cloth to gently clean the sensor camera lens and dry thoroughly. The sensor is behind the front grille to the inside of the driver side headlight.

The camera must also be aligned to work correctly. If the camera needs adjustment, see your retailer. Do not attempt to adjust the camera yourself.

## Side Blind Zone Alert (SBZA)

If equipped, the 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 indicator is activated and a vehicle is also detected on the same side, the display will flash as an extra warning not to change lanes. Since this system is part of the Lane Change Alert (LCA) system, read the entire LCA section before using this feature.

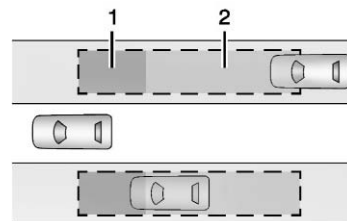
## Lane Change Alert (LCA)

If equipped, the 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 indicator is on.

## Warning

LCA does not alert the driver to vehicles outside of the system detection zones, pedestrians, bicyclists, or animals. It may not provide alerts when changing lanes under all driving conditions. Failure to use proper care when changing lanes may result in injury, death, or vehicle damage. Before making a lane change, always check mirrors, glance over your shoulder, and use the indicators.

## LCA Detection Zones



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 3.5 m (11 ft). The height of the zone is approximately between 0.5 m (1.5 ft) and 2 m (6 ft) off the ground. The Side Blind Zone Alert (SBZA) warning area starts at approximately the middle of the vehicle and goes back 5 m (16 ft). Drivers are also warned of vehicles rapidly approaching this area up to approximately 70 m (230 ft) behind the vehicle.

### How the System Works

The LCA symbol lights up in the side mirrors when the system detects a moving vehicle in the next lane over that is in the side blind zone or rapidly approaching from behind. This indicates it may be unsafe to change lanes. Before making a lane change, check the LCA display, check mirrors, glance over your shoulder, and use the indicators.



Left Side Mirror  
Display

Right Side Mirror  
Display

When the vehicle is started, both outside mirror LCA displays will briefly come on to indicate the system is operating. 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 the next lane over in that blind zone or rapidly approaching that zone. If the indicator is activated in the same direction of a detected vehicle, this display will flash as an extra warning not to change lanes.

LCA can be disabled through vehicle personalisation using the Side Blind Zone Alert option. See “Collision/ Detection Systems” under *Vehicle Personalisation* ⇨ 146. If LCA is disabled by the driver, the LCA mirror displays will not light up.

### 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 driven on a straight motorway with traffic and roadside objects (e.g., guardrails, barriers).

LCA displays may not come on when passing a vehicle quickly, for a stopped vehicle, 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; the vehicle does not need service.

LCA may not always alert the driver to vehicles in the next lane over, especially in wet conditions or when driving on sharp curves. The system

does not need to be serviced. The system may light up due to guardrails, signs, trees, shrubs, and other non-moving objects. This is normal system operation; the vehicle does not need service.

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* ⇨ 295. 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 light up when moving vehicles are in the blind zone or are rapidly approaching that zone and the system is clean, the system may need service. Take the vehicle to your dealer.

## Lane Departure Warning (LDW)

If equipped, 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 indicator in the lane departure direction. Since this system is part of the Lane Keep Assist (LKA) system, read the entire LKA section before using this feature.

## Lane Keep Assist (LKA)

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 indicator 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 60 km/h (37 mph) and 180 km/h (112 mph).

### **Warning**

The LKA system does not continuously steer the vehicle. It may not keep the vehicle in the lane or give a Lane Departure Warning (LDW) alert, even if a lane marking is detected.

The LKA and LDW systems may not:

- Provide an alert or enough steering assist to avoid a lane departure or crash.
- Detect lane markings under poor weather or visibility conditions. This can occur if the windscreen or headlights are blocked by dirt, snow, or ice, if they are not in proper condition, or if the sun shines directly into the camera.
- Detect road edges.

(Continued)

**Warning (Continued)**

- Detect lanes on winding or hilly roads.


If LKA only detects lane markings on one side of the road, it will only assist or provide an LDW alert when approaching the lane on the side where it has detected a lane marking. Even with LKA and LDW, you must steer the vehicle. Always keep your attention on the road and maintain proper vehicle position within the lane, or vehicle damage, injury or death could occur. Always keep the windscreen, headlamps and camera sensors clean and in good repair. Do not use LKA in bad weather conditions.




**Warning**

Using LKA while towing a trailer or on slippery roads could cause loss of control of the vehicle and a crash. Turn the system off.

**How the System Works**

The LKA camera sensor is on the windscreen ahead of the rear-view mirror.

To turn LKA on and off, press  on the steering wheel.

When on,  is green if LKA is available to assist and provide LDW alerts. It may assist by gently turning the steering wheel and display  as amber if the vehicle approaches a detected lane marking without using a indicator in that direction. It may also provide an LDW alert by flashing  amber as the lane marking is crossed. Additionally, there may be three beeps, or the driver seat may pulse three times, on the right or left, depending on the lane departure direction.

**Take Steering**

The LKA system does not continuously steer the vehicle. If LKA does not detect active driver steering, an alert, chime, or DIC message may be provided. Move the steering wheel to dismiss.

**When the System Does Not Seem to Work Properly**

The system performance may be affected by:

- 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 windscreen may help.

A system unavailable message may display if the camera is blocked. The LKA system does not need service.

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.

## Fuel

Use the recommended fuel for proper vehicle maintenance.

Use unleaded petrol with a posted octane rating of 95 RON or higher. If the octane is less than 95 RON, the engine could be damaged and repairs would not be covered by the vehicle warranty. If heavy knocking is heard when using petrol rated at 95 RON octane, the engine needs service.

### Caution

Do not use fuels with any of the following conditions; doing so may damage the vehicle and void its warranty:

- Fuel with any amount of methanol, methylal, and aniline. These fuels can corrode metal fuel system parts or damage plastic and rubber parts.

(Continued)

### Caution (Continued)

- Fuel containing metals such as methylcyclopentadienyl manganese tricarbonyl (MMT), which can damage the emissions control system and spark plugs.
- Fuel with a posted octane rating of less than the recommended fuel. Using this fuel will lower fuel economy and performance, and may decrease the life of the emissions catalyst.

## Fuel Additives

Petrol should contain detergent additives that help prevent engine and fuel system deposits from forming. Clean fuel injectors and intake valves will allow the emission control system to work properly. Some petrol does not contain sufficient quantities of additives to keep fuel injectors and intake valves clean. To make up for this lack of detergency, consult your retailer for the GM approved additive

treatment. Add this additive to the fuel tank at every engine oil change or every 15,000 km (9,000 mi), whichever occurs first.

## Filling the Tank



### Warning

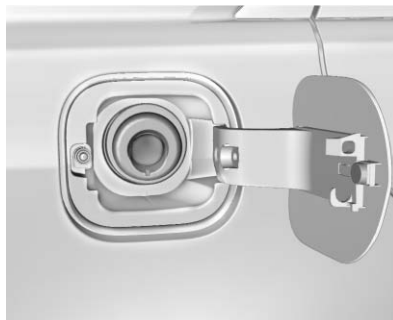
Fuel vapours and fuel fires burn violently and can cause injury or death.


- To help avoid injuries to you and others, read and follow all the instructions on the fuel pump island.
- Turn off the engine when refuelling.
- Keep sparks, flames, and smoking materials away from fuel.
- Do not leave the fuel pump unattended.
- Do not use a mobile phone while refuelling.

(Continued)

**Warning (Continued)**

- Do not reenter the vehicle while pumping fuel.
- Keep children away from the fuel pump and never let children pump fuel.
- Fuel can spray out if the refuelling nozzle is inserted too quickly. This spray can happen if the tank is nearly full, and is more likely in hot weather. Insert the refuelling nozzle slowly and wait for any hiss noise to stop prior to beginning to flow fuel.



To open the fuel filler flap, push and release the rearward centre edge of the flap. The fuel door is locked when the vehicle doors are locked. Press  on the RKE transmitter to unlock.

The vehicle has a capless refuelling system and does not have a fuel cap. The filling nozzle must be fully inserted and latched prior to starting fuel flow.

**Warning**

Overfilling the fuel tank by more than three clicks of a standard fill nozzle may cause:

- Vehicle performance issues, including engine stalling and damage to the fuel system.
- Fuel spills.
- Potential fuel fires.

Be careful not to spill fuel. Wait a few seconds after you have finished pumping before removing the nozzle. Clean fuel from painted surfaces as soon as possible. See *Exterior Care* ⇨ 295.

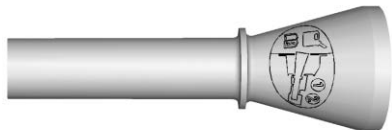
**Warning**

If a fire starts while you are refuelling, do not remove the nozzle. Shut off the flow of fuel by shutting off the pump or by notifying the station attendant. Leave the area immediately.

When replacing the fuel cap, turn it clockwise until it clicks. Make sure the cap is fully installed.

### Filling the Tank with a Portable Fuel Can

If the vehicle runs out of fuel and must be filled from a portable petrol can:



1. Locate the capless funnel adapter from under the carpet in the boot.
2. Insert and latch the funnel into the capless fuel system.

#### Warning

Attempting to refuel without using the funnel adapter may cause fuel spillage and damage the capless fuel system. This could cause a fire

(Continued)

#### Warning (Continued)

and you or others could be badly burned and the vehicle could be damaged.

3. Remove and clean the funnel adapter and return to the storage location.

### Filling a Portable Fuel Container

#### Warning

Filling a portable fuel container while it is in the vehicle can cause fuel vapours that can ignite either by static electricity or other means. You or others could be badly burned and the vehicle could be damaged. Always:

- Use approved fuel containers.
- Remove the container from the vehicle, boot, or pickup bed before filling.

(Continued)

#### Warning (Continued)

- Place the container on the ground.
- Place the nozzle inside the fill opening of the container before dispensing fuel, and keep it in contact with the fill opening until filling is complete.
- Fill the container no more than 95% full to allow for expansion.
- Do not smoke, light matches, or use lighters while pumping fuel.
- Avoid using mobile phones or other electronic devices.

## Trailer Towing

### General Towing Information

The vehicle is neither designed nor intended to tow a trailer.

## Conversions and Add-Ons

### Add-On Electrical Equipment

#### **Warning**

The Data Link Connector (DLC) is used for vehicle service and Emission Inspection/Maintenance testing. See *Malfunction Indicator Lamp (Check Engine Light)* ⇨ 131. A device connected to the DLC — such as an aftermarket fleet or driver-behaviour tracking device — may interfere with vehicle systems. This could affect vehicle operation and cause a crash. Such devices may also access information stored in the vehicle's systems.

#### **Caution**

Some electrical equipment can damage the vehicle or cause components not to work and would not be covered by the vehicle warranty. Always check with your dealer before adding electrical equipment.

Add-on equipment can drain the vehicle's 12-volt battery, even if the vehicle is not operating.

The vehicle has an airbag system. Before attempting to add anything electrical to the vehicle, see *Servicing the Airbag-Equipped Vehicle* ⇨ 85 and *Adding Equipment to the Airbag-Equipped Vehicle* ⇨ 85.

# Vehicle Care

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## General Information

For service and parts needs, visit your dealer. You will receive genuine parts and trained and supported service people.

## Accessories and Modifications

Adding non-dealer accessories or making modifications to the vehicle can affect vehicle performance and safety, including such things as airbags, braking, stability, ride and handling, emissions systems, aerodynamics, durability, and electronic systems like anti-lock brakes, traction control, and stability control. These accessories or modifications could even cause malfunction or damage not covered by the vehicle warranty.

Damage to suspension components caused by modifying vehicle height outside of factory settings will not be covered by the vehicle warranty.

Damage to vehicle components resulting from modifications or the installation or use of non-GM certified parts, including control module or software modifications, is not covered under the terms of the vehicle warranty and may affect remaining warranty coverage for affected parts.

GM Accessories are designed to complement and function with other systems on the vehicle. See your dealer to accessorise the vehicle using genuine GM Accessories installed by a dealer technician.

Also, see *Adding Equipment to the Airbag-Equipped Vehicle* ⇨ 85.

## Vehicle Checks

### Doing Your Own Service Work

#### Warning

It can be dangerous to work on your vehicle if you do not have the proper knowledge, service manual, tools, or parts. Always follow owner's manual procedures and consult the service manual for your vehicle before doing any service work.

If doing some of your own service work, use the proper service manual. It tells you much more about how to service the vehicle than this manual can.

This vehicle has an airbag system. Before attempting to do your own service work, see *Servicing the Airbag-Equipped Vehicle* ⇨ 85.

Keep a record with all parts receipts and list the mileage and the date of any service work performed.

**Caution**

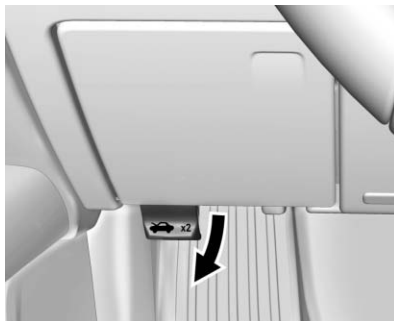
Even small amounts of contamination can cause damage to vehicle systems. Do not allow contaminants to contact the fluids, reservoir caps, or dipsticks.

**Bonnet** **Warning**

Gas struts and other metal components under the bonnet can get hot after running the engine. Do not touch these components as they can burn unprotected skin and could cause serious injury.

Clear any snow from the bonnet before opening.

To open the bonnet:



1. Pull the bonnet release handle. It is on the lower left side of the instrument panel between the door and the steering wheel.
2. Release the handle, then pull the handle again to fully open the bonnet.
3. Go to the front of the vehicle and lift the bonnet open.

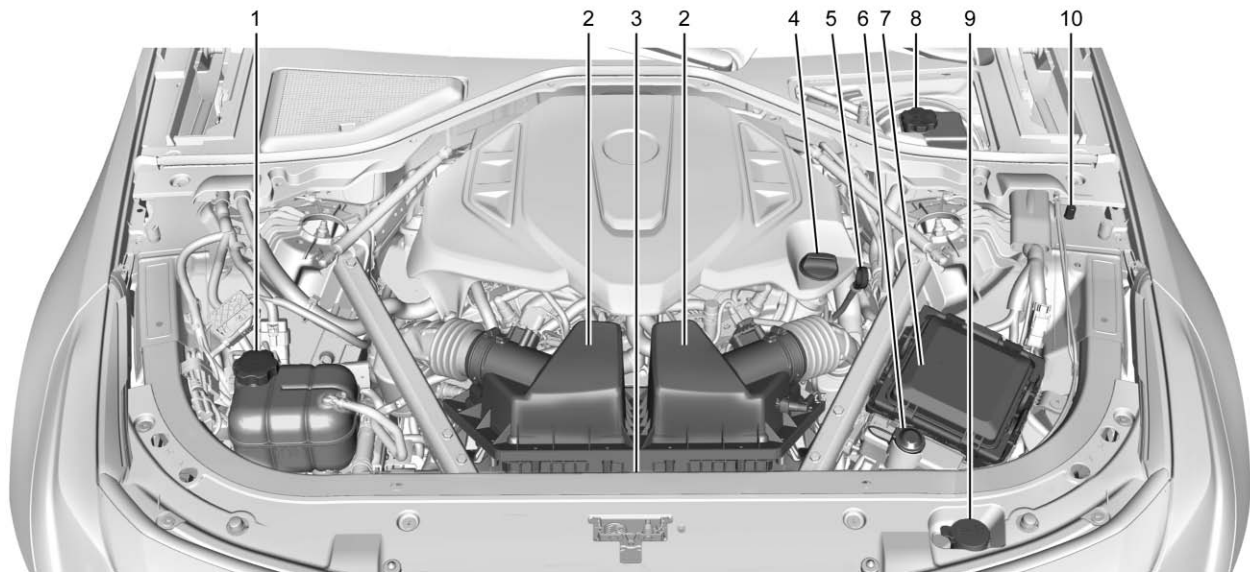
**Caution**

Be sure the bonnet is completely closed before driving. Damage may occur if it is not.

To close the bonnet:

1. Before closing the bonnet, be sure all filler caps are properly installed.
2. Lower the bonnet approximately 46 cm (18 in) from the closed position.
3. Then push the front centre of the bonnet with a swift, firm motion.
4. Check to make sure the bonnet is closed. If not, release the bonnet from inside and repeat Steps 1–3.

## Engine Compartment Overview



1. Engine Coolant Surge Tank and Pressure Cap. See *Cooling System* ⇨ 248.
2. *Engine Air Cleaner/Filter* ⇨ 247.
3. Engine Cooling Fan (Out of View). See *Cooling System* ⇨ 248.
4. Engine Oil Fill Cap. See *Engine Oil* ⇨ 244.
5. Engine Oil Dipstick. See *Engine Oil* ⇨ 244.
6. Remote Positive (+) Battery Terminal. See *Jump Starting* ⇨ 289.
7. *Engine Compartment Fuse Block* ⇨ 261.
8. Brake Fluid Reservoir. See *Brake Fluid* ⇨ 253.
9. Windscreen Washer Fluid Reservoir. See *Washer Fluid* ⇨ 252.
10. Remote Negative (-) Battery Terminal. See *Jump Starting* ⇨ 289.

## Engine Oil

To ensure proper engine performance and long life, careful attention must be paid to engine oil. Following these simple, but important steps will help protect your investment:

- Use engine oil approved to the proper specification and of the proper viscosity grade. See “Selecting the Right Engine Oil” in this section.
- Check the engine oil level regularly and maintain the proper oil level. See “Checking Engine Oil” and “When to Add Engine Oil” later in this section.
- Change the engine oil at the appropriate time. See *Engine Oil Life System* ⇨ 246.
- Always dispose of engine oil properly. See “What to Do with Used Oil” in this section.

## Checking Engine Oil

Check the engine oil level regularly, every 650 km (400 mi), especially prior to a long trip. The engine oil

dipstick handle is a loop. See *Engine Compartment Overview* ⇨ 243 for the location.



### Warning

The engine oil dipstick handle may be hot; it could burn you. Use a towel or glove to touch the dipstick handle.

If a low oil Driver Information Centre (DIC) message displays, check the oil level.

Follow these guidelines:

- To get an accurate reading, park the vehicle on level ground. Check the engine oil level after the engine has been off for at least two hours. Checking the engine oil level on steep gradients or too soon after engine shutoff can result in incorrect readings. Accuracy improves when checking a cold engine prior to starting. Remove the dipstick and check the level.

- If unable to wait two hours, the engine must be off for at least 15 minutes if the engine is warm, or at least 30 minutes if the engine is not warm. Pull out the dipstick, wipe it with a clean paper towel or cloth, then push it back in all the way. Remove it again, keeping the tip down, and check the level.

### When to Add Engine Oil



If the oil is below the cross-hatched area at the tip of the dipstick and the engine has been off for at least 15 minutes, add 1 L (1 qt) of the recommended oil and then recheck the level. See “Selecting the Right Engine Oil” later in this section for an explanation of what kind of oil to use. For engine oil crankcase capacity, see *Capacities and Specifications* ⇨ 312.

### Caution

Do not add too much oil. Oil levels above or below the acceptable operating range shown on the dipstick are harmful to the engine. If you find that you have an oil level above the operating range, i.e., the engine has so much oil that the oil level gets above the cross-hatched area that shows the proper operating range, the engine could be damaged. You should drain out the excess oil or limit driving of the vehicle and seek a service professional to remove the excess amount of oil.

See *Engine Compartment Overview* ⇨ 243 for the location of the engine oil fill cap.

Add enough oil to put the level somewhere in the proper operating range. Push the dipstick all the way back in when done.

### Selecting the Right Engine Oil

Selecting the right engine oil depends on both the proper oil specification and viscosity grade. See *Recommended Fluids and Lubricants* ⇨ 308.

### Specification

Ask for and use engine oils that meet the dexos2™ specification.

Engine oils that have been approved by GM as meeting the dexos2 specification are marked with the dexos2 approved logo.



### Caution

Failure to use the recommended engine oil or equivalent can result in engine damage not covered by the vehicle warranty.

### **Viscosity Grade**

Use SAE 5W-30 viscosity grade engine oil.

**Cold Temperature Operation:** In an area of extreme cold, where the temperature falls below -29 °C (-20 °F), an SAE 0W-30 oil may be used. An oil of this viscosity grade will provide easier cold starting for the engine at extremely low temperatures. When selecting an oil of the appropriate viscosity grade, it is recommended to select an oil of the correct specification. See “Specification” earlier in this section.

### **Engine Oil Additives/Engine Oil Flushes**

Do not add anything to the oil. The recommended oils meeting the dexos2 specification are all that is needed for good performance and engine protection.

Engine oil system flushes are not recommended and could cause engine damage not covered by the vehicle warranty.

### **What to Do with Used Oil**

Used engine oil contains certain elements that can be unhealthy for your skin and could even cause cancer. Do not let used oil stay on your skin for very long. Clean your skin and nails with soap and water, or a good hand cleaner. Wash or properly dispose of clothing or rags containing used engine oil. See the manufacturer's warnings about the use and disposal of oil products.

Used oil can be a threat to the environment. If you change your own oil, be sure to drain all the oil from the filter before disposal. Never dispose of oil by putting it in the trash or pouring it on the ground, into sewers, or into streams or bodies of water. Recycle it by taking it to a place that collects used oil.

### **Engine Oil Life System**

#### **When to Change Engine Oil**

This vehicle has a computer system that indicates when to change the engine oil and filter. This is based on a combination of factors which include

engine revolutions, engine temperature, and miles driven. Based on driving conditions, the mileage at which an oil change is indicated can vary considerably. For the oil life system to work properly, the system must be reset every time the oil is changed.

When the system has calculated that oil life has been diminished, it indicates that an oil change is necessary. A CHANGE ENGINE OIL SOON message comes on. Change the oil as soon as possible within the next 1 000 km (600 mi). It is possible that, if driving under the best conditions, the oil life system might indicate that an oil change is not necessary for up to a year. The engine oil and filter must be changed at least once a year and, at this time, the system must be reset. Your dealer has trained service people who will perform this work and reset the system. It is also important to check the oil regularly over the course of an oil drain interval and keep it at the proper level.

If the system is ever reset accidentally, the oil must be changed at 5 000 km (3,000 mi) since the last oil change. Remember to reset the oil life system whenever the oil is changed.

After you change the oil, the oil life system will need to be reset. See your dealer for service.

## Automatic Transmission Fluid

### How to Check Automatic Transmission Fluid

It is not necessary to check the transmission fluid level. A transmission fluid leak is the only reason for fluid loss. If a leak occurs, take the vehicle to your dealer and have it repaired as soon as possible.

The vehicle is not equipped with a transmission fluid level dipstick. There is a special procedure for checking and changing the transmission fluid. Because this procedure is difficult, this should be done at the dealer. Contact your dealer for additional information.

Change the fluid and filter at the intervals listed in *Scheduled Maintenance* ⇨ 305, and be sure to use the fluid listed in *Recommended Fluids and Lubricants* ⇨ 308.

## Engine Air Cleaner/Filter

The engine air cleaner/filter is in the engine compartment. See *Engine Compartment Overview* ⇨ 243 for location.

### When to Inspect the Engine Air Cleaner/Filter

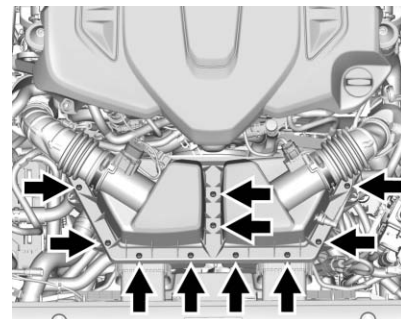
For intervals on changing and inspecting the engine air cleaner/filter, see *Scheduled Maintenance* ⇨ 305.

### How to Inspect the Engine Air Cleaner/Filter

Do not start the engine or have the engine running with the engine air cleaner/filter housing open. Before removing the engine air cleaner/filter, make sure that the engine air cleaner/filter housing and nearby components are free of dirt and debris. Remove the engine air cleaner/filter. Lightly tap and shake the engine air cleaner/filter (away from the vehicle), to release

loose dust and dirt. Inspect the engine air cleaner/filter for damage, and replace if damaged. Do not clean the engine air cleaner/filter or components with water or compressed air.

To inspect or replace the air cleaner/filter:



1. Remove the 10 screws on top of the engine air cleaner/filter cover to gain access to both air cleaner/filters.
2. Lift the engine air cleaner/filter cover open on the hinge.
3. Lift and remove one or both engine air cleaner/filters.

4. Inspect or replace one or both engine air cleaner/filters.
5. Reverse Steps 1–3 to reinstall the engine air cleaner/filter cover.

### **Warning**

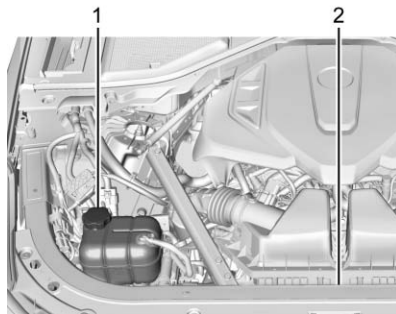
Operating the engine with the air cleaner/filter off can cause you or others to be burned. The air cleaner not only cleans the air; it helps to stop flames if the engine backfires. Use caution when working on the engine and do not drive with the air cleaner/filter off.

### **Caution**

If the air cleaner/filter is off, dirt can easily get into the engine, which could damage it. Always have the air cleaner/filter in place when driving.

## **Cooling System**

The cooling system allows the engine to maintain the correct working temperature.



1. Engine Coolant Surge Tank and Pressure Cap
2. Engine Cooling Fan (Out of View)

### **Warning**

An underbonnet electric fan can start up even when the engine is not running and can cause injury.

{Continued}

### **Warning (Continued)**

Keep hands, clothing, and tools away from any underbonnet electric fan.

### **Warning**

Do not touch heater or radiator hoses, or other engine parts. They can be very hot and can burn you. Do not run the engine if there is a leak; all coolant could leak out. That could cause an engine fire and can burn you. Fix any leak before driving the vehicle.

## **Engine Coolant**

The cooling system in the vehicle is filled with DEX-COOL engine coolant. This coolant needs to be checked and replaced at appropriate intervals. See *Scheduled Maintenance* ⇨ 305.

The following explains the cooling system and how to check and add coolant when it is low. If there is a problem with engine overheating, see *Engine Overheating* ⇨ 251.

## What to Use

### Warning

Plain water, or other liquids such as alcohol, may boil before the proper coolant mixture does. With plain water or the wrong mixture, the engine could get too hot but there would not be an overheat warning. The engine could catch fire and you or others could be burned.

Use a 50/50 mixture of clean, drinkable water and DEX-COOL coolant. If using this mixture, nothing else needs to be added. This mixture:

- Gives freezing protection down to  $-37^{\circ}\text{C}$  ( $-34^{\circ}\text{F}$ ), outside temperature
- Gives boiling protection up to  $129^{\circ}\text{C}$  ( $265^{\circ}\text{F}$ ), engine temperature

- Protects against rust and corrosion
- Will not damage aluminium parts
- Helps keep the proper engine temperature

### Caution

Do not use anything other than a mix of DEX-COOL coolant that meets GM Standard GMW3420 and clean, drinkable water. Anything else can cause damage to the vehicle's engine cooling system and the vehicle, which would not be covered by the vehicle warranty.

Never dispose of engine coolant by putting it in the refuse, pouring it on the ground, or into sewers, streams, or bodies of water. Have the coolant changed by an authorised service centre, familiar with legal requirements regarding used coolant disposal. This will help protect the environment and your health.

### Checking Coolant

The vehicle must be on a level surface when checking the coolant level.



Check to see if coolant is visible in the coolant surge tank. If the coolant inside the coolant surge tank is boiling, do not do anything else until it cools down. See *Engine Overheating* ⇨ 251.

The coolant surge tank is located in the engine compartment on the passenger side of the vehicle. See *Engine Compartment Overview* ⇨ 243.

### How to Add Coolant to the Coolant Surge Tank

If no problem is found, check to see if coolant is visible in the coolant surge tank. If coolant is visible but the coolant level is not at the indicated

level mark, add a 50/50 mixture of clean, drinkable water and DEX-COOL coolant. Be sure the cooling system, including the coolant surge tank pressure cap, is cool before you do it.

### **Warning**

Spilling coolant on hot engine parts can burn you. Coolant contains ethylene glycol and it will burn if the engine parts are hot enough.

### **Warning**

Steam and scalding liquids from a hot cooling system are under pressure. Turning the pressure cap, even a little, can cause them to jet out at high speed and you could be burned. Never turn the cap when the cooling system, including the pressure cap itself, is hot. Wait for the cooling system and pressure cap to cool.

### **Caution**

Failure to follow the specific coolant fill procedure could cause the engine to overheat and could cause system damage. If coolant is not visible in the surge tank, contact your retailer.



1. Remove the coolant surge tank pressure cap when the cooling system, including the coolant surge tank pressure cap and upper radiator hose, is no longer hot.

Turn the pressure cap slowly anticlockwise about one-quarter of a turn. If you hear a hiss, wait for that to stop. This will allow any pressure still left to be vented out the discharge hose.

2. Keep turning the pressure cap slowly and remove it.
3. Fill the coolant surge tank with the proper mixture to the indicated level mark.
4. With the coolant surge tank pressure cap off, start the engine and let it run until you can feel the upper radiator hose getting hot. Watch out for the engine cooling fan.

By this time, the coolant level inside the coolant surge tank may be lower. If the level is lower, add more of the proper mixture to the coolant surge tank until the level reaches the indicated level mark.

5. Replace the pressure cap tightly.
6. Verify coolant level after the engine is shut off and the coolant is cold. If necessary, repeat coolant fill procedure Steps 1–6.

If the coolant still is not at the proper level when the system cools down again, see your dealer.

**Caution**

If the pressure cap is not tightly installed, coolant loss and engine damage may occur. Be sure the cap is properly and tightly secured.

**Engine Overheating**

The vehicle has several indicators to warn of the engine overheating.

There is an engine coolant temperature gauge and an engine coolant temperature warning light on the instrument cluster. See *Engine Coolant Temperature Gauge* ⇨ 128 and *Engine Coolant Temperature Warning Light* ⇨ 136. The vehicle may also display a message on the Driver Information Centre (DIC).

If the decision is made not to lift the bonnet when this warning appears, get service help right away.

If the decision is made to lift the bonnet, make sure the vehicle is parked on a level surface. Then check to see if the engine cooling fan is running. If the engine is overheating,

the fan should be running. If it is not, do not continue to run the engine. Have the vehicle serviced.

**Caution**

Do not run the engine if there is a leak in the engine cooling system. This can cause a loss of all coolant and can damage the system and vehicle. Have any leaks fixed right away.

**If Steam Is Coming from the Engine Compartment** **Warning**

Steam and scalding liquids from a hot cooling system are under pressure. Turning the pressure cap, even a little, can cause them to jet out at high speed and you could be burned. Never turn the cap when the cooling system, including the pressure cap itself, is hot. Wait for the cooling system and pressure cap to cool.

**If No Steam Is Coming from the Engine Compartment**

If an engine overheat warning is displayed but no steam can be seen or heard, the problem may not be too serious. Sometimes the engine can get a little too hot when the vehicle:

- Climbs a long hill on a hot day
- Stops after high-speed driving
- Idles for long periods in traffic

If the overheat warning is displayed with no sign of steam:

1. Turn the air conditioning off.
2. Turn the heater on to the highest temperature and to the highest fan speed. Open the windows as necessary.
3. When it is safe to do so, pull off the road, shift to P (Park) or N (Neutral), and let the engine idle.

If the engine coolant temperature gauge is no longer in the overheated area or the engine coolant temperature warning light no longer displays, the vehicle can be driven. Continue to drive the vehicle slowly

for about 10 minutes. Keep a safe distance from the vehicle in front. If the warning does not come back on, continue to drive normally and have the cooling system checked for proper fill and function.

If the warning continues, pull over, stop, and park the vehicle right away.

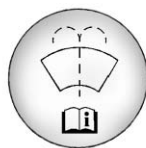
If there is no sign of steam, idle the engine for three minutes while parked. If the warning is still displayed, turn off the engine until it cools down.

## Washer Fluid

### What to Use

When windscreen washer fluid is needed, be sure to read the manufacturer's instructions before use. If operating the vehicle in an area where the temperature may fall below freezing, use a fluid that has sufficient protection against freezing.

### Adding Washer Fluid



Open the cap with the washer symbol on it. Add washer fluid until the tank is full. See *Engine Compartment Overview* ⇨ 243 for reservoir location.

### Caution

- Do not use washer fluid that contains any type of water repellent coating. This can cause the wiper blades to chatter or skip.
- Do not use engine coolant (antifreeze) in the windscreen washer. It can damage the windscreen washer system and paint.
- Do not mix water with ready-to-use washer fluid. Water can cause the solution

(Continued)

### Caution (Continued)

to freeze and damage the washer fluid tank and other parts of the washer system.

- When using concentrated washer fluid, follow the manufacturer instructions for adding water.
- Fill the washer fluid tank only three-quarters full when it is very cold. This allows for fluid expansion if freezing occurs, which could damage the tank if it is completely full.

## Brakes

Disc brake pads have built-in wear indicators that make a high-pitched warning sound when the brake pads are worn and new pads are needed. The sound can come and go or can be heard all the time when the vehicle is moving, except when applying the brake pedal firmly.

**Warning**

The brake wear warning sound means that soon the brakes will not work well. That could lead to a crash. When the brake wear warning sound is heard, have the vehicle serviced.

**Caution**

Continuing to drive with worn-out brake pads could result in costly brake repair.

Some driving conditions or climates can cause a brake squeal when the brakes are first applied or lightly applied. This does not mean something is wrong with the brakes.

Properly torqued wheel nuts are necessary to help prevent brake pulsation. When tyres are rotated, inspect brake pads for wear and evenly tighten wheel nuts in the

proper sequence to torque specifications. See *Capacities and Specifications* ⇨ 312.

Brake pads should be replaced as complete sets.

**Brake Pedal Travel**

See your dealer if the brake pedal does not return to normal height, or if there is a rapid increase in pedal travel. This could be a sign that brake service may be required.

**Replacing Brake System Parts**

Always replace brake system parts with new, approved replacement parts. If this is not done, the brakes may not work properly. The braking performance expected can change in many other ways if the wrong replacement brake parts are installed or if parts are improperly installed.

**Brake Fluid**

The brake master cylinder reservoir is filled with GM approved DOT 3 brake fluid as indicated on the reservoir cap. See *Engine Compartment Overview* ⇨ 243 for the location of the reservoir.

**Checking Brake Fluid**

With the vehicle in P (Park) on a level surface, the brake fluid level should be between the minimum and maximum marks on the brake fluid reservoir.

There are only two reasons why the brake fluid level in the reservoir may go down:

- Normal brake lining wear. When new linings are installed, the fluid level goes back up.
- A fluid leak in the brake hydraulic system. Have the brake hydraulic system fixed. With a leak, the brakes will not work well.

Always clean the brake fluid reservoir cap and the area around the cap before removing it.

Do not top off the brake fluid. Adding fluid does not correct a leak. If fluid is added when the linings are worn, there will be too much fluid when new brake linings are installed. Add or remove fluid, as necessary, only when work is done on the brake hydraulic system.

### **Warning**

If too much brake fluid is added, it can spill on the engine and burn, if the engine is hot enough. You or others could be burned, and the vehicle could be damaged. Add brake fluid only when work is done on the brake hydraulic system.

When the brake fluid falls to a low level, the brake warning light comes on. See *Brake System Warning Light* ⇨ 133.

Brake fluid absorbs water over time which degrades the effectiveness of the brake fluid. Replace brake fluid at

the specified intervals to prevent increased stopping distance. See *Scheduled Maintenance* ⇨ 305.

### **What to Add**

Use only GM approved DOT 3 brake fluid from a clean, sealed container. See *Recommended Fluids and Lubricants* ⇨ 308.

### **Warning**

The wrong or contaminated brake fluid could result in damage to the brake system. This could result in the loss of braking leading to a possible injury. Always use the proper GM approved brake fluid.

### **Caution**

If brake fluid is spilled on the vehicle's painted surfaces, the paint finish can be damaged. Immediately wash off any painted surface.

## **Battery**

The original equipment battery is maintenance free. Do not remove the cap and do not add fluid.

The battery is in the boot, under the floor panel. Refer to the replacement number shown on the original battery label when a new battery is needed.

The vehicle has an Absorbed Glass Mat (AGM) 12-volt battery. Installation of a standard 12-volt battery will result in reduced 12-volt battery life. When using a 12-volt battery charger on the 12-volt AGM battery, some chargers have an AGM battery setting on the charger. If available, use the AGM setting on the charger, to limit charge voltage to 14.8 volts.

### **Stop/Start System**

The vehicle has a Stop/Start system to shut off the engine to help conserve fuel. See *Starting the Engine* ⇨ 192.

 **Warning**

Batteries should not be disposed of with regular refuse. Make sure that you dispose of old batteries in accordance with environmental protection regulations to help protect the environment and your health.

 **Warning**

Do not use a match or flame near a vehicle's battery. If you need more light, use a torch.

Do not smoke near a vehicle's battery.

When working around a vehicle's battery, shield your eyes with protective glasses.

Keep children away from vehicle batteries.

 **Warning**

Batteries have acid that can burn you and gas that can explode. You can be hurt badly if you are not careful.

Follow instructions carefully when working around a battery.

(Continued)

**Warning (Continued)**

Battery posts, terminals and related accessories contain lead and lead compounds which can cause cancer and reproductive harm. Wash hands after handling.

**Vehicle Storage**

**Infrequent Usage:** Remove the black, negative (-) cable from the battery to keep the battery from running down.

**Extended Storage:** Remove the black, negative (-) cable from the battery or use a battery trickle charger.

**All-Wheel Drive**

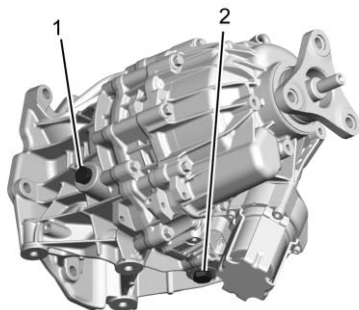
If the vehicle is equipped with All-Wheel Drive (AWD), this is an additional system that needs lubrication.

**Transfer Case****When to Check Lubricant**

It is not necessary to regularly check the transfer case fluid unless a leak is suspected or an unusual noise is

heard. A fluid loss could indicate a problem. Have it inspected and repaired.

### How to Check Lubricant



1. Fill Plug
2. Drain Plug

To get an accurate reading, the vehicle should be on a level surface.

If the level is below the bottom of the fill plug hole on the transfer case, some lubricant will need to be added. Add enough lubricant to raise the level to the bottom of the fill plug hole. Use care not to overtighten the fill plug.

### What to Use

To determine what kind of lubricant to use, see *Recommended Fluids and Lubricants* ⇨ 308.

### Starter Switch Check

#### Warning

When you are doing this inspection, the vehicle could move suddenly. If the vehicle moves, you or others could be injured.

1. Before starting this check, be sure there is enough room around the vehicle.
2. Firmly apply both the parking brake and the regular brake. Do not use the accelerator pedal, and be ready to turn off the engine immediately if it starts.
3. Try to start the engine in each gear. The vehicle should start only in P (Park) or N (Neutral). If the vehicle starts in any other position, contact your dealer for service.

### Automatic Transmission Shift Lock Control Function Check

#### Warning

When you are doing this inspection, the vehicle could move suddenly. If the vehicle moves, you or others could be injured.

1. Before starting this check, be sure there is enough room around the vehicle. It should be parked on a level surface.
2. Firmly apply the parking brake. See *Electric Parking Brake* ⇨ 201.

Be ready to apply the regular brake immediately if the vehicle begins to move.

3. With the engine off, turn the ignition on, but do not start the engine. Without applying the regular brake, try to move the gear lever out of P (Park) with normal effort. If the shift lever moves out of P (Park), contact your dealer for service.

## Park Brake and P (Park) Mechanism Check

### Warning

When you are doing this check, the vehicle could begin to move. You or others could be injured and property could be damaged. Make sure there is room in front of the vehicle in case it begins to roll. Be ready to apply the regular brake at once should the vehicle begin to move.

Park on a fairly steep hill, with the vehicle facing downhill. Keeping your foot on the regular brake, apply the parking brake.

- To check the parking brake's holding ability: With the engine running and the transmission in N (Neutral), slowly remove foot pressure from the regular brake pedal. Do this until the vehicle is held by the parking brake only.

- To check the P (Park) mechanism's holding ability: With the engine running, shift to P (Park). Then release the parking brake followed by the regular brake.

Contact your dealer if service is required.

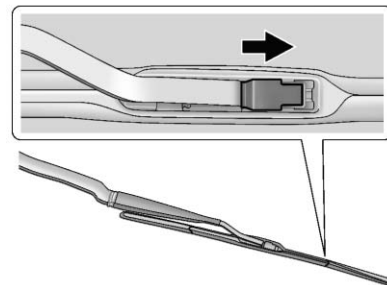
## Wiper Blade Replacement

Windscreen wiper blades should be inspected for wear or cracking.

For the proper type and size, see *Maintenance Replacement Parts* ⇨ 309.

To replace the wiper blade assembly:

1. Pull the windscreen wiper assembly away from the windscreen.



2. Lift up on the latch in the middle of the wiper blade where the wiper arm attaches.
3. With the catch open, pull the wiper blade down towards the windscreen far enough to release it from the J-hooked end of the wiper arm.
4. Remove the wiper blade.

### Caution

Allowing the wiper arm to touch the windscreen when no wiper blade is installed could damage the

(Continued)

**Caution (Continued)**

windscreen. Any damage that occurs would not be covered by the vehicle warranty. Do not allow the wiper arm to touch the windscreen.

- Reverse Steps 1–3 for wiper blade replacement.

## Windshield Replacement

### HUD System

The windscreen is part of the HUD system. If the windscreen must be replaced, get one that is designed for HUD or the HUD image may look out of focus.

### Driver Assistance Systems

When a windscreen replacement is needed and the vehicle is equipped with a front-looking camera sensor for the Driver Assistance Systems, the windscreen must be installed according to GM specifications for these systems to work properly. If it is

not, there may be unexpected behaviour and/or messages from these systems.

### Gas Strut(s)

The vehicle may be equipped with gas strut(s) to provide assistance in lifting and holding open the bonnet/boot/tailgate system in full open position.

**⚠ Warning**

If the gas struts that hold open the bonnet, boot, and/or tailgate fail, you or others could be seriously injured. Take the vehicle to your retailer for service immediately. Visually inspect the gas struts for signs of wear, cracks, or other damage periodically. Check to make sure the bonnet/boot/tailgate is held open with enough force. If struts are failing to hold the bonnet/boot/tailgate, do not operate. Have the vehicle serviced.

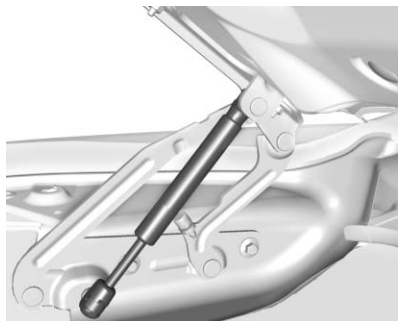
**Caution**

Do not apply tape or hang any objects from gas struts. Also do not push down or pull on gas struts. This may cause damage to the vehicle.

See *Scheduled Maintenance* ⇨ 305.



Bonnet



Boot



Tailgate

## Headlamp Aiming

Headlamp alignment has been preset and should need no further adjustment.

If the vehicle is damaged in a crash, the headlamp alignment may be affected. If adjustment to the headlamps is necessary, see your dealer.

## Bulb Replacement

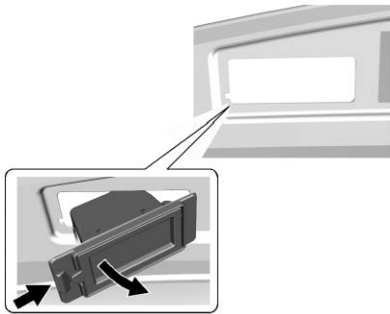
For the proper type of replacement bulbs, see *Replacement Bulbs* ⇨ 260.

For any bulb-changing procedure not listed in this section, contact your dealer.

## LED Lighting

This vehicle has several LED lamps. For replacement of any LED lighting assembly not listed here, contact your retailer.

### Number Plate Lamp



Lamp Assembly

To replace one of these lamps:

1. Push the lamp assembly toward the centre of the vehicle.
2. Pull the lamp assembly down to expose the LED connector.

3. Pull the retaining tab on the LED connector up to release the lamp assembly. Remove the lamp assembly.
4. Install the new lamp assembly on the LED connector. Push in the retaining tab to lock the new lamp assembly in place.
5. Push the lamp assembly back into position until the release tab locks into place.

### Replacement Bulbs

Exterior Lamp	Bulb Number
Number Plate Lamp	13588150

For replacement bulbs not listed here, contact your dealer.

### Electrical System

#### Electrical System Overload

The vehicle has fuses and circuit breakers to protect against an electrical system overload.

When the current electrical load is too heavy, the circuit breaker opens and closes, protecting the circuit until the current load returns to normal or the problem is fixed. This greatly reduces the chance of circuit overload and fire caused by electrical problems.

Fuses and circuit breakers protect power devices in the vehicle.

Replace a bad fuse with a new one of the identical size and rating.

If there is a problem on the road and a fuse needs to be replaced, the same amperage fuse can be borrowed. Choose some feature of the vehicle that is not needed to use and replace it as soon as possible.

## Headlamp Wiring

An electrical overload may cause the lamps to go on and off, or in some cases to remain off. Have the headlamp wiring checked right away if the lamps go on and off or remain off.

## Windscreen Wipers

If the wiper motor overheats due to heavy snow or ice, the windscreen wipers will stop. Wiper function is available immediately after the wiper switch is set to off, and back to on.

To protect the wiper motor from overheating, the wipers may slow down when the windscreen is dry for a long period of time. If a period of dry operation, or little moisture, exceeds 10 minutes, the wipers may switch to intermittent operation, and remain there. When moisture is again detected on the windscreen, wiper operation will return to the operator selected speed.

Although the circuit is protected from electrical overload, overload due to heavy snow or ice may cause wiper

linkage damage. Always clear ice and heavy snow from the windscreen before using the windscreen wipers.

If the overload is caused by an electrical problem and not snow or ice, be sure to get it fixed.

## Fuses and Circuit Breakers

The wiring circuits in the vehicle are protected from short circuits by a combination of fuses and circuit breakers. This greatly reduces the chance of damage caused by electrical problems.

### Danger

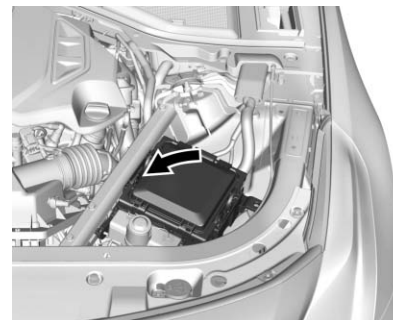
Fuses and circuit breakers are marked with their ampere rating. Do not exceed the specified amperage rating when replacing fuses and circuit breakers. Use of an oversized fuse or circuit breaker can result in a vehicle fire. You and others could be seriously injured or killed.

To check a fuse, look at the silver-coloured band inside the fuse. If the band is broken or melted, replace the fuse. Be sure to replace a bad fuse with a new one of the identical size and rating.

Fuses of the same amperage can be temporarily borrowed from another fuse location, if a fuse goes out. Replace the fuse as soon as possible.

## Engine Compartment Fuse Block

The underbonnet fuse block is on the driver side of the engine compartment.

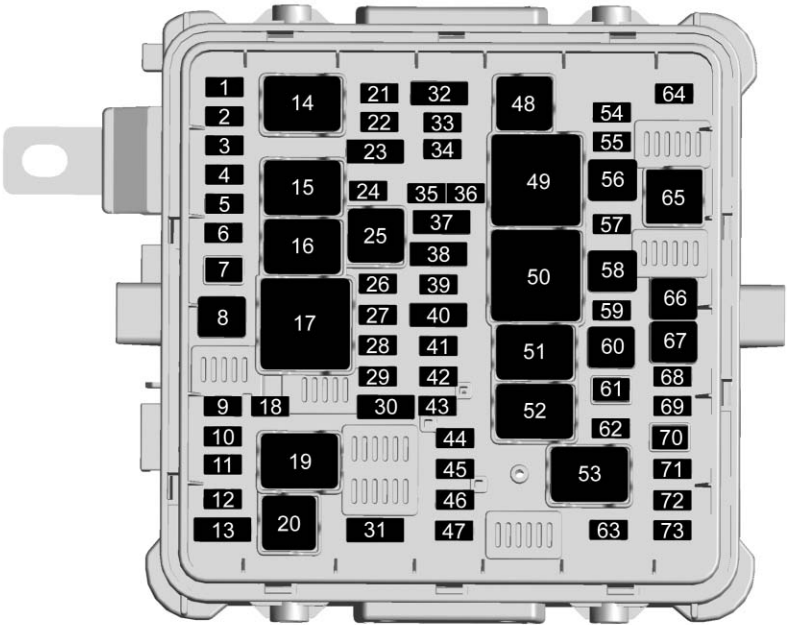


Lift the fuse block cover to access the fuses.

The vehicle may not be equipped with all of the fuses and relays shown.

**Caution**

Spilling liquid on any electrical component on the vehicle may damage it. Always keep the covers on any electrical component.



**Fuses**

**Usage**

- |   |                    |
|---|--------------------|
| 1 | -                  |
| 2 | Power coolant pump |

**Fuses**

**Usage**

- |   |   |
|---|---|
| 3 | - |
|---|---|

<b>Fuses</b>	<b>Usage</b>
4	Traction power inverter 1
5	Transmission/ Ignition
6	-
7	Starter 2
8	Starter 1
9	Horn
10	-
11	Right LED
12	Left LED
13	Main beam headlamps
14	Air conditioning control relay
15	Starter 2 relay
16	Starter 1 relay
17	Run/Crank relay
18	Right cornering LED
19	Dipped beam headlight relay

<b>Fuses</b>	<b>Usage</b>
20	Main beam headlight relay
21	Air conditioning clutch
22	-
23	Coolant heater control module
24	Coolant pump
25	Coolant pump relay
26	Hi fuel
27	Steering column lock
28	Rear heated seats
29	Front heated seats
30	-
31	LED lighting battery
32	Air conditioning control module
33	AIR solenoid
34	-
35	Engine control module

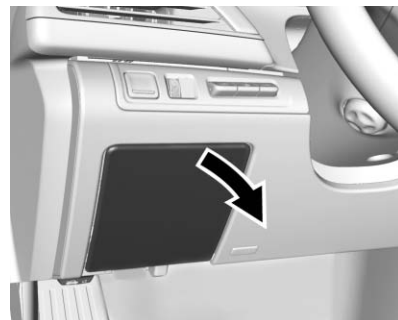
<b>Fuses</b>	<b>Usage</b>
36	Engine control module 2
37	Coolant pump/ Ignition coils-odd
38	Ignition coils-even/ Non walk 2
39	Non walk
40	Instrument cluster
41	-
42	Fuel pump power module
43	Instrument panel body/Ignition
44	Aeroshutter
45	Washer
46	Front sensor
47	Left cornering LED
48	AIR solenoid relay
49	Air pump relay
50	Engine control module relay
51	Wiper speed relay

Fuses	Usage
52	Wiper control relay
53	Headlight control relay
54	-
55	-
56	Air pump
57	-
58	Instrument panel electronic centre
59	-
60	Anti-lock brake system pump
61	Front wiper
62	Headlight levelling
63	Electric brake booster module
64	-
65	-
66	Transfer case control module
67	Electric brake booster

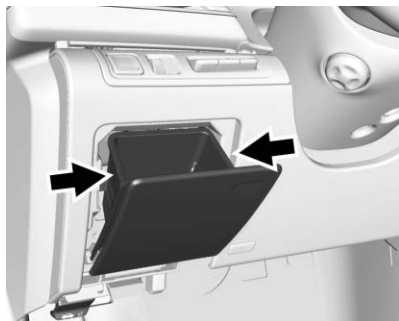
Fuses	Usage
68	Rear seat entertainment display
69	Rechargeable energy storage system coolant pump
70	-
71	Anti-lock brake system valve
72	-
73	-

### Instrument Panel Fuse Block

The instrument panel fuse block is behind the driver side instrument panel storage compartment.



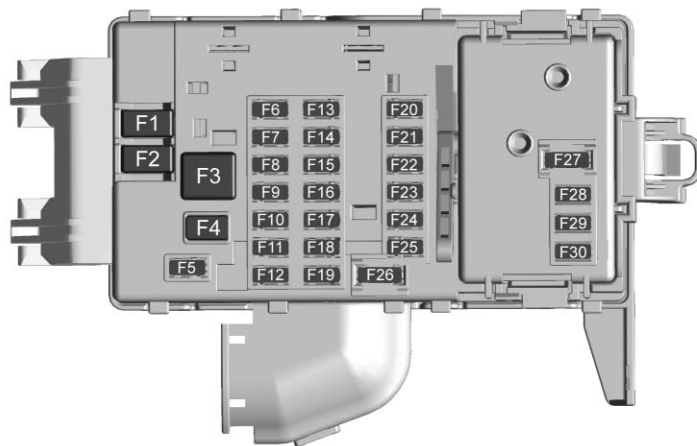
The storage compartment has a press to open latch. To access the fuses, open the compartment by pressing and releasing near the top centre square.



Apply pressure to the two retaining tabs on the sides of the compartment, until the two retaining tabs clear the sides of the instrument panel. Allow the compartment to move downward, and out of the way.

To reinstall the compartment, reverse the steps.

The vehicle may not be equipped with all of the fuses and relays shown.



#### **Fuses                      Usage**

F1	Power socket
F2	Visor
F3	Front blower
F4	Body control module 8
F5	Power steering column
F6	Column lock

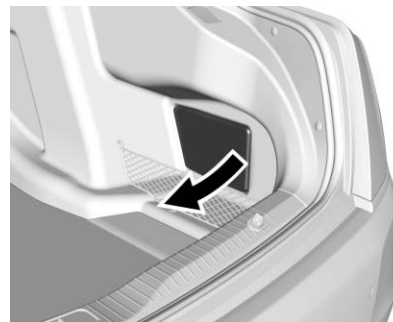
#### **Fuses                      Usage**

F7	Glove box door
F8	Front heated seat module
F9	Sensing and diagnostic module
F10	Body control module 4

Fuses	Usage
F11	Body control module 3
F12	Data link connector
F13	-
F14	-
F15	Rear vision camera
F16	Display
F17	Heating, ventilation, and air conditioning control
F18	OnStar
F19	-
F20	-
F21	Traction power inverter 2

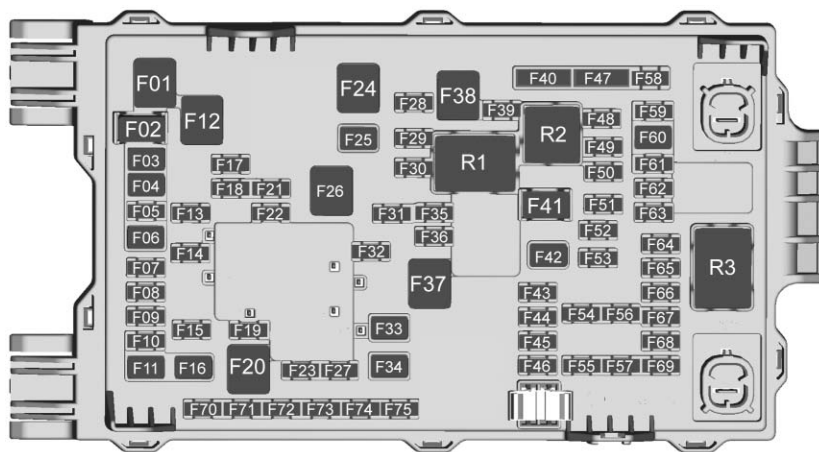
Fuses	Usage
F22	Infotainment 2
F23	Central gateway module
F24	Infotainment 1
F25	Video processing module
F26	Steering wheel controls
F27	USB charge port
F28	Wireless charger
F29	-
F30	Speaker

## Rear Compartment Fuse Block



The rear compartment fuse block is behind a cover on the passenger side of the rear compartment.

The vehicle may not be equipped with all of the fuses, relays, and features shown.



Fuses	Usage
F01	UCAP
F02	Boot power socket
F03	Driver window motor
F04	-
F05	Canister vent
F06	Right rear memory seat

Fuses	Usage
F07	Body control module 7
F08	Driver seat adjustment switch
F09	Passive entry/Passive start
F10	Rear subwoofer amplifier

Fuses	Usage
F11	Driver memory seat module
F12	-
F13	-
F14	Right rear seat
F15	Left front amplifier
F16	Right front seat
F17	Rear heated seat
F18	Regulated voltage control battery
F19	Door mirror switch
F20	-
F21	Vehicle integration control module
F22	-
F23	Rear closure
F24	-
F25	Left motorised seat belt pretensioner
F26	Rear demister
F27	Right front amplifier

<b>Fuses</b>	<b>Usage</b>	<b>Fuses</b>	<b>Usage</b>	<b>Fuses</b>	<b>Usage</b>
F28	Amplifier	F44	Rear closure	F57	Voltage current temperature module
F29	Sunroof	F45	Auxiliary audio/Video/Radio	F58	-
F30	Body control module 2	F46	External object calculating/Side blind zone alert/Radar short range sensor	F59	Engine control module battery
F31	Body control module 6			F60	Right motorised seat belt pretensioner
F32	Exterior heated mirrors	F47	-	F61	Parking lamps
F33	Right window	F48	Right front seat	F62	-
F34	Power boot module	F49	Memory bolster module	F63	-
F35	On-board charging module	F50	Body control module 1	F64	Engine control module ignition
F36	Alarm siren module	F51	Transmission control module	F65	Rear window sunshade
F37	DC AC inverter	F52	Parking assist	F66	Rear vision camera/Interior rear-view mirror
F38	Rear blower	F53	Ventilated seats		
F39	Fuel pump power	F54	Headlining	F67	DC DC converter/Air quality sensor
F40	-	F55	Front memory seat module	F68	Damping control module
F41	Rear seat power socket	F56	Evaporative emissions leak check module	F69	Television tuner module
F42	Left rear memory seat				
F43	-				

**Fuses Usage**

F70	-
F71	-
F72	-
F73	-
F74	-
F75	-

**Relays Usage**

R1	Rear seat power socket
R2	Fuel pump
R3	Run/Crank

## Wheels and Tyres

### Tyres

Every new GM vehicle has high-quality tyres made by a leading tyre manufacturer. See the warranty manual for information regarding the tyre warranty and where to get service. For additional information refer to the tyre manufacturer.

**Warning**

- Poorly maintained and improperly used tyres are dangerous.
- Overloading the tyres can cause overheating as a result of too much flexing. There could be a blowout and a serious crash. See *Vehicle Load Limits* ⇨ 186.

(Continued)

**Warning (Continued)**

- Underinflated tyres pose the same danger as overloaded tyres. The resulting crash could cause serious injury. Check all tyres frequently to maintain the recommended pressure. Tyre pressure should be checked when the tyres are cold.
- Overinflated tyres are more likely to be cut, punctured, or broken by a sudden impact - such as when hitting a pothole. Keep tyres at the recommended pressure.
- Worn or old tyres can cause a crash. If the tread is badly worn, replace them.

(Continued)

**Warning (Continued)**

- Replace any tyres that have been damaged by impacts with potholes, curbs, etc.
- Improperly repaired tyres can cause a crash. Only the dealer or an authorised tyre service centre should repair, replace, dismount, and mount the tyres.
- Do not spin the tyres in excess of 56 km/h (35 mph) on slippery surfaces such as snow, mud, ice, etc. Excessive spinning may cause the tyres to explode.

**All-Season Tyres**

This vehicle may come with all-season tyres. These tyres are designed to provide good overall performance on most road surfaces and weather conditions. Original equipment tyres

designed to GM's specific tyre performance criteria have a TPC specification code moulded onto the sidewall. Original equipment all-season tyres can be identified by the last two characters of this TPC code, which will be "MS."

Consider installing winter tyres on the vehicle if frequent driving on snow or ice-covered roads is expected.

All-season tyres provide adequate performance for most winter driving conditions, but they may not offer the same level of traction or performance as winter tyres on snow or ice-covered roads. See *Winter Tyres* ⇨ 270.

**Winter Tyres**

This vehicle was not originally equipped with winter tyres. Winter tyres are designed for increased traction on snow and ice-covered roads. Consider installing winter tyres on the vehicle if frequent driving on ice or snow covered roads is expected. See your dealer for details regarding winter tyre availability and proper tyre selection. Also, see *Buying New Tyres* ⇨ 279.

With winter tyres, there may be decreased dry road traction, increased road noise and shorter tread life. After changing to winter tyres, be alert for changes in the vehicle handling and braking.

If using winter tyres:

- Use tyres of the same brand and tread type on all four wheel positions.
- Use only radial ply tyres of the same size, load range and speed rating as the original equipment tyres.

Winter tyres with the same speed rating as the original equipment tyres may not be available for H, V, W, Y and ZR speed rated tyres. If winter tyres with a lower speed rating are chosen, never exceed the tyre's maximum speed capability.

**Low-Profile Tyres**

If the vehicle has 245/40ZR20 95Y size tyres, they are classified as low-profile tyres.

**Caution**

Low-profile tyres are more susceptible to damage from road hazards or curb impact than standard profile tyres. Tyre and/or wheel assembly damage can occur when coming into contact with road hazards like potholes, or sharp edged objects, or when sliding into a kerb. The warranty does not cover this type of damage. Keep tyres set to the correct inflation pressure and when possible, avoid contact with kerbs, potholes, and other road hazards.

**Summer Tyres**

This vehicle may come with high performance summer tyres. These tyres have a special tread and compound that are optimised for maximum dry and wet road performance. This special tread and compound will have decreased performance in cold climates, and on ice and snow. It is recommended that winter tyres be installed on the

vehicle if frequent driving at temperatures below approximately 5 °C (40 °F) or on ice or snow covered roads is expected. See *Winter Tyres* ⇨ 270.

**Caution**

High performance summer tires have rubber compounds that lose flexibility and may develop surface cracks in the tread area at temperatures below -7 °C (20 °F). Always store high performance summer tires indoors and at temperatures above -7 °C (20 °F) when not in use. If the tires have been subjected to -7 °C (20 °F) or less, let them warm up in a heated space to at least 5 °C (40 °F) for 24 hours or more before being installed or driving a vehicle on which they are installed. Do not apply heat or blow heated air directly on the tyres. Always inspect tyres before use. See *Tyre Inspection* ⇨ 276.

**Tyre Pressure**

Tyres need the correct amount of air pressure to operate effectively.

**Caution**

Neither tyre underinflation nor overinflation is good. Underinflated tyres, or tyres that do not have enough air, can result in:

- Tyre overloading and overheating which could lead to a blowout.
- Premature or irregular wear.
- Poor handling.
- Reduced fuel economy.

Overinflated tyres, or tyres that have too much air, can result in:

- Unusual wear.
- Poor handling.
- Rough ride.

(Continued)

**Caution (Continued)**

- Needless damage from road hazards.

The Tyre and Loading Information label on the vehicle indicates the original equipment tyres and the correct cold tyre inflation pressures. The recommended pressure is the minimum air pressure needed to support the vehicle's maximum load carrying capacity. See *Vehicle Load Limits* ⇨ 186.

How the vehicle is loaded affects vehicle handling and ride comfort. Never load the vehicle with more weight than it was designed to carry.

**When to Check**

Check the tyres once a month or more. Do not forget the compact spare, if the vehicle has one. The

cold compact spare tyre pressure should be at 420 kPa (60 psi). See *Compact Spare Tyre* ⇨ 288.

**How to Check**

Use a good quality pocket-type gauge to check tyre pressure. Proper tyre inflation cannot be determined by looking at the tyre. Check the tyre inflation pressure when the tyres are cold, meaning the vehicle has not been driven for at least three hours or no more than 1.6 km (1 mi).

Remove the valve cap from the tyre valve stem. Press the tyre gauge firmly onto the valve to get a pressure measurement. If the cold tyre inflation pressure matches the recommended pressure on the Tyre and Loading Information label, no further adjustment is necessary. If the inflation pressure is low, add air until the recommended pressure is reached. If the inflation pressure

is high, press on the metal stem in the centre of the tyre valve to release air.

Recheck the tyre pressure with the tyre gauge.

Put the valve caps back on the valve stems to keep out dirt and moisture and prevent leaks. Use only valve caps designed for the vehicle by GM. TPMS sensors could be damaged and would not be covered by the vehicle warranty.

**Tyre Pressure Monitor System****Caution**

Modifications made to the Tyre Pressure Monitor System (TPMS) by anyone other than an authorised service facility may void authorisation to use the system.

The Tyre Pressure Monitor System (TPMS) uses radio and sensor technology to check tyre pressure levels. The TPMS sensors monitor the air pressure in your vehicle's tyres and transmit tyre pressure readings to a receiver located in the vehicle.

Each tyre, including the spare (if provided), should be checked monthly when cold and inflated to the inflation pressure recommended by the vehicle manufacturer on the vehicle placard or tyre inflation pressure label. (If your vehicle has tyres of a different size than the size indicated on the vehicle placard or tyre inflation pressure label, you should determine the proper tyre inflation pressure for those tyres.)

As an added safety feature, your vehicle has been equipped with a tyre pressure monitoring system (TPMS) that illuminates a low tyre pressure telltale when one or more of your tyres is significantly under-inflated.

Accordingly, when the low tyre pressure telltale illuminates, you should stop and check your tyres as soon as possible, and inflate them to

the proper pressure. Driving on a significantly under-inflated tyre causes the tyre to overheat and can lead to tyre failure. Under-inflation also reduces fuel efficiency and tyre tread life, and may affect the vehicle's handling and stopping ability.

Please note that the TPMS is not a substitute for proper tyre maintenance, and it is the driver's responsibility to maintain correct tyre pressure, even if under-inflation has not reached the level to trigger illumination of the TPMS low tyre pressure telltale.

Your vehicle has also been equipped with a TPMS malfunction indicator to indicate when the system is not operating properly. The TPMS malfunction indicator is combined with the low tyre pressure telltale. When the system detects a malfunction, the telltale will flash for approximately one minute and then remain continuously illuminated. This sequence will continue upon subsequent vehicle start-ups as long as the malfunction exists.

When the malfunction indicator is illuminated, the system may not be able to detect or signal low tyre pressure as intended. TPMS malfunctions may occur for a variety of reasons, including the installation of replacement or alternate tyres or wheels on the vehicle that prevent the TPMS from functioning properly. Always check the TPMS malfunction telltale after replacing one or more tyres or wheels on your vehicle to ensure that the replacement or alternate tyres and wheels allow the TPMS to continue to function properly.

See *Tyre Pressure Monitor Operation* ⇨ 273 for additional information.

See *Declaration of Conformity* ⇨ 320.

## **Tyre Pressure Monitor Operation**

This vehicle may have a Tyre Pressure Monitor System (TPMS). The TPMS is designed to warn the driver when a low tyre pressure condition exists. TPMS sensors are mounted onto each tyre and wheel assembly, excluding the spare tyre and wheel assembly.

The TPMS sensors monitor the air pressure in the tyres and transmit the tyre pressure readings to a receiver located in the vehicle.



When a low tyre pressure condition is detected, the TPMS illuminates the low tyre pressure warning light on the instrument cluster. If the warning light comes on, stop as soon as possible and inflate the tyres to the recommended pressure shown on the Tyre and Loading Information label. See *Vehicle Load Limits* ⇨ 186.

A message to check the pressure in a specific tyre displays in the Driver Information Centre (DIC). The low tyre pressure warning light and the DIC warning message come on at each ignition cycle until the tyres are inflated to the correct inflation pressure. Using the DIC, tyre pressure levels can be viewed. For additional

information and details about the DIC operation and displays see *Driver Information Centre (DIC)* ⇨ 140.

The low tyre pressure warning light may come on in cool weather when the vehicle is first started, and then turn off as the vehicle is driven. This could be an early indicator that the air pressure is getting low and needs to be inflated to the proper pressure.

A Tyre and Loading Information label, attached to your vehicle, shows the size of the original equipment tyres and the correct inflation pressure for the tyres when they are cold. See *Vehicle Load Limits* ⇨ 186 for an example of the Tyre and Loading Information label and its location. Also see *Tyre Pressure* ⇨ 271.

The TPMS can warn about a low tyre pressure condition but it does not replace normal tyre maintenance. See *Tyre Inspection* ⇨ 276, *Tyre Rotation* ⇨ 277, and *Tyres* ⇨ 269.

## Caution

Tyre sealant materials are not all the same. A non-approved tyre sealant could damage the TPMS sensors. TPMS sensor damage caused by using an incorrect tyre sealant is not covered by the vehicle warranty. Always use only the GM approved tyre sealant available through your dealer or included in the vehicle.

## Tyre Loading Selection — If Equipped

Adjust the vehicle tyre pressures to match the load condition according to the Tyre and Loading Information label. See *Vehicle Load Limits* ⇨ 186.

Select the appropriate Tyre Loading setting. See *Instrument Cluster (Base Level)* ⇨ 119 or *Instrument Cluster (Uplevel)* ⇨ 122.

If tyre pressures and Tyre Loading do not match, the tyre pressure light may indicate a low tyre. See *Tyre Pressure* ⇨ 271.

## TPMS Malfunction Light and Message

The TPMS will not function properly if one or more of the TPMS sensors are missing or inoperable. When the system detects a malfunction, the low tyre pressure warning light flashes for about one minute and then stays on for the remainder of the ignition cycle. A DIC warning message also displays. The malfunction light and DIC warning message come on at each ignition cycle until the problem is corrected. Some of the conditions that can cause these to come on are:

- One of the road tyres has been replaced with the spare tyre. The spare tyre does not have a TPMS sensor. The malfunction light and DIC message should go off after the road tyre is replaced and the sensor matching process is performed successfully. See "TPMS Sensor Matching Process" following.
- The TPMS sensor matching process was not done or not completed successfully after rotating the tyres. The

malfunction light and the DIC message should go off after successfully completing the sensor matching process. See "TPMS Sensor Matching Process" following.

- One or more TPMS sensors are missing or damaged. The malfunction light and the DIC message should go off when the TPMS sensors are installed and the sensor matching process is performed successfully. See your dealer for service.
- Replacement tyres or wheels do not match the original equipment tyres or wheels. Tyres and wheels other than those recommended could prevent the TPMS from functioning properly. See *Buying New Tyres* ⇨ 279.
- Operating electronic devices or being near facilities using radio wave frequencies similar to the TPMS could cause the TPMS sensors to malfunction.

If the TPMS is not functioning properly, it cannot detect or signal a low tyre pressure condition. See your

dealer for service if the TPMS malfunction light and DIC message come on and stay on.

## TPMS Sensor Matching Process

Each TPMS sensor has a unique identification code. The identification code needs to be matched to a new tyre/wheel position after rotating the vehicle's tyres or replacing one or more of the TPMS sensors. The TPMS sensor matching process should also be performed after replacing a spare tyre with a road tyre containing the TPMS sensor. The malfunction light and the DIC message should go off at the next ignition cycle. The sensors are matched to the tyre/wheel positions, using a TPMS relearn tool, in the following order: driver side front tyre, passenger side front tyre, passenger side rear tyre, and driver side rear tyre. See your dealer for service or to purchase a relearn tool.

You have two minutes to match the first tyre/wheel position, and five minutes overall to match all four tyre/wheel positions. If it takes longer, the matching process stops and must be restarted.

The TPMS sensor matching process is outlined below:

1. Apply the parking brake.
2. Place the vehicle in Service Mode. See *Ignition Positions* ⇨ 191.
3. Make sure the Tyre Pressure info display option is turned on. The info displays on the DIC can be turned on and off through the Options menu. See *Driver Information Centre (DIC)* ⇨ 140.
4. Use the five-way DIC control on the right side of the steering wheel to scroll to the Tyre Pressure screen under the DIC info page. See *Driver Information Centre (DIC)* ⇨ 140.
5. Press and hold SEL in the centre of the five-way DIC control.  
The horn sounds twice to signal the receiver is in relearn mode and the TYRE LEARNING ACTIVE message displays on the DIC screen.
6. Start with the driver side front tyre.

7. Place the relearn tool against the tyre sidewall, near the valve stem. Then press the button to activate the TPMS sensor. A horn chirp confirms that the sensor identification code has been matched to this tyre and wheel position.
8. Proceed to the passenger side front tyre, and repeat the procedure in Step 7.
9. Proceed to the passenger side rear tyre, and repeat the procedure in Step 7.
10. Proceed to the driver side rear tyre, and repeat the procedure in Step 7. The horn sounds two times to indicate the sensor identification code has been matched to the driver side rear tyre, and the TPMS sensor matching process is no longer active. The TYRE LEARNING ACTIVE message on the DIC display screen goes off.
11. Turn the vehicle off.

12. Set all four tyres to the recommended air pressure level as indicated on the Tyre and Loading Information label.

## Tyre Inspection

We recommend that the tyres, including the spare tyre, if the vehicle has one, be inspected for signs of wear or damage at least once a month.

Replace the tyre if:

- The indicators at three or more places around the tyre can be seen.
- There is cord or fabric showing through the tyre's rubber.
- The tread or sidewall is cracked, cut, or snagged deep enough to show cord or fabric.
- The tyre has a bump, bulge, or split.

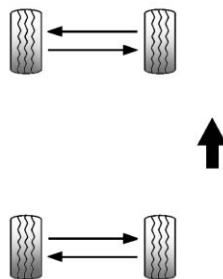
- The tyre has a puncture, cut, or other damage that cannot be repaired well because of the size or location of the damage.

## Tyre Rotation

Tyres should be rotated at the intervals specified in the Maintenance Schedule. See *Scheduled Maintenance* ⇨ 305.

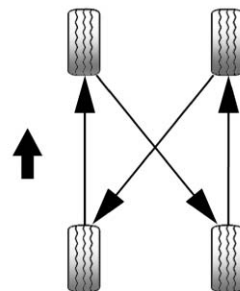
Tyres are rotated to achieve a uniform wear for all tyres. The first rotation is the most important.

Anytime unusual wear is noticed, rotate the tyres as soon as possible, check for proper tyre inflation pressure, and check for damaged tyres or wheels. If the unusual wear continues after the rotation, check the wheel alignment. See *When It Is Time for New Tyres* ⇨ 278 and *Wheel Replacement* ⇨ 281.



Use this rotation pattern if the vehicle has different size tires on the front and rear.

Different tyre sizes should not be rotated front to rear.



Use this rotation pattern when rotating tyres of the same size installed on all four wheel positions.

If the vehicle has a compact spare tyre, do not include it in the tyre rotation.

Adjust the front and rear tyres to the recommended inflation pressure on the Tyre and Loading Information label after the tyres have been rotated. See *Tyre Pressure* ⇨ 271 and *Vehicle Load Limits* ⇨ 186.

Reset the Tyre Pressure Monitor System. See *Tyre Pressure Monitor Operation* ⇨ 273.

Check that all wheel nuts are properly tightened. See “Wheel Nut Torque” under *Capacities and Specifications* ⇨ 312.

### **Warning**

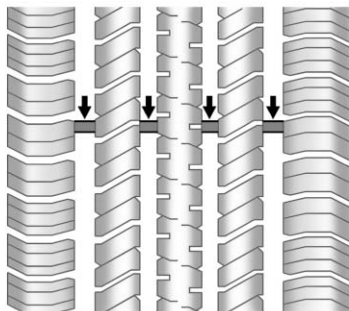
Rust or dirt on a wheel, or on the parts to which it is fastened, can make wheel nuts become loose after time. The wheel could come off and cause an accident. When changing a wheel, remove any rust or dirt from places where the wheel attaches to the vehicle. In an emergency, a cloth or a paper towel can be used; however, use a scraper or wire brush later to remove all rust or dirt.

Lightly coat the centre of the wheel hub with wheel bearing grease after a wheel change or tyre

rotation to prevent corrosion or rust build-up. Do not get grease on the flat wheel mounting surface or on the wheel nuts or bolts.

## **When It Is Time for New Tyres**

Factors such as maintenance, temperatures, driving speeds, vehicle loading, and road conditions affect the wear rate of the tyres.



Tread wear indicators are one way to tell when it is time for new tyres. Tread wear indicators appear when the tyres have only 1.6 mm (1/16 in) or less of tread remaining. See *Tyre Inspection* ⇨ 276 and *Tyre Rotation* ⇨ 277.

The rubber in tyres ages over time. This also applies to the spare tyre, if the vehicle has one, even if it is never used. Multiple factors including temperatures, loading conditions, and inflation pressure maintenance affect how fast ageing takes place. GM recommends that tyres, including the spare if equipped, be replaced after six years, regardless of tread wear. The tyre manufacture date is the last four digits of the DOT Tyre Identification Number (TIN) which is moulded into one side of the tyre sidewall. The first two digits represent the week (01–52) and the last two digits, the year. For example, the third week of the year 2010 would have a four-digit DOT date of 0310.

## Vehicle Storage

Tyres age when stored normally mounted on a parked vehicle. Park a vehicle that will be stored for at least a month in a cool, dry, clean area away from direct sunlight to slow ageing. This area should be free of grease, petrol, or other substances that can deteriorate rubber.

Parking for an extended period can cause flat spots on the tyres that may result in vibrations while driving. When storing a vehicle for at least a month, remove the tyres or raise the vehicle to reduce the weight from the tyres.

## Buying New Tyres

GM has developed and matched specific tyres for the vehicle. The original equipment tyres installed were designed to meet General Motors Tyre Performance Criteria Specification (TPC Spec) system rating. When replacement tyres are needed, GM strongly recommends buying tyres with the same TPC Spec rating.

GM's exclusive TPC Spec system considers over a dozen critical specifications that impact the overall performance of the vehicle, including brake system performance, ride and handling, traction control, and tyre pressure monitoring performance. GM's TPC Spec number is moulded onto the tyre's sidewall near the tyre size. If the tyres have an all-season tread design, the TPC Spec number will be followed by MS for mud and snow.

GM recommends replacing worn tyres in complete sets of four. Uniform tread depth on all tyres will help to maintain the performance of the vehicle. Braking and handling performance may be adversely affected if all the tyres are not replaced at the same time. If proper rotation and maintenance have been done, all four tyres should wear out at about the same time. See *Tyre Rotation* ⇨ 277 for information on

proper tyre rotation. However, if it is necessary to replace only one axle set of worn tyres, place the new tyres on the rear axle.

### Warning

Tyres could explode during improper service. Attempting to mount or dismount a tyre could cause injury or death. Only your dealer or authorised tyre service centre should mount or dismount the tyres.

Winter tyres with the same speed rating as the original equipment tyres may not be available for H, V, W, Y and ZR speed rated tyres. Never exceed the winter tyres maximum speed capability when using winter tyres with a lower speed rating.

 **Warning**

Never drive faster than the speed the tyres are rated, regardless of the legal speed limit. When frequently driving the vehicle at high speeds and/or for prolonged periods of time, check with your vehicle/tyre dealer for the proper type of tyres to use for the specific driving and weather conditions.

 **Warning**

Mixing tyres of different sizes (other than those originally installed on the vehicle), brands, or types may cause loss of control of the vehicle, resulting in a crash or other vehicle damage. Use the correct size, brand, and type of tyre on all four wheels.

 **Warning**

Using bias-ply tyres on the vehicle may cause the wheel rim flanges to develop cracks after many miles of driving. A tyre and/or wheel could fail suddenly and cause a crash. Use only radial-ply tyres with the wheels on the vehicle.

If the vehicle tyres must be replaced with a tyre that does not have a TPC Spec number, make sure they are the same size, load range, speed rating, and construction type (radial) as the original tyres.

Vehicles that have a tyre pressure monitoring system could give an inaccurate low-pressure warning if non-TPC Spec rated tyres are installed. See *Tyre Pressure Monitor Operation* ⇨ 273.

The Tyre and Loading Information label indicates the original equipment tyres on the vehicle. See *Vehicle Load Limits* ⇨ 186, for the label location and more information about the Tyre and Loading Information label.

## Different Size Tyres and Wheels

If wheels or tyres are installed that are a different size than the original equipment wheels and tyres, vehicle performance, including its braking, ride and handling characteristics, stability, and resistance to rollover may be affected. If the vehicle has electronic systems such as antilock brakes, rollover airbags, traction control, electronic stability control, or All-Wheel Drive, the performance of these systems can also be affected.

 **Warning**

If different sized wheels are used, there may not be an acceptable level of performance and safety if tyres not recommended for those wheels are selected. This increases the chance of a crash and serious injury. Only use GM specific wheel and tyre systems developed for the vehicle, and have them properly installed by a GM certified technician.

See *Buying New Tyres* ⇨ 279 and *Accessories and Modifications* ⇨ 241.

## Wheel Alignment and Tyre Balance

The tyres and wheels were aligned and balanced at the factory to provide the longest tyre life and best overall performance. Adjustments to wheel alignment and tyre balancing are not necessary on a regular basis. Consider an alignment check if there is unusual tyre wear or the vehicle is significantly pulling to one side or the other. Some

slight pull to the left or right, depending on the crown of the road and/or other road surface variations such as troughs or ruts, is normal. If the vehicle is vibrating when driving on a smooth road, the tyres and wheels may need to be rebalanced. See your dealer for proper diagnosis.

## Wheel Replacement

Replace any wheel that is bent, cracked, or badly rusted or corroded. If wheel nuts keep coming loose, the wheel, wheel bolts, and wheel nuts should be replaced. If the wheel leaks air, replace it. Some aluminium wheels can be repaired. See your dealer if any of these conditions exist.

Your dealer will know the kind of wheel that is needed.

Each new wheel should have the same load-carrying capacity, diameter, width, offset, and be mounted the same way as the one it replaces.

Replace wheels, wheel bolts, wheel nuts, or Tyre Pressure Monitor System (TPMS) sensors with new GM original equipment parts.

 **Warning**

Using the wrong replacement wheels, wheel bolts, or wheel nuts can be dangerous. It could affect the braking and handling of the vehicle. Tyres can lose air, and cause loss of control, causing a crash. Always use the correct wheel, wheel bolts, and wheel nuts for replacement.

## Caution

The wrong wheel can also cause problems with bearing life, brake cooling, speedometer or odometer calibration, headlamp aim, bumper height, vehicle ground clearance, and tyre or tyre chain clearance to the body and chassis.

## Used Replacement Wheels

### Warning

Replacing a wheel with a used one is dangerous. How it has been used or how far it has been driven may be unknown. It could fail suddenly and cause a crash. When replacing wheels, use a new GM original equipment wheel.

## Tyre Chains

Use tyre chains or other traction devices only when necessary.

Before using tyre chains, check with the tyre manufacturer to make sure tyre chains are compatible with the tyres on the vehicle. Follow the manufacturer's instructions.

Tyre chains are only permitted on 245/40ZR20 95Y size tyres. Install them on the rear tyres only, as tightly as possible with the ends securely fastened.

Only use low profile tyre chains that are the proper size for the tyres and add no more than 10 mm thickness to the tyre tread and inner sidewall.

### Caution

Do not install traction devices on the front tyres.

Drive slowly and follow the cable manufacturer's instructions. If the cables are contacting the vehicle, stop and retighten them. If the contact continues, slow down until it stops.

### Caution

To help avoid damage to the vehicle, drive slowly, do not spin the wheels, and readjust or remove the device if it contacts the vehicle.

## If a Tyre Goes Flat

It is unusual for a tyre to blow out while driving, especially if the tyres are maintained properly. See *Tyres* ⇨ 269. If air goes out of a tyre, it is

much more likely to leak out slowly. But if there ever is a blowout, here are a few tips about what to expect and what to do:

If a front tyre fails, the flat tyre creates a drag that pulls the vehicle toward that side. Take your foot off the accelerator pedal and grip the steering wheel firmly. Steer to maintain lane position, and then gently brake to a stop, well off the road, if possible.

A rear blowout, particularly on a curve, acts much like a skid and may require the same correction as used in a skid. Stop pressing the accelerator pedal and steer to straighten the vehicle. It may be very bumpy and noisy. Gently brake to a stop, well off the road, if possible.

### Warning

Driving on a flat tyre will cause permanent damage to the tyre. Re-inflating a tyre after it has been driven on while severely underinflated or flat may cause a

(Continued)

**Warning (Continued)**

blowout and a serious crash. Never attempt to re-inflate a tyre that has been driven on while severely underinflated or flat. Have your dealer or an authorised tyre service centre repair or replace the flat tyre as soon as possible.

**Warning**

Lifting a vehicle and getting under it to do maintenance or repairs is dangerous without the appropriate safety equipment and training. If a jack is provided with the vehicle, it is designed only for changing a flat tyre. If it is used for anything else, you or others could be badly injured or killed if the vehicle slips off the jack. If a jack is provided with the vehicle, only use it for changing a flat tyre.

If a tyre goes flat, avoid further tyre and wheel damage by driving slowly to a level place, well off the road, if possible. Turn on the hazard warning flashers. See *Hazard Warning Flashers* ⇨ 161.

**Warning**

Changing a tyre can be dangerous. The vehicle can slip off the jack and roll over or fall causing injury or death. Find a level place to change the tyre. To help prevent the vehicle from moving:

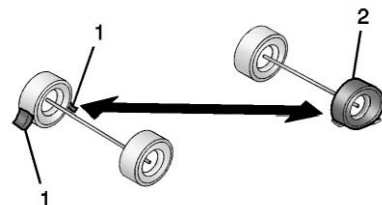
1. Apply the parking brake firmly.
2. Put an automatic transmission in P (Park) or a manual gearbox in 1 (First) or R (Reverse).
3. Turn off the engine and do not restart while the vehicle is raised.
4. Do not allow passengers to remain in the vehicle.

(Continued)

**Warning (Continued)**

5. Place wheel chocks, if equipped, on both sides of the tyre at the opposite corner of the tyre being changed.

When the vehicle has a flat tyre (2), use the following example as a guide to assist in the placement of the wheel blocks (1), if equipped.



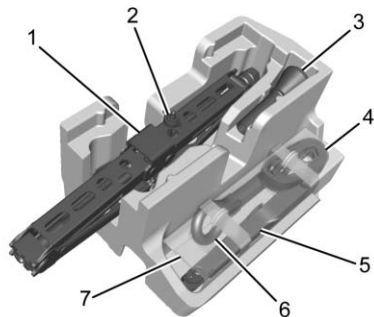
1. Wheel Chock (If Equipped)
2. Flat Tyre

The following information explains how to repair or change a tyre.

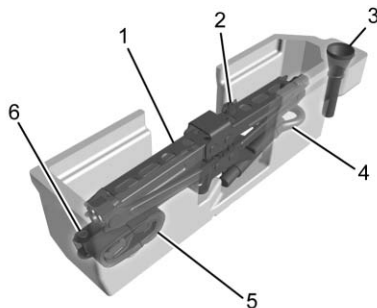
## Tyre Changing

### Removing the Spare Tyre and Tools

The jack and tools will be stored in one of the following ways.



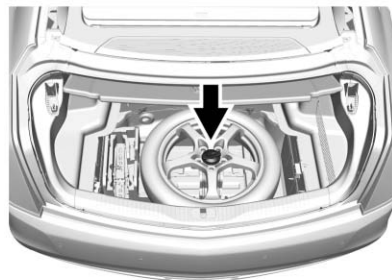
1. Jack
2. Retainer Nut
3. Fuel Funnel
4. Strap
5. Wrench
6. Tow Hook (If Equipped)
7. Tool Bag



1. Jack
2. Retainer Nut
3. Fuel Funnel
4. Tow Hook (If Equipped)
5. Strap
6. Wrench

To access the spare tyre and tools:

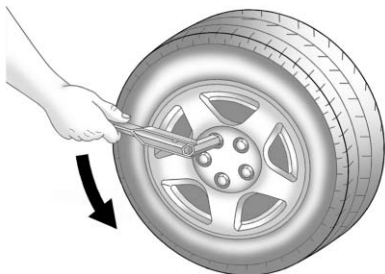
1. Open the boot.
2. Lift the spare tyre cover and attach the handle to the boot edge.



3. Turn the retainer nut anticlockwise and remove the spare tyre. Place the spare tyre next to the tyre being changed.
4. Remove the jack and tools from their container and place them near the tyre being changed.

### Removing the Flat Tyre and Installing the Spare Tyre

1. Do a safety check before proceeding. See *If a Tyre Goes Flat* ⇨ 282.
2. Turn the wheel wrench anticlockwise to loosen and remove the wheel nut caps.



3. Turn the wheel wrench anticlockwise to loosen all the wheel nuts, but do not remove them yet.
4. Place the jack near the flat tyre.
5. Put the compact spare tyre near you.

### **Warning**

Getting under a vehicle when it is lifted on a jack is dangerous. If the vehicle slips off the jack, you could be badly injured or killed. Never get under a vehicle when it is supported only by a jack.

### **Warning**

Raising the vehicle with the jack improperly positioned can damage the vehicle and even make the vehicle fall. To help avoid personal injury and vehicle damage, be sure to fit the jack lift head into the proper location before raising the vehicle.

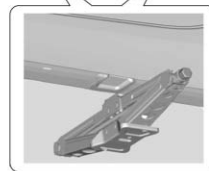
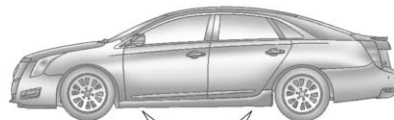
### **Warning**

Lifting a vehicle and getting under it to do maintenance or repairs is dangerous without the appropriate safety equipment and training. If a jack is provided with the vehicle, it is designed only for changing a flat tyre. If it is used for anything else, you or others could be badly injured or killed if the vehicle slips off the jack. If a jack is provided with the vehicle, only use it for changing a flat tyre.

6. Place the hex tube end of the wrench over the hex head of the jack.
7. Place the jack under the vehicle.

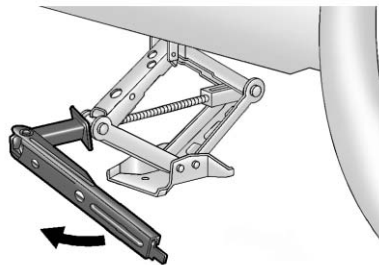
### **Caution**

Make sure that the jack lift head is in the correct position or you may damage your vehicle. The repairs would not be covered by your warranty.

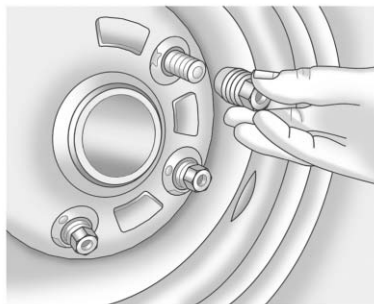


8. Position the jack lift head at the jack location nearest the flat tyre within the depression of the jack

pads, as shown. The jack must not be used in any other position.



9. Raise the vehicle by turning the jack handle clockwise. Raise the vehicle far enough off the ground so there is enough room for the road tyre to clear the ground.



10. Remove all of the wheel nuts.
11. Remove the flat tyre.

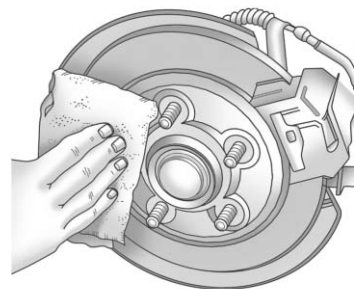
### **Warning**

Rust or dirt on a wheel, or on the parts to which it is fastened, can make wheel nuts become loose after time. The wheel could come off and cause an accident. When changing a wheel, remove any rust or dirt from places where the wheel attaches to the vehicle. In an emergency, a cloth or a paper towel

(Continued)

### **Warning (Continued)**

can be used; however, use a scraper or wire brush later to remove all rust or dirt.



12. Remove any rust or dirt from the wheel bolts, mounting surfaces, and spare wheel.
13. Place the compact spare tyre on the wheel-mounting surface.

**Warning**

Never use oil or grease on bolts or nuts because the nuts might come loose. The vehicle's wheel could fall off, causing a crash.

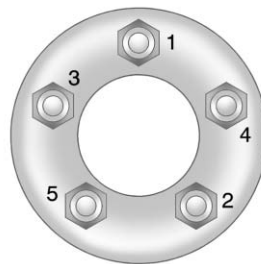
14. Reinstall the wheel nuts. Tighten each nut by hand until the wheel is held against the hub.
15. Lower the vehicle by turning the jack handle anticlockwise.

**Warning**

Wheel nuts that are improperly or incorrectly tightened can cause the wheels to become loose or come off. The wheel nuts should be tightened with a torque wrench to the proper torque specification after replacing. Follow the torque specification supplied by the aftermarket manufacturer when using accessory locking wheel nuts. See *Capacities and Specifications* ⇨ 312 for original equipment wheel nut torque specifications.

**Caution**

Improperly tightened wheel nuts can lead to brake pulsation and disc damage. To avoid expensive brake repairs, evenly tighten the wheel nuts in the proper sequence and to the proper torque specification. See *Capacities and Specifications* ⇨ 312 for the wheel nut torque specification.



16. Tighten the wheel nuts firmly in a crisscross sequence, as shown.

17. Lower the jack all the way and remove the jack from under the vehicle.
18. Tighten the wheel nuts firmly with the wheel wrench.

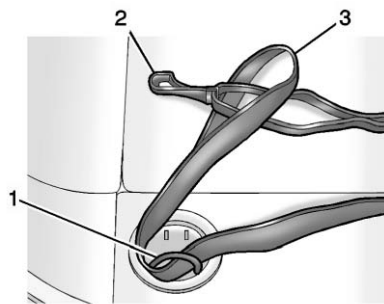
**Storing a Flat or Spare Tyre and Tools****Warning**

Storing a jack, a tyre, or other equipment in the passenger compartment of the vehicle could cause injury. In a sudden stop or collision, loose equipment could strike someone. Store all these in the proper place.

To store the flat tyre and tools:

1. Open the boot.
2. Replace the jack and tools as they were, originally, stored in their container near the spare tyre.
3. Replace the spare tyre cover.
4. Place the tyre, lying flat, in the rear storage compartment.

If there is a loop on the end of the strap used to secure the flat tyre, go to Step 5. If there is not a loop, go to Step 8.



5. Route the loop end of the strap (3) through one of the cargo tie-downs (1) in the rear of the vehicle.
6. Route the hook (2) through the loop (3).
7. Pull the strap to tighten it around the cargo tie-down (1).



8. Route the hook end of the strap through the wheel.
9. Attach the hook to the cargo tie-down in the rear of the vehicle.
10. Tighten the strap.

The compact spare is for temporary use only. Replace the compact spare tyre with a full-size tyre as soon as you can.

## Compact Spare Tyre

### Warning

Driving with more than one compact spare tyre at a time could result in loss of braking and handling. This could lead to a crash and you or others could be injured. Use only one compact spare tyre at a time.

If this vehicle has a compact spare tyre, it was fully inflated when new; however, it can lose air over time. Check the inflation pressure regularly. It should be 420 kPa (60 psi).

Stop as soon as possible and check that the spare tyre is correctly inflated after being installed on the vehicle. The compact spare tyre is designed for temporary use only. The vehicle will perform differently with the spare tyre installed and it is recommended that the vehicle speed be limited to 80 km/h (50 mph). To conserve the tread of the spare tyre, have the

standard tyre repaired or replaced as soon as convenient and return the spare tyre to the storage area.

When using a compact spare tyre, the AWD (if equipped), ABS, and Traction Control systems may engage until the spare tyre is recognised by the vehicle, especially on slippery roads. Adjust driving to reduce possible wheel slip.

### Caution

When the compact spare is installed, do not take the vehicle through an automatic car wash with guide rails. The compact spare can get caught on the rails which can damage the tyre, wheel, and other parts of the vehicle.

Do not use the compact spare on other vehicles.

Do not mix the compact spare tyre or wheel with other wheels or tyres. They will not fit. Keep the spare tyre and its wheel together.

### Caution

Tyre chains will not fit the compact spare. Using them can damage the vehicle and the chains. Do not use tyre chains on the compact spare.

## Jump Starting

For more information about the vehicle battery, see *Battery* ⇨ 254.

If the battery has run down, try to use another vehicle and some jumper cables to start your vehicle. Be sure to use the following steps to do it safely.

### Warning

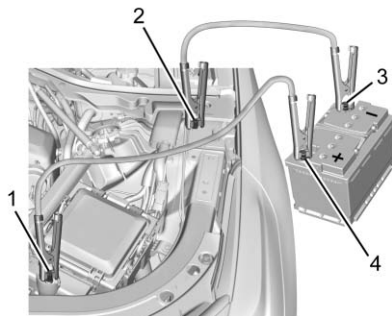
Batteries can hurt you. They can be dangerous because:

- They contain acid that can burn you.
- They contain gas that can explode or ignite.
- They contain enough electricity to burn you.

If you do not follow these steps exactly, some or all of these things can hurt you.

**Caution**

Ignoring these steps could result in costly damage to the vehicle that would not be covered by the vehicle warranty. Trying to start the vehicle by pushing or pulling it will not work, and it could damage the vehicle.



1. Discharged Remote Battery Positive Terminal
2. Discharged Remote Battery Negative Ground Terminal
3. Good Battery Negative Terminal

#### 4. Good Battery Positive Terminal

The jump start remote positive terminal (1) and the remote negative ground terminal (2) for the discharged battery are on the driver side of the vehicle.

The jump start negative terminal (3) and positive terminal (4) are on the battery of the vehicle providing the jump start.

The positive jump start connection for the discharged battery is under a red cover. Remove the cover to expose the terminal.

1. Check the other vehicle. It must have a 12-volt battery with a negative ground system.

**Caution**

If the other vehicle does not have a 12-volt system with a negative ground, both vehicles can be damaged. Only use a vehicle that has a 12-volt system with a negative ground for jump starting.

2. Position the two vehicles so that they are not touching.
3. Apply the parking brake firmly and put the shift lever in P (Park). See *Shifting Into Park* ⇨ 194.

**Caution**

If any accessories are left on or plugged in during the jump starting procedure, they could be damaged. The repairs would not be covered by the vehicle warranty. Whenever possible, turn off or unplug all accessories on either vehicle when jump starting.

4. Turn the ignition off. Turn off all lights and accessories in both vehicles, except the hazard warning flashers if needed.

 **Warning**

An electric fan can start up even when the engine is not running and can injure you. Keep hands, clothing, and tools away from any underbonnet electric fan.

 **Warning**

Using a match near a battery can cause battery gas to explode. People have been hurt doing this, and some have been blinded. Use a torch if you need more light.

Battery fluid contains acid that can burn you. Do not get it on you. If you accidentally get it in your eyes or on your skin, flush the place with water and get medical help immediately.

 **Warning**

Fans or other moving engine parts can injure you badly. Keep your hands away from moving parts once the engine is running.

5. Connect one end of the red positive (+) cable to the remote positive (+) terminal on the discharged battery.
6. Connect the other end of the red positive (+) cable to the positive (+) terminal of the good battery.
7. Connect one end of the black negative (–) cable to the negative (–) terminal of the good battery.
8. Connect the other end of the black negative (–) cable to the remote negative (–) ground terminal for the discharged battery.
9. Start the engine in the vehicle with the good battery and run the engine at idle speed for at least four minutes.

10. Try to start the vehicle that had the dead battery. If it will not start after a few tries, it probably needs service.

**Caution**

If the jump leads are connected or removed in the wrong order, electrical shorting may occur and damage the vehicle. The repairs would not be covered by the vehicle warranty. Always connect and remove the jump leads in the correct order, making sure that the cables do not touch each other or other metal.

**Jump Lead Removal**

Reverse the sequence exactly when removing the jump leads.

After starting the disabled vehicle and removing the jump leads, allow it to idle for several minutes.

## Towing the Vehicle

### Caution

Incorrectly towing a disabled vehicle may cause damage. The damage would not be covered by the vehicle warranty.

Do not lash or hook to suspension components. Use the proper straps around the tyres to secure the vehicle.

Use only a flatbed tow truck for towing a disabled vehicle. Never use a sling type lift or damage will occur. Use ramps to help reduce approach angles if necessary. A towed vehicle should have its drive wheels off the ground. Consult a professional towing service if the disabled vehicle must be towed.

If the vehicle is equipped with a tow eye, only use the tow eye to pull the vehicle onto a flatbed car carrier from a flat road surface. Do not use the tow eye to pull the vehicle from snow, mud, or sand.

### Caution

Improper use of the tow eye can cause vehicle damage. Use caution and low speeds to prevent damage to the vehicle.

### Front Attachment Point

Carefully open the cover in the fascia by using the small notch that conceals the tow eye socket.

Install the tow eye into the socket and turn it until it is fully tightened. When the tow eye is removed, reinstall the cover with the notch in the original position.



### Rear Attachment Point

Carefully open the cover in the fascia by using the small notch that conceals the tow eye socket.

Install the tow eye into the socket and turn it until it is fully tightened. When the tow eye is removed, reinstall the cover with the notch in the original position.



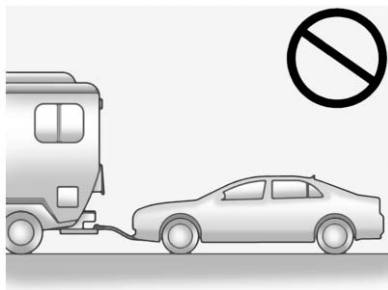
## Recreational Vehicle Towing

Recreational vehicle towing means towing the vehicle behind another vehicle such as a motor home. The two most common types of recreational vehicle towing are known as dinghy towing and dolly towing. Dinghy towing is towing the vehicle with all four wheels on the ground. Dolly towing is towing the vehicle with two wheels on the ground and two wheels up on a device known as a dolly.

Here are some important things to consider before recreational vehicle towing:

- What is the towing capacity of the towing vehicle? Be sure to read the tow vehicle manufacturer's recommendations.
- What is the distance that will be travelled? Some vehicles have restrictions on how far and how long they can tow.
- Is the proper towing equipment going to be used? See your dealer or trailering professional for additional advice and equipment recommendations.
- Is the vehicle ready to be towed? Just as preparing the vehicle for a long trip, make sure the vehicle is prepared to be towed.

## Dinghy Towing



### Caution

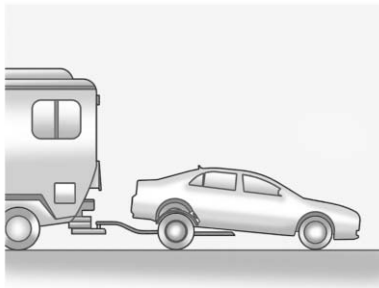
If the vehicle is towed with all four wheels on the ground, the drivetrain components could be damaged. The repairs would not be covered by the vehicle warranty. Do not tow the vehicle with all four wheels on the ground.

The vehicle was not designed to be towed with all four wheels on the ground. If the vehicle must be towed, a dolly should be used. See the following information on dolly towing.

### Caution

Use of a shield mounted in front of the vehicle grille could restrict airflow and cause damage to the transmission. The repairs would not be covered by the vehicle warranty. If using a shield, only use one that attaches to the towing vehicle.

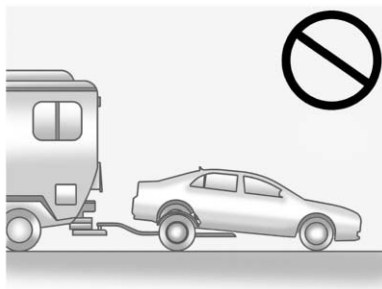
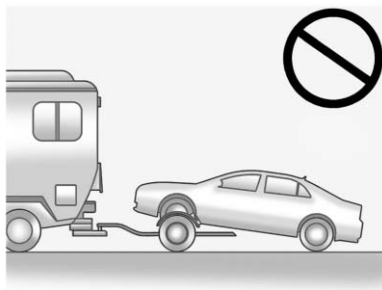
## Dolly Towing (Rear-Wheel Drive Vehicles)



To dolly tow a rear-wheel drive vehicle from the rear:

1. Attach the dolly to the tow vehicle following the dolly manufacturer instructions.
2. Put the rear wheels on the dolly.
3. Shift the transmission to P (Park).
4. Firmly apply the parking brake.
5. Use an adequate clamping device designed for towing to ensure that the front wheels are locked into the straight-ahead position.
6. Secure the vehicle to the dolly following the manufacturer instructions.
7. Release the parking brake only after the vehicle being towed is firmly attached to the towing vehicle.
8. Turn the ignition off.

## Dolly Towing (All-Wheel Drive Vehicles)



Vehicles with All-Wheel Drive cannot be dolly towed.

## Appearance Care

### Exterior Care

#### Locks

Locks are lubricated at the factory. Use a de-icing agent only when absolutely necessary, and have the locks greased after using. See *Recommended Fluids and Lubricants* ⇨ 308.

#### Washing the Vehicle

To preserve the vehicle's finish, wash it often and out of direct sunlight.

#### Caution

Do not use petroleum-based, acidic, or abrasive cleaning agents as they can damage the vehicle's paint, metal, or plastic parts. If damage occurs, it would not be covered by the vehicle warranty. Approved cleaning products can be obtained from your dealer. Follow all manufacturer directions regarding

(Continued)


#### Caution (Continued)

correct product usage, necessary safety precautions, and appropriate disposal of any vehicle care product.

#### Caution

Avoid using high-pressure washers closer than 30 cm (12 in) to the surface of the vehicle. Use of power washers exceeding 8,274 kPa (1,200 psi) can result in damage or removal of paint and decals.

#### Caution

Do not power wash any component under the bonnet that has this  symbol.

This could cause damage that would not be covered by the vehicle warranty.

If using an automatic car wash, follow the car wash instructions. The windscreen wiper and rear window wiper, if equipped, must be off. Remove any accessories that may be damaged or interfere with the car wash equipment.

Rinse the vehicle well, before washing and after, to remove all cleaning agents completely. If they are allowed to dry on the surface, they could stain.

Dry the finish with a soft, clean chamois or an all-cotton towel to avoid surface scratches and water spotting.

## Finish Care

Application of aftermarket clearcoat sealant/wax materials is not recommended. If painted surfaces are damaged, see your dealer to have the damage assessed and repaired. Foreign materials such as calcium chloride and other salts, ice melting agents, road oil and tar, tree sap, bird droppings, chemicals from industrial chimneys, etc., can damage the vehicle's finish if they remain on painted surfaces. Wash the vehicle as soon as possible. If necessary, use

non-abrasive cleaners that are marked safe for painted surfaces to remove foreign matter.

Occasional hand waxing or mild polishing should be done to remove residue from the paint finish. See your dealer for approved cleaning products.

Do not apply waxes or polishes to uncoated plastic, vinyl, rubber, decals, simulated wood, or flat paint as damage can occur.

### Caution

Machine compounding or aggressive polishing on a base coat/clear coat paint finish may damage it. Use only non-abrasive waxes and polishes that are made for a base coat/clear coat paint finish on the vehicle.

To keep the paint finish looking new, keep the vehicle garaged or covered whenever possible.

## Protecting Exterior Bright Metal Mouldings

### Caution

Failure to clean and protect the bright metal mouldings can result in a hazy white finish or pitting. This damage would not be covered by the vehicle warranty.

The bright metal mouldings on the vehicle are aluminium, chrome, or stainless steel. To prevent damage, always follow these cleaning instructions:

- Be sure the moulding is cool to the touch before applying any cleaning solution.
- Use only approved cleaning solutions for aluminium, chrome, or stainless steel. Some cleaners are highly acidic or contain alkaline substances and can damage the mouldings.
- Always dilute a concentrated cleaner according to the manufacturer's instructions.

- Do not use cleaners that are not intended for automotive use.
- Use a nonabrasive wax on the vehicle after washing to protect and extend the moulding finish.

### **Cleaning Exterior Lamps/Lenses, Emblems, Decals, and Stripes**

Use only lukewarm or cold water, a soft cloth, and a car washing soap to clean exterior lamps, lenses, emblems, decals, and stripes. Follow instructions under "Washing the Vehicle" previously in this section.

Lamp covers are made of plastic, and some have a UV protective coating. Do not clean or wipe them when dry.

Do not use any of the following on lamp covers:

- Abrasive or caustic agents.
- Washer fluids and other cleaning agents in higher concentrations than suggested by the manufacturer.
- Solvents, alcohols, fuels, or other harsh cleaners.
- Ice scrapers or other hard items.

- Aftermarket appearance caps or covers while the lamps are illuminated, due to excessive heat generated.

#### **Caution**

Failure to clean lamps properly can cause damage to the lamp cover that would not be covered by the vehicle warranty.

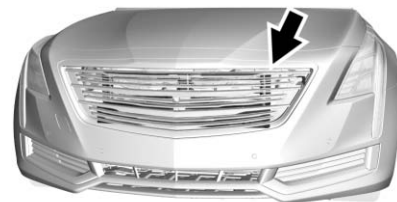
#### **Caution**

Using wax on low gloss black finish stripes can increase the gloss level and create a non-uniform finish. Clean low gloss stripes with soap and water only.

### **Air Intakes**

Clear debris from the air intakes between the bonnet and windscreen when washing the vehicle.

### **Shutter System**



The vehicle may have a shutter system designed to help increase fuel economy. Keep the shutter system clean for proper operation.

### **Windscreen and Wiper Blades**

Clean the outside of the windscreen with glass cleaner.

Clean rubber blades using a lint-free cloth or paper towel soaked with windscreen washer fluid or a mild detergent. Wash the windscreen thoroughly when cleaning the blades.

Insects, road grime, sap, and a build-up of vehicle wash/wax treatments may cause wiper streaking.

Replace the wiper blades if they are worn or damaged. Damage can be caused by extreme dusty conditions, sand, salt, heat, sun, snow, and ice.

**Weatherstrips**

Apply Dielectric silicone grease on weatherstrips to make them last longer, seal better, and not stick or squeak. Lubricate weatherstrips at least once a year. Hot, dry climates may require more frequent application. Black marks from rubber material on painted surfaces can be removed by rubbing with a clean cloth. See *Recommended Fluids and Lubricants* ⇨ 308.

**Tyres**

Use a stiff brush with tyre cleaner to clean the tyres.

**Caution**

Using petroleum-based tyre dressing products on the vehicle may damage the paint finish and/or tyres. When applying a tyre dressing, always wipe off any overspray from all painted surfaces on the vehicle.

**Wheels and Trim - Aluminium or Chrome**

Use a soft, clean cloth with mild soap and water to clean the wheels. After rinsing thoroughly with clean water, dry with a soft, clean towel. A wax may then be applied.

**Caution**

Chrome wheels and other chrome trim may be damaged if the vehicle is not washed after driving on roads that have been sprayed with magnesium, calcium, or sodium chloride. These chlorides are used

(Continued)

**Caution (Continued)**

on roads for conditions such as ice and dust. Always wash the chrome with soap and water after exposure.

**Caution**

To avoid surface damage, do not use strong soaps, chemicals, abrasive polishes, cleaners, brushes, or cleaners that contain acid on aluminium or chrome-plated wheels. Use only approved cleaners. Also, never drive a vehicle with aluminium or chrome-plated wheels through an automatic car wash that uses silicone carbide tyre cleaning brushes. Damage could occur and the repairs would not be covered by the vehicle warranty.

**Brake System**

Visually inspect brake lines and hoses for proper hook-up, binding, leaks, cracks, chafing, etc. Inspect disc brake pads for wear and discs for surface

condition. Inspect brake linings/shoes for wear or cracks. Inspect all other brake parts.

### **Steering, Suspension, and Chassis Components**

Visually inspect steering, suspension, and chassis components for damaged, loose, or missing parts or signs of wear at least once a year.

Inspect power steering for proper attachment, connections, binding, leaks, cracks, chafing, etc.

Visually check constant velocity joint boots and axle seals for leaks.

### **Body Component Lubrication**

Lubricate all key lock cylinders, bonnet hinges, tailgate hinges, and the steel fuel flap hinges, unless the components are plastic. Applying silicone grease on weatherstrips with a clean cloth will make them last longer, seal better, and not stick or squeak.

### **Underbody Maintenance**

At least twice a year, spring and fall, use plain water to flush any corrosive materials from the underbody. Take care to thoroughly clean any areas where mud and other debris can collect.

Do not directly power wash the transfer case and/or front/rear axle output seals. High pressure water can overcome the seals and contaminate the fluid. Contaminated fluid will decrease the life of the transfer case and/or axles and should be replaced.

### **Sheet Metal Damage**

If the vehicle is damaged and requires sheet metal repair or replacement, make sure the body repair shop applies anti-corrosion material to parts repaired or replaced to restore corrosion protection.

Original manufacturer replacement parts will provide the corrosion protection while maintaining the vehicle warranty.

### **Finish Damage**

Quickly repair minor chips and scratches with touch-up materials available from your dealer to avoid corrosion. Larger areas of finish damage can be corrected in your dealer's body and paint shop.

### **Chemical Paint Spotting**

Airborne pollutants can fall upon and attack painted vehicle surfaces causing blotchy, ring-shaped discolourations, and small, irregular dark spots etched into the paint surface. See "Finish Care" previously in this section.

### **Interior Care**

To prevent dirt particle abrasions, regularly clean the vehicle's interior. Immediately remove any soiling. Newspapers or dark garments can transfer colour to the vehicle's interior.

Use a soft bristle brush to remove dust from knobs and crevices on the instrument cluster. Using a mild soap solution, immediately remove hand

lotions, sunscreen, and insect repellent from all interior surfaces or permanent damage may result.

Use cleaners specifically designed for the surfaces being cleaned to prevent permanent damage. Apply all cleaners directly to the cleaning cloth. Do not spray cleaners on any switches or controls. Remove cleaners quickly.

Before using cleaners, read and follow all safety instructions on the label. While cleaning the interior, open the doors and windows to get proper ventilation.

To prevent damage, do not clean the interior using the following cleaners or techniques:

- Never use a razor or any other sharp object to remove soil from any interior surface.
- Never use a brush with stiff bristles.
- Never rub any surface aggressively or with too much pressure.
- Do not use laundry detergents or dishwashing soaps with degreasers. For liquid cleaners, use approximately 20 drops per 3.8 L

(1 gal) of water. A concentrated soap solution will create streaks and attract dirt. Do not use solutions that contain strong or caustic soap.

- Do not heavily saturate the upholstery when cleaning.
- Do not use solvents or cleaners containing solvents.

### Interior Glass

To clean, use a terry cloth fabric dampened with water. Wipe droplets left behind with a clean dry cloth. If necessary, use a commercial glass cleaner after cleaning with plain water.

Caution
To prevent scratching, never use abrasive cleaners on automotive glass. Abrasive cleaners or aggressive cleaning may damage the rear window defogger.

Cleaning the windshield with water during the first three to six months of ownership will reduce tendency to fog.

### Speaker Covers

Vacuum around a speaker cover gently, so that the speaker will not be damaged. Clean spots with water and mild soap.

### Coated Mouldings

Coated mouldings should be cleaned.

- When lightly soiled, wipe with a sponge or soft, lint-free cloth dampened with water.
- When heavily soiled, use warm soapy water.

### Fabric/Carpet/Suede

Start by vacuuming the surface using a soft brush attachment. If a rotating vacuum brush attachment is being used, only use it on the floor carpet. Before cleaning, gently remove as much of the soil as possible:

- Gently blot liquids with a paper towel. Continue blotting until no more soil can be removed.
- For solid soil, remove as much as possible prior to vacuuming.

To clean:

1. Saturate a clean, lint-free colour-fast cloth with water. Microfiber cloth is recommended to prevent lint transfer to the fabric or carpet.
2. Remove excess moisture by gently wringing until water does not drip from the cleaning cloth.
3. Start on the outside edge of the soil and gently rub toward the centre. Fold the cleaning cloth to a clean area frequently to prevent forcing the soil in to the fabric.
4. Continue gently rubbing the soiled area until there is no longer any colour transfer from the soil to the cleaning cloth.
5. If the soil is not completely removed, use a mild soap solution followed only by plain water.

If the soil is not completely removed, it may be necessary to use a commercial upholstery cleaner or spot lifter. Test a small hidden area for colourfastness before using a

commercial upholstery cleaner or spot lifter. If ring formation occurs, clean the entire fabric or carpet.

After cleaning, use a paper towel to blot excess moisture.

### **Cleaning High Gloss Surfaces and Vehicle Information and Radio Displays**

Use a microfibre cloth on high gloss surfaces or vehicle displays. First, use a soft bristle brush to remove dirt that can scratch the surface. Then gently clean by rubbing with a microfibre cloth. Never use window cleaners or solvents. Periodically hand wash the microfibre cloth separately, using mild soap. Do not use bleach or fabric softener. Rinse thoroughly and air dry before next use.

#### **Caution**

Do not attach a device with a suction cup to the display. This may cause damage and would not be covered by the vehicle warranty.

### **Instrument Panel, Leather, Vinyl, Other Plastic Surfaces, Low Gloss Paint Surfaces, and Natural Open Pore Wood Surfaces**

Use a soft microfiber cloth dampened with water to remove dust and loose dirt. For a more thorough cleaning, use a soft microfiber cloth dampened with a mild soap solution.

#### **Caution**

Soaking or saturating leather, especially perforated leather, as well as other interior surfaces, may cause permanent damage. Wipe excess moisture from these surfaces after cleaning and allow them to dry naturally. Never use heat, steam, or spot removers. Do not use cleaners that contain silicone or wax-based products. Cleaners containing these solvents can permanently change the appearance and feel of leather or soft trim, and are not recommended.

Do not use cleaners that increase gloss, especially on the instrument panel. Reflected glare can decrease visibility through the windshield under certain conditions.

### Caution

Use of air fresheners may cause permanent damage to plastics and painted surfaces. If an air freshener comes in contact with any plastic or painted surface in the vehicle, blot immediately and clean with a soft cloth dampened with a mild soap solution. Damage caused by air fresheners would not be covered by the vehicle warranty.

### Cargo Cover and Convenience Net

Wash with warm water and mild detergent. Do not use chlorine bleach. Rinse with cold water, and then dry completely.

### Care of Seat Belts

Keep belts clean and dry.

### Warning

Do not bleach or dye seat belt webbing. It may severely weaken the webbing. In a crash, they might not be able to provide adequate protection. Clean and rinse seat belt webbing only with mild soap and lukewarm water. Allow the webbing to dry.

### Floor Mats

### Warning

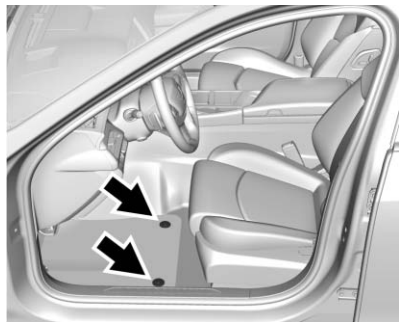
If a floor mat is the wrong size or is not properly installed, it can interfere with the pedals. Interference with the pedals can cause unintended acceleration and/or increased stopping distance which can cause a crash and injury. Make sure the floor mat does not interfere with the pedals.

Use the following guidelines for proper floor mat usage.

- The original equipment floor mats were designed for your vehicle. If the floor mats need replacing, it is recommended that GM certified floor mats be purchased. Non-GM floor mats may not fit properly and may interfere with the pedals. Always check that the floor mats do not interfere with the pedals.
- Do not use a floor mat if the vehicle is not equipped with a floor mat retainer on the driver side floor.
- Use the floor mat with the correct side up. Do not turn it over.
- Do not place anything on top of the driver side floor mat.
- Use only a single floor mat on the driver side.
- Do not place one floor mat on top of another.

The driver side floor mat is held in place by two button-type retainers.

## Removing and Replacing the Floor Mats



1. Pull up on the rear of the floor mat to unlock the retainers and remove.
2. Reinstall by lining up the floor mat retainer openings over the carpet retainers and snap into position.
3. Make sure the floor mat is properly secured in place. Verify the floor mat does not interfere with the pedals.

# Service and Maintenance

**General Information**  
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**Scheduled Maintenance**  
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**Recommended Fluids, Lubricants, and Parts**  
Recommended Fluids and Lubricants ..... 308  
Maintenance Replacement Parts ..... 309

**Maintenance Records**  
Maintenance Records ..... 310

## General Information

**Caution**

Damage caused by improper maintenance can lead to costly repairs and may not be covered by the vehicle warranty. Maintenance intervals, checks, inspections, recommended fluids, and lubricants are important to keep the vehicle in good working condition.

Do not have chemical flushes that are not approved by GM performed on the vehicle. The use of flushes, solvents, cleaners, or lubricants that are not approved by GM could damage the vehicle, requiring expensive repairs that are not covered by the vehicle warranty.

As the vehicle owner, you are responsible for the scheduled maintenance in this section. We recommend having your dealer

perform these services. Proper vehicle maintenance helps to keep the vehicle in good working condition, improves fuel economy and reduces vehicle emissions for better air quality.

Because of all the different ways people use vehicles, maintenance needs vary. The vehicle might need more frequent checks and services. Please read the information under Scheduled Maintenance. To keep the vehicle in good condition, see your dealer.

The maintenance schedule is for vehicles that:

- Carry passengers and cargo within recommended limits on the Tyre and Loading Information label. See *Vehicle Load Limits* ⇨ 186.
- Are driven on reasonable road surfaces within legal driving limits.
- Use the recommended fuel. See *Fuel* ⇨ 236.

 **Warning**

Performing maintenance work can be dangerous. Some jobs can cause serious injury. Perform maintenance work only if you have the required know-how and the proper tools and equipment. If in doubt, see your dealer to have a qualified technician do the work. See *Doing Your Own Service Work* ⇨ 241.

At your dealer, you can be certain that you will receive the highest level of service available. Your dealer has specially trained service technicians, uses genuine replacement parts, as well as, up-to-date tools and equipment to ensure fast and accurate diagnostics.

The proper replacement parts, fluids and lubricants to use are listed in *Recommended Fluids and Lubricants* ⇨ 308 and *Maintenance Replacement Parts* ⇨ 309. We recommend the use of genuine parts from your dealer.

### Rotation of New Tyres

Tyre rotation is not recommended if the vehicle has different size tyres on the front and rear wheels. If tyre rotation is recommended for the vehicle, to maintain ride, handling, and performance of the vehicle, it is important that the first rotation service for new tyres be performed. Tyres should be rotated every service. See *Tyre Rotation* ⇨ 277.

## Scheduled Maintenance

### Engine Oil Change

Change engine oil and filter when indicated by the oil life system, at 15 000 km, or at one year, whichever comes first. If driven under the best conditions, the engine oil life system may not indicate the need for vehicle service for up to a year. The engine oil and filter must be changed at least once a year and the oil life system must be reset. Your trained dealer technician can perform this work. If the engine oil life system is reset accidentally, service the vehicle within 5,000 km/3,000 mi since the last service. Reset the oil life system when the oil is changed.

### Vehicle Inspection

Inspect the following items when indicated by the oil life system, at 15 000 km, or at one year, whichever comes first:

- Change engine oil and filter. Reset the oil life system.
- Engine coolant level check.

- Engine cooling system inspection. Visual inspection of hoses, pipes, fittings, and clamps and replacement, if needed.
- Windscreen washer fluid level check.
- Windscreen wiper blade inspection for wear, cracking, or contamination and windscreen and wiper blade cleaning, if contaminated. Worn or damaged wiper blade replacement.
- Tyre inflation pressures check.
- Tyre wear inspection.
- Fluids visual leak check. A leak in any system must be repaired and the fluid level checked.
- Engine air cleaner filter inspection.
- Brake system inspection. See *Exterior Care* ⇨ 295.
- Steering and suspension inspection. Visual inspection for damaged, loose, or missing parts or signs of wear.
- Body hinges and latches, key lock cylinders, folding seat hardware, and rear compartment, bonnet,

and console door hinges and latches lubrication. More frequent lubrication may be required when the vehicle is exposed to a corrosive environment. Applying silicone grease on weatherstrips with a clean cloth makes them last longer, seal better, and not stick or squeak.

- Restraint system component check.
- Fuel system inspection for damage or leaks.
- Exhaust system and nearby heat shields inspection for loose or damaged components.
- Accelerator pedal check for damage, high effort, or binding.
- Visually inspect gas strut(s) for signs of wear, cracks, or other damage. Check the hold open ability of the strut(s). If the hold open is low, service the gas strut(s). See *Gas Strut(s)* ⇨ 258.
- Road Test. Check all systems for correct function/performance.

- To maintain air conditioning efficiency, have an authorised repairer check the system at least once each year.
- Automatic transmission shift lock control function check.
- Parking brake and automatic P (Park) mechanism check.
- Underbody flushing service.
- Inspect sunroof track and seal, if equipped. See *Sunroof* ⇨ 53.

### **Additional Maintenance Every 30 000 km or 2 Years**

In addition to the items listed under "Inspection Every 15 000 km or 1 Year", the following items should be carried out every 30 000 km or 2 years (whichever occurs first):

- Passenger compartment air filter — replace. More frequent passenger compartment air filter replacement may be needed if you drive in areas with heavy traffic, poor air quality, areas with high dust levels or are sensitive to environmental allergens. Passenger compartment air filter

replacement may also be needed if there is reduced airflow, windows misting up, or odours. Your GM retailer can help determine when it is the right time to replace the filter.

- Engine air filter replacement. If driving in dusty conditions, inspect the filter at each oil change or more often as needed.

#### **Additional Maintenance Every 60 000 km**

- Replace brake fluid every 60 000 km or two years, whichever occurs first.

#### **Additional Maintenance Every 72 000 km**

- Automatic transmission fluid and filter change (severe operation) for vehicles mainly driven in heavy city traffic in hot weather, in hilly or mountainous terrain, when frequently towing a trailer, or when used for taxi, police, or delivery service.
- Change front and rear axle fluid (severe operation).

- Transfer case fluid change (severe operation) for vehicles mainly driven in heavy city traffic in hot weather, in hilly or mountainous terrain, when frequently towing a trailer, or when used for taxi, police, or delivery service. During any maintenance, if a power washer is used to clean mud and dirt from the underbody, do not directly power wash the transfer case and/or front/rear axle output seals. High pressure water can overcome the seals and contaminate the transfer case fluid. Contaminated fluid will decrease the life of the transfer case and/or axles and should be replaced.

#### **Additional Maintenance Every 80 000 km**

- Visually check all fuel and vapour lines and hoses for proper attachment, connection, routing, and condition.

#### **Additional Maintenance Every 90 000 km**

- Spark plugs — replace.

#### **Additional Maintenance Every 240 000 km**

- Change front and rear axle fluid (normal operation).

#### **Additional Maintenance Every 250,000 km or 5 Years, Whichever Occurs First**

- Engine cooling system drain and refill.

#### **Conditions Requiring More Frequent Maintenance (Severe Service)**

- Extreme temperatures.
- Heavy city traffic.
- Hilly or mountainous terrain.
- Dusty, muddy or off-road conditions.
- Commercial use or trailer towing.
- Most trips less than 6 km.

## Recommended Fluids, Lubricants, and Parts

### Recommended Fluids and Lubricants

Usage	Fluid/Lubricant
Automatic Transmission	DEXRON-HP Automatic Gearbox Fluid.
Chassis Lubrication	Chassis Lubricant (GM Part No. 12377985) or lubricant meeting requirements of NLGI #2, Category LB or GC-LB.
Engine Coolant	50/50 mixture of clean, drinkable water and use only DEX-COOL Coolant. See <i>Cooling System</i> ⇨ 248.
Engine Oil	Engine oil meeting the dexos2 specification of the proper SAE viscosity grade. ACDelco dexos2 is recommended. See <i>Engine Oil</i> ⇨ 244.
Bonnet Latch Assembly, Secondary Latch, Pivots, Spring Anchor and Release Pawl	Lubriplate Lubricant Aerosol (GM Part No. 89021668) or lubricant meeting requirements of NLGI #2, Category LB or GC-LB.
Hydraulic Brake System	DOT 3 Hydraulic Brake Fluid.
Key Lock Cylinders, Bonnet, and Door Hinges	Multi-Purpose Lubricant, Superlube (GM Part No. 12346241).
Rear Axle	SAE 75W-90 Synthetic Axle Lubricant (GM Part No. 88863089).
Transfer Case (All-Wheel Drive)	Transfer Case Fluid (GM Part No. 88861950).
Weatherstrip Conditioning	Weatherstrip Lubricant or Dielectric Silicone Grease (GM Part No. 12345579).
Windscreen Washer	Automotive windscreen washer fluid that meets regional freeze protection requirements.

## Maintenance Replacement Parts

Replacement parts identified below by name, part number, or specification can be obtained from your dealer.

<b>Part</b>	<b>GM Part Number</b>	<b>ACDelco Part Number</b>
Engine Air Cleaner/Filter	20857930	A3178C
Engine Oil Filter	12640445	PF64
Passenger Compartment Air Filter	13508023	CF185
Spark Plugs	12647827	41-125
Wiper Blades		
Driver Side – 60 cm (23.6 in)	23368186	-
Passenger Side – 45 cm (17.7 in)	23353587	-

## Maintenance Records

After the scheduled services are performed, record the date, odometer reading, who performed the service, and the type of services performed in the boxes provided. Retain all maintenance receipts.

[illegible]

## Technical Data

### Vehicle Identification

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### Vehicle Data

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## Vehicle Identification

### Vehicle Identification Number (VIN)



This legal identifier is in the front corner of the instrument panel, on the driver side of the vehicle. It can be seen through the windscreen from outside. The Vehicle Identification Number (VIN) also appears on the Vehicle Certification and Service Parts labels and certificates of title and registration.

### Engine Identification

The eighth character in the VIN is the engine code. This code identifies the vehicle's engine, specifications, and replacement parts. See “Engine Specifications” under *Capacities and Specifications* ⇨ 312 for the vehicle's engine code.

## Service Parts Identification Label

There may be a label on the inside of the boot that contains the following information:

- Vehicle Identification Number (VIN)
- Model designation
- Paint information
- Production options and special equipment

If there is no label, there is a bar code on the certification label on the centre (B) pillar to scan for this same information.

## Vehicle Data

### Capacities and Specifications

The following approximate capacities are given in metric and English conversions. See *Recommended Fluids and Lubricants* ⇨ 308 for more information.

Application	Capacities	
	Metric	English
Air Conditioning Refrigerant	For the air conditioning system refrigerant type and charge amount, see the refrigerant label under the bonnet. See your dealer for more information.	
Cooling System - Engine		
3.0L V6 Twin Turbo Engine	10.6 L	11.2 qt
3.0L V6 Twin Turbo Engine with Auxiliary Radiator	11.5 L	12.2 qt
3.0L V6 Twin Turbo Engine with Rear A/C	12.3 L	13.0 qt
3.0L V6 Twin Turbo Engine with Rear A/C and Auxiliary Radiator	13.2 L	13.9 qt
Cooling System – Twin Turbo		
3.0L V6 Engine Intercoolers	3.2 L	3.4 qt
Engine Oil with Filter		
3.0L V6 Twin Turbo Engine	5.7 L	6.0 qt
Front Axle – AWD	0.45 L	0.48 qt

Application	Capacities	
	Metric	English
Rear Axle – AWD	0.5 L	0.53 qt
Fuel Tank	72.7 L	19.2 gal
Transfer Case - AWD	0.8 L	0.85 qt
Wheel Nut Torque	150 N•m	110 lb ft
All capacities are approximate. When adding, be sure to fill to the approximate level, as recommended in this manual. Recheck fluid level after filling.		

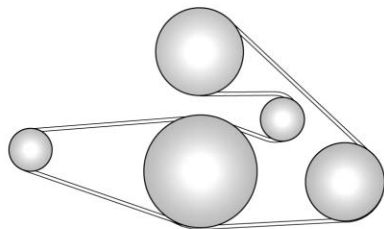
### Engine Specifications

Engine	VIN Code	Horsepower	Torque	Spark Plug Gap
3.0L V6 Twin Turbo Engine (LGW)	6	307 kW @ 5700 min <sup>-1</sup> (417 hp @ 5700 rpm)	555 N•m @ 2500-5100 min <sup>-1</sup> (409 lb ft @ 2500-5100 rpm)	0.65–0.75 mm (0.26– 0.030 in)

Fuel Consumption and Emissions Information

	Urban	Extra-Urban	Combined
3.0L V6 Twin Turbo Engine Luxury			
Carbon Dioxide (g/km)	300	170	218
Fuel Economy (L/100 km)	13.2	7.4	9.6
3.0L V6 Twin Turbo Engine Platinum			
Carbon Dioxide (g/km)	310	172	223
Fuel Economy (L/100 km)	13.6	7.5	9.8

## Engine Drive Belt Routing



3.0L V6 Twin Turbo Engine

# Customer Information

## Customer Information

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## Vehicle Data Recording and Privacy

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# Customer Information

## Radio Frequency Identification (RFID)

Radio Frequency Identification (RFID) technology is used in some vehicles for functions such as tyre pressure monitoring and ignition system security. It is also used in connection with conveniences such as Remote Keyless Entry (RKE) transmitters for remote door locking/unlocking and starting, and in-vehicle transmitters for garage door openers. RFID technology in Cadillac vehicles does not use or record personal information or link with any other Cadillac system containing personal information.

## Libcurl and Unzip Acknowledgements

### OnStar - Software Acknowledgements

Certain OnStar components include libcurl and unzip software and other third party software. Below are the

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### libcurl:

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## Tyre Jack



*GM North America*

General Motors Company  
Warren Technical Center  
Vehicle Engineering Center  
3000 Van Dyke  
Warren, MI 48090-210-V11  
Mail Code 480-210-V11  
Warren, Michigan 48090  
U.S.A.

Declaration of Conformity  
Pursuant to Machinery Directive 2006/42/EC

We hereby declare that the product:

Product Description: Scissor / Screw Automotive Jack  
Type/Part #: 13591197-Base Jack

Is in conformity with Machinery Directive 2006/42/EC.


Technical standards applied:

GMW14337 Standard Equipment Jack - Hardware Tests  
GMW15005 Standard Equipment Jack and Spare Tire, Vehicle Test

The person authorized to compile the technical file:

Hans-Peter Metzger  
Adam Opel AG  
65423 Rüsselsheim / Germany

Date: Feb-1-16, Warren/MI, USA

  
Choru Hoyes  
Engineering Group Manager  
Tire/Wheel System  
30001 Van Dyke  
Warren, MI, 48090, USA

**Translation of the Original  
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GMW14337 Standard Equipment Jack  
– Hardware Tests

GMW15005 Standard Equipment Jack  
and Spare Tyre, Vehicle Test

The person authorised to compile the  
technical file is:

Hans-Peter Metzger

Adam Opel AG

65423 Russelsheim / Germany

Date: Feb-1-16, Warren/MI, USA

signed by

Charu Hayes

Engineering Group Manager

Tyre/Wheel System

30001 Van Dyke

Warren, MI, 48090, USA

## Vehicle Data Recording and Privacy

**Event Data Recorders****Data Storage Modules in the Vehicle**

A large number of electronic components of your vehicle contain data storage modules temporarily or permanently storing technical data about the condition of the vehicle, events, and errors. In general, this technical information documents the condition of parts, modules, systems, or the environment:

- Operating conditions of system components (e.g., filling levels).
- Status messages of the vehicle and its single components (e.g., number of wheel revolutions/rotational speed, deceleration, lateral acceleration).
- Dysfunctions and defects in important system components.
- Vehicle reactions in particular driving situations (e.g., inflation of an airbag, activation of the stability regulation system).

- Environmental concerns (e.g., temperature).

This data is exclusively technical and helps identify and correct errors as well as optimise vehicle functions.

Motion profiles indicating travelled routes cannot be created with this data.

If services are used (e.g., repair works, service processes, warranty cases, quality assurance), employees of the service network (manufacturer included) are able to read out this technical information from the event and error data storage modules applying special diagnostic devices. If required, you will receive further information at these dealers. After an error has been corrected, the data is deleted from the error storage module or constantly overwritten.

When using the vehicle, situations may occur in which this technical data related to other information (accident report, damages on the vehicle, witness statements, etc.) may be associated with a specific person — possibly, with the assistance of an expert.

Additional functions contractually agreed upon with the client (e.g., vehicle location in emergency cases) allow the transmission of particular vehicle data from the vehicle.

## **Infotainment System**

If the vehicle is equipped with a navigation system as part of the infotainment system, use of the system may result in the storage of destinations, addresses, telephone numbers, and other trip information. See the infotainment manual for information on stored data and for deletion instructions.

# OnStar

## OnStar Overview

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## OnStar Overview

### OnStar system

OnStar is a personal connectivity and service assistant with integrated Wi-Fi hotspot. The OnStar service is available 24 hours a day, seven days a week.

Note: OnStar is not available for all markets. For further information, contact your retailer.

Note: In order to be available and operational, OnStar needs a valid OnStar subscription, functioning vehicle electrics, mobile service and GPS satellite link.

To activate the OnStar services and set up an account, press  and speak with an OnStar advisor.

Depending on the equipment of the vehicle, the following services are available:

- Emergency services and support in the case of a vehicle breakdown
- Wi-Fi hotspot
- Smartphone application


- Remote control, e.g. location of the vehicle, activation of horn and lights, control of central locking system
- Stolen vehicle assistance
- Vehicle diagnostics
- Destination download


Note: The OnStar module of the vehicle is deactivated after ten days without an ignition cycle. Functions requiring a data connection will be available again after switching on the ignition.


### OnStar buttons




### Privacy button

Press and hold  until an audio message is heard to activate or deactivate the transmission of the vehicle location.


Press  to answer a call or to end a call to an advisor.

Press  to access the Wi-Fi settings.

### Service button

Press  to establish a connection to an advisor.

### SOS button

Press  to establish a priority emergency connection to a specially trained emergency advisor.

### Status LED

Green: The system is ready.

Green flashing: The system is on a call.


Red: A problem arose.

Off: System is in standby mode.


Red / green flashing for a short period of time: Transmission of the vehicle location has been deactivated.

## OnStar services

### General services

If you need any information concerning e.g. opening hours, point of interest and destinations or if you need any support e.g. in the case of a vehicle breakdown, a flat tyre and empty fuel tank, press  to establish a connection to an advisor.

### Emergency services

In the case of an emergency situation, press  and talk to an advisor. The advisor then contacts emergency or assistance service providers and directs them to your vehicle.

In the case of an accident with activation of airbags or belt tensioners, an automatic emergency call is established. The advisor is immediately connected to your vehicle to see whether help is needed.


### Wi-Fi hotspot


The Wi-Fi hotspot of the vehicle provides internet connectivity with a maximum speed of 4G/LTE.


Note: The Wi-Fi hotspot functionality is not available for all markets.

Up to seven devices may be connected.

To connect a mobile device with the Wi-Fi hotspot:

1. Press  and then select Wi-Fi settings on the Info-Display. The settings displayed include the Wi-Fi hotspot name (SSID), password and, if equipped, connection type.
2. Start a Wi-Fi network search on your mobile device.
3. Select your vehicle hotspot (SSID) when listed.
4. When prompted, enter the password on your mobile device.

Note: To change the SSID or password, press  and talk to an OnStar advisor or login to your account.

To switch off the Wi-Fi hotspot functionality, press  to call an advisor.

**Smartphone app**

With the smartphone app, some vehicle functions can be operated remotely:

- Lock or unlock vehicle.
- Honk horn or flash lights.
- Check fuel level, engine oil life, if equipped, and tyre pressure (only with tyre pressure monitoring system).
- Send navigation destination to the vehicle, if equipped with a built-in navigation system.
- Locate vehicle on a map.
- Manage Wi-Fi settings.

To operate these functions, download the app from Apple's App Store or Google Play Store.

**Remote control**

If desired, use any phone to call an advisor, who can remotely operate specific vehicle functions. Find the respective OnStar phone number on our country-specific website.

The following functions are available:

- Lock or unlock vehicle.
- Provide information on the vehicle location.
- Honk horn or flash lights.

**Stolen vehicle assistance**

If the vehicle is stolen, report the theft to the authorities and request OnStar stolen vehicle assistance. Use any phone to call an advisor. Find the respective OnStar phone number on our country-specific website.

OnStar can provide support in locating and recovering the vehicle.


**Theft alert**

When the anti-theft alarm system is triggered, a notification is sent to OnStar. You are then informed about this event by text message or email.

**Restart prevention**

By sending remote signals, OnStar can prevent the vehicle from restarting once it has been turned off.

**On-demand diagnostics**

At any time e.g. if the vehicle displays a service message, press  to contact an advisor and ask to complete a real-time diagnostic check to directly determine the issue. Depending on the results, the advisor will provide further support.

**Diagnostic report**

The vehicle automatically transmits diagnostic data to OnStar which sends a monthly email report to you and your preferred retailer.


Note: The retailer notification function can be disabled in your account.

The report contains the status of key operating systems of the vehicle like engine, transmission, airbags, ABS, and other major systems. It also provides information on possible maintenance items and tyre pressure (only with tyre pressure monitoring system).

To look at the information in greater detail, select the link within the email and log into your account.

## Destination download

If equipped with this feature, a desired destination can be directly downloaded to the navigation system.


Press  to call an advisor and describe the destination or point of interest.

The advisor can look up any address or point of interest and directly send the destination to the built-in navigation system.


## OnStar settings


### OnStar PIN

To have full access to all OnStar services, a four-digit PIN is required. The PIN has to be personalised when first talking to an advisor.

To change the PIN, press  to call an advisor.

### Account data


An OnStar subscriber has an account, where all the data is stored. To request a change of the account information, press  and talk to an advisor or login to your account.

If the OnStar service is used on another vehicle, press  and request that the account be transferred to the new vehicle.

Note: In any case, if the vehicle is disposed of, sold or otherwise transferred, immediately inform OnStar about the changes and terminate the OnStar service on this vehicle.

## Vehicle location

The vehicle location is transmitted to OnStar when service is requested or triggered. A message on the Info-Display informs about this transmission.

To activate or deactivate the transmission of the vehicle location, press and hold  until an audio message is heard.

The deactivation is indicated by the status light flashing red and green for a short period of time and each time the vehicle is started.

Note: If the transmission of the vehicle location is deactivated, some services are no longer available.

Note: The vehicle location always remains accessible to OnStar in the case of an emergency.

Find the privacy policy in your account.

## Software updates

OnStar may remotely carry out software updates without further notice or consent. These updates are to enhance or maintain safety and security or the operation of the vehicle.

These updates may concern privacy issues. Find the privacy policy in your account.

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