



2026

# TRAX

## Owner's Manual



## Contents

|                                |     |
|--------------------------------|-----|
| Introduction .....             | 1   |
| Keys, Doors, and Windows ..... | 7   |
| Seats and Restraints .....     | 33  |
| Storage .....                  | 76  |
| Instruments and Controls ..... | 80  |
| Lighting .....                 | 110 |
| Infotainment System .....      | 118 |
| Climate Controls .....         | 161 |
| Driving and Operating .....    | 167 |
| Vehicle Care .....             | 221 |
| Service and Maintenance .....  | 290 |
| Technical Data .....           | 298 |
| Customer Information .....     | 301 |
| Reporting Safety Defects ..... | 311 |
| OnStar .....                   | 314 |
| Connected Services .....       | 319 |
| Index .....                    | 321 |

## Introduction

### California Proposition 65 Warning



# WARNING

Operating, servicing and maintaining a passenger vehicle or off-highway motor vehicle can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle engine except as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle. For more information go to [www.P65Warnings.ca.gov/passenger-vehicle](http://www.P65Warnings.ca.gov/passenger-vehicle).

## 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, CHEVROLET, the CHEVROLET Emblem, and TRAX are trademarks and/or service marks of General Motors LLC, its subsidiaries, affiliates, or licensors.

For vehicles first sold in Canada, substitute the name “General Motors of Canada Company” for Chevrolet Motor Division wherever it appears in this manual.

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 this publication’s release, including changes in standard or optional content.

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

## Canadian Vehicle Owners

You can obtain a copy of this guide in French from your dealer, at [www.helminc.com](http://www.helminc.com), or from the following address:

### Propriétaires Canadiens

On peut obtenir un exemplaire de ce guide en français auprès du concessionnaire ou à l’adresse suivante:

Helm, Incorporated  
Attention: Customer Service  
47911 Halyard Drive  
Plymouth, MI 48170  
USA

## 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.

## About Driving the Vehicle

As with other vehicles of this type, failure to operate this vehicle correctly may result in loss of control or a crash. Be sure to read the driving guidelines in this manual in the section called “Driving and Operating” and specifically *Driver Behavior* ⇨ 168, *Driving Environment* ⇨ 168, and *Vehicle Design* ⇨ 168.

## 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

Some of the vehicle components and labels use symbols instead of text relating to a specific feature, control, message, gauge, or indicator.

### Vehicle Symbol Chart

This chart defines the symbols that may be found on the vehicle.

: Air Conditioning System

: Air Conditioning Refrigerant Oil

: Airbag Readiness Light

: Antilock Brake System (ABS)

: Brake System Warning Light

: Dispose of Used Components Properly

: Do Not Apply High Pressure Water

: Engine Coolant Temperature

: Flame/Fire Prohibited

: Flammable

: Forward Collision Alert

: Fuse Block Cover Lock Location

: Fuses

: ISOFIX/LATCH System Child Restraints

: Keep Fuse Block Covers Properly Installed

: Lane Change Alert

: Lane Departure Warning

: Lane Keep Assist

: Malfunction Indicator Light

: Oil Pressure

: Park Assist

: Pedestrian Ahead Indicator

: Power

: Rear Cross Traffic Alert

: Registered Technician

: Remote Start

: Risk of Electrical Fire

: Seat Belt Reminders

: Side Blind Zone Alert

: Stop/Start

: Tire Pressure Monitor

: Traction Control/StabiliTrak/Electronic Stability Control (ESC)

: Under Pressure

: Vehicle Ahead Indicator

### Additional Instructions or Information

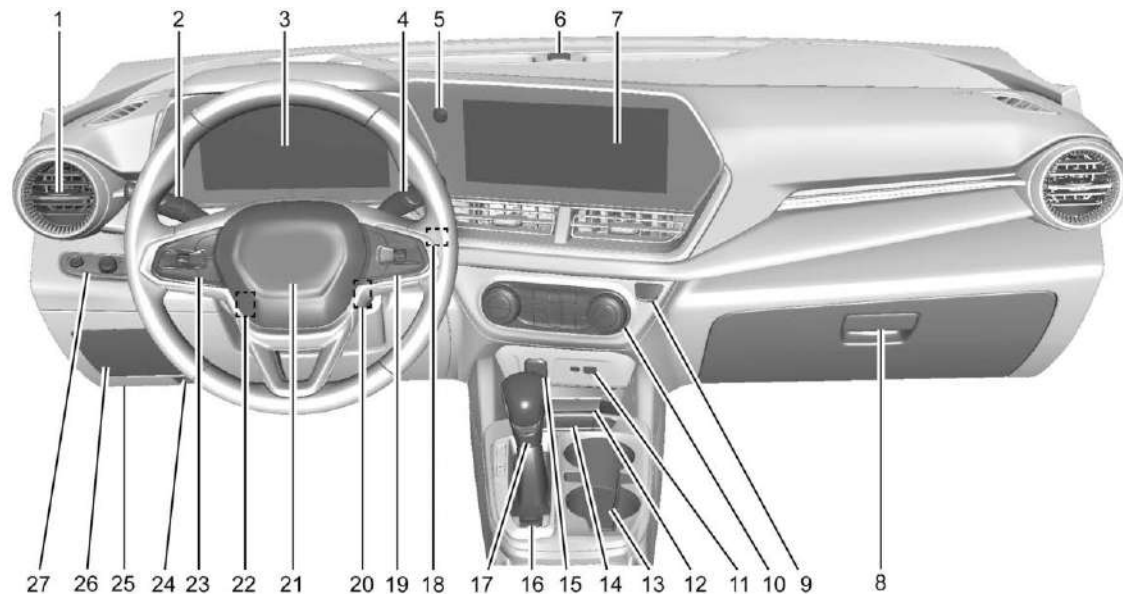
The following symbols are used to indicate additional instructions or information.

: 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.”

## Instrument Panel Overview



Uplevel Shown, Base Level Similar

1. Air Vents. See *Air Vents* ⇨ 165.
2. Turn Signal Lever. See *Turn and Lane-Change Signals* ⇨ 114.  
IntelliBeam System Button (If Equipped). See *Headlight Controls* ⇨ 110.
3. Instrument Cluster. See *Instrument Cluster (Uplevel)* ⇨ 89 *Instrument Cluster (Base Level)* ⇨ 87.  
Driver Information Center (DIC) Display. See *Driver Information Center (DIC) (Base Level)* ⇨ 103 *Driver Information Center (DIC) (Uplevel)* ⇨ 105.
4. Windshield Wiper/Washer. See *Windshield Wiper/Washer* ⇨ 81.  
Rear Window Wiper/Washer. See *Rear Window Wiper/Washer* ⇨ 82.
5. Infotainment Controls. See *Overview (11 Inch Screen Radio)* ⇨ 119.
6. Light Sensor. See *Automatic Headlight System* ⇨ 113.  
Vehicle Alarm System. See *Vehicle Alarm System* ⇨ 26.
7. Infotainment Display. See *Using the System (11 Inch Screen Radio)* ⇨ 121.
8. Glove Box. See *Glove Box* ⇨ 76.
9. Hazard Warning Flashers. See *Hazard Warning Flashers* ⇨ 113.
10. Climate Control Systems. See *Climate Control Systems* ⇨ 161.  
Automatic Climate Control System. See *Automatic Climate Control System* ⇨ 163.  
Heated Front Seats. See *Heated Front Seats* ⇨ 38 (If Equipped).
11. USB Port. See *USB Port (11 Inch Screen Radio)* ⇨ 125.
12. Wireless Charging. See *Wireless Charging* ⇨ 84 (If Equipped).
13. Cupholders. See *Cupholders* ⇨ 77.
14. Auto Stop Disable. See *Stop/Start System* ⇨ 182.  
Lane Keep Assist (LKA). See *Lane Keep Assist (LKA)* ⇨ 214.
15. Power Outlets. See *Power Outlets* ⇨ 83.
16. Electric Parking Brake. See *Electric Parking Brake* ⇨ 190.
17. Shift Lever. See *Automatic Transmission* ⇨ 186.
18. ENGINE START/STOP Button (Out of View) (If Equipped). See *Ignition Positions (Keyless Access)* ⇨ 180 *Ignition Positions (Key Access)* ⇨ 178.
19. Steering Wheel Controls. See *Steering Wheel Controls (11 Inch Screen Radio)* ⇨ 120.
20. Column Ignition Switch (Out of View) (If Equipped). See *Ignition Positions (Keyless Access)* ⇨ 180 *Ignition Positions (Key Access)* ⇨ 178.
21. Horn. See *Horn* ⇨ 81.
22. Steering Wheel Adjustment. See *Steering Wheel Adjustment* ⇨ 81 (Out of View).
23. Cruise Control. See *Cruise Control* ⇨ 193.  
Forward Collision Alert (FCA) System. See *Forward Collision Alert (FCA) System* ⇨ 207 (If Equipped).
24. Hood Release. See *Hood* ⇨ 223.
25. Data Link Connector (DLC) (Out of View). See *Malfunction Indicator Light (Check Engine Light)* ⇨ 95.
26. Instrument Panel Storage. See *Instrument Panel Storage* ⇨ 76.

Instrument Panel Fuse Block. See  
*Instrument Panel Fuse Block* ⇨ 250.

27. Instrument Panel Illumination Control.  
See *Instrument Panel Illumination Control*  
⇨ 114.

Headlight Controls. See *Headlight Controls*  
⇨ 110.

## Keys, Doors, and Windows

### Keys and Locks

|                                           |    |
|-------------------------------------------|----|
| Keys (Keyless Access) .....               | 7  |
| Keys (Key Access) .....                   | 8  |
| Remote Key .....                          | 9  |
| Remote Key Operation (Keyless Access) ... | 10 |
| Remote Key Operation (Key Access) .....   | 15 |
| Remote Start .....                        | 18 |
| Door Locks .....                          | 19 |
| Power Door Locks .....                    | 21 |
| Delayed Locking .....                     | 21 |
| Automatic Door Locks .....                | 22 |
| Lockout Protection .....                  | 22 |
| Safety Locks .....                        | 22 |

### Doors

|                |    |
|----------------|----|
| Liftgate ..... | 23 |
|----------------|----|

### Vehicle Security

|                             |    |
|-----------------------------|----|
| Vehicle Security .....      | 26 |
| Vehicle Alarm System .....  | 26 |
| Immobilizer .....           | 27 |
| Immobilizer Operation ..... | 27 |

### Exterior Mirrors

|                       |    |
|-----------------------|----|
| Convex Mirrors .....  | 28 |
| Power Mirrors .....   | 28 |
| Folding Mirrors ..... | 28 |
| Heated Mirrors .....  | 28 |

### Interior Mirrors

|                                         |    |
|-----------------------------------------|----|
| Interior Rearview Mirrors .....         | 28 |
| Manual Rearview Mirror .....            | 29 |
| Automatic Dimming Rearview Mirror ..... | 29 |

### Windows

|                     |    |
|---------------------|----|
| Windows .....       | 29 |
| Power Windows ..... | 29 |
| Sun Visors .....    | 30 |

### Roof

|               |    |
|---------------|----|
| Sunroof ..... | 31 |
|---------------|----|

## Keys and Locks

### Keys (Keyless Access)



#### Warning

Leaving children in a vehicle with a remote key 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 remote key 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 a remote key.



The key inside the remote key is used for the driver door.



To remove the key, press the button on the side of the remote key and pull the key out. Never pull the key out without pressing the button. If it becomes difficult to turn the key, inspect the key blade for debris.

See your dealer if a new key is needed.

With an active OnStar or connected service plan, an OnStar Advisor may remotely unlock the vehicle. See *OnStar Overview* ⇨ 314.

## Keys (Key Access)

### Warning

Leaving children in a vehicle with the ignition key 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 keys in the ignition, and children or others could be caught in the path of a closing window. Do not leave children in a vehicle with the ignition key.



### Warning

If the key is unintentionally rotated while the vehicle is running, the ignition could be moved out of the RUN position. This could be caused by heavy items hanging from the key ring, or by large or long items attached to the key ring that could be contacted by the driver or steering wheel. If the ignition moves out of the RUN position, the engine will shut off, braking and steering power assist may be impacted, and airbags may not deploy. To reduce the risk of unintentional rotation of the ignition

(Continued)

**Warning (Continued)**

key, do not change the way the ignition key and remote key, if equipped, are connected to the provided key rings.



The ignition key and key rings, and remote key, if equipped, are designed to work together as a system to reduce the risk of unintentionally moving the key out of the RUN position. The ignition key has a small hole to allow attachment of the provided key ring.

It is important that any replacement ignition keys have a small hole. See your dealer if a replacement key is required.

The combination and size of the rings that came with your keys were specifically selected for your vehicle. The rings are connected to the key like two links of a chain to reduce the risk of unintentionally moving the key out of the RUN position. Do not add any additional items to the ring attached to the ignition key.

Attach additional items only to the second ring, and limit added items to a few essential keys or small, light items no larger than a remote key.



Interference from radio-frequency identification (RFID) tags may prevent the key from starting the vehicle. Keep RFID tags away from the key when starting the vehicle. The key that is part of the remote key can be used for the ignition and all locks.



Press the key release button on the remote key to extend the key blade. Press the button and the key blade to retract the key.

If it becomes difficult to turn the key in the ignition, inspect the key blade for debris. Periodically clean with a brush or pick.

See your dealer if a new key is needed.

With an active OnStar or connected service plan, an OnStar Advisor may remotely unlock the vehicle. See *OnStar Overview* ⇨ 314.

## Remote Key

See *Radio Frequency Statement* ⇨ 311.

If there is a decrease in the remote key operating range:

- Check the distance. The remote key may be too far from the vehicle.
- Check the location. Other vehicles or objects may be blocking the signal.
- Check the remote key's battery. See "Battery Replacement" under *Remote Key Operation (Keyless Access)* ⇨ *10 Remote Key Operation (Key Access)* ⇨ 15.
- If the remote key is still not working correctly, see your dealer or a qualified technician for service.

## Remote Key Operation (Keyless Access)

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

The remote key functions may work up to 60 m (197 ft) away from the vehicle.

Other conditions can impact the performance of the remote key. See *Remote Key Operation (Keyless Access)* ⇨ *10 Remote Key Operation (Key Access)* ⇨ 15.



The turn signal indicators may flash and/or the horn may sound on the second press to indicate locking. To view available settings for this feature, touch the Settings icon on the infotainment home screen, select Settings > Vehicle > Remote Lock, Unlock, Start.

If the driver door is open when  is pressed, all doors will lock and the driver door will immediately unlock, if enabled. To view available settings for this feature, touch the Settings icon on the infotainment home screen, select Settings > Vehicle > Power Door Locks.

If the passenger door is open when  is pressed, all doors lock.

Pressing  may also arm the alarm system. See *Vehicle Alarm System* ⇨ 26.

 : Press to unlock the driver door. Press unlock again within five seconds to unlock all doors. The remote key can be programmed to unlock all doors on the first button press. To view available settings for this feature, touch the Settings icon on the infotainment home screen, select Settings > Vehicle > Remote Lock, Unlock, Start.

The turn signal indicators may flash to indicate unlocking. To view available settings for this feature, touch the Settings icon on the infotainment home screen, select Settings > Vehicle > Remote Lock, Unlock, Start.

Pressing  will disarm the theft-deterrent system. See *Vehicle Alarm System* ⇨ 26.

 : Press and release  and then immediately press and hold  for at least four seconds to start the engine from outside the vehicle using the remote key. See *Remote Start* ⇨ 18.

 : Press and release one time to initiate vehicle locator. The exterior lights flash and the horn chirps three times. Press and hold  for

three seconds to sound the panic alarm. The horn sounds and the turn signal lights flash for 30 seconds, or until  is pressed again or the vehicle is started.

### Keyless Access Operation

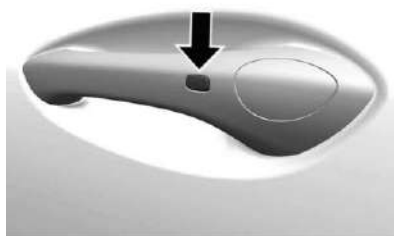
With the Keyless Access system, you can lock and unlock the doors and access the liftgate without removing the remote key from your pocket, purse, briefcase, etc. The remote key should be within 1 m (3 ft) of the liftgate or door being opened. The buttons are on the outside door handles.

Keyless Access can be programmed to unlock all doors on the first unlock/lock button press from the driver door. To view available settings for this feature, touch the Settings icon on the infotainment home screen, select Settings > Vehicle > Remote Lock, Unlock, Start.

### Keyless Unlocking/Locking from the Driver Door

When the doors are locked and the remote key is within 1 m (3 ft) of the driver 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 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 Passenger Doors

When the doors are locked and the remote key is within 1 m (3 ft) of the door handle, pressing the lock/unlock button on that 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.

### Disable/Enable Keyless Unlocking of Exterior Door Handles and Liftgate

If equipped, keyless unlocking of the exterior door handles and liftgate can be disabled and enabled.

### Disabling Keyless Unlocking:

With the vehicle off, press and hold  and  on the remote key at the same time for approximately three seconds. The turn signal lights will flash four times quickly to indicate access is disabled. Using any exterior handle to unlock the doors or open the liftgate will cause the turn signal lights to flash four times quickly, indicating access is disabled. If disabled, disarm the alarm system before starting the vehicle.

### Enabling Keyless Unlocking:

With the vehicle off, press and hold  and  on the remote key at the same time for approximately three seconds. The turn signal lights will flash twice quickly to indicate access is enabled.

### Passive Locking

The vehicle will lock several seconds after all doors are closed if the vehicle is off and at least one remote key has been removed or none remain in the interior.

If other electronic devices interfere with the remote key signal, the vehicle may not detect the remote key inside the vehicle. If passive locking is enabled, the doors may lock with the remote key inside the vehicle. Do not leave the remote key in an unattended vehicle.

To view available settings for this feature, touch the Settings icon on the infotainment home screen, select Settings > Vehicle > Remote Lock, Unlock, Start.

### Temporary Disable of Passive Locking

Temporarily disable 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 turned on.

### Remote Left in Vehicle Alert

When the vehicle is turned off and an remote key is left in the vehicle, the horn will chirp three times after all doors are closed. To view available settings for this feature, touch the Settings icon on the infotainment home screen, select Settings > Vehicle > Remote Lock, Unlock, Start.

### 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 remote keys inside. If an remote key is not detected, the Driver Information Center will display NO REMOTE DETECTED and the horn will chirp three times. This occurs only once each time the vehicle is driven.

### Keyless Liftgate Opening

Press the touch pad on the liftgate handle to open the liftgate if the remote key is within 1 m (3 ft).

### Key Access

To access a vehicle with a weak remote key battery, see *Door Locks* ➔ 19.

### Programming Remote Keys to the Vehicle

Only remote keys programmed to the vehicle will work. If a remote key is lost or stolen, a replacement can be purchased and programmed through your dealer. The vehicle can be reprogrammed so that lost or stolen remote keys no longer work. Each vehicle can have up to eight remote keys matched to it.

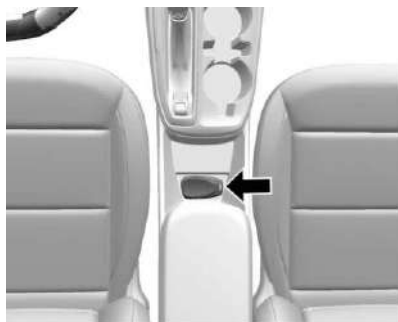
### Programming with Recognized Remote Keys

A new remote key can be programmed to the vehicle when there are two recognized remote keys.

To program, the vehicle must be off and all of the remote keys, both currently recognized and new, must be with you.

1. Place the two recognized remote keys in remote key pocket.
2. Insert the vehicle key of the new remote key into the key lock cylinder on the outside of the driver door and turn the key to the unlock position five times within 10 seconds.

The Driver Information Center displays READY FOR REMOTE #2, 3, 4, etc.



3. Remove the two recognized remote keys from remote key pocket. Place the new remote key in remote key pocket.
4. Press ENGINE START/STOP. When the remote key is learned the Driver Information Center display will show that it is ready to program the next remote key.
5. Remove the remote key from the remote key pocket and press the remote key  or  button.

To program additional remote keys, repeat Steps 3–5.

When all additional remote keys are programmed, press and hold ENGINE START/STOP for 12 seconds to exit programming mode.

6. Put the key back into the remote key.
7. Replace the key lock cylinder cap. See *Door Locks* ⇨ 19.

### Programming without Recognized Remote Keys

If two currently recognized remote keys are not available, follow this procedure to program up to eight remote keys. This feature is not available in Canada. This procedure will take approximately 30 minutes to complete. The vehicle must be off and all of the remote keys you wish to program must be with you.

1. Remove the key lock cylinder cap on the driver door handle. See *Door Locks* ⇨ 19. Insert the vehicle key of the remote key into the key lock cylinder on the driver door handle and turn the key, counterclockwise, to the unlock position five times within 10 seconds.

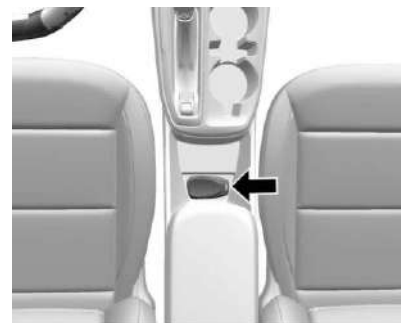
The Driver Information Center displays REMOTE LEARN PENDING, PLEASE WAIT.

2. Wait for 10 minutes until the Driver Information Center displays PRESS ENGINE START BUTTON TO LEARN and then press ENGINE START/STOP.

The Driver Information Center display will again show REMOTE LEARN PENDING, PLEASE WAIT.

3. Repeat Step 2 two additional times. After the third time all previously known remote keys will no longer work with the vehicle. Remaining remote keys can be relearned during the next steps.

The Driver Information Center display should now show READY FOR REMOTE #1.



4. Place the new remote key in remote key pocket.
5. Press ENGINE START/STOP. When the remote key is learned the Driver Information Center display will show that it is ready to program the next remote key.
6. Remove the remote key from the remote key pocket and press the remote key  or  button.

To program additional remote keys, repeat Steps 4–6.

When all additional remote keys are programmed, press and hold ENGINE START/STOP for 12 seconds to exit programming mode.

7. Put the key back into the remote key.
8. Replace the key lock cylinder cap. See *Door Locks* ⇨ 19.

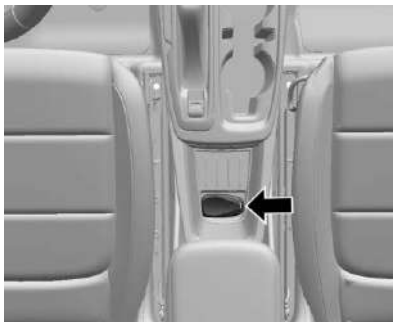
### Operating on Vehicles with Remote key in case of Failure

When starting the vehicle, if the remote key battery is depleted or there is signal interference, the Driver Information Center

may display NO REMOTE DETECTED, REPLACE BATTERY IN KEY or NO REMOTE DETECTED PLACE KEY IN KEY POCKET THEN START YOUR VEHICLE, follow the steps shown below.

Note that, for improved vehicle security, the remote key is equipped with a motion sensor. When starting the vehicle, if the remote key has been idle for a while. Move the remote key slightly and try starting the vehicle.

To start the vehicle:



1. Place the remote key in remote key pocket with the buttons facing the front of the vehicle.

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

Replace the remote key battery as soon as possible.

### Battery Replacement

Replace the battery in the remote key soon if the Driver Information Center displays REPLACE BATTERY IN REMOTE KEY.

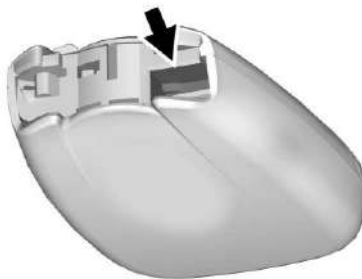
#### Caution

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

To replace the battery:



1. Press the button on the side of the remote key to remove the key. Never pull the key out without pressing the button.



2. Separate the two halves of the remote key using a flat tool inserted into the area near the key slot.



3. Remove the battery by pushing on the battery and sliding it toward the bottom of the remote key.
4. Insert the new battery, positive side facing the back cover. Push the battery down until it is held in place. Replace with a CR2032 or equivalent battery.
5. Snap the battery cover back on to the remote key.

### Remote Key Operation (Key Access)

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

Other conditions can affect the performance of the remote key. See *Remote Key* ⇨ 9.



The following may be available:

**L**: Press to lock all doors and, if equipped, the locking fuel door. The hazard warning lights may flash and/or the horn may sound on the second press to indicate locking. To view available settings from the infotainment home screen, select Settings > Vehicle > Remote Lock, Unlock, Start.

If the driver door is open when **L** is pressed and enabled through vehicle personalization, all doors will lock and then the driver door will immediately unlock. To view available settings from the infotainment home screen, select Settings > Vehicle > Power Door Locks.

Pressing **L** may also arm the alarm system. See *Vehicle Alarm System* ⇨ 26.

**U**: Press to unlock the driver door. Press again within five seconds to unlock all doors. The remote key can be programmed to unlock all doors on the first button press. To view available settings from the infotainment home screen, select Settings > Vehicle > Remote Lock, Unlock, Start.

The turn signal indicators may flash to indicate unlocking. To view available settings for this feature, touch the Settings icon on the infotainment home page. To view available settings from the infotainment home screen, select Settings > Vehicle > Remote Lock, Unlock, Start.

Pressing **U** will disarm the alarm system. See *Vehicle Alarm System* ⇨ 26.

If equipped, pressing **U** will also unlock the fuel door.

**Start**: If equipped, press **U** and then press and hold **Start** to start the engine from outside the vehicle using the remote key. See *Remote Start* ⇨ 18. The remote key buttons will not operate when the key is in the ignition.

**Locator**: Press and release one time to initiate vehicle locator. The exterior lights flash and the horn chirps three times. Press and hold **Locator** for three seconds to sound the panic alarm. The horn sounds and the turn signal lights flash for 30 seconds, or until **Locator** is pressed again or the vehicle is started.

### Programming Keys to the Vehicle

Only remote keys programmed to this vehicle will work. If a key is lost or stolen, a replacement can be purchased and programmed through your dealer. When the replacement key is programmed to this vehicle, all remaining keys must also be reprogrammed. Any lost or stolen keys will no longer work once the new key is programmed.

### Programming with Two Recognized Keys

To program a new key:

1. Insert the original, already programmed key in the ignition and turn the ignition on.
2. Turn the ignition off and remove the key.
3. Quickly, within five seconds, insert the second original already programmed key in the ignition and turn the ignition on.
4. Turn the ignition off, and remove the key.

5. Insert the new key to be programmed and turn the ignition on within five seconds. The security light will turn off once the key has been programmed.
6. Repeat Steps 1–5 if additional keys are to be programmed.

### Programming without Two Recognized Keys

Program a new key to the vehicle when a recognized key is not available. Canadian regulations require that owners see their dealer.

If two currently recognized keys are not available, follow this procedure to program the first key.

This procedure will take approximately 30 minutes to complete for the first key. The vehicle must be off and all of the keys you wish to program must be with you.

1. Insert the new vehicle key into the ignition.
2. Turn the ignition on. The security light will come on.
3. Wait 10 minutes until the security light turns off.
4. Turn the ignition off.

5. Repeat Steps 2–4 two more times. After the third time, turn the ignition on; the key is learned and all previously known keys will no longer work with the vehicle.
6. To learn the second key, turn the ignition off, insert the second key to be learned, and turn the ignition on.

After two keys are learned, the remaining keys can be learned by following the procedure in “Programming with Two Recognized Keys.”

### Battery Replacement

The battery is not rechargeable. To replace the battery:

#### Caution

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



1. Separate the two halves of the remote key by inserting a flat tool into the recess of the remote key.



2. Remove the battery with a small tool by pushing it toward the top of the remote key.
3. Insert a new battery, positive side up, pushing it down until it is held in place. Use a CR 2032 or equivalent battery.
4. Snap the battery cover back on to the remote key.

## Remote Start

The vehicle has a remote starting feature that starts the engine from outside of the vehicle.

: This button is on the remote key.

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

Do not use the remote start feature if the vehicle is low on fuel. The vehicle could run out of fuel.

The remote key range may be less while the vehicle is running.

Other conditions can affect the performance of the remote key.

## Starting the Engine Using Remote Start

To start the vehicle:

1. Press and release  on the remote key.
2. Immediately after completing Step 1, press and hold  until the lights flash. If the vehicle's lights cannot be seen, press and hold  for at least four seconds.

When the vehicle starts, the park lights will turn on and remain on as long as the engine is running. The doors will be locked and the climate control system will operate automatically if the vehicle has the automatic system, or at the same setting as when the vehicle was last turned off.

With an automatic climate control system and if equipped with heated seats, the heated seats turn on during colder outside temperatures and shut off when the ignition is turned on.

The rear window defogger and heated mirrors, if equipped, turn on during colder outside temperatures and turn off when the ignition is turned on.

After entering the vehicle during a remote start, press the brake and ENGINE START/STOP with the remote key in the vehicle to drive the vehicle.

If the vehicle is left running, it automatically shuts off after 15 minutes unless a time extension has been done.

## Extending Engine Run Time

To extend the engine run time by 15 minutes, repeat Steps 1 and 2 while the engine is still running. An extension can be requested 30 seconds after starting. The engine run time can only be extended if it is the first remote start since the vehicle has been driven. Remote start can be extended one time.

If the remote start procedure is used again while the engine is still running, 15 minutes will be added on for a total of 30 minutes.

For example, if  and then  are pressed again while the engine is still running, 15 minutes will be added on for a total of 30 minutes.

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

After the vehicle's engine has been started two times using the remote start button or a start with an extension, the ignition must be turned on and then back off before the remote start procedure can be used again.

### Canceling a Remote Start

To manually shut off a remote start:

- Press and hold  until the lights turn off.
- Turn on the hazard warning flashers.
- Turn the ignition switch on and then off.

### Conditions in Which the Remote Start Will Not Work

The vehicle cannot be started using the remote start feature if the key is in the ignition, the hood is open, or there is an emission control system malfunction.

The engine turns off during a remote start if the coolant temperature gets too high or if the oil pressure gets low.

### Door Locks



#### Warning

Unlocked doors can be dangerous.

(Continued)

### Warning (Continued)

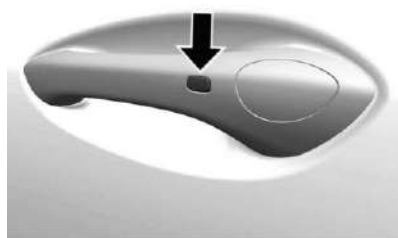
- Passengers, especially children, can easily open the doors and fall out of a moving vehicle. The doors can be unlocked and opened while the vehicle is moving. The chance of being thrown out of the vehicle in a crash is increased if the doors are not locked. So, all passengers should wear seat belts properly and the doors should be locked whenever the vehicle is driven.
- Do not pull the door handles while the vehicle is in motion. The door may open with only a single pull. Always use safety locks when children are in the rear seats. See *Safety Locks* ⇨ 22.
- 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.
- 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/unlock the doors from the outside:

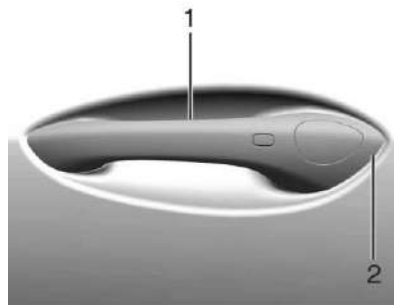
- Press  or  on the remote key. See *Remote Key Operation (Keyless Access)* ⇨ 10 *Remote Key Operation (Key Access)* ⇨ 15.
- Use the key in the driver door. The key lock cylinder is covered with a cap.

To lock/unlock the doors from the inside:

- Press  or  on the power door lock switch.
- Push down on the door lock knob to lock a door.
- Pull the door handle once to unlock it. Pull the door handle again to unlatch it.

**Keyless Access**

The remote key must be within 1 m (3 ft) of the liftgate or door being opened. Press the button on the door handle to open. See *Remote Key Operation (Keyless Access)* ⇨ 10 *Remote Key Operation (Key Access)* ⇨ 15.

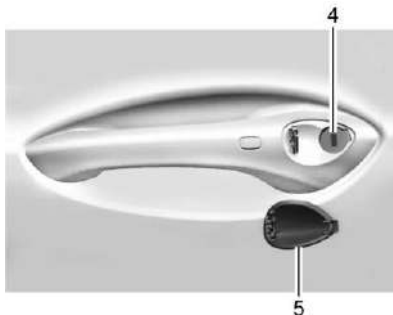
**Driver Door Key Lock Cylinder Access (In Case of Dead Battery)**

To access the driver door key lock cylinder:

1. Pull the door handle (1) to the open position and hold it open until cap removal is complete.
2. Insert the key into the door handle (2) in the center of the cap (3) and press the key inward.
3. Move the cap rearward and remove.
4. Use the key in the cylinder.

To replace the cap:

1. Insert the tab (5) at the back of the cap in the edge of door handle (4).



2. Press and install the cap in place.
3. Check that the cap is secure.

### Free-Turning Locks

The door key 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 cylinder from being forced open. To reset the lock cylinder, ensure the correct key is fully inserted into the lock cylinder. Rotate the key until you feel the lock cylinder click back into place. Remove the key and reinsert it fully. Rotate the key to unlock the vehicle.

### Power Door Locks



 : Press to lock the doors.

 : Press to unlock the doors.

### Delayed Locking

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

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

When  is pressed on the power door lock switch with the door open and the vehicle is off, a chime will sound three times indicating that delayed locking is active.

The doors will then lock automatically five seconds after all doors are closed. If a door is reopened before five seconds have elapsed, the five-second timer will reset once all the doors are closed again.

Press  on the door lock switch again, or press  on the remote key, to override this feature and lock the doors immediately.

Delayed locking can be programmed. To view available settings from the infotainment screen, touch Settings > Vehicle > Power Door Locks.

## Automatic Door Locks

The doors will lock automatically when all doors are closed, the vehicle is on, and the shift switch is out of P (Park).

If a vehicle door is unlocked and then opened and closed, the doors will lock either when your foot is removed from the brake or the vehicle speed becomes faster than 13 km/h (8 mph).

To unlock the doors:

- Press  on a door.
- Shift the vehicle into P (Park).

Automatic door locking cannot be disabled.

Automatic door unlocking can be programmed. To view available settings from the infotainment screen, touch Settings > Vehicle > Power Door Locks.

## Lockout Protection

If the ignition is on or in accessory mode 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 remote keys inside.

If an remote key is detected and the number of remote keys inside has not reduced, the driver door will unlock and the horn will chirp three times.

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

## Open Door Anti-Lockout

If Open 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 the driver door will unlock. The Open Door Anti-Lockout feature can be turned on or off. To view available settings from the infotainment screen, touch Settings > Vehicle > Power Door Locks > Open Door Anti-Lockout.

## 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 up 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 pulling the inside handle, by pressing the driver power door lock switch, or by using the remote key.
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 down to unlock. Do the same for the other door.

## Doors

### Liftgate



#### Warning

Exhaust gases can enter the vehicle if it is driven with the liftgate or trunk/hatch open, or with any objects that pass through the seal between the body and the trunk/hatch or liftgate. 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 liftgate or trunk/hatch open:

(Continued)

#### Warning (Continued)

- 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 set the fan speed to the highest setting. See “Climate Control Systems” in the Index.
- If the vehicle is equipped with a power liftgate, disable the power liftgate function.

See *Engine Exhaust* ⇨ 185.

#### Caution

To avoid damage to the liftgate or liftgate glass, make sure the area above and behind the liftgate is clear before opening it.

#### Manual Liftgate

To unlock the liftgate, press  on the power door lock switch or press  on the Remote Keyless Entry transmitter twice within five

seconds. See *Remote Key Operation (Keyless Access)* ⇨ 10 *Remote Key Operation (Key Access)* ⇨ 15.



To open the liftgate, press the touch pad under the liftgate handle and lift up.

With Keyless Access, the liftgate can be opened when locked if the transmitter is within 1 m (3 ft) of the touch pad. See *Remote Key Operation (Keyless Access)* ⇨ 10 *Remote Key Operation (Key Access)* ⇨ 15.

Use the pull cup to lower and close the liftgate. Do not press the touch pad while closing the liftgate. This may cause the liftgate to be unlatched.

The liftgate has an electric latch. If the battery is disconnected or has low voltage, the liftgate will not open. The liftgate will resume operation when the battery is reconnected and charged.

Always close the liftgate before driving.

### Power Liftgate Operation

#### Warning

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

#### Caution

Driving with an open and unsecured liftgate may result in damage to the power liftgate components.

#### Caution

Manually forcing the liftgate to open or close during a power cycle can damage the vehicle. Allow the power cycle to complete.

### Power Liftgate Mode Selection

To view available settings from the infotainment screen, touch Settings > Vehicle > Comfort and Convenience > Power Rear Gate Opening.

Choose from the following selections:

**Maximum:** Opens to the maximum height.

**Custom:** Opens to a reduced height that can be set between a programmed height and fully open. See “Setting the Custom Opening Height” later in this section.

Use to prevent the liftgate from opening into overhead obstructions, such as a garage door or roof-mounted cargo. The liftgate can be manually opened all the way.

**Off:** Opens manually only.

Select Maximum or Custom to power open or close the liftgate.

To open or close the liftgate :

- Press  twice on the remote key to open the liftgate.



- Press  on the driver door. The driver door must be unlocked.
- Press the touch pad in the liftgate handle after unlocking all doors to open the liftgate. A locked vehicle can be opened if the remote key is within 1 m (3 ft) of the liftgate.



- Press  on the bottom of the liftgate to close.

Press any liftgate button, the touch pad, or  on the remote key while the liftgate is moving to stop it. Pressing any liftgate button or pressing  twice quickly on the remote key restarts the operation in the reverse direction. Pressing the touch pad on the liftgate handle will restart the motion, but only in the opening direction.

The power liftgate may be temporarily disabled under extreme low temperatures, or after repeated power cycling over a short period of time. If this occurs, the liftgate can still be operated manually.

If the vehicle is shifted out of P (Park) while the power function is in progress, the liftgate will continue to completion. If the vehicle is accelerated before the liftgate has completed moving, the liftgate may stop or reverse direction. Check for DIC messages and make sure the liftgate is closed and latched before driving.

### Falling Liftgate Detection

If the power liftgate automatically closes after a power opening cycle, it indicates that the system is reacting to excess weight on the liftgate or a possible support strut failure. A repetitive chime will sound while the falling liftgate detection feature is operating. Remove any excess weight. If the liftgate continues to automatically close after opening, see your dealer for service before using the power liftgate.

Interfering with the power liftgate motion or manually closing the liftgate too quickly after power opening may resemble a support strut failure. This could also activate the falling liftgate detection feature. Allow the liftgate to complete its operation and wait a few seconds before manually closing the liftgate.

### Obstacle Detection Features

If the liftgate encounters an obstacle during a power open or close cycle, the liftgate will automatically reverse direction and move a short distance away from the obstacle. After removing the obstruction, the power liftgate operation can be used again. If the liftgate encounters multiple obstacles on the same power cycle, the power function will deactivate. After removing the obstructions, manually close the liftgate which will allow normal power operation functions to resume.

If the vehicle is locked while the liftgate is closing, and an obstacle is encountered that prevents the liftgate from completely closing, the horn will sound as an alert that the liftgate did not close.

### Setting the Custom Opening Height

To change the position the liftgate stops at when opening:

1. Select MAX or Custom mode and power open the liftgate.
2. Stop the liftgate movement at the desired height by pressing any liftgate button. Manually adjust the liftgate position if needed.

3. Press and hold  on the bottom edge of the liftgate next to the latch on the outside of the liftgate until the turn signals flash and a beep sounds. This indicates the setting has been recorded.

The liftgate cannot be set below a minimum programmable height. If there is no light flash or sound, then the height adjustment may be too low.

## 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 windshield, 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 hood, or the liftgate is open.

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

### Arming the Alarm System

1. Close the liftgate and the hood. Turn off the vehicle.
2. Lock the vehicle in one of three ways:

- Use the remote key.
- Use the Keyless Access system.
- With a door open, press the inside .

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 remote key 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.

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

### Disarming the Alarm System

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

- Press  on the remote key.
- 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 remote key or use the Keyless Access system.

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

If equipped, if the driver door is opened without first unlocking with the remote key, 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 remote key during the 10-second pre-alarm, the alarm will be activated.

### How to Detect a Tamper Condition

If  is pressed and the horn chirps and the lights flash three times, the alarm was activated while the alarm system was armed.

If the alarm system has been activated, a message will appear on the Driver Information Center.

### Immobilizer

See *Radio Frequency Statement* ⇨ 311.

### Immobilizer Operation

This vehicle has a passive theft-deterrent system.

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

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

The immobilization system is disarmed when the ignition is on or in accessory mode and a valid remote key 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 remote keys matched to an immobilizer control unit in your vehicle. Only a correctly matched remote key will start the vehicle. If the remote key 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, and the remote key appears to be undamaged, try another remote key. Or, you may try placing the remote key in the remote key pocket located in the center console.

If the ignition mode will not change with the other remote key or with a remote key in the remote key pocket, your vehicle needs service. If the ignition does change modes, the first remote key may be faulty. See your dealer who can service the theft-deterrent system and have a new remote key programmed to the vehicle.

It is possible for the immobilizer system to learn new or replacement remote keys. Up to eight remote keys can be programmed for the vehicle.

Do not leave the remote 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



To adjust a mirror:

1. Press or to choose the driver or passenger mirror.
2. Press one of the four arrows on the control pad to move the mirror in the desired direction.
3. Adjust each outside mirror so that a little of the vehicle and the area behind it can be seen.
4. Press or again to deselect the mirror. If you do not deselect the mirror, the mirror adjustment will turn off after about one minute.

## Lane Change Alert (LCA)

The vehicle may have LCA. See *Lane Change Alert (LCA)* ⇨ 212.

## Folding Mirrors

### Manual Folding Mirrors

If equipped with manual folding mirrors, the mirrors can be folded inward by hand to prevent damage when going through tight maneuvers such as an automatic car wash. Afterward, fold the mirror outward by hand to return it to the original position.

## Heated Mirrors



REAR : Press to heat the mirrors.

See “Rear Window Defogger” under *Automatic Climate Control System* ⇨ 163.

## Interior Mirrors

### Interior Rearview Mirrors

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

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

## Manual Rearview Mirror

If equipped, push the tab forward for daytime use and pull it rearward for nighttime use to avoid glare of the headlights from behind.

## Automatic Dimming Rearview Mirror

If equipped, automatic dimming reduces the glare of headlights from behind. The dimming feature comes on when the vehicle is started.

## 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. 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 key in  
(Continued)

### Warning (Continued)

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 (Keyless Access)* ⇨ 7 *Keys (Key Access)* ⇨ 8.



The power windows work when the vehicle is on, in accessory mode, or when Retained Accessory Power is active. See *Retained Accessory Power (RAP)* ⇨ 185.

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.

### Rear Window Lockout

: If equipped, the driver can use this switch to engage the window lockout feature and prevent passengers from opening the rear windows. The indicator light is on when engaged. Press the switch 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.

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

### Window Automatic Reversal System

If equipped, the window automatic reversal system reverses and stops window movement if it detects an object in its path. Extreme cold or ice may cause the window to auto-reverse. The window will operate normally after the object or condition is removed.

### Automatic Reversal System Override

Template: All except Corvette

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

If equipped, if conditions prevent the window from closing, when the vehicle is on, override the automatic reversal system by pulling and holding the window switch.

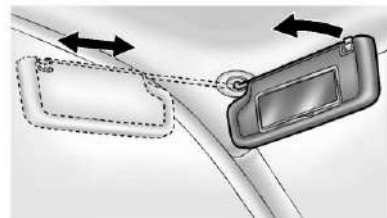
### Programming the Power Windows

If equipped, the battery is disconnected or discharged, programming may be necessary. To program an express-close window:

1. Close all doors.
2. Turn the vehicle on.

3. Partially open the window you want to program, 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.

### Sun Visors



The driver and passenger sun visors can be pulled down to block windshield glare. If equipped, you can detach the visor from the center mount and pivot it from the windshield to the window or to extend it along the rod.

The vehicle may have vanity mirrors and card holders on the back of the sun visors. If equipped, swing down the sun visor to expose the vanity mirror.

## Roof Sunroof

If equipped, the ignition must be on or in accessory mode, or Retained Accessory Power (RAP) must be active to operate the sunroof. See *Ignition Positions (Keyless Access)* ⇨ 180 *Ignition Positions (Key Access)* ⇨ 178 and *Retained Accessory Power (RAP)* ⇨ 185.

If there is an electrical failure with the vehicle, the sunroof cannot be opened or closed.



1. Sunroof Slide Switch
2. Sunroof Vent Switch

### Sunroof Switch Express-Open/Express-Close :

To express-open the sunroof, fully press and release  (1). Press the switch again to stop it. To express-close the sunroof, fully press and release  (1). Press the switch again to stop it.

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

To open the sunroof, press and hold  (1) at the first switch position until the sunroof opens the desired amount. Press and hold  (1) at the first switch position to close it the desired amount.

**Sunroof Vent/Close :** From the closed position, press  (2) to vent the sunroof. Press  (2) to close it.

When the sunroof is opened, an air deflector will automatically raise.

### Comfort Position

For some models, wind noise is lowest when the sunroof is not fully open. For these models, the automatic operation will initially open the sunroof to a comfort position.

### Sunshade

The sunshade is manually operated. Physically slide it open or closed as desired.

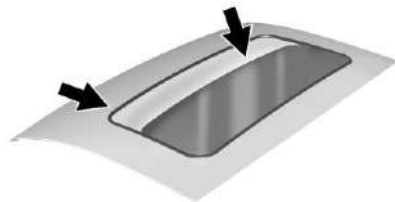
### Automatic Reversal System

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.

In the event of closing difficulties like frost or other conditions, it is possible to override the reversal system. To override the reversal system, close in manual mode. To stop the 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.

## Seats and Restraints

### Head Restraints

|                       |    |
|-----------------------|----|
| Head Restraints ..... | 33 |
|-----------------------|----|

### Front Seats

|                             |    |
|-----------------------------|----|
| Seat Adjustment .....       | 35 |
| Power Seat Adjustment ..... | 35 |
| Reclining Seatbacks .....   | 36 |
| Lumbar Adjustment .....     | 37 |
| Heated Front Seats .....    | 38 |

### Rear Seats

|                          |    |
|--------------------------|----|
| Rear Seat Reminder ..... | 38 |
| Rear Seats .....         | 39 |

### Seat Belts

|                                                      |    |
|------------------------------------------------------|----|
| Seat Belts .....                                     | 40 |
| Buckle To Drive .....                                | 41 |
| How to Wear Seat Belts Properly .....                | 41 |
| Lap-Shoulder Belt .....                              | 43 |
| Seat Belt Use During Pregnancy .....                 | 45 |
| Seat Belt Extender .....                             | 46 |
| Safety System Check .....                            | 46 |
| Seat Belt Care .....                                 | 46 |
| Replacing Seat Belt System Parts After a Crash ..... | 47 |

### Airbag System

|                              |    |
|------------------------------|----|
| Airbag System .....          | 47 |
| Where Are the Airbags? ..... | 48 |

|                                                       |    |
|-------------------------------------------------------|----|
| When Should an Airbag Inflate? .....                  | 49 |
| What Makes an Airbag Inflate? .....                   | 50 |
| How Does an Airbag Restrain? .....                    | 50 |
| What Will You See After an Airbag Inflates? .....     | 51 |
| Passenger Sensing System .....                        | 52 |
| Servicing the Airbag-Equipped Vehicle .....           | 55 |
| Adding Equipment to the Airbag-Equipped Vehicle ..... | 55 |
| Airbag System Check .....                             | 56 |
| Replacing Airbag System Parts After a Crash .....     | 56 |

### Child Restraints

|                                                                        |    |
|------------------------------------------------------------------------|----|
| Older Children .....                                                   | 57 |
| Infants and Young Children .....                                       | 58 |
| Child Restraint Systems .....                                          | 60 |
| Where to Put the Restraint .....                                       | 62 |
| Lower Anchors and Tethers for Children (LATCH System) .....            | 63 |
| Replacing LATCH System Parts After a Crash .....                       | 70 |
| Securing Child Restraints (With the Seat Belt in the Rear Seat) .....  | 70 |
| Securing Child Restraints (With the Seat Belt in the Front Seat) ..... | 72 |

## Head Restraints

### Front Seats



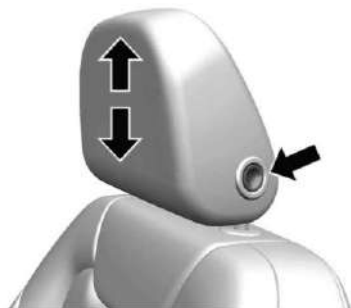
#### Warning

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.

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



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 chances of a neck injury in a crash.



The height of the head restraint can be adjusted.

To raise or lower the head restraint, press the button located on the side of the head restraint, and pull up or push the head restraint down, and release the button. After releasing the button, ensure the head restraint locks in place and is unable to move up or down.

The front seat outboard head restraints are not removable.

### Rear Seats

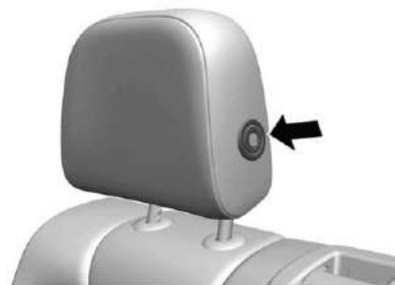
The rear seats have adjustable head restraints in the outboard seating positions. The height of the head restraint can be adjusted. Pull the head restraint up to raise it. Try to move the head restraint to make sure it is locked in place.



To lower the head restraint, press the button on the top of the seatback and push the head restraint down. After releasing the button, ensure the head restraint locks in place and is unable to move up or down.

### Folding the Rear Head Restraint

The head restraint can be folded rearward to allow for better visibility when the rear seat is unoccupied.



To fold the head restraint, press the button on the side of the head restraint.



The head restraint will fold rearward automatically.

When an occupant or child restraint is in the seat, always return the head restraint to the full upright position. Pull the head restraint up and forward until it locks into place. Push and pull on the head restraint to make sure that it is locked.

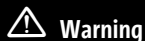
Always adjust the head restraint so that the top of the restraint is at the same height as the top of the occupant's head.

Rear outboard head restraints are not removable.

## Front Seats

### Seat Adjustment

#### Seat Position



#### 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.



To adjust a manual seat:

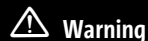
1. Pull the handle at the front of the seat.
2. Slide the seat to the desired position and release the handle.
3. Try to move the seat back and forth to be sure it is locked in place.

### Height Adjustment



If available, move the lever up or down to manually raise or lower the seat.

### Power 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.

**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.



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 entire seat by moving the rear of the control up or down.

To adjust the seatback, see *Reclining Seatbacks* ⇨ 36.

To adjust the lumbar support, see *Lumbar Adjustment* ⇨ 37.

**Reclining Seatbacks****Warning**

If either seatback is not locked, it could move forward in a sudden stop or crash. That could cause injury to the person sitting there. Always push and pull on the seatbacks to be sure they are locked.

**Manual Seat**

To recline the seatback:

1. Lift the lever. If necessary, move the seat belt out of the way to access the lever.
2. Move the seatback to the desired position, then release the lever to lock the seatback in place.
3. Push and pull on the seatback to make sure it is locked.

To return the seatback to an upright position:

1. Lift the lever fully without applying pressure to the seatback, and the seatback returns to the upright position.

2. Push and pull on the seatback to make sure it is locked.

### **Warning**

Sitting in a reclined position when the vehicle is in motion can be dangerous. Even when buckled up, 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. Then sit well back in the seat and wear the seat belt properly.



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

### **Power Seat**



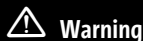
- Tilt the top of the control rearward to recline.
- Tilt the top of the control forward to raise.

### **Lumbar Adjustment**



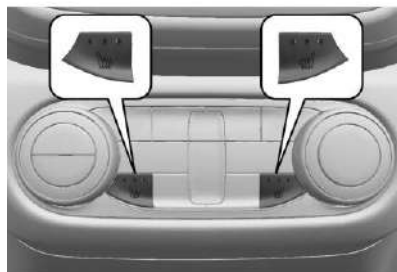
Press and hold the control forward to increase or rearward to decrease support.

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



If equipped, the controls are on the climate control panel. The engine must be running to operate the heated seats.

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

Press the control once for the highest setting. With each press of the control, the heated seat will change to the next lower setting, and then the off setting. Three lights indicate the highest setting and one light the lowest.

The passenger seat may take longer to heat up.

### Remote Start Heated Seats

During a remote start, the heated seats, if equipped, can be turned on automatically. When it is cold outside, the heated seats will turn on. The heated seats are canceled when the vehicle is turned on.

Press the heated seat button to use the heated seats after the vehicle is started. The heated seat indicator lights do not turn on during a remote start.

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

To enable or disable remote start heated seats, on the infotainment home screen, select Settings > Vehicle > Remote Lock, Unlock, and Start > Remote Start Auto Heat Seats > ON or OFF.

## Rear Seats

### Rear Seat Reminder

If equipped, the message REAR SEAT REMINDER LOOK IN REAR SEAT displays in the Driver Information Center under certain conditions indicating there may be an item or passenger in the rear seat. Check the rear seat before exiting the vehicle.

This feature will activate when a second row door is opened while the vehicle is on or up to 10 minutes before the vehicle is turned on. There will be the Driver Information Center message and an audible alert activated when the vehicle is turned off. The alert does not directly detect objects in the rear seat; instead, under certain conditions, it detects when a rear door is opened and closed, indicating that there may be something in the rear seat.

The feature is active only once each time the vehicle is turned on and off, and will require reactivation by opening and closing the second

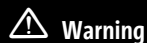
row doors. There may be an alert even when there is nothing in the rear seat; for example, if a child entered the vehicle through the rear door and left the vehicle without the vehicle being shut off.

The feature can be turned on or off. Select Settings > Vehicle > Rear Seat Reminder > ON or OFF.

## Rear Seats

### Folding the Seatback

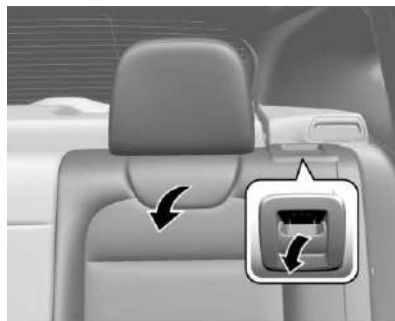
Either side of the seatback can be folded for more cargo space. Fold a seatback only when the vehicle is not moving.



#### Warning

Folding a rear seat with the seat belts still fastened may cause damage to the seat or the seat belts. Always unbuckle the seat belts and return them to their normal stowed position before folding a rear seat.

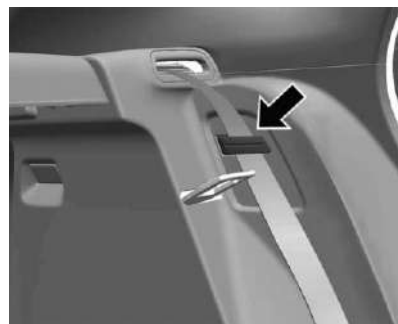
To fold the seatback:



1. Pull the lever on top of the seatback to unlock the seatback.

A red indicator near the seatback lever is exposed when the seatback is unlocked.

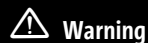
2. Fold the seatback down.



3. Place the outboard seat belt in the seat belt clip on the side trim of the vehicle.

Repeat Steps 1–3 for the other seatback, if desired.

### Raising the Seatbacks



#### Warning

If either seatback is not locked, it could move forward in a sudden stop or crash. That could cause injury to the person sitting there. Always push and pull on the seatbacks to be sure they are locked.

**Warning**

A seat belt that is improperly routed, not properly attached, or twisted will not provide the protection needed in a crash. The person wearing the belt could be seriously injured. After raising the rear seatback, always check to be sure that the seat belts are properly routed and attached, and are not twisted.

To raise a seatback:

1. Lift the seatback up and push it rearward to lock it in place.
2. Remove the outboard seat belt from the seat belt clip on the side trim of the vehicle.  
A tab near the seatback lever retracts when the seatback is locked in place.
3. Return the head restraint to the upright position.
4. Push and pull the top of the seatback to be sure it is locked into position.
5. Repeat the steps to raise the other seatback, if necessary.

When the seat is not in use, it should be kept in the upright, locked position.

## Seat Belts

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

**Warning**

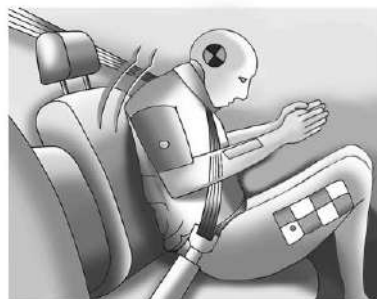
Do not let anyone ride where a seat belt cannot be worn properly. In a crash, if you or your passenger(s) are not wearing seat belts, injuries can be much worse than if you are wearing seat belts. You can be seriously injured or killed by hitting things inside the vehicle harder or by being ejected from 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 not allow passengers to ride 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 buckle the seat belts. See *Seat Belt Reminders* ⇨ 93.

## 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 windshield, 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 chance of being conscious during and after a crash, so you *can* unbuckle and get out, is *much* greater if you are belted.
- Q:** If my vehicle has airbags, why should I have to wear seat belts?
- 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 states and in all Canadian provinces, the law requires wearing seat belts.

## Buckle To Drive

If equipped, this feature delays the vehicle from being shifted out of P (Park) when Teen Driver is active, and the driver seat belt is not buckled. See *Teen Driver (11 Inch Screen Radio)* ⇨ 133.

If the vehicle is on and the brake pedal is pressed with the vehicle in P (Park) but the driver seat belt is not buckled, a message displays in the Driver Information Center (DIC) and the vehicle will be delayed from shifting out of P (Park). Buckle the driver seat belt to clear the message and shift out of P (Park). Shifting from P (Park) will be delayed once for each time the vehicle is started.

For some fleet vehicles, shifting out of P (Park) will be delayed each time the driver attempts to do so while the driver seat belt is not buckled, whether Teen Driver is ON or OFF. Turning the vehicle off then on will not change this condition.

On some models, Buckle to Drive may also delay shifting out of P (Park) if a front passenger is unbuckled under similar conditions. A message displays in the DIC. Buckle the front passenger seat belt to shift out of P (Park). This feature may delay the vehicle from shifting out of P (Park) if an object, such as a briefcase, handbag, grocery bag, laptop, or other electronic device, is on the front passenger seat. If this happens, remove the object from the seat or buckle the seat belt to shift out of P (Park).

If the driver, or on some vehicles, the present front passenger seat belt remains unbuckled, the DIC message will turn off after several seconds and the vehicle can be shifted out of P (Park). See “Seat Belts” and “Child Restraints” in the Index for information about the importance of proper restraint use.

If the driver seat belt or the front passenger seat belt is unbuckled when driving, the seat belt reminder chime and light(s) will come on. See *Seat Belt Reminders* ⇨ 93. This feature may not function properly if the airbag readiness light is on. See *Airbag Readiness Light* ⇨ 94.

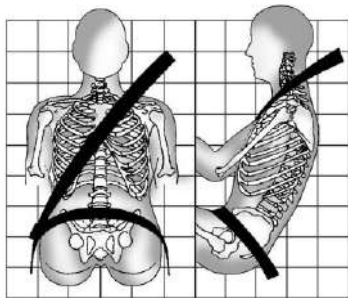
## How to Wear Seat Belts Properly

Follow these rules for everyone's protection.

There are additional things to know about seat belts and children, including smaller children and infants. If a child will be riding in the vehicle, see *Older Children* ⇨ 57 or *Infants and Young Children* ⇨ 58. Review and follow the rules for children in addition to the following rules.

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.

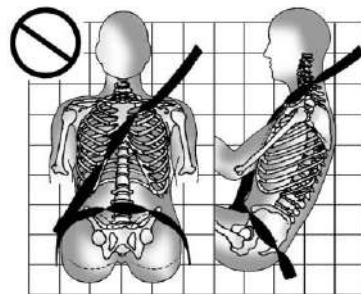
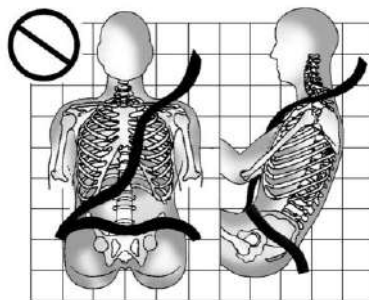


- Sit up straight and always keep your feet on the floor in front of you (if possible).
- Wear the lap part of the belt low and snug on the hips, just touching the thighs. In a crash, this applies force to the strong pelvic bones and you would be less likely to slide under the lap belt. If you slid under it, the belt would apply force on your abdomen. This could cause serious or even fatal injuries.

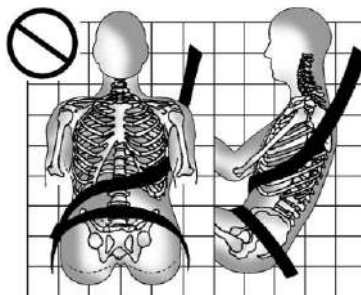
- Wear the shoulder belt over the shoulder and across the chest. These parts of the body are best able to take belt restraining forces. The shoulder belt locks if there is a sudden stop or crash.

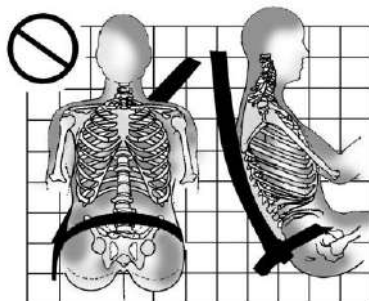
 **Warning**

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

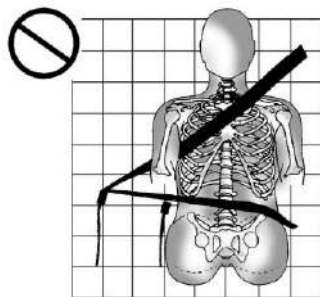


Never allow the lap or shoulder belt to become loose or twisted.

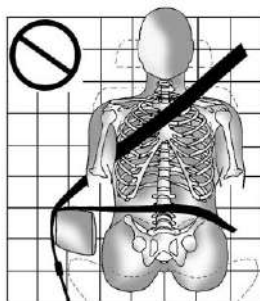




Never wear the shoulder belt under both arms or behind your back.



Always use the correct buckle for your seating position.



Never route the lap or shoulder belt over an armrest.

#### Warning

The seat belt can be pinched if it is routed under plastic trim on the seat, such as trim around the rear seatback folding handle or side airbag. In a crash, pinched seat belts might not provide adequate protection. Never allow seat belts to be routed under plastic trim pieces.

#### Warning

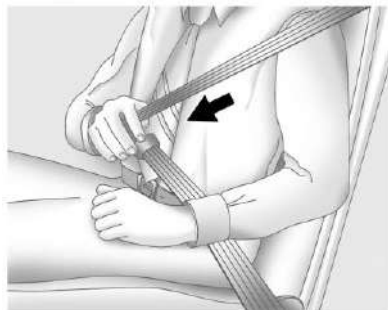
You can be seriously injured or killed if the shoulder belt is worn behind your back, under your legs, or wrapped around your neck. The shoulder belt can tighten but cannot be loosened if it is locked. The shoulder belt locks when it is pulled all the way out of the retractor. It unlocks when the shoulder belt is allowed to go all the way back into the retractor, but it cannot do this if it is wrapped around you. You may have to cut the seat belt if it is locked and tightened around you.

### Lap-Shoulder 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” in the Index.

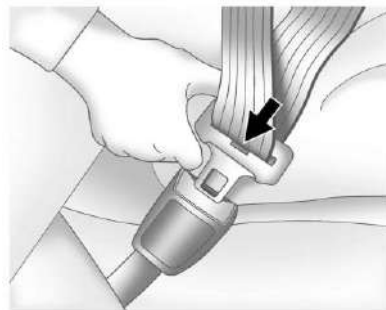


on the seat, move the seat rearward or recline the seat until the shoulder belt retractor lock releases.

Engaging the child restraint locking feature in the front outboard seating position may affect the passenger sensing system. See *Passenger Sensing System* ⇨ 52.



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



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

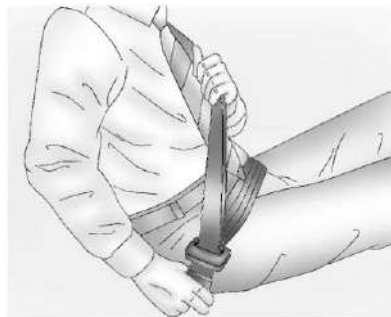
The lap-shoulder belt may lock if you pull the belt across you very quickly. If this happens, let the belt go back slightly to unlock it. Then pull the belt across you more slowly.

If the shoulder portion of a passenger belt is pulled out all the way, the child restraint locking feature may be engaged. See *Child Restraint Systems* ⇨ 60. If this occurs, let the belt go back all the way and start again. If the locking feature stays engaged after letting the belt go back to stowed position

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

Pull up on the latch plate to make sure it is secure. If the belt is not long enough, see *Seat Belt Extender* ⇨ 46.

Position the release pushbutton on the buckle so that the seat belt could be quickly unbuckled if necessary.



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



To unlatch the belt, push the release pushbutton 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 dealer.

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.

### Seat Belt Pretensioners

This vehicle has seat belt pretensioners for the 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 seat belt system will need to be replaced. See *Replacing Seat Belt System Parts After a Crash* ⇨ 47.

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 shoulder belt away from the neck and head.

Comfort guides are available through your dealer for the rear outboard seating positions. Instructions are included with the guides.

### 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 fetus is to protect the mother. When a seat belt is worn properly, it is more likely that the fetus will not be hurt in a crash. For pregnant women, as for anyone, the key to making seat belts effective is wearing them properly.

## Seat Belt Extender

If the vehicle seat belt will fasten around you, you should use it.

But if a seat belt is not long enough, your dealer will order you an extender. Only a GM issued extender should be used. When you go in to order it, take the heaviest coat you will wear, so the extender will be long enough for you. To help avoid personal injury, do not let someone else use it, and use it only for the seat it is made to fit. The extender has been designed for adults. Never use it for securing child restraints. For more information on the proper use and fit of seat belt extenders see the instruction sheet that comes with the extender.

## 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, frayed, or twisted seat belts may not protect you in a crash. Torn or frayed seat belts can rip apart under impact forces. If a belt is torn or frayed, have it replaced immediately. If a belt is twisted, it may be possible to untwist

by reversing the latch plate on the webbing. If the twist cannot be corrected, ask your dealer to fix it.

Make sure the seat belt reminder light is working. See *Seat Belt Reminders* ⇨ 93.

Keep seat belts clean and dry. See *Seat Belt Care* ⇨ 46.

## Seat Belt Care

Keep belts clean and 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 after proper cleaning please see the dealer. Parts may need to be replaced to ensure proper functionality of the system.

 **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.

## 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 dealer 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* ⇨ 94.

## Airbag System

The vehicle has the following airbags:

- A frontal airbag for the driver
- A frontal 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 for the rear passengers seated directly behind the driver

- A roof-rail airbag for the front outboard passenger and the rear passengers 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 center of the steering wheel for the driver and on the instrument panel for the front outboard passenger.

For seat-mounted side impact airbags, the word AIRBAG is on the side of the seatback or side of the seat 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?* ⇨ 49.

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, any airbag when it inflates can be seriously injured or killed. Do not sit unnecessarily close to any

(Continued)

**Warning (Continued)**

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.

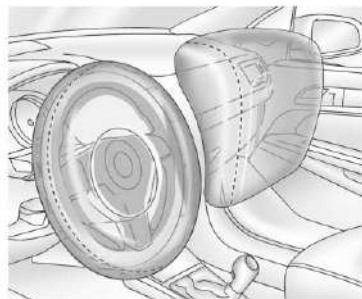
**Warning**

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* ⇨ 57 or *Infants and Young Children* ⇨ 58.



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* ⇨ 94.

**Where Are the Airbags?**

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

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



**Driver Side Shown, Passenger Side Similar**

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



**Driver Side Shown, Passenger Side Similar**

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



### **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 put anything

(Continued)

### **Warning (Continued)**

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 *Airbag System* ⇨ 47. 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 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 traveling. 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.

Seat-mounted side impact airbags are designed to inflate in moderate to severe side crashes depending on the location of the impact. These airbags may also inflate in some moderate to severe frontal impacts. Seat-mounted side impact airbags are not designed to inflate in 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 may 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 may inflate when either side of the vehicle is struck or 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?* ⇨ 48.

### How Does an Airbag Restrain?

In moderate to severe 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.

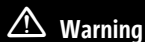
But airbags would not help in many types of collisions, primarily because the occupant's motion is not toward those airbags. See *When Should an Airbag Inflate?* ⇨ 49.

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

## What Will You See After an Airbag Inflates?

After frontal and seat-mounted side impact airbags inflate, they quickly deflate, so quickly that some people may not even realize the airbags inflated. Roof-rail airbags may still be at least partially inflated for some time after they inflate. Some components of the airbag module may be hot for several minutes. For location of the airbags, see *Where Are the Airbags?* ➔ 48.

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 people from leaving the vehicle.



### Warning

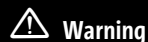
When an airbag inflates, there may be dust in the air. This dust could cause breathing problems for people with a history of asthma or other breathing trouble. To avoid this, everyone in the vehicle should get out as soon as it is safe to do so. If you

(Continued)

### Warning (Continued)

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 lights and hazard warning flashers, 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. After turning the vehicle off and then on again, the fuel system will return to normal operation; the doors can be locked, the interior lights can be turned off, and the hazard warning flashers can be turned off using the controls for those features. If any of these systems are damaged in the crash they may not operate as normal.



### 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, windshields are broken by vehicle deformation. Additional windshield 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* ⇨ 312 and *Event Data Recorders* ⇨ 313.
- Let only qualified technicians work on the airbag system. 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.

**PASSENGER AIR BAG**

**ON**

**OFF**

United States



Canada

The words ON and OFF, or the symbols for on and off, will be visible during the system check. When the system check is complete, either the word ON or OFF, or the symbol for on or off, will be visible. See *Passenger Airbag Status Indicator* ⇨ 94.

The passenger sensing system turns off the front outboard passenger frontal 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 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.

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

(Continued)

**Warning (Continued)**

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 if:

- The front outboard passenger seat is unoccupied.
- The system determines 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, the OFF indicator will light and stay lit as a reminder that the airbag is off. See *Passenger Airbag Status Indicator* ⇨ 94.

The passenger sensing system is designed to turn on the front outboard passenger frontal 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 to be enabled, the ON indicator will light and stay lit as a reminder that the airbag is 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 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* ⇨ 94 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 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 Rear Seat) ⇨ 70 Securing Child Restraints (With the Seat Belt in the Front Seat) ⇨ 72.*

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* ⇨ 33.

6. Restart the vehicle.

The passenger sensing system may or may not turn off the airbag 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:

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, centered 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 maneuvers and braking, which helps the passenger sensing system maintain the passenger airbag status. See “Seat Belts” and “Child Restraints” in the Index 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* ⇨ 55 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, grocery 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 seatback 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. To purchase a service manual, see *Publication Ordering Information* ⇨ 310.

 **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, including improperly repairing or replacing, any parts of the following:

- Airbag system, including airbag modules, front or side impact sensors, sensing and diagnostic module, or airbag wiring

- Front seats, including stitching, seams or zippers
- Seat belts
- Steering wheel, instrument panel, overhead console, ceiling trim, or pillar garnish trim
- Inner door seals, including speakers

Your dealer and the service manual have information about the location of the airbag modules and sensors, sensing and diagnostic module, and airbag wiring along with the proper replacement procedures.

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* ⇨ 52.

If the vehicle has rollover roof-rail airbags, see *Different Size Tires and Wheels* ⇨ 267 for additional important information.

If the vehicle must be modified because you have a disability and you 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, call Customer Assistance. See *Customer Assistance Offices* ⇨ 305.

## 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* ⇨ 94.

## 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?* ⇨ 48. See your dealer for service.

## Replacing Airbag System Parts After a Crash

### Warning

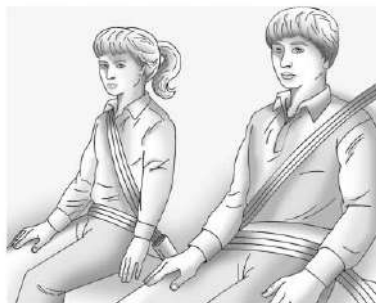
A crash can damage the airbag systems in the vehicle. A damaged airbag system may not properly protect you and your passenger(s) in a crash, resulting in serious injury or even death. To help make sure the airbag systems are working properly after a crash, have them inspected and any necessary replacements 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* ⇨ 94.

## Child Restraints

### Older Children



Older children who have outgrown booster seats should wear the vehicle seat belts. See *How to Wear Seat Belts Properly* ⇨ 41.

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.
- Buckle the lap-shoulder belt. Does the shoulder belt rest on the shoulder? If yes, continue. If no, try using the rear seat belt comfort guide, if available. See “Rear Seat Belt Comfort Guides” under *Lap-Shoulder Belt* ⇨ 43. 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 *Lap-Shoulder Belt* ⇨ 43.

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 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 shoulder belt under both arms or 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 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.

 **Warning**

Children can be seriously injured or killed if the shoulder belt is worn behind their back, under their legs, or 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 the child. Never leave children unattended in a vehicle and never allow children to improperly wear, or play with, the seat belts.

### Infants and Young Children

Everyone in a vehicle needs protection! This includes infants and all other children. Neither the distance traveled nor the age and size of the traveler changes the need, for everyone, to use safety restraints. In fact, the law in every state in the United States and in every Canadian province says children up to some age must be restrained while in a vehicle.

 **Warning**

Children can be seriously injured or killed if the shoulder belt is worn behind their back, under their legs, or 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 the child. Never leave children unattended in a vehicle and never allow children to improperly wear, or 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 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 110 kg (240 lb) force on a person's arms. An infant or child should be secured in an appropriate child 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 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
- Rear-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 and is designed by a genuine child restraint manufacturer. If it is, the child restraint will have a label saying that it meets federal motor vehicle safety standards.

The instruction manual that is provided with the child restraint states the weight and height limitations for that particular child restraint. In addition, there are many kinds of child 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 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 hip bones are still so small that the vehicle seat belt may not remain low on the hip bones, 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 an appropriate child restraint.

## Child Restraint Systems



### Rear-Facing Infant Restraint

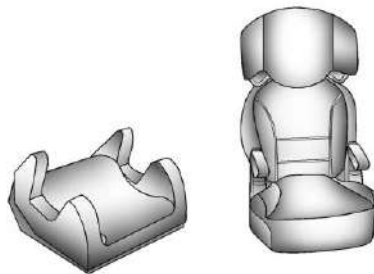
A rear-facing child restraint provides restraint with the seating surface against the back of the infant.

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 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* ➞ 57.



### Backless Booster

Backless booster fitment requirement:

Some backless booster seats are not suitable for rear seats that have oversized side seat bolsters, as they can push the backless booster forward from the seat back.

To use a backless booster:

1. Center the booster on the seat cushion.
2. Ensure the backless booster seat contacts the seat back.

If the backless booster does not meet the fit test described in Steps 1–2, select another booster seat.

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



### Warning

Each top-tether anchor is designed to anchor only one child restraint. Do not attach more than one child restraint to a single top-tether anchor. The anchor may come loose or break, potentially causing personal injury, property damage, or death.



### 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 seat belt or LATCH 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 restraints must be secured in vehicle seats by the lap belt portion of a lap-shoulder belt, or by the LATCH system. See *Lower Anchors and*

*Tethers for Children (LATCH System)* ⇨ 63 for more information. Never use a seat belt extender when installing a child restraint. Never use non-regulated aftermarket anchors or attachments to secure a child restraint. 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, see the following:

- Instruction labels provided on the child restraint
- Instruction manual provided with the child restraint
- This vehicle owner's 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.

In some areas Certified Child Passenger Safety Technicians (CPSTs) are available to inspect and demonstrate how to correctly

use and install child restraints. In the U.S., see the National Highway Traffic Safety Administration (NHTSA) website to locate the nearest child safety seat inspection station. For CPST availability in Canada, check with Transport Canada or the Provincial Ministry of Transportation office.

## Securing the Child Within the Child Restraint



### Warning

A child can be seriously injured or killed in a crash if the child 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.

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

 **Warning**

A child in a rear-facing child restraint can be seriously injured or killed if the front passenger 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 front passenger airbag inflates and the passenger seat is in a forward position.

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

Secure rear-facing child restraints in a rear seat, even if the airbag is off. If you secure a forward-facing child restraint in the front seat, always move the front passenger seat as far back as it will go. It is better to secure the child restraint in a rear seat.

(Continued)

**Warning (Continued)**

See *Passenger Sensing System* ⇨ 52 for additional information.

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. Do not install a child restraint in any rear seating position where it cannot be installed securely.

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 LATCH 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.

Adjust the seat in front of a child restraint to ensure proper installation according to the child restraint manual. Move the front

seat forward to avoid contact between the child restraint and the seat or any accessories mounted to the seat.

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

**Lower Anchors and Tethers for Children (LATCH System)**

The LATCH system secures a child restraint during driving or in a crash. LATCH attachments on the child restraint are used to attach the child restraint to the anchors in the vehicle. The LATCH system is designed to make installation of a child restraint easier.

In order to use the LATCH system in your vehicle, you need a child restraint that has LATCH attachments. LATCH-compatible rear-facing and forward-facing child seats can be properly installed using either the LATCH anchors or the vehicle's seat belts. Do not use

both the seat belts and the LATCH anchorage system to secure a rear-facing or forward-facing child seat.

Booster seats use the vehicle's seat belts to secure the child and the booster seat. If the manufacturer recommends that the booster seat be secured with the LATCH system, this can be done as long as the booster seat can be positioned properly and there is no interference with the proper positioning of the lap-shoulder belt on the child.

Make sure to follow the instructions that came with the child restraint, and also the instructions in this manual.

When installing a child restraint with a top tether, you must also use either the lower anchors or the seat belts to properly secure the child restraint. A child restraint must never be attached using only the top tether.

For a forward-facing five-point harness child restraint where the combined weight of the child and restraint are up to 29.5 kg (65 lb), use either the lower LATCH anchorages with the top tether anchorage, or the seat belt with the top tether anchorage. Where the combined weight of the child and restraint are greater than 29.5 kg (65 lb), use the seat belt with the top tether anchorage only.

### Recommended Methods for Attaching Child Restraints

| Restraint Type                 | Combined Weight of the Child + Child Restraint | Use Only Approved Attachment Methods Show with an X |                |                                           |                                 |
|--------------------------------|------------------------------------------------|-----------------------------------------------------|----------------|-------------------------------------------|---------------------------------|
|                                |                                                | LATCH-Lower Anchors Only                            | Seat Belt Only | LATCH-Lower Anchors and Top Tether Anchor | Seat Belt and Top Tether Anchor |
| Rear-Facing Child Restraint    | Up to 29.5 kg (65lb)                           | X                                                   | X              |                                           |                                 |
| Rear-Facing Child Restraint    | Greater than 29.5 kg (65lb)                    |                                                     | X              |                                           |                                 |
| Forward-Facing Child Restraint | Up to 29.5 kg (65lb)                           |                                                     |                | X                                         | X                               |
| Forward-Facing Child Restraint | Greater than 29.5 kg (65lb)                    |                                                     |                |                                           | X                               |

See *Securing Child Restraints (With the Seat Belt in the Rear Seat)* ⇨ 70 *Securing Child Restraints (With the Seat Belt in the Front Seat)* ⇨ 72.

Child restraints built after March 2014 will be labeled with the specific child weight up to which the LATCH system can be used to install the restraint.

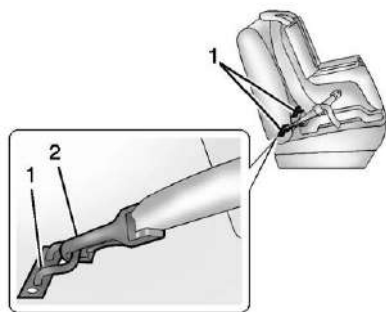
The following explains how to attach a child restraint with these attachments in the vehicle.

Not all vehicle seating positions have lower anchors. In this case, the seat belt must be used (with top tether where available) to secure the child restraint. See *Securing Child*

*Restraints (With the Seat Belt in the Rear Seat)*

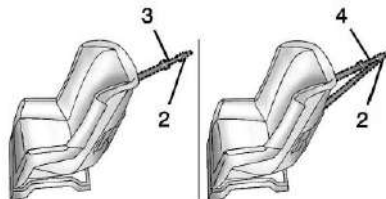
⇒ 70 *Securing Child Restraints (With the Seat Belt in the Front Seat)* ⇒ 72.

### Lower Anchors



Lower anchors (1) are metal bars built into the vehicle. There are two lower anchors for each LATCH seating position that will accommodate a child restraint with lower attachments (2).

### Top Tether Anchor

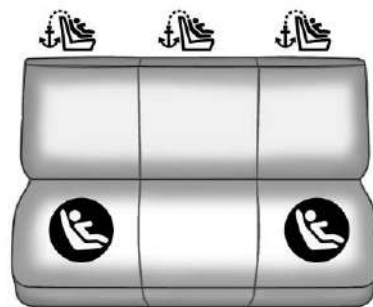


A top tether (3, 4) is used to secure the top of the child restraint to the vehicle. A top tether anchor is built into the vehicle. The top tether attachment hook (2) on the child restraint connects to the top tether anchor in the vehicle in order to reduce the forward movement and rotation of the child restraint during driving or in a crash.

The child restraint may have a single tether (3) or a dual tether (4). Either will have a single attachment hook (2) to secure the top tether to the anchor.

Some child restraints with top tethers are designed for use with or without the top tether being attached. Others require the top tether always to be attached. In Canada, the law requires that forward-facing child restraints have a top tether, and that the tether be attached. Be sure to read and follow the instructions for your child restraint.

### Lower Anchor and Top Tether Anchor Locations



 : Seating positions with top tether anchors.

 : Seating positions with two lower anchors.



To assist in locating the lower anchors, each seating position with lower anchors has two labels with the lower anchor symbol on them, near the crease between the seatback and the seat cushion.

Do not install a child restraint that requires lower anchors in the center rear seating position. See *Securing Child Restraints (With the Seat Belt in the Rear Seat)* ⇨ 70 *Securing Child Restraints (With the Seat Belt in the Front Seat)* ⇨ 72.



The outboard lower anchors are behind the vertical openings in the seat trim.



To assist in locating the top tether anchors, the top tether anchor symbol is near the top tether anchors.

### Top Tether Anchors



For models with a cargo cover, the top tether anchors are on the back of the rear seatbacks. Remove the cargo cover before installing the top tether. The cargo cover should remain off while the top tether is in use. Be sure to use an anchor directly behind the seating position where the child restraint will be placed.

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

According to accident statistics, children and infants are safer when properly restrained in a child restraint system or infant restraint system secured in a rear seating position. See *Where to Put the Restraint* ⇨ 62 for additional information.

### Securing a Child Restraint Designed for the LATCH System

#### Warning

A child could be seriously injured or killed in a crash if the child restraint is not properly attached to the vehicle using either the LATCH anchors or the vehicle seat belt. Follow the instructions that came with the child restraint and the instructions in this manual.

#### Warning

To reduce the risk of serious or fatal injuries during a crash, do not attach more than one child restraint to a single anchor. Attaching more than one child restraint

(Continued)

#### Warning (Continued)

to a single anchor could cause the anchor or attachment to come loose or even break during a crash. A child or others could be injured.

#### 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.

Buckle any unused seat belts behind the child restraint so children cannot reach them. Pull the shoulder belt all the way out of the retractor to set the lock, and tighten the belt behind the child restraint after the child restraint has been installed.

#### Caution

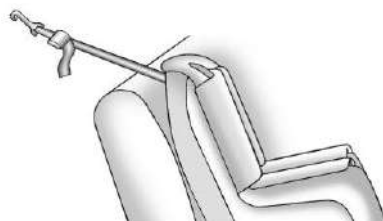
Do not let the LATCH attachments rub against the vehicle's seat belts. This may damage these parts. If necessary, move buckled seat belts to avoid rubbing the LATCH attachments.

Do not fold the rear seatback when the seat is occupied. Do not fold the empty rear seat with a seat belt buckled. This could damage the seat belt or the seat. Unbuckle and return the seat belt to its stowed position, before folding the seat.

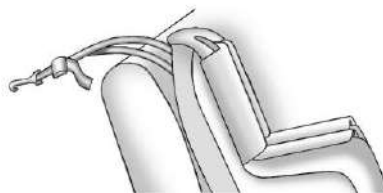
If you need to secure more than one child restraint in the rear seat, see *Where to Put the Restraint* ⇨ 62.

1. Attach and tighten the lower attachments to the lower anchors. If the child restraint does not have lower attachments or the desired seating position does not have lower anchors, secure the child restraint with the top tether and the seat belt. Refer to the child restraint manufacturer instructions and the instructions in this manual.

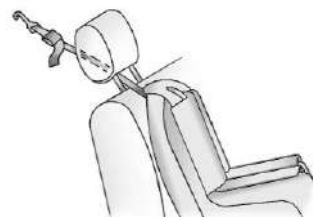
- 1.1 Find the lower anchors for the desired seating position.
  - 1.2 Put the child restraint on the seat.
  - 1.3 Attach and tighten the lower attachments on the child restraint to the lower anchors.
2. If the child restraint manufacturer recommends that the top tether be attached, attach and tighten the top tether to the top tether anchor, if equipped. Refer to the child restraint instructions and the following steps:
- 2.1 Find the top tether anchor.
  - 2.2 If you have an adjustable headrest or head restraint, raise the headrest or head restraint.
  - 2.3 Route, attach and tighten the top tether according to your child restraint instructions and the following instructions:



If the position you are using does not have a head restraint and you are using a single tether, route the tether over the seatback.



If the position you are using does not have a head restraint and you are using a dual tether, route the tether over the seatback.



If the position you are using has an adjustable headrest or head restraint, adjust it accordingly to allow proper fitment. If you are using a single tether, route the tether in between the headrest or head restraint posts.

If the child restraint is installed next to a center seat, make sure the top tether does not interfere with the center seating position shoulder belt/retractor. If it does, find another suitable seating position to install the child restraint.



If the position you are using has an adjustable headrest or head restraint, adjust it accordingly to allow proper fitment. If you are using a dual tether, route the tether around the headrest or head restraint posts.

If the child restraint is installed next to a center seat, make sure the top tether does not interfere with the center seating position shoulder belt/retractor. If it does, find another suitable seating position to install the child restraint.

3. Before placing a child in the child restraint, make sure it is securely held in place. To check, firmly grip the child restraint at the LATCH path and attempt to move it side to

side and back and forth. There should be no more than 2.5 cm (1 in) of movement for proper installation.

## Replacing LATCH System Parts After a Crash

### Warning

A crash can damage the LATCH system in the vehicle. A damaged LATCH system may not properly secure the child restraint, resulting in serious injury or even death in a crash. To help make sure the LATCH system is working properly after a crash, see your dealer to have the system inspected and any necessary replacements made as soon as possible.

If the vehicle has the LATCH system and it was being used during a crash, new LATCH system parts may be needed.

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

## 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 LATCH system, see *Lower Anchors and Tethers for Children (LATCH System)* ⇨ 63 for how and where to install the child restraint using LATCH. If a child restraint is secured in the vehicle using a seat belt and it uses a top tether, see *Lower Anchors and Tethers for Children (LATCH System)* ⇨ 63 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 tether must be anchored. Refer to the instructions that came with the child restraint and see *Lower Anchors and Tethers for Children (LATCH System)* ⇨ 63.

In Canada, the law requires that forward-facing child restraints have a top tether, and that the tether be attached.

If the child restraint or vehicle seat position does not have the LATCH 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* ⇨ 62.

1. Put the child restraint on the seat.
2. Pick up the latch plate, and run the lap and shoulder portions of the vehicle seat belt through or around the restraint. Ensure the seat belt webbing is routed as direct as possible, and is not caught on seat handles or plastic trim. The child restraint instructions will show you how.

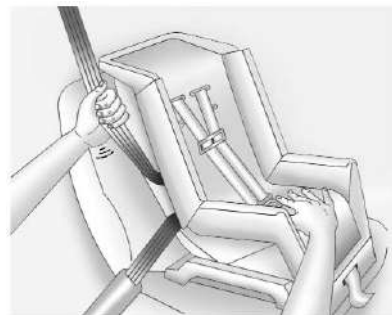


3. Push the latch plate into the buckle until it clicks.

Position the release pushbutton on the buckle, away from the child restraint, so that the seat belt could be quickly unbuckled if necessary.



4. 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.



5. 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.

There must not be direct contact of the child restraint to the buckle release pushbutton. If there is contact, reposition the child restraint using the instructions that came with the child restraint. If there is still contact, use another seating position or child restraint.

Try to pull the belt out of the retractor to make sure the retractor is locked. If the retractor is not locked, repeat Steps 4 and 5.

6. Tighten the top tether. See *Lower Anchors and Tethers for Children (LATCH System)* ⇨ 63.
7. If the child restraint has a top tether, follow the child restraint manufacturer's instructions regarding the use of the top tether. See *Lower Anchors and Tethers for Children (LATCH System)* ⇨ 63.

8. Before placing a child in the child restraint, make sure it is securely held in place. To check, firmly grip the child restraint at the seat belt path and attempt to move it side to side and back and forth. When the child restraint is properly installed, there should be no more than 2.5 cm (1 in) of movement.

To remove the child restraint, unbuckle 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.

Many child restraints are too wide to be correctly secured in the center rear seat, although some will fit there. If the center seat position is too narrow for the child restraint, secure it in a rear outboard seat position.

If a rear-facing child restraint is installed in the rear center seat, ensure that the second-row arm rest remains in the stowed (closed) position. If the arm rest cannot be stowed, install the child restraint in another seating position.

## 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* ⇨ 62.

In addition, the vehicle has a passenger sensing system which is designed to turn off the front outboard passenger frontal airbag under certain conditions. See *Passenger Sensing System* ⇨ 52 and *Passenger Airbag Status Indicator* ⇨ 94 for more information, including important safety information.

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 deploys.

### Warning

A child in a rear-facing child restraint can be seriously injured or killed if the front outboard 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

(Continued)

**Warning (Continued)**

or killed if the front outboard passenger frontal airbag inflates and the passenger seat is in a forward position.

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

Secure rear-facing child restraints in a rear seat, even if the airbag is off. If you secure 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 the child restraint in a rear seat.

See *Passenger Sensing System* ⇨ 52 for additional information.

If the child restraint uses a top tether, see *Lower Anchors and Tethers for Children (LATCH System)* ⇨ 63 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 tether must be anchored.

In Canada, the law requires that forward-facing child restraints have a top tether, and that the tether be attached.

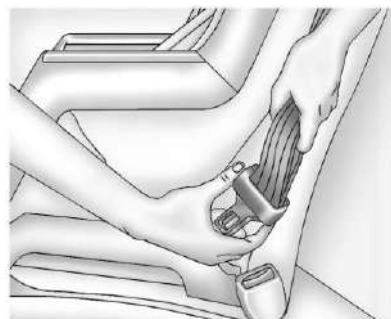
When using the lap-shoulder belt to secure the child restraint in this position, follow the instructions that came with the child restraint and the following instructions:

1. Move the seat as far back as it will go before securing the forward-facing child restraint. Move the seat upward or the seatback 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, the OFF indicator on the passenger airbag status indicator should light and stay lit when you start the vehicle. See *Passenger Airbag Status Indicator* ⇨ 94.

2. Put the child restraint on the seat.
3. Pick up the latch plate, and run the lap and shoulder portions of the vehicle seat belt through or around the restraint. Ensure the seat belt webbing is routed as direct

as possible, and is not caught on seat handles or plastic trim. The child restraint instructions will show you how.



Tilt the latch plate to adjust the belt if needed.

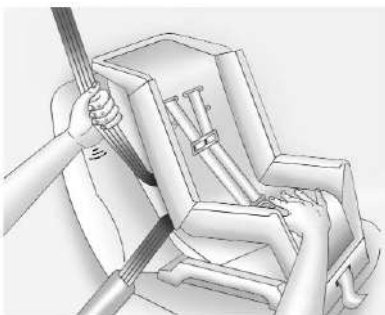


4. Push the latch plate into the buckle until it clicks.

Position the release pushbutton on the buckle, away from the child restraint, so that the seat belt could be quickly unbuckled 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.

There must not be direct contact of the child restraint to the buckle release pushbutton. If there is contact, move the seat upward and repeat prior installation steps. If there is still contact, reposition the child restraint using the instructions that came with the child restraint. If there is still contact, use another seating position or child restraint.

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. If the vehicle does not have a rear seat and the child restraint manufacturer recommends using a top tether anchor, attach the top tether to the top tether anchor. Refer to the instructions that came with the child restraint and to *Lower Anchors and Tethers for Children (LATCH System)* ⇨ 63.

8. Before placing a child in the child restraint, make sure it is securely held in place. To check, firmly grip the child restraint at the seat belt path and attempt to move it side to side and back and forth. When the child restraint is properly installed, there should be no more than 2.5 cm (1 in) of movement.

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* ⇨ 52.

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

## Storage

### Storage Compartments

|                                |    |
|--------------------------------|----|
| Storage Compartments .....     | 76 |
| Instrument Panel Storage ..... | 76 |
| Glove Box .....                | 76 |
| Cupholders .....               | 77 |
| Center Console Storage .....   | 77 |

### Additional Storage Features

|                               |    |
|-------------------------------|----|
| Cargo Cover .....             | 77 |
| Cargo Management System ..... | 78 |

### Roof Rack System

|                        |    |
|------------------------|----|
| Roof Rack System ..... | 78 |
|------------------------|----|

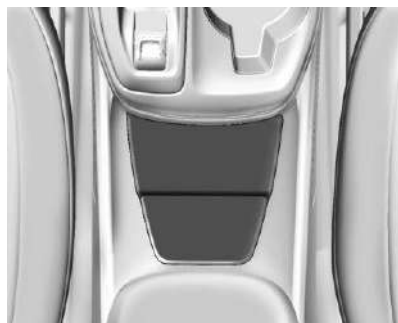
## Storage Compartments



### 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



Storage is used for small articles, etc.

### Glove Box

Lift up on the glove box lever to open it.

## Cupholders



Two cupholders are in the center console.

## Center Console Storage



There is storage under the armrest in the center console. Press the button and lift to open.

## Additional Storage Features

### Cargo Cover

#### Warning

An unsecured cargo cover could strike people in a sudden stop or turn, or in a crash. Store the cargo cover securely or remove it from the vehicle.

#### Warning

Do not place objects on the cargo cover. Sudden stops or turns can cause objects to be thrown in the vehicle. You or others could be injured.

If equipped, the cargo cover can be used to cover items in the rear of the vehicle.



To remove the cargo cover:

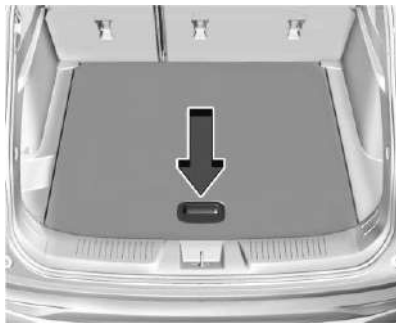
1. Remove the cords from the hooks at the top of the liftgate (1).
2. Disconnect each end of cover from the pivot supports on the trim panel (2).

To install the cargo cover:

1. Connect each end of cover to the pivot supports on the trim panel (2).
2. Reconnect both of the cords to the hooks at the top of the liftgate (1).

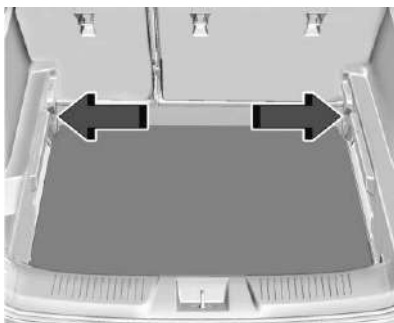
## Cargo Management System

### Sedan Load Floor



Lift the load floor to access the cargo management system.

After storing items, make sure to properly secure the load floor.



The cargo management system has an angle adjustment to secure the load floor while removing stored items.

## Roof Rack System



### Warning

Before driving and occasionally during a trip, check that cargo is securely fastened, rests evenly between the cross rails and does not block the vehicle's lights or windows. Never load cargo directly on the roof of the vehicle or allow cargo to hang

(Continued)

### Warning (Continued)

over the rear or sides of the vehicle. Never load cargo without first properly installing cross rails and other accessories designed to carry cargo. Personal injury, death or damage to the vehicle or other property may occur.

The vehicle may be equipped with side-rails for a roof rack system. Cargo must be secured with properly installed cross rails and other accessories designed to carry cargo. These can be purchased from your dealer.

If driving for a long distance, on rough roads, or at high speeds, occasionally stop the vehicle to make sure the cargo remains in its place.

### Cargo Weight Limits



### Warning

Never load the roof rack with more weight than specified in this section. Loading cargo on the roof rack will make the vehicle's center of gravity higher. To avoid losing

(Continued)

**Warning (Continued)**

control of the vehicle, avoid overloading, high speeds, sudden starts, sharp turns, sudden braking, or abrupt maneuvers when carrying cargo on the roof rack.

Do not exceed the maximum cargo weight for the roof rack system, including the weight of the cross rails and any other accessories used to carry the cargo such as bike racks or roof boxes. The maximum cargo weight that can be loaded onto the roof rack system is 100 kg (220 lb) or the weight designated in the instructions that came with the cross rails or other roof rack accessories, whichever is less.

The weight of any cargo carried on the roof rack system must be included in calculating the loaded weight of the vehicle. Do not exceed the maximum vehicle capacity when loading the vehicle, including cargo carried on the roof rack system and passengers and cargo carried in the vehicle. For more information on vehicle capacity and loading, see *Vehicle Load Limits* ➞ 174.

## Instruments and Controls

### Controls

|                                 |    |
|---------------------------------|----|
| Steering Wheel Adjustment ..... | 81 |
| Heated Steering Wheel .....     | 81 |
| Horn .....                      | 81 |
| Windshield Wiper/Washer .....   | 81 |
| Rear Window Wiper/Washer .....  | 82 |
| Compass .....                   | 83 |
| Clock .....                     | 83 |
| Power Outlets .....             | 83 |
| Wireless Charging .....         | 84 |

### Warning Lights, Gauges, and Indicators

|                                                        |    |
|--------------------------------------------------------|----|
| Warning Lights, Gauges, and Indicators ...             | 86 |
| Instrument Cluster (Base Level) .....                  | 87 |
| Instrument Cluster (Uplevel) .....                     | 89 |
| Speedometer .....                                      | 90 |
| Odometer .....                                         | 90 |
| Trip Odometer .....                                    | 90 |
| Tachometer .....                                       | 90 |
| Fuel Gauge .....                                       | 90 |
| Engine Coolant Temperature Gauge .....                 | 92 |
| Seat Belt Reminders .....                              | 93 |
| Airbag Readiness Light .....                           | 94 |
| Passenger Airbag Status Indicator .....                | 94 |
| Charging System Light .....                            | 95 |
| Malfunction Indicator Light (Check Engine Light) ..... | 95 |

|                                                                        |     |
|------------------------------------------------------------------------|-----|
| Brake System Warning Light .....                                       | 97  |
| Electric Parking Brake Light .....                                     | 97  |
| Service Electric Parking Brake Light .....                             | 97  |
| Antilock Brake System (ABS) Warning Light .....                        | 98  |
| Lane Keep Assist (LKA) Light .....                                     | 98  |
| Automatic Emergency Braking (AEB) Disabled Light .....                 | 98  |
| Vehicle Ahead Indicator .....                                          | 99  |
| Pedestrian Ahead Indicator .....                                       | 99  |
| Traction Off Light .....                                               | 99  |
| Traction Control System (TCS)/Electronic Stability Control Light ..... | 99  |
| Electronic Stability Control (ESC) Off Light .....                     | 100 |
| Engine Coolant Temperature Warning Light (Uplevel only) .....          | 100 |
| Tire Pressure Light .....                                              | 100 |
| Engine Oil Pressure Light .....                                        | 101 |
| Low Fuel Warning Light .....                                           | 101 |
| Auto Stop Indicator (Uplevel only) .....                               | 102 |
| Security Light .....                                                   | 102 |
| High-Beam On Light .....                                               | 102 |
| Lights On Reminder .....                                               | 102 |
| Cruise Control Light .....                                             | 102 |
| Adaptive Cruise Control Light (Uplevel only) .....                     | 103 |
| Door Ajar Light .....                                                  | 103 |

### Information Displays

|                                                    |     |
|----------------------------------------------------|-----|
| Driver Information Center (DIC) (Base Level) ..... | 103 |
| Driver Information Center (DIC) (Uplevel) .....    | 105 |
| Vehicle Status (Uplevel only) .....                | 106 |

### Vehicle Messages

|                              |     |
|------------------------------|-----|
| Vehicle Messages .....       | 108 |
| Engine Power Messages .....  | 108 |
| Vehicle Speed Messages ..... | 109 |

## Controls

### Steering Wheel Adjustment



To adjust the steering wheel:

1. Pull the lever down.
2. Move the steering wheel up, down, forward, and backward.
3. Pull the lever up to lock the steering wheel in place.

Do not adjust the steering wheel while driving.

### Heated Steering Wheel



 : If equipped with a heated steering wheel, press to turn on or off. A light near the button displays when the feature is turned on.

The steering wheel takes about three minutes to reach maximum heat.

### Horn

Press  on the steering wheel pad to sound the horn.

### Windshield Wiper/Washer

#### Windshield Wiper with Intermittent Wipes (INT Shown)



**INT** : Use for intermittent wipes or Rainsense, if equipped and enabled. To adjust wipe frequency, turn the band up for more frequent wipes or down for less frequent wipes. If Rainsense is enabled, see “Rainsense” later in this section.

**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. Clear snow and ice from the wiper blades before using them. If frozen to the

windshield, carefully loosen or thaw them. Damaged blades should be replaced. See *Wiper Blade Replacement* ⇨ 241. 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 INT, they will immediately stop. If the windshield wiper lever is then moved to OFF before the driver door is opened or within 10 minutes, the wipers will restart and move to the base of the windshield.

If the ignition is turned off while the wipers are performing wipes due to windshield washing, the wipers continue to run until they reach the base of the windshield.

### Wiper Arm Assembly Protection

When using an automatic car wash, move the windshield wiper lever to OFF. This disables the automatic Rainsense windshield wipers and/or manual windshield 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.

### Windshield Washer

↓ : Pull the windshield wiper lever toward you to spray windshield washer fluid and activate the windshield wipers. The wipers will continue until the lever is released or the maximum wash time is reached. When the windshield wiper lever is released, additional wipes may occur depending on how long the windshield washer had been activated. See *Washer Fluid* ⇨ 237 for information on filling the windshield washer fluid reservoir.

### Rear Window Wiper/Washer

The rear wiper/washer controls are on the end of the windshield wiper lever.



**ON:** Press the upper portion of the button for continuous rear window wipes.

**OFF:** The rear wiper turns off when the button is returned to the middle position.

**INT:** Press the lower portion of the button for rear intermittent wipes.

↑ **REAR:** Push the windshield wiper lever forward to spray washer fluid on the rear window. The lever returns to its starting position when released.

### Rear Wiper Arm Assembly Protection

When using an automatic car wash, move the rear wiper control to OFF to disable the rear wiper. In some vehicles, if the transmission is in N (Neutral) and the vehicle speed is very slow, the rear wiper will automatically park under the rear spoiler.

The wiper operations return to normal when the transmission is no longer in N (Neutral) or the vehicle speed has increased.

### Reverse Gear Wipes

If the rear wiper control is off, the rear wiper will automatically operate continuously when the shift lever is in R (Reverse), and the front windshield wiper is performing low or high speed wipes. If the rear wiper control is off, the shift lever is in R (Reverse), and the front windshield wiper is performing interval wipes, then the rear wiper automatically performs interval wipes.

The windshield washer reservoir is used for the windshield and the rear window. Check the fluid level in the reservoir if either washer is not working. See *Washer Fluid* ⇨ 237.

### Compass

The vehicle may have a compass display on the Driver Information Center (DIC). The compass receives its heading and other information from the Global Positioning System (GPS) antenna, StabiliTrak/Electronic Stability Control (ESC), 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

Set the time and date using the infotainment system. See "Date/Time" under *Settings* (11 Inch Screen Radio) ⇨ 131.

### Power Outlets

#### Power Outlets 12-Volt Direct Current



#### Warning

Power is always supplied to the power outlet. Do not leave electrical equipment plugged in when the vehicle is not in use because the vehicle could catch fire and cause injury or death.

#### Caution

Leaving electrical equipment plugged in for an extended period of time while the ignition is off will drain the battery. Always unplug electrical equipment when not in use and do not plug in equipment that exceeds the maximum 15 amp rating.

**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 cell phone charge cords.

The vehicle has 12-volt outlets that can be used to plug in electrical equipment, such as a cell phone or MP3 player.



Certain accessory plugs may not be compatible with the accessory power outlet and could overload vehicle and adapter fuses. If a problem is experienced, see your dealer.

When adding electrical equipment, be sure to follow the proper installation instructions included with the equipment. See *Add-On Electrical Equipment* ⇨ 220.

**Wireless Charging****Warning**

Wireless charging may 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.

**Warning**

Remove all objects from the charger before charging your compatible smartphone. Objects, such as coins, keys, rings, paper clips, or cards, between the smartphone and charger may become very hot.

On the rare occasion that the charging system does not detect an object, and the object gets wedged between the smartphone and charger, remove the

(Continued)

**Warning (Continued)**

smartphone and allow the object to cool before removing it from the charger, to prevent burns.

If equipped, the vehicle has wireless charging in the storage bin at the front of the floor console. The system operates at 145 kHz and wirelessly charges one Qi compatible smartphone. The power output of the system is capable of charging at a rate up to 3 amp (15 W), as requested by the compatible smartphone. See *Radio Frequency Statement* ⇨ 311.

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, during a Bluetooth phone call, or when phone projection (e.g., Apple CarPlay/Android Auto) is active. See *Retained Accessory Power (RAP)* ⇨ 185.

The operating temperature is -40 °C (-40 °F) to 85 °C (185 °F) for the charging system and 0 °C (32 °F) to 35 °C (95 °F) for the phone. A charging stopped alert may be displayed on the infotainment screen, if the wireless charger

or smartphone are outside of normal operating temperature. Charging will automatically resume when a normal operating temperature is reached.



To charge a compatible smartphone:

1. Confirm the smartphone is capable of wireless charging.
2. Remove all objects from the charging pad. The system may not charge if there are any objects between the smartphone and charger.
3. Place the smartphone face up against the rear of the charger.

To maximize the charge rate, ensure the smartphone is fully seated and centered in the holder with nothing under it.

A smartphone case may prevent the charger from working, or reduce the charging performance. See your dealer for additional information.

4. A green ⚡ will appear on the infotainment display, next to the phone icon. This indicates that the smartphone is detected.
5. If a smartphone is placed on the charger and ⚡ turns off or turns yellow, remove the smartphone and any objects from the pad. Turn the smartphone 180 degrees and wait a few seconds before placing/aligning it on the pad again.
6. If a smartphone is placed on the charger and ⚡ turns red, the charger and/or the smartphone is overheated. Remove the smartphone and any objects from the charger in order to cool the system.

The smartphone may become warm during charging. This is normal. In warmer temperatures, the speed of charging may be reduced.

For vehicles with wireless phone projection, the smartphone may overheat during wireless charging. The smartphone may slow down, stop charging, or shut down to protect the battery. The phone may need to be removed from its case to prevent overheating. The ⚡ may flash while the phone is cooling down enough for wireless charging to automatically resume. This is normal. Individual phone performance may vary.

### Software Acknowledgements

Certain Wireless Charging Module product from LG Electronics, Inc. ("LGE") contains the open source software detailed below. Refer to the indicated open source licenses (as are included following this notice) for the terms and conditions of their use.

### OSS Notice Information

To obtain the source code that is contained in this product, please visit <https://opensource.lge.com>. In addition to the source code, all referred license terms, warranty disclaimers and copyright notices are available for download. LG Electronics will also provide open source code to you on CD-ROM for a charge covering the cost of performing such distribution (such as the cost of media,

shipping, and handling) upon email request to [opensource@lge.com](mailto:opensource@lge.com). This offer is valid for three (3) years from the date on which you purchased the product.

### **Freescale-WCT library**

Copyright (c) 2012-2014 Freescale Semiconductor, Inc. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. Neither the name of the copyright holder nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

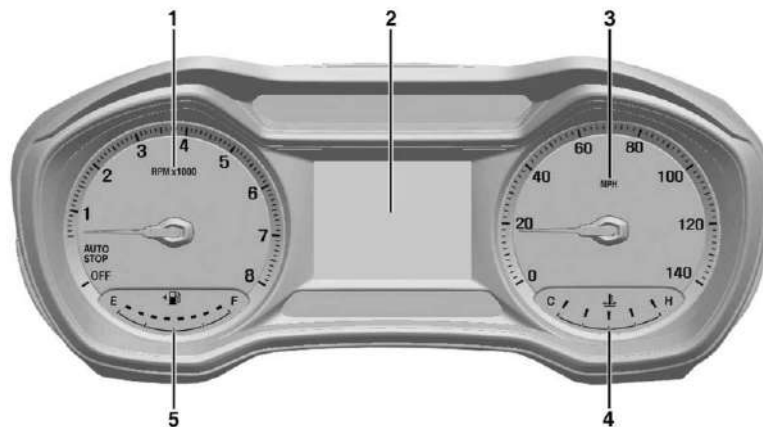
## **Warning Lights, Gauges, and Indicators**

Warning lights, gauges, and indicators can alert you to an issue with your vehicle. Some warning lights display briefly to show that they are working when you start the vehicle. However, if a warning light persists while

driving, or if a gauge shows there may be a problem, be sure to refer to the sections under "Warning Lights, Gauges, and Indicators."

Paying attention to your vehicle's warning lights, gauges, and indicators and promptly addressing any issues may help you to prevent an expensive repair or personal injury. Postponing repairs can be costly and even dangerous.

## Instrument Cluster (Base Level)



English Base Level Shown, Metric Similar

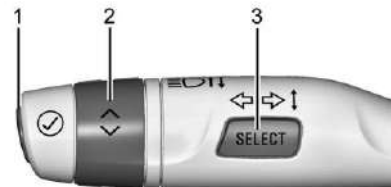
1. Tachometer ⇨ 90
2. Driver Information Center (DIC) (Base Level) ⇨ 103 Driver Information Center (DIC) (Uplevel) ⇨ 105
3. Speedometer ⇨ 90
4. Engine Coolant Temperature Gauge ⇨ 92

5. Fuel Gauge ⇨ 90

### Cluster Menu

There is an interactive display area in the center of the instrument cluster.

### Selecting menu and functions



Use the controls to open and scroll through the different items and displays.

1. : Press to set or clear the menu item when it is displayed
2. : Turn the band to scroll through the menu items.
3. **SELECT** : Press to access the cluster applications. This button is also used to return to or exit the last screen displayed on the DIC. Press **SELECT** to access the cluster applications. Use to scroll through the list of available applications. Not all applications will be available on all vehicles. Some may be temporarily restricted when the vehicle is off.

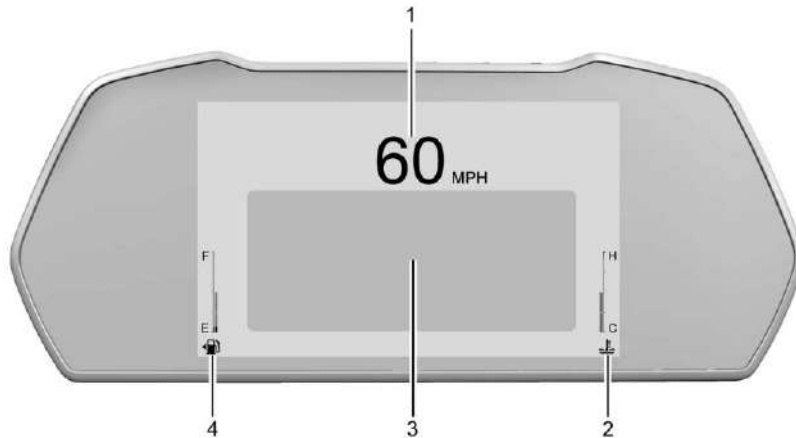
- TRIP
- VEHICLE

See *Driver Information Center (DIC) (Base Level)*

⇒ *103 Driver Information Center (DIC) (Uplevel)*

⇒ 105.

## Instrument Cluster (Uplevel)



English Info Layout Shown, Other Layouts, and Metric Similar

1. *Speedometer* ⇨ 90
2. *Engine Coolant Temperature Gauge* ⇨ 92
3. *Driver Information Center (DIC) (Base Level)* ⇨ 103 *Driver Information Center (DIC) (Uplevel)* ⇨ 105
4. *Fuel Gauge* ⇨ 90

### Reconfigurable Instrument Cluster

The cluster display layout can be changed.

There are four selectable views:

**Clean:** Displays no information zones.

**Info:** Displays one information zone under the speedometer.

**Infotainment:** Displays one information zone under the speedometer.

**Gauge:** Displays no information zones and the gauges are located to the left and right of the speedometer.



Use the right steering wheel control to open and scroll through the different items and displays.

If equipped, to change the cluster configuration and the gauge faces, press and hold the thumbwheel and use **^** or **v** on the right steering wheel control. Press the thumbwheel on the right steering wheel control to select the desired option from the list.

The following conditional gauges may be displayed while in a particular driver mode:

- Engine Oil Temperature
- Engine Oil Pressure
- Voltmeter
- Transmission Temperature

## Speedometer

The speedometer shows the vehicle speed in either kilometers per hour (km/h) or miles per hour (mph).

## Odometer

The odometer displays the distance the vehicle has been driven, in either kilometers or miles.

## Trip Odometer

The trip odometer displays the distance the vehicle was driven since the trip odometer was last reset.

Access and reset the trip odometer through the Driver Information Center. See *Driver Information Center (DIC) (Base Level)* ⇨ 103 *Driver Information Center (DIC) (Uplevel)* ⇨ 105.

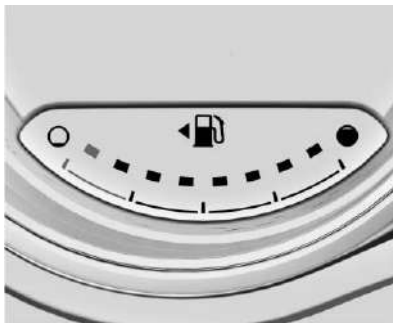
On the uplevel instrument cluster, access and reset the trip odometer through the Vehicle Status. See *Vehicle Status (Uplevel only)* ⇨ 106.

## Tachometer

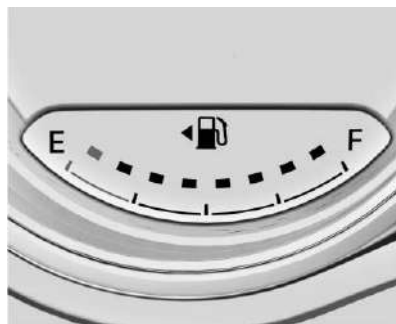
The tachometer displays the engine speed in revolutions per minute (rpm) when the engine is on.

During Auto Stop mode, the tachometer may vary by several hundred rpm when the engine is shutting off and restarting.

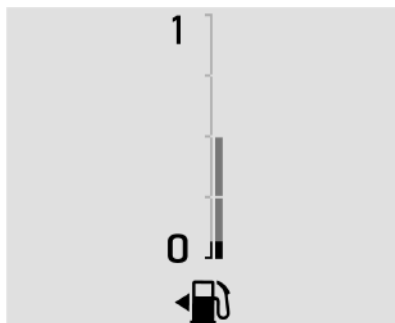
## Fuel Gauge



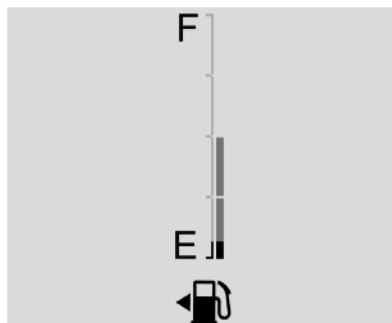
Metric Base Level



English Base Level



**Metric Uplevel Info Layout Shown, Other Layouts Similar**



**English Uplevel Info Layout Shown, Other Layouts Similar**

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.

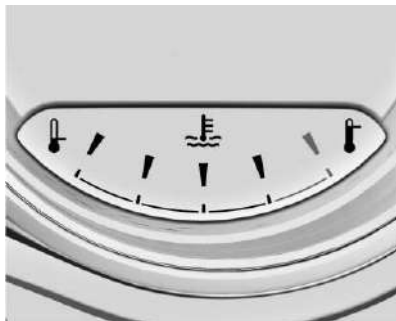
When the indicator nears empty, the low fuel light comes on. There still is a little fuel left, but the vehicle should be refueled soon.

The fuel gauge may:

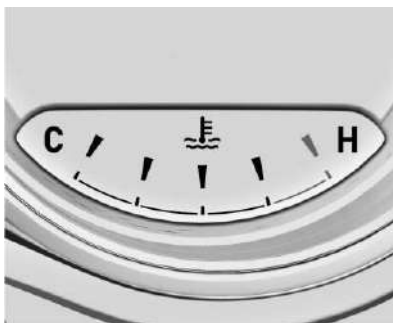
- Take a little more, or less fuel to fill up than it indicates. For example, the gauge may have indicated the tank is half full, but it actually will take a little more, or less than half the tank's capacity to fill the tank.
- Moves a little while turning a corner, speeding up, or braking.
- Take a few seconds to stabilize after the ignition is turned on and goes back to empty when the ignition is turned off.

These are normal conditions, none of which indicate a problem with the fuel gauge.

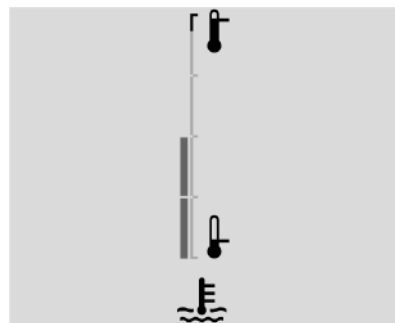
## Engine Coolant Temperature Gauge



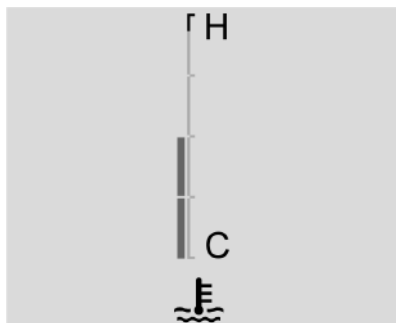
Metric Base Level



English Base Level



Metric Uplevel Info Layout Shown, Other Layouts Similar



**English Uplevel Info Layout Shown, Other Layouts Similar**

This gauge shows the engine coolant temperature.

If the pointer moves toward the warning area at the high end of the gauge, the engine is too hot.

This reading indicates the same thing as the warning light. It means that the engine coolant has overheated. If the vehicle has been operating under normal driving conditions, pull off the road, stop the vehicle, and turn off the engine as soon as possible. See *Engine Overheating* ⇨ 236.

## 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, or if the driver remains or becomes unbuckled while the vehicle is moving, this light flashes and an audible alert sounds to alert the driver to fasten their seat belt. The light may then display solid until the driver seat belt is buckled. This cycle may continue several times or continuously until the driver seat belt is buckled. If the driver seat belt is buckled, the light will not display and audible alert will not sound.

### Front Passenger Seat Belt Reminder Light

This vehicle may have a front passenger seat belt reminder light near the passenger airbag status indicator. See *Passenger Sensing System* ⇨ 52.



When the vehicle is started, or if the front passenger remains or becomes unbuckled while the vehicle is moving, this light flashes and an audible alert may sound to alert the front passenger to fasten their seat belt. The light may then display solid until the front passenger seat belt is buckled. This cycle may continue several times or continuously until the front passenger seat belt is buckled. If the front passenger seat belt is buckled, the light will not display and the audible alert will not sound.

Alerts may occur if an object, such as a briefcase, handbag, grocery bag, laptop, or other electronic device, is on the front passenger seat. To turn off the reminder light and/or audible alert, remove the object from the seat or buckle the seat belt.

## Airbag Readiness Light

This light shows if there is an electrical problem with the airbag system. It is located in the instrument cluster. 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 *Airbag System* ⇨ 47.



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

(Continued)

### Warning (Continued)

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 Center (DIC) message may also come on.

## Passenger Airbag Status Indicator

The vehicle has a passenger sensing system. See *Passenger Sensing System* ⇨ 52 for important safety information. The overhead console has a passenger airbag status indicator.

PASSENGER AIR BAG

ON

OFF

United States



Canada

When the vehicle is started, the passenger airbag status indicator will light ON and OFF, or the symbol for on and off, for several seconds as a system check. Then, after several more seconds, the status indicator will light either ON or OFF, or either the on or off symbol, to let you know the status of the front outboard passenger frontal airbag.

If the word ON, or the on symbol, is lit on the passenger airbag status indicator, it means that the front outboard passenger frontal airbag is allowed to inflate.

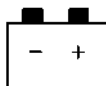
If the word OFF, or the off symbol is lit, on the airbag status indicator, it means that the passenger sensing system has turned off the front outboard passenger frontal airbag.

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 dealer 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* ⇨ 94 for more information, including important safety information.

## Charging System Light



This light displays briefly when you start your vehicle. This is a normal test your vehicle runs on start up.

If the light stays on or displays while driving, there could be a problem with the electrical charging system. Have it checked by your dealer. Driving while this light is on could drain the 12-volt battery.

If you must drive a short distance with the light on, turn off all accessories, such as the radio, to save battery power. Find a safe place to stop the vehicle.

## Malfunction Indicator Light (Check Engine Light)



### **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

(Continued)

### **Caution (Continued)**

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 tires that do not meet the original tire 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* ⇨ 222.

This light displays briefly when you start your vehicle. This is a normal test your vehicle runs on start up. If it does not display, see your dealer for service.

The light is part of emission control on-board diagnostic system of the vehicle. If this light stays on or displays while driving, a malfunction is present, and the vehicle may

require service. See *Ignition Positions (Keyless Access)* ⇨ 180 *Ignition Positions (Key Access)* ⇨ 178.

The system often shows malfunctions before any problem is noticeable. Being aware of the light and seeking service promptly when it displays may prevent damage.

**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. See your dealer.

To help prevent damage, reduce vehicle speed, and avoid hard accelerations and uphill grades. 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 under “If the light is flashing,” and see your dealer for service as soon as possible.

**If the light is on steady:** A malfunction has been detected. Diagnosis and service may be required. See your dealer.

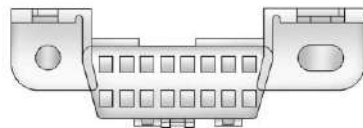
Check the following:

- If fuel has been added to the vehicle using the capless funnel adapter, make sure that it has been removed. See “Filling the Tank with a Portable Gas Can” under *Filling the Tank* ⇨ 217. 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 drivability, 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 *Recommended Fuel (1.2L L3 LBP Engine)* ⇨ 215 *Recommended Fuel (1.2L L3 LIH Engine)* ⇨ 216.

If the light remains on, see your dealer.

## Emissions Inspection and Maintenance Programs

If the vehicle requires an Emissions Inspection/Maintenance test, the test equipment can be used to 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* ⇨ 220. See your dealer if assistance is needed.

The vehicle may not pass inspection if:

- The Malfunction Indicator Light displays when the engine is running
- The light does not display when the ignition is on while the engine is off.

- 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 dealer if the vehicle will not pass or cannot be made ready for the test.

## Brake System Warning Light



Metric

BRAKE

English



### Warning

The brake system might not be working properly if the brake system warning light is on. Driving 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.

This light displays briefly when you start your vehicle. This is a normal test your vehicle runs on startup. If it does not display, see your dealer for service.

If the light stays on, have the brake system inspected immediately. This light may display if the brake fluid is low. See *Brake Fluid* ⇨ 238.

If the light displays while driving, pull off the road and stop carefully. If equipped with electric brake boost, vehicle speed may be limited when the brake system warning light displays. The brake pedal might be harder to push, or the brake pedal may go closer to the floor. It could take longer to stop. If the light is still on, have the vehicle towed for service. See *Transporting a Disabled Vehicle* ⇨ 278.

## Electric Parking Brake Light



Metric

PARK

English

This light displays when the Electric Parking Brake is applied. If the light flashes after the Electric Parking Brake is released, or while driving, there is a problem with the Electric Parking Brake system. A message may also display in the Driver Information Center.

If the light does not display, or remains flashing, see your dealer.

## Service Electric Parking Brake Light



This light may display briefly when you start your vehicle. This is a normal test your vehicle runs on start up. If it does not display, see your dealer for service.

If this light stays on or displays while driving, there is a problem with the Electric Parking Brake. Take the vehicle to a dealer as soon as possible. In addition to the parking brake, other safety functions that use the Electric Parking Brake may also be affected. A message may also display in the Driver Information Center. See *Electric Parking Brake* ⇨ 190.

## Antilock Brake System (ABS) Warning Light



This light displays briefly when you start your vehicle. This is a normal test your vehicle runs on start up. If it does not display, see your dealer for service.

When the Antilock Brake System (ABS) detects a problem, the warning light displays and stays on, and you may hear an audible alert. Your vehicle brakes will still function, but your Antilock Brake System (ABS) is not functioning as expected. See your dealer for service.

If this warning light and the brake system warning light are displayed, your Antilock Brake System (ABS) and your regular brakes are not functioning as expected. See your dealer for service.

See *Brake System Warning Light* ⇨ 97.

## Lane Keep Assist (LKA) Light



Base Level

Uplevel

If equipped, the Lane Keep Assist Light may display the following colors:

- **White:** Displays when the vehicle starts. A steady white light indicates that Lane Keep Assist is unable to assist.

- **Green:** Displays when Lane Keep Assist is turned on and ready to assist. Lane Keep Assist will gently turn the steering wheel if the vehicle approaches a detected lane marking.
- **Amber:** Displays when Lane Keep Assist is active. The light flashes amber as a Lane Departure Warning alert indicating that a lane marking has been unintentionally crossed. If the system detects you are steering intentionally (to pass or change lanes), the Lane Departure Warning alert may not display.

Lane Keep Assist will not assist or alert if the turn signal is active in the direction of lane departure, or if Lane Keep Assist detects that you are accelerating, braking, or actively steering. See *Lane Keep Assist (LKA)* ⇨ 214.

## Automatic Emergency Braking (AEB) Disabled Light



This indicator displays when you turn off Automatic Emergency Braking or Front Pedestrian Braking.

This indicator also displays if Automatic Emergency Braking or Front Pedestrian Braking are unavailable due to malfunction, weather conditions, or a dirty windshield.

See *Automatic Emergency Braking (AEB)* ⇨ 209.

See *Front Pedestrian Braking (FPB) System* ⇨ 210.

## Vehicle Ahead Indicator



If equipped, this indicator displays green when a vehicle is detected ahead and amber if you are following a vehicle too closely.

See *Forward Collision Alert (FCA) System* ⇨ 207.

## Pedestrian Ahead Indicator



If equipped, this indicator displays amber when a pedestrian is detected in front of the vehicle.

See *Front Pedestrian Braking (FPB) System* ⇨ 210.

## Traction Off Light



This light displays briefly when you start your vehicle. This is a normal test your vehicle runs on start up. If it does not display, see your dealer for service.

The traction off light displays when the Traction Control System has been turned off. When StabiliTrak/Electronic Stability Control is

turned off, the Traction Control System is also turned off. To turn the Traction Control System and StabiliTrak/Electronic Stability Control off and on, see *Traction Control/Electronic Stability Control* ⇨ 191.

If the Traction Control System is off, wheel slip does not limit acceleration unless necessary to help protect the driveline from damage. Adjust your driving accordingly.

## Traction Control System (TCS)/ Electronic Stability Control Light



This light displays briefly when you start your vehicle. This is a normal test your vehicle runs on startup. If it does not display, see your dealer for service.

The light flashes when the Traction Control System and/or the StabiliTrak/Electronic Stability Control System is actively working.

If the light is on and not flashing, the Traction Control System and StabiliTrak/Electronic Stability Control System may not be fully operational or able to assist maintaining control. Adjust your driving accordingly. If the condition persists, see your dealer as soon as possible. A message may display in the Driver Information Center.

See *Traction Control/Electronic Stability Control* ⇨ 191.

## Electronic Stability Control (ESC) Off Light



This light displays briefly when you start your vehicle. This is a normal test your vehicle runs on start up. If it does not display, see your dealer for service.

This light displays when the StabiliTrak/Electronic Stability Control system is turned off. When StabiliTrak/Electronic Stability Control is off, the Traction Control System is

also off. To turn StabiliTrak/Electronic Stability Control off and on, see *Traction Control/Electronic Stability Control* ⇨ 191.

If StabiliTrak/Electronic Stability Control and the Traction Control System are off, the systems do not assist in controlling the vehicle. Adjust your driving accordingly.

## Engine Coolant Temperature Warning Light (Uplevel only)



### 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* ⇨ 236.

This light briefly displays during vehicle startup as a normal test. If it does not display on startup, or if it stays lit, see your dealer for service.

If the light displays while driving, pull over and turn off the engine as soon as possible.

## Tire Pressure Light



If equipped with the Tire Pressure Monitor System, this light displays briefly when you start your vehicle. This is a normal test your vehicle runs on start up.

The light displays to indicate information about tire pressures and the Tire Pressure Monitor System.

### If the Light Stays On

This indicates that one or more of the tires are significantly underinflated.

A Driver Information Center tire pressure message may also display. Stop as soon as possible and inflate the tires to the pressure value shown on the Tire and Loading Information label. See *Tire Pressure* ⇨ 258.

### If the Light Flashes and Then Remains On

If the light flashes for about a minute and then stays on, there may be a problem with the Tire Pressure Monitor System. If the problem is not corrected, the light will display every time the vehicle is started. See *Tire Pressure Monitor Operation* ⇨ 260.

## Engine Oil Pressure Light

### Caution

Driving the vehicle with low engine oil pressure can damage the engine and the repairs would not be covered by the vehicle warranty.

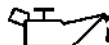
If the engine oil pressure light comes on while driving:

1. Stop in a safe location and turn off the engine.

(Continued)

### Caution (Continued)

2. Check the oil level. See *Engine Oil* ⇨ 228.
3. Add oil if the oil level is below the normal operating range.
4. Restart the vehicle. If the engine oil pressure light stays on for more than 10 seconds, turn the vehicle back off. Do not restart the vehicle. See your dealer for service.



This light should display briefly when the engine starts. When the engine is off and the vehicle is on, the light should remain illuminated. If it does not display under either condition, contact your dealer.

If the light displays and stays on when the engine is running, it may not have adequate oil pressure. The oil level may be low or there may

be some other oil system problem. Turn the engine off when it is safe to do so and contact your dealer.

## Low Fuel Warning Light



### Caution

Driving the vehicle with low fuel levels may cause damage to vehicle components. Add fuel as soon as possible after the Low Fuel Warning Light displays. Do not continue to drive prolonged distances with low fuel levels.

This light displays briefly when you start your vehicle. This is a normal test your vehicle runs on start up.

The light displays when the fuel tank is running low and it turns off when fuel is added. If it does not, see your dealer for service.

### Auto Stop Indicator (Uplevel only)



This light displays when Auto Stop is enabled. See *Stop/Start System* ⇨ 182.

### Security Light



This light displays briefly when you start your vehicle. This is a normal test your vehicle runs on start up. If it does not display, see your dealer for service.

If the light stays on and the vehicle does not start, there could be a problem with the theft-deterrent system. See *Immobilizer Operation* ⇨ 27.

### High-Beam On Light



This light displays when the high-beam headlights are in use. See *High-Beam Systems* ⇨ 110.

### Automatic High-Beam Light



Base Level



Uplevel

If equipped, this light displays when the IntelliBeam system is enabled. See *High-Beam Systems* ⇨ 110.

### Lights On Reminder



This light displays when the exterior lights are in use. The light will not display when only the Daytime Running Lights are active. See *Headlight Controls* ⇨ 110.

### Cruise Control Light



If equipped, this light displays white when cruise control is on and ready, and turns green when set and active.

The light turns off when cruise control is turned off. See *Cruise Control* ⇨ 193.

## Adaptive Cruise Control Light (Uplevel only)



If equipped, this light displays white when Adaptive Cruise Control is on and ready, and turns green when set and active.

## Curve Speed Control Light



If equipped, this light displays green when Adaptive Cruise Control is actively controlling the vehicle speed and detects a sharp curve on the road ahead.

Adaptive Cruise Control automatically slows the vehicle down while navigating the curve, and may increase speed out of the curve without exceeding the set speed.

See *Adaptive Cruise Control* ⇨ 195.

## Door Ajar Light



Base Level



Uplevel

This light displays when a door is open or not securely latched. Before driving, check that all doors are properly closed.

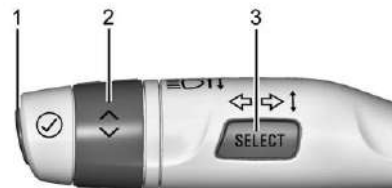
## Information Displays

### Driver Information Center (DIC) (Base Level)

The DIC displays information about your vehicle. It also displays warning messages if a system problem is detected. See *Vehicle Messages* ⇨ 108. All messages appear in the DIC display in the center of the instrument cluster.

## DIC Operation and Displays

Some of the displayed functions differ between vehicle driving and standstill and some functions are only active when the vehicle is driving.



Use the controls to open and scroll through the different items and displays.

1. : Press to set or clear the menu item when it is displayed
2. : Turn the band to scroll through the menu items.
3. **SELECT** : Press to access the cluster applications. This button is also used to return to or exit the last screen displayed on the DIC. Press **SELECT** to access the cluster applications. Use to scroll through the list of available applications. Not all applications will be available on all vehicles.

### Trip/Fuel Menu (TRIP) Items

Press **SELECT** on the turn signal lever until the **VEHICLE** menu is displayed. Use  or thumbwheel up/down to scroll through the menu items. Not all items are available on every vehicle. The following is a list of all possible menu items:

**Speed:** Shows the vehicle speed in either kilometers per hour (km/h) or miles per hour (mph).

**Trip 1/2 or A/B:** Shows the current distance traveled, in either kilometers (km) or miles (mi), since the trip odometer was last reset.

This also shows the approximate average liters 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.

**Fuel Range:** Shows the approximate distance the vehicle can be driven without refueling. **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.

**Instantaneous Fuel Economy:** Displays the current fuel economy in liters 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. This display cannot be reset.

### Average Vehicle Speed

This display 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.

### Average Fuel Economy

This display shows the approximate average liters 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.

### Vehicle Information Menu (VEHICLE) Items

Press **MENU** on the turn signal lever until the **VEHICLE** menu is displayed. Use  or thumbwheel up/down to scroll through the menu items. Not all items are available on every vehicle. The following is a list of all possible menu items:

**Remaining 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* ⇨ 228. In addition to the engine oil life system monitoring the oil life, additional maintenance is recommended. See *Maintenance Schedule* ⇨ 291.

The Oil Life display must be reset after each oil change. It will not reset itself. Do not reset the Oil Life display at any time other than when

the oil has just been changed. It cannot be reset accurately until the next oil change. To reset, see *Engine Oil Life System* ⇨ 230.

**Air Filter Life:** Shows an estimate of the engine air filter's remaining useful life and the state of the system. Engine Air Filter Life 95% means 95% of the current air filter life remains. Messages will display based on the engine air filter life and the state of the system. When the REPLACE AT NEXT OIL CHANGE message displays, the engine air filter should be replaced at the time of the next oil change. When the REPLACE SOON message displays, the engine air filter should be replaced at the earliest convenience.

The Air Filter Life display must be reset after the engine air filter replacement. To reset, see *Engine Air Filter Life System* ⇨ 231.

**Tire Pressure:** Shows the approximate pressures of all four tires. Tire pressure is displayed in either kilopascal (kPa) or in pounds per square inch (psi). If the pressure is low, the value for that tire is shown in amber. See *Tire Pressure Monitor System* ⇨ 259 and *Tire Pressure Monitor Operation* ⇨ 260.

**Following Distance:** When Adaptive Cruise Control (ACC) is not engaged, the current follow time to the vehicle ahead is displayed as a time value on this page. If equipped and when ACC has been engaged, the display switches to the gap setting page. This page shows the current gap setting along with the vehicle ahead indicator.

**Traction Control/Electronic Stability Control:**

To turn Traction (TCS) on and off, press  on the turn signal lever. see *Traction Control/Electronic Stability Control* ⇨ 191.

**Units:** Choose US, Imperial, or metric units by pressing  or the thumbwheel while the desired item is highlighted.

## Driver Information Center (DIC) (Uplevel)

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



 or  : Use the thumbwheel to scroll to the previous or next selection.

 : Press the thumbwheel to open a menu or select a menu item. Press and hold to reset certain displays.

## DIC Information Display Options

Select which info display to view on the DIC by selecting Show in Cluster in the Vehicle Status on the infotainment display. See *Vehicle Status (Uplevel only)* ⇨ 106.

### DIC Information Displays

The following is the list of all possible DIC information displays and their locations. Some of the information displays may not be available for your particular vehicle.

**Infotainment:** Displays the actively playing audio.

**Trip Information:** The Trip 1 or 2 display shows the current distance traveled, in either kilometers (km) or miles (mi), since the trip odometer was last reset. To reset the current trip, touch and hold the touchscreen display when trip odometer is displayed on the vehicle status screen.

The Average Fuel Economy display shows the approximate average liters 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 along with the trip odometer by touching and holding the touchscreen display when trip odometer is displayed on the vehicle status screen.

**Battery Voltage:** Shows the current battery voltage.

**Oil Life:** Displays an estimate of the remaining oil 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* ⇨ 228. In addition to the engine oil life system monitoring the oil life, additional maintenance is recommended. See *Maintenance Schedule* ⇨ 291.

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. To reset, see *Engine Oil Life System* ⇨ 230.

**Fuel Economy:** Displays information about current and average fuel economy.

**Coolant Temperature:** Shows the temperature of the coolant in either degrees Celsius (°C) or degrees Fahrenheit (°F).

**Tire Pressure:** Shows the approximate pressures of all four tires. Tire pressure is displayed in either kilopascal (kPa) or in pounds

per square inch (psi). If the pressure is low, the value for that tire is shown in amber. See *Tire Pressure Monitor System* ⇨ 259 and *Tire Pressure Monitor Operation* ⇨ 260.

**Air Filter Life:** Displays an estimate of the remaining engine air filter life and the state of the system. Engine Air Filter Life 95% means 95% of the current air filter life remains. Messages will display based on the engine air filter life and the state of the system. When the REPLACE AT NEXT OIL CHANGE message displays, the engine air filter should be replaced at the time of the next oil change. When the REPLACE SOON message displays, the engine air filter should be replaced at the earliest convenience.

The Air Filter Life display must be reset after the engine air filter replacement. To reset, see *Engine Air Filter Life System* ⇨ 231.

### Vehicle Status (Uplevel only)

To access the vehicle status menu select  from the infotainment home screen. Vehicle status content is grouped together and shown on the infotainment display.

Selecting vehicle status content on the infotainment display shows the available options. Follow any message or alerts that may display. Some options may be unavailable while driving.

Touch Show in Cluster to send the desired content to the Driver Information Center (DIC) on the instrument cluster. Touch Remove from Cluster to remove the selected content from the instrument cluster. See *Driver Information Center (DIC) (Base Level)* ⇨ 103 and *Driver Information Center (DIC) (Uplevel)* ⇨ 105.

## Options

The following is the list of vehicle status content and location. Not all content and options may be available for your vehicle.

## Maintenance

**Tire Pressure:** Displays the approximate pressures of all four tires. Tire pressure is displayed in either kilopascal (kPa) or in pounds per square inch (psi). If the pressure is low, the value for that tire is shown in amber. See *Tire Pressure Monitor System* ⇨ 259 and *Tire Pressure Monitor Operation* ⇨ 260.

The following options may be chosen: Relearn Sensors and Show in Cluster.

**Oil Life:** Displays an estimate of the remaining oil 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* ⇨ 228. In addition to the engine oil life system monitoring the oil life, additional maintenance is recommended. See *Maintenance Schedule* ⇨ 291.

The following options may be chosen: Reset and Show in Cluster. The Oil Life must be reset after each oil change. It will not reset itself. Do not reset the Oil Life display at any time other than when the oil has just been changed. It cannot be reset accurately until the next oil change. To reset, see *Engine Oil Life System* ⇨ 230.

**Engine Air Filter Life:** Displays an estimate of the remaining engine air filter life and the state of the system. Engine Air Filter Life 95% means 95% of the current air filter life remains. Messages are displayed based on the engine air filter life and the state of the system. When the REPLACE AT NEXT OIL CHANGE message displays, the engine air filter should be replaced at the time of the next oil change. When the REPLACE NOW message displays, the engine air

filter should be replaced as soon as possible. The Air Filter Life display must be reset after the engine air filter replacement. To reset, see *Engine Air Filter Life System* ⇨ 231.

The following options may be chosen: Turn Off/On, Reset, and Show in Cluster.

## Gauges

**Battery Voltage:** Displays the current battery voltage.

Show in Cluster may be chosen.

**Coolant Temperature:** Displays the temperature of the coolant in either degrees Celsius (°C) or degrees Fahrenheit (°F).

Show in Cluster may be chosen.

## Trip

**Trip Information:** Trip 1 or 2 displays the current distance traveled, in either kilometers (km) or miles (mi), since the trip odometer was last reset.

Average Fuel Economy displays the approximate average liters 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 current, approximate average fuel economy and changes as driving conditions change.

To reset these values, touch reset on the touchscreen display when the Trip Information dialog is selected.

The following options may be chosen: Reset Trip 1, Reset Trip 2, and Show in Cluster.

**Fuel Economy:** Displays average fuel economy, the best fuel economy over the selected distance, and a bar graph showing instantaneous fuel economy. Values are displayed in liters per 100 kilometers (L/100 km) or miles per gallon (mpg). This number reflects only the approximate fuel economy and changes frequently as driving conditions change. Only the best score can be reset.

If the vehicle is equipped with an Active Fuel Management indicator, the engine operating mode will be shown in this display.

The following options may be chosen: Change Distance, Reset Best Score, and Show in Cluster. The distance for average fuel economy and the best fuel economy can be changed to: 40 km (25 mi), 80 km (50 mi), and 725 km (300 mi).

## Vehicle Messages

Messages displayed on the Driver Information Center (DIC) indicate the vehicle status or needed action to correct a condition. Multiple messages may appear together.

Vehicle status notifications are also sent to the infotainment display. Touch  on the infotainment home screen to display vehicle messages. A red dot on the notification icon indicates an active issue. Depending on the message, you can schedule a service or find the nearest dealer.

Press ✓ to acknowledge and clear the messages that do not require immediate action. You cannot clear messages that require immediate action until that action is performed.

Address and follow all message instructions promptly; clearing a message does not correct the issue.

If a SERVICE message appears, see your dealer.

The system may display messages concerning:

- Service Messages
- Fluid Levels
- Vehicle Security

- Brakes
- Steering
- Ride Control Systems
- Advanced Driver Assistance Systems
- Cruise Control
- Lighting and Bulb Replacement
- Wiper/Washer Systems
- Doors and Windows
- Seat Belts
- Airbag Systems
- Engine and Transmission
- Tire Pressure
- Battery

## Engine Power Messages

### ENGINE POWER IS REDUCED

This message displays when the vehicle's propulsion power is reduced. A reduction in 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. Under certain conditions, the performance may be reduced

the next time the vehicle is driven. The vehicle may be driven 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.

Under certain operating conditions, propulsion will be disabled. Try restarting after the ignition has been off for 30 seconds.

## **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; brake; suspension; tire; or, if equipped, Teen Driver.

## Lighting

### Exterior Lighting

|                                    |     |
|------------------------------------|-----|
| Headlight Controls .....           | 110 |
| High-Beam Systems .....            | 110 |
| Daytime Running Lights .....       | 112 |
| Automatic Headlight System .....   | 113 |
| Hazard Warning Flashers .....      | 113 |
| Turn and Lane-Change Signals ..... | 114 |

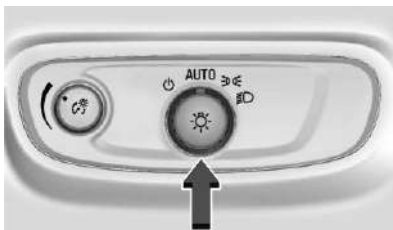
### Interior Lighting

|                                            |     |
|--------------------------------------------|-----|
| Instrument Panel Illumination Control .... | 114 |
| Dome Lights .....                          | 114 |
| Reading Lights .....                       | 115 |

### Lighting Features

|                                       |     |
|---------------------------------------|-----|
| Entry Lighting .....                  | 115 |
| Exit Lighting .....                   | 116 |
| Battery Load Management .....         | 116 |
| Battery Power Protection .....        | 116 |
| Exterior Lighting Battery Saver ..... | 116 |

## Exterior Lighting Headlight Controls



The headlight control is on the instrument panel to the left of the steering column.

There are four positions.

: Turns off the exterior lights and deactivates the AUTO mode. Turn to again and release to reactivate the AUTO mode.

For vehicles first sold in Canada, the Automatic Headlight System activates when off is selected, and either the headlights or Daytime Running Lights come on. See *Daytime Running Lights* ⇨ 112.

**AUTO:** Enables the Automatic Headlight system, which controls the exterior lights depending on outside lighting. See *Automatic Headlight System* ⇨ 113.

: Turns on the exterior lights such as parking lights, taillights, and license plate lights, plus the instrument panel lighting.

: Turns on the headlights and all the lights listed in .

### Lights On in Canada

For vehicles first sold in Canada, it is required that either Daytime Running Lights or headlights are always on when the vehicle is shifted out of P (Park). Even if the headlight control is set to off or , the Automatic Headlight System is engaged and ensures that either the Daytime Running Lights or headlights come on based on outside light level.

## High-Beam Systems

### Manual High-Beam Controls

#### High/Low-Beam Changer

To manually turn the high beams on, push the turn signal lever away from you until it stays in place. To return to low beams, push the lever again or pull it toward you and release.

The high-beam indicator light  appears in the instrument cluster when the high-beam headlights are on.

### Flash-to-Pass

To flash the high beams, briefly pull the turn signal lever toward you and release.

### Automatic High-Beam System — IntelliBeam

The IntelliBeam system turns the high-beam headlights on and off according to surrounding traffic conditions.

The system turns the high beams on when it is dark enough and there is no other traffic present.

### Turning the IntelliBeam System On and Off (Base Level)



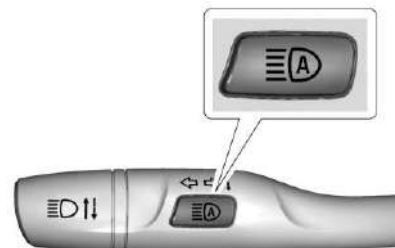
To enable the IntelliBeam system, turn the headlight control to either AUTO or , then activate the high/low-beam changer two times within two seconds.

This light  appears in the instrument cluster when the IntelliBeam system is enabled.

To disable the system when high beams are ON, turn on the manual high beams using either the high/low-beam changer or flash-to-pass.

To disable the system when high beams are OFF, activate the high/low-beam changer two times within two seconds.

### Turning the IntelliBeam System On and Off (Uplevel)



To enable the IntelliBeam system, turn the headlight control to either AUTO or , then press  on the turn signal lever.

This light  appears in the instrument cluster when the IntelliBeam system is enabled.

To disable the system when high beams are ON, press  again or turn on the manual high beams using either the high/low-beam changer or flash-to-pass.

To disable the system when high beams are OFF, activate the high/low-beam changer two times within two seconds.

**Driving with IntelliBeam****Warning**

Using high beams in dense exhaust, smoke, fog, snow, road spray, mist, or other airborne obstructions can cause a glare, obstructing your vision. This reduction in visibility can result in a crash. Never use high beams in dense exhaust, smoke, fog, snow, road spray, mist, or other airborne obstructions.

The system only activates the high beams when driving over 40 km/h (25 mph).

An indicator light appears in the instrument cluster when the high beams are on.

There is a sensor near the top center of the windshield that automatically detects the lights of oncoming and preceding vehicles. Keep this area of the windshield clear of debris to allow for best system performance.

The high-beam headlights remain on, under the automatic control, until one of the following situations occurs:

- The vehicle speed drops below 20 km/h (12 mph).

- The outside light is bright enough that high-beam headlights are not required.
- The system detects an approaching vehicle's headlights.
- The system detects a preceding vehicle's taillights.
- The IntelliBeam system is manually disabled.

The high-beam headlights may not turn off automatically if the system cannot detect another vehicle's lights because of any of the following conditions. The IntelliBeam system may then need to be disabled.

- The other vehicle's lights are missing, damaged, obstructed from view, or otherwise undetected.
- The other vehicle's lights are covered with dirt, snow, and/or road spray.
- The other vehicle's lights cannot be detected due to dense exhaust, smoke, fog, snow, road spray, mist, or other airborne obstructions.
- The vehicle windshield 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 headlights and taillights.
- The vehicle is being driven on winding or hilly roads.

**Daytime Running Lights**

Daytime Running Lights can make it easier for others to see the front of your vehicle during the day.

The Automatic Headlight System turns the Daytime Running Lights on and off.

**When Daytime Running Lights Turn On**

The Daytime Running Lights turn on when all the following conditions are met:

- The vehicle is on
- The headlight control is set to Auto
- The light sensor determines it is daytime

The instrument panel lights, taillights, and other exterior lights do not turn on when the Daytime Running Lights are on.

For vehicles first sold in Canada, it is required that either Daytime Running Lights or headlights are always on when the vehicle is

shifted out of P (Park). Even if the headlight control is set to Off or , the Automatic Headlight System is engaged and ensures that either the Daytime Running Lights or headlights come on based on outside light level.

### When Daytime Running Lights Turn Off

When it begins to get dark, the automatic headlight system turns off the Daytime Running Lights and turns on the headlights.

The Daytime Running Lights turn off when you turn off either the headlights or the vehicle.

For vehicles first sold in Canada: the Daytime Running Lights turn off only when the vehicle is shifted to P (Park) and the headlight control is off.

## Automatic Headlight System

The automatic headlight system controls the headlights, other exterior lights, and instrument panel lights depending on the outside light level.

To enable the system, set the headlight control to AUTO.

- When it is dark enough outside, the headlights come on automatically.

- The system may also turn on the headlights when driving through a parking garage or tunnel.
- When it is bright enough outside, the headlights will turn off or may change to Daytime Running Lights. See *Daytime Running Lights* ⇨ 112.

To turn off the automatic headlight system, either set the headlight control to  or turn the vehicle off.

### Location of Light Sensor

A light sensor on top of the instrument panel measures the outside light level. See *Instrument Panel Overview* ⇨ 4.

Do not cover the sensor, otherwise the exterior lights will come on when they are not needed.

### Lights On with Wipers

If the windshield wipers are activated in daylight with the engine on, and the headlight control is set to AUTO, the headlights, parking lights, and other exterior lights come on. The transition time for the lights coming on varies based on wiper speed. When the wipers are not operating, these lights turn off.

Set the headlight control to  or  to disable this feature.

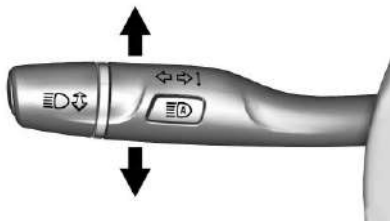
## Hazard Warning Flashers



Press the  button to make the front and rear turn signal lights flash on and off. This warns others that you are having trouble. Press again to turn the flashers off.

When the hazard warning flashers are on, the turn signal lights do not respond to the turn signal lever.

## Turn and Lane-Change Signals



Move the lever all the way up or down to signal a turn.

An arrow on the instrument cluster will flash 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 complete. If the lever is moved momentarily to the lane change position, the arrow will flash three times.

The lever returns to its starting position when it is released.

If after signaling a turn or lane change, the arrow flashes rapidly or does not come on, a signal bulb may be burned out.

Have any burned out bulbs replaced. If a bulb is not burned out, check the fuse. See *Instrument Panel Fuse Block* ➤ 250.

## Interior Lighting Instrument Panel Illumination Control



This feature adjusts the brightness of all illuminated controls. The instrument panel illumination control is next to the headlight control.

Push the knob in all the way until it extends out and then turn the knob clockwise or counterclockwise to brighten or dim the lights. Push the knob back in when finished.

The brightness level adjusts only at night, or when the headlights or parking lights are on.

## Dome Lights



Dome lights provide overhead interior lighting. The dome light switch is in the overhead console and has three positions.

 **OFF** : Manually turns the dome lights off. Leave the switch in this position to prevent the dome lights from turning on when any door is opened, when  is pressed on the remote key, or when the vehicle is turned off.

 : Manually turns the dome lights off. Leave the switch in this position — known as the **Doors** position — to turn the dome lights on

automatically when any door is opened, when  is pressed on the remote key, or when the vehicle is turned off.

 **ON** : Turns the dome lights on manually.

## Reading Lights

Reading lights are located in the overhead console and above the rear seats.

The reading lights are also used as dome lights, and may come on with entry and exit lighting, if enabled. See *Dome Lights* ⇨ 114.



**Front Reading Lights**

Press a reading light lens to turn it on or off.



**Rear Reading Light**

The switch for the rear reading light has two positions.

 **OFF** : Turns off the rear reading light. This position also prevents the rear reading light from turning on when any door is opened, when  is pressed on the remote key, or when the vehicle is turned off.

OFF is the normal position and not pushed.

 **ON** : Turns on the rear reading light.

## Lighting Features

### Entry Lighting

The entry lighting feature automatically turns on various interior and exterior lights for increased visibility in and around a vehicle.

- The interior lights turn on when pressing  on the remote key or opening any doors, and the dome light switch is not in the OFF position. See *Dome Lights* ⇨ 114.
- Some exterior lights also turn on when pressing  on the remote key. Low-beam headlights will only turn on briefly at night, or in areas with limited lighting.
- All interior and exterior lights turn off when you press  on the remote key or start the vehicle, or will eventually turn off automatically if you do not interact again with the vehicle.

Entry lighting may have an option that can be changed. On the infotainment home screen, select Settings > Vehicle > Lighting.

## Exit Lighting

Some exterior lights and interior lights turn on when the driver door is opened after the vehicle is turned off.

The exterior and interior lights remain on for a set amount of time, then automatically turn off.

The interior lights turn on when the vehicle is turned off.

The exterior lights turn off immediately when the headlight control is set to Off.

This feature can be changed. On the infotainment home screen, select Settings > Vehicle > Lighting.

## Battery Load Management

Electric Power Management estimates the battery temperature and state of charge. It then adjusts the voltage for best performance and extended life of the battery.

When the battery state of charge is low, the voltage raises slightly to quickly bring the charge back up. When the state of charge is high, the voltage lowers slightly to prevent overcharging. As this adjustment occurs, you may see the voltage move up or down on

the voltmeter gauge or voltage display, if equipped, on the instrument cluster. This is normal. If there is a problem, an alert will be displayed. See *Instrument Cluster (Uplevel)* ⇨ 89 *Instrument Cluster (Base Level)* ⇨ 87

For all vehicles, the battery can be discharged at idle if the electrical loads are very high. This is because the generator (alternator) may not be spinning fast enough at idle to produce all the power that is needed for very high electrical loads.

A high electrical load occurs when several of the following are on: headlights, high beams, rear window defogger, climate control fan at high speed, heated seats, engine cooling fans, trailer loads, and loads plugged into accessory power outlets.

Electric Power Management prevents excessive discharge of the battery by balancing the generator's output and the vehicle's electrical needs. It can increase engine idle speed to generate more power, whenever needed. It can temporarily reduce the power demands of some accessories.

Normally, these actions occur in steps or levels, without being noticeable. In rare cases at the highest levels of corrective action, you may notice these actions and a Driver Information

Center message may display. If so, reduce the electrical loads as much as possible. See *Driver Information Center (DIC) (Base Level)* ⇨ 103 *Driver Information Center (DIC) (Uplevel)* ⇨ 105

## Battery Power Protection

This feature helps prevent the battery from being drained if you leave the interior dome lights or reading lights on. These lights automatically turn off 10 minutes after you turn the vehicle off. The lights will not turn back on again until one of the following actions occurs:

- You start the vehicle.
- You close the doors, then re-open them.

## Exterior Lighting Battery Saver

The exterior lights turn off about 10 minutes after the vehicle is turned off, if the parking lights or headlights have been manually left on. This protects against draining the battery.

To restart the 10-minute timer, turn the headlight control to the  position and then back to the  or  position.

---

To keep the exterior lights on for more than 10 minutes, the vehicle must be on or in accessory mode.

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

# Infotainment System

## Introduction

|                                                      |     |
|------------------------------------------------------|-----|
| Introduction (11 Inch Screen Radio) .....            | 119 |
| Overview (11 Inch Screen Radio) .....                | 119 |
| Steering Wheel Controls (11 Inch Screen Radio) ..... | 120 |
| Using the System (11 Inch Screen Radio) ..           | 121 |
| Software Updates (11 Inch Screen Radio) ..           | 122 |

## Radio

|                                                 |     |
|-------------------------------------------------|-----|
| AM-FM Radio (11 Inch Screen Radio) .....        | 122 |
| Satellite Radio (11 Inch Screen Radio) .....    | 124 |
| Radio Reception (11 Inch Screen Radio) ....     | 124 |
| Multi-Band Antenna (11 Inch Screen Radio) ..... | 124 |

## Audio Players

|                                                               |     |
|---------------------------------------------------------------|-----|
| Avoiding Untrusted Media Devices (11 Inch Screen Radio) ..... | 125 |
| USB Port (11 Inch Screen Radio) .....                         | 125 |
| Bluetooth Audio (11 Inch Screen Radio) ....                   | 125 |

## Phone

|                                                                  |     |
|------------------------------------------------------------------|-----|
| Bluetooth (Overview 11 Inch Screen Radio) .....                  | 125 |
| Bluetooth (Pairing And Using A Phone 11 Inch Screen Radio) ..... | 126 |
| Apple CarPlay and Android Auto (11 Inch Screen Radio) .....      | 130 |

## Settings

|                                          |     |
|------------------------------------------|-----|
| Settings (11 Inch Screen Radio) .....    | 131 |
| Teen Driver (11 Inch Screen Radio) ..... | 133 |

## Trademarks and License Agreements

|                                         |     |
|-----------------------------------------|-----|
| Trademarks and License Agreements ..... | 136 |
|-----------------------------------------|-----|

## Introduction

|                                                     |     |
|-----------------------------------------------------|-----|
| Introduction (8 Inch Screen Radio) .....            | 119 |
| Overview (8 Inch Screen Radio) .....                | 139 |
| Steering Wheel Controls (8 Inch Screen Radio) ..... | 120 |
| Using the System (8 Inch Screen Radio) ..           | 140 |

## Radio

|                                                |     |
|------------------------------------------------|-----|
| AM-FM Radio (8 Inch Screen Radio) .....        | 142 |
| Radio Data System (RDS) .....                  | 143 |
| Satellite Radio (8 Inch Screen Radio) .....    | 144 |
| Radio Reception (8 Inch Screen Radio) ....     | 124 |
| Multi-Band Antenna (8 Inch Screen Radio) ..... | 124 |

## Audio Players

|                                                              |     |
|--------------------------------------------------------------|-----|
| Avoiding Untrusted Media Devices (8 Inch Screen Radio) ..... | 125 |
| USB Port (8 Inch Screen Radio) .....                         | 145 |
| Bluetooth Audio (8 Inch Screen Radio) ....                   | 147 |

## Phone

|                                                |     |
|------------------------------------------------|-----|
| Bluetooth (Overview 8 Inch Radio Screen) ..... | 148 |
|------------------------------------------------|-----|

|                                                                 |     |
|-----------------------------------------------------------------|-----|
| Bluetooth (Pairing And Using A Phone 8 Inch Screen Radio) ..... | 149 |
| Apple CarPlay and Android Auto (8 Inch Screen Radio) .....      | 152 |

## Settings

|                                         |     |
|-----------------------------------------|-----|
| Settings (8 Inch Screen Radio) .....    | 154 |
| Teen Driver (8 Inch Screen Radio) ..... | 133 |

## Trademarks and License Agreements

|                                         |     |
|-----------------------------------------|-----|
| Trademarks and License Agreements ..... | 136 |
|-----------------------------------------|-----|

## Introduction

### Introduction (11 Inch Screen Radio)

Read the following pages to become familiar with the features.



#### Warning

Taking your eyes off the road for too long or too often while using any infotainment feature can cause a crash. You or others could be injured or killed. Do not give extended attention to infotainment tasks while driving. Limit your glances at the vehicle displays and focus your attention on driving. Use voice commands whenever possible.

The infotainment system has built-in features intended to help avoid distraction by disabling some features when driving. These features may become disabled on the infotainment home screen when they are unavailable. Many infotainment features are also available through the instrument cluster and steering wheel controls.

Before driving:

- Become familiar with the operation, center stack controls, steering wheel controls, and infotainment display.
- Set up the audio by presetting favorite stations, setting the tone, and adjusting the speakers.
- Set up phone numbers in advance so they can be called easily by pressing a single control or by using a single voice command.

See *Distracted Driving* ⇨ 168.

#### Active Noise Cancellation

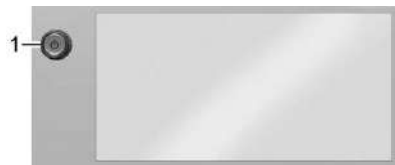
If equipped, Active Noise Cancellation reduces engine noise in the vehicle's interior.

Active Noise Cancellation requires the factory-installed audio system, radio, speakers, amplifier (if equipped), induction system, and exhaust system to work properly. Deactivation may be required by your dealer if related aftermarket equipment is installed.

## Overview (11 Inch Screen Radio)

### Infotainment System

The infotainment system is controlled by using the infotainment display, controls on the center stack, steering wheel controls, and voice recognition, if available.



#### 1. ⏻ (Power)

- Press to turn the power on.
- Press to mute/unmute the system when on.
- Press and hold to go to the power off screen.
- Turn to decrease or increase the volume.

#### Infotainment Home Screen

The infotainment home screen contains up to 8 application icons from the factory. Some applications are disabled when the vehicle is

moving. The Application Tray contains up to 5. The Home app icon in the Application Tray cannot be moved. If a second infotainment home screen is desired, one or more of the Application Icons from the Application Tray must be moved to create more than 8 app icons so that the 9th and beyond create a second infotainment home screen. Applications and icons cannot be added to this system.

Swipe left or right across the display to access the pages of icons.

### Managing Infotainment Home Screen Icons

1. Touch and hold any of the infotainment home screen icons to enter edit mode.
2. Continue holding the icon and drag it to the desired position.
3. Release your finger to drop the icon in the desired position.

### Move an Icon to Another Page

1. Drag the icon to the edge of the display toward the desired page.
2. Continue dragging and dropping application icons as desired.

### Move an Icon to the Application Tray

To move an icon to the application tray on the left side of the screen, drag the icon to the applications tray.

### Steering Wheel Controls (11 Inch Screen Radio)



If equipped, some audio controls can be adjusted at the steering wheel.

: Press to answer an incoming call during phone projection or start voice recognition. See *Bluetooth (Pairing And Using A Phone 11 Inch Screen Radio)* ⇨ *126 Bluetooth (Overview 11 Inch Screen Radio)* ⇨ 125.

: Press to open the audio source list.

: Press to decline an incoming call, end a current call or to mute or unmute the infotainment system when not on a call.

: Press to answer an incoming call.



The favorites and volume switches are on the back of the steering wheel.

1. Favorite: When on a radio source, press to select the next or previous audio broadcast favorite. When listening to a media device, press to select the next or previous track.
2. Volume: Press to increase or decrease the volume.

## Using the System (11 Inch Screen Radio)

### Audio

Touch the Audio icon to display the active audio source page. Examples of available sources may include AM, FM, SiriusXM (if equipped), USB, AUX, and Bluetooth.

### Phone

Touch the Phone icon to display the Phone main page. See *Bluetooth (Pairing And Using A Phone 11 Inch Screen Radio)* ⇨ 126 *Bluetooth (Overview 11 Inch Screen Radio)* ⇨ 125.

### Settings

Touch the Settings icon to display the Settings menu. See *Settings (11 Inch Screen Radio)* ⇨ 131.

### Apple CarPlay

If equipped, touch the Apple CarPlay icon to activate Apple CarPlay after a supported device is connected. See *Apple CarPlay and Android Auto (11 Inch Screen Radio)* ⇨ 130.

### Android Auto

If equipped, touch the Android Auto icon to activate Android Auto after a supported device is connected. See *Apple CarPlay and Android Auto (11 Inch Screen Radio)* ⇨ 130.

### Application Tray

The application tray is left of the display. It shows up to five applications.

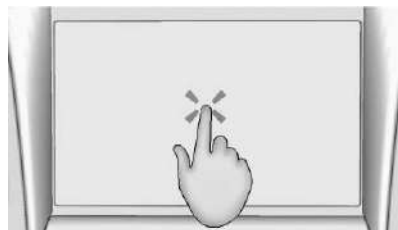
### Infotainment Display Features

Infotainment display features show on the display when available. When a feature is unavailable, it may become disabled. When a feature is touched, it may highlight.

### Infotainment Gestures

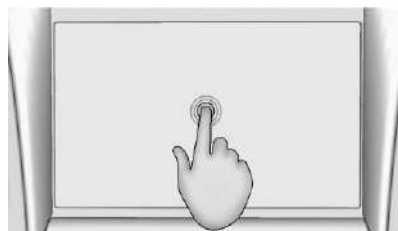
Use the following finger gestures to control the infotainment system.

### Touch/Tap

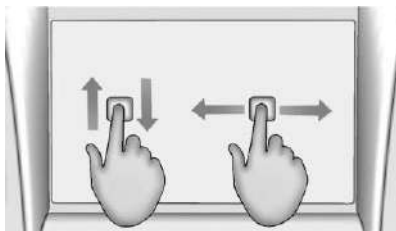


Touch/tap is used to select an icon or option, activate an application, or change the location inside a map.

### Touch and Hold



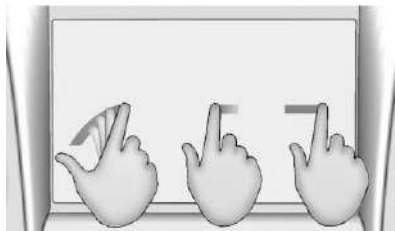
Touch and hold can be used to start another gesture, or to move or delete an application.

**Drag**

Drag is used to move applications on the infotainment home screen, or to pan the map. To drag the item, it must be held and moved along the display to the new location. This can be done up, down, right, or left. This feature is only available when vehicle is parked and not in motion.

**Nudge**

Nudge is used to move items a short distance on a list or a map. To nudge, hold and move the selected item up or down to a new location.

**Swipe**

Swipe is used to scroll through a list, pan the map, or change page views. Do this by placing a finger on the display then moving it rapidly up and down or right and left.

**Cleaning High Gloss Surfaces and Vehicle Information and Radio Displays**

For vehicles with high gloss surfaces or vehicle displays, use a microfiber cloth to wipe surfaces. Before wiping the surface with the microfiber cloth, use a soft bristle brush to remove dirt that could scratch the surface. Then use the microfiber cloth by gently rubbing to clean. Never use window cleaners or solvents.

Periodically hand wash the microfiber cloth separately, using mild soap. Do not use bleach or fabric softener. Rinse thoroughly and air dry before next use.

**Software Updates (11 Inch Screen Radio)****Over-the-Air Software Updates**

If equipped, see “Vehicle Software” under *Settings (11 Inch Screen Radio)* ⇨ 131 for details on software updates.

**Radio****AM-FM Radio (11 Inch Screen Radio)****Playing the Radio**

From the infotainment home screen, touch the Audio icon to display the now playing screen for the active audio source. Touch the source button such as FM, AM, or SiriusXM to change your source.

## Finding a Station

### Seeking a Station

From the AM or FM screen, touch the back or forward buttons to search for the previous or next strong station.

### Tune

Touch  on the infotainment display to enter the Tune screen. Enter a frequency using the keypad.

Touch the  to save the station as a favorite.

Entering a valid AM or FM frequency will automatically tune to the new station. After a short delay, the Tune screen will close and return to the now playing screen.

Touch the Go button or frequency in the list to begin playing the station. The tune page will close and return to the now playing screen.

### Storing Radio Station Favorites

Saved favorite stations will show at the bottom of the now playing screen.

AM, FM, or SiriusXM favorites can be stored by pressing and holding a favorite slot.

## Audio Settings

Audio settings vary by region.

From the now playing screen, touch  and the following may display.

### Sound

- Equalizer
- Fade/Balance
- Sound Mode (if equipped)

### Bose AudioPilot

If equipped, adjusts the volume based on the noise inside the vehicle and vehicle speed.

### Manage Radio Favorites

Displays a list of audio favorites that can be moved or deleted.

### Radio Text (RDS)

When on, radio station call letters and messages from radio stations will be shown.

### Radio Text Category

When on, category information about current radio content will be shown.

## Radio Data System (RDS)

RDS relies on receiving specific RDS information from radio stations and only works when the information is available. It is possible that a radio station could broadcast information that causes the radio to work improperly.

In addition, RDS features are region and country of sale specific. This means specific RDS content may not be available in your listening area or in the country you operate the vehicle.

To turn RDS features on or off, see "Audio Settings" previously.

The following RDS features may be supported by radio broadcasters in your listening area:

### RDS Features

- Display radio station call letters
- Display messages from radio stations
- Provide radio station category information (when available)

## Satellite Radio (11 Inch Screen Radio)

### SiriusXM Radio Service

If equipped, vehicles with a valid SiriusXM radio subscription can receive SiriusXM programming.

SiriusXM radio has a wide variety of programming and commercial-free music, coast to coast, in digital-quality sound. In the U.S., see [www.siriusxm.com](http://www.siriusxm.com) or call 1-888-601-6296. In Canada, see [www.siriusxm.ca](http://www.siriusxm.ca) or call 1-888-539-7474.

When SiriusXM is active, the channel name, number, song title, and artist appear on the display.

### Finding a Channel

From the SiriusXM now playing screen, touch CH or CH.

To directly tune to a channel, touch the Tune icon to enter a channel number using the keypad.

### Browsing Content

Touch  to view different browsing content.

Browse will include available channels you can select.

## Radio Reception (11 Inch Screen Radio)

Unplug any electronic devices from the accessory power outlets if there is static interference.

### FM

FM signals only reach about 16 to 65 km (10 to 40 mi). Although the radio has a built-in electronic circuit that automatically works to reduce interference, some static can occur, especially around tall buildings or hills, causing the sound to fade in and out.

### AM

The range for most AM stations is greater than FM, especially at night. The longer range may also cause station frequencies to interfere with each other. Storms and power lines may also interfere with radio reception. Try reducing the treble on the radio if static interference occurs.

## SiriusXM Satellite Radio Service

If equipped, SiriusXM Satellite Radio Service provides digital radio reception. Tall buildings or hills can interfere with satellite radio signals, causing the sound to fade in and out. In addition, traveling or parking under heavy foliage, bridges, garages, or tunnels may cause loss of the SiriusXM signal for a period of time. Some cellular services may interfere with SiriusXM reception causing signal loss.

### Mobile Devices

Making or receiving calls, charging, or just having a mobile device on may cause static interference. Unplug or turn off any mobile devices if this happens.

## Multi-Band Antenna (11 Inch Screen Radio)

The multi-band antenna may be used for radio, navigation, and other communication systems, depending on the equipped options. To ensure clear reception, keep the antenna clear of obstructions like snow and ice. An open sunroof or roof-mounted cargo can also affect reception.

## Audio Players

### Avoiding Untrusted Media Devices (11 Inch Screen Radio)

Avoid using untrusted mobile and USB media devices that may negatively affect system operation or performance.

### USB Port (11 Inch Screen Radio)

The vehicle may be equipped with multiple USB ports. Music may be played from a connected USB device. Ports may also be used for charging.

#### Caution

To avoid vehicle damage, unplug all accessories and disconnect all accessory cables from the vehicle when not in use. Accessory cables left plugged into the vehicle, unconnected to a device, could be damaged or cause an electrical short if the unconnected end comes in contact with liquids or another power source such as the accessory power outlet.

### USB Audio

To play music via USB:

1. On the audio now playing screen, touch source and select USB.
2. If there is no device connected, follow the screen prompts to connect the device.
3. Supported media content will appear on the display.

### Bluetooth Audio (11 Inch Screen Radio)

Music may be played from a connected Bluetooth mobile device.

Volume and song selection may be controlled by using the infotainment controls. If Bluetooth is selected and no volume is present, check the volume setting on the infotainment system or the connected mobile device.

To play music via Bluetooth:

1. On the audio now playing page, touch source and select the desired Bluetooth mobile device.
2. If there is no mobile device connected, follow the screen prompts to pair the device.

3. Supported media content will appear on the display.

### Manage Bluetooth Devices

Managing Bluetooth devices allows you to add, delete, or select another paired mobile device. Only one Bluetooth mobile device can be active at a time.

Some mobile devices support sending Bluetooth music information to display on the radio. For more information about supported Bluetooth features, visit your brand website. See *Online Account and Customer Support* ⇨ 305 for details.

See *Radio Frequency Statement* ⇨ 311.

## Phone

### Bluetooth (Overview 11 Inch Screen Radio)

The vehicle's Bluetooth system can interact with a mobile device to:

- Place and receive calls in a hands-free mode.
- Share the device's address book or contact list with the vehicle.
- Stream audio (music, podcasts).

- Notify receipt of text messages.

To minimize driver distraction, before driving, and with the vehicle parked:

- Become familiar with the features of the mobile device. Organize the phone book and contact lists clearly and delete duplicate or unused entries.
- Review the controls and operation of the infotainment system.
- Pair mobile device(s) to the vehicle. The system may not work with all mobile devices. See “Pairing” later in this section.

Vehicles with a Bluetooth system can use a Bluetooth-capable mobile device with a Hands-Free Profile to make and receive phone calls. The infotainment system and voice recognition are used to control the system. The system can be used while the vehicle is on. The range of the Bluetooth system can be up to 9.1 m (30 ft). Not all mobile devices support all functions and not all mobile devices work with the Bluetooth system. See *Online Account and Customer Support* ⇨ 305 for more information about compatible mobile devices.

## Controls

Use the controls on the infotainment display and the steering wheel to operate the Bluetooth system.

### Steering Wheel Controls

 : Press and release to start voice recognition on your mobile phone that is connected through Bluetooth, Apple CarPlay, or Android Auto. If there is an incoming call, then a press and release will answer the call.

 : Press to end a call, decline a call, or cancel an operation. Press to mute or unmute the infotainment system when not on a call.

### Infotainment System Controls

For information about how to navigate the menu system using the infotainment controls, see *Using the System (11 Inch Screen Radio)*

⇨ 121.

## Audio System

When using the Bluetooth system, sound comes through the vehicle's front audio system speakers and overrides the audio system. The volume level while on a mobile device phone call can be adjusted by pressing the steering wheel volume controls or the volume

controls for the infotainment system. The adjusted volume level remains the same for later calls. The volume cannot be lowered beyond a certain level.

## Bluetooth (Pairing And Using A Phone 11 Inch Screen Radio)

### Pairing

A Bluetooth-enabled mobile device must be paired to the Bluetooth system and then connected to the vehicle before it can be used. See the mobile device manufacturer's user guide for Bluetooth functions before pairing the device.

### Pairing Information

- Select the Phone icon on the infotainment home screen.
- If no mobile device has been paired, a message on the infotainment display will show the Manage Phones option. Select this option and the Phones screen will display. See “Pairing a Phone” later in this section.

- A Bluetooth smartphone with music capability can be paired to the vehicle as a smartphone and a music player at the same time.
- Up to 10 devices can be paired to the system.
- The pairing process is disabled when the vehicle is moving.
- Pairing only needs to be completed once, unless the pairing information on the cell phone changes or the cell phone is deleted from the system.
- If multiple paired cell phones are within range of the system, the system connects to the paired cell phone that is set to First to Connect. If there is no cell phone set to First to Connect, it will connect to the cell phone which was used last. To connect to a different paired cell phone, see "Connect to a Different Phone" later in this section.

### Pairing a Phone

1. Make sure Bluetooth has been enabled on the cell phone before starting the pairing process.
2. Select the Phone icon on the infotainment home screen.
3. If no mobile device is connected, select Manage Phones and the Phones screen will display.  
If another mobile device is connected already, select Settings, select the Systems tab, and then select Phones.
4. Select Add Phone.  
If a previously added phone is disconnected, the "Add Phone" card will just be a "+" card.
5. Follow the on-screen prompts to pair the cell phone.
6. Start the pairing process on the cell phone to be paired to the vehicle. See the cell phone manufacturer's user guide for information on this process. Once the cell phone is paired, it will show as Connected.
7. Follow the instructions on the cell phone to confirm the six-digit code showing on the infotainment display and select Pair.  
For pairing to be successful, both the code on the cell phone and infotainment display needs to be acknowledged. Once the cell phone is paired, it will show as Connected.
8. If the vehicle name does not appear on your cell phone, there are a few ways to start the pairing process over:
  - Make sure there is not an entry for the vehicle under the previously connected list. If the vehicle and cell phone were previously paired and one still remembers the other, it will not identify as a new device when searching.
  - Turn the Bluetooth off and on the device.
  - Go back to the beginning of the Phone menus on the infotainment display and restart the pairing process.
  - Turn the cell phone off and then back on.
  - Reset the cell phone, but this step should be done as a last effort.
9. If the cell phone prompts to accept connection or allow phone book download, select Always Accept and Allow. The phone book may not be available if not accepted.

10. To pair additional cell phones, select Settings, select the Systems tab, and then select Phones.

### **First to Connect Paired Phones**

If multiple paired cell phones are within range of the system, the system connects to the paired cell phone that is set as First to Connect. To enable a paired cell phone as the First to Connect phone:

1. Make sure the cell phone is turned on.
2. Select the Settings icon on the infotainment home screen.
3. Select the Systems tab.
4. Select Phone.
5. Select Options under the connected phone.
6. Select First to Connect from the cell phone's settings menu. The settings will be enabled for that device.

Cell phones and mobile devices can be added, removed, connected, and disconnected. A sub-menu will display whenever a request is made to add or manage cell phones and mobile devices.

### **Accessing the Device List Screen**

There are two ways to access the device list screen:

#### **Using the Settings Icon**

1. Select the Settings icon on the infotainment home screen or the Settings icon on the shortcut tray near the left of the display.
2. Select the Systems tab.
3. Select Phones.

#### **Using the Phone Icon**

1. Select the Phone icon on the infotainment home screen or the Phone icon on the shortcut tray.
2. Select the Phones tab.

### **Disconnecting a Connected Phone**

To disconnect a phone:

1. Open the Device List Screen. See "Accessing the Device List Screen" previously in this section.
2. Select Option on the phone card to show the cell phone's or mobile device's settings.
3. Select Disconnect.

### **Deleting a Paired Phone**

To delete a paired phone:

1. Open the Device List Screen. See "Accessing the Device List Screen" previously in this section.
2. Select Option on the phone card to show the cell phone's or mobile device's settings.
3. Select Forget Phone.

### **Connect to a Different Phone**

To connect to a different cell phone, the new cell phone must be in the vehicle and paired to the Bluetooth system.

To connect to a different phone:

1. Open the Device List Screen. See "Accessing the Device List Screen" previously in this section.
2. Select the new cell phone to connect to from the list of available phones. See "First to Connect Paired Phones" previously in this section.
3. Select Accept on the on-screen prompt.

## Switching to Handset or Hands-Free Mode

To switch between handset or hands-free mode:

- While the active call is hands-free, select the hand free icon in the active call view to switch handset mode on or off. If not on active call view, select the phone icon to change to active call view.

The mute icon will not be available or functional while Handset mode is active.

- While the active call is on the handset, select the Audio Output option, then select Car Speakers to switch to the hands-free mode.

## Making a Call Using Contacts

Calls can be made through the Bluetooth system using personal cell phone contact information for all cell phones that support the Phone Book feature. Verify the cell phone supports this feature and that the phone is set to allow the sharing of contacts over Bluetooth with the vehicle.

The Contacts menu accesses the phone book stored in the cell phone.

To make a call using the Contacts menu:

1. Select the Phone icon on the infotainment home screen or on the shortcut tray near the left of the display.
2. Select Contacts.
3. To search for contacts:
  - Scroll—Select the list and scroll, or use the A-Z menu to go to a certain letter. Select the name to call.

## Making a Call Using the Recents Menu

The Recents menu accesses the recents call list from your cell phone.

To make a call using the Recents menu:

1. Select the Phone icon on the infotainment home screen or on the shortcut tray near the left of the display.
2. Select Recents.
3. Select the name or number to call.

## Making a Call Using the Keypad

To make a call by dialing the numbers:

1. Select the Phone icon on the infotainment home screen or on the shortcut tray near the left of the display.

2. Select Keypad and enter a phone number.
3. Select the phone icon on the infotainment display to start dialing the number.

## Searching Contacts Using the Keypad

To search for contacts using the keypad:

1. Select the Phone icon on the infotainment home screen.
2. Select Keypad and enter partial phone numbers or contact names using the digits on the keypad to search.

Results appear on the right side of the display. Select one to place a call.

## Accepting or Declining a Call

When an incoming call is received, the infotainment system mutes and a ring tone is heard in the vehicle.

### Accepting a Call

There are two ways to accept a call:

- Press  on the steering wheel controls.
- Select Answer on the infotainment display.

### Declining a Call

There are two ways to decline a call:

- Press  on the steering wheel controls.
- Select Decline on the infotainment display.

### Call Waiting

Call waiting must be supported on the Bluetooth cell phone and enabled by the wireless service carrier to work.

### Accepting a Call

Press  to answer, then select Switch on the infotainment display.

### Declining a Call

Press  to decline, then select Decline on the infotainment display.

### Switching Between Calls (Call Waiting Calls Only)

To switch between calls, select Phone on the infotainment home screen to display Call View. While in Call View, select the call information of the call on hold to change calls or select the swap icon.

### Ending a Call

- Press  on the steering wheel controls.

- Select  on the infotainment display, next to a call, to end only that call.

### Dual Tone Multi-Frequency (DTMF) Tones

The in-vehicle Bluetooth system can send numbers during a call. This is used when calling a menu-driven phone system. Use the Keypad to enter the number.

### Apple CarPlay and Android Auto (11 Inch Screen Radio)

If equipped, Android Auto and/or Apple CarPlay capability may be available through a compatible smartphone. If the phone is paired and projections is available, Android Auto and/or Apple CarPlay icons will become illuminated on the infotainment home screen.

To use Android Auto and/or Apple CarPlay:

#### For Wired Phone Projection

1. For Android 9 smartphones and older, download the Android Auto app to your phone from the phones Google Play Store. There is no app required for Apple CarPlay.
2. Connect your Android phone or Apple iPhone by using the factory-provided phone USB cable and plugging into a USB

data port. For best performance, it is highly recommended to use the device's factory-provided USB cable, which should be replaced after significant wear to maintain connection quality. Aftermarket or third-party cables may not work.

3. When the phone is first connected, to activate Apple CarPlay or Android Auto, accept the terms and conditions on both the infotainment system and the phone.
4. Follow the instructions on the phone.

The Android Auto and Apple CarPlay icons on the infotainment home screen will illuminate. Android Auto and/or Apple CarPlay may automatically launch the next time the USB is connected. If not, select the Android Auto or Apple CarPlay icon on the infotainment home screen to launch.

Select  on the center stack to return to the infotainment home screen.

#### For Wireless Phone Projection

Verify your phone is wireless compatible by visiting the Android Auto or Apple CarPlay support page.

1. For Android 9 smartphones and older, download the Android Auto app to your phone from the phones Google Play Store. There is no app required for Apple CarPlay.
2. For first time connection, make sure Bluetooth and Wi-Fi are turned on in phone settings:
  - Connect the phone over Bluetooth. See *Bluetooth (Pairing And Using A Phone 11 Inch Screen Radio)* ⇨ 126 *Bluetooth (Overview 11 Inch Screen Radio)* ⇨ 125.
3. When the phone is first connected, to activate Apple CarPlay or Android Auto, agree to the terms and conditions on both the infotainment system and the phone.
4. Follow the instructions on the phone.

The Android Auto and Apple CarPlay icons on the infotainment home screen will illuminate. Android Auto and/or Apple CarPlay may automatically launch upon wireless connection. If not, select the Android Auto or Apple CarPlay icon on the infotainment home screen to launch.

Wireless CarPlay and/or Wireless Android Auto may experience occasional service disruption due to outside Wi-Fi interference.

To disconnect the phones wireless projection for that paired device:

1. Select Settings from the infotainment home screen.
2. Select Phones.
3. Select the Bluetooth icon or Options on the phone card.
4. Select Android Auto or Apple CarPlay and toggle off.

Select  on the center stack to return to the infotainment home screen.

Features are subject to change. For further information on how to set up Android Auto and Apple CarPlay in the vehicle, visit your brand website. See *Online Account and Customer Support* ⇨ 305 for details.

CarPlay will not support Fast Connect on iPhones with iOS version 13 or older.

Android Auto is provided by Google and is subject to Google's terms and privacy policy. Apple CarPlay is provided by Apple and is subject to Apple's terms and privacy

policy. Data plan rates apply. For Android Auto support and to see if your phone is compatible, see <https://www.android.com/auto/compatibility>. For Apple CarPlay support and to see if your phone is compatible, see [www.apple.com/ios/carplay/](http://www.apple.com/ios/carplay/). Apple or Google may change or suspend availability at any time. Google, Android, Android Auto, Google Maps, and other marks are trademarks of Google LLC. Apple CarPlay is a trademark of Apple Inc.

Select  on the center stack to exit Android Auto or Apple CarPlay. To enter back into Android Auto or Apple CarPlay, press and hold  on the center stack.

## Settings

### Settings (11 Inch Screen Radio)

To access the Settings menus:

1. Touch Settings on the infotainment home screen.
2. Touch the desired category to display a list of available options.
3. Touch to select the desired feature setting.

4. Touch the options on the infotainment display to change a setting.

5. Touch < to go back.

The Settings menu may contain the following:

### System

The menu may contain the following:

#### Time/Date

Allows setting of the clock.

#### Language

Allows setting of the display language used on the infotainment display. It may also use the selected language for voice recognition and audio feedback.

#### Phones

Allows connecting to a different cell phone or mobile device source, disconnecting a cell phone or media device, or deleting a cell phone or media device.

#### Wi-Fi Networks

Shows connected and available Wi-Fi networks.

#### Wi-Fi Hotspot

Allows adjustment of different Wi-Fi features.

#### Vehicle-to-Phone Sharing

Allows GM apps to use vehicle data on the listed phones shown.

#### Display

Allows adjustment of the infotainment display.

#### Sounds

Allows adjustment of the infotainment system sounds.

#### Vehicle Software

Shows Updates, About, and Reset Options.

#### Vehicle

The menu may contain the following:

#### Teen Driver

See *Teen Driver (11 Inch Screen Radio)* ➞ 133.

#### Rear Seat Reminder

Allows for a chime and a message when the rear door has been opened before or during operation of the vehicle.

#### Buckle to Drive

This feature can prevent shifting out of Park when the driver's, and if applicable the front passenger's, seat belt is not buckled.

#### Climate and Air Quality

Allows adjustment of different climate settings.

#### Collision/Detection Systems

Allows adjustment of different driver assistance system settings.

#### Comfort and Convenience

Allows adjustment of different comfort and convenience settings.

#### Lighting

Allows adjustment of different lighting settings.

#### Power Door Locks

Allows adjustment of different door lock settings.

#### Remote Lock, Unlock, and Start

Allows adjustment of different remote lock settings.

### Seating Position

Allows adjustment of different seating position settings.

### Apps

The menu may contain the following:

### Audio

Allows adjustment of different audio settings.

### Phone

Allows adjustment of different phone settings.

### OnStar

Allows adjustment of different OnStar settings.

## Teen Driver (11 Inch Screen Radio)

If equipped, this allows multiple keys to be registered for beginner drivers to encourage safe driving habits. When the vehicle is started with a Teen Driver key, it will automatically activate certain safety systems, allow setting of some features, and limit the use of others. The Report Card will record vehicle data about driving behavior that can be viewed later. When the vehicle is started with a registered key, the Driver Information Center (DIC) displays a message that Teen Driver is active.

### To access:

1. From the infotainment home screen, select Settings > Vehicle > Teen Driver.
2. Create a Personal Identification Number (PIN) by choosing a four-digit PIN. Re-enter the PIN to confirm. To change the PIN, touch Change PIN.

### The PIN is required to:

- Set up/add or remove keys.
- Change Teen Driver settings.
- Change or clear the Teen Driver PIN.
- Access or delete Report Card data.

### Set up/add keys to activate Teen Driver and assign restrictions to the key:

Any vehicle key can be registered, up to a maximum of eight keys. Label the key to tell it apart from the other keys.

### For a pushbutton start system:

1. Start the vehicle.
2. For automatic transmissions, the vehicle must be in P (Park). For manual transmissions, the vehicle must be stopped with the parking brake set.

3. From the infotainment home screen, select Settings > Vehicle > Teen Driver.
4. Enter the PIN.
5. Place the remote key you wish to register in the transmitter pocket. The key does not need to be the one that started the vehicle.
6. From the Teen Driver menu, touch Setup Keys or Add/Remove Teen Driver Keys.
  - If the remote key has not previously been registered, the option to add the key displays. Touch Add and a confirmation message displays. Teen Driver restrictions will be applied whenever this remote key is used to operate the vehicle.
  - If the remote key has already been registered, the option to remove the key displays. If Remove is touched, the remote key is no longer registered. A confirmation message displays, and Teen Driver restrictions will not be applied if this remote key is used to operate the vehicle.

In vehicles with a pushbutton start system, if a Teen Driver and a non-Teen Driver key are both present at start up, the vehicle will

recognize the non-Teen Driver key to start the vehicle. The Teen Driver settings will not be active.

**For a keyed ignition system:**

1. Start the vehicle.
2. For automatic transmissions, the vehicle must be in P (Park). For manual transmissions, the vehicle must be stopped with the parking brake set.
3. From the infotainment home screen, select Settings > Vehicle > Teen Driver.
4. Enter the PIN.
5. Touch Setup Keys or Add/Remove Teen Driver Keys. The system displays instructions for registering or unregistering a key. A confirmation message displays.

**Manage Settings or Teen Driver Settings**

Depending on the options of your vehicle, the following menu items may be displayed:

**Buckle to Drive :** When turned ON, Buckle to Drive prevents the driver from shifting out of P (Park) for a period of time after the brake pedal is pressed if the driver, or on some vehicles the detected passenger, has

not buckled their seat belt. On some vehicles, Buckle to Drive is always ON when Teen Driver is active and is not configurable.

**Audio Volume Limit :** Allows a maximum audio volume to be set. Turn the audio volume limit on or off. Use the arrows to choose the maximum allowable level for the audio volume. On some infotainment systems, touch Set Audio Volume Limit to choose the maximum allowable audio volume level.

**Set Audio Volume Limit :** Use the arrows to choose the maximum allowable level for the audio volume.

**Teen Driver Speed Limiter :** Limits the maximum speed of the vehicle. When the speed limiter is turned on and the vehicle is started with a Teen Driver key, the DIC displays a message that the top speed is limited.

On certain vehicles, when the Speed Limiter is turned ON, the vehicle's maximum acceleration will be limited. The DIC will display a message that the acceleration is limited.

**Teen Driver Speed Warning :** Displays a warning in the DIC when exceeding a selectable speed. Turn the speed warning on or off and choose the desired speed warning level. The speed warning does not limit the

speed of the vehicle. On some infotainment systems, touch Set Teen Driver Speed Warning to set the warning speed.

**Set Teen Driver Speed Warning :** Choose the desired speed warning level. The speed warning does not limit the speed of the vehicle.

**When Teen Driver is Active:**

- If equipped, the radio will mute when the driver seat belt, and in some vehicles the front passenger seat belt, is not buckled. The audio from any device paired to the vehicle will also be muted.
- An object placed on the front passenger seat, such as a briefcase, handbag, grocery bag, laptop, or other electronic device, could cause the passenger sensing system to falsely sense an unbuckled front passenger and mute the radio. If this happens, remove the object from the seat.
- Some safety systems, such as Automatic Emergency Braking, if equipped, cannot be turned off.
- The gap setting for Adaptive Cruise Control and alert timing for Forward Collision Alert, if equipped, cannot be changed.

- When trying to change a safety feature that is not configurable in Teen Driver, the feature may be grayed out or removed from the infotainment menu, or the DIC will display a message indicating that Teen Driver is active and the action is not available.
- Super Cruise, if equipped, is not available.
- Enhanced Low Fuel Warning (if equipped) – When the vehicle is low on fuel, the low fuel light on the instrument cluster flashes and the DIC low fuel warning cannot be dismissed.
- Do not tow a trailer if equipped with Automatic Emergency Braking.
- Daytime Running Lights or headlights are always on when the vehicle is shifted out of P (Park). Even if the headlight control is set to Off or , the Automatic Headlight System is engaged and ensures that either the Daytime Running Lights or headlights come on based on outside light level.

### Report Card

The vehicle owner must secure the driver's consent to record certain vehicle data when the vehicle is driven with a registered Teen Driver

key. There is one Report Card per vehicle. Data is only recorded when a registered Teen Driver key is used to operate the vehicle.

The Report Card data is collected from the time Teen Driver is activated or the last time the Report Card was reset. The following items may be recorded:

- Distance Driven – the total distance driven.
- Maximum Speed – the maximum vehicle speed detected.
- Overspeed Warnings – the number of times the speed warning setting was exceeded.
- Wide Open Throttle – the number of times the accelerator pedal was pressed nearly all the way down.
- Forward Collision Alerts (if equipped) – the number of times the driver was notified when approaching a vehicle ahead too quickly and at potential risk for a crash.
- Forward Automatic Braking, also called Automatic Emergency Braking (if equipped) – the number of times the vehicle detected that a forward collision was imminent and applied the brakes.

- Reverse Automatic Braking (if equipped) – the number of times the vehicle detected that a rearward collision was imminent and applied the brakes.
- Traction Control – the number of times the Traction Control System activated to reduce wheel spin or loss of traction.
- Stability Control – the number of events which required the use of electronic stability control.
- Antilock Braking System Active – the number of Antilock Brake System activations.
- Tailgating Alerts (if equipped) – the number of times the driver was alerted for following a vehicle ahead too closely.

### Report Card Data

Cumulative Data is saved for all trips until the Report Card is reset or until the maximum count is exceeded. If the maximum count is exceeded for a Report Card line item, that item will no longer be updated in the Report Card until it is reset. Each item will report a maximum of 1,000 counts. The distance driven will report a maximum of 64 374 km (40,000 mi).

To delete Report Card data, do one of the following:

- From the Report Card display, touch Reset.
- Touch Clear PIN and All Teen Driver Keys from the Teen Driver menu. This will also unregister any Teen Driver keys and delete the PIN.

### Forgotten PIN

See your dealer to reset the PIN.

## Trademarks and License Agreements

### FCC Information

See *Radio Frequency Statement* ⇨ 311.



"Made for iPhone" means that an electronic accessory has been designed to connect specifically to iPhone, and has been certified by the developer to meet Apple performance

standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPhone may affect wireless performance. iPhone are trademarks of Apple Inc., registered in the U.S. and other countries.

# SiriusXM

Trial length and service availability may vary by model, model year, or trim. Service will automatically stop at the end of your trial subscription period unless you decide to continue service. If you do not wish to enjoy your trial, you can cancel by calling the number below. All SiriusXM services require a subscription, each sold separately by SiriusXM after the trial period. Service subject to the applicable SiriusXM Customer Agreement and Privacy Policy, visit [www.siriusxm.com](http://www.siriusxm.com) (USA) or [www.siriusxm.ca](http://www.siriusxm.ca) (Canada) to see complete terms and how to cancel which includes calling 1-866-635-2349 (USA) or 1-888-539-7474 (Canada). Some

services and features are subject to device capabilities and location availability. Content varies by SiriusXM subscription package. All fees, content, and features are subject to change.

SiriusXM with 360L: Some features, including streaming content and listening recommendations, require an active OnStar Connected Access plan and may vary by vehicle model. Content varies by SiriusXM subscription plan. GM connected vehicle services vary by vehicle model and require active service plan, working electrical system, cell reception, and GPS signal. See [onstar.com](http://onstar.com) for details and limitations.

SiriusXM, Pandora, Stitcher, and all related logos are trademarks of SiriusXM Radio Inc. and its respective subsidiaries.

SiriusXM satellite service is only available in the 48 contiguous United States (and Puerto Rico with limited availability) and Canada.

In Canada: Some deterioration of service may occur in extreme northern latitudes. This is beyond the control of SiriusXM.

Explicit Language Notice: Channels with frequent explicit language are indicated with an "XL" after the channel name. Family-friendly packages are available by contacting SiriusXM:

- USA Customers — See [www.siriusxm.com](http://www.siriusxm.com) or call 1-888-601-6296.
- Canada Customers — See [www.siriusxm.ca](http://www.siriusxm.ca) or call 1-877-438-9677.

It is prohibited to copy, decompile, disassemble, reverse engineer, hack, manipulate, or otherwise make available any technology or software incorporated in receivers compatible with the SiriusXM Satellite Radio System or that support the SiriusXM website, the Online Service, or any of its content.

#### General Requirements:

1. A License Agreement from SiriusXM is required for any product that incorporates SiriusXM Technology and/or for use of any of the SiriusXM marks to be manufactured, distributed, or marketed in the SiriusXM Service Area.
2. For products to be distributed, marketed, and/or sold in Canada, a separate agreement is required with SiriusXM Canada Inc.



TouchSense Technology and TouchSense System 1000 Series Licensed from Immersion Corporation. TouchSense System 1000 is protected under one or more of the U.S. Patents at the following address [www.immersion.com/patent-marking.html](http://www.immersion.com/patent-marking.html) and other patents pending.

#### Bose

Bose AudioPilot and Bose Centerpoint surround are registered trademarks of Bose Corporation in the U.S. and other countries.

#### Bluetooth

The Bluetooth word mark and logos are owned by the Bluetooth SIG, Inc. and any use of such marks by General Motors is under license. Other trademarks and trade names are those of their respective owners.

#### Java

Java is a registered trademark of Oracle and/or its affiliates.

#### MPEG4-AVC (H.264)

THIS PRODUCT IS LICENSED UNDER THE AVC PATENT PORTFOLIO LICENSE FOR THE PERSONAL AND NON-COMMERCIAL USE OF A CONSUMER TO (i) ENCODE VIDEO IN COMPLIANCE WITH THE AVC STANDARD ("AVC VIDEO") AND/OR (ii) DECODE AVC VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL AND NON-COMMERCIAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED TO PROVIDE AVC VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION MAY BE OBTAINED FROM MPEG LA, L.L.C. SEE [HTTPS://WWW.MPEGLA.COM](https://www.mpegla.com).

#### VC-1

THIS PRODUCT IS LICENSED UNDER THE VC-1 PATENT PORTFOLIO LICENSE FOR THE PERSONAL AND NON-COMMERCIAL USE OF A CONSUMER TO (i) ENCODE VIDEO IN COMPLIANCE WITH THE VC-1 STANDARD ("VC-1 VIDEO") AND/OR (ii) DECODE VC-1 VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN

A PERSONAL AND NON-COMMERCIAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED TO PROVIDE VC-1 VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION MAY BE OBTAINED FROM MPEG LA, L.L.C. SEE [HTTPS://WWW.MPEGLA.COM](https://www.mpegla.com).

#### **MPEG4–Visual**

USE OF THIS PRODUCT IN ANY MANNER THAT COMPLIES WITH THE MPEG-4 VISUAL STANDARD IS PROHIBITED, EXCEPT FOR USE BY A CONSUMER ENGAGING IN PERSONAL AND NON-COMMERCIAL ACTIVITIES.

#### **MP3**

MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thomson.

#### **WMV/WMA**

This product includes technology owned by Microsoft Corporation and under a license from Microsoft Licensing, GP. Use or distribution of such technology outside of this product is prohibited without a license from Microsoft Corporation and/or Microsoft Licensing, GP as applicable.

## **Introduction**

### **Introduction (8 Inch Screen Radio)**

Read the following pages to become familiar with the features.



#### **Warning**

Taking your eyes off the road for too long or too often while using any infotainment feature can cause a crash. You or others could be injured or killed. Do not give extended attention to infotainment tasks while driving. Limit your glances at the vehicle displays and focus your attention on driving. Use voice commands whenever possible.

The infotainment system has built-in features intended to help avoid distraction by disabling some features when driving. These features may become disabled on the infotainment home screen when they are unavailable. Many infotainment features are also available through the instrument cluster and steering wheel controls.

Before driving:

- Become familiar with the operation, center stack controls, steering wheel controls, and infotainment display.
- Set up the audio by presetting favorite stations, setting the tone, and adjusting the speakers.
- Set up phone numbers in advance so they can be called easily by pressing a single control or by using a single voice command.

See *Distracted Driving* ⇨ 168.

#### **Active Noise Cancellation**

If equipped, Active Noise Cancellation reduces engine noise in the vehicle's interior. Active Noise Cancellation requires the factory-installed audio system, radio, speakers, amplifier (if equipped), induction system, and exhaust system to work properly. Deactivation may be required by your dealer if related aftermarket equipment is installed.

## Overview (8 Inch Screen Radio)

### Infotainment System

The infotainment system is controlled by using the infotainment display, the controls on the center stack, and the steering wheel controls.



#### 1.

- Press to go to the infotainment home screen. See “Infotainment Home Screen” following.
- Press to exit Android Auto or Apple CarPlay. To enter back into Android Auto or Apple CarPlay, press and hold. See *Apple CarPlay and Android Auto (8 Inch Screen Radio)* ⇨ 152.

#### 2.

- When off, press  to turn the system on. Press and hold to turn off.

- When on, press  to mute the system and display a status pane. Press  again to unmute the system.
- Turn to decrease or increase the volume.

### Infotainment Home Screen

The infotainment home screen is where application icons are accessed. Some features are disabled when the vehicle is moving.

Slide a finger left/right across the screen to access the pages of icons.

### Managing Infotainment Home Screen Icons

1. Touch and hold any of the infotainment home screen icons to edit that icon.
2. Drag the icon to a new location on the infotainment home screen.

## Steering Wheel Controls (8 Inch Screen Radio)



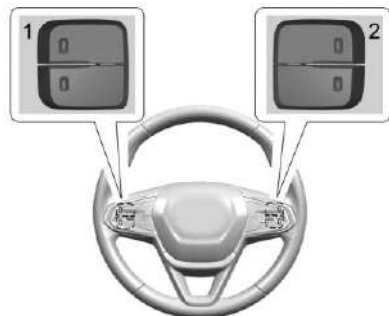
If equipped, some audio controls can be adjusted at the steering wheel.

 : Press to answer an incoming call during phone projection or start voice recognition. See *Bluetooth (Pairing And Using A Phone 11 Inch Screen Radio)* ⇨ 126 *Bluetooth (Overview 11 Inch Screen Radio)* ⇨ 125.

 : Press to open the audio source list.

 : Press to decline an incoming call, end a current call or to mute or unmute the infotainment system when not on a call.

 : Press to answer an incoming call.



The favorites and volume switches are on the back of the steering wheel.

1. **Favorite:** When on a radio source, press to select the next or previous audio broadcast favorite. When listening to a media device, press to select the next or previous track.
2. **Volume:** Press to increase or decrease the volume.

## Using the System (8 Inch Screen Radio)

### Infotainment Display Icons

Infotainment display icons show on the screen when available. When a function is unavailable, the icon may become disabled. When a function is selected, the icon may highlight.

#### Audio

Touch the Audio icon to display the active audio source page. Examples of available sources are AM, FM, SiriusXM, MyMedia, USB, and AUX.

#### Phone

Touch the Phone icon to display the Phone main page. See *Bluetooth (Pairing And Using A Phone 8 Inch Screen Radio)* ⇨ 149 *Bluetooth (Overview 8 Inch Radio Screen)* ⇨ 148.

#### Settings

Touch the Settings icon to display the Settings menu. See *Settings (8 Inch Screen Radio)* ⇨ 154.

### Apple CarPlay

If equipped, touch the Apple CarPlay icon to activate Apple CarPlay after a supported device is connected. See *Apple CarPlay and Android Auto (8 Inch Screen Radio)* ⇨ 152.

### Android Auto

If equipped, touch the Android Auto icon to activate Android Auto after a supported device is connected. See *Apple CarPlay and Android Auto (8 Inch Screen Radio)* ⇨ 152.

### OnStar Services

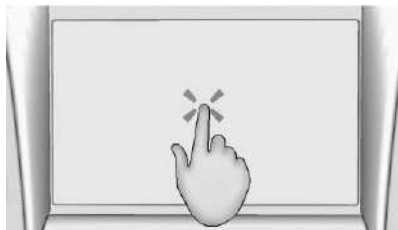
If equipped, touch the OnStar Services icon to display the OnStar Services and Account pages. See *OnStar Overview* ⇨ 314.

### Application Tray

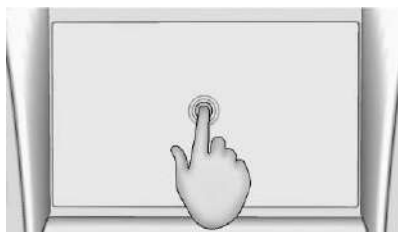
The application tray is at the bottom of the screen. It displays three applications.

### Infotainment Gestures

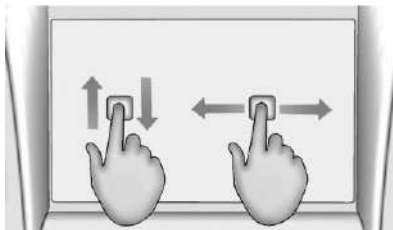
Use the following finger gestures to control the infotainment system.

**Touch/Tap**

Touch/Tap is used to select an icon or option, or activate an application.

**Touch and Hold**

Touch and hold can be used to start another gesture, or to move or delete an application.

**Drag**

Drag is used to move applications on the infotainment home screen. To drag the item, it must be held and moved along the screen to the new location. This can be done up, down, right, or left.

**Nudge**

Nudge is used to move items a short distance on a list. To nudge, hold and move the selected item up or down to a new location.

**Fling or Swipe**

Fling or swipe is used to scroll through a list, or change page views. Do this by placing a finger on the screen then moving it rapidly up and down or right and left.

**Cleaning High Gloss Surfaces and Vehicle Information and Radio Displays**

For vehicles with high gloss surfaces or vehicle displays, use a microfiber cloth to wipe surfaces. Before wiping the surface with the microfiber cloth, use a soft bristle brush to remove dirt that could scratch the surface. Then use the microfiber cloth by gently rubbing to clean. Never use window cleaners or solvents.

Periodically hand wash the microfiber cloth separately, using mild soap. Do not use bleach or fabric softener. Rinse thoroughly and air dry before next use.

## Radio

### AM-FM Radio (8 Inch Screen Radio)

#### Playing the Radio

From the infotainment home screen, touch the Audio icon to display the active audio source page. Choose from the three most recently used sources listed at the left side of the display or touch the More icon to display a list of available sources. Examples of available sources are AM, FM, SiriusXM (if equipped), MyMedia (if available), USB, AUX (if equipped), and Bluetooth.

#### Infotainment System Sound Menu

From any of the audio source main pages, touch Sound to display the following:

**Equalizer:** Touch to adjust Bass, Midrange, Treble, and Surround (if equipped) using the options on the infotainment display.

**Fade/Balance :** Touch to adjust by using the controls on the infotainment display or by tapping/dragging the crosshair.

#### Finding a Station

##### Seeking a Station



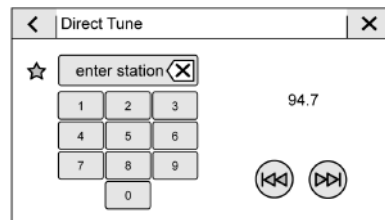
From the AM, FM, or SiriusXM (if equipped) display, touch or on the infotainment display to search for the previous or next strong station or channel.

#### Browsing Stations

From the AM, FM, or SiriusXM (if equipped) display, touch Browse to list all available stations or channels. Navigate up and down through all stations by scrolling the list. Touch the station or channel you want to listen to. Touch to save the station or channel as a favorite.

If equipped, touch Update Station List to update the active stations in your area.

#### Direct Tune



Access Direct Tune by touching the Tune icon on the infotainment display to bring up the keypad. Navigate through all frequencies using or on the right side of the Direct Tune display. Directly enter a station or channel using the keypad. When a new station or channel is entered, the information about that station or channel displays on the right side. This information will update with each new valid frequency. Touch to save the station or channel as a favorite.

The keypad will gray out entries that do not contribute to a valid frequency and will automatically place a decimal point within the frequency number.

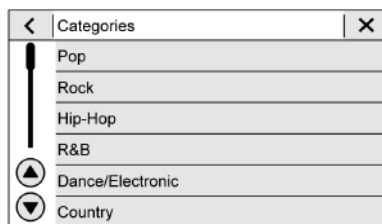
Touch the (X) to the right side of the station digits to delete one number at a time. Touch and hold (X) to delete all numbers.

A valid AM or FM station will automatically tune to the new frequency but not close the Direct Tune display. When listening to SiriusXM (if equipped), touch Go after entering the channel. Touch < on the infotainment display or touch X to exit out of Direct Tune.

The tune arrows on the right side of the Direct Tune display < or > will tune through the complete station or channel list one station step at a time per touch. A touch and hold advances through stations or channels quickly.

If equipped, HD Radio multicast stations cannot be tuned directly through the Direct Tune feature. Only the analog or HD1 station can use that feature. Use the display arrows to adjust to the multicast stations.

## AM, FM, and SiriusXM Categories



From the AM stations, if equipped with HD Radio, FM, or SiriusXM (if equipped) display, touch Categories at the top of the Browse menu to access the categories list. The list contains names associated with the AM or FM stations, or SiriusXM channels. Touch a category name to display a list of stations or channels for that category. Touching a station or channel from the list will tune the radio to that station or channel.

## Storing Radio Station Presets

Favorites show in the area at the top of the display.

**AM, FM, SiriusXM (if equipped), and HD Radio Stations (if equipped):** Touch and hold a preset to store the current station or channel as a favorite. Touch a saved favorite to recall a favorite station.

Favorites can also be stored by touching ☆ in a station or channel list. This will highlight indicating that it is now saved as a favorite.

The number of favorites displayed is automatically adjusted by default, but can be manually adjusted in Settings in the System tab under Favorites and then Set Number of Audio Favorites. It can also be adjusted in Settings in the Apps tab under Audio and then Set Number of Audio Favorites.

## Radio Data System (RDS)

RDS relies on receiving specific RDS information from radio stations and only works when the information is available. It is possible that a radio station could broadcast information that causes the radio to work improperly.

In addition, RDS features are region and country of sale specific. This means specific RDS content may not be available in your listening area or in the country you operate the vehicle.

To turn RDS features on or off, select Settings > Apps > Audio > RDS > Select ON or OFF.

The following core and region specific RDS features may be supported by radio broadcasters in your listening area:

#### **Core RDS Features**

- Display radio station call letters
- Display messages from radio stations
- Provide radio station category information (when available)

#### **Region Specific RDS Features**

- Support Traffic Program (TP) Alerts
- Support Alternate Frequency (AF) Switching
- Support Region Switching

## **Satellite Radio (8 Inch Screen Radio)**

### **SiriusXM Radio Service**

If equipped, vehicles with a valid SiriusXM radio subscription can receive SiriusXM programming.

SiriusXM radio has a wide variety of programming and commercial-free music, coast to coast, in digital-quality sound. In the U.S., see [www.siriusxm.com](http://www.siriusxm.com) or call 1-888-601-6296. In Canada, see [www.siriusxm.ca](http://www.siriusxm.ca) or call 1-888-539-7474.

When SiriusXM is active, the channel name, number, song title, and artist appear on the display.

### **SiriusXM with 360L**

SiriusXM with 360L interface has enhanced in-vehicle listening experience for subscribers. The experience now offers more categories and system learned recommendations toward discovering more personalized content.

To use the full SiriusXM 360L program, including streaming content and listening recommendations, OnStar Connected Access is required. Connected vehicle services vary by model and require a complete working electrical system, cell reception, and GPS signal. An active connected plan is required.

Reference the SiriusXM user guide for use and subscription information.

## **Radio Reception (8 Inch Screen Radio)**

Unplug any electronic devices from the accessory power outlets if there is static interference.

### **FM**

FM signals only reach about 16 to 65 km (10 to 40 mi). Although the radio has a built-in electronic circuit that automatically works to reduce interference, some static can occur, especially around tall buildings or hills, causing the sound to fade in and out.

### **AM**

The range for most AM stations is greater than FM, especially at night. The longer range may also cause station frequencies to interfere with each other. Storms and power lines may also interfere with radio reception. Try reducing the treble on the radio if static interference occurs.

### **SiriusXM Satellite Radio Service**

If equipped, SiriusXM Satellite Radio Service provides digital radio reception. Tall buildings or hills can interfere with satellite radio signals, causing the sound to fade in and out. In

addition, traveling or parking under heavy foliage, bridges, garages, or tunnels may cause loss of the SiriusXM signal for a period of time. Some cellular services may interfere with SiriusXM reception causing signal loss.

### Mobile Devices

Making or receiving calls, charging, or just having a mobile device on may cause static interference. Unplug or turn off any mobile devices if this happens.

### Multi-Band Antenna (8 Inch Screen Radio)

The multi-band antenna may be used for radio, navigation, and other communication systems, depending on the equipped options. To ensure clear reception, keep the antenna clear of obstructions like snow and ice. An open sunroof or roof-mounted cargo can also affect reception.

## Audio Players

### Avoiding Untrusted Media Devices (8 Inch Screen Radio)

Avoid using untrusted mobile and USB media devices that may negatively affect system operation or performance.

### USB Port (8 Inch Screen Radio)

Audio stored on a USB device may be listened to.

Depending on your vehicle, it may be equipped with two USB ports in the center console under the armrest and another two on the center stack. These ports are for data and charging. There may also be two USB ports at the rear of the center console and a USB port on each side of the third row seats for charging only.

#### Caution

To avoid vehicle damage, unplug all accessories and disconnect all accessory cables from the vehicle when not in use. Accessory cables left plugged into the

(Continued)

#### Caution (Continued)

vehicle, unconnected to a device, could be damaged or cause an electrical short if the unconnected end comes in contact with liquids or another power source such as the accessory power outlet.

### Playing from a USB

A USB mass storage device can be connected to the USB port.

Audio extensions supported by the USB may include:

- MP3
- AAC
- OGG
- 3GP

### USB MP3 Player and USB Devices

The USB MP3 players and USB devices connected must comply with the USB Mass Storage Class specification (USB MSC).

To play a USB device:

1. Connect the USB.

2. Touch Audio from the infotainment home screen.
3. Select USB device.

Use the following when playing an active USB source:

: Touch to play the current media source.

: Touch to pause playback of the current media source.

:

- Touch to seek the beginning of the current or previous track.
- Touch and hold to reverse quickly through playback. Release to return to playing speed. Elapsed time displays.

:

- Touch to seek the next track.
- Touch and hold to advance quickly through playback. Release to return to playing speed. Elapsed time displays.

**Shuffle**: Touch the shuffle icon to play music in random order.

### USB Sound Menu

See “Infotainment System Sound Menu” under *AM-FM Radio (11 Inch Screen Radio)* ⇨ 122.

### USB Browse Menu

When a list of songs, albums, artists, or other types of media displays, the up and down arrows and A-Z appear on the left side. Select A-Z to view a display that will show all letters of the alphabet and select the letter to go to.

Touch the up and down arrows to move the list up and down.

Touch Browse and the following may display:

#### Playlists:

1. Touch to view the playlists stored on the USB.
2. Touch a playlist to view the list of all songs in that playlist.
3. Touch a song from the list to begin playback.

Supported playlist extensions are m3u and pls.

#### Artists:

1. Touch to view the list of artists stored on the USB.

2. Touch an artist name to view a list of all albums by the artist.
3. To select a song, touch All Songs or touch an album and then touch a song from the list.

#### Songs:

1. Touch to display a list of all songs on the USB.
2. To begin playback, touch a song from the list.

#### Albums:

1. Touch to view the albums on the USB.
2. Touch the album to view a list of all songs on the album.
3. Touch a song from the list to begin playback.

#### Genres:

1. Touch to view the genres on the USB.
2. Touch a genre to view a list of artists.
3. Touch an artist to view albums by that artist.
4. Touch an album to view songs on the album.
5. Touch a song to start playback.

**Composers:**

1. Touch to view the composers on the USB.
2. Touch a Composer to view a list of albums by that composer.
3. Touch an album or All Songs to view a list of songs.
4. Touch a song from the list to begin playback.

**Folders:**

1. Touch to view the directories on the USB.
2. Touch a folder to view a list of all files.
3. Touch a file from the list to begin playback.

**Podcasts :** Touch to view the podcasts on the connected Apple device and get a list of podcast episodes.

**Audiobooks:**

1. Touch to view the audiobooks stored on the Apple device.
2. Touch an audiobook to get a list of chapters.
3. Touch the chapter from the list to begin playback.

**File System and Naming**

File systems supported by the USB may include:

- FAT32
- NTFS
- HFS+

The songs, artists, albums, and genres are taken from the file's song information and are only displayed if present. The radio displays the file name as the track name if the song information is not available.

**Media Playback and Mute**

USB playback will be paused if the system is muted. If the steering wheel mute control is pressed again, playback will resume.

If the source is changed while in mute, playback resumes and audio will unmute.

**Bluetooth Audio (8 Inch Screen Radio)**

Music may be played from a paired Bluetooth device. See *Bluetooth (Pairing And Using A Phone 11 Inch Screen Radio)* ⇨ 126 *Bluetooth (Overview 11 Inch Screen Radio)* ⇨ 125 for help pairing a device.

Volume and song selection may be controlled by using the infotainment controls or the mobile device. If Bluetooth is selected and no volume is present, check the volume setting on the infotainment system.

Music can be launched by touching Bluetooth from the recent sources list on the left of the display or by touching the More option and then touching the Bluetooth device.

To play music via Bluetooth:

1. Power on the device, and pair to connect the device.
2. Once paired, touch Audio from the Home Page, then touch Bluetooth from the recent sources list on the left of the display.

**Bluetooth Sound Menu**

See "Infotainment System Sound Menu" under *AM-FM Radio (11 Inch Screen Radio)* ⇨ 122.

## Manage Bluetooth Devices

From the Home Page:

1. Touch Audio.
2. Touch Devices to add or delete devices.

When touching Bluetooth, the radio may not be able to launch the audio player on the connected device to start playing. When the vehicle is not moving, use the mobile device to begin playback.

All devices launch audio differently. When selecting Bluetooth as a source, the radio may show as paused on the display. Press play on the device or touch  on the vehicle display to begin playback.

Browse functionality will be provided where supported by the Bluetooth device. This media content will not be part of the MyMedia source mode.

Some smartphones support sending Bluetooth music information to display on the radio. When the radio receives this information, it will check to see if any is available and display it. For more information about supported Bluetooth features, visit your brand website. See *Online Account and Customer Support* ⇨ 305 for details.

See *Radio Frequency Statement* ⇨ 311.

## Phone

### Bluetooth (Overview 8 Inch Radio Screen)

The Bluetooth-capable system can be paired with up to 10 Bluetooth devices allowing:

- Placement and receipt of calls in a hands-free mode.
- Sharing of the device's address book or contact list with the vehicle.

To minimize driver distraction, before driving, and with the vehicle parked:

- Become familiar with the features of the mobile device. Organize the phone book and contact lists clearly and delete duplicate or rarely used entries. If possible, program speed dial or other shortcuts.
- Review the controls and operation of the infotainment system.
- Pair mobile device(s) to the vehicle. The system may not work with all mobile devices. See "Pairing" later in this section.

Vehicles with a Bluetooth system can use a Bluetooth-capable mobile device with a Hands-Free Profile to make and receive phone calls. The infotainment system and voice recognition are used to control the system. The system can be used while the ignition is on or in accessory mode. The range of the Bluetooth system can be up to 9.1 m (30 ft). Not all mobile devices support all functions and not all mobile devices work with the Bluetooth system. Visit your brand website for more information about compatible mobile devices. See *Online Account and Customer Support* ⇨ 305.

## Controls

Use the controls on the center stack and the steering wheel to operate the Bluetooth system.

### Steering Wheel Controls

 : Press and release to start voice recognition on your mobile phone that is connected through Bluetooth, Apple CarPlay, or Android Auto. If there is an incoming call, then a press and release will answer the call.

 : Press to end a call, decline a call, or cancel an operation. Press to mute or unmute the infotainment system when not on a call.

### Infotainment System Controls

For information about how to navigate the menu system using the infotainment controls, see *Overview (11 Inch Screen Radio)* ➔ 119.

### Audio System

When using the Bluetooth mobile device system, sound comes through the vehicle's front audio system speakers and overrides the audio system. The volume level while on a mobile device call can be adjusted by pressing the steering wheel controls or the volume control on the center stack. The adjusted volume level remains in memory for later calls. The volume cannot be lowered beyond a certain level.

## Bluetooth (Pairing And Using A Phone 8 Inch Screen Radio)

### Pairing

A Bluetooth-enabled mobile device must be paired to the Bluetooth system and then connected to the vehicle before it can be used.

See the mobile device manufacturer's user guide for Bluetooth functions before pairing the device.

### Pairing Information

- If no mobile device has been connected, the Phone main page on the infotainment display will show the Connect Phone option. Touch this option to connect. Another way to connect is to touch the Phones tab at the top right of the display and then touch Add Phone.
- A Bluetooth smartphone with music capability can be paired to the vehicle as a smartphone and a music player at the same time.
- Up to 10 devices can be paired to the Bluetooth system.
- The pairing process is disabled when the vehicle is moving.
- Pairing only needs to be completed once, unless the pairing information on the cell phone changes or the cell phone is deleted from the system.
- If multiple paired cell phones are within range of the system, the system connects to the paired cell phone that is set to First

to Connect. If there is no cell phone set to First to Connect, it will link to the cell phone which was used last. To link to a different paired cell phone, see "Linking to a Different Phone" later in this section.

### Pairing a Phone

1. Make sure Bluetooth has been enabled on the cell phone before the pairing process is started.
2. Touch the Phone icon on the infotainment home screen or the phone icon on the shortcut tray near the bottom of the display.
3. Touch Phones at the top of the infotainment display. There is also a Connect Phones option in the middle of the Phone display which will shortcut to the Phone List menu.
4. Touch Add Phone.
5. Select the vehicle name shown on the infotainment display from your cell phone's Bluetooth Settings list.
6. Follow the instructions on the cell phone to confirm the six-digit code showing on the infotainment display and touch Pair. The

code on the cell phone and infotainment display will need to be acknowledged for a successful pair.

7. Start the pairing process on the cell phone to be paired to the vehicle. See the cell phone manufacturer's user guide for information on this process. Once the cell phone is paired, it will show under Connected.
8. If the vehicle name does not appear on your cell phone, there are a few ways to start the pairing process over:
  - Turn the cell phone off and then back on.
  - Go back to the beginning of the Phone menus on the infotainment display and restart the pairing process.
  - Reset the cell phone, but this step should be done as a last effort.
9. If the cell phone prompts to accept connection or allow phone book download, touch Always Accept and Allow. The phone book may not be available if not accepted.
10. Repeat Steps 1–8 to pair additional cell phones.

### **First to Connect Paired Phones**

If multiple paired cell phones are within range of the system, the system connects to the paired cell phone that is set as First to Connect. To enable a paired cell phone as the First to Connect phone:

1. Make sure the cell phone is turned on.
2. Touch Settings, then touch System.
3. Touch Phones to access all paired and all connected cell phones and mobile devices.
4. Touch the information icon or pencil icon to the right of the cell phone to open the cell phone's settings menu.
5. Touch the First to Connect option, to enable the setting for that device.

Cell phones and mobile devices can be added, removed, connected, and disconnected. A sub-menu will display whenever a request is made to add or manage cell phones and mobile devices.

### **Listing All Paired and Connected Phones**

1. Touch the Phone icon on the infotainment home screen or the phone icon on the shortcut tray near the bottom of the display.

2. Touch Phones.

### **Disconnecting a Connected Phone**

1. Touch the Phone icon on the infotainment home screen.
2. Touch Phones.
3. Touch the information icon or the pencil icon next to the connected cell phone or mobile device to show the cell phone's or mobile device's information display.
4. Touch Disconnect.

### **Deleting a Paired Phone**

1. Touch the Phone icon on the infotainment home screen or the phone icon on the shortcut tray near the bottom of the display.
2. Touch Phones.
3. Touch the information icon or the pencil icon next to the connected cell phone to display the cell phone's or mobile device's information display.
4. Touch Forget Device.

### Linking to a Different Phone

To link to a different cell phone, the new cell phone must be in the vehicle and paired to the Bluetooth system.

1. Touch the Phone icon on the infotainment home screen or the phone icon on the shortcut tray near the bottom of the display.
2. Touch Phones.
3. Touch the new cell phone to link to from the not connected phone list. See “First to Connect Paired Phones” previously in this section.

### Switching to Handset or HandsfreeMode

To switch between handset or handsfree mode:

- While the active call is hands-free, touch the Handset option to switch to the handset mode.  
The mute icon will not be available or functional while Handset mode is active.
- While the active call is on the handset, touch the Handset option to switch to the hands-free mode.

### Making a Call Using Contacts and Recent Calls

Calls can be made through the Bluetooth system using personal cell phone contact information for all cell phones that support the Phone Book feature. Become familiar with the cell phone settings and operation. Verify the cell phone supports this feature.

The Contacts menu accesses the phone book stored in the cell phone.

The Recents menu accesses the recents call list from your cell phone.

To make a call using the Contacts menu:

1. Touch the Phone icon on the infotainment home screen.
2. Touch Contacts.
3. The Contacts list can be searched by using the first character. Touch A-Z on the infotainment display to scroll through the list of names.  
Touch the name to call.
4. Touch the desired contact number to call.

To make a call using the Recents menu:

1. Touch Phone on the infotainment home screen.

2. Touch Recents.
3. Touch the name or number to call.

### Making a Call Using the Keypad

To make a call by dialing the numbers:

1. Touch the Phone icon on the infotainment home screen.
2. Touch Keypad and enter a phone number.
3. Touch  on the infotainment display to start dialing the number.

### Searching Contacts Using the Keypad

To search for contacts using the keypad:

1. Touch the Phone icon on the infotainment home screen.
2. Touch Keypad and enter partial phone numbers or contact names using the digits on the keypad to search.  
Results will show on the right side of the display. Touch one to place a call.

### Accepting or Declining a Call

When an incoming call is received, the infotainment system mutes and a ring tone is heard in the vehicle.

### Accepting a Call

There are two ways to accept a call:

- Press  on the steering wheel controls.
- Touch Answer on the infotainment display.

### Declining a Call

There are two ways to decline a call:

- Press  on the steering wheel controls.
- Touch Ignore on the infotainment display.

### Call Waiting

Call waiting must be supported on the Bluetooth cell phone and enabled by the wireless service carrier to work.

### Accepting a Call

Press  to answer, then touch Switch on the infotainment display.

### Declining a Call

Press  to decline, then touch Ignore on the infotainment display

### Switching Between Calls (Call Waiting Calls Only)

To switch between calls, touch Phone on the infotainment home screen to display Call View. While in Call View, touch the call information of the call on hold to change calls.

### Three-Way Calling

Three-way calling must be supported on the Bluetooth cell phone and enabled by the wireless service carrier to work.

To start a three-way call while in a current call:

1. In the Call View, touch Add Call to add another call.
2. Initiate the second call by selecting from Recents, Contacts, or Keypad.
3. When the second call is active, touch the merge icon to conference the three-way call together.

### Ending a Call

- Press  on the steering wheel controls.
- Touch  on the infotainment display, next to a call, to end only that call.

### Dual Tone Multi-Frequency (DTMF) Tones

The in-vehicle Bluetooth system can send numbers during a call. This is used when calling a menu-driven phone system. Use the Keypad to enter the number.

### Apple CarPlay and Android Auto (8 Inch Screen Radio)

If equipped, Android Auto and/or Apple CarPlay capability may be available through a compatible smartphone. If the phone is paired and projections is available, Android Auto and/or Apple CarPlay icons will become illuminated on the infotainment home screen.

To use Android Auto and/or Apple CarPlay:

#### For Wired Phone Projection

1. For Android 9 smartphones and older, download the Android Auto app to your phone from the phone's Google Play Store. There is no app required for Apple CarPlay.
2. Connect your Android phone or Apple iPhone by using the factory-provided phone USB cable and plugging into a USB data port. For best performance, it is highly recommended to use the device's factory-provided USB cable, which should be

replaced after significant wear to maintain connection quality. Aftermarket or third-party cables may not work.

3. When the phone is first connected to activate Apple CarPlay or Android Auto, accept the terms and conditions on both the infotainment system and the phone.

4. Follow the instructions on the phone.

The Android Auto and Apple CarPlay icons on the infotainment home screen will illuminate. Android Auto and/or Apple CarPlay may automatically launch the next time the USB is connected. If not, select the Android Auto or Apple CarPlay icon on the infotainment home screen to launch.

Select  on the center stack to return to the infotainment home screen.

### For Wireless Phone Projection

If equipped, verify your phone is wireless compatible by visiting the Google Android Auto or Apple CarPlay support page.

1. For Android 9 smartphones and older, download the Android Auto app to your phone from the phone's Google Play Store. There is no app required for Apple CarPlay.

2. For first time connection, make sure Bluetooth and Wi-Fi are turned on in phone settings. To connect the phone over Bluetooth, see *Bluetooth (Pairing And Using A Phone 11 Inch Screen Radio)* ⇨ 126 *Bluetooth (Overview 11 Inch Screen Radio)* ⇨ 125.

3. When the phone is first connected, to activate Apple CarPlay or Android Auto, agree to the terms and conditions on both the infotainment system and the phone.

4. Follow the instructions on the phone.

The Android Auto and Apple CarPlay icons on the infotainment home screen will illuminate. Android Auto and/or Apple CarPlay may automatically launch upon wireless connection. If not, select the Android Auto or Apple CarPlay icon on the infotainment home screen to launch.

Wireless CarPlay and/or Wireless Android Auto may experience occasional service disruption due to outside Wi-Fi interference.

To disconnect the phones wireless projection for a paired device:

1. Select Settings from the infotainment home screen.

2. Select Phones.

3. Select  or the pencil icon next to the phone to be disconnected.

4. Turn off Apple CarPlay.

Select  on the center stack to return to the infotainment home screen.

Features are subject to change. For further information on how to set up Android Auto and Apple CarPlay in the vehicle, visit your brand website. See *Online Account and Customer Support* ⇨ 305 for details.

CarPlay will not support Fast Connect on iPhones with iOS version 13 or older.

Android Auto is provided by Google and is subject to Google's terms and privacy policy. Apple CarPlay is provided by Apple and is subject to Apple's terms and privacy policy. Data plan rates apply. For Android Auto support and to see if your phone is compatible, see <https://support.google.com/androidauto>. For Apple CarPlay support and to see if your phone is compatible, see [www.apple.com/ios/carplay/](http://www.apple.com/ios/carplay/). Apple or Google may change or suspend availability at any time. Android Auto, Android, Google,

Google Play, and other marks are trademarks of Google Inc.; Apple CarPlay is a trademark of Apple Inc.

Select  on the center stack to exit Android Auto or Apple CarPlay. To enter back into Android Auto or Apple CarPlay, press and hold  on the center stack.

If applicable, Apple CarPlay can be disabled from the infotainment system. To do this, select Home > Settings and then select the Apps tab along the top of the display. Use the On/Off toggled to turn off Apple CarPlay or Android Auto.

## Settings

### Settings (8 Inch Screen Radio)

The settings menu may be organized into three categories. Select the desired category by touching System, Apps, or Vehicle.

To access the menus:

1. Touch the Settings icon on the infotainment home screen.
2. Touch the desired category to display a list of available options.
3. Touch to select the desired feature setting.

4. Touch  or | to turn off or on a feature.
5. Touch  to go to the top level of the SETTINGS menu.

The menu may contain the following:

#### System

The menu may contain the following:

#### Time/Date

Allows setting of the clock.

#### Language

Allows setting of the display language used on the infotainment display. It may also use the selected language for voice recognition and audio feedback.

#### Phones

Allows connecting to a different cell phone or mobile device source, disconnecting a cell phone or media device, or deleting a cell phone or media device.

#### Wi-Fi Networks

Shows connected and available Wi-Fi networks.

If a 4G LTE data package is not active on the vehicle, the infotainment system can be connected to an external protected Wi-Fi network, such as a mobile device or home hotspot, to utilize connected services.

#### Wi-Fi Hotspot

Allows adjustment of different Wi-Fi features.

#### Display

Allows adjustment of the infotainment display.

#### Sounds

Allows adjustment of the infotainment system sounds.

#### Favorites

Allows adjustment of the infotainment favorite settings.

#### About

Shows the infotainment system software information.

#### Return to Factory Settings

Allows resetting the infotainment system settings in the vehicle.

## Apps

The menu may contain the following:

### Android Auto

Allows interacting directly with a mobile device on the infotainment display. See *Apple CarPlay and Android Auto (8 Inch Screen Radio)* ⇨ 152.

### Apple CarPlay

Allows interacting directly with your mobile device on the infotainment display. See *Apple CarPlay and Android Auto (8 Inch Screen Radio)* ⇨ 152.

### Audio

Allows adjustment of different audio settings.

### Phone

Allows adjustment of different phone settings.

## Vehicle

The menu may contain the following:

### Rear Seat Reminder

Allows for a chime and a message when the rear door has been opened before or during operation of the vehicle.

### Climate and Air Quality

Allows adjustment of different climate settings.

### Collision/Detection Systems

Allows adjustment of different driver assistance system settings.

### Comfort and Convenience

Allows adjustment of different comfort and convenience settings.

### Lighting

Allows adjustment of different lighting settings.

### Power Door Locks

Allows adjustment of different door lock settings.

### Remote Lock, Unlock, and Start

Allows adjustment of different remote lock settings.

### Seating Position

Allows adjustment of different seat settings.

## Teen Driver

See *Teen Driver (8 Inch Screen Radio)* ⇨ 133.

## Teen Driver (8 Inch Screen Radio)

If equipped, this allows multiple keys to be registered for beginner drivers to encourage safe driving habits. When the vehicle is started with a Teen Driver key, it will automatically activate certain safety systems, allow setting of some features, and limit the use of others. The Report Card will record vehicle data about driving behavior that can be viewed later. When the vehicle is started with a registered key, the Driver Information Center (DIC) displays a message that Teen Driver is active.

### To access:

1. From the infotainment home screen, select Settings > Vehicle > Teen Driver.
2. Create a Personal Identification Number (PIN) by choosing a four-digit PIN. Re-enter the PIN to confirm. To change the PIN, touch Change PIN.

### The PIN is required to:

- Set up/add or remove keys.
- Change Teen Driver settings.

- Change or clear the Teen Driver PIN.
- Access or delete Report Card data.

### **Set up/add keys to activate Teen Driver and assign restrictions to the key:**

Any vehicle key can be registered, up to a maximum of eight keys. Label the key to tell it apart from the other keys.

#### **For a pushbutton start system:**

1. Start the vehicle.
2. For automatic transmissions, the vehicle must be in P (Park). For manual transmissions, the vehicle must be stopped with the parking brake set.
3. From the infotainment home screen, select Settings > Vehicle > Teen Driver.
4. Enter the PIN.
5. Place the remote key you wish to register in the transmitter pocket. The key does not need to be the one that started the vehicle.
6. From the Teen Driver menu, touch Setup Keys or Add/Remove Teen Driver Keys.

- If the remote key has not previously been registered, the option to add the key displays. Touch Add and a confirmation message displays. Teen Driver restrictions will be applied whenever this remote key is used to operate the vehicle.
- If the remote key has already been registered, the option to remove the key displays. If Remove is touched, the remote key is no longer registered. A confirmation message displays, and Teen Driver restrictions will not be applied if this remote key is used to operate the vehicle.

In vehicles with a pushbutton start system, if a Teen Driver and a non-Teen Driver key are both present at start up, the vehicle will recognize the non-Teen Driver key to start the vehicle. The Teen Driver settings will not be active.

#### **For a keyed ignition system:**

1. Start the vehicle.
2. For automatic transmissions, the vehicle must be in P (Park). For manual transmissions, the vehicle must be stopped with the parking brake set.

3. From the infotainment home screen, select Settings > Vehicle > Teen Driver.
4. Enter the PIN.
5. Touch Setup Keys or Add/Remove Teen Driver Keys. The system displays instructions for registering or unregistering a key. A confirmation message displays.

#### **Manage Settings or Teen Driver Settings**

Depending on the options of your vehicle, the following menu items may be displayed:

**Buckle to Drive :** When turned ON, Buckle to Drive prevents the driver from shifting out of P (Park) for a period of time after the brake pedal is pressed if the driver, or on some vehicles the detected passenger, has not buckled their seat belt. On some vehicles, Buckle to Drive is always ON when Teen Driver is active and is not configurable.

**Audio Volume Limit :** Allows a maximum audio volume to be set. Turn the audio volume limit on or off. Use the arrows to choose the maximum allowable level for the audio volume. On some infotainment systems, touch Set Audio Volume Limit to choose the maximum allowable audio volume level.

**Set Audio Volume Limit :** Use the arrows to choose the maximum allowable level for the audio volume.

**Teen Driver Speed Limiter :** Limits the maximum speed of the vehicle. When the speed limiter is turned on and the vehicle is started with a Teen Driver key, the DIC displays a message that the top speed is limited.

On certain vehicles, when the Speed Limiter is turned ON, the vehicle's maximum acceleration will be limited. The DIC will display a message that the acceleration is limited.

**Teen Driver Speed Warning :** Displays a warning in the DIC when exceeding a selectable speed. Turn the speed warning on or off and choose the desired speed warning level. The speed warning does not limit the speed of the vehicle. On some infotainment systems, touch Set Teen Driver Speed Warning to set the warning speed.

**Set Teen Driver Speed Warning :** Choose the desired speed warning level. The speed warning does not limit the speed of the vehicle.

#### **When Teen Driver is Active:**

- If equipped, the radio will mute when the driver seat belt, and in some vehicles the front passenger seat belt, is not buckled. The audio from any device paired to the vehicle will also be muted.
- An object placed on the front passenger seat, such as a briefcase, handbag, grocery bag, laptop, or other electronic device, could cause the passenger sensing system to falsely sense an unbuckled front passenger and mute the radio. If this happens, remove the object from the seat.
- Some safety systems, such as Automatic Emergency Braking, if equipped, cannot be turned off.
- The gap setting for Adaptive Cruise Control and alert timing for Forward Collision Alert, if equipped, cannot be changed.
- When trying to change a safety feature that is not configurable in Teen Driver, the feature may be grayed out or removed from the infotainment menu, or the DIC will display a message indicating that Teen Driver is active and the action is not available.
- Super Cruise, if equipped, is not available.

- Enhanced Low Fuel Warning (if equipped)
  - When the vehicle is low on fuel, the low fuel light on the instrument cluster flashes and the DIC low fuel warning cannot be dismissed.
- Do not tow a trailer if equipped with Automatic Emergency Braking.
- Daytime Running Lights or headlights are always on when the vehicle is shifted out of P (Park). Even if the headlight control is set to Off or , the Automatic Headlight System is engaged and ensures that either the Daytime Running Lights or headlights come on based on outside light level.

#### **Report Card**

The vehicle owner must secure the driver's consent to record certain vehicle data when the vehicle is driven with a registered Teen Driver key. There is one Report Card per vehicle. Data is only recorded when a registered Teen Driver key is used to operate the vehicle.

The Report Card data is collected from the time Teen Driver is activated or the last time the Report Card was reset. The following items may be recorded:

- Distance Driven – the total distance driven.

- Maximum Speed – the maximum vehicle speed detected.
- Overspeed Warnings – the number of times the speed warning setting was exceeded.
- Wide Open Throttle – the number of times the accelerator pedal was pressed nearly all the way down.
- Forward Collision Alerts (if equipped) – the number of times the driver was notified when approaching a vehicle ahead too quickly and at potential risk for a crash.
- Forward Automatic Braking, also called Automatic Emergency Braking (if equipped) – the number of times the vehicle detected that a forward collision was imminent and applied the brakes.
- Reverse Automatic Braking (if equipped) – the number of times the vehicle detected that a rearward collision was imminent and applied the brakes.
- Traction Control – the number of times the Traction Control System activated to reduce wheel spin or loss of traction.
- Stability Control – the number of events which required the use of electronic stability control.

- Antilock Braking System Active – the number of Antilock Brake System activations.
- Tailgating Alerts (if equipped) – the number of times the driver was alerted for following a vehicle ahead too closely.

### Report Card Data

Cumulative Data is saved for all trips until the Report Card is reset or until the maximum count is exceeded. If the maximum count is exceeded for a Report Card line item, that item will no longer be updated in the Report Card until it is reset. Each item will report a maximum of 1,000 counts. The distance driven will report a maximum of 64 374 km (40,000 mi).

To delete Report Card data, do one of the following:

- From the Report Card display, touch Reset.
- Touch Clear PIN and All Teen Driver Keys from the Teen Driver menu. This will also unregister any Teen Driver keys and delete the PIN.

### Forgotten PIN

See your dealer to reset the PIN.

## Trademarks and License Agreements

### FCC Information

See *Radio Frequency Statement* ⇨ 311.



"Made for iPhone" means that an electronic accessory has been designed to connect specifically to iPhone, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPhone may affect wireless performance. iPhone are trademarks of Apple Inc., registered in the U.S. and other countries.



Trial length and service availability may vary by model, model year, or trim. Service will automatically stop at the end of your trial subscription period unless you decide to continue service. If you do not wish to enjoy your trial, you can cancel by calling the number below. All SiriusXM services require a subscription, each sold separately by SiriusXM after the trial period. Service subject to the applicable SiriusXM Customer Agreement and Privacy Policy, visit [www.siriusxm.com](http://www.siriusxm.com) (USA) or [www.siriusxm.ca](http://www.siriusxm.ca) (Canada) to see complete terms and how to cancel which includes calling 1-866-635-2349 (USA) or 1-888-539-7474 (Canada). Some services and features are subject to device capabilities and location availability. Content varies by SiriusXM subscription package. All fees, content, and features are subject to change.

SiriusXM with 360L: Some features, including streaming content and listening recommendations, require an active OnStar Connected Access plan and may vary by vehicle model. Content varies by SiriusXM subscription plan. GM connected vehicle services vary by vehicle model and require active service plan, working electrical system, cell reception, and GPS signal. See [onstar.com](http://onstar.com) for details and limitations.

SiriusXM, Pandora, Stitcher, and all related logos are trademarks of SiriusXM Radio Inc. and its respective subsidiaries.

SiriusXM satellite service is only available in the 48 contiguous United States (and Puerto Rico with limited availability) and Canada.

In Canada: Some deterioration of service may occur in extreme northern latitudes. This is beyond the control of SiriusXM.

Explicit Language Notice: Channels with frequent explicit language are indicated with an "XL" after the channel name. Family-friendly packages are available by contacting SiriusXM:

- USA Customers — See [www.siriusxm.com](http://www.siriusxm.com) or call 1-888-601-6296.
- Canada Customers — See [www.siriusxm.ca](http://www.siriusxm.ca) or call 1-877-438-9677.

It is prohibited to copy, decompile, disassemble, reverse engineer, hack, manipulate, or otherwise make available any technology or software incorporated in receivers compatible with the SiriusXM Satellite Radio System or that support the SiriusXM website, the Online Service, or any of its content.

#### General Requirements:

1. A License Agreement from SiriusXM is required for any product that incorporates SiriusXM Technology and/or for use of any of the SiriusXM marks to be manufactured, distributed, or marketed in the SiriusXM Service Area.
2. For products to be distributed, marketed, and/or sold in Canada, a separate agreement is required with SiriusXM Canada Inc.



immersion.

TouchSense Technology and TouchSense System 1000 Series Licensed from Immersion Corporation. TouchSense System 1000 is protected under one or more of the U.S. Patents at the following address [www.immersion.com/patent-marking.html](http://www.immersion.com/patent-marking.html) and other patents pending.

### **Bose**

Bose AudioPilot and Bose Centerpoint surround are registered trademarks of Bose Corporation in the U.S. and other countries.

### **Bluetooth**

The Bluetooth word mark and logos are owned by the Bluetooth SIG, Inc. and any use of such marks by General Motors is under license. Other trademarks and trade names are those of their respective owners.

### **Java**

Java is a registered trademark of Oracle and/or its affiliates.

### **MPEG4-AVC (H.264)**

THIS PRODUCT IS LICENSED UNDER THE AVC PATENT PORTFOLIO LICENSE FOR THE PERSONAL AND NON-COMMERCIAL USE OF A CONSUMER TO (i) ENCODE VIDEO IN

COMPLIANCE WITH THE AVC STANDARD ("AVC VIDEO") AND/OR (ii) DECODE AVC VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL AND NON-COMMERCIAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED TO PROVIDE AVC VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION MAY BE OBTAINED FROM MPEG LA, L.L.C. SEE [HTTPS://WWW.MPEGLA.COM](https://www.mpegla.com).

### **VC-1**

THIS PRODUCT IS LICENSED UNDER THE VC-1 PATENT PORTFOLIO LICENSE FOR THE PERSONAL AND NON-COMMERCIAL USE OF A CONSUMER TO (i) ENCODE VIDEO IN COMPLIANCE WITH THE VC-1 STANDARD ("VC-1 VIDEO") AND/OR (ii) DECODE VC-1 VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL AND NON-COMMERCIAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED TO PROVIDE VC-1 VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION MAY BE OBTAINED FROM MPEG LA, L.L.C. SEE [HTTPS://WWW.MPEGLA.COM](https://www.mpegla.com).

### **MPEG4-Visual**

USE OF THIS PRODUCT IN ANY MANNER THAT COMPLIES WITH THE MPEG-4 VISUAL STANDARD IS PROHIBITED, EXCEPT FOR USE BY A CONSUMER ENGAGING IN PERSONAL AND NON-COMMERCIAL ACTIVITIES.

### **MP3**

MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thomson.

### **WMV/WMA**

This product includes technology owned by Microsoft Corporation and under a license from Microsoft Licensing, GP. Use or distribution of such technology outside of this product is prohibited without a license from Microsoft Corporation and/or Microsoft Licensing, GP as applicable.

## Climate Controls

### Climate Control Systems

|                                        |     |
|----------------------------------------|-----|
| Climate Control Systems .....          | 161 |
| Automatic Climate Control System ..... | 163 |

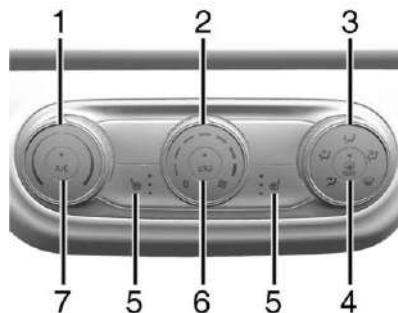
### Air Vents

|                 |     |
|-----------------|-----|
| Air Vents ..... | 165 |
|-----------------|-----|

### Maintenance

|                                        |     |
|----------------------------------------|-----|
| Passenger Compartment Air Filter ..... | 166 |
| Service .....                          | 166 |

## Climate Control Systems



The heating, cooling, and ventilation for the vehicle can be controlled with this system.

1. Temperature Control
2. Fan Control
3. Air Delivery Mode Controls
4. Rear Window Defogger
5. Driver and Passenger Heated Seat (If Equipped)
6. Recirculation
7. Air Conditioning

**Temperature Control :** Turn clockwise or counterclockwise to increase or decrease the temperature.

 : Turn clockwise or counterclockwise to increase or decrease the fan speed. The fan must be turned on to run the air conditioning compressor.

**Air Delivery Mode Controls :** Turn clockwise or counterclockwise to change the current airflow mode.

Select from the following air delivery modes:

 : Air is directed to the instrument panel outlets.

 : Air is divided between the instrument panel and floor outlets.

 : Air is directed to the floor outlets, with some air directed to the rear outlets.

 : This mode clears the windows of fog or moisture. Air is directed to the floor, windshield, and side window outlets.

 : This mode clears the windshield of fog or frost more quickly. Air is directed to the windshield and side window outlets.

Do not drive the vehicle until all windows are clear.

In defrost or defog mode, excessive air conditioning use can cause the windows to fog. If this happens, change the air delivery mode to  and reduce the fan speed.

**A/C** : Press to turn the air conditioning system on or off. If the climate control system is turned off or the outside temperature falls below freezing, the air conditioner will not run.

 : Press to turn on recirculation. Air is recirculated to quickly cool the inside of the vehicle or to reduce the entry of outside air and odors.

### Rear Window Defogger

 **REAR** : Press to turn the rear window defogger on or off. An indicator light on the button comes on to show that the rear window defogger is on.

The defogger can be turned off by turning the ignition off or to accessory mode.

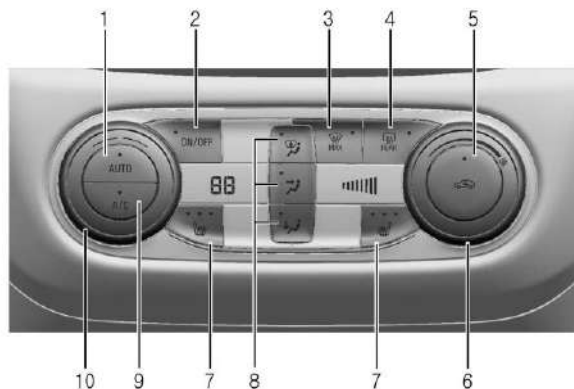
The rear window defogger turns off after about 10 minutes. It can also be turned off by pressing  again or by turning the ignition off or to accessory mode. If turned on again it runs for about five minutes before turning off.

See *Heated Mirrors* ⇨ 28.

### Caution

Do not try to clear frost or other material from the inside of the front windshield and rear window with a razor blade or anything else that is sharp. This may damage the rear window defogger grid and affect the radio's ability to pick up stations clearly. The repairs would not be covered by the vehicle warranty.

## Automatic Climate Control System



The heating, cooling, and ventilation for the vehicle can be controlled with this system.

1. AUTO (Automatic Operation)
2. ON/OFF (Power)
3. MAX Defrost
4. Rear Window Defogger
5. Recirculation
6. Fan Controls

7. Driver and Passenger Heated Seats (If Equipped)
8. Air Delivery Mode Controls
9. A/C (Air Conditioning)
10. Temperature Controls

### 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 AUTO is lit, all four functions operate automatically. Each function can also be manually set and the selected setting is displayed.

Functions not manually set will continue to be automatically controlled, even if the AUTO indicator is not lit.

For automatic operation:

1. Press AUTO.
2. Set the temperature, allow the system time to stabilize, and adjust the temperature as needed.

### Manual Operation

In addition to the controls on the center stack; the fan, air delivery mode, temperature, and other climate settings can be controlled by touching CLIMATE on the infotainment home screen or the climate button in the application tray.

**ON/OFF** : Press to turn the fan off or on. When off, no air will flow into the vehicle. Turning the fan on, pressing any other button, or turning a knob will turn the system back on using the current setting.

 : Turn the knob clockwise or counterclockwise to increase or decrease the fan speed. The fan speed setting appears on the main display. Pressing either button cancels automatic fan control and the fan is controlled manually. Press AUTO to return to automatic operation.

**Air Delivery Mode Controls** : Press any combination of , , or  to change the direction of the airflow. The indicator light in the button will turn on. The current mode appears in the display screen.

Pressing any of the three buttons cancels automatic air delivery control and the direction of the airflow is controlled manually. Press AUTO to return to automatic operation.

To change the current mode, select one or more of the following:

 : Clears the windows of fog or moisture. Air is directed to the windshield.

 : Air is directed to the instrument panel outlets.

 : Air is directed to the floor outlets.

 **MAX** : Air is directed to the windshield and the fan runs at a higher speed. Fog or frost is cleared from the windshield more quickly. When the button is pressed again, the system returns to the previous mode setting.

For best results, clear all snow and ice from the windshield before defrosting.

**A/C** : Press to turn the air conditioning system on or off. If the climate control system is turned off or the outside temperature falls below freezing, the air conditioner will not run.

Pressing A/C cancels automatic air conditioning and turns off the air conditioner. Press AUTO to return to automatic operation and the air conditioner runs automatically as needed. When the indicator light is on, the air conditioner runs automatically to cool the air inside the vehicle or to dry the air needed to defog the windshield faster.

 : Press to turn on recirculation. An indicator light comes on. Air is recirculated to quickly cool the inside of the vehicle or to reduce the entry of outside air and odors.

**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. The fan speed may slightly increase to help prevent fogging. If the climate control system does not detect possible window fogging, it returns to normal operation.

To turn Auto Defog off or on, select Settings > Climate and Air Quality > Auto Defog > Select ON or OFF.

## Rear Window Defogger

 **REAR** : Press to turn the rear window defogger on or off. An indicator light on the button comes on to show that the rear window defogger is on. The defogger only works when the vehicle is on.

The defogger can be turned off by turning the vehicle off or to accessory mode.

To turn Auto Rear Defog off or on, select Settings > Climate and Air Quality > Auto Rear Defog > Select ON or OFF.

When auto rear defog is selected, the rear window defogger turns on automatically when the interior temperature is cold and the outside temperature is about 5°C (41°F) and below. The Auto Rear Defogger turns off automatically.

If the vehicle is equipped with heated outside mirrors, they turn on when the rear window defogger button is on and help to clear fog or frost from the surface of the mirror. See *Heated Mirrors* ⇨ 28

### Caution

Do not try to clear frost or other material from the inside of the front windshield and rear window with a razor blade or anything else that is sharp. This may damage the rear window defogger grid and affect the radio's ability to pick up stations clearly. The repairs would not be covered by the vehicle warranty.

 or : If equipped, press  or  to heat the driver or passenger seat. See *Heated Front Seats* ⇨ 38.

### Remote Start Climate Control Operation

**(If Equipped)**: If the vehicle is 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 defog may come on during remote start based on cold ambient conditions.

If the vehicle has heated seats, they may come on during a remote start. See *Remote Start* ⇨ 18 and *Heated Front Seats* ⇨ 38.

### Sensors

The solar sensor on top of the instrument panel near the windshield 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.

Do not cover the sensor; otherwise the automatic climate control system may not work properly.

### Afterblow Feature

If equipped, under certain conditions, the fan may stay on or may turn on and off several times after you turn off and lock the vehicle. This is normal.

### Air Vents

Use the louvers located on the air vents to change the direction of the airflow.

To open or close off the airflow:

- Move slider knobs away from the occupant for shut off closing.

### Operation Tips

- Clear away any ice, snow, or leaves from air inlets at the base of the windshield that could block the flow of air into the vehicle.
- Clear snow off the hood to improve visibility and help decrease moisture drawn into the vehicle, which may improve long term system performance.
- 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 hood 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.

### Caution

Use of air fresheners may cause permanent damage to plastics and painted surfaces. If an air freshener comes in contact with

(Continued)

**Caution (Continued)**

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.

## 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 your dealer regarding replacement of the filter.

## Service

**Caution**

Damage caused by improper refrigerant usage could lead to costly repairs and may not be covered by the vehicle

(Continued)

**Caution (Continued)**

warranty. Refrigerant systems should only be serviced by qualified personnel. Always use the correct refrigerant.

All vehicles have a label underhood 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.

The air conditioning system requires periodic maintenance.

# Driving and Operating

## Driving Information

|                                       |     |
|---------------------------------------|-----|
| Driver Behavior .....                 | 168 |
| Driving Environment .....             | 168 |
| Vehicle Design .....                  | 168 |
| Driving for Better Fuel Economy ..... | 168 |
| Distracted Driving .....              | 168 |
| Defensive Driving .....               | 169 |
| Impaired Driving .....                | 169 |
| Control of a Vehicle .....            | 169 |
| Braking .....                         | 170 |
| Steering .....                        | 170 |
| Off-Road Recovery .....               | 171 |
| Loss of Control .....                 | 171 |
| Driving on Wet Roads .....            | 171 |
| Hill and Mountain Roads .....         | 172 |
| Winter Driving .....                  | 173 |
| If the Vehicle Is Stuck .....         | 174 |
| Vehicle Load Limits .....             | 174 |

## Starting and Operating

|                                           |     |
|-------------------------------------------|-----|
| New Vehicle Break-In .....                | 178 |
| Ignition Positions (Key Access) .....     | 178 |
| Ignition Positions (Keyless Access) ..... | 180 |
| Starting the Engine .....                 | 181 |
| Stop/Start System .....                   | 182 |
| Engine Heater .....                       | 184 |
| Retained Accessory Power (RAP) .....      | 185 |

|                                     |     |
|-------------------------------------|-----|
| Parking over Things That Burn ..... | 185 |
| Extended Parking .....              | 185 |

## Engine Exhaust

|                                        |     |
|----------------------------------------|-----|
| Engine Exhaust .....                   | 185 |
| Running the Vehicle While Parked ..... | 186 |

## Automatic Transmission

|                              |     |
|------------------------------|-----|
| Automatic Transmission ..... | 186 |
| Manual Mode .....            | 188 |

## Brakes

|                                   |     |
|-----------------------------------|-----|
| Electric Brake Boost .....        | 189 |
| Antilock Brake System (ABS) ..... | 189 |
| Electric Parking Brake .....      | 190 |
| Brake Assist .....                | 191 |
| Hill Start Assist (HSA) .....     | 191 |

## Ride Control Systems

|                                                     |     |
|-----------------------------------------------------|-----|
| Traction Control/Electronic Stability Control ..... | 191 |
|-----------------------------------------------------|-----|

## Cruise Control

|                               |     |
|-------------------------------|-----|
| Cruise Control .....          | 193 |
| Adaptive Cruise Control ..... | 195 |

## Advanced Driver Assistance Systems

|                                                 |     |
|-------------------------------------------------|-----|
| Advanced Driver Assistance Systems .....        | 203 |
| Assistance Systems for Parking or Backing ..... | 205 |
| Rear Vision Camera (RVC) .....                  | 205 |
| Park Assist .....                               | 205 |
| Rear Cross Traffic Alert (RCTA) System .....    | 206 |

|                                             |     |
|---------------------------------------------|-----|
| Assistance Systems for Driving .....        | 207 |
| Forward Collision Alert (FCA) System .....  | 207 |
| Automatic Emergency Braking (AEB) .....     | 209 |
| Front Pedestrian Braking (FPB) System ..... | 210 |
| Lane Change Alert (LCA) .....               | 212 |
| Lane Keep Assist (LKA) .....                | 214 |

## Fuel

|                                             |     |
|---------------------------------------------|-----|
| Top Tier Fuel .....                         | 215 |
| Recommended Fuel (1.2L L3 LBP Engine) ..... | 215 |
| Recommended Fuel (1.2L L3 LIH Engine) ..... | 216 |
| Prohibited Fuels .....                      | 216 |
| Fuels in Foreign Countries .....            | 216 |
| Fuel Additives .....                        | 216 |
| E85 or FlexFuel .....                       | 217 |
| Filling the Tank .....                      | 217 |
| Filling a Portable Fuel Container .....     | 219 |

## Trailer Towing

|                                  |     |
|----------------------------------|-----|
| General Towing Information ..... | 219 |
|----------------------------------|-----|

## Conversions and Add-Ons

|                                   |     |
|-----------------------------------|-----|
| Add-On Electrical Equipment ..... | 220 |
|-----------------------------------|-----|

## Driving Information

### Driver Behavior

Driving is an important responsibility. Driver behavior, the driving environment, and the vehicle's design all affect how well a vehicle performs.

Being aware of these factors can help in understanding how the vehicle handles and what can be done to avoid many types of crashes, including a rollover crash.

Most serious injuries and fatalities to unbelted occupants can be reduced or prevented by the use of seat belts. In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt. In addition, avoiding excessive speed, sudden or abrupt turns, impaired driving, and aggressive driving can help make trips safer and avoid the possibility of a crash.

### Driving Environment

Be prepared for driving in inclement weather, at night, or during other times where visibility or traction may be limited, such as on curves, slippery roads, or hilly terrain. Unfamiliar surroundings can also have hidden hazards.

### Vehicle Design

Utility vehicles have a significantly higher rollover rate than other types of vehicles. This is because they have a higher ground clearance and a narrower track or shorter wheelbase than passenger cars, which makes them more capable for off-road driving. While these design characteristics provide the driver with a better view of the road, these vehicles do have a higher center of gravity than other types of vehicles. A utility vehicle does not handle the same as a vehicle with a lower center of gravity, like a car, in similar situations.

Safe driver behavior and understanding of the environment can help avoid a rollover crash in any type of vehicle, including utility vehicles.

### Driving for Better Fuel Economy

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

- Set the climate controls to the desired temperature after the engine is started, or turn them off when not required.
- 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 tires properly inflated.
- Combine several trips into a single trip.
- Replace the vehicle's tires with the same TPC Spec number molded into the tire's sidewall near the size.
- Follow recommended scheduled maintenance.

### Distracted Driving

Distraction comes in many forms and can take your focus from the task of driving. Exercise good judgment 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 favorite 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 cell 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 cell 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* ⇨ 40.

- Assume that other road users (pedestrians, bicyclists, and other drivers) are going to be careless and make mistakes. Anticipate what they may do and be ready.
- Allow enough following distance between you and the driver in front of you.
- Focus on the task of driving.

## Impaired Driving

Death and injury associated with impaired driving is a global tragedy.

**Warning**

Drinking alcohol or taking drugs and then driving is very dangerous. Your reflexes, perceptions, attentiveness, and judgment can be affected by even a small amount of alcohol or drugs. You can have a serious — or even fatal — collision if you drive after drinking or taking drugs.

Do not drive while under the influence of alcohol or drugs, or ride with a driver who has been drinking or is impaired by drugs. Find alternate transportation home; or if you are with a group, designate a driver who will remain sober.

## 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

### Caution

To avoid damage to the steering system, do not drive over curbs, parking barriers, or similar objects at speeds greater than 3 km/h (1 mph). Use care when driving over other objects such as lane dividers and speed bumps. Damage caused by misuse of the vehicle is not covered by the vehicle warranty.

## Electric Power Steering

The vehicle is equipped with an electric power steering system, which reduces the amount of effort needed to steer the vehicle. It does not have power steering fluid. Regular maintenance is not required.

If the vehicle experiences a system malfunction and loses power steering, greater steering effort may be required. Power steering assist also may be reduced if you turn the steering wheel as far as it can turn and hold it there with force for an extended period of time.

See your dealer if there is a problem.

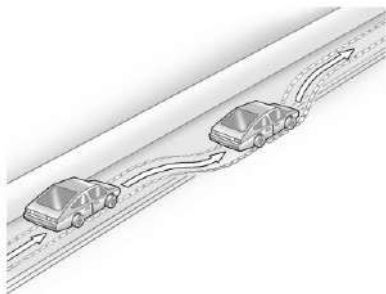
## Curve Tips

- Take curves at a reasonable speed.
- Reduce speed before entering a curve.
- Maintain a reasonable steady speed through the curve.
- Wait until the vehicle is out of the curve before accelerating gently into the straightaway.

## 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.
- The 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 tire 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 curve causes tires to slip and lose cornering force.

**Acceleration Skid :** Too much throttle causes the driving wheels to spin.

Antilock brakes help to avoid only the braking skid.

Defensive drivers avoid most skids by taking reasonable care suited to existing conditions, and by not exceeding those conditions. But skids are always possible.

If the vehicle starts to skid, 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, but if it skids again from oversteer, be ready to correct another skid if it occurs.
- Slow down and adjust your driving according to weather conditions. Stopping distance may be longer and vehicle control

may be affected when traction is reduced by water, snow, ice, gravel, or other material on the road. Learn to recognize 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 tires to slide.

## 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.

### Hydroplaning

Hydroplaning is dangerous. Water can build up under the vehicle's tires so they actually ride on the water. This can happen if the road is wet enough and you are going fast. When the vehicle is hydroplaning, it has little or no contact with the road.

There is no hard and fast rule about hydroplaning. The best advice is to slow down when the road is wet.

### Other Rainy Weather Tips

#### 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 ignore police warnings and be very cautious about trying to drive through flowing water.

Besides slowing down, other wet weather driving tips include:

- Allow extra following distance.
- Pass with caution.

- Keep windshield wiping equipment in good shape, and keep the windshield washer fluid reservoir filled.
- Ensure the tires are maintained and have proper tread depth. See *Tires* ⇨ 253.
- Turn off any cruise control system, if equipped. See *Cruise Control* ⇨ 193 or *Adaptive Cruise Control* ⇨ 195.

### 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, brakes, tires, 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 assist. 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 center line.
- Be alert on top of hills; something could be in your lane (e.g., stalled car, crash).
- Pay attention to special road signs (e.g., falling rocks area, winding roads, long grades, passing or no-passing zones) and take appropriate action.

## Winter Driving

### Driving on Snow or Ice

#### Caution

To avoid damage to the wheels and brake components, always clear snow and ice from inside the wheels and underneath the vehicle before driving.

Snow or ice between the tires 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 tires slick.
- Turn on the traction control system. See *Traction Control/Electronic Stability Control* ⇨ 191.
- Apply brakes sooner than when on dry pavement, as a longer distance may be needed to stop safely. The Antilock Brake

System (ABS) improves vehicle stability during hard stops. See *Antilock Brake System (ABS)* ⇨ 189.

- 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 maneuvers and braking while on ice.
- Turn off any cruise control system.

### Blizzard Conditions



#### 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* ⇨ 185.

Stop the vehicle in a safe place and signal for help. Stay with the vehicle unless there is help nearby. If possible, use Roadside Assistance. See *Roadside Assistance Program* ⇨ 306.

To get help and keep everyone in the vehicle safe:

- Turn on the hazard warning flashers.
- Tie a red cloth to an outside mirror.

To save fuel, run the engine for short periods to warm the vehicle and then shut the engine off. 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 headlights. Do this as little as possible, to save fuel.

Leave a window slightly open to vent moisture, which can reduce fogging on the inside surfaces of the windows.

## If the Vehicle Is Stuck

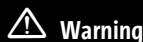
Slowly and cautiously spin the wheels to free the vehicle when stuck in sand, mud, ice, or snow.

The traction control system can often help to free a stuck vehicle. See *Traction Control/Electronic Stability Control* ⇨ 191.

If traction control cannot free the vehicle, turn off traction control and try the rocking technique described later.

Tire chains should not be used. Other types of traction devices may be used. See *Tire Chains and Other Traction Devices* ⇨ 269.

## Rocking the Vehicle to Get it Out



### Warning

If the vehicle's tires 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).

Slowly spinning the wheels in the forward and reverse directions causes a rocking motion that could free the vehicle.

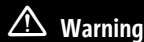
1. Turn the steering wheel left and right to clear the area around the front wheels.
2. Turn off the traction control system, if equipped.
3. Shift back and forth between R (Reverse) and a low forward gear, spinning the wheels as little as possible. Multiple low gears are available. See *Manual Mode* ⇨ 188.
  - 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.

If this rocking technique does not get the vehicle out after a few tries, it might need to be towed out. See *Transporting a Disabled Vehicle* ⇨ 278.

## 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 nonfactory-installed options. Two labels on the vehicle may show how much weight it may properly carry, the Tire and Loading Information label and the Certification/Tire label.



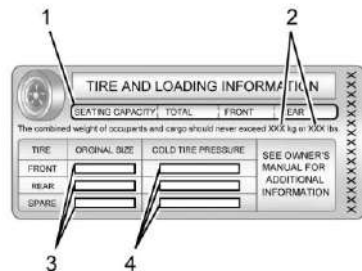
### Warning

Do not load the vehicle any heavier than the Gross Vehicle Weight Rating (GVWR), or either the maximum front

(Continued)

**Warning (Continued)**

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 performance, damage the tires, and shorten the life of the vehicle.

**Tire and Loading Information Label****Example Label**

A vehicle-specific Tire and Loading Information label is attached to the center pillar (B-pillar). The tire and loading information label shows the number of occupant seating positions (1), and the maximum vehicle capacity weight (2) in kilograms and pounds.

The Tire and Loading Information label also shows the size of the original equipment tires (3) and the recommended cold tire inflation pressures (4). For more information on tires and inflation see *Tires* ⇨ 253 and *Tire Pressure* ⇨ 258.

There is also important loading information on the vehicle Certification/Tire 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/Tire Label" later in this section.

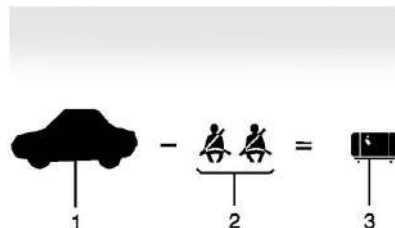
**Steps for Determining Correct Load Limit**

1. Locate the statement "The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs." on your vehicle's placard.

2. Determine the combined weight of the driver and passengers that will be riding in your vehicle.
3. Subtract the combined weight of the driver and passengers from XXX kg or XXX lbs.
4. 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.)
5. 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.

This vehicle is neither designed nor intended to tow a trailer.

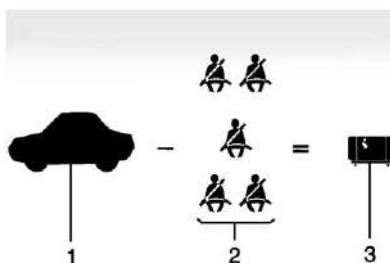
If aftermarket accessories are installed on the vehicle, for example a rooftop carrier, be sure to add the weight of all installed accessories to the combined weight of luggage and cargo.



**Example 1**

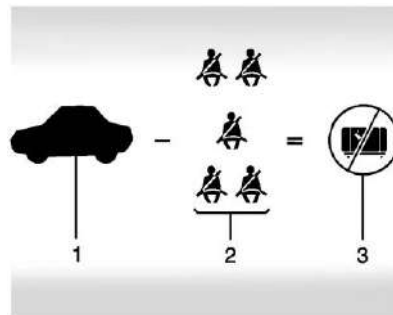
1. Vehicle Capacity Weight for Example 1 = 453 kg (1,000 lb)  
Then subtract Accessory Weight, for example a rooftop cargo box = 15.8 kg (35 lb)
2. Subtract Occupant Weight @ 68 kg (150 lb)  $\times 2 = 136$  kg (300 lb)

3. Remaining available capacity for Cargo Weight = 301.2 kg (665 lb)



**Example 2**

1. Vehicle Capacity Weight for Example 2 = 453 kg (1,000 lb)  
Then subtract Accessory Weight, for example a rooftop cargo box = 18.1 kg (40 lb)
2. Subtract Occupant Weight @ 68 kg (150 lb)  $\times 5 = 340$  kg (750 lb)
3. Remaining available capacity for Cargo Weight = 94.9 kg (210 lb)



**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)

Refer to the vehicle's tire and loading information label for specific information about the vehicle's capacity weight and seating positions. The combined weight of the driver, passengers, accessories, and cargo should never exceed the vehicle's capacity weight.

## Certification/Tire Label

The diagram shows a rectangular label with various fields. At the top, there are three sets of boxes for GVWR, GAWR FRT, and GAWR RR, each with KG and LB units. Below these is a large rectangular box. At the bottom, there are fields for TIRE SIZE (with FRT, RR, and SPA sub-labels), RIM, and MODEL.

### Label Example

A vehicle-specific Certification/Tire label is attached to the center pillar (B-pillar).

The label may show the size of the vehicle's original tires and the inflation pressures needed to obtain the gross weight capacity of the vehicle. The label shows the gross weight capacity of the vehicle. This is called the Gross Vehicle Weight Rating (GVWR). The GVWR includes the weight of the vehicle, all occupants, fuel, and cargo.

The Certification/Tire label may also show the maximum weights for the front and rear axles, called the Gross Axle Weight Rating (GAWR). To find out the actual loads on the front and rear axles, weigh the vehicle at a weigh station. Your dealer can help with this. Be sure to spread the load equally on both sides of the centerline.

### Caution

Overloading the vehicle may cause damage. Repairs would not be covered by the vehicle warranty. Do not overload the vehicle.



### Warning

Things inside the vehicle can strike and injure people in a sudden stop or turn, or in a crash.

(Continued)

### Warning (Continued)

- 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 Break-In

#### Caution

The vehicle does not need an elaborate break-in. But it will perform better in the long run if you follow these guidelines:

- Do not drive at any one constant speed, fast or slow, for the first 800 km (500 mi). Do not make full-throttle starts. Avoid downshifting to brake or slow the vehicle.
- Avoid making hard stops for the first 300 km (200 mi) or so. During this time the new brake linings are not yet broken in. Hard stops with new linings can mean premature wear and earlier replacement. Follow this breaking-in guideline every time you get new brake linings.

Following break-in, engine speed and load can be gradually increased.

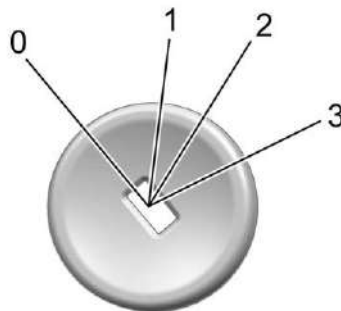
On new vehicles, the various mechanical and electrical systems experience a "break-in" period during the first 6,400 km (4,000 miles)

of routine driving. As the vehicle is driven, the mechanical systems adjust to provide optimal fuel economy and transmission shift performance.

Electrical systems will adapt and calibrate during the break-in period. A one-time occurrence of clicks and similar vehicle noises is normal during this process.

Normal driving charges the vehicle's battery to achieve the best operation of the vehicle, including fuel economy and the Stop/Start System. See *Stop/Start System* ⇨ 182.

### Ignition Positions (Key Access)



0. Stopping the Engine/LOCK/OFF

1. ACC/ACCESSORY

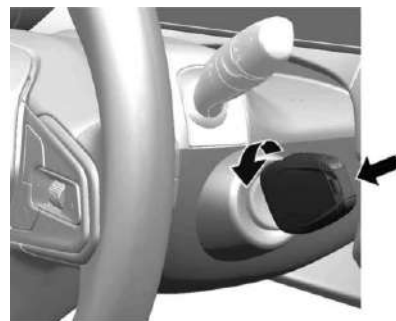
2. ON/RUN

3. START

The ignition switch has four different positions.

To shift out of P (Park), the ignition must be in ON/RUN and the regular brake pedal applied.

**O (STOPPING THE ENGINE/LOCK/OFF) :** This position turns off the vehicle. It also locks the ignition, the transmission on an automatic transmission vehicle, and the steering column, if equipped with a locking steering column.



To turn off the vehicle:

1. Make sure that the vehicle is stopped.

2. Shift to P (Park) with an automatic transmission, or Neutral with a manual transmission.
3. Push the key all the way in towards the steering column, then turn the key to LOCK/OFF.
4. Remove the key.
5. Set the parking brake. See *Electric Parking Brake* ⇨ 190.

Retained Accessory Power (RAP) will remain active. See *Retained Accessory Power (RAP)* ⇨ 185.

A warning chime will sound when the driver door is opened and the key is in the ignition. If equipped with a locking steering column, the steering can bind with the front wheels turned off center, which may prevent key rotation out of LOCK/OFF. If this happens, move the steering wheel from right to left while turning the key to ACC/ACCESSORY. If this does not work, then the vehicle needs service.



### Warning

Turning off the vehicle while moving may cause loss of power assist in the brake and steering systems and disable the airbags. While driving, only shut the vehicle off in an emergency.

In an emergency, if the vehicle cannot be pulled over and must be turned off while driving:

1. Push the key all the way in toward the steering column, then turn the key to ACC/ACCESSORY.
2. Brake using firm and steady pressure. Do not pump the brakes repeatedly. This may deplete power assist, requiring increased brake pedal force.
3. Shift the vehicle to N (Neutral). This can be done while the vehicle is moving. Continue braking and steer the vehicle to a safe location.
4. Come to a complete stop. Shift to P (Park) with an automatic transmission, or Neutral with a manual transmission. Push the key all the way in toward the steering column, then turn the ignition to LOCK/OFF.

5. Set the parking brake. See *Electric Parking Brake* ⇨ 190.

### Caution

Use the correct key, make sure it is all the way in — or pushed all the way in toward the steering column when turning off the vehicle — and turn it only with your hand.

1. **(ACC/ACCESSORY)** : This position allows features such as the infotainment system to operate while the vehicle is off. It also unlocks the steering column, if equipped with a locking steering column. Use this position if the vehicle must be pushed or towed. See *Retained Accessory Power (RAP)*. From ON/RUN, push the key all the way in toward the steering column, then turn the key to ACC/ACCESSORY. If the key is left in ACC/ACCESSORY with the engine off, the battery could drain and the vehicle may not start. A warning chime will sound when the driver door is opened and the key is in the ignition.
2. **(ON/RUN)** : This position can be used to operate the electrical accessories and to display some instrument cluster warning

and indicator lights. This position can also be used for service and diagnostics, and to verify the proper operation of the malfunction indicator light as may be required for emission inspection purposes. The switch stays in this position when the engine is running. The transmission is also unlocked in this position on automatic transmission vehicles.

3. **(START)** : This is the position that starts the engine. When the engine starts, release the key. The ignition returns to ON/RUN for driving.

## Ignition Positions (Keyless Access)



Vehicles equipped with Keyless Access have pushbutton starting.

The Remote Key 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 Key Operation (Keyless Access)* ⇨ 10 *Remote Key Operation (Key Access)* ⇨ 15.

To shift out of P (Park), the ignition must be on or in Service Mode, and the brake pedal must be applied.



### Warning

Turning off the vehicle while moving may cause loss of power assist in the brake and steering systems and disable the airbags. While driving, only shut the vehicle off in an emergency.

**Stopping the Engine/LOCK/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)* ⇨ 185.

If the vehicle is not in P (Park), the ignition will return to accessory mode and display the message SHIFT TO PARK in the Driver Information Center (DIC). When the vehicle is shifted into P (Park), the ignition system will turn off.

The vehicle may have an electric steering column lock. The lock is activated when the ignition is turned off and either front door is opened. A sound may be heard as the lock actuates or releases. The steering column lock may not release with the wheels turned off center. If this happens, the vehicle may not start. Move the steering wheel from left to right while attempting to start the vehicle. If this does not work, the vehicle needs service.

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. Hold the brake pedal down and shift to P (Park). The vehicle must be in P (Park) to turn the ignition off.
4. Continue to hold the brake pedal down.
5. Set the parking brake. See *Electric Parking Brake* ⇨ 190.
6. Press ENGINE START/STOP once to turn the ignition off.
7. Release the brake pedal.

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.

**Accessory (Amber Indicator Light):** This mode allows some electrical accessories to be used when the engine is off.

With the ignition off, pressing the button one time without the brake pedal applied will place the ignition system in accessory.

The ignition will switch from accessory to OFF after five minutes to prevent battery rundown.

**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* ⇨ 181.

### Service Mode

This power mode is available for service and diagnostics, and to verify the proper operation of the malfunction indicator light 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 shift lever to P (Park) or N (Neutral). The engine will not start in any other position. 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* ⇨ 220.

### Starting Procedure (Key Access)

1. With your foot off the accelerator pedal, turn the ignition key to START. When the engine starts, let go of the ignition.

The idle speed will go down as the engine gets warm. Do not race the engine immediately after starting it. Operate the engine and transmission gently to allow the oil to warm up and lubricate all moving parts.

**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 5 to 10 seconds, especially in very cold weather (below  $-18^{\circ}\text{C}$  or  $0^{\circ}\text{F}$ ), it could be flooded with too much gasoline. Try pushing the accelerator pedal all the way to the floor and holding it there as you hold the key in START for up to a maximum of 15 seconds. Wait at least 15 seconds between each try, to allow the cranking motor to cool down. When the engine starts, let go of the key and the accelerator. If the vehicle starts briefly but then stops again, do the same thing. This clears the extra gasoline 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.

**Starting Procedure (Keyless Access)**

1. With the Keyless Access system, the remote key 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 remote key is not in the vehicle, if there is interference, or if the remote key battery is low, a Driver Information Center (DIC) will display a message. See *Remote Key Operation (Keyless Access)* ⇨ 10 *Remote Key Operation (Key Access)* ⇨ 15

**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

(Continued)

**Caution (Continued)**

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 5 to 10 seconds, especially in very cold weather (below  $-18^{\circ}\text{C}$  or  $0^{\circ}\text{F}$ ), it could be flooded with too much gasoline. 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 gasoline 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**

The Stop/Start system shuts off the engine to help conserve fuel. The system is designed to manage the increased number of starts.

 **Warning**

The automatic engine Stop/Start feature causes the engine to shut off while the vehicle is still on. Do not exit the vehicle before shifting to P (Park). The vehicle may restart and move unexpectedly. Always shift to P (Park), and then turn the ignition off before exiting the vehicle.

**Auto Engine Stop/Start**

When the brakes are applied and the vehicle is at a complete stop, the engine may turn off. When stopped, the tachometer displays AUTO STOP. See *Tachometer* ⇨ 90. When the brake pedal is released or the accelerator pedal is pressed, the engine will restart.

To maintain vehicle performance, other conditions may cause the engine to automatically restart before the brake pedal is released.

Auto Stops may not occur and/or auto restarts may occur because:

- The climate control settings require the engine to be running to cool or heat the vehicle interior.

- The vehicle battery needs to charge.
- The vehicle battery has recently been disconnected.
- Minimum vehicle speed has not been reached since the last Auto Stop.
- The accelerator pedal is pressed.
- The engine or transmission is not at the required operating temperature.
- The outside temperature is not in the required operating range.
- The vehicle transmission is shifted out D (Drive).
- Tow/Haul Mode or other driver modes have been selected.
- The vehicle is on a steep hill or grade.
- The driver door has been opened or driver seat belt has been unbuckled.
- The hood has been opened.
- The Auto Stop has reached the maximum allowed time.

**Auto Stop Disable Switch**

The automatic engine stop/start feature can be disabled and enabled by pressing  OFF. Auto Stop is enabled each time you start the vehicle.

When the indicator above  OFF is illuminated, the system is disabled.

## Engine Heater



### Warning

Do not plug in the engine block heater while the vehicle is parked in a garage or under a carport. Property damage or personal injury may result. Always park the vehicle in a clear open area away from buildings or structures.

The engine heater, if available, can help in cold weather conditions at or below  $-18^{\circ}\text{C}$  ( $0^{\circ}\text{F}$ ) for easier starting and better fuel economy during engine warm-up. Plug in the engine heater at least four hours before starting the vehicle. An

internal thermostat in the plug end of the cord will prevent engine coolant heater operation at temperatures above  $-18^{\circ}\text{C}$  ( $0^{\circ}\text{F}$ ).

### To Use the Engine Heater

1. Turn off the engine.
2. Remove the heater cord from the rear compartment.
3. Check the heater cord for damage. If it is damaged, do not use it. See your dealer for a replacement. Inspect the cord for damage yearly.
4. Plug the cord into the receptacle in the front fascia.
5. Plug the other end of the cord into a normal, grounded 110-volt AC outlet.



### Warning

Improper use of the heater cord or an extension cord can damage the cord and may result in overheating and fire.

(Continued)

### Warning (Continued)

- Plug the cord into a three-prong electrical utility receptacle that is protected by a ground fault detection function. An ungrounded outlet could cause an electric shock.
- Use a weatherproof, heavy-duty, 15 amp-rated extension cord if needed. Failure to use the recommended extension cord in good operating condition, or using a damaged heater or extension cord, could make it overheat and cause a fire, property damage, electric shock, and injury.
- Do not operate the vehicle with the heater cord permanently attached to the vehicle. Possible heater cord and thermostat damage could occur.
- While in use, do not let the heater cord touch vehicle parts or sharp edges. Never close the hood on the heater cord.
- Before starting the vehicle, unplug the cord, reattach the cover to the plug, and securely fasten the cord. Keep the cord away from any moving parts.

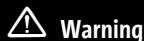
The length of time the heater should remain plugged in depends on several factors. Ask a dealer in the area where you will be parking the vehicle for the best advice on this.

## Retained Accessory Power (RAP)

When the vehicle is turned from on to off, the following features (if equipped) will continue to function for up to 10 minutes, or until the driver door is opened. These features will also work when the vehicle is on or in accessory mode:

- Infotainment System
- Power Windows (during RAP this functionality will be lost when any door is opened)
- Sunroof (during RAP this functionality will be lost when any door is opened)
- Auxiliary Power Outlet
- Audio System
- OnStar System

## 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 best not to park with the vehicle running. If the vehicle is left running, be sure it will not move and there is adequate ventilation.

See *Automatic Transmission* ⇨ 186 and *Engine Exhaust* ⇨ 185.

If the vehicle is left parked and running with the remote key outside the vehicle, it will continue to run for up to 15 minutes.

If the vehicle is left parked and running with the remote key inside the vehicle, it will continue to run for up to 30 minutes.

The vehicle could turn off sooner if it is parked on a hill, due to lack of available fuel.

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 tail 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.
- There are holes or openings in the vehicle body from damage or aftermarket modifications that are not completely sealed.

(Continued)

**Warning (Continued)**

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 *Automatic Transmission*

↪ 186 and *Engine Exhaust* ↪ 185.

**Automatic Transmission**

**P** : Use P (Park) when starting the engine because the vehicle cannot move easily. This position locks the front wheels.

**Shifting out of Park**

To shift out of P (Park):

1. Apply the brake pedal.
2. Turn the ignition on.
3. Press the shift lever button.
4. Move the shift lever.

If you still are unable to shift out of P (Park):

1. Fully release the shift lever button.

2. Hold the brake pedal down and press the shift lever button again.
3. Move the shift lever.

If you still cannot move the shift lever from P (Park), see your dealer for service.

**Shifting Into Park****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 set. 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).

To shift into P (Park):

1. Hold the brake pedal down and set the parking brake. See *Electric Parking Brake* ↪ 190.

2. Hold the button on the shift lever and push the lever toward the front of the vehicle into P (Park).  
P will be shown next to the shift lever and in the Driver Information Center.
3. Turn the ignition off.

### Leaving the Vehicle with the Engine Running

#### Warning

It can be dangerous to leave the vehicle with the engine running. The vehicle could move suddenly if the shift lever is not fully in P (Park) with the parking brake firmly set.

And, if you leave the vehicle with the engine running, it could overheat and even catch fire. You or others could be injured. Do not leave the vehicle with the engine running unless you have to.

If you must leave the vehicle with the engine running, the vehicle must be in P (Park) and the parking brake set. See *Electric Parking Brake* ⇨ 190.

Release the button and check that the shift lever cannot be moved out of P (Park).

The vehicle has an automatic transmission shift lock control system. You must fully apply the regular brake 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, then 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.

### 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).

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).

### 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 back up.

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* ⇨ 174.

#### Warning

Shifting into a drive gear while the engine is running at high speed is dangerous. Unless your foot is 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.

**N** : In this position, the engine does not connect with the wheels. To restart the engine when the vehicle is already moving, use N (Neutral) only.

**Caution**

A transmission hot message may display if the automatic transmission fluid is too hot. Driving under this condition can damage the vehicle. Stop and idle the engine to cool the automatic transmission fluid. This message clears when the transmission fluid has cooled sufficiently.

**Caution**

If the vehicle does not shift gears, the transmission could be damaged. Have the vehicle serviced right away.

**Caution**

Spinning the tires 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 tires. When stopping on a hill, use the brakes to hold the vehicle in place.

**D** : Use this gear for normal driving. If more power is needed for passing, press the accelerator pedal down.

**L** : Use this to select the range of gear positions. See *Manual Mode* ⇨ 188.

**Operating Modes**

The transmission may operate in a lower gear than normal to improve vehicle performance. The engine speed may be higher and there may be an increase in noise during the following conditions:

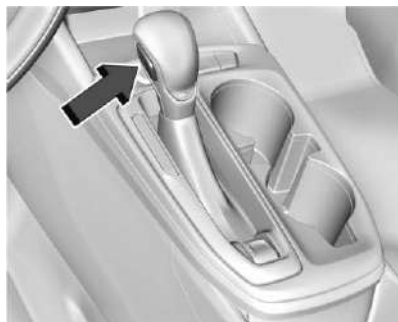
- When climbing a grade.
- When driving downhill.
- When driving in hot temperatures or at high altitude.

**Manual Mode****Electronic Range Select**

Electronic Range Select or Manual Mode allows for the selection of the range of gear positions. Use this mode when driving downhill or towing a trailer to limit the top gear and vehicle speed. The shift position indicator within the Driver Information Center will display a number next to the L indicating the highest available gear under manual mode and the driving conditions when manual mode was selected.

To use this feature:

1. Move the shift lever to L (Manual Mode).



2. Press the plus/minus button on the shift lever, to increase or decrease the gear range available.

When shifting to L (Manual Mode), the transmission will shift to a preset lower gear range. For this preset range, the highest gear available is displayed next to the L in the Driver Information Center. See *Driver Information Center (DIC) (Base Level)* ⇨ 103 *Driver Information Center (DIC) (Uplevel)* ⇨ 105 for more information. All gears below that number are available to use. For example, when 4 (Fourth) is shown next to the L, 1 (First) through 4 (Fourth) gears are shifted automatically. To shift to 5 (Fifth) gear, press the + (Plus) button or shift into D (Drive).

L (Manual Mode) will prevent shifting to a lower gear range if the engine speed is too high. If vehicle speed is not reduced within the time allowed, the lower gear range shift will not be completed. Slow the vehicle, then press the – (Minus) button to the desired lower gear range.

While using the Manual Mode, cruise control can be used.

## Brakes

### Electric Brake Boost

Vehicles equipped with electric brake boost have hydraulic brake circuits that are electronically controlled when the brake pedal is applied during normal operation. The system performs routine tests and turns off within a few minutes after the vehicle is turned off. Noise may be heard during this time. If the brake pedal is pressed during the tests or when the electric brake boost system is off, a noticeable change in pedal force and travel may be felt. This is normal.

## Antilock Brake System (ABS)

The Antilock Brake System (ABS) helps to prevent skidding and maintain steering control during hard breaking.



If there is a problem, the Antilock Brake System (ABS) warning light stays on. See *Brake System Warning Light* ⇨ 97.

### Using Antilock Brakes

Do not pump the brakes. Just hold the brake pedal down firmly. It is normal to hear and feel the Antilock Brake System (ABS) operating.

### Braking in Emergencies

The Antilock Brake System (ABS) does not always decrease stopping distance. If a vehicle suddenly slows or stops, there may not be enough time to apply the brakes. Always allow enough following distance between your vehicle and the vehicle ahead.

The Antilock Brake System (ABS) allows you to steer and brake at the same time. In many emergencies, steering to make an evasive maneuver can be more effective than braking.

## Electric Parking Brake



The Electric Parking Brake (EPB) can always be applied, even if the vehicle is off. In case of insufficient electrical power, the EPB cannot be applied or released. To prevent draining the battery, avoid unnecessary repeated cycles of the EPB.

The system has a red parking brake status light and an amber service parking brake warning light. See *Electric Parking Brake Light* ⇨ 97

and *Service Electric Parking Brake Light* ⇨ 97. There are also parking brake-related Driver Information Center (DIC) messages.

Before leaving the vehicle, check the red parking brake status light to ensure that the parking brake is applied.

### EPB Apply

#### 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.

To apply the EPB:

1. Be sure the vehicle is at a complete stop.
2. Pull the EPB switch momentarily.

The red parking brake status light will flash and then stay on once the EPB is fully applied. If the red parking brake status 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 red parking brake status light is flashing, see your dealer.

If the amber service parking brake warning light is on, pull the EPB switch. Continue to hold the switch until the red parking brake status light remains on. If the amber service parking brake warning light is on, see your dealer.

If the EPB is applied while the vehicle is moving, the vehicle will decelerate as long as the switch is pulled. If the switch is pulled 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, or at the request of other safety functions that utilize the EPB.

If the EPB fails to apply, block the rear wheels to prevent vehicle movement.

### EPB Release

To release the EPB:

1. Turn the vehicle on.
2. Apply and hold the brake pedal.

3. Press the EPB switch momentarily.

The EPB is released when the red parking brake status light is off.

If the amber service parking brake warning light is on, release the EPB by pressing and holding the EPB switch. Continue to hold the switch until the red parking brake status light is off. If either light stays on after release is attempted, see your dealer.

### 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

Brake Assist detects rapid brake pedal applications due to emergency braking situations. It also provides additional braking to activate the Antilock Brake System if the brake pedal is not applied hard enough to activate it normally. Minor noise, brake pedal pulsation, and/or pedal movement during this time may

occur. Continue to apply the brake pedal as the driving situation dictates. Brake Assist disengages when the brake pedal is released.

### Hill Start Assist (HSA)



#### Warning

Do not rely on the HSA feature. HSA does not replace the need to pay attention and drive safely. You may not hear or feel alerts or warnings provided by this system. Failure to use proper care when driving may result in injury, death, or vehicle damage. See *Defensive Driving* ↻ 169.

When the vehicle is stopped on a grade, Hill Start Assist (HSA) prevents the vehicle from rolling in an unintended direction during the transition from brake pedal release to accelerator pedal apply. The brakes release when the accelerator pedal is applied. The brakes may also release under other conditions. Do not rely on HSA to hold the vehicle.

HSA is available when the vehicle is facing uphill in a forward gear, or when facing downhill in R (Reverse). The vehicle must come to a complete stop on a grade for HSA to activate.

## Ride Control Systems

### Traction Control/Electronic Stability Control

#### System Operation

This vehicle has a Traction Control System and a StabiliTrak/Electronic Stability Control system. These systems help limit wheel spin and assist the driver in maintaining control, especially on slippery road conditions. Both systems turn on automatically when the vehicle is started and begins to move.

The Traction Control System activates if any of the drive wheels are spinning and beginning to lose traction. If this happens, the traction system reduces power and applies the brakes to limit wheel spin.

The StabiliTrak/Electronic Stability Control system activates when the vehicle senses a difference between the intended path and the direction the vehicle is actually traveling.

The stability control system selectively applies braking pressure to any one of the vehicle wheel brakes to assist the driver in keeping the vehicle on the intended path.

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 the Traction Control System off if the vehicle gets stuck in sand, mud, ice, or snow. See *If the Vehicle Is Stuck* ⇨ 174 and “Turning the Systems Off and On” later in this section.

Cruise control will disengage if the traction or stability control system begins to limit wheel spin. Cruise control may be turned back on when road conditions allow. See *Cruise Control* ⇨ 193.



The indicator light for both systems is in the instrument cluster. This light will:

- Flash when the Traction Control System is limiting wheel spin.
- Flash when StabiliTrak/Electronic Stability Control is activated.
- Turn on and stay on when either system is not working.

See *Traction Control System (TCS)/Electronic Stability Control Light* ⇨ 99.

If either system fails to turn on or to activate, a message displays in the Driver Information Center. The vehicle is safe to drive, but adjust driving accordingly.

If  turns 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  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.

### <Base level>

To turn the Traction Control System on and off:



1. Press the SELECT button to show VEHICLE menu on the display.
2. Turn the band to scroll Traction & Stability to select Traction and Stability on the Driver Information Center menu. See *Driver Information Center (DIC) (Base Level)* ⇨ 103 *Driver Information Center (DIC) (Uplevel)* ⇨ 105.

3. Press  on the turn signal lever while Traction and Stability is displayed.

### <Uplevel>

To turn the Traction Control System on and off, in the virtual controls app on the infotainment home screen, select Controls > Traction Control. To turn StabiliTrak/Electronic Stability Control on or off, select  next to the Traction Control menu.

The following options appear:

- Traction Control Off
- Traction Control and StabiliTrak/ESC Off
- Traction Control and StabiliTrak/ESC On

Select the Traction Control and StabiliTrak/ESC Off option. The StabiliTrak/Electronic Stability Control Off light  will display in the instrument cluster. See *Electronic Stability Control (ESC) Off Light* ⇨ 100.

The Traction Off light  displays in the instrument cluster when the Traction Control System is turned off. When the system is turned back on, the Traction Off light  will turn off. See *Traction Off Light* ⇨ 99.

If the Traction Control System is actively limiting wheel spin when disabled, the system will not turn off until the wheels stop spinning.

The traction system cannot be engaged when the stability control system is off.

StabiliTrak/Electronic Stability Control automatically engages if the vehicle exceeds approximately 56 km/h (35 mph) and cannot be turned off again until speed is reduced. Traction control will remain off.

Entering Teen Driver will automatically enable both systems and prevent these safety features from being turned off. See *Teen Driver (11 Inch Screen Radio)* ⇨ 133.

Adding accessories can affect the vehicle performance. See *Accessories and Modifications* ⇨ 222.

## Cruise Control

Cruise control allows the vehicle to maintain a set speed of about 40 km/h (25 mph) or more without using the accelerator pedal. Cruise control does not work at speeds below 40 km/h (25 mph).

### 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 tire traction can cause excessive wheel slip, and you could lose control. Do not use cruise control on slippery roads.

Cruise control disengages if:

- The Traction Control System (TCS) or Electronic Stability Control (ESC) activates to limit wheel spin. See *Traction Control/Electronic Stability Control* ⇨ 191.
- TCS or ESC is turned off.
- A collision alert occurs. See *Forward Collision Alert (FCA) System* ⇨ 207.
- The brakes are applied.

When road conditions allow you to safely use it again, cruise control can be turned back on.



: Press to turn cruise control on and off. The white cruise control indicator light comes on in the instrument cluster when cruise control is turned on.

+RES : If there is a set speed in memory, press briefly to resume that speed or press and hold to accelerate. If cruise control is already engaged, use to increase vehicle speed.

SET- : Press briefly to set the speed and engage cruise control. If cruise control is already engaged, use to decrease vehicle speed.

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

### Setting Cruise Control

If cruise control is on when not in use, SET- or +RES could get pressed and engage cruise control when not desired. Turn cruise control off when not in use. Press to turn cruise control off.

To choose the set speed and engage cruise control:

1. Press .
2. Accelerate to the speed desired.
3. Briefly press and release the thumbwheel down to SET-. The set speed briefly appears in the instrument cluster.
4. Remove your foot from the accelerator pedal.

When cruise control is engaged, the cruise control indicator light displays green on the instrument cluster. See *Instrument Cluster (Uplevel)* ⇨ 89 *Instrument Cluster (Base Level)* ⇨ 87.

### Resuming a Set Speed

If cruise control is engaged and then the brakes are applied or is pressed, cruise control is disengaged without erasing the set speed from memory.

Once the vehicle speed reaches about 40 km/h (25 mph) or more, briefly press and release the thumbwheel up to +RES. Cruise control engages and the vehicle returns to the previous set speed.

### Increasing Speed While Using Cruise Control

If cruise control is already engaged:

- Press and hold the thumbwheel up to +RES until the vehicle accelerates to the desired speed, then release it.
- To increase the vehicle speed in small increments, briefly press and release the thumbwheel up to +RES. For each press, the vehicle speed increases by 1 km/h (1 mph).

The speedometer reading can be displayed in either English or metric units. See *Instrument Cluster (Uplevel)* ⇨ 89 *Instrument Cluster (Base Level)* ⇨ 87. The increment value used depends on the units displayed.

### Reducing Speed While Using Cruise Control

If cruise control is already engaged:

- Press and hold SET- until the desired lower speed is reached, then release it.
- To decrease the vehicle speed in small increments, briefly press and release the thumbwheel down to SET-. For each press, the vehicle speed decreases by 1 km/h (1 mph).

### Passing Another Vehicle While Using Cruise Control

Use the accelerator pedal to increase the vehicle speed. When you take your foot off of the accelerator pedal, the vehicle will slow down to the previous set cruise speed. While applying the accelerator pedal or shortly following the release to override cruise control, briefly pressing the thumbwheel down to SET- will result in cruise control being set to the current vehicle speed.

### Using Cruise Control on Hills

How well cruise control works on a hill depends on the vehicle speed, load, and the steepness of the hill. When going up a steep hill, you may need to apply the accelerator pedal to maintain the set speed. When going down a steep hill,

you may need to brake or shift to a lower gear to keep the vehicle speed down. If the brake pedal is applied, cruise control will disengage.

### Ending Cruise Control

There are four ways to end cruise control:

- Lightly apply the brake pedal.
- Press .
- Press .
- Shift the transmission to N (Neutral).

### Erasing Speed Memory

The cruise control set speed is erased from memory if  is pressed or when the vehicle is turned off.

### Adaptive Cruise Control

If equipped, Adaptive Cruise Control (ACC) allows the cruise control set speed and following gap to be selected. Read this entire section before using this system. The following gap is the following time 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. ACC uses a windshield mounted front camera sensor.

If a vehicle is detected in your path, ACC can apply acceleration or limited, moderate braking to maintain the selected following gap. To disengage ACC, apply the brake. If ACC is controlling the vehicle speed when the Traction Control System (TCS) or StabiliTrak/ Electronic Stability Control (ESC) system activates, ACC may automatically disengage. See *Traction Control/Electronic Stability Control* ⇨ 191.

When road conditions allow ACC to be safely used, ACC can be turned back on. Disabling the TCS or StabiliTrak/ ESC system will disengage and prevent engagement of ACC.

ACC can reduce the need for you to frequently brake and accelerate, especially when used on expressways, freeways, and interstate highways. When used on other roads, you may need to take over the control of braking or acceleration more often.

 **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” later 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* ⇨ 169

 **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 camera sensor is blocked by snow, ice, or dirt. The system may not detect a vehicle ahead. Keep the windshield and headlights clean.

(Continued)

**Warning (Continued)**

- When visibility is poor due to rain, snow, fog, dirt, insect residue, or dust; when other foreign objects obscure the camera's view; or when the vehicle in front or oncoming traffic causes additional environmental obstructions, such as road spray. ACC performance is limited under these conditions.
- On slippery roads where fast changes in tire traction can cause excessive wheel slip
- With extremely heavy cargo loaded in the cargo area or rear seat
- When towing a trailer



 : 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 activated. To increase speed by about 1 km/h (1 mph), press RES+ briefly. To increase speed to the next 10 km/h (5 mph) mark on the speedometer, hold RES+.

**SET-** : Press briefly to set the speed and activate ACC or to decrease vehicle speed if ACC is already activated. To decrease speed by about 1 km/h (1 mph), press SET- briefly. To decrease speed to the next 10 km/h (5 mph) mark on the speedometer, hold SET-.

 : Press to disengage ACC without erasing the selected set speed.

 : Press to select a following gap setting for ACC of Far, Medium, or Near.

The speedometer reading can be displayed in either English or metric units. See *Instrument Cluster (Uplevel)* ⇨ 89 *Instrument Cluster (Base Level)* ⇨ 87. 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* ⇨ 108.

#### ACC Indicator



#### Regular Cruise Control Indicator

When ACC is engaged, a green  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 feature. If ACC is not active, the vehicle will not automatically brake for other vehicles, which could cause a crash 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.



The ACC indicator displays on the instrument cluster. 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 the 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+ briefly while moving more than 5 km/h (3 mph). The vehicle returns to the previous set speed.

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

If ACC is already activated, do one of the following:

- Use the accelerator to get to the higher speed. Press SET–. Release SET– and 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. The ACC indicator will turn blue on the instrument cluster.

- Press and hold RES+ until the desired set speed is displayed, then release it.
- To increase vehicle speed in smaller increments, press RES+ briefly. For each press, the vehicle goes about 1 km/h (1 mph) faster.
- To increase vehicle speed in larger increments, hold RES+. While holding RES+, the vehicle speed increases to the next 10 km/h (5 mph) step, then continues to increase by 10 km/h (5 mph) at a time.

When it is determined that there is no vehicle ahead or the vehicle ahead is beyond the selected following gap, then the vehicle speed will increase to the set speed.

### Reducing Speed While ACC Is at a Set Speed

If ACC is already activated, 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 the vehicle speed in smaller increments, press SET– briefly. For each press, the vehicle goes about 1 km/h (1 mph) slower.
- To decrease the vehicle speed in larger increments, hold SET–. While holding SET–, the vehicle speed decreases to the next 10 km/h (5 mph) step, then continues to decrease by 10 km/h (10 mph) at a time.

## 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. 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* ⇨ 207.

## 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, six red lights will flash on the windshield. Either eight beeps will sound from the front. See "Collision/Detection Systems" under Vehicle Personalization.

See *Defensive Driving* ⇨ 169.

## Approaching and Following a Vehicle

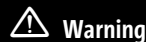


The vehicle ahead indicator is in the instrument cluster. It only displays when a vehicle is detected in your vehicle's path moving in

the same direction. If this symbol 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 a detected vehicle ahead at the selected following gap. The vehicle speed increases or decreases to follow a detected vehicle in front of your vehicle when that vehicle is traveling slower than your vehicle set speed. It may apply limited braking, if necessary. When braking is active, the brake lights 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



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

(Continued)

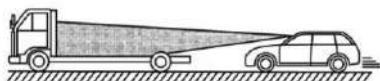
**Warning (Continued)**

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.

**Irregular Objects Affecting ACC**

ACC may have difficulty detecting the following objects:

- Vehicles in front of your vehicle that have a rear aspect that is low, small, or irregular
- An empty truck or trailer that has no cargo in the cargo bed
- Vehicles with cargo extending from the back end
- Non-standard shaped vehicles, such as vehicle transport, vehicles with a side car fitted, or horse carriages
- Vehicles that are low to the road surface
- Objects that are close to the front of your vehicle
- Vehicles on which extremely heavy cargo is loaded in the cargo area or rear seat

**ACC Automatically Disengages**

ACC may automatically disengage and the driver will need to manually apply the brakes to slow the vehicle if:

- The front camera is blocked or visibility is reduced.
- The Traction Control System (TCS) or StabiliTrak/ESC system has activated or been disabled.
- There is a fault in the system.
- A DIC message displays to indicate that ACC is temporarily unavailable.

The ACC indicator will turn white when ACC is no longer active.

In some cases, when ACC is temporarily unavailable, regular cruise control may be used. See “Switching Between ACC and Regular

Cruise Control” 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, three beeps will sound. See “Alert Type” and “Adaptive Cruise Go Notifier” in “Collision/Detection Systems” under Vehicle Personalization.

When the vehicle ahead drives away, 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 unbuckled, the ACC automatically applies the Electric Parking Brake (EPB) to hold the vehicle. The EPB status light will turn on. See *Electric Parking Brake* ⇨ 190.

A DIC warning message may display indicating to shift to P (Park) before exiting the vehicle. See *Vehicle Messages* ⇨ 108.

 **Warning**

If ACC has stopped the vehicle, and if ACC is disengaged, turned off, or canceled, 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 indicating ACC 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.

**Curves in the Road** **Warning**

On curves, 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**

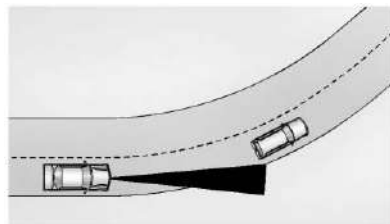
On curves, ACC may respond to a vehicle in another lane, or may not have time to react to a vehicle in your lane. You could crash

(Continued)

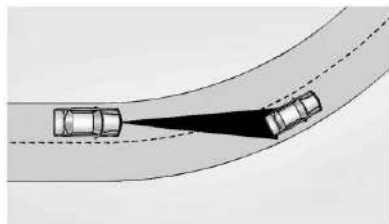
**Warning (Continued)**

into a vehicle ahead of you, or lose control of your vehicle. Give extra attention in curves and be ready to use the brakes if necessary. Select an appropriate speed while driving in curves.

ACC may operate differently in a sharp curve. It may reduce the vehicle speed if the curve is too sharp.



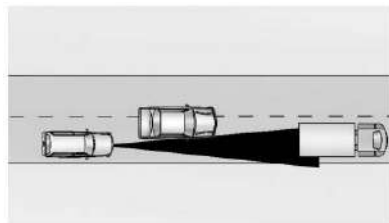
When following a vehicle and entering a curve, ACC may not detect the vehicle ahead and accelerate to the set speed. When this happens, the vehicle ahead indicator will not appear.



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 or stationary objects when entering or exiting a curve. 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.

### Objects Not Directly in Front of Your Vehicle

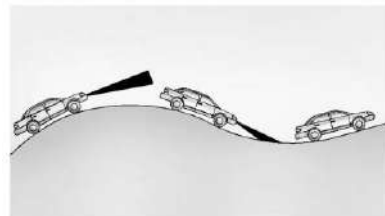
The detection of objects in front of the vehicle may not be possible if:

- The vehicle or object ahead is not within your lane.
- The vehicle ahead is shifted, not centered, or is shifted to one side of the lane.

### Driving in Narrow Lanes

Vehicles in adjacent traffic lanes or roadside objects may be incorrectly detected when located along the roadway.

### 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. ACC will not detect a vehicle in the lane while driving on steep hills. If the brakes are applied, 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.

## Weather Conditions Affecting ACC

If the interior temperature is extremely high, the instrument cluster may indicate that ACC is temporarily unavailable. This can be caused by extreme hot weather conditions with direct sunlight on the front camera. ACC will return to normal operation once the cabin temperature is lower.

Conditions that are associated with low visibility, such as fog, rain, snow, or road spray, may limit ACC performance. Water droplets from rain or snow that remain on the windshield may also limit ACC's ability to detect objects.

## Lighting Conditions Affecting ACC

The ACC front camera can be affected by poor lighting conditions, and ACC may have limited performance when:

- There are changes in brightness, such as entering and exiting tunnels, bridges, and overpasses.
- Low sun angles cause the camera to not detect objects, or it is more difficult to detect objects in the same traffic lane.
- Lighting is poor in the evening or early morning

- There are multiple changes in brightness or shadows along the vehicle roadway.
- In a tunnel without the headlights on, or in a tunnel when there is a vehicle in front that does not have its taillights on.
- Subjected to strong light from opposing lane traffic in the front of the vehicle, such as high-beam headlights from oncoming traffic.

## Accessory Installations and Vehicle Modifications

Do not install or place any object around the front camera windshield area that would obstruct the front camera view.

Do not install objects on top of the vehicle that overhang and obstruct the front camera, such as a canoe, kayak, or other items that can be transported on a roof rack system. See *Roof Rack System* ⇨ 78.

Do not modify the hood, headlights, or fog lights, as this may limit the camera's ability to detect an object.

## Cleaning the Sensing System

The camera sensor on the windshield behind the rearview mirror can become blocked by snow, ice, dirt, mud, or debris. This area needs to be cleaned for ACC to operate properly.

The vehicle headlights may need to be cleaned due to dirt, snow, or ice. Objects that are not illuminated correctly may be difficult to detect.

If ACC will not operate, regular cruise control may be available. See "Switching Between ACC and Regular Cruise Control" in this section. Always consider driving conditions before using either cruise control system.

For cleaning instructions, see "Washing the Vehicle" under *Exterior Care* ⇨ 282.

## Advanced Driver Assistance Systems

### Warning

Do not rely on the Advanced Driver Assistance Systems. These systems do not replace the need for paying attention and driving safely. You may not hear

(Continued)

**Warning (Continued)**

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* ⇨ 169.

Under many conditions, these systems will not:

- Detect children, pedestrians, bicyclists, or animals.
- 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.

(Continued)

**Warning (Continued)**

- 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.

This vehicle may have features that work together to help avoid crashes or reduce crash damage while driving, backing, and parking. Read this entire section before using these systems.

**Audible Alert**

Some driver assistance features alert the driver of obstacles by beeping. To view available settings from the infotainment home screen, touch Settings > Vehicle > Comfort and Convenience.

**Cleaning**

Depending on vehicle options, keep these areas of the vehicle clean to ensure the best driver assistance feature performance.

Driver Information Center (DIC) messages may display when the systems are unavailable or blocked.



- Front and rear bumpers and the area below the bumpers
- Front grille and headlights
- Front camera lens in the front grille or near the front emblem
- Front side and rear side panels
- Outside of the windshield in front of the rearview mirror
- Side camera lens on the bottom of the outside mirrors
- Rear side corner bumpers
- Rear Vision Camera above the license plate

### Radio Frequency

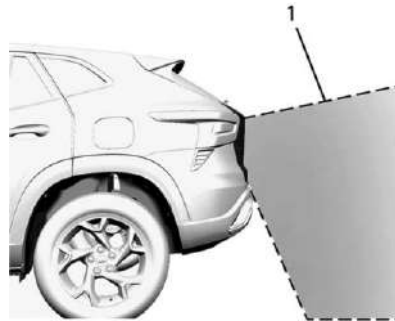
This vehicle may be equipped with driver assistance systems that operate using radio frequency. *Radio Frequency Statement* ⇨ 311.

### Assistance Systems for Parking or Backing

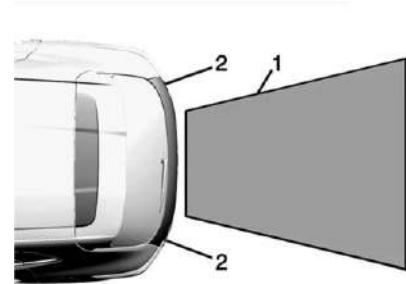
If equipped, the Rear Vision Camera (RVC), Rear Park Assist (RPA), and Rear Cross Traffic Alert (RCTA) may help the driver park or avoid objects. Always check around the vehicle when parking or backing.

### 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 any button on the infotainment display, shift into P (Park), or reach a vehicle speed of approximately 12 km/h (8 mph).



1. View Displayed by the Rear Vision Camera



1. View Displayed by the Rear Vision 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 Rear Park Assist (RPA) has detected an object. This triangle changes from amber to red and increases in size the closer the object.

### Park Assist

If equipped, Rear Parking Assist (RPA) system, it assists the driver with parking and avoiding objects while in R (Reverse).

RPA operates at speeds less than 8 km/h (5 mph), and the sensors on the rear bumper detect objects up to 2.5 m (8 ft) behind the vehicle, and at least 25 cm (10 in) off the ground. The distance objects can be detected may be less 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 Park 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 Park Assist, always check the area around the vehicle and check all mirrors before moving forward or backing.



The instrument cluster may have a Park Assist display with bars that show “distance to object” and object location information for the Park Assist system. As the object gets closer, more bars light up and the bars change color from yellow to amber to red.

When an object is first detected in the rear, one beep will be heard from the rear. When an object is very close (< 0.6 m (2 ft) in the vehicle rear, five beeps will sound from the rear.

### Turning the Feature On or Off

Rear Park Assist symbols can be turned on or off through settings. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/Detection Systems.

Turn off RPA when towing a trailer.

## Rear Cross Traffic Alert (RCTA) System

### Warning

The Rear Cross Traffic Alert 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.

It may not alert to many types of backing crashes. This system only works in R (Reverse) when an object is detected directly behind the vehicle. It may not alert to objects when the vehicle is moving at very low speeds. The system will not work correctly under poor visibility or bad weather conditions, such as rain or snow.

To prevent injury, death, or vehicle damage, always check the area around the vehicle and check all mirrors before backing.

If equipped, when the vehicle is shifted into R (Reverse), RCTA displays a red warning triangle with a left or right pointing arrow on the infotainment display 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 side of the vehicle. When an object is detected, either three beeps sound from the left or right depending on the direction of the detected vehicle.

Use caution while backing up 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.

### Turning the Feature On or Off

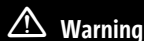
RCTA can be turned on or off through vehicle settings. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/Detection Systems.

### Assistance Systems for Driving

If equipped, when driving the vehicle in a forward gear, Forward Collision Alert (FCA), Lane Keep Assist (LKA), Side Blind Zone Alert (SBZA), Lane Change Alert (LCA), Automatic

Emergency Braking (AEB), and/or the Front Pedestrian Braking (FPB) System can help to avoid a crash or reduce crash damage.

### Forward Collision Alert (FCA) System



#### 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, guardrails, bridges, construction barrels, or other objects. Be ready to take action and apply the brakes. See *Defensive Driving* ⇨ 169.

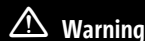
If equipped, the FCA system may help to avoid or reduce the harm caused by front-end crashes. When approaching a vehicle ahead too quickly, FCA provides a red flashing alert on the

windshield and rapidly beeps. 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).

FCA can be disabled through vehicle settings. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/Detection Systems.

### Detecting the Vehicle Ahead



#### 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 windshield 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 headlights or windshield are not cleaned or in proper condition. Keep the windshield, headlights, and FCA sensors clean and in good repair.



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 curves, highway 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.

### Collision Alert



When your vehicle approaches another detected vehicle too rapidly, the red FCA display will flash on the windshield.

Also, eight rapid high-pitched beeps will sound from the front. 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 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. 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

If equipped, 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 Center (DIC) (Base Level)* ⇨ 103. *Driver Information Center (DIC) (Uplevel)* ⇨ 105. 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, this may correct the issue:

- Clean the outside of the windshield in front of the rearview mirror.
- Clean the entire front of the vehicle.
- Clean the headlights.

## Automatic Emergency Braking (AEB)

The AEB system may help avoid or reduce the harm caused by a front-end crashes. AEB also includes Intelligent Brake Assist (IBA). When the system detects a vehicle ahead in your path that is traveling 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 automatic emergency 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* ⇨ 207.

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

AEB is an emergency crash preparation feature and is not designed to avoid crashes. Do not rely on AEB to brake the vehicle. AEB will not brake outside of its operating speed range and only responds to detected vehicles.

AEB may not:

- Detect a vehicle ahead on winding or hilly roads.

(Continued)

### Warning (Continued)

- 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.

AEB may slow the vehicle to a complete stop to try to avoid a potential crash. If this happens, AEB may hold the vehicle at rest momentarily. A firm press the accelerator pedal will release the brake.

### Warning

AEB may automatically brake the vehicle suddenly in situations where it is unexpected and undesired. It could respond

(Continued)

**Warning (Continued)**

to a turning vehicle ahead, guardrails, signs, and other non-moving objects. To override AEB, 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.

AEB and IBA can be disabled through vehicle personalization. To view available settings from the infotainment home screen, touch Settings > Vehicle > Collision/Detection Systems.

**Warning**

Using AEB or IBA 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.

A system unavailable message may display if:

- The front of the vehicle or windshield is not clean.
- Heavy rain or snow is interfering with object detection.
- There is a problem with the StabiliTrak/Electronic Stability Control (ESC) system.

The AEB 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 windshield and rapidly beeps. FPB can provide a boost to braking or automatically brake the vehicle. This system includes Intelligent Brake Assist (IBA), and the Automatic Emergency Braking (AEB) system may also respond to pedestrians. See *Automatic Emergency Braking (AEB)* ⇨ 209.

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 nighttime driving, system performance is very limited.

 **Warning**

FPB does not provide an alert or automatically brake the vehicle, unless it detects a pedestrian or bicyclist. FPB may not detect pedestrians, including children, or bicyclists:

- When the pedestrian or bicyclist is not directly ahead, fully visible, or standing upright, or when part of a group.
- Due to poor visibility, including nighttime conditions, fog, rain, or snow.
- If the FPB sensor is blocked by dirt, snow, or ice.
- If the headlights or windshield are not cleaned or in proper condition.

Be ready to take action and apply the brakes. For more information, see *Defensive Driving* ⇨ 169. Keep the windshield, headlights, and FPB sensor clean and in good repair.

To view available settings from the infotainment home screen, touch Settings > Vehicle > Collision/Detection Systems.

**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**

When the vehicle approaches a pedestrian ahead too rapidly, the red FPB alert display will flash on the windshield. Eight rapid high-pitched beeps will sound from the front. 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 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

(Continued)

**Warning (Continued)**

alert or brake for objects similar in shape or size to pedestrians, including shadows. This is normal operation and the vehicle does not need service. To override Automatic Braking, firmly press the accelerator pedal, if it is safe to do so.

Automatic Braking can be disabled through vehicle settings. To view available settings from the infotainment home screen, touch Settings > Vehicle > Collision/Detection Systems.

**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**

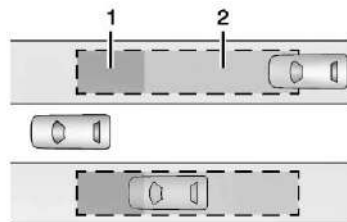
If FPB does not seem to operate properly, cleaning the outside of the windshield in front of the rearview mirror may correct the issue.

**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 turn signal 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 turn signals.

**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 from up to 70 m (230 ft) behind the vehicle.

**How the System Works**

The LCA symbol lights up in the outside mirrors when the system detects a moving vehicle in the next lane over that is in the side blind zone or rapidly approaching that zone from behind.

A lit LCA symbol 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 turn signals.



**Left Outside Mirror Display**      **Right Outside 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 outside 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 turn signal is activated in the same direction as a detected vehicle, this display will flash as an extra warning not to change lanes.

LCA can be disabled. When you disable LCA, Side Blind Zone Alert is also disabled. To see available options from the infotainment screen, touch Settings > Vehicle > Collision Detection Systems. If LCA is disabled by the

driver, the LCA mirror displays will not light up. 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 driving on a straight highway road 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* ⇨ 282. 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 side blind zone or are rapidly approaching this zone and the system is clean, the system may need service. Take the vehicle to your dealer.

### **Radio Frequency Information**

See *Radio Frequency Statement* ⇨ 311.

## Lane Keep Assist (LKA)

### 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 windshield 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.
- 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

(Continued)

### Warning (Continued)

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 windshield, headlights, 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.

If equipped, LKA may help avoid crashes due to unintentional lane departures. This system uses a camera to detect lane markings. The LKA system can be ready to assist above approximately 50 km/h (31 mph). LKA may assist by gently turning the steering wheel if the vehicle approaches a detected lane marking. It may also provide a Lane Departure Warning (LDW) alert if the vehicle unintentionally crosses a detected lane

marking. LKA will not assist or alert if the turn signal is active in the direction of the lane departure, or if it detects that you are accelerating, braking, or actively steering. LKA can be overridden by turning the steering wheel. If the system detects you are steering intentionally across a lane marker, the LDW may not be given. Do not expect the LDW to occur when you are intentionally crossing a lane marker.

## How the System Works

The LKA camera sensor is on the windshield ahead of the rearview mirror.

To turn LKA on and off, press  on the center stack.

LKA may not be available in extremely cold temperatures of less than approximately  $-30^{\circ}\text{F}$  ( $-34^{\circ}\text{C}$ ).

When on,  is white and changes 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 turn signal in that direction. It may also provide an LDW alert by flashing  as amber as the lane marking is crossed.

Additionally, there may be three beeps 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 windshield 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

### Top Tier Fuel

GM recommends the use of TOP TIER Detergent Gasoline to keep the engine clean, reduce engine deposits, and maintain optimal vehicle performance. Look for the TOP TIER Logo or see [www.toptiergas.com](http://www.toptiergas.com) for a list of TOP TIER Detergent Gasoline marketers and applicable countries.



### Recommended Fuel (1.2L L3 LBP Engine)



If the vehicle has a yellow sticker on the fuel door, E85 or FlexFuel can be used. If the vehicle does not have a yellow sticker, do not use gasoline with ethanol levels greater than 15% by volume. See *E85 or FlexFuel* ⇨ 217.

For vehicles equipped with an E85-capable fuel system, fill one tank with gasoline (up to E15, regular or premium) every 10 000 km (6,000mi) to keep the engine running efficiently.

Regular unleaded gasoline meeting ASTM specification D4814 with a posted octane rating (R+M)/2 of 87 or greater is recommended. Do not use gasoline with a posted octane rating of less than 87, as this will result in reduced performance and driveability. If heavy knocking is heard when using gasoline rated at 87 or greater, the engine needs service.

## Recommended Fuel (1.2L L3 I4H Engine)



Regular unleaded gasoline meeting ASTM specification D4814 with a posted octane rating (R+M)/2 of 87 or greater is recommended. Do not use gasoline with a posted octane rating of less than 87, as this will result in

reduced performance and driveability. If heavy knocking is heard when using gasoline rated at 87 or greater, the engine needs service.

Do not use any fuel labeled E85 or FlexFuel. Do not use gasoline with ethanol levels greater than 15% by volume.

## Prohibited Fuels

### Caution

Do not use fuels with any of the following conditions; doing so may damage the vehicle and void its warranty:

- For vehicles that are not FlexFuel, fuel labeled greater than 15% ethanol by volume, such as mid-level ethanol blends (16–50% ethanol), E85, or FlexFuel.
- Fuel with any amount of methanol, methylal, ferrocene, 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.

## Fuels in Foreign Countries

The U.S., Canada, and Mexico post fuel octane ratings in anti-knock index (AKI). For fuel not to use in a foreign country, see *Prohibited Fuels* ⇨ 216.

## Fuel Additives

TOP TIER Detergent Gasoline is highly recommended for use with your vehicle. If your country does not have TOP TIER Detergent Gasoline, add ACDelco Fuel System Cleaner to the vehicle's gasoline fuel tank at every oil change or 12 000 km (7,500 mi), whichever

occurs first. TOP TIER Detergent Gasoline and ACDelco Fuel System Cleaner will help keep your vehicle's engine fuel deposit free and performing optimally.

## E85 or FlexFuel

### Caution

Some additives are not compatible with E85 or FlexFuel and can harm the vehicle's fuel system. Use only additives approved by GM for E85 or FlexFuel vehicles. Damage caused by unapproved additives would not be covered by the vehicle warranty.

### Caution

Do not use fuel containing methanol. It can corrode metal parts in the fuel system and also damage plastic and rubber parts. That damage would not be covered under the vehicle warranty.

Vehicles with a yellow fuel sticker on the fuel door can use either unleaded gasoline or fuel containing up to 85% ethanol (E85). All other vehicles should use only the unleaded gasoline

as described in *Recommended Fuel (1.2L L3 LBP Engine)* ⇨ 215 *Recommended Fuel (1.2L L3 LIH Engine)* ⇨ 216.

The use of E85 or FlexFuel is encouraged when the vehicle is designed to use it. E85 or FlexFuel is made from renewable sources.

To help locate fuel stations that carry E85 or FlexFuel, the U.S. Department of Energy has an alternative fuel website. See [www.afdc.energy.gov/afdc/locator/stations](http://www.afdc.energy.gov/afdc/locator/stations).

E85 or FlexFuel should meet ASTM Specification D 5798 or CAN/CGSB-3.512 in Canada. Do not use the fuel if the ethanol content is greater than 85%. Fuel mixtures that do not meet ASTM or CGSB specifications can affect driveability and could cause the malfunction indicator light to come on.

The starting characteristics of E85 or FlexFuel make it unsuitable for use when temperatures fall below -20 °C (-4 °F). Use gasoline or add gasoline to the E85 or FlexFuel.

Because E85 or FlexFuel has less energy per liter (gallon) than gasoline, the vehicle will need to be refilled more often. See *Filling the Tank* ⇨ 217.

The only GM approved aftermarket additive is ACDelco Fuel System Treatment Plus-FlexFuel. Follow the instructions on the bottle for proper use. This product is available at your GM dealer.

For vehicles equipped with an E85-capable fuel system, fill one tank with gasoline (up to E15, regular or premium) every 10 000 km (6,000 mi) to keep the engine running efficiently.

## Filling the Tank

An arrow on the fuel gauge indicates which side of the vehicle the fuel door is on. See *Fuel Gauge* ⇨ 90.

### Warning

Fuel vapors and fuel fires burn violently and can cause injury or death.

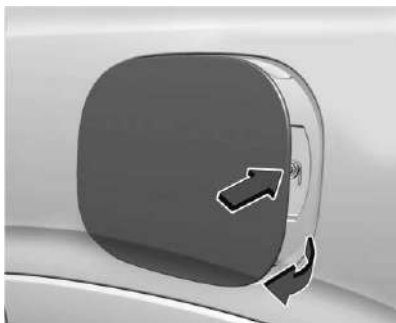
Follow these guidelines to help avoid injuries to you and others:

- Read and follow all the instructions on the fuel pump island.
- Turn off the engine when refueling.
- Keep sparks, flames, and smoking materials away from fuel.

(Continued)

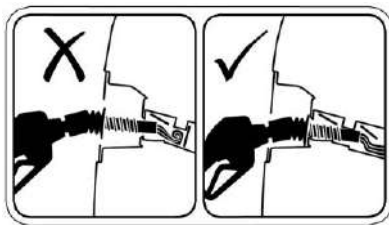
**Warning (Continued)**

- Do not leave the fuel pump unattended.
- Avoid using electronic devices while refueling.
- Do not re-enter the vehicle while pumping fuel.
- Keep children away from the fuel pump and never let children pump fuel.
- Before touching the fill nozzle, touch a metallic object to discharge static electricity from your body.
- Fuel can spray out if the fill nozzle is inserted too quickly. This spray can happen if the tank is nearly full, and is more likely in hot weather. Insert the fill nozzle slowly and wait for any hiss noise to stop before beginning to flow fuel.



To open the fuel door, push and release the rearward center edge of the door.

The capless refueling system does not have a fuel cap.



The capless system has two internal flapper doors. To prevent fuel spray, insert the nozzle fully to ensure both doors are open before refueling.

**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.
- Under certain conditions, fuel fires.

Be careful not to spill fuel. Wait five seconds after you have finished pumping before removing the fill nozzle. Clean fuel from painted surfaces as soon as possible. See *Exterior Care* ⇨ 282. Push the fuel door closed until it latches.

 **Warning**

If a fire starts while you are refueling, do not remove the fill nozzle. Shut off the flow of fuel by shutting off the pump or by notifying the station attendant. Leave the area immediately.

**Filling the Tank with a Portable Fuel Container**

If the vehicle runs out of fuel and must be filled from a portable fuel container:



1. Locate the capless funnel adapter.
2. Insert and latch the funnel into the capless fuel system.

 **Warning**

Attempting to refuel from a portable fuel container without using the funnel adapter may cause fuel spillage and damage the capless fuel system. This could cause a fire. You or others could be badly burned and the vehicle could be damaged.

3. Remove and clean the funnel adapter and return it to the storage location.

**Filling a Portable Fuel Container** **Warning**

Never fill a portable fuel container while it is in the vehicle. Static electricity discharge from the container can ignite the fuel vapor. You or others could be badly burned and the vehicle could be damaged. To help avoid injury to you and others:

- Dispense fuel only into approved containers.

(Continued)

**Warning (Continued)**

- Do not fill a container while it is inside a vehicle, in a vehicle's trunk, in a pickup bed, or on any surface other than the ground.
- Bring the fill nozzle in contact with the inside of the fill opening before operating the nozzle. Maintain contact until filling is complete.
- Keep sparks, flames, and smoking materials away from fuel.
- Avoid using electronic devices while pumping fuel.

**Trailer Towing****General Towing Information** **Warning**

Never tow a trailer with your vehicle. It was not designed or intended to tow a trailer.

## Conversions and Add-Ons

### Add-On Electrical Equipment



#### Warning

The Data Link Connector is used for vehicle service and Emission Inspection/Maintenance testing. See *Malfunction Indicator Light (Check Engine Light)* ⇨ 95. A device connected to the Data Link Connector — such as an aftermarket fleet or driver-behavior 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 to not 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* ⇨ 55 and *Adding Equipment to the Airbag-Equipped Vehicle* ⇨ 55.

## Vehicle Care

### General Information

|                                                     |     |
|-----------------------------------------------------|-----|
| General Information .....                           | 222 |
| California Perchlorate Materials Requirements ..... | 222 |
| Accessories and Modifications .....                 | 222 |

### Vehicle Checks

|                                                                |     |
|----------------------------------------------------------------|-----|
| Doing Your Own Service Work .....                              | 222 |
| Hood .....                                                     | 223 |
| Engine Compartment Overview .....                              | 225 |
| Engine Oil .....                                               | 228 |
| Engine Oil Life System .....                                   | 230 |
| Automatic Transmission Fluid .....                             | 231 |
| Engine Air Filter Life System .....                            | 231 |
| Engine Air Cleaner/Filter .....                                | 231 |
| Cooling System .....                                           | 233 |
| Engine Overheating .....                                       | 236 |
| Washer Fluid .....                                             | 237 |
| Brakes .....                                                   | 237 |
| Brake Fluid .....                                              | 238 |
| Battery - North America .....                                  | 239 |
| Starter Switch Check .....                                     | 240 |
| Automatic Transmission Shift Lock Control Function Check ..... | 240 |
| Park Brake and P (Park) Mechanism Check .....                  | 241 |
| Wiper Blade Replacement .....                                  | 241 |

|                              |     |
|------------------------------|-----|
| Windshield Replacement ..... | 242 |
| Gas Strut(s) .....           | 242 |

### Headlight Aiming

|                              |     |
|------------------------------|-----|
| Front Headlight Aiming ..... | 243 |
|------------------------------|-----|

### Bulb Replacement

|                                                                           |     |
|---------------------------------------------------------------------------|-----|
| Bulb Replacement .....                                                    | 243 |
| Halogen Bulbs .....                                                       | 243 |
| LED Lighting .....                                                        | 243 |
| Headlights, Front Turn Signal, Sidemarker, and Parking Lights .....       | 244 |
| Taillights, Turn Signal, Sidemarker, Stoplights, and Back-Up Lights ..... | 245 |

### Electrical System

|                                     |     |
|-------------------------------------|-----|
| Electrical System Overload .....    | 246 |
| Fuses and Circuit Breakers .....    | 247 |
| Engine Compartment Fuse Block ..... | 248 |
| Instrument Panel Fuse Block .....   | 250 |

### Wheels and Tires

|                                              |     |
|----------------------------------------------|-----|
| Tires .....                                  | 253 |
| All-Season Tires .....                       | 253 |
| Winter Tires .....                           | 254 |
| Tire Sidewall Labeling .....                 | 254 |
| Tire Designations .....                      | 256 |
| Tire Terminology and Definitions .....       | 256 |
| Tire Pressure .....                          | 258 |
| Tire Pressure for High-Speed Operation ..... | 259 |
| Tire Pressure Monitor System .....           | 259 |
| Tire Pressure Monitor Operation .....        | 260 |

|                                              |     |
|----------------------------------------------|-----|
| Tire Inspection .....                        | 264 |
| Tire Rotation .....                          | 264 |
| When It Is Time for New Tires .....          | 265 |
| Buying New Tires .....                       | 266 |
| Different Size Tires and Wheels .....        | 267 |
| Uniform Tire Quality Grading .....           | 267 |
| Wheel Alignment and Tire Balance .....       | 268 |
| Wheel Replacement .....                      | 269 |
| Tire Chains and Other Traction Devices ..... | 269 |
| If a Tire Goes Flat .....                    | 270 |
| Tire Changing .....                          | 271 |
| Compact Spare Tire .....                     | 275 |

### Jump Starting

|                                     |     |
|-------------------------------------|-----|
| Jump Starting - North America ..... | 275 |
|-------------------------------------|-----|

### Towing the Vehicle

|                                       |     |
|---------------------------------------|-----|
| Transporting a Disabled Vehicle ..... | 278 |
| Recreational Vehicle Towing .....     | 279 |

### Appearance Care

|                     |     |
|---------------------|-----|
| Exterior Care ..... | 282 |
| Interior Care ..... | 286 |
| Floor Mats .....    | 289 |

## General Information

For service and parts needs, visit your dealer. You will receive genuine GM parts and GM-trained and supported service people.

Genuine GM parts have one of these marks:



## California Perchlorate Materials Requirements

Certain types of automotive applications, such as airbag initiators, seat belt pretensioners, and lithium batteries contained in electronic keys, may contain perchlorate

materials. Perchlorate Material – special handling may apply. See [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate).

## Accessories and Modifications

### Caution

When adding accessories or other equipment after the purchase of your vehicle, ensure you are not exceeding the vehicle axle weight ratings or overall weight ratings. Overloading the vehicle may cause damage. Repairs would not be covered by the vehicle warranty. Do not overload the vehicle. See *Vehicle Load Limits* ⇨ 174 for specific weight ratings.

Adding non-GM approved accessories or making vehicle modifications can affect performance and safety with airbags, braking, stability, ride and handling, emissions systems, aerodynamics, durability, Advanced Driver Assistance Systems, and electronic systems like antilock brakes, traction control, and stability control. These accessories or modifications could 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.

Also, see *Adding Equipment to the Airbag-Equipped Vehicle* ⇨ 55.

## 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.

**Caution**

Even small amounts of contamination can cause damage to vehicle systems. Do not allow contaminants to contact the fluids, reservoir caps, or dipsticks.

To order the proper service manual, see *Publication Ordering Information* ⇨ 310.

This vehicle has an airbag system. Before attempting to do your own service work, see *Servicing the Airbag-Equipped Vehicle* ⇨ 55.

If equipped with remote start, open the hood before performing any service work to prevent remote starting the vehicle accidentally. See *Remote Start* ⇨ 18.

Keep a record with all parts receipts and list the mileage and the date of any service work performed. See *Maintenance Records* ⇨ 297.

**Hood** **Warning**

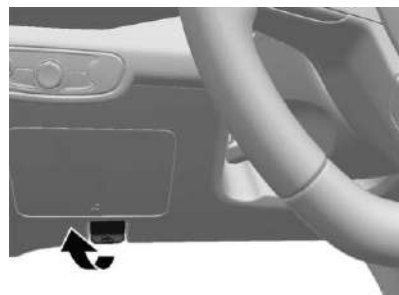
For vehicles with auto engine stop/start, turn the vehicle off before opening the hood. If the vehicle is on, the engine will start when the hood is opened. You or others could be injured.

 **Warning**

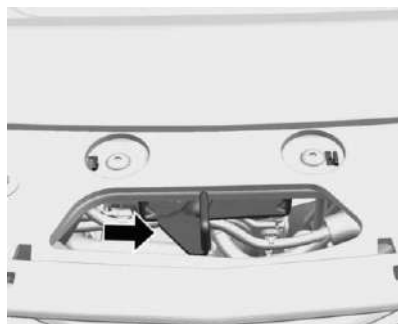
Components under the hood can get hot from running the engine. To help avoid the risk of burning unprotected skin, never touch these components until they have cooled, and always use a glove or towel to avoid direct skin contact.

Clear any snow from the hood before opening.

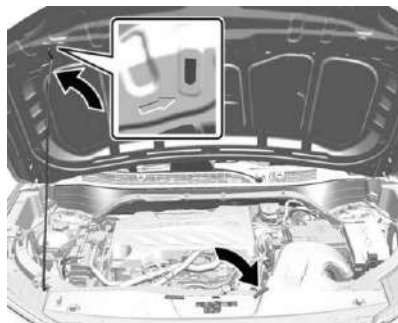
To open the hood:



1. Pull the hood release handle inside the vehicle. It is located on the lower left side of the instrument panel.



2. Go to the front of the vehicle and move the secondary hood release lever toward the right side of the vehicle.



3. Lift the hood and release the hood prop from its retainer, above the radiator. Securely place the hood prop into the slot on the underside of the hood.

To close the hood:

1. Before closing the hood, be sure all filler caps are on properly.
2. Lift the hood to relieve pressure on the hood prop. Remove the hood prop from the slot in the underside of the hood and return the prop to its retainer. The prop rod must click into place when returning it to the retainer to prevent hood damage.

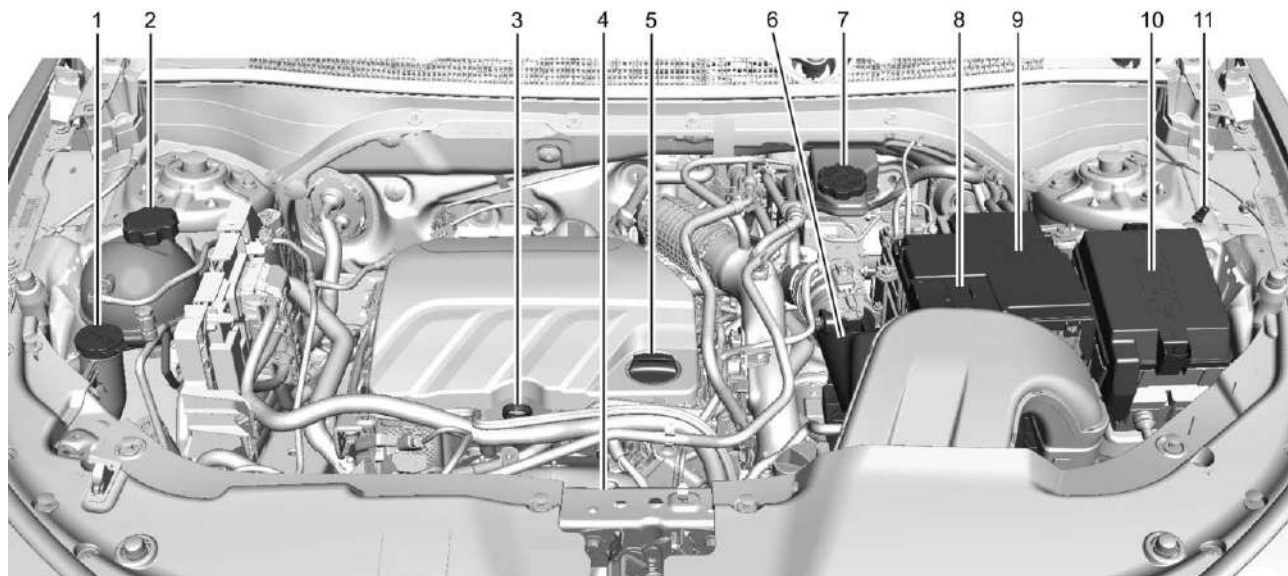


### Warning

Do not drive the vehicle if the hood is not latched completely. The hood could open fully, block your vision, and cause a crash. You or others could be injured. Always close the hood completely before driving.

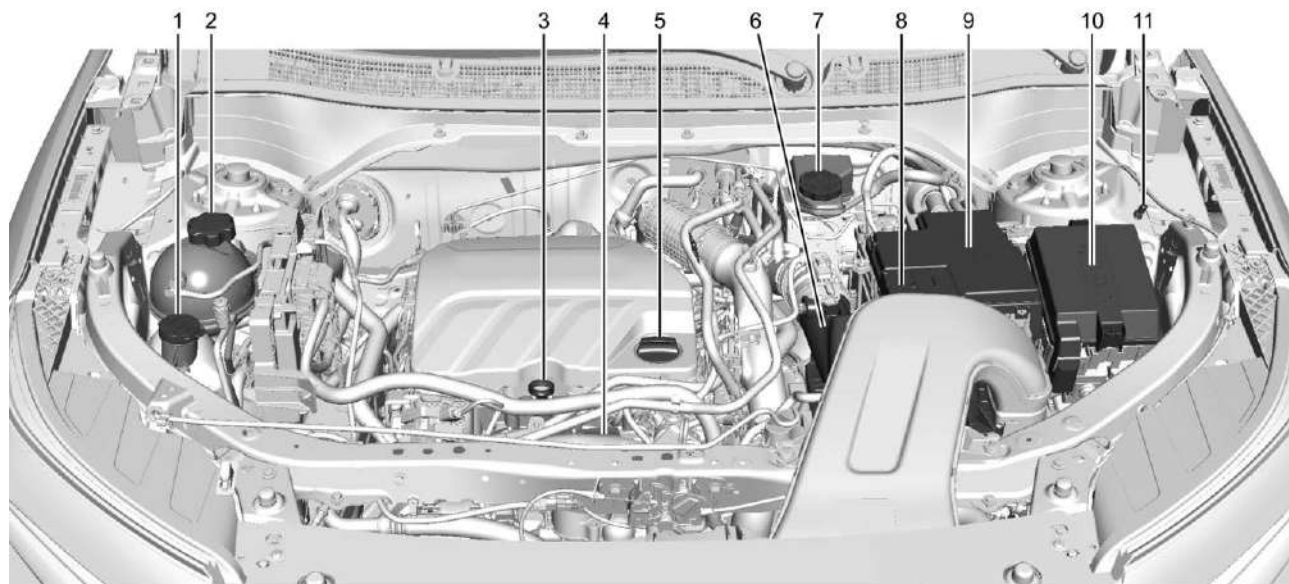
3. Lower the hood 30 cm (12 in) above the vehicle and release it so it fully latches. Check to make sure the hood is closed and repeat the process if necessary.

## Engine Compartment Overview



1.2L L3 Engine (LBP)

- |                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>1. Windshield Washer Fluid Reservoir. See <i>Washer Fluid</i> ⇨ 237.</li><li>2. Engine Coolant Surge Tank and Pressure Cap. See <i>Cooling System</i> ⇨ 233.</li><li>3. Engine Oil Dipstick. See <i>Engine Oil</i> ⇨ 228.</li><li>4. Engine Cooling Fan (Out of View). See <i>Cooling System</i> ⇨ 233.</li></ul> | <ul style="list-style-type: none"><li>5. Engine Oil Fill Cap. See <i>Engine Oil</i> ⇨ 228.</li><li>6. Engine Air Filter. See <i>Engine Air Cleaner/Filter</i> ⇨ 231.</li><li>7. Brake Fluid Reservoir. See <i>Brakes</i> ⇨ 237.</li><li>8. Positive (+) Battery Terminal. See <i>Jump Starting - North America</i> ⇨ 275.</li></ul> | <ul style="list-style-type: none"><li>9. Battery. See <i>Battery - North America</i> ⇨ 239.</li><li>10. Fuse Block. See <i>Engine Compartment Fuse Block</i> ⇨ 248.</li><li>11. Remote Negative (-) Battery Terminal. See <i>Jump Starting - North America</i> ⇨ 275.</li></ul> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



1.2L I3 Engine (LIH)

1. Windshield Washer Fluid Reservoir. See *Washer Fluid* ⇨ 237.
2. Engine Coolant Surge Tank and Pressure Cap. See *Cooling System* ⇨ 233.
3. Engine Oil Dipstick. See *Engine Oil* ⇨ 228.
4. Engine Cooling Fan (Out of View). See *Cooling System* ⇨ 233.
5. Engine Oil Fill Cap. See *Engine Oil* ⇨ 228.
6. Engine Air Filter. See *Engine Air Cleaner/Filter* ⇨ 231.
7. Brake Fluid Reservoir. See *Brakes* ⇨ 237.
8. Positive (+) Battery Terminal. See *Jump Starting - North America* ⇨ 275.
9. Battery. See *Battery - North America* ⇨ 239.
10. Fuse Block. See *Engine Compartment Fuse Block* ⇨ 248.
11. Remote Negative (–) Battery Terminal. See *Jump Starting - North America* ⇨ 275.

## 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” in this section.
- Change the engine oil at the appropriate time. See *Engine Oil Life System* ⇨ 230.
- Always dispose of engine oil properly. See “What to Do with Used Oil” in this section.

## Checking Engine Oil



### Warning

The engine oil dipstick handle may be hot; it could burn you. Use a towel or glove to touch the dipstick handle.

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* ⇨ 225 for the location. If a low oil Driver Information Center (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 grades 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

### 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 MAX mark, 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.



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* ⇨ 299.

See *Engine Compartment Overview* ⇨ 225 for the location of the engine oil fill cap.

Add enough oil to put the level somewhere in the proper operating range between the MIN and MAX marks. Push the dipstick all the way back in when through.

## Selecting the Right Engine Oil

### Caution

Failure to use the recommended engine oil or equivalent can result in engine damage not covered by the vehicle warranty.

Selecting the right engine oil depends on both the proper oil specification and viscosity grade. See *Recommended Fluids and Lubricants* ⇨ 296.

### Specification

Use full synthetic engine oils that meet the dexos1 specification.

Engine oils that have been approved by GM as meeting the dexos1 specification are marked with the dexos1 approved logo. See [www.gmdexos.com](http://www.gmdexos.com).



### Viscosity Grade

Use SAE 0W-20 viscosity grade engine oil.

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 dexos1 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.

### How to Reset the Engine Oil Life System

Reset the system whenever the engine oil is changed so that the system can calculate the next engine oil change. To reset the system:

### Base Cluster

1. Display the REMAINING OIL LIFE on the DIC. See *Driver Information Center (DIC) (Base Level)* ⇨ 103 *Driver Information Center (DIC) (Uplevel)* ⇨ 105. This display shows an estimate of the oil's remaining useful life. If 10% is displayed, that means that 10% of the current oil life remains.
2. Press and hold  while the Oil Life display is active. The oil life will change to 100%.

### Uplevel Cluster

1. Place the vehicle in P (Park).
2. From the infotainment home screen, select Vehicle Status > Maintenance > Oil Life > Reset. See *Vehicle Status (Uplevel only)* ⇨ 106.
3. Follow the menu and select Reset on the display screen. Then select Reset to confirm the reset. The percentage will change to 100%.

If the CHANGE ENGINE OIL SOON message comes back on when the vehicle is started, the engine oil life system has not been reset. Repeat the procedure.

## 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.

There is a special procedure for checking and changing the transmission fluid. Because this procedure is difficult, you should have this done at your dealer.

Change the fluid at the intervals listed in *Maintenance Schedule* ⇨ 291, and be sure to use the fluid listed in *Recommended Fluids and Lubricants* ⇨ 296.

### Engine Air Filter Life System

If equipped, this feature provides an indication of when to change the engine air filter. The timing to change an engine air filter depends on driving conditions. It is possible an air filter change may not be indicated for up to four years.

### When to Change Engine Air Filter

When the REPLACE AT NEXT OIL CHANGE message displays, the engine air filter should be replaced at the time of the next engine oil change. When the REPLACE ENGINE AIR FILTER NOW message displays, the engine air filter should be replaced as soon as possible.

Reset the engine air filter life system after the engine air filter is replaced. See your dealer for service and to reset the system.

### How to Reset Engine Air Filter Life System

Reset the system whenever the engine air filter is replaced so that the system can calculate the next engine air filter change.

#### Base Level

1. Place the vehicle in P (Park).
2. Select Engine Air Filter Life on the DIC menu. See *Driver Information Center (DIC) (Base Level)* ⇨ 103 *Driver Information Center (DIC) (Uplevel)* ⇨ 105.
3. Press  or the thumbwheel to move to the Reset/Disable display area. Select Reset then press  or press the thumbwheel. Press YES to confirm the reset.

4. 100% AIR FILTER LIFE will be displayed when the Engine Air Filter Life System is successfully reset.

#### Uplevel

1. Place the vehicle in P (Park).
2. On the infotainment home screen, touch the Vehicle Status icon  and then "Maintenance."
3. Swipe left or right across the display as needed until the Engine Air Filter Life status is shown.
4. Touch  to show the status and reset options.

### Engine Air Cleaner/Filter

The engine air cleaner/filter is in the engine compartment on the passenger side of the vehicle. See *Engine Compartment Overview* ⇨ 225.

### When to Inspect the Engine Air Cleaner/Filter

For intervals on inspecting and replacing the engine air cleaner/filter, see *Maintenance Schedule* ⇨ 291.

## 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 with water or compressed air.

## Removing the Engine Air Cleaner/Filter

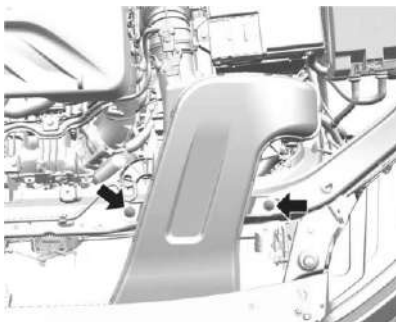
### Warning

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.

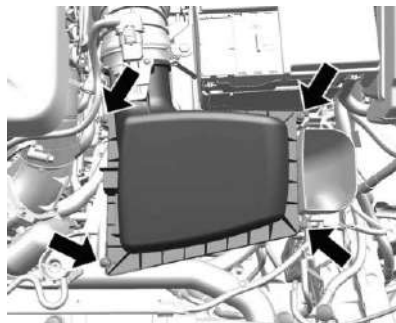
To remove the air cleaner/filter for inspection or replacement:



1. Remove the two push pins.



2. Disassemble the duct.



3. Remove four screws, tilt the cover, and slide it out of the assembly.

4. Inspect or replace the engine air cleaner/filter.
5. Lower the cover, slide it into the assembly, then secure with the screws.

See *Maintenance Schedule* ⇨ 291 for replacement intervals.

## Cooling System

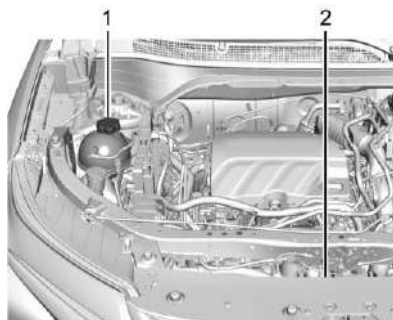
### Warning

An underhood electric fan can start up even when the engine is not running and can cause injury. Keep hands, clothing, and tools away from any underhood 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.

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)

## Engine Coolant

The cooling system in the vehicle is filled with DEX-COOL engine coolant. This coolant is designed to remain in the vehicle for 6 years or 240 000 km (150,000 mi), whichever occurs first.

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* ⇨ 236.

## What to Use

### Warning

Plain water, or other liquids such as alcohol, can boil before the proper coolant mixture will. 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.

### 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 engine cooling system and the vehicle, which would not be covered by the vehicle warranty.

Use a 50/50 mixture of clean drinkable water and DEX-COOL coolant. This mixture:

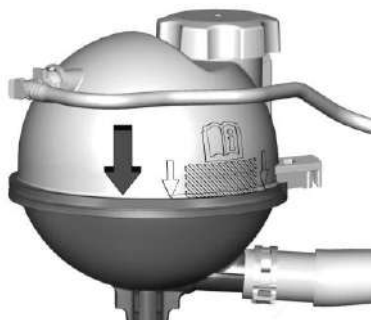
- Gives freezing protection down to  $-37^{\circ}\text{C}$  ( $-34^{\circ}\text{F}$ ), outside temperature.
- Gives boiling protection up to  $129^{\circ}\text{C}$  ( $265^{\circ}\text{F}$ ), engine temperature.
- Protects against rust and corrosion.
- Will not damage aluminum parts.
- Helps keep the proper engine temperature.

Never dispose of engine coolant by putting it in the trash, pouring it on the ground, or into sewers, streams, or bodies of water. Have the coolant changed by an authorized service center, 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.

It is normal to see coolant moving in the upper coolant hose return line when the engine is running.



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.

If coolant is visible but the coolant level is not at or above the mark pointed to, add a 50/50 mixture of clean drinkable water and DEX-COOL coolant.

Be sure the cooling system is cool before this is done.

If no coolant is visible in the coolant surge tank, add coolant as follows:

### How to Add Coolant to the Coolant Surge Tank

#### Warning

Steam and scalding liquids from a hot cooling system are under pressure. Turning the pressure cap, even a little, can cause them to come out at high speed and you could be burned. Never turn the cap when the cooling system, including the pressure cap, is hot. Wait for the cooling system and pressure cap to cool.

#### Warning

Plain water, or other liquids such as alcohol, can boil before the proper coolant mixture will. 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.

**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.

**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 dealer.

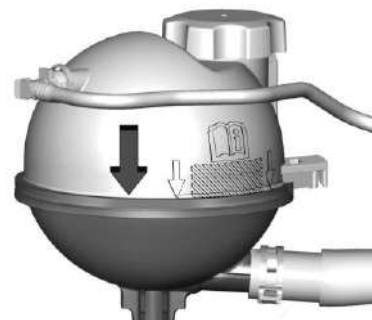
If no problem is found, check to see if coolant is visible in the coolant surge tank. If coolant is visible but the coolant level is not at the indicated level mark, add a 50/50 mixture of clean, drinkable water and DEX-COOL coolant at the coolant surge tank, but be sure the cooling system, including the coolant surge tank pressure cap, is cool before you do it.



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 counterclockwise 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.

**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.

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.

**Engine Overheating****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.

The vehicle has an indicator to warn of the engine overheating. See *Engine Coolant Temperature Warning Light (Uplevel only)* ⇨ 100.

If the decision is made not to lift the hood when this warning appears, get service help right away. See *Roadside Assistance Program* ⇨ 306.

If the decision is made to lift the hood, 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.

**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 come out at high speed and you could be burned. Never turn the cap when the cooling system, including the pressure cap, 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) for an automatic transmission and let the engine idle.

If the overheat warning no longer displays, the vehicle can be driven. Continue to drive the vehicle slowly for about 10 minutes. Keep a safe vehicle 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

#### 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 windshield washer. It can damage the windshield washer system and paint.

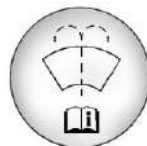
(Continued)

#### Caution (Continued)

- Do not mix water with ready-to-use washer fluid. Water can cause the solution 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.

When the vehicle needs windshield washer fluid, 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* ⇨ 225 for reservoir location.

## Brakes

### Inspections

Visually inspect brake system components as follows:

- Brake lines and hoses for proper attachment, connections, binding, leaks, cracks, and chafing.
- Disc brake pads for wear and rotors for surface condition.
- Drum brake linings/shoes for wear or cracks.
- All other brake parts for cracks and leaks.

When tires are rotated, inspect drum brake linings or disc brake pads for wear.

## Troubleshooting

### Brake Pedal Travel

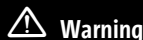
See your dealer if the brake pedal does not return to normal height, or if there is a rapid increase in pedal travel. This could be a sign that brake service may be required.

### Brake Pulsation

If brakes are pulsating:

- Inspect rotors, pads, linings for uneven wear. Resurface or replace as needed.
- Check torque on all wheel nuts. Properly torqued wheel nuts are necessary to help prevent brake pulsation. Evenly tighten wheel nuts in the proper sequence to torque specifications. See *Capacities and Specifications* ⇨ 299.

## Brake Squeal and Brake Wear Indicators



### 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.

Disc brake linings have built-in wear indicators that make a high-pitched warning sound when the brake linings are worn, and new linings 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.

Some driving conditions or climates can cause a brake squeal when the brakes are first applied, clearing up following several applications. This does not mean something is wrong with the brakes.

## Replacing Brake System Parts

### Caution

Continuing to drive with worn-out brake linings could result in costly brake repairs.

Brake pads should be replaced as complete axle sets.

Always replace brake system parts with new, approved replacement parts. If this is not done, the brakes may not work properly. The braking performance can change in many ways if the wrong brake parts are installed or if parts are improperly installed.

## Brake Fluid



The brake master cylinder reservoir is filled with GM approved DOT 4 brake fluid as indicated on the reservoir cap. See *Engine Compartment Overview* ⇨ 225 for the location of the reservoir.

When the brake fluid falls to a low level, the brake warning light comes on. See *Brake System Warning Light* ⇨ 97.

## Checking Brake Fluid

### 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.

Always clean the brake fluid reservoir cap and the area around the cap before removing it.

To check the brake fluid, place the vehicle in P (Park) on a level surface. The brake fluid level should be between the Min and Max marks on the brake fluid reservoir.

There are only two reasons why brake fluid may be low:

- Normal brake lining wear. When new linings are installed, the fluid level will return to normal.
- Brake system fluid leak. With a leak, the brakes will not work well. To have the brake hydraulic system fixed, see your dealer.

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.

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 *Maintenance Schedule* ⇨ 291.

## What to Add

### 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.

Use only GM approved DOT 4 brake fluid from a clean, sealed container. See *Recommended Fluids and Lubricants* ⇨ 296.

## Battery - North America

The original equipment battery is maintenance free. Do not remove the cap and do not add fluid.

Refer to the replacement number shown on the original battery label when a new battery is needed. See *Engine Compartment Overview* ⇨ 225 for battery location.

For replacement of the battery, see your dealer.

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.

Some 12-volt battery 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. Follow the charger manufacturer's instructions.

## Stop/Start System

The vehicle has a Stop/Start system to shut off the engine to help conserve fuel. See *Stop/Start System* ⇨ 182.

**Warning**

**WARNING:** Battery posts, terminals and related accessories can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

See *California Proposition 65 Warning* ⇨ 1.

**Vehicle Storage****Warning**

Batteries have acid that can burn you and gas that can explode. You can be badly hurt if you are not careful. Always wear eye protection. See *Jump Starting - North America* ⇨ 275 for tips on working around a battery without getting hurt.

**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.

**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. 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. Apply the parking brake. 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 shift 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 steep hill, with the vehicle facing downhill. Keeping your foot on the regular brake, set the parking brake.

- To check the parking brake's holding ability: With the vehicle on 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 vehicle on, shift to P (Park). Then release the parking brake and slowly remove pressure from the regular brake pedal.

Contact your dealer if service is required.

## Wiper Blade Replacement

### Caution

Allowing the wiper arm to touch the windshield when no wiper blade is installed could damage the windshield. Any damage that occurs would not be covered by the vehicle warranty. Do not allow the wiper arm to touch the windshield.

Windshield wiper blades should be replaced periodically. See *Maintenance Schedule* ⇨ 291.

Replacement blades come in different types and are removed in different ways. For proper type and length, see your dealer.

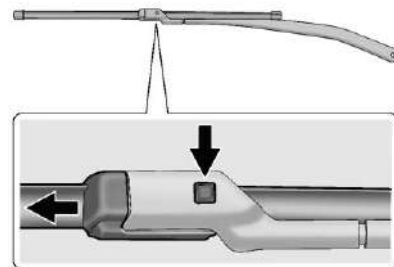
### Front Wiper Blade Replacement

### Caution

Damage may occur if the wiper blades are not in contact with the windshield before turning on the wiper system.

To replace the front wiper blades:

1. Lift the wiper arm from the windshield until no further movement is possible.



2. Press the release button on the top side of the wiper and pull the wiper blade out of the end of the wiper arm.
3. Install the wiper blade connector by sliding into the end of the wiper arm until the button on the wiper blade clicks into place with the wiper arm.
4. Place the wiper arm with the wiper blade in place back on the windshield.

## Rear Wiper Blade Replacement



1. Lift the wiper arm away from the rear windshield.
2. Push the wiper blade away from the wiper arm.
3. Once the blade pin disengages from the wiper arm, remove the wiper blade by sliding the blade off the arm.
4. Reverse Steps 1–3 to install a new wiper blade.

## Windshield Replacement

### Driver Assistance Systems

If the windshield needs to be replaced and the vehicle is equipped with a front camera sensor for the Driver Assistance Systems, a GM replacement windshield is recommended. The replacement windshield must be installed according to GM specifications for proper alignment. If it is not, these systems may not work properly, they may display messages, or they may not work at all. See your dealer for proper windshield replacement.

## Gas Strut(s)



### Warning

If the gas struts that hold open the hood, trunk, and/or liftgate fail, you or others could be seriously injured. Take the vehicle to your dealer for service immediately. Visually inspect the gas struts for signs of wear, cracks, or other damage periodically. Check to make sure the hood/trunk/liftgate is held open with enough force. If struts are failing to hold the hood/trunk/liftgate, 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.

This vehicle is equipped with gas strut(s) to provide assistance in lifting and holding open the hood/trunk/liftgate system in full open position.

See *Maintenance Schedule* ⇨ 291.



Liftgate

## Headlight Aiming

### Front Headlight Aiming

Headlight aim has been preset and should need no further adjustment.

If the vehicle is damaged in a crash, the headlight aim may be affected. If adjustment to the headlights is necessary, see your dealer.

## Bulb Replacement

### Caution

Do not replace incandescent bulbs with aftermarket LED replacement bulbs. This can cause damage to the vehicle electrical system.

Turn off the vehicle. Turn off the relevant light. Hold the new bulb at the base. Do not touch the bulb glass with your bare hands.

For bulb-changing procedures not listed in this section, contact your dealer.

After driving in heavy rain or washing the vehicle, some exterior lights could appear to be fogged. This condition is caused by the temperature difference between the light

inside and outside. This is similar to the condensation on your windows inside your vehicle during the rain and does not indicate a problem with your vehicle.

If water leaks into the light bulb circuitry, have the vehicle checked by your dealer.

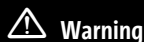
### Desiccant (If equipped)

Desiccant may reduce fog caused by moisture inside the headlight.

Desiccant performance may be impacted by the age of the product or the environment.

If fogging inside the headlight due to moisture continues for a long time, see your dealer for service.

## Halogen Bulbs



### Warning

Halogen bulbs have pressurized gas inside and can burst if you drop or scratch the bulb. You or others could be injured. Be sure to read and follow the instructions on the bulb package.

| Exterior Light                       | Bulb Number |
|--------------------------------------|-------------|
| Back Up Lights                       | W16W        |
| Front Turn Signal/<br>Parking Lights | WY28/8W     |
| Tail/Stop/Turn                       | W21W LL     |

## LED Lighting

### Caution

Do not replace incandescent bulbs with aftermarket LED replacement bulbs. This can cause damage to the vehicle electrical system.

This vehicle may be equipped with incandescent bulbs and LED lights. For replacement of any LED lighting assembly, contact your dealer.

## Headlights, Front Turn Signal, Sidemarker, and Parking Lights Headlight Assembly



### High-beam, Low-beam headlight, a DRL & Parking Lights

The vehicle has an LED High/low-beam headlight and a DRL light on the headlight assembly.

### Front Turn Signal Lights

Driver Side Shown, Passenger Side Similar

#### Base level



#### Uplevel



1. Front Turn Signal Light

### Front Turn Signal Light

1. Remove the bulb socket from the headlight assembly.
2. Remove the old bulb from the bulb socket by pulling it straight out.
3. Insert a new bulb into the bulb socket.
4. Install the bulb socket into the headlight assembly.

### Side Marker



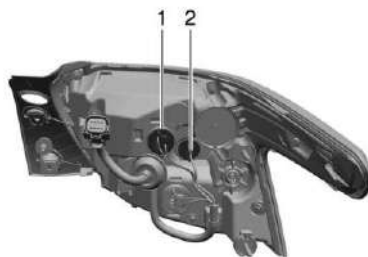
The vehicle has an LED sidemarker light.

## Taillights, Turn Signal, Sidemarkers, Stoplights, and Back-Up Lights

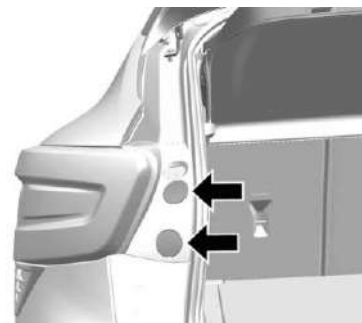
### Caution

Improper light assembly removal and installation can cause leaks and water intrusion which may cause damage to the taillight. Do not remove the taillight assembly to replace a bulb. Use the liftgate opening to access the bulb.

### Stop light/Taillight and Turn Signal Light Driver Side Shown, Passenger Side Similar



1. Tail Light/Stop Light/Turn Light
  2. Back-up light
1. Remove and retain both screws attaching the taillight assembly to the vehicle body.



2. Pull the taillight assembly straight back to detach it from the vehicle body. Take care that the cable duct remains in place.
3. Remove the bulb socket from the taillight assembly.



4. Remove the old bulb from the bulb socket by pulling it straight out.
5. Insert a new bulb into the bulb socket.
6. Install the bulb socket into the taillight assembly.
7. Install the taillight assembly to the vehicle body with the two screws.

## Electrical System

### Electrical System Overload

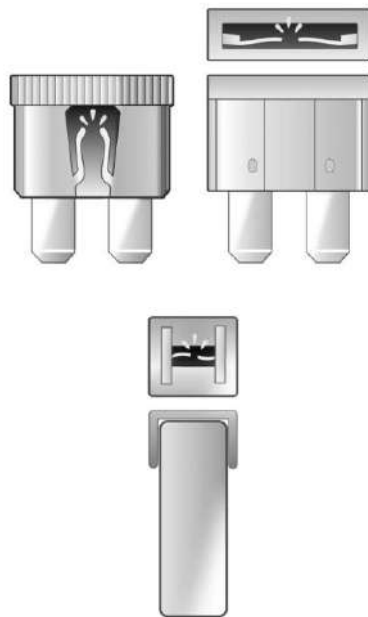
The vehicle has fuses and circuit breakers to protect against an electrical system overload.

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 the wires that provide the power to the devices in your vehicle.

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.

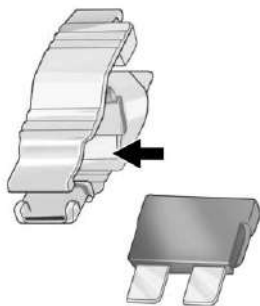
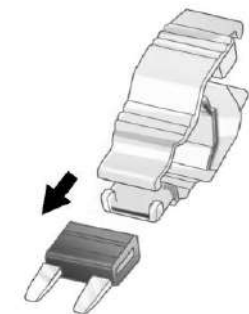
To check a fuse, look at the band inside the fuse. If the band is broken or melted, replace the fuse. Be sure to replace a bad fuse with a fuse of the identical size and rating.



### Replacing a Blown Fuse

1. Turn off the vehicle.

2. Locate the fuse puller in the engine compartment fuse block.



3. Use the fuse puller to remove the fuse from the top or side, as shown above.
4. If the fuse must be replaced immediately, borrow a replacement fuse with the same amperage from the fuse block. Choose a vehicle feature that is not needed to safely operate the vehicle. Repeat Steps 2–3.
5. Insert the replacement fuse into the empty slot of the blown fuse.

At the next opportunity, see your dealer to replace the blown fuse.

### Headlight Wiring

An electrical overload may cause the lights to go on and off, or in some cases to remain off. Have the headlight wiring checked right away if the lights go on and off or remain off.

### Windshield Wipers

If the wiper motor overheats due to heavy snow or ice, the windshield wipers will stop until the motor cools and will then restart.

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 windshield before using the windshield 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

### 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.

### Warning

Installation or use of fuses that do not meet GM's original fuse specifications is dangerous. The fuses could fail, and result in a fire. You or others could be injured or killed, and the vehicle could be damaged.

The fuses and circuit breakers protect the electrical system from short circuits, greatly reducing the chance of electrical damage or fire.



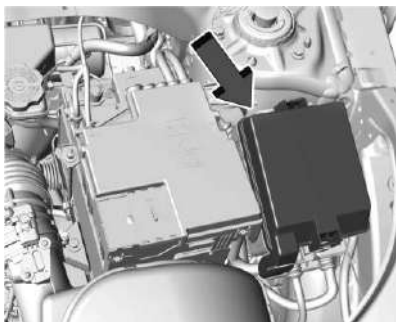
See *Accessories and Modifications* ⇨ 222 and *General Information* ⇨ 222.

To check or replace a blown fuse, see *Electrical System Overload* ⇨ 246.

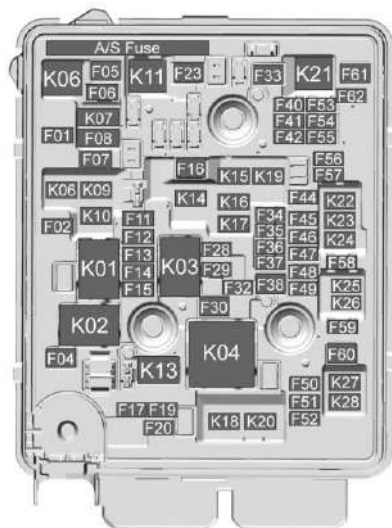
## Engine Compartment Fuse Block

### Caution

Spilling liquid on any electrical component on the vehicle may damage it. Always keep the covers on any electrical component.



To remove the fuse block cover, squeeze the clip and lift it up.



The vehicle may not be equipped with all of the fuses, relays, and features shown.

| Micro Fuses | Usage                                             | Micro Fuses | Usage                                                    | Micro Fuses | Usage                                                                           |
|-------------|---------------------------------------------------|-------------|----------------------------------------------------------|-------------|---------------------------------------------------------------------------------|
| F01         | L/GATE RELEASE – Liftgate Release                 | F19         | ECM BATT – Electronic Control Module Battery             | F37         | ECM TCM RUN/CRANK – Electronic Control Module Traction Control Module Run/Crank |
| F02         | A/C CLUTCH – Air Conditioning Clutch              | F20         | AUX WATER PUMP – Auxiliary Water Pump                    | F40         | –                                                                               |
| F06         | HTD OSRVM – Heated Outside Rear View Mirror       | F21         | PEPS                                                     | F41         | HDLP LEVELING – Headlight Leveling                                              |
| F08         | HORN                                              | F24         | HTD/SEAT 1                                               | F42         | CLUSTER                                                                         |
| F10         | –                                                 | F25         | HTD/SEAT 2                                               | F44         | WASH PUMP                                                                       |
| F11         | ECM PT 1 – Electronic Control Module Powertrain 1 | F28         | CAC SHUTTER                                              | F45         | –                                                                               |
| F12         | IGNITION COIL                                     | F29         | –                                                        | F46         | –                                                                               |
| F13         | ENG COMPONENT 2                                   | F31         | FTZM – Fuel Tank Zone Module                             | F47         | CNSTR VENT SOL – Canister Vent Solenoid                                         |
| F14         | ENG COMPONENT 1                                   | F32         | TCM BATT – Traction Control Module Battery               | F48         | –                                                                               |
| F15         | ECM PT 2 – Electronic Control Module Powertrain 2 | F34         | ESCL RUN/CRANK – Electric Steering Column Lock Run/Crank | F49         | REAR WIPER PARK                                                                 |
| F16         | –                                                 | F35         | –                                                        | F50         | –                                                                               |
| F17         | –                                                 | F36         | –                                                        | F51         | –                                                                               |
| F18         | RVC                                               |             |                                                          | F52         | –                                                                               |

| Micro Fuses  | Usage                                                             |
|--------------|-------------------------------------------------------------------|
| F53          | VENT SEAT                                                         |
| F54          | –                                                                 |
| F55          | –                                                                 |
| F56          | ISRVM/RLAD – Inside Rear View Mirror/Reflective LED Alert Display |
| F57          | –                                                                 |
| F58          | REAR WIPER                                                        |
| F59          | –                                                                 |
| F62          | LUMBAR                                                            |
| M-case Fuses | Usage                                                             |
| F03          | STARTER SOL                                                       |
| F04          | –                                                                 |
| F05          | RR DEFOG                                                          |
| F07          | COOLING FAN MID                                                   |
| F09          | –                                                                 |
| F22          | FRONT WIPER                                                       |

| M-case Fuses | Usage                                      |
|--------------|--------------------------------------------|
| F23          | –                                          |
| F26          | COOLING FAN LOW                            |
| F27          | –                                          |
| F30          | –                                          |
| F33          | –                                          |
| F38          | EBCM 2 – Electronic Brake Control Module 2 |
| F39          | COOLING FAN HIGH                           |
| F43          | –                                          |
| F60          | POWER WINDOW LT                            |
| F61          | POWER WINDOW RT                            |

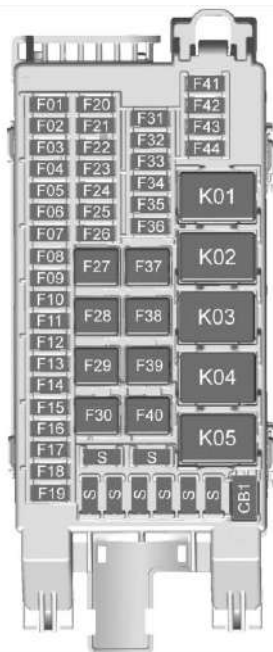
| Mini Relays | Usage                  |
|-------------|------------------------|
| K04         | COOLING FAN HIGH RELAY |

| Micro Relays | Usage             |
|--------------|-------------------|
| K01          | STARTER SOL RELAY |
| K02          | –                 |
| K03          | POWERTRAIN RELAY  |

### Instrument Panel Fuse Block



The instrument panel fuse block is on the underside of the driver side instrument panel. To access the fuses, remove the storage compartment. To remove the storage compartment, open the compartment and pull it out.



| Fuse | Usage                                                         |
|------|---------------------------------------------------------------|
| F01  | ONSTAR for NA market                                          |
| F02  | Sunshade Motor                                                |
| F03  | Body Control Module 3                                         |
| F04  | Body Control Module 7                                         |
| F05  | Body Control Module 6                                         |
| F06  | HVAC Module 1                                                 |
| F07  | CGM – Central Gateway Module                                  |
| F08  | HSWM – Heated Steering Wheel Module                           |
| F09  | Virtual Cockpit Display/Instrument Panel Display/HVAC Display |
| F10  | Radio/Virtual Cockpit Unit Module                             |
| F11  | ONSTAR for Non-NA market                                      |

| Fuse | Usage                                                                    |
|------|--------------------------------------------------------------------------|
| F12  | Side Blind Zone Alert Module/Camera Module/Ultrasonic Park Assist Module |
| F13  | HVAC Module IGN                                                          |
| F14  | Wireless Charger Module/Remote Electronic PRNDL Display                  |
| F15  | BCM 2 – Body Control Module 2                                            |
| F16  | BCM 1 – Body Control Module 1                                            |
| F17  | Steering Wheel Controls Backlighting                                     |
| F18  | –                                                                        |
| F19  | –                                                                        |
| F20  | Steering Wheel Controls Switch                                           |
| F21  | BCM 5 – Body Control Module 5                                            |

| Fuse | Usage                                                 |
|------|-------------------------------------------------------|
| F22  | DLC – Data Link Connector                             |
| F23  | SDM – Sensing Diagnostic Module                       |
| F24  | –                                                     |
| F24  | Discrete Logic Ignition Switch                        |
| F25  | PTM 1 – Power Tailgate Module 1                       |
| F26  | Logistic                                              |
| F27  | –                                                     |
| F28  | BCM 8 – Body Control Module 8                         |
| F29  | DC to DC Converter 2                                  |
| F30  | PTM 2 – Power Tailgate Module 2 (Motor)               |
| F31  | OSRVM/ETC/Rain Light Humidity Sensor/ Humidity Sensor |

| Fuse | Usage                              |
|------|------------------------------------|
| F32  | Headlight Low Beam Light LEFT      |
| F33  | BCM 4 – Body Control Module 4      |
| F34  | Headlight Low Beam Light RIGHT     |
| F35  | –                                  |
| F36  | –                                  |
| F37  | Seat Position Switch DRIVER        |
| F38  | DC to DC Converter 1               |
| F39  | ACC/RAP Relay/RUN Relay            |
| F40  | Blower Motor Control Module        |
| F41  | Auxiliary Audio/Video Jack/FRT USB |
| F42  | Auxiliary RR USB Power Outlet      |

| Fuse            | Usage                     |
|-----------------|---------------------------|
| F43             | –                         |
| F44             | –                         |
| Circuit Breaker | Usage                     |
| CB1             | Auxiliary DC Power Outlet |
| Relay           | Usage                     |
| K01             | ACC/RAP Relay             |
| K02             | RUN Relay                 |
| K03             | Logistics Relay           |
| K04             | –                         |
| K05             | –                         |
| Spare Fuses     | Usage                     |
| S               | SPARE                     |

## Wheels and Tires

### Tires

Every new GM vehicle has high-quality tires made by a leading tire manufacturer. See the warranty manual for information regarding the tire warranty and where to get service. For additional information refer to the tire manufacturer.



#### Warning

- Poorly maintained and improperly used tires are dangerous.
- Overloading the tires can cause overheating as a result of too much flexing. There could be a blowout and a serious crash. See *Vehicle Load Limits* ⇨ 174.
- Underinflated tires pose the same danger as overloaded tires. The resulting crash could cause serious injury. Check all tires frequently

(Continued)

#### Warning (Continued)

- to maintain the recommended pressure. Tire pressure should be checked when the tires are cold.
- Overinflated tires are more likely to be cut, punctured, or broken by a sudden impact — such as when hitting a pothole. Keep tires at the recommended pressure.
- Worn or old tires can cause a crash. If the tread is badly worn, replace them.
- Replace any tires that have been damaged by impacts with potholes, curbs, etc.
- Improperly repaired tires can cause a crash. Only your dealer or an authorized tire service center should repair, replace, dismount, and mount the tires.

(Continued)

#### Warning (Continued)

- Do not spin the tires in excess of 56 km/h (35 mph) on slippery surfaces such as snow, mud, ice, etc. Excessive spinning may cause the tires to explode.

See *Tire Pressure for High-Speed Operation* ⇨ 259 for inflation pressure adjustment for high-speed driving.

### All-Season Tires

This vehicle may come with all-season tires. These tires are designed to provide good overall performance on most road surfaces and weather conditions. Original equipment tires designed to GM's specific Tire Performance Criteria (TPC) have a TPC specification code molded onto the sidewall.

Consider installing winter tires on the vehicle if frequent driving on snow or ice-covered roads is expected. All-season tires provide adequate performance for most winter driving conditions, but they may not offer the same

level of traction or performance as winter tires on snow or ice-covered roads. See “Winter Tires” following.

## Winter Tires

This vehicle was not originally equipped with winter tires. Winter tires are designed for increased traction on snow and ice-covered roads. Consider installing winter tires on the vehicle if frequent driving on ice or snow covered roads is expected. See your dealer for details regarding winter tire availability and proper tire selection. Also, see *Buying New Tires* ⇨ 266.

With winter tires, there may be decreased dry road traction, increased road noise, and shorter tread life. After changing to winter tires, be alert for changes in vehicle handling and braking.

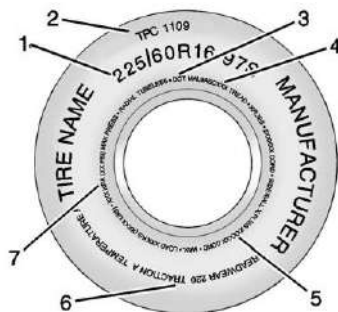
If using winter tires:

- Use tires of the same brand and tread type on all four wheel positions.
- Use only radial ply tires of the same size, load range, and speed rating as the original equipment tires.

Winter tires with the same speed rating as the original equipment tires may not be available for H, V, W, Y, and ZR speed rated tires. If winter tires with a lower speed rating are chosen, never exceed the tire's maximum speed capability.

## Tire Sidewall Labeling

Useful information about a tire is molded into its sidewall. The examples show a typical passenger vehicle tire and a compact spare tire sidewall.



Passenger Tire Example

**(1) Tire Size :** The tire size is a combination of letters and numbers used to define a particular tire's width, height, aspect ratio, construction type, and service description. See the “Tire Size” illustration in this section.

**(2) TPC Spec (Tire Performance Criteria Specification) :** Original equipment tires designed to GM's specific tire performance criteria have a TPC specification code molded onto the sidewall. GM's TPC specifications meet or exceed all federal safety guidelines.

**(3) DOT (Department of Transportation) :** The Department of Transportation (DOT) code indicates that the tire is in compliance with the U.S. Department of Transportation Motor Vehicle Safety Standards.

**DOT Tire Date of Manufacture :** The last four digits of the TIN indicate the tire manufactured date. The first two digits represent the week and the last two digits, the year. For example, the third week of

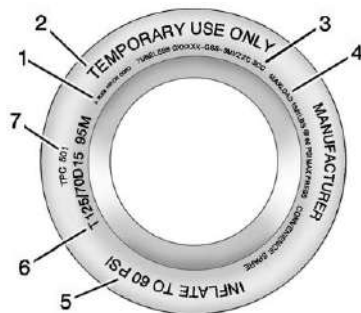
the year 2020 would have a 4-digit DOT date of 0320. Week 01 is the first full week (Sunday through Saturday) of each year.

**(4) Tire Identification Number (TIN) :** The letters and numbers following the DOT (Department of Transportation) code are the Tire Identification Number (TIN). The TIN shows the manufacturer and plant code, tire size, and date the tire was manufactured. The TIN is molded onto both sides of the tire, although only one side may have the date of manufacture.

**(5) Tire Ply Material :** The type of cord and number of plies in the sidewall and under the tread.

**(6) Uniform Tire Quality Grading (UTQG) :** Tire manufacturers are required to grade tires based on three performance factors: tread wear, traction, and temperature resistance. For more information see *Uniform Tire Quality Grading* ⇨ 267.

**(7) Maximum Cold Inflation Load Limit :** Maximum load that can be carried and the maximum pressure needed to support that load.



Compact Spare Tire Example

**(1) Tire Ply Material :** The type of cord and number of plies in the sidewall and under the tread.

**(2) Temporary Use Only :** The compact spare tire or temporary use tire should not be driven at speeds over 80 km/h (50 mph). The compact spare tire is for emergency use when a regular road tire has lost air and gone flat. If the vehicle has a compact spare tire, see *Compact Spare Tire* ⇨ 275 and *If a Tire Goes Flat* ⇨ 270.

**(3) Tire Identification Number (TIN) :** The letters and numbers following the DOT (Department of Transportation) code are the Tire Identification Number (TIN). The TIN shows the manufacturer and plant code, tire size, and date the tire was manufactured. The TIN is molded onto both sides of the tire, although only one side may have the date of manufacture.

**(4) Maximum Cold Inflation Load Limit :** Maximum load that can be carried and the maximum pressure needed to support that load.

**(5) Tire Inflation :** The temporary use tire or compact spare tire should be inflated to 420 kPa (60 psi). For more information on tire pressure and inflation see *Tire Pressure* ⇨ 258.

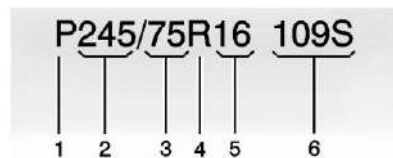
**(6) Tire Size :** A combination of letters and numbers define a tire's width, height, aspect ratio, construction type, and service description. The letter "T" as the first character in the tire size means the tire is for temporary use only.

**(7) TPC Spec (Tire Performance Criteria Specification)** : Original equipment tires designed to GM's specific tire performance criteria have a TPC specification code molded onto the sidewall. GM's TPC specifications meet or exceed all federal safety guidelines.

## Tire Designations

### Tire Size

The example shows a typical passenger vehicle tire size.



Passenger (P-Metric) Tire

**(1) Passenger (P-Metric) Tire** : The United States version of a metric tire sizing system. The letter "P" as the first character in the tire size means a passenger vehicle tire engineered to standards set by the U.S. Tire and Rim Association.

**(2) Tire Width** : The 3-digit number indicates the tire section width in millimeters from sidewall to sidewall.

**(3) Aspect Ratio** : A 2-digit number that indicates the tire height-to-width measurements. For example, if the tire size aspect ratio is 75, as shown in item (3) of the illustration, it would mean that the tire's sidewall is 75 percent as high as it is wide.

**(4) Construction Code** : A letter code is used to indicate the type of ply construction in the tire. The letter "R" means radial ply construction; the letter "D" means diagonal or bias ply construction.

**(5) Rim Diameter** : Diameter of the wheel in inches.

**(6) Service Description** : These characters represent the load index and speed rating of the tire. The load index represents the load carrying capacity a tire is certified to carry. The speed rating is the maximum speed a tire is certified to carry a load.

## Tire Terminology and Definitions

**Air Pressure** : The amount of air inside the tire pressing outward on each square inch of the tire. Air pressure is expressed in kPa (kilopascal) or psi (pounds per square inch).

**Aspect Ratio** : The relationship of a tire's height to its width.

**Belt** : A rubber coated layer of cords that is located between the plies and the tread. Cords may be made from steel or other reinforcing materials.

**Bead** : The tire bead contains steel wires wrapped by steel cords that hold the tire onto the rim.

**Bias Ply Tire** : A pneumatic tire in which the plies are laid at alternate angles less than 90 degrees to the centerline of the tread.

**Cold Tire Pressure** : The amount of air pressure in a tire, measured in kPa (kilopascal) or psi (pounds per square inch) before a tire has built up heat from driving. See *Tire Pressure* ⇨ 258.

**DOT Markings** : A code molded into the sidewall of a tire signifying that the tire is in compliance with the U.S. Department of Transportation (DOT) Motor Vehicle Safety Standards. The DOT code includes the Tire Identification Number (TIN), an alphanumeric designator which can also identify the tire manufacturer, production plant, brand, and date of production.

**GVWR** : Gross Vehicle Weight Rating. See *Vehicle Load Limits* ⇨ 174.

**GAWR FRT** : Gross Axle Weight Rating for the front axle. See *Vehicle Load Limits* ⇨ 174.

**GAWR RR** : Gross Axle Weight Rating for the rear axle. See *Vehicle Load Limits* ⇨ 174.

**Intended Outboard Sidewall** : The side of an asymmetrical tire, that must always face outward when mounted on a vehicle.

**Kilopascal (kPa)** : The metric unit for air pressure.

**Light Truck (LT-Metric) Tire** : A tire used on light duty trucks and some multipurpose passenger vehicles.

**Load Index** : An assigned number ranging from 1 to 279 that corresponds to the load carrying capacity of a tire.

**Maximum Inflation Pressure** : The maximum air pressure to which a cold tire can be inflated. The maximum air pressure is molded onto the sidewall.

**Maximum Load Rating** : The load rating for a tire at the maximum permissible inflation pressure for that tire.

**Occupant Distribution** : Designated seating positions.

**Outward Facing Sidewall** : The side of an asymmetrical tire that has a particular side that faces outward when mounted on a vehicle. The side of the tire that contains a whitewall, bears white lettering, or bears manufacturer, brand, and/or model name molding that is higher or deeper than the same moldings on the other sidewall of the tire.

**Passenger (P-Metric) Tire** : A tire used on passenger cars and some light duty trucks and multipurpose vehicles.

**Recommended Inflation Pressure** :

Vehicle manufacturer's recommended tire inflation pressure as shown on the tire placard. See *Tire Pressure* ⇨ 258 and *Vehicle Load Limits* ⇨ 174.

**Radial Ply Tire** : A pneumatic tire in which the ply cords that extend to the beads are laid at 90 degrees to the centerline of the tread.

**Rim** : A metal support for a tire and upon which the tire beads are seated.

**Sidewall** : The portion of a tire between the tread and the bead.

**Speed Rating** : An alphanumeric code assigned to a tire indicating the maximum speed at which a tire can operate.

**Traction** : The friction between the tire and the road surface. The amount of grip provided.

**Tread** : The portion of a tire that comes into contact with the road.

**Treadwear Indicators** : Narrow bands, sometimes called wear bars, that show across the tread of a tire when only 1.6 mm (1/16 in) of tread remains. See *When It Is Time for New Tires* ⇨ 265.

**UTQGS (Uniform Tire Quality Grading Standards)** : A tire information system that provides consumers with ratings for a tire's traction, temperature, and treadwear. Ratings are determined by tire manufacturers using government testing procedures. The ratings are molded into the sidewall of the tire. See *Uniform Tire Quality Grading* ⇨ 267.

**Vehicle Capacity Weight** : The number of designated seating positions multiplied by 68 kg (150 lbs) plus the rated cargo load. See *Vehicle Load Limits* ⇨ 174.

**Vehicle Maximum Load on the Tire** : Load on an individual tire due to curb weight, accessory weight, occupant weight, and cargo weight.

**Vehicle Placard** : A label permanently attached to a vehicle showing the vehicle's capacity weight and the original

equipment tire size and recommended inflation pressure. See "Tire and Loading Information Label" under *Vehicle Load Limits* ⇨ 174.

## Tire Pressure

Tires need the correct amount of air pressure to operate effectively.



### Warning

Neither tire underinflation nor overinflation is good. Underinflated tires, or tires that do not have enough air, can result in:

- Tire overloading and overheating, which could lead to a blowout
- Premature or irregular wear
- Poor handling
- Reduced fuel economy for internal combustion engine vehicles
- Reduced range for electric vehicles

(Continued)

### Warning (Continued)

Overinflated tires, or tires that have too much air, can result in:

- Unusual wear
- Poor handling
- Rough ride
- Needless damage from road hazards

The Tire and Loading Information label on the vehicle indicates the original equipment tires and the correct cold tire inflation pressures. The recommended pressure is the minimum air pressure needed to support the vehicle's maximum load carrying capacity. See *Vehicle Load Limits* ⇨ 174.

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 pressure of the tires once a month or more. Do not forget the spare, if the vehicle has one. The compact spare cold tire pressure should be at 420 kPa (60 psi). See *Compact Spare Tire* ➔ 275.

## How to Check

Use a good quality pocket-type gauge to check tire pressure. Proper tire inflation cannot be determined by looking at the tire. Check the tire inflation pressure when the tires are cold, meaning the vehicle has not been driven for at least three hours or no more than 1.6 km (1 mi).

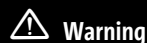
Remove the valve cap from the tire valve stem. Press the tire gauge firmly onto the valve to get a pressure measurement. If the cold tire inflation pressure matches the recommended pressure on the Tire and Loading Information label, no further adjustment is necessary. If the inflation pressure is low, add air until the recommended pressure is reached. If the

inflation pressure is high, press on the metal stem in the center of the tire valve to release air.

Recheck the tire pressure with the tire gauge.

Put the valve caps back on the valve stems to keep out dirt and moisture. Use only valve caps designed for the vehicle by GM. TPMS sensors could be damaged and would not be covered by the vehicle warranty.

## Tire Pressure for High-Speed Operation



### Warning

Driving at high speeds, 160 km/h (100 mph) or higher, puts additional strain on tires. Sustained high-speed driving causes excessive heat buildup and can cause sudden tire failure. This could cause a crash, and you or others could be killed. Some high-speed rated tires require inflation pressure adjustment for

(Continued)

## Warning (Continued)

high-speed operation. When speed limits and road conditions allow the vehicle to be driven at high speeds, make sure the tires are rated for high-speed operation, are in excellent condition, and are set to the correct cold tire inflation pressure for the vehicle load.

## Tire Pressure Monitor System

The Tire Pressure Monitor System (TPMS) uses radio and sensor technology to check tire pressure levels. The TPMS sensors monitor the air pressure in your tires and transmit tire pressure readings to a receiver located in the vehicle.

Each tire, 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 tire inflation pressure label. (If your vehicle has tires of a different size than the size indicated on the vehicle placard or tire inflation pressure label, you should determine the proper tire inflation pressure for those tires.)

As an added safety feature, your vehicle has been equipped with a tire pressure monitoring system (TPMS) that illuminates a low tire pressure telltale when one or more of your tires is significantly under-inflated.

Accordingly, when the low tire pressure telltale illuminates, you should stop and check your tires as soon as possible, and inflate them to the proper pressure. Driving on a significantly under-inflated tire causes the tire to overheat and can lead to tire failure. Under-inflation also reduces energy efficiency and tire tread life, and may affect the vehicle's handling and stopping ability.

Please note that the TPMS is not a substitute for proper tire maintenance, and it is the driver's responsibility to maintain correct tire pressure, even if under-inflation has not reached the level to trigger illumination of the TPMS low tire 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 tire 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 tire pressure as intended. TPMS malfunctions may occur for a variety of reasons, including the installation of replacement or alternate tires or wheels on the vehicle that prevent the TPMS from functioning properly. Always check the TPMS malfunction telltale after replacing one or more tires or wheels on your vehicle to ensure that the replacement or alternate tires and wheels allow the TPMS to continue to function properly.

See "Tire Pressure Monitor Operation" following.

See *Radio Frequency Statement* ⇨ 311.

## Tire Pressure Monitor Operation

This vehicle may have a Tire Pressure Monitor System (TPMS). The TPMS is designed to warn the driver when a low tire pressure condition exists. TPMS sensors are mounted onto each tire and wheel assembly, excluding the spare tire and wheel assembly. The TPMS sensors

monitor the air pressure in the tires and transmit the tire pressure readings to a receiver located in the vehicle.



When a low tire pressure condition is detected, the TPMS illuminates the low tire pressure warning light on the instrument cluster. If the warning light comes on, stop as soon as possible and inflate the tires to the recommended pressure shown on the Tire and Loading Information label. See *Vehicle Load Limits* ⇨ 174.

A message to check the pressure in a specific tire displays in the Driver Information Center (DIC). The low tire pressure warning light and the DIC warning message come on each time the vehicle is started until the tires are inflated to the correct inflation pressure. Using the DIC, tire pressure levels can be viewed. For additional information and details about the DIC operation and displays see *Driver Information Center (DIC) (Base Level)* ⇨ 103 *Driver Information Center (DIC) (Uplevel)* ⇨ 105.

The low tire 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 Tire and Loading Information label, attached to your vehicle, shows the size of the original equipment tires and the correct inflation pressure for the tires when they are cold. See *Vehicle Load Limits* ⇨ 174, for an example of the Tire and Loading Information label and its location. Also see *Tire Pressure* ⇨ 258.

The TPMS can warn about a low tire pressure condition but it does not replace normal tire maintenance. See *Tire Inspection* ⇨ 264, *Tire Rotation* ⇨ 264, and *Tires* ⇨ 253.

### Caution

Tire sealant materials are not all the same. A non-approved tire sealant could damage the TPMS sensors. TPMS sensor damage caused by using an incorrect tire sealant is not covered by the vehicle warranty.

(Continued)

### Caution (Continued)

Always use only the GM approved tire sealant available through your dealer or included in the vehicle.

### 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 tire pressure warning light flashes for about one minute and then stays on until the vehicle is turned off. A DIC warning message also displays. The malfunction light and DIC warning message come on each time the vehicle is started until the problem is corrected. Some of the conditions that can cause these to come on are:

- One of the road tires has been replaced with the spare tire. The spare tire does not have a TPMS sensor. The malfunction light and DIC message should go off after the road tire is replaced and the sensor matching process is performed successfully. See "TPMS Sensor Matching Process" later in this section.
- The TPMS sensor matching process was not done or not completed successfully after rotating the tires. The malfunction light and the DIC message should go off after successfully completing the sensor matching process. See "TPMS Sensor Matching Process" later in this section.
- 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 tires or wheels do not match the original equipment tires or wheels. Tires and wheels other than those recommended could prevent the TPMS from functioning properly. See *Buying New Tires* ⇨ 266.
- 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 tire pressure condition. See your dealer for service if the TPMS malfunction light and DIC message come on and stay on.

### Tire Fill Alert

If equipped, this feature provides visual and audible alerts outside the vehicle to help when inflating an underinflated tire to the recommended cold tire pressure.

When the low tire pressure warning light comes on:

1. Park the vehicle in a safe, level place.
2. Set the parking brake firmly.
3. Place the vehicle in P (Park).
4. Add air to the tire that is underinflated. The turn signal light will flash.

When the recommended pressure is reached, the horn sounds once and the turn signal light will stop flashing and briefly turn solid.

Repeat these steps for all underinflated tires that have illuminated the low tire pressure warning light.



### Warning

Overinflating a tire could cause the tire to rupture and you or others could be injured. Do not exceed the maximum pressure listed on the tire sidewall. See *Tire Sidewall Labeling* ⇨ 254 and *Vehicle Load Limits* ⇨ 174.

If the tire is overinflated by more than 35 kPa (5 psi), the horn will sound multiple times and the turn signal light will continue to flash for several seconds after filling stops. To release and correct the pressure, while the turn signal light is still flashing, briefly press the center of the valve stem. When the recommended pressure is reached, the horn sounds once.

If the turn signal light does not flash within 15 seconds after starting to inflate the tire, the tire fill alert has not been activated or is not working.

If the hazard warning flashers are on, the tire fill alert visual feedback will not work properly.

The TPMS will not activate the tire fill alert properly under the following conditions:

- There is interference from an external device or transmitter.

- The air pressure from the inflation device is not sufficient to inflate the tire.
- There is a malfunction in the TPMS.
- There is a malfunction in the horn or turn signal lights.
- The TPMS sensor identification code is not registered to the system.
- The TPMS sensor battery is low.

If the tire fill alert does not operate due to TPMS interference, move the vehicle about 1 m (3 ft) back or forward and try again. If the tire fill alert feature is not working, use a tire pressure gauge.

### TPMS Sensor Matching Process

Each TPMS sensor has a unique identification code. The identification code needs to be matched to a new tire/wheel position after rotating the vehicle's tires or replacing one or more of the TPMS sensors. The TPMS sensor matching process should also be performed after replacing a spare tire with a road tire containing the TPMS sensor. The malfunction light and the DIC message should go off the next time the vehicle is started. The sensors are matched to the tire/wheel positions, using a TPMS relearn tool, in the following

order: driver side front tire, passenger side front tire, passenger side rear tire, and driver side rear. See your dealer for service or to purchase a relearn tool. A TPMS relearn tool can also be purchased. See "TPMS Tool" at [www.gmglobaltools.com](http://www.gmglobaltools.com) or call 844-742-8471.

There are two minutes to match the first tire/wheel position, and five minutes overall to match all four tire/wheel positions. If it takes longer, the matching process stops and must be restarted.

The TPMS sensor matching process is:

1. Set the parking brake.
2. Turn the ignition on without starting the vehicle or place the vehicle in Service Mode. See *Ignition Positions (Keyless Access)* ⇨ 180 *Ignition Positions (Key Access)* ⇨ 178.
3. Uplevel DIC: Select Tire Pressure from the vehicle status menu on the infotainment display. To access the vehicle status menu touch  from the infotainment home screen.

Base Level DIC: Use the trip odometer reset stem to scroll to the Tire Pressure screen, then skip to Step 6.

4. Uplevel DIC: Touch Maintenance and touch Tire Pressure in Maintenance.
5. Uplevel DIC: Touch Relearn Tire Pressure to begin the sensor matching process. A message requesting acceptance of the process may display.
6. Uplevel DIC: If requested, touch Relearn to confirm the selection. The horn sounds twice to signal the receiver is in relearn mode and the RELEARNING TIRE PRESSURE message displays on the infotainment display.

Base Level DIC: Press and hold the trip odometer reset stem for about five seconds. A message asking if the process should begin should appear. Select yes and press the trip odometer reset stem to confirm the selection. The horn sounds twice to signal the receiver is in relearn mode and the TIRE LEARNING ACTIVE message displays on the DIC screen.

7. Start with the driver side front tire.
8. Place the relearn tool against the tire 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 tire and wheel position.

9. Proceed to the passenger side front tire, and repeat the procedure in Step 8.
10. Proceed to the passenger side rear tire, and repeat the procedure in Step 8.
11. Proceed to the driver side rear tire, and repeat the procedure in Step 8. The horn sounds two times to indicate the sensor identification code has been matched to the driver side rear tire, and the TPMS sensor matching process is no longer active.

Uplevel DIC: The RELEARNING TIRE PRESSURE message on the infotainment display goes off.

Base Level DIC: The TIRE LEARNING ACTIVE message on the DIC display screen goes off.

12. Turn the vehicle off.
13. Set all four tires to the recommended air pressure level as indicated on the Tire and Loading Information label.

## Tire Inspection

We recommend that the tires, including the spare tire, if the vehicle has one, be inspected for signs of wear or damage at least once a month.

Replace the tire if:

- The indicators at three or more places around the tire can be seen.
- There is cord or fabric showing through the tire's rubber.
- The tread or sidewall is cracked, cut, or snagged deep enough to show cord or fabric.
- The tire has a bump, bulge, or split.
- The tire has a puncture, cut, or other damage that cannot be repaired well because of the size or location of the damage.

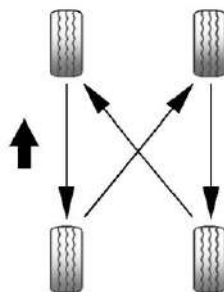
## Tire Rotation

Tires should be rotated according to the interval specified in the Maintenance Schedule. See *Maintenance Schedule* ⇨ 291.

When rotating the tires, inspect the brake pads for signs of wear. See *Brakes* ⇨ 237.

Tires are rotated to achieve a more uniform wear for all tires. The first rotation is the most important.

Anytime unusual wear is noticed, rotate the tires as soon as possible, check for proper tire inflation pressure, and check for damaged tires or wheels. If the unusual wear continues after the rotation, check the wheel alignment. See *When It Is Time for New Tires* ⇨ 265 and *Wheel Replacement* ⇨ 269.



Use this rotation pattern when rotating the tires.

Do not include the compact spare tire in the tire rotation.

Adjust the front and rear tires to the recommended inflation pressure on the Tire and Loading Information label after the tires have been rotated. See *Tire Pressure* ⇨ 258 and *Vehicle Load Limits* ⇨ 174.

Reset the Tire Pressure Monitor System. See *Tire Pressure Monitor Operation* ⇨ 260.

 **Warning**

Rust or dirt on a wheel, or on the parts to which it is fastened, can cause wheel nuts to become loose over time. The wheel could come off and cause a crash. When changing a wheel, remove any rust or dirt from places where the wheel attaches to the vehicle. In an emergency, a cloth or paper towel can be used; however, use a scraper or wire brush later to remove all rust or dirt.

 **Warning**

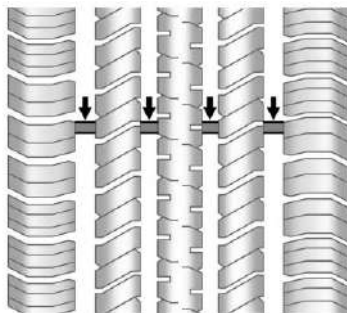
Do not apply grease to the wheel mounting surface, wheel conical seats, or the wheel nuts or bolts. Grease applied to these areas could cause a wheel to become loose or come off, resulting in a crash.

Check that all wheel nuts are properly tightened. See “Wheel Nut Torque” under *Capacities and Specifications* ⇨ 299, and “Removing the Flat Tire and Installing the Spare Tire” under *Tire Changing* ⇨ 271.

Lightly coat the inner diameter of the wheel hub opening with wheel bearing grease after a wheel change or tire rotation to prevent corrosion or rust buildup.

### When It Is Time for New Tires

Factors, such as maintenance, temperatures, driving speeds, vehicle loading, and road conditions affect the wear rate of the tires.



Treadwear indicators are one way to tell when it is time for new tires. Treadwear indicators appear when the tires have only 1.6 mm (1/16 in) or less of tread remaining. See *Tire Inspection* ⇨ 264 and *Tire Rotation* ⇨ 264.

The rubber in tires ages over time. This also applies to the spare tire, if the vehicle has one, even if it is never used. Multiple factors including temperatures, loading conditions, and inflation pressure maintenance affect how fast aging takes place. GM recommends that tires, including the spare if equipped, be replaced after six years, regardless of tread wear. To identify the age of a tire, use the tire manufacture date, which is the last four digits of the DOT Tire Identification Number (TIN) molded into one side of the tire sidewall. The last four digits of the TIN indicate the tire manufactured date. The first two digits represent the week and the last two digits, the year. For example, the third week of the year 2020 would have a 4-digit DOT date of 0320. Week 01 is the first full week (Sunday through Saturday) of each year.

## Vehicle Storage

Tires 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 aging. This area should be free of grease, gasoline, or other substances that can deteriorate rubber.

Parking for an extended period can cause flat spots on the tires that may result in vibrations while driving. When storing a vehicle for at least a month, remove the tires or raise the vehicle to reduce the weight from the tires.

## Buying New Tires

GM has developed and matched specific tires for the vehicle. The original equipment tires installed were designed to meet General Motors Tire Performance Criteria Specification (TPC Spec) system rating. When replacement tires are needed, GM strongly recommends buying tires 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 tire pressure monitoring performance. GM's TPC Spec number is molded onto the tire's sidewall near the tire size.



### Warning

Tires could explode during improper service. Attempting to mount or dismount a tire could cause injury or death. Only your dealer or authorized tire service center should mount or dismount the tires.



### Warning

Mixing tires of different sizes (other than those originally installed on the vehicle), brands, tread patterns, or types may cause loss of vehicle control, resulting in a crash or other vehicle damage. Use the correct size, brand, and type of tire on all wheels.

GM recommends replacing worn tires in complete sets of four. Uniform tread depth on all tires will help to maintain the performance of the vehicle. Braking and handling performance may be adversely affected if all the tires are not replaced at the same time. If proper rotation and maintenance have been done, all four tires should wear out at about the same time. However, if it is necessary to replace only one axle set of worn tires, place the new tires on the rear axle. See *Tire Rotation* ⇨ 264.

Winter tires with the same speed rating as the original equipment tires may not be available for H, V, W, Y and ZR speed rated tires. Never exceed the winter tires' maximum speed capability when using winter tires with a lower speed rating.

 **Warning**

Using bias-ply tires on the vehicle may cause the wheel rim flanges to develop cracks after many miles of driving. A tire and/or wheel could fail suddenly and cause a crash. Use only radial-ply tires with the wheels on the vehicle.

If the vehicle tires must be replaced with a tire that does not have a TPC Spec number, make sure they are the same size, load range, speed rating, and construction (radial) as the original tires.

The Tire and Loading Information label indicates the original equipment tires on the vehicle. See *Vehicle Load Limits* ⇨ 174.

## Different Size Tires and Wheels

 **Warning**

If different sized wheels are used, there may not be an acceptable level of performance and safety if tires not recommended for those wheels are selected. This increases the chance of a crash and serious injury. Only use GM specific wheel and tire systems developed for the vehicle, and have them properly installed by a GM certified technician.

If wheels or tires are installed that are a different size than the original equipment wheels and tires, 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.

See *Buying New Tires* ⇨ 266 and *Accessories and Modifications* ⇨ 222.

## Uniform Tire Quality Grading

The following information relates to the system developed by the United States National Highway Traffic Safety Administration (NHTSA), which grades tires by treadwear, traction, and temperature performance. This applies only to vehicles sold in the United States. The grades are molded on the sidewalls of most passenger car tires. The Uniform Tire Quality Grading (UTQG) system does not apply to deep tread, winter tires, compact spare tires, tires with nominal rim diameters of 10 to 12 inches (25 to 30 cm), or to some limited-production tires.

While the tires available on General Motors passenger cars and light trucks may vary with respect to these grades, they must also conform to federal safety requirements and additional General Motors Tire Performance Criteria (TPC) standards.

Quality grades can be found where applicable on the tire sidewall between tread shoulder and maximum section width. For example:

#### **Treadwear 200 Traction AA Temperature A**

All Passenger Car Tires Must Conform to Federal Safety Requirements In Addition To These Grades.

#### **Treadwear**

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and one-half (1½) times as well on the government course as a tire graded 100. The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate.

#### **Traction**

The traction grades, from highest to lowest, are AA, A, B, and C. Those grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance. Warning: The traction grade assigned to this tire is based on straight-ahead braking traction tests, and does not include acceleration, cornering, hydroplaning, or peak traction characteristics.

#### **Temperature**

The temperature grades are A (the highest), B, and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade

C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Safety Standard No. 109. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law. Warning: The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.

#### **Wheel Alignment and Tire Balance**

The tires and wheels were aligned and balanced at the factory to provide the longest tire life and best overall performance. Adjustments to wheel alignment and tire balancing are not necessary on a regular basis. Consider an alignment check if there is unusual tire wear or the vehicle is significantly pulling to one side or the other. Some slight pull to the left or right, depending on the slope 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 tires and wheels may need to be rebalanced. See your dealer for proper diagnosis.

## Wheel Replacement

### Warning

Using the wrong replacement wheels, wheel bolts, or wheel nuts can be dangerous. It could affect the braking and handling of the vehicle. Tires can lose air and cause loss of control, resulting in a crash. Always use the correct wheel, wheel bolts, and wheel nuts for replacement.

### 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.

### Caution

The wrong wheel can also cause problems with bearing life, brake cooling, speedometer or odometer calibration, headlight aim, bumper height, vehicle ground clearance, and tire or tire chain clearance to the body and chassis.

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 aluminum 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 Tire Pressure Monitor System (TPMS) sensors with new GM original equipment parts.

## Tire Chains and Other Traction Devices

### Warning

Do not use tire chains or textile/fabric traction devices, such as snow socks. There is not enough clearance. Tire chains or textile/fabric traction devices used on a vehicle without the proper amount of clearance can cause damage to the brakes, suspension, or other vehicle parts. The area damaged by the tire chains or textile/fabric traction devices could cause loss of control and a crash. Use another type of traction device only if its manufacturer recommends it for the vehicle's tire size combination and road conditions. Follow that manufacturer's instructions. To avoid vehicle damage, drive slowly and readjust or remove the traction device if it contacts the vehicle. Do not spin the wheels. If traction devices are used, install them on the tires of the front axle only.

## If a Tire Goes Flat

It is unusual for a tire to blow out while driving, especially if the tires are maintained properly. It is much more likely for a tire to experience a slow leak. See *Tires* ⇨ 253.

In the event of a blowout, follow these tips:

- A front tire blowout causes the vehicle to pull toward the side of the flat. 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.
- 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.

### Warning

Driving on a flat tire will cause permanent damage to the tire. Re-inflating a tire after it has been driven on while severely underinflated or flat may cause a blowout

(Continued)

### Warning (Continued)

and a serious crash. Never attempt to re-inflate a tire that has been driven on while severely underinflated or flat. Have your dealer or an authorized tire service center repair or replace the flat tire 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 tire. 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 tire.

If a tire goes flat, avoid further tire 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* ⇨ 113.

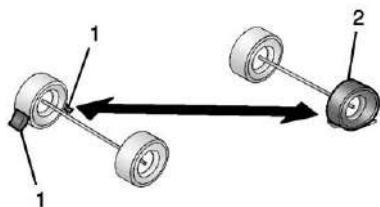
If your vehicle is loaded at or near maximum cargo capacity, it may be difficult to fit the jack under the vehicle due to the environment (shoulder slope, road debris, etc.). Removal of some weight may improve the ability to fit the jack under the vehicle at the correct jacking location.

### Warning

Changing a tire 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 tire. To help prevent the vehicle from moving:

1. Set the parking brake firmly.
2. Put the vehicle in P (Park).
3. Turn the vehicle off and do not restart the vehicle while it is raised.
4. Do not allow passengers to remain in the vehicle.
5. Place wheel blocks, if equipped, on both sides of the tire at the opposite corner of the tire being changed.

To safely change a flat tire:

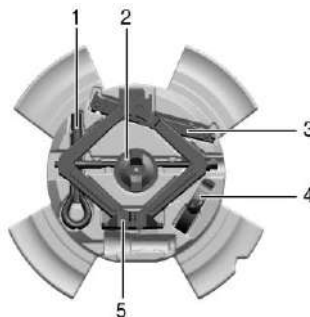


1. If equipped, place wheel blocks (1), as shown, to prevent the vehicle from moving.
2. Use the jacking equipment to change the flat tire (2). See *Tire Changing* ⇨ 271.

## Tire Changing

### Removing the Spare Tire and Tools

The spare tire and tools are located in the storage compartment in the rear of the vehicle.



1. Tow Eye
2. Wing Nut
3. Wrench
4. Strap
5. Jack

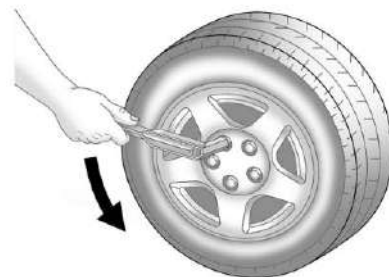
To access the spare tire and tools:

1. Open the liftgate. See *Liftgate* ⇨ 23.
2. Remove the trim cover.
3. If the vehicle has a subwoofer on the spare tire, remove it by turning the wing nut counterclockwise.

4. If the vehicle does not have a subwoofer, turn the wing nut counterclockwise to remove the spare tire.
5. Remove the spare tire, jack, and tools and place them near the tire being changed.

### Removing the Flat Tire and Installing the Spare Tire

1. Do a safety check before proceeding. See *If a Tire Goes Flat* ⇨ 270.



2. Turn the wheel wrench counterclockwise to loosen the wheel nuts. Do not remove them yet.

**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.

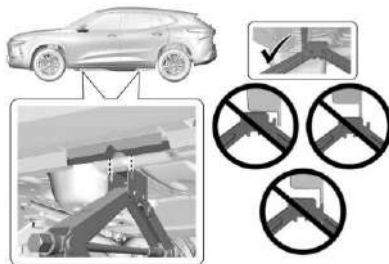
**Warning**

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 tire. If it is used for anything else, you or others could be badly injured or killed

(Continued)

**Warning (Continued)**

if the vehicle slips off the jack. If a jack is provided with the vehicle, only use it for changing a flat tire.

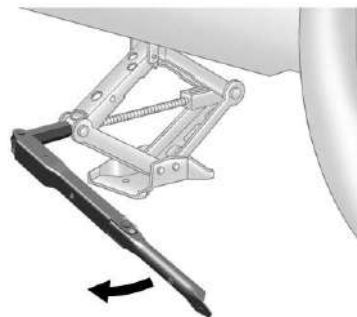


3. Place the jack under the vehicle at the location shown.

The jack must not be used in any other position.

**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.

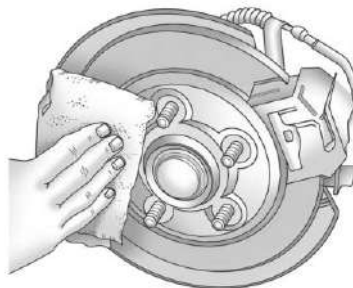


4. Place the hex tube end of the wrench over the hex head of the jack to attach it.
5. Turn the wheel wrench clockwise until the lift head is firmly contacting the lifting point nearest the flat tire.

6. Turn the wheel wrench clockwise to raise the vehicle far enough off the ground so there is enough room for the spare tire to fit underneath the wheel well.
7. Turn the wheel nuts counterclockwise to remove them.
8. Remove the flat tire.

### 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 a crash. 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.



9. Remove any rust or dirt from the wheel bolts, mounting surfaces, and spare wheel.
10. Place the spare tire 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.

11. Reinstall the wheel nuts. Turn each nut clockwise, by hand, until the wheel is held against the hub.

12. Lower the vehicle by turning the wheel wrench counterclockwise. Lower the jack completely.

### 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* ⇨ 299 for original equipment wheel nut torque specifications.

### Caution

Improperly tightened wheel nuts can lead to brake pulsation and rotor 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* ⇨ 299 for the wheel nut torque specification.

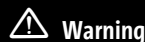


13. Tighten the wheel nuts firmly with the wheel wrench in a crisscross sequence, as shown.

### Caution

Wheel covers will not fit on the vehicle's compact spare. If you try to put a wheel cover on the compact spare, the cover or the spare could be damaged.

## Storing a Flat or Spare Tire and Tools

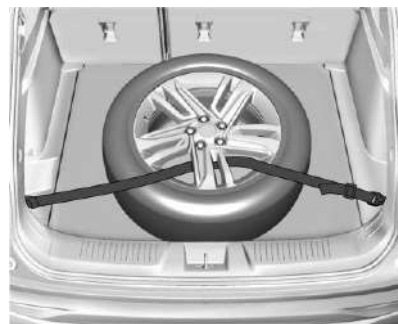


### Warning

Storing a jack, a tire, 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.

## Storing the Flat Tire and Tools

1. Return the jack and tools to their original storage location.
2. Replace the trim cover.
3. Place the flat tire, lying flat, in the rear storage compartment.
4. Attach one end of the strap to a cargo tie-down in the rear of the vehicle.



5. Route the strap through the wheel, as shown.
6. Attach the other end of the strap to the other cargo tie-down in the rear of the vehicle.
7. Tighten the strap.

## Storing the Compact Spare Tire and Tools

Reverse the instructions for removing the spare tire and tools to store the spare tire.

The compact spare tire is for temporary use only. Replace the compact spare tire with a full-size tire as soon as you can. See *Compact Spare Tire* ⇨ 275.

## Compact Spare Tire

### Warning

Driving with more than one compact spare tire 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 tire at a time.

### 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 tire, wheel, and other parts of the vehicle.

### Caution

Tire chains will not fit the compact spare. Using them can damage the vehicle and the chains. Do not use tire chains on the compact spare.

If this vehicle has a compact spare tire, 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 tire is correctly inflated after being installed on the vehicle. The compact spare tire is designed for temporary use only. The vehicle will perform differently with the spare tire installed and it is recommended that the vehicle speed be limited to 80 km/h (50 mph). To conserve the tread of the spare tire, have the standard tire repaired or replaced as soon as convenient and return the spare tire to the storage area.

When using a compact spare tire, the All-Wheel Drive (AWD), if equipped, Antilock Brake System (ABS), and Traction Control System (TCS) may engage until the spare tire is recognized by the vehicle, especially on slippery roads. Adjust driving to reduce possible wheel slip.

Do not use the compact spare on other vehicles. Do not mix the compact spare tire or wheel with other wheels or tires. They will not fit. Keep the spare tire and its wheel together.

## Jump Starting

### Jump Starting - North America

For more information about the vehicle battery, see *Battery - North America* ⇨ 239.

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

**WARNING:** Battery posts, terminals and related accessories can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

See *California Proposition 65 Warning* ⇨ 1.

**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.

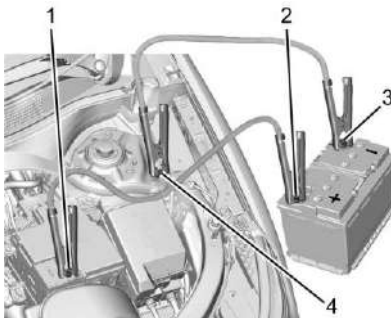
If you do not follow these steps exactly, some or all of these things can hurt you.

**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.

**Caution**

If the jumper cables 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 jumper cables in the correct order, making sure that the cables do not touch each other or other metal.

**Connection Points and Sequence**

1. Discharged Battery Positive (+) Terminal
2. Good Battery Positive (+) Terminal

3. Good Battery Negative (-) Terminal

4. Discharged Battery Negative (-) Terminal

The discharged battery positive (+) terminal and the discharged battery negative (-) terminal are in the engine compartment on the driver side of the vehicle.

The good battery negative (-) terminal and the good battery positive (+) terminal are on the battery of the vehicle providing the jump start.

The discharged battery positive (+) terminal is under a trim cover. Open the cover to expose the terminal.

**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.

1. Check the other vehicle. It must have a 12-volt battery with a negative ground system.
2. Position the two vehicles so that they are not touching.

3. Set the parking brake firmly and put the shift lever in P (Park) with an automatic transmission, or Neutral with a manual transmission. See *Automatic Transmission* ⇨ 186.

### 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 underhood 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 flashlight 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.

### Warning

Always inspect jumper cables prior to use. Jumper cables with loose or missing insulation could shock you or cause vehicle damage. Do not use jumper cables that appear damaged.

5. Check that the jumper cables do not have loose or missing insulation.
6. Connect one end of the red positive (+) cable to the discharged battery positive (+) terminal.
7. Connect the other end of the red positive (+) cable to the good battery positive (+) terminal.
8. Connect one end of the black negative (-) cable to the good battery negative (-) terminal.
9. Connect the other end of the black negative (-) cable to the discharged battery negative (-) terminal.
10. Start the engine in the vehicle with the good battery and run the engine at idle speed for at least four minutes.
11. Try to start the vehicle that had the discharged battery. If it will not start after a few tries, it probably needs service.

### Jumper Cable Removal

To remove the jumper cables, reverse Steps 6–9 in exact order.

After starting the disabled vehicle and removing the jumper cables, allow it to idle for several minutes.

## Towing the Vehicle

### Transporting a Disabled Vehicle

#### Caution

Incorrectly transporting a disabled vehicle may cause damage to the vehicle. Use proper tire straps to secure the vehicle to the flatbed tow truck. Do not strap or hook to any frame, underbody, or suspension component not specified below. Do not move vehicles with drive axle tires on the ground. Damage is not covered by the vehicle warranty.

#### Caution

The vehicle may be equipped with an Electric Parking Brake (EPB) and/or a mechanical transmission range select shifter. In the event of a loss of 12-

(Continued)

#### Caution (Continued)

volt battery power, the EPB cannot be released, and the vehicle cannot be shifted to N (Neutral). Tire skates or dollies must be used under the non-rolling tires to prevent damage while loading/unloading the vehicle. Dragging the vehicle will cause damage not covered by the vehicle warranty.

#### Caution

The vehicle may be equipped with a tow eye. Improper use of the tow eye may cause damage to the vehicle and is not covered by the vehicle warranty. If equipped, use the tow eye to load the vehicle onto a flatbed tow truck from a flat road surface, or to move the vehicle a very short distance at a walking pace. The tow eye is not designed for off-road recovery. The vehicle must be in N (Neutral) with the Electric Parking Brake (EPB) released when using the tow eye.

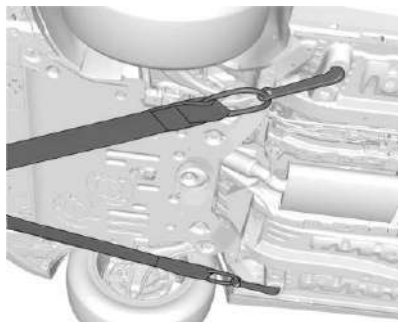
Contact a professional towing service if the disabled vehicle must be transported. GM recommends a flatbed tow truck to transport a disabled vehicle. Use ramps to help reduce approach angles, if necessary.

If equipped, a tow eye may be located near the spare tire or emergency jack. Do not use the tow eye to pull the vehicle from the snow, mud, sand, or ditch. Tow eye threads may have right- or left-hand threads. Use caution when installing or removing the tow eye.

The vehicle must be in N (Neutral) and the electric parking brake must be released when loading the vehicle onto a flatbed tow truck.

- If the 12-volt battery is dead and/or electric parking brake is not released, the vehicle will not move. Try to jump start the vehicle with a known good 12-volt battery, shift the car into N (Neutral), and release the electric parking brake. See *Jump Starting - North America* ⇨ 275.
- If unsuccessful, the vehicle will not move. Tire skates or dollies must be used under the non-rolling tires to prevent vehicle damage.

### Front Attachment Points



The vehicle is equipped with specific attachment points to be used by the towing provider. These holes may be used to pull the vehicle from a flat road surface onto the flatbed tow truck.

### Front Tow Eye



Carefully open the cover on 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 behind 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:

- Become familiar with the local laws that apply to recreational vehicle towing. These laws may vary by region.
- Read the tow vehicle manufacturer's recommendations for the towing capacity of the vehicle.
- How far the vehicle can be towed. Some vehicles have restrictions on how far and how long the vehicle can be towed

- Whether the vehicle has the proper towing equipment. See your dealer or trailering professional for additional advice and equipment recommendations.
- Whether the vehicle is ready to be towed. Just as preparing the vehicle for a long trip, make sure the vehicle is prepared to be towed.

**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.

**Caution**

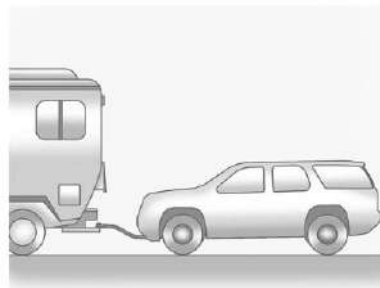
Do not tow a vehicle with the front drive wheels on the ground if one of the front tires is a compact spare tire. Towing with two different tire sizes on the front of the vehicle can cause severe damage to the transmission.

**Caution**

Do not install tow hardware that interferes with the lower shutters. Shutters cannot be removed. Removal of the shutters can cause damage to the engine that will not be covered by the vehicle warranty. If using tow hardware, only install hardware that does not require the removal of the shutters.

**Caution**

If 113 km/h (70 mph) is exceeded while towing the vehicle, it could be damaged. Never exceed 113 km/h (70 mph) while towing the vehicle.

**Dinghy Towing**

To dinghy tow the vehicle from the front with all four wheels on the ground:

1. Position the vehicle behind the tow vehicle, lining it up with the tow bar.
2. Leave the vehicle running. Shift the transmission to N (Neutral).
3. Set the parking brake.
4. Connect the vehicle to the tow bar hardware.
5. Release the parking brake.
6. Leave the transmission in N (Neutral) and turn the vehicle off. You may hear a continuous chime, which is normal.

7. Open the hood and disconnect the negative battery terminal. See *Battery - North America* ⇨ 239 and *Jump Starting - North America* ⇨ 275.
8. Cover the negative battery post with a non-conductive material to prevent any contact with the negative battery terminal.

To disconnect the towed vehicle:

1. Park on a level surface.
2. Make sure that the vehicle is off.
3. Remove any tape, glue, or excess material from the negative battery post.
4. Connect the battery. See *Battery - North America* ⇨ 239.
5. Set the parking brake.
6. Disconnect the vehicle from the tow vehicle.
7. Release the parking brake.

## Dolly Towing



To tow a front-wheel-drive vehicle from the front with two wheels on the ground:

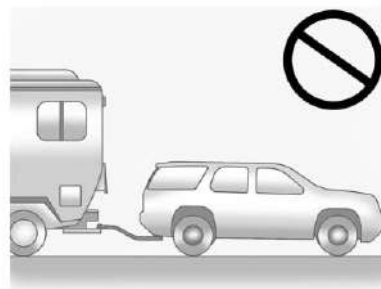
1. Put the front wheels on a dolly.
2. Move the shift lever to P (Park).
3. Set the parking brake.
4. Clamp the steering wheel in a straight-ahead position with a clamping device designed for towing.
5. Turn the vehicle off.
6. Secure the vehicle to the dolly.
7. Release the parking brake.

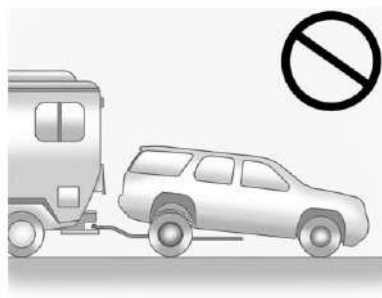
8. Disconnect the negative battery cable at the battery. See *Battery - North America* ⇨ 239.
9. Cover the negative battery post with a non-conductive material to prevent any contact with the negative battery terminal.

## Towing the Vehicle from the Rear

### Caution

Towing the vehicle from the rear could damage it. Also, repairs would not be covered by the vehicle warranty. Never have the vehicle towed from the rear.





## 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 the de-icing agent. See *Recommended Fluids and Lubricants* ⇨ 296.

### Washing the Vehicle

#### Warning

Do not power wash any part of the vehicle's interior, including the vinyl floor covering. This could damage safety and other systems in the vehicle, which would not be covered by the vehicle warranty.

#### 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 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.

To preserve the exterior finish, wash it often and out of direct sunlight.

Take care to wash materials such as calcium chloride and other salts, ice melting agents, road oil and tar, tree sap, bird droppings, chemicals from industrial chimneys, etc. from the finish as soon as possible. These materials can damage the finish if they remain on painted surfaces.

#### Automatic Car Wash

Follow the posted instructions at the automatic car wash carefully. Turn off the windshield wipers and rear window wiper, if equipped. Remove any accessories that can be damaged or interfere with the car wash equipment.

## Hand Wash

Thoroughly rinse all cleaning agents before and after hand washing. Agents left to dry on the exterior may stain the finish.

Dry the finish with a soft, clean chamois or an all-cotton towel to avoid surface scratches and water spotting.

## Cleaning Underhood Components

### Caution

Do not power wash any component under the hood that has this  symbol.

This could cause damage that would not be covered by the vehicle warranty.

Do not use solvents or aggressive cleaners that can harm underhood components. Instead, use water only.

Take care when using a pressure washer. The following criteria must be followed:

- Water pressure must be kept below 8,000 kPa (1,160 PSI).
- Water temperature must be below 80 °C (180 °F).

- Spray nozzle with a 40-degree wide angle spray pattern or wider must be used.
- Nozzle must be kept at least 30 cm (1 ft) away from all surfaces.

## Finish Care

### Caution

Do not apply waxes or polishes to uncoated plastic, vinyl, rubber, decals, simulated wood, flat paint, or metal mesh grilles as damage can occur.

### Caution

Machine compounding or aggressive polishing on a basecoat/clearcoat paint finish may damage it. Use only non-abrasive waxes and polishes that are made for a basecoat/clearcoat paint finish on the vehicle.

Perform occasional hand waxing or mild polishing to remove residue from the paint finish. Do not use aftermarket clearcoat sealant/wax. See your dealer for approved cleaning products.

Avoid rubbing the finish vigorously. This can create bright spots and an uneven appearance on the finish.

To keep paint finish looking new, keep the vehicle garaged or covered whenever possible.

## Protecting Exterior Bright Metal Moldings

### Caution

Failure to clean and protect the bright metal moldings can result in a hazy white finish or pitting. This damage would not be covered by the vehicle warranty.

The bright metal moldings on the vehicle are aluminum, chrome, or stainless steel. To prevent damage always follow these cleaning instructions:

- Be sure the molding is cool to the touch before applying any cleaning solution.
- Use only approved cleaning solutions for aluminum, chrome, or stainless steel. Some cleaners are highly acidic or contain alkaline substances and can damage the moldings.
- 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 molding finish.

### Cleaning Exterior Lights/Lenses, Emblems, Decals, and Stripes

#### Caution

Failure to clean lights properly can cause damage to the light 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.

Use only lukewarm or cold water, a soft cloth, and a car washing soap to clean exterior lights, lenses, emblems, decals, and stripes. Follow the instructions under "Washing the Vehicle" previously in this section.

Light covers are made of plastic, and some have a UV protective coating. Do not clean or wipe them while they are dry. This can cause scratches to the surface of the light cover.

Do not use any of the following on light 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 lights are illuminated.

### Air Intakes

Clear debris from the air intakes between the hood and windshield when washing the vehicle.

### Shutter System



This vehicle may have a shutter system that automatically closes the frontal cooling opening. This system is designed to help improve fuel economy. Ensure the shutter system is clear of any visible debris, snow, or ice. If the Malfunction Indicator Light activates and remains lit after clearing the shutter system, see *Malfunction Indicator Light (Check Engine Light)* ⇨ 95.

### Windshield and Wiper Blades

Clean the outside of the windshield with glass cleaner.

Clean rubber blades using a lint-free cloth or paper towel soaked with windshield washer fluid or a mild detergent. Wash the windshield thoroughly when cleaning the blades. Bugs, road grime, sap, and a buildup of vehicle wash/wax treatments may cause wiper streaking.

Extreme dusty conditions, sand, salt, heat, sun, snow, and ice can cause damage. Replace the wiper blades if they are worn or damaged.

### Weatherstrips

Apply weatherstrip lubricant once a year to help weatherstrips last longer, seal better, and not stick or squeak. Hot, dry climates may require more frequent application.

Use a clean cloth to remove any black marks caused by weatherstrips.

### Tires, Wheels, and Wheel Trim

#### Caution

Using petroleum-based tire dressing products on the vehicle may damage the paint finish and/or tires. When applying  
(Continued)

#### Caution (Continued)

a tire dressing, always wipe off any overspray from all painted surfaces on the vehicle.

Use a stiff brush with tire cleaner to clean the tires.

#### Caution

To avoid surface damage on wheels and wheel trim, do not use strong soaps, chemicals, abrasive polishes, cleaners, or brushes. Use only GM approved cleaners. Do not drive the vehicle through an automatic car wash that uses silicon carbide tire/wheel cleaning brushes. Damage could occur and the repairs would not be covered by the vehicle warranty.

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.

### Body Component Lubrication

Lubricate all key lock cylinders, hood hinges, liftgate hinges, and the steel fuel door hinge unless the components are plastic. See *Recommended Fluids and Lubricants* ⇨ 296.

### Underbody Maintenance

Every six months, flush any corrosive materials from the underbody with plain water. Take care to thoroughly clean any areas where mud and other debris can collect. If equipped, extend power assist steps and use a high pressure wash to clean all joints and gaps.

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, use original manufacturer replacement parts which provide corrosion protection and maintain the vehicle warranty.

If original manufacturer replacement parts are not used, make sure the body repair shop applies anti-corrosion material to parts repaired or replaced.

### Finish Damage

Quickly repair minor chips and scratches with touch-up materials available from your dealer to avoid corrosion. See your dealer's body and paint shop to correct larger areas of finish damage.

### Chemical Paint Spotting

Airborne pollutants can damage painted vehicle surfaces and cause ring-shaped discolorations and small, irregular dark spots. See "Finish Care" previously in this section for cleaning instructions.

### Interior Care

#### Caution

To prevent damage:

(Continued)

#### Caution (Continued)

- 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 get any exposed electrical components wet.
- Do not use laundry detergents or dishwashing soaps with degreasers. 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.
- Do not use disinfecting wipes that are scented or contain bleach. Do not use wipes or cleaners that show a color transfer to the wipe or change the appearance of the interior surface when used.

(Continued)

#### Caution (Continued)

- Do not use scented or gel-type hand sanitizers. If hand sanitizer comes in contact with interior surfaces of the vehicle, blot immediately and clean with a soft cloth dampened with a mild soap and water solution.

#### Caution

Immediately remove cleaners, hand lotions, sunscreen, and insect repellent from all interior surfaces or permanent damage may result.

#### Caution

Use cleaners specifically designed for the surfaces being cleaned to prevent permanent damage to the vehicle. Apply all cleaners directly to a cleaning cloth. Do not spray cleaners on any switches or controls.

To prevent dirt particle abrasions to the vehicle's interior, regularly clean it. Before using cleaners, read and follow all safety

instructions on the label. While cleaning the interior, open the doors and windows for proper ventilation. Newspapers or dark garments can transfer color to the vehicle's interior.

When using liquid soap cleaners, follow the directions on the specific cleaner or soap solution for dilution instructions.

### Interior Glass

#### Caution

To prevent scratching, never use abrasive cleaners on automotive glass. Abrasive cleaners or aggressive cleaning may damage the rear window defogger.

Use a microfiber cloth fabric dampened with water to clean interior glass. Wipe droplets left behind with a clean dry cloth. If necessary, use a commercial glass cleaner after cleaning with plain water.

Cleaning the interior windshield with water during the first three to six months of ownership will reduce tendency to fog.

### Speaker Covers

Vacuum gently around speaker covers to prevent damage. Clean spots with water and mild soap.

### Coated Moldings

When cleaning coated moldings:

- When lightly soiled, wipe with a sponge or soft, lint-free cloth dampened with water.
- When heavily soiled, use warm soapy water.

### Vinyl/Rubber Floor and Mats



#### Warning

Do not use cleaners that contain silicone, wax-based products, or cleaners that increase gloss on vinyl/rubber floor and mats. These cleaners can permanently change the appearance and feel of the vinyl/rubber and can make the floor slippery. Your foot could slip while operating the vehicle, and you could lose control, resulting in a crash. You or others could be injured.

If equipped with vinyl/rubber floor and mats, use a soft cloth and/or brush dampened with water to remove dust and loose dirt. For more thorough cleaning, use a mild soap and water solution.

### Fabric/Carpet/Suede

Before cleaning, remove as much solid soils as possible, then gently vacuum the surface using a soft brush attachment. If a rotating vacuum brush attachment is used, only use it on the floor carpet.

Gently blot liquids with a paper towel. Continue blotting until no more soil can be removed.

To clean:

1. Saturate a clean, lint-free colorfast 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 center. Fold the cleaning cloth to a clean area frequently to prevent forcing the soil into the fabric.

4. Continue gently rubbing the soiled area until there is no longer any color 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.
6. After cleaning, use a paper towel to blot excess moisture.

Stubborn stains may require a commercial upholstery cleaner or spot lifter. Test a small hidden area for colorfastness before using a commercial upholstery cleaner or spot lifter. If ring formation occurs, clean the entire fabric or carpet.

### **Cleaning High Gloss Surfaces, Vehicle Information, and Radio Displays**

#### **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.

1. Use a soft bristle brush to remove any dirt from the high gloss surface/display.

2. Gently clean the surface/display with a clean microfiber cloth that has not been bleached or washed with fabric softener. Never use window cleaners or solvents.

### **Instrument Panel, Leather, Vinyl, Plastic Surfaces, Low Gloss Paint Surfaces, and Natural Open Pore Wood Surfaces**

#### **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 liquids that contain alcohol or solvents on leather seats. 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.

#### **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.

If equipped, use compressed air or a vacuum to remove dust under the Multi-Functional Controller (MFC) cap.

To remove dust and dirt from knobs and crevices on the instrument cluster:

1. Use a soft bristle brush.
2. Wipe with a soft microfiber cloth dampened with water. Use a mild soap and water solution for more thorough cleaning.

Do not use cleaners that increase gloss, especially on the instrument panel. Reflected glare can decrease visibility through the windshield under certain conditions.

### Cargo Cover and Convenience Net

If equipped, wash with warm water and mild detergent. Do not use chlorine bleach. Rinse with cold water, and then dry completely.

### Care of Seat Belts

#### 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.

Keep belts clean and 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

(Continued)

#### Warning (Continued)

increased stopping distance which can cause a crash and injury. Make sure the floor mat does not interfere with the pedals.

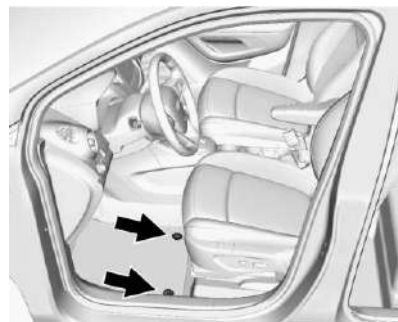
The original equipment floor mats are specially designed for your vehicle. If the floor mats need replacing, see “Removing and Replacing the Floor Mats” later in this section.

#### Proper Use:

- Use only GM-approved floor mats.
- 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.

#### Removing and Replacing the Floor Mats

The driver side floor mat is held in place by two button-type carpet retainers.



1. Pull up on the rear of the floor mat to unlock each retainer and remove.
2. Reinstall by lining up the floor mat retainer openings over the button-type carpet retainers and snapping them into position.
3. Make sure the floor mat is properly secured in place. Verify the floor mat does not interfere with the pedals.

#### Cleaning Rubber All-Weather floor Mats and Floor Liners

See “Vinyl/Rubber” under *Interior Care* ⇨ 286 for important cleaning information.

## Service and Maintenance

### General Information

General Information ..... 290

### Maintenance Schedule

Maintenance Schedule ..... 291

### Multi-Point Vehicle Inspection (MPVI)

Multi-Point Vehicle Inspection (MPVI) .... 293

### Special Application Services

Special Application Services ..... 294

### Recommended Fluids, Lubricants, and Parts

Recommended Fluids and Lubricants ..... 296

### Maintenance Records

Maintenance Records ..... 297

## General Information

Your vehicle is an important investment. This section describes the required maintenance for the vehicle. Follow this schedule to help protect against major repair expenses resulting from neglect or inadequate maintenance. It may also help to maintain the value of the vehicle if it is sold. It is the responsibility of the owner to have all required maintenance performed.

Your dealer has trained technicians who can perform required maintenance using genuine replacement parts. They have up-to-date tools and equipment for fast and accurate diagnostics. Many dealers have extended evening and Saturday hours, courtesy transportation, and online scheduling to assist with service needs.

Your dealer recognizes the importance of providing competitively priced maintenance and repair services. With trained technicians, the dealer is the place for routine maintenance such as oil changes and tire rotations and additional maintenance items like tires, brakes, batteries, and wiper blades.

### 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.

The Tire Rotation and Required Services are the responsibility of the vehicle owner. It is recommended to have your dealer perform these services every 12 000 km/7,500 mi. Proper vehicle maintenance helps to keep the vehicle in good working condition, improves fuel economy, and reduces vehicle emissions.

Because of the way people use vehicles, maintenance needs vary. There may need to be more frequent checks and services. The Additional Required Services - Normal are for vehicles that:

- Carry passengers and cargo within recommended limits on the Tire and Loading Information label. See *Vehicle Load Limits* ⇨ 174.
- Are driven on reasonable road surfaces within legal driving limits.
- Use the recommended fuel. See *Recommended Fuel (1.2L L3 LBP Engine)* ⇨ 215 *Recommended Fuel (1.2L L3 LIH Engine)* ⇨ 216.

Refer to the information in the Maintenance Schedule Additional Required Services - Normal Service.

The Additional Required Services - Severe are for vehicles that are:

- Mainly driven in heavy city traffic in hot weather.
- Mainly driven in hilly or mountainous terrain.
- Frequently towing a trailer.

- Used for high speed or competitive driving.
- Used for taxi, police, or delivery service.

Refer to the information in the Maintenance Schedule Additional Required Services - Severe Service.



### Warning

Performing maintenance work can be dangerous and can cause serious injury. Perform maintenance work only if the required information, proper tools, and equipment are available. If they are not, see your dealer to have a trained technician do the work. See *Doing Your Own Service Work* ⇨ 222.

## Maintenance Schedule

### Tire Rotation and Required Services Every 12 000 km (7,500 mi)

Tires are rotated to achieve a more uniform wear for all tires. The first rotation is the most important.

Anytime unusual wear is noticed, rotate the tires as soon as possible, check for proper tire inflation pressure, and check for damaged tires

or wheels. If the unusual wear continues after the rotation, check the wheel alignment. See *When It Is Time for New Tires* ⇨ 265 and *Wheel Replacement* ⇨ 269.

- Perform Multi-Point Vehicle Inspection. See *Multi-Point Vehicle Inspection (MPVI)* ⇨ 293.
- Lubricate body components. See *Exterior Care* ⇨ 282.

### Additional Required Services — Normal Service

#### Every 10 000 km (6,000 mi)

- For vehicles equipped with an E85-capable fuel system, fill one tank with gasoline (up to E15, regular or premium) every 10 000 km (6,000 mi) to keep the engine running efficiently. See *E85 or FlexFuel* ⇨ 217.

**Every 12 000 km (7,500 mi)**

- Check engine oil level and oil life percentage. If needed, change engine oil and filter, and reset oil life system. Or when the CHANGE ENGINE OIL SOON message displays, have the engine oil and filter changed within the next 1 000 km (600 mi). 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. See *Engine Oil Life System* ⇨ 230.
- When the REPLACE AT NEXT OIL CHANGE message displays, the engine air filter should be replaced at the next engine oil change. When the REPLACE ENGINE AIR FILTER SOON message displays, the engine air filter should be replaced at the earliest convenience. Reset the engine air filter life system after the engine air filter is replaced. See *Engine Air Filter Life System* ⇨ 231.

**Every 36 000 km (22,500 mi)**

- Passenger compartment air filter replacement (or every 24 months, whichever occurs first). More frequent replacement may be needed if the vehicle is driven in areas with heavy traffic, poor air quality, areas with high dust levels or are sensitive to environmental allergens. Filter replacement may also be needed if you notice reduced airflow, windows fogging up, or odors. Your local GM Service location can help you determine when it is the right time to replace your filter.

**Every 96 000 km (60,000 mi)**

- Replace spark plugs. Inspect spark plug wires and/or boots.

**Every 161 000 km (100,000 mi)**

- Replace hood and/or body lift support gas struts. Or every 10 years, whichever comes first. See *Gas Strut(s)* ⇨ 242.

**Every 240 000 km (150,000 mi)**

- Change rear axle fluid, if equipped with AWD. 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.
- Drain and fill engine cooling system. Or every six years, whichever comes first. See *Cooling System* ⇨ 233.
- Replace the oil pump drive belt and timing belt. Or every 15 years, whichever comes first.

**Severe Conditions Requiring More Frequent Maintenance\***

- Public service, military, or commercial use vehicles to include the following:
  - Ambulances, police cars, and emergency rescue vehicles.
  - Civilian vehicles such as light duty pick-up trucks, SUVs, and passenger cars that are used in military applications.

- Recovery vehicles such as tow trucks and flatbed single vehicle carriers or any vehicle that is consistently used in towing trailers or other loads.
- High use commercial vehicles such as courier delivery vehicles, private security patrol vehicles, or any vehicles that operate on a 24-hour basis.
- Any vehicle consistently operated in a high sand or dust environment such as those used on oil pipelines and similar applications.
- Vehicles that are regularly used for short trips of 6 km (4 mi) or less.

The oil life indicator will show you when to change the oil and filter. Under severe conditions the indicator may come on before 12 000 km (7,500 mi).

\* Footnote: Under extreme driving conditions listed above, it may be necessary to replace your spark plugs at more frequent intervals. For further assistance in determining the most suitable service maintenance intervals for your vehicle, please contact your authorized GM Dealer.

Extreme service is for vehicles mainly driven off-road in four-wheel drive or used in farming, mining, forestry, or snow plowing.

### **Additional Required Services — Severe Service**

#### **Every 72 000 km (45,000 mi)**

- Change automatic transmission fluid and filter.

#### **Every 120 000 km (75,000 mi)**

- Change rear axle fluid, if equipped with AWD. 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.

### **Owner Checks and Services**

#### **Every Five Years**

- Replace brake fluid every five years. See *Brake Fluid* ⇨ 238.

### **Every Seven Years**

- Replace Air Conditioning Desiccant every seven years. The air conditioning system requires maintenance every seven years. This service requires replacement of the desiccant to help the longevity and efficient operation of the air conditioning system. This service can be complex. See your dealer.

## **Multi-Point Vehicle Inspection (MPVI)**

A Multi Point Vehicle Inspection (MPVI) completed by a trained technician is a maintenance assessment of your vehicle. The benefit of the MPVI is to identify service items that require immediate attention and those that may require attention in the future.

The technician will perform the following checks on your vehicle. You can obtain a copy of the appropriate MPVI checklist on your country's GM Certified Service website. For a complete list of checks, inspections, and services, see your dealer.

Some items may not apply to your vehicle and/or region.

**Diagnostics**

- OnStar active, if equipped
- Service history/recall check

**Engine Oil and Filter**

- Engine oil
- Oil life monitor
  - Reset oil life monitor

**Exterior Lights**

- Visual inspection

**Windshield and Wipers**

- Visual inspection

**12 Volt Battery**

- Battery visual inspection
- Battery test results
- Battery cables and connections

**Systems, Fluids, and Visible Leak Inspection**

- Engine oil
- Transmission
- Drive axle

- Transfer case
- Engine cooling system
- Power steering, if equipped
- Fuel system
- Windshield washer fluid

**Tire Inspection**

- Tire pressure, tread depth, and wear
- Rotation, if applicable
- Alignment check, optional
- Reset tire pressure monitor
- Check tire sealant expiration date, if equipped
- Check spare tire, if equipped

**Brakes**

- Check brake system

**Visible and Functional Inspections**

- Seat belt components
- Exhaust system
- Accelerator pedal
- Passenger compartment air filter, if equipped

- Engine air filter
- Hoses
- Belts
- Shocks and struts
- Steering components
- Axle boots or driveshaft and u-joints
- Compartment lift struts, if equipped
- Floor mats secured, no interference with pedals
- Horn
- Ignition lock, if equipped
- Starter switch
- Evaporative control system

**Lubricate**

- Chassis components

**Special Application Services**

- Severe Commercial Use Vehicles Only: Lubricate chassis components every oil change.

- 
- Have underbody flushing service performed. See "Underbody Maintenance" in *Exterior Care* ⇨ 282.
- |  |  |
|--|--|
|  |  |
|--|--|

## Recommended Fluids, Lubricants, and Parts

### Recommended Fluids and Lubricants

Fluids and lubricants identified below by name or specification, including fluids or lubricants not listed here, can be obtained from your dealer.

| Usage                                                                         | Fluid/Lubricant                                                                                                                                           |
|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Automatic Transmission                                                        | DEXRON VI Automatic Transmission Fluid.                                                                                                                   |
| Engine Coolant                                                                | 50/50 mixture of clean, drinkable water and use only DEX-COOL Coolant. See <i>Cooling System</i> ⇨ 233.                                                   |
| Engine Oil                                                                    | Engine oil meeting the dexos1 specification of the proper SAE viscosity grade. ACDelco dexos1 full synthetic is recommended. See <i>Engine Oil</i> ⇨ 228. |
| Hood and Door Hinges                                                          | Multi-Purpose Lubricant, Superlube. See your dealer.                                                                                                      |
| Hood Latch Assembly, Secondary Latch, Pivots, Spring Anchor, and Release Pawl | Lubricant meeting requirements of NLGI #2, Category LB or GC-LB.                                                                                          |
| Hydraulic Brake System                                                        | DOT 4 Hydraulic Brake Fluid.                                                                                                                              |
| Windshield Washer                                                             | Automotive windshield washer fluid that meets regional freeze protection requirements.                                                                    |

## 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

|                                           |     |
|-------------------------------------------|-----|
| Vehicle Identification Number (VIN) ..... | 298 |
| Service Parts Identification .....        | 298 |

### Vehicle Data

|                                     |     |
|-------------------------------------|-----|
| Capacities and Specifications ..... | 299 |
| Engine Drive Belt Routing .....     | 300 |

## 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 windshield from outside. The Vehicle Identification Number (VIN) also appears on the Vehicle Certification label 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* ⇨ 299 for the vehicle's engine code.

## Service Parts Identification

The certification label is intended to provide the service technician with vehicle service information.

There may be a large barcode on the certification label located on the driver door or the center pillar (B-pillar) that the service technician can scan for the following information:

- Vehicle Identification Number (VIN)
- Model designation
- Paint information
- Production options

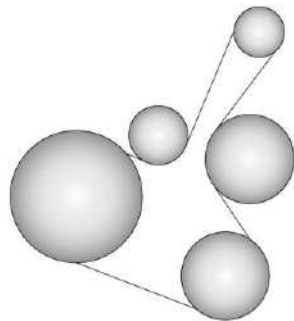
## Vehicle Data

### Capacities and Specifications

| Application                                                                                                                                              | Capacities                                                                                                                                          |           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
|                                                                                                                                                          | Metric                                                                                                                                              | English   |
| Air Conditioning Refrigerant                                                                                                                             | For the air conditioning system refrigerant type and charge amount, see the refrigerant label under the hood. See your dealer for more information. |           |
| Engine Cooling System*                                                                                                                                   | 6.0 L                                                                                                                                               | 6.3 qt    |
| Engine Oil with Filter                                                                                                                                   | 4.0 L                                                                                                                                               | 4.2 qt    |
| Fuel Tank                                                                                                                                                | 50 L                                                                                                                                                | 13.2 gal  |
| Wheel Nut Torque                                                                                                                                         | 140 N•m                                                                                                                                             | 100 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 cooling system capacity values are based on the entire cooling system and its components.                                                        |                                                                                                                                                     |           |

**Engine Specifications**

| Engine                                                                                                                      | VIN Code | Transmission | Spark Plug Gap                |
|-----------------------------------------------------------------------------------------------------------------------------|----------|--------------|-------------------------------|
| 1.2L L3 Gas Engine (LIH)                                                                                                    | 2        | Automatic    | 0.6 - 0.7 mm (0.024-0.028 in) |
| 1.2L L3 Gas Engine (LBP)                                                                                                    | P        | Automatic    | 0.6 - 0.7 mm (0.024-0.028 in) |
| Spark plug gaps are preset by the manufacturer. Re-gapping the spark plug is not recommended and can damage the spark plug. |          |              |                               |

**Engine Drive Belt Routing****1.2L L3 Engine**

## Customer Information

### Customer Information

|                                                             |     |
|-------------------------------------------------------------|-----|
| Customer Satisfaction Procedure .....                       | 301 |
| California Warranty Information .....                       | 303 |
| Customer Assistance Offices .....                           | 305 |
| Customer Assistance for Text<br>Telephone (TTY) Users ..... | 305 |
| Online Account and Customer Support .....                   | 305 |
| GM Mobility Reimbursement Program<br>(U.S. Only) .....      | 306 |
| Roadside Assistance Program .....                           | 306 |
| Scheduling Service Appointments .....                       | 308 |
| Courtesy Transportation Program .....                       | 308 |
| Collision Damage Repair .....                               | 309 |
| Publication Ordering Information .....                      | 310 |
| Radio Frequency Statement .....                             | 311 |

### Reporting Safety Defects

|                                                                   |     |
|-------------------------------------------------------------------|-----|
| Reporting Safety Defects to the United<br>States Government ..... | 311 |
| Reporting Safety Defects to the<br>Canadian Government .....      | 311 |
| Reporting Safety Defects to General<br>Motors .....               | 312 |

### Vehicle Data Recording and Privacy

|                                          |     |
|------------------------------------------|-----|
| Vehicle Data Recording and Privacy ..... | 312 |
| Cybersecurity .....                      | 312 |

|                            |     |
|----------------------------|-----|
| Event Data Recorders ..... | 313 |
| OnStar .....               | 313 |

## Customer Satisfaction Procedure

Your satisfaction and goodwill are important to your dealer and to Chevrolet. Normally, any concerns with the sales transaction or the operation of the vehicle will be resolved by your dealer's sales or service departments. Sometimes, however, despite the best intentions of all concerned, misunderstandings can occur. If your concern has not been resolved to your satisfaction, the following steps should be taken:

**STEP ONE:** Discuss your concern with a member of dealership management. Normally, concerns can be quickly resolved at that level. If the matter has already been reviewed with the sales, service, or parts manager, contact the owner of your dealership or the general manager.

**STEP TWO:** If after contacting a member of dealership management, it appears your concern cannot be resolved by your dealership without further help, in the U.S., call the Chevrolet Customer Assistance Center at 1-800-222-1020. In Canada, call General Motors of Canada Customer Care Centre at 1-800-263-3777 (English), or 1-800-263-7854 (French).

We encourage you to call the toll-free number in order to give your inquiry prompt attention. Have the following information available to give the Customer Assistance representative:

- Vehicle Identification Number (VIN). This is available from the vehicle registration or title, or the plate at the top left of the instrument panel and visible through the windshield.
- Dealership name and location.
- Vehicle delivery date and present mileage.

When contacting Chevrolet, remember that your concern will likely be resolved at a dealer's facility. That is why we suggest following Step One first.

**STEP THREE — U.S. Owners:** Both GM and your GM dealer are committed to making sure you are completely satisfied with your new vehicle. However, if you continue to remain unsatisfied after following the procedure outlined in Steps One and Two, you can file with the Better Business Bureau (BBB) AUTO LINE Program to enforce any additional rights you may have.

The BBB AUTO LINE Program is an out-of-court program administered by the BBB National Programs, Inc. to settle automotive disputes regarding vehicle repairs or the interpretation

of the New Vehicle Limited Warranty. Although you may be required to resort to this informal dispute resolution program prior to filing a court action, use of the program is free of charge and your case will generally be heard within 40 days. If you do not agree with the decision given in your case, you may reject it and proceed with any other venue for relief available to you. When contacting the BBB AUTO LINE, you will need to provide the following information: Owner's name and address, Vehicle identification number (VIN), the Year, Make, Model, mileage of the vehicle and provide a description of the concern.

Contact the BBB AUTO LINE Program using the toll-free telephone number or write them at the following address:

BBB AUTO LINE Program  
BBB National Programs, Inc.  
1676 International Drive  
Suite 550  
McLean, VA 22102

Telephone: 1-800-955-5100  
[www.bbbautoline.org](http://www.bbbautoline.org)

This program is available in all 50 states and the District of Columbia. Eligibility is limited by vehicle age, mileage, and other factors. General

Motors reserves the right to change eligibility limitations and/or discontinue its participation in this program.

**STEP THREE — Canadian Owners:** In the event that you do not feel your concerns have been addressed after following the procedure outlined in Steps One and Two, General Motors of Canada Company wants you to be aware of its participation in a no-charge Mediation/ Arbitration Program. General Motors of Canada Company has committed to binding arbitration of owner disputes involving factory-related vehicle service claims. The program provides for the review of the facts involved by an impartial third party arbiter, and may include an informal hearing before the arbiter. The program is designed so that the entire dispute settlement process, from the time you file your complaint to the final decision, should be completed in about 70 days. We believe our impartial program offers advantages over courts in most jurisdictions because it is informal, quick, and free of charge.

For further information concerning eligibility in the Canadian Motor Vehicle Arbitration Plan (CAMVAP), call toll-free 1-800-207-0685, or call

the General Motors Customer Care Centre, 1-800-263-3777 (English), 1-800-263-7854 (French), or write to:

The Mediation/Arbitration Program  
c/o Customer Care Centre  
General Motors of Canada Company  
500 Wentworth Street W  
Oshawa, ON L1J 0C5

Your inquiry should be accompanied by the Vehicle Identification Number (VIN).

## California Warranty Information

The Song-Beverly Consumer Warranty Act provides consumers who purchase or lease a new motor vehicle in California with certain rights if their vehicle has nonconformities that GM or its authorized repair facilities (e.g., GM dealers) are unable to repair after a reasonable number of attempts.

Applied to your vehicle, California Civil Code Section 1793.2(d) requires that, if GM or its authorized repair facilities are unable to repair a new motor vehicle to conform to the vehicle's applicable express warranties after a reasonable number of attempts, GM

shall either replace the new motor vehicle or provide restitution in accordance with a statutory formula.

California Civil Code Section 1793.22(b) creates a presumption that GM has had a reasonable number of attempts to conform the vehicle to its applicable express warranties if, within 18 months from delivery to the buyer or 18,000 miles on the vehicle's odometer, whichever occurs first, one or more of the following occurs:

- The same nonconformity results in a condition that is likely to cause death or serious bodily injury if the vehicle is driven AND the nonconformity has been subject to repair two or more times by GM or its authorized repair facilities (e.g., dealers) AND the buyer or lessee has at least once directly notified GM of the need for the repair of the nonconformity by mailing such notification to the address listed below.
- The same nonconformity has been subject to repair four or more times by GM or its authorized repair facilities AND the buyer has at least once directly notified GM of the

need for the repair of the nonconformity by mailing such notification to the address listed below.

- The vehicle is out of service by reason of repair nonconformities by GM or its authorized repair facilities for a cumulative total of more than 30 calendar days after delivery of the vehicle to the buyer.

If you purchased or leased a new motor vehicle in California and GM or its authorized repair facilities have been unable to repair the vehicle to conform it to applicable express warranties within a reasonable number of attempts, you may be eligible for relief under the Song-Beverly Consumer Warranty Act. You can submit a claim with the BBB AUTO LINE Program (see *Customer Satisfaction Procedure* ⇨ 307) or you can request in writing that GM replace or repurchase your vehicle.

**Notice to General Motors regarding warranty issues must be sent either by email to [californiawarrantynotice@gm.com](mailto:californiawarrantynotice@gm.com) or by certified or registered mail, return receipt requested, to the following address:**

California Repurchase Notice  
P.O. Box 33173  
Detroit, MI 48232-5173

Any repurchase request must include your name, the accurate Vehicle Identification Number ("VIN") of your vehicle, a brief summary of the repair history and problems with the vehicle.

### Información de garantía de California

La Ley de Garantía del Consumidor Song-Beverly brinda a los consumidores que compran o alquilan un vehículo automotor nuevo en California ciertos derechos si su vehículo presenta inconformidades que GM o sus talleres de reparación autorizadas (por ejemplo, los distribuidores de GM) no pueden reparar después de una cantidad razonable de intentos.

Aplicado a su vehículo, la Sección 1793.2(d) del Código Civil de California requiere que, si GM o sus talleres de reparación autorizadas no pueden reparar un vehículo automotor nuevo para cumplir con las garantías expresas aplicables del vehículo después de una cantidad razonable de intentos, GM deberá reemplazar el vehículo automotor nuevo o proporcionar una restitución de acuerdo con una fórmula legal.

La Sección 1793.22(b) del Código Civil de California crea una presunción de que GM ha realizado un número razonable de intentos para adaptar el vehículo a sus garantías expresas aplicables si, dentro de los 18 meses desde la entrega al comprador o 18,000 millas en el odómetro del vehículo, lo que ocurra primero, ocurre uno o más de los siguientes:

- La misma inconformidad da como resultado una condición que probablemente cause la muerte o lesiones corporales graves si se conduce el vehículo Y la inconformidad ha sido objeto de reparación dos o más veces por GM o sus talleres de reparación autorizadas (por ejemplo, distribuidores) Y el comprador o arrendatario ha notificado directamente por lo menos una vez a GM sobre la necesidad de reparar la inconformidad enviando dicha notificación por correo a la dirección que se indica a continuación.
- La misma inconformidad ha sido objeto de reparación cuatro o más veces por GM o sus talleres de reparación autorizadas Y el comprador ha notificado directamente por lo menos una vez a GM sobre la necesidad

de la reparación de la inconformidad enviando dicha notificación a la dirección que se indica a continuación.

- El vehículo está fuera de servicio debido a inconformidades de reparación por parte de GM o sus talleres de reparación autorizadas por un total acumulado de más de 30 días calendario después de la entrega del vehículo al comprador.

Si compró o alquiló un vehículo automotor nuevo en California y GM o sus talleres de reparación autorizados no han podido reparar el vehículo para cumplir con las garantías expresas aplicables dentro de una cantidad razonable de intentos, puede ser elegible para recibir ayuda bajo la Ley de Garantía del Consumidor Song-Beverly. Puede presentar un reclamo ante el Programa BBB AUTO LINE (consulte el Procedimiento de satisfacción del cliente) o puede solicitar por escrito que GM reemplace o recompre su vehículo.

El aviso a General Motors sobre problemas de garantía debe enviarse por correo electrónico a [californiawarrantynotice@gm.com](mailto:californiawarrantynotice@gm.com) o por correo certificado o registrado, con acuse de recibo solicitado, a la siguiente dirección:

Aviso de recompra de California  
P.O. Box 33173

Detroit, MI 48232-5173

La solicitud para reemplazo o recompra debe incluir su nombre, el Número de identificación del vehículo ("NIV") preciso de su vehículo, un breve resumen del historial de reparación y problemas con el vehículo.

## Customer Assistance Offices

Chevrolet is committed to assisting customers. Visit us online at [www.chevrolet.com/support](http://www.chevrolet.com/support) (U.S.) or [www.chevrolet.ca/en/owners](http://www.chevrolet.ca/en/owners) (Canada) to chat with us or find answers to commonly asked questions, tips, vehicle how-to instructions, and available support.

Need more help? Use the telephone numbers or mailing addresses below for additional assistance.

### United States and Puerto Rico

Chevrolet Motor Division  
Chevrolet Customer Assistance Center  
P.O. Box 33170  
Detroit, MI 48232-5170  
1-800-222-1020

TTY: Dial 711 relay service and  
contact 1-800-833-2438

Roadside Assistance: 1-800-243-8872

### Canada

Customer Care Centre  
General Motors of Canada Company  
500 Wentworth Street W  
Oshawa, ON L1J 0C5

1-800-263-3777 (English)

1-800-263-7854 (French)

1-800-263-3830 (For Text Telephone  
devices (TTYs))

Roadside Assistance: 1-800-268-6800

### Overseas

Please contact the local General Motors  
Business Unit.

## Customer Assistance for Text Telephone (TTY) Users

To assist customers who are deaf, hard of  
hearing, or speech-impaired and/or who use  
Text Telephones (TTYs), please dial the national  
711 relay service and contact 1-800-833-2438.  
TTY users in Canada can dial 1-800-263-3830.

## Online Account and Customer Support

### Create a Chevrolet Account (U.S.) at [chevrolet.com](http://chevrolet.com)

Learn more about your vehicle features, shop  
for and manage your connected services  
and OnStar plans, and access diagnostic  
information specific to your vehicle. Visit  
[chevrolet.com](http://chevrolet.com) and create an account today.

### Membership Benefits

 : Download owner's manuals and view  
vehicle-specific how-to videos.

 : View maintenance schedules, alerts, and  
Vehicle Diagnostic Information. Schedule  
service appointments.

 : View service records from your dealership  
and add your own.

 : Select a preferred dealer and view  
locations, maps, phone numbers, and hours.

 : Track your vehicle warranty information.

 : View active recalls by Vehicle Identification  
Number. See *Vehicle Identification Number*  
(VIN) ⇨ 298.

 : Manage your profile and payment information. View your GM Rewards Card earnings and My Chevrolet Rewards points.

 : Chat with online help representatives.

### Chevrolet Account (Canada)

Visit your Chevrolet Account at [chevrolet.ca/en](http://chevrolet.ca/en) (English) or [chevrolet.ca/fr](http://chevrolet.ca/fr) (French) to access similar benefits.

### GM Mobility Reimbursement Program (U.S. Only)

GENERAL MOTORS MOBILITY



This program is available to qualified applicants for cost reimbursement, up to certain limits, of eligible aftermarket adaptive equipment required for the vehicle, such as hand controls or a wheelchair/scooter lift for the vehicle.

To learn about the GM Mobility program, call the GM Mobility Assistance Center at 1-800-323-9935. Text Telephone (TTY) users, please dial the national 711 relay service and contact 1-800-323-9935.

### Roadside Assistance Program

For U.S.-purchased vehicles, call 1-800-243-8872. Text Telephone (TTY) Users (U.S. Only): Contact 711 relay service and provide 1-800-243-8872.

For Canadian-purchased vehicles, call 1-800-268-6800.

Service is available 24 hours a day, 365 days a year.

### Calling for Assistance

When calling Roadside Assistance, have the following information ready:

- Your name, home address, and home telephone number
- Telephone number of your location, if available
- Location of the vehicle
- Model, year, color, and license plate number of the vehicle

- Odometer reading and Vehicle Identification Number (VIN)
- Description of the problem

### Coverage

Services are provided for the duration of the vehicle's Powertrain Warranty.

In the U.S., anyone driving the vehicle is covered. In Canada, a person driving the vehicle without permission from the owner is not covered.

Roadside Assistance is not a part of the New Vehicle Limited Warranty. General Motors North America and Chevrolet reserve the right to make any changes or discontinue the Roadside Assistance program at any time without notification.

General Motors North America and Chevrolet reserve the right to limit services or payment to an owner or driver if they decide the claims are made too often, or the same type of claim is made too frequently.

### Services Provided

- **Emergency Fuel Delivery:** Delivery of enough fuel for the vehicle to get to the nearest service station.

- **Lock-Out Service:** Service to unlock the vehicle if you are locked out. A remote unlock may be available if you have OnStar. For security reasons, the driver must present identification before this service is given.
- **Emergency Tow from a Public Road or Highway:** Tow to the nearest Chevrolet dealer for warranty service, or if the vehicle was in a crash and cannot be driven.
- **Flat Tire Change:** Service to change a flat tire with the spare tire. The spare tire, if equipped, must be in good condition and properly inflated. It is the owner's responsibility for the repair or replacement of the tire if it is not covered by the warranty.
- **Battery Jump Start:** Service to jump start a dead battery.
- **Trip Interruption Benefits and Assistance:** If your trip is interrupted due to a warranty event, incidental expenses may be reimbursed within the Powertrain Warranty period. Items considered are reasonable and customary hotel, meals, rental car, or a vehicle being delivered back to the customer, up to 500 miles.

### Services Not Included in Roadside Assistance

- Impound towing caused by violation of any laws
- Reimbursement of legal fines
- Reimbursement of police mandated tows
- Mounting, dismounting, or changing of snow tires, chains, or other traction devices
- Towing of anything attached to the vehicle like boats, campers, trailers, cargo boxes, etc.
- Vehicles stranded due to off-road driving

Service is not provided if a vehicle is in an area that is not accessible to the service vehicle or is not a regularly traveled or maintained public road, which includes ice and winter roads.

Service is not provided on restricted roadways which can include and is not limited to, some highways, tunnels, toll roads, toll bridges, turnpikes, and service roads. Assistance is not given when the vehicle is stuck in the sand, mud, or snow.

### Services Specific to Canadian-Purchased Vehicles

- **Fuel Delivery:** Reimbursement is up to 7 liters. Propane and other fuels are not provided through this service.
- **Lock-Out Service:** Vehicle registration is required.
- **Trip Interruption Benefits and Assistance:** Must be traveling and over 150 km from where your trip was started to qualify. Pre-authorization, original detailed receipts, and a copy of the repair orders are required. Once authorization has been received, the Roadside Assistance advisor will help to make arrangements and explain how to receive payment.
- **Alternative Service:** If assistance cannot be provided right away, the Roadside Assistance advisor may give permission to get local emergency road service. You will receive payment, up to \$100, after sending the original receipt to Roadside Assistance. Mechanical failures may be covered, however any cost for parts and labor for repairs not covered by the warranty are the owner's responsibility.

## Scheduling Service Appointments

If your vehicle requires service, contact your dealer and request an appointment. By scheduling a service appointment and advising the service consultant of your transportation needs, your dealer can help minimize your inconvenience. Be sure to notify your dealer of any safety-related concerns when requesting the appointment.

If you cannot schedule service immediately, keep driving the vehicle until your scheduled appointment, unless the problem is safety related.

If you are seeking a same-day repair, schedule your appointment as early in the day as possible.

## Courtesy Transportation Program

GM and our participating dealers are proud to offer Courtesy Transportation. This customer support program minimizes inconvenience during warranty repairs for vehicles with the Bumper-to-Bumper (Base Warranty Coverage period in Canada), Federal Emission, Extended Powertrain, or Electric-specific warranties in both the U.S. and Canada.

Courtesy Transportation is not a part of the New Vehicle Limited Warranty. See the "Limited Warranty and Owner Assistance Information" manual for detailed new vehicle warranty coverage information.

### Transportation Options

Warranty service is often completed while you wait. If not, your dealer may offer these transportation options:

#### Shuttle Service

One-way or round-trip shuttle service within a reasonable time and distance from your dealer.

#### Public Transportation, Ridesharing App, or Fuel Reimbursement

If your vehicle is kept overnight for repairs and you use public transportation or a ridesharing app, original receipts must support the expense within GM's allowed maximum to qualify for reimbursement. If U.S. customers arrange their own transportation, limited reimbursement for reasonable fuel expenses may be available. Claims should reflect actual costs and must be supported by original receipts. See your dealer for information.

### Courtesy Rental Vehicle

For an overnight warranty repair, the dealer may offer a courtesy rental vehicle or reimburse rental costs. Reimbursement requires original receipts, a signed and complete rental agreement, and must meet state/provincial, local and rental vehicle provider requirements, which may include, minimum age requirements, insurance coverage, and credit card. Additional fees for fuel, rental vehicle insurance, taxes, levies, usage fees, excessive mileage, or rental usage beyond the completion of the repair are your responsibility.

A like vehicle may not be available as a courtesy rental.

### Additional Program Information

Not all program options, like shuttle service, are available at every dealer. Contact your dealer for availability.

General Motors reserves the right to unilaterally modify, change, or discontinue Courtesy Transportation at any time and to resolve all questions of claim eligibility pursuant to the terms and conditions described herein at its sole discretion.

## Collision Damage Repair

If the vehicle is involved in a collision and it is damaged, have the damage repaired by a qualified technician using the proper equipment and quality replacement parts. Poorly performed collision repairs diminish the vehicle resale value, and safety performance can be compromised in subsequent collisions.

### Collision Parts

Genuine GM Collision parts are new parts made with the same materials and construction methods as the parts with which the vehicle was originally built. Genuine GM Collision parts are the best choice to ensure that the vehicle's designed appearance, durability, and safety are preserved. The use of Genuine GM parts can help maintain the GM New Vehicle Limited Warranty.

Recycled original equipment parts may also be used for repair. These parts are typically removed from vehicles that were total losses in prior crashes. In most cases, the parts being recycled are from undamaged sections of the vehicle. A recycled original equipment GM part may be an acceptable choice to maintain the vehicle's originally designed appearance and safety performance; however, the history

of these parts is not known. Such parts are not covered by the GM New Vehicle Limited Warranty, and any related failures are not covered by that warranty.

Aftermarket collision parts are also available. These are made by companies other than GM and may not have been tested for the vehicle. As a result, these parts may fit poorly, exhibit premature durability/corrosion problems, and may not perform properly in subsequent collisions. Aftermarket parts are not covered by the GM New Vehicle Limited Warranty, and any vehicle failure related to such parts is not covered by that warranty.

### Repair Facility

GM also recommends that you choose a collision repair facility that meets your needs before you ever need collision repairs. Your dealer may have a collision repair center with GM-trained technicians and state-of-the-art equipment, or be able to recommend a collision repair center that has GM-trained technicians and comparable equipment.

## Insuring the Vehicle

Protect your investment in the GM vehicle with comprehensive and collision insurance coverage. There are significant differences in the quality of coverage afforded by various insurance policy terms. Many insurance policies provide reduced protection to the GM vehicle by limiting compensation for damage repairs through the use of aftermarket collision parts. Some insurance companies will not specify aftermarket collision parts. When purchasing insurance, we recommend that you ensure that the vehicle will be repaired with GM original equipment collision parts. If such insurance coverage is not available from your current insurance carrier, consider switching to another insurance carrier.

If the vehicle is leased, the leasing company may require you to have insurance that ensures repairs with Genuine GM Original Equipment Manufacturer (OEM) parts or Genuine Manufacturer replacement parts. Read the lease carefully, as you may be charged at the end of the lease for poor quality repairs.

### If a Crash Occurs

If there has been an injury, call emergency services for help. Do not leave the scene of a crash until all matters have been taken care of. Move the vehicle only if its position puts you in danger, or you are instructed to move it by a police officer.

Give only the necessary information to police and other parties involved in the crash.

For emergency towing see *Roadside Assistance Program* ⇨ 306.

Gather the following information:

- Driver name, address, and telephone number
- Driver license number
- Owner name, address, and telephone number
- Vehicle license plate number
- Vehicle make, model, and model year
- Vehicle Identification Number (VIN)
- Insurance company and policy number
- General description of the damage to the other vehicle

Choose a reputable repair facility that uses quality replacement parts. See “Collision Parts” earlier in this section.

If the airbag has inflated, see *What Will You See After an Airbag Inflates?* ⇨ 51.

### Managing the Vehicle Damage Repair Process

In the event that the vehicle requires damage repairs, GM recommends that you take an active role in its repair. If you have a pre-determined repair facility of choice, take the vehicle there, or have it towed there. Specify to the facility that any required replacement collision parts be original equipment parts, either new Genuine GM parts or recycled original GM parts. Remember, recycled parts will not be covered by the GM vehicle warranty.

Insurance pays the bill for the repair, but you must live with the repair. Depending on your policy limits, your insurance company may initially value the repair using aftermarket parts. Discuss this with the repair professional, and insist on Genuine GM parts. Remember, if the vehicle is leased, you may be obligated to have the vehicle repaired with Genuine GM parts, even if your insurance coverage does not pay the full cost.

If another party's insurance company is paying for the repairs, you are not obligated to accept a repair valuation based on that insurance company's collision policy repair limits, as you have no contractual limits with that company. In such cases, you can have control of the repair and parts choices as long as the cost stays within reasonable limits.

### Publication Ordering Information

#### Service Manuals

Service manuals have the diagnosis and repair information on the engine/propulsion, transmission, axle, suspension, brakes, electrical system, steering system, body, etc.

#### Customer Literature

Owner's manuals are written specifically for owners and are intended to provide basic operational information about the vehicle. The owner's manual includes the Maintenance Schedule for all models.

Customer literature publications available for purchase include owner's manuals, warranty manuals, and portfolios. Portfolios include an owner's manual, warranty manual, if applicable, and zip lock bag or pouch.

## Current and Past Models

Service manuals and customer literature are available for many GM vehicles.

To check availability and to order, call  
1-800-551-4123 Monday–Friday, 8:00 a.m.–  
6:00 p.m. Eastern Time

For credit card orders only (VISA, MasterCard, or  
Discover), see Helm, Inc. at: [www.helminc.com](http://www.helminc.com).

To order by mail, write to:

Helm, Incorporated  
Attention: Customer Service  
47911 Halyard Drive  
Plymouth, MI 48170

Make checks payable in U.S. funds.

## Radio Frequency Statement

This vehicle uses license-exempt transmitters /  
receivers / systems that operate on a radio  
frequency that complies with Part 15/Part 18  
of the Federal Communications Commission  
(FCC) rules and with Innovation, Science  
and Economic Development (ISED) Canada's  
license-exempt RSS(s) / RSP-100 / ICES-GEN.

Operation is subject to the following  
two conditions:

1. The device may not cause  
harmful interference.
2. The device must accept any interference  
received, including interference that may  
cause undesired operation of the device.

Changes or modifications to any of these  
systems by other than an authorized service  
facility could void authorization to use  
this equipment.

## Reporting Safety Defects

### Reporting Safety Defects to the United States Government

If you believe that your vehicle has a defect  
which could cause a crash or could cause  
injury or death, you should immediately  
inform the National Highway Traffic  
Safety Administration (NHTSA) in addition  
to notifying General Motors.

If NHTSA receives similar complaints,  
it may open an investigation, and if  
it finds that a safety defect exists in  
a group of vehicles, it may order a recall

and remedy campaign. However, NHTSA  
cannot become involved in individual  
problems between you, your dealer, or  
General Motors.

To contact NHTSA, you may call  
the Vehicle Safety Hotline toll-free at  
1-888-327-4236 (TTY: 1-877-561-7439); go to  
<https://www.safercar.gov>; or write to:

Administrator, NHTSA  
1200 New Jersey Avenue, S.E.,  
Washington, D.C. , 20590

You can also obtain other  
information about motor vehicle safety  
from <https://www.safercar.gov>.

### Reporting Safety Defects to the Canadian Government

If you live in Canada, and you believe  
that the vehicle has a safety defect, notify  
Transport Canada immediately, and notify  
General Motors of Canada Company. Call  
Transport Canada at 1-800-333-0510; go to:

[www.tc.gc.ca/recalls](http://www.tc.gc.ca/recalls) (English)

[www.tc.gc.ca/rappels](http://www.tc.gc.ca/rappels) (French)

or write to:

Transport Canada  
Motor Vehicle Safety Directorate  
Defect Investigations and Recalls Division  
80 Noel Street  
Gatineau, QC J8Z 0A1

## Reporting Safety Defects to General Motors

In addition to notifying National Highway Traffic Safety Administration (NHTSA) (or Transport Canada) in a situation like this, notify General Motors.

In the U.S., call 1-800-222-1020, or write:

Chevrolet Motor Division  
Chevrolet Customer Assistance Center  
P.O. Box 33170  
Detroit, MI 48232-5170

In Canada, call 1-800-263-3777 (English) or 1-800-263-7854 (French), or write:

Customer Care Centre  
General Motors of Canada Company  
500 Wentworth Street W  
Oshawa, ON L1J 0C5

In Mexico, call 800-466-0811 or 800-508-0000.

In other Central America and Caribbean Countries, call 52-555-901-2369.

## Vehicle Data Recording and Privacy

The vehicle has a number of computers that record information about the vehicle's performance and how it is driven or used. For example, the vehicle uses computer modules to monitor and control engine and transmission performance, to monitor the conditions for airbag deployment and deploy them in a crash, and, if equipped, to provide antilock braking to help the driver control the vehicle. These modules may store data to help the dealer technician service the vehicle or to help GM improve safety or features. Some modules may also store data about how the vehicle is operated, such as rate of fuel consumption or average speed. These modules may retain personal preferences, such as radio presets, seat positions, and temperature settings.

## Cybersecurity

GM collects information about the use of your vehicle including operational and safety related information. We collect this

information to provide, evaluate, improve, and troubleshoot our products and services and to develop new products and services. The protection of vehicle electronics systems and customer data from unauthorized outside electronic access or control is important to GM. GM maintains appropriate security standards, practices, guidelines and controls aimed at defending the vehicle and the vehicle service ecosystem against unauthorized electronic access, detecting possible malicious activity in related networks, and responding to suspected cybersecurity incidents in a timely, coordinated and effective manner. Security incidents could impact your safety or compromise your private data. To minimize security risks, please do not connect your vehicle electronic systems to unauthorized devices or connect your vehicle to any unknown or untrusted networks (such as Bluetooth, Wi-Fi, or similar technology). In the event you suspect any security incident impacting your data or the safe operation of your vehicle, please stop operating your vehicle and contact your dealer.

## Event Data Recorders

This vehicle is equipped with an Event Data Recorder (EDR). The main purpose of an EDR is to record, in certain crash or near crash-like situations, such as an air bag deployment or hitting a road obstacle, data that will assist in understanding how a vehicle's systems performed. The EDR is designed to record data related to vehicle dynamics and safety systems for a short period of time, typically 30 seconds or less. The EDR in this vehicle is designed to record such data as:

- How various systems in your vehicle were operating;
- Whether or not the driver and passenger safety belts were buckled/fastened;
- How far (if at all) the driver was depressing the accelerator and/or brake pedal; and,
- How fast the vehicle was traveling.

These data can help provide a better understanding of the circumstances in which crashes and injuries occur.

### Note

EDR data are recorded by your vehicle only if a non-trivial crash situation occurs; no data are recorded by the EDR under

normal driving conditions and no personal data (e.g., name, gender, age, and crash location) are recorded. However, other parties, such as law enforcement, could combine the EDR data with the type of personally identifying data routinely acquired during a crash investigation.

To read data recorded by an EDR, special equipment is required, and access to the vehicle or the EDR is needed. In addition to the vehicle manufacturer, other parties, such as law enforcement, that have the special equipment, can read the information if they have access to the vehicle or the EDR.

GM will not access these data or share it with others except: with the consent of the vehicle owner or, if the vehicle is leased, with the consent of the lessee; in response to an official request by police or similar government office; as part of GM's defense of litigation through the discovery process; or, as permitted by law. Data that GM collects or receives may also be used for GM research needs or may be made available to others for research purposes, where a need is shown and the data is not tied to a specific vehicle or vehicle owner.

## OnStar

If the vehicle is equipped with OnStar and has an active service plan, additional data may be collected and transmitted through the OnStar system. This includes information about the vehicle's operation; collisions involving the vehicle; the use of the vehicle and its features, including infotainment; and the location and approximate GPS speed of the vehicle. Refer to the OnStar Terms and Conditions and Privacy Statement on the OnStar website.

See *OnStar Additional Information* ⇨ 315.

## OnStar

### OnStar Overview

OnStar Overview ..... 314

### OnStar Services

Emergency ..... 315

Security ..... 315

### OnStar Additional Information

OnStar Additional Information ..... 315

## OnStar Overview



 White OnStar Button



 Blue OnStar Button



 Red Emergency Button

This vehicle may be equipped with a comprehensive, in-vehicle system that can connect to an OnStar Advisor for Emergency, Security, Navigation, Connections, and Diagnostics Services. OnStar services may require a paid service plan and data plan. OnStar requires the vehicle battery and electrical system, cellular service, and GPS satellite signals to be available and operating. OnStar acts as a link to existing emergency service providers. OnStar may collect information about you and your vehicle, including location information. See OnStar User Terms, Privacy Statement, and

Software Terms for more details including system limitations at [www.onstar.com](http://www.onstar.com) (U.S.) or [www.onstar.ca](http://www.onstar.ca) (Canada).

The OnStar system status light is next to the OnStar buttons. If the status light is:

- Solid Green: System is ready.
- Flashing Green: On a call.
- Red: Indicates a problem.
- Off: System is off. Press  twice to speak with an OnStar Advisor.

Press  or call 1-888-4ONSTAR (1-888-466-7827) to speak to an Advisor.

Functionality of the White OnStar Button may vary by vehicle and region.

Press  to answer and end incoming calls with a live OnStar Advisor.

Press  to connect to an Advisor to:

- Verify account information or update contact information.
- Get driving directions.
- Receive a Diagnostic check of the vehicle's key operating systems.
- Receive Roadside Assistance.

- Manage Wi-Fi Settings, if equipped.

Press  to get a priority connection to an OnStar Advisor available 24/7 to:

- Get help for an emergency.
- Be a Good Samaritan or respond to an AMBER Alert.
- Get assistance in severe weather or other crisis situations and find evacuation routes.

## OnStar Services

### Emergency

Emergency Services require an active safety and security plan. With Automatic Crash Response, built-in sensors can automatically alert a specially trained OnStar Advisor who is immediately connected in to the vehicle to help.

Press  for a priority connection to an OnStar Advisor who can contact emergency service providers, direct them to your exact location, and relay important information.

With OnStar Crisis Assist, specially trained Advisors are available 24 hours a day, 7 days a week, to provide a central point of contact, assistance, and information during a crisis.

With Roadside Assistance, Advisors can locate a nearby service provider to help with a flat tire, a battery jump, or an empty gas tank.

### Security

If equipped, OnStar provides these services:

- With Stolen Vehicle Assistance, OnStar Advisors can use GPS to pinpoint the vehicle and help authorities quickly recover it.
- With Remote Ignition Block, if equipped, OnStar can block the vehicle from being restarted.
- With Stolen Vehicle Slowdown, if equipped, OnStar can work with law enforcement to gradually slow the vehicle down.

### Theft Alarm Notification

When the vehicle alarm system is armed and the alarm is activated, a notification by text, email, or app push will be sent. If the vehicle is stolen, an OnStar Advisor can work with authorities to recover the vehicle.

## OnStar Additional Information

### In-Vehicle Audio Messages

Audio messages may play important information at the following times:

- Prior to vehicle purchase. Press  to set up an account.
- After change in ownership and at 90 days.

### Transferring Service

Press  to request account transfer eligibility information. The Advisor can cancel or change account information.

### Selling/Transferring the Vehicle

Call 1-888-4ONSTAR (1-888-466-7827) immediately to terminate your OnStar or connected services if the vehicle is disposed of, sold, transferred, or if the lease ends.

### Reactivation for Subsequent Owners

Press  and follow the prompts to speak to an Advisor as soon as possible. The Advisor will update vehicle records and explain OnStar or connected service options.

## How OnStar Service Works

Automatic Crash Response, Emergency Services, Crisis Assist, Stolen Vehicle Assistance, Remote Services, and Roadside Assistance are available on most vehicles. Not all OnStar services are available everywhere or on all vehicles. For more information, a full description of OnStar services, system limitations, and OnStar User Terms, Privacy Statement, and Software Terms:

- Call 1-888-4ONSTAR (1-888-466-7827).
- See [www.onstar.com](http://www.onstar.com) (U.S.).
- See [www.onstar.ca](http://www.onstar.ca) (Canada).
- Call TTY 1-877-248-2080.
- Press  to speak with an Advisor.

OnStar or connected services cannot work unless the vehicle is in a place where OnStar has an agreement with a wireless service provider for service in that area. The wireless service provider must also have coverage, network capacity, reception, and technology compatible with OnStar or connected services. Service involving location information about the vehicle cannot work unless GPS signals are available, unobstructed, and compatible with the OnStar hardware. OnStar or connected

services may not work if the OnStar equipment is not properly installed or it has not been properly maintained. If equipment or software is added, connected, or modified, OnStar or connected services may not work. Other problems beyond the control of OnStar — such as hills, tall buildings, tunnels, weather, electrical system design and architecture of the vehicle, damage to the vehicle in a crash, or wireless phone network congestion or jamming — may prevent service.

See *Radio Frequency Statement* ⇨ 311.

## Services for People with Disabilities

Advisors provide services to help with physical disabilities and medical conditions.

Press  to help:

- Locate a gas station with an attendant to pump gas.
- Find a hotel, restaurant, etc., that meets accessibility needs.
- Provide directions to the closest hospital or pharmacy in urgent situations.

## TTY Users

OnStar has the ability to communicate to deaf, hard-of-hearing, or speech-impaired customers while in the vehicle. The available TTY system can provide in-vehicle access to all OnStar services, except Virtual Advisor and OnStar Turn-by-Turn Navigation.

If equipped, TTY mode can be turned on or off by touching Settings, then Apps, and then Phone. When TTY mode is on, phone calls can be made or received with OnStar using the infotainment display.

## OnStar Personal Identification Number (PIN)

A PIN is needed to access some OnStar services. The PIN will need to be changed the first time when speaking with an Advisor. To change the OnStar PIN, contact an OnStar Advisor by pressing  or calling 1-888-4ONSTAR.

## Warranty

OnStar equipment may be warranted as part of the vehicle warranty.

## Languages

The vehicle can be programmed to respond in multiple languages. Press  and ask for an Advisor. Advisors are available in English, Spanish, and French. Available languages may vary by country.

## Potential Issues

OnStar cannot perform Remote Door Unlock or Stolen Vehicle Assistance after the vehicle has been off continuously for an extended period of time without an ignition cycle. To find out the duration of time that applies for the vehicle, contact an OnStar Advisor by pressing  or calling 1-888-4ONSTAR. If the vehicle has not been started for an extended period of time, OnStar can contact Roadside Assistance or a locksmith to help gain access to the vehicle.

## Global Positioning System (GPS)

- Obstruction of the GPS can occur in a large city with tall buildings; in parking garages; around airports; in tunnels and underpasses; or in an area with very dense trees. If GPS signals are not available, the OnStar system should still operate to call OnStar. However, OnStar could have difficulty identifying the exact location.

- In emergency situations, OnStar can use the last stored GPS location to send to emergency responders.

A temporary loss of GPS can cause loss of the ability to send a Turn-by-Turn Navigation route. The Advisor may give a verbal route or may ask for a call back after the vehicle is driven into an open area.

## Cellular and GPS Antennas

Cellular reception is required for OnStar to send remote signals to the vehicle. Do not place items over or near the antenna to prevent blocking cellular and GPS signal reception.

## Unable to Connect to OnStar Message

If there is limited cellular coverage or the cellular network has reached maximum capacity, this message may come on. Press  to try the call again or try again after driving a few miles into another cellular area.

## Vehicle and Power Issues

OnStar services require a vehicle electrical system, wireless service, and GPS satellite technologies to be available and operating for

features to function properly. These systems may not operate if the battery is discharged or disconnected.

## Add-on Electrical Equipment

The OnStar system is integrated into the electrical architecture of the vehicle. Do not add any electrical equipment. See *Add-On Electrical Equipment* ⇨ 220. Added electrical equipment may interfere with the operation of the OnStar system and cause it to not operate.

## Vehicle Software Updates

OnStar or GM may remotely deliver software updates or changes to the vehicle without further notice or consent. These updates or changes may enhance or maintain safety, security, or the operation of the vehicle or the vehicle systems. Software updates or changes may affect or erase data or settings that are stored in the vehicle, such as saved navigation destinations or pre-set radio stations. Neither OnStar nor GM is responsible for any affected or erased data or settings. These updates or changes may also collect personal information. Such collection is described in the OnStar privacy statement or separately disclosed at the time of installation. These updates

or changes may also cause a system to automatically communicate with GM servers to collect information about vehicle system status, identify whether updates or changes are available, or deliver updates or changes. An active OnStar agreement constitutes consent to these software updates or changes and agreement that either OnStar or GM may remotely deliver them to the vehicle.

### Privacy

The complete OnStar Privacy Statement may be found at [www.onstar.com](http://www.onstar.com) (U.S.), or [www.onstar.ca](http://www.onstar.ca) (Canada). We recommend that you review it. If you have any questions, call 1-888-4ONSTAR (1-888-466-7827) or press  to speak with an Advisor. Users of wireless communications are cautioned that the privacy of any information sent via wireless cellular communications cannot be assured. Third parties may unlawfully intercept or access transmissions and private communications without consent.

### OnStar - Software Acknowledgements

To obtain the source code under GPL, LGPL, MPL, and other open source licenses, that is contained in this product, please visit

<https://opensource.lge.com>. In addition to the source code, all referred license terms, warranty disclaimers, and copyright notices are available for download. This offer is valid for a period of three years after our last shipment of this product. This offer is valid to anyone in receipt of this information.

\*Provided through LG Electronics Inc., who is solely responsible for provisions of related OSS compliance.

## Connected Services

### Connected Services

|                   |     |
|-------------------|-----|
| Navigation .....  | 319 |
| Connections ..... | 319 |
| Diagnostics ..... | 320 |

### Navigation

Navigation requires a specific OnStar or connected service plan.

Press  to receive Turn-by-Turn directions or have them sent to the vehicle's navigation screen, if equipped. Select Turn-by-Turn Directions from the Services tab of the OnStar app to call an Advisor or select a recent or favorite destination. Touch the navigation icons to select home, address, or place. A destination transfer from OnStar will show the detail view of the destination when it is transferred from OnStar to the Navigation application. See [www.onstar.com](http://www.onstar.com) for a coverage map. Services vary by model. Map coverage is available in the United States and Canada.

### Turn-by-Turn Navigation

1. Press  to connect to an Advisor.
2. Request directions to be downloaded to the vehicle.
3. Follow the voice-guided commands.

### Using OnStar During a Planned Route

Functionality of the Blue OnStar button, if equipped, may vary by vehicle and region. For some vehicles, press  to open the OnStar app on the infotainment display.

### Send Destination to Vehicle

Directions can be sent to the vehicle's navigation screen, if equipped.

Press , then ask the Advisor to download directions to the vehicle's navigation system, if equipped. After the call ends, the navigation screen will provide prompts to begin driving directions. Routes that are sent to the navigation screen can only be canceled through the navigation system.

See [www.onstar.com](http://www.onstar.com) (U.S.) or [www.onstar.ca](http://www.onstar.ca) (Canada).

### Connections

The following services help with staying connected.

For coverage maps, see [www.onstar.com](http://www.onstar.com) (U.S.) or [www.onstar.ca](http://www.onstar.ca) (Canada).

### Ensuring Security

- Change the default password for the myChevrolet mobile application. Use a combination of letters and numbers to increase the security.
- Change the Wi-Fi hotspot name (Service Set Identifier) and password. The Service Set Identifier is your network's name that is visible to other wireless devices. Choose a unique name and avoid family names or vehicle descriptions.

### Wi-Fi Hotspot

The vehicle has a built-in Wi-Fi hotspot that provides access to the Internet and web content up to 5G speed, if equipped and enabled. Multiple devices can be connected. A data plan is required. Use the in-vehicle controls only when it is safe to do so.

1. To retrieve Wi-Fi hotspot information, see "Wi-Fi Hotspot" under *Settings (11 Inch Screen Radio)* ⇨ 131. On some vehicles, select Wi-Fi Hotspot on the home screen.
2. The Wi-Fi settings will display the Wi-Fi hotspot name, password, and on some vehicles, the connection type (no Internet connection, 3G, 4G, 4G LTE, 5G), and signal

quality (poor, good, excellent) is also displayed. The LTE icon shows connection to Wi-Fi. It is possible that the icon may not illuminate even though the vehicle has an active connection.

3. To change the Wi-Fi hotspot name or password, press  or call 1-888-4ONSTAR to connect with an Advisor. On some vehicles, the Wi-Fi hotspot name and password can be changed in the Wi-Fi Hotspot menu.

After initial set-up, your vehicle's Wi-Fi hotspot will connect automatically to your mobile devices. Manage data usage by turning Wi-Fi on or off on your mobile device, using the myChevrolet mobile app, or by contacting an OnStar Advisor. On some vehicles, Wi-Fi can also be managed from the Wi-Fi Hotspot menu.

### myChevrolet Mobile App

If available, download the myChevrolet mobile app to compatible Apple and Android smartphones.

Features are subject to change. For myChevrolet mobile app information and compatibility, see [my.chevrolet.com](https://my.chevrolet.com).

An active OnStar or connected service plan may be required. A compatible device, factory-installed remote start, and power locks are required. Data rates apply. See [www.chevrolet.com](http://www.chevrolet.com) or [www.onstar.com](http://www.onstar.com) for details and system limitations.

### Wireless Configuration

Export of this vehicle to another region may require reset of internal settings for wireless communication configuration to ensure regulatory compliance or enable connectivity. See your dealer. The end-user of the device does not have an option to modify the regulatory wireless configuration.

### Diagnostics

By monitoring and reporting on the vehicle's key systems, OnStar Advanced Diagnostics, if equipped, provides a way to keep up on maintenance. Capabilities vary by model. See [www.onstar.com](http://www.onstar.com) for details and system limitations. Features are subject to change. For updates on feature capabilities, see <https://www.chevrolet.com/owners>. Message and data rates may apply.

# Index

## A

|                                           |          |
|-------------------------------------------|----------|
| About Driving the Vehicle.....            | 2        |
| Accessories and Modifications.....        | 222      |
| Accessory Power.....                      | 185      |
| Adaptive                                  |          |
| Cruise Control.....                       | 103, 195 |
| Additional                                |          |
| OnStar Information.....                   | 315      |
| Add-On Electrical Equipment.....          | 220      |
| Advanced                                  |          |
| Driver Assistance Systems.....            | 203      |
| Agreements                                |          |
| Trademarks and License.....               | 136, 158 |
| Aiming                                    |          |
| Headlight, Front.....                     | 243      |
| Air                                       |          |
| Cleaner/Filter, Engine.....               | 231      |
| Filter Life System.....                   | 231      |
| Filter, Passenger Compartment.....        | 166      |
| Vents.....                                | 165      |
| Airbags                                   |          |
| Adding Equipment to the Vehicle.....      | 55       |
| How Does an Airbag Restrain?.....         | 50       |
| Passenger Sensing System.....             | 52       |
| Passenger Status Indicator.....           | 94       |
| Readiness Light.....                      | 94       |
| Replacing System Parts after a Crash..... | 56       |
| Servicing Airbag-Equipped Vehicles.....   | 55       |

|                                                  |          |
|--------------------------------------------------|----------|
| System.....                                      | 47       |
| System Check.....                                | 56       |
| What Makes an Airbag Inflate?.....               | 50       |
| What Will You See after an Airbag Inflates?..... | 51       |
| When Should an Airbag Inflate?.....              | 49       |
| Where Are the Airbags?.....                      | 48       |
| Alarm                                            |          |
| Vehicle Security.....                            | 26       |
| Alert                                            |          |
| Lane Change (LCA).....                           | 212      |
| Rear Cross Traffic.....                          | 206      |
| All-Season Tires.....                            | 253      |
| AM-FM Radio.....                                 | 122, 142 |
| Antenna                                          |          |
| Multi-band.....                                  | 124, 145 |
| Antilock Brake System (ABS).....                 | 189      |
| Warning Light.....                               | 98       |
| Appearance Care                                  |          |
| Exterior.....                                    | 282      |
| Interior.....                                    | 286      |
| Apple CarPlay and Android Auto.....              | 130, 152 |
| Assistance                                       |          |
| Program, Roadside.....                           | 306      |
| Assistance Systems                               |          |
| Advanced.....                                    | 203      |
| Automatic Emergency Braking (AEB)....            | 209      |
| Driving.....                                     | 207      |
| Forward Collision Alert (FCA) System....         | 207      |

|                                                        |          |
|--------------------------------------------------------|----------|
| Front Pedestrian Braking (FPB).....                    | 210      |
| Lane Change Alert (LCA).....                           | 212      |
| Lane Keep Assist (LKA).....                            | 214      |
| Parking.....                                           | 205      |
| Parking and Backing.....                               | 205      |
| Rear Cross Traffic Alert (RCTA).....                   | 206      |
| Rear Vision Camera (RVC).....                          | 205      |
| <b>Audio</b>                                           |          |
| Bluetooth.....                                         | 125, 147 |
| <b>Automatic</b>                                       |          |
| Climate Control System.....                            | 163      |
| Door Locks.....                                        | 22       |
| Emergency Braking (AEB) Disabled<br>Light.....         | 98       |
| Transmission.....                                      | 186      |
| Transmission Fluid.....                                | 231      |
| Transmission Shift Lock Control<br>Function Check..... | 240      |
| <b>Automatic Transmission</b>                          |          |
| Manual Mode.....                                       | 188      |
| <b>Auto Stop</b>                                       |          |
| Indicator.....                                         | 102      |
| Avoiding Untrusted Media Devices.....                  | 125, 145 |

**B**

|                                      |     |
|--------------------------------------|-----|
| <b>Battery</b>                       |     |
| Exterior Lighting Battery Saver..... | 116 |
| Jump Starting.....                   | 275 |

|                                                                              |                    |
|------------------------------------------------------------------------------|--------------------|
| Load Management.....                                                         | 116                |
| Power Protection.....                                                        | 116                |
| Battery - North America.....                                                 | 239                |
| Blade Replacement, Wiper.....                                                | 241                |
| <b>Bluetooth</b>                                                             |                    |
| Audio.....                                                                   | 125                |
| Overview.....                                                                | 125, 126, 148, 149 |
| Bluetooth Audio.....                                                         | 147                |
| <b>Brakes</b> .....                                                          | 237                |
| Antilock.....                                                                | 189                |
| Brake Assist.....                                                            | 191                |
| Electric Brake Boost.....                                                    | 189                |
| Electric Parking Brake.....                                                  | 190                |
| Fluid.....                                                                   | 238                |
| System Warning Light.....                                                    | 97                 |
| <b>Braking</b> .....                                                         | 170                |
| Automatic Emergency (AEB).....                                               | 209                |
| Front Pedestrian (FPB) System.....                                           | 210                |
| Break-In, New Vehicle.....                                                   | 178                |
| Buckle To Drive.....                                                         | 41                 |
| <b>Bulb Replacement</b> .....                                                | 243                |
| Halogen Bulbs.....                                                           | 243                |
| Headlights, Front Turn Signal,<br>Sidemarkers, and Parking Lights.....       | 244                |
| Taillights, Turn Signal, Sidemarkers,<br>Stoplights, and Back-Up Lights..... | 245                |
| Buying New Tires.....                                                        | 266                |

**C**

|                                          |     |
|------------------------------------------|-----|
| <b>Calibration</b>                       |     |
| Compass.....                             | 83  |
| <b>California</b>                        |     |
| Perchlorate Materials Requirements.....  | 222 |
| Proposition 65 Warning.....              | 1   |
| Warranty Information.....                | 303 |
| <b>Camera</b>                            |     |
| Rear Vision (RVC).....                   | 205 |
| Canadian Vehicle Owners.....             | 2   |
| Capacities and Specifications.....       | 299 |
| <b>Carbon Monoxide</b>                   |     |
| Engine Exhaust.....                      | 185 |
| Liftgate.....                            | 23  |
| Winter Driving.....                      | 173 |
| <b>Cargo</b>                             |     |
| Cover.....                               | 77  |
| Management System.....                   | 78  |
| Caution, Danger, and Warning.....        | 2   |
| <b>Center</b>                            |     |
| Console, Storage.....                    | 77  |
| <b>Chains and Other Traction Devices</b> |     |
| Tire.....                                | 269 |
| <b>Charging</b>                          |     |
| System Light.....                        | 95  |
| <b>Charging Phone</b>                    |     |
| Wireless.....                            | 84  |

|                                             |        |
|---------------------------------------------|--------|
| Child Restraints                            |        |
| Infants and Young Children.....             | 58     |
| Lower Anchors and Tethers for Children..... | 63     |
| Older Children.....                         | 57     |
| Securing.....                               | 70, 72 |
| Systems.....                                | 60     |
| Where to Put.....                           | 62     |
| Child Safety Locks.....                     | 22     |
| Circuit Breakers.....                       | 247    |
| Cleaning                                    |        |
| Exterior Care.....                          | 282    |
| Interior Care.....                          | 286    |
| Climate Control Systems.....                | 161    |
| Automatic.....                              | 163    |
| Clock.....                                  | 83     |
| Setting.....                                | 131    |
| Cluster, Instrument.....                    | 87, 89 |
| Collision Alert                             |        |
| Forward (FCA) System.....                   | 207    |
| Collision Damage Repair.....                | 309    |
| Compact Spare Tire.....                     | 275    |
| Compartments                                |        |
| Storage.....                                | 76     |
| Compass.....                                | 83     |
| Connected Services                          |        |
| Connections.....                            | 319    |
| Diagnostics.....                            | 320    |
| Navigation.....                             | 319    |

|                                        |          |
|----------------------------------------|----------|
| Connections                            |          |
| Connected Services.....                | 319      |
| Control                                |          |
| of a Vehicle.....                      | 169      |
| Traction and Electronic Stability..... | 191      |
| Controls                               |          |
| Headlight.....                         | 110      |
| Steering Wheel.....                    | 120, 139 |
| Convex Mirrors.....                    | 28       |
| Coolant                                |          |
| Engine Temperature Gauge.....          | 92       |
| Engine Temperature Warning Light.....  | 100      |
| Cooling and Heating.....               | 161      |
| Cooling System.....                    | 233      |
| Courtesy Transportation Program.....   | 308      |
| Cover                                  |          |
| Cargo.....                             | 77       |
| Cruise Control.....                    | 193      |
| Adaptive.....                          | 195      |
| Light.....                             | 102      |
| Cupholders.....                        | 77       |
| Customer Assistance                    |          |
| Offices.....                           | 305      |
| Text Telephone (TTY) Users.....        | 305      |
| Customer Information                   |          |
| Publications Ordering Information..... | 310      |
| Customer Satisfaction Procedure.....   | 301      |

|                         |     |
|-------------------------|-----|
| Customer Support        |     |
| and Online Account..... | 305 |
| Cybersecurity.....      | 312 |

## D

|                                   |     |
|-----------------------------------|-----|
| Damage Repair, Collision.....     | 309 |
| Danger, Warning, and Caution..... | 2   |
| Dashboard.....                    | 4   |
| Data Collection                   |     |
| OnStar.....                       | 313 |
| Data Recorders, Event.....        | 313 |
| Daytime Running Lights.....       | 112 |
| Defensive Driving.....            | 169 |
| Delayed                           |     |
| Locking.....                      | 21  |
| Diagnostics                       |     |
| Connected Services.....           | 320 |
| Disabled Vehicle                  |     |
| Transporting.....                 | 278 |
| Distracted Driving.....           | 168 |
| Dome Lights.....                  | 114 |
| Door                              |     |
| Ajari Light.....                  | 103 |
| Delayed Locking.....              | 21  |
| Locks.....                        | 19  |
| Power Locks.....                  | 21  |
| Drive Belt Routing, Engine.....   | 300 |
| Driver                            |     |
| Assistance Systems, Advanced..... | 203 |

|                               |          |
|-------------------------------|----------|
| Behavior.....                 | 168      |
| Information Center (DIC)..... | 103, 105 |
| Teen.....                     | 133, 155 |
| Driving                       |          |
| Assistance Systems.....       | 207      |
| Defensive.....                | 169      |
| Environment.....              | 168      |
| for Better Fuel Economy.....  | 168      |
| Hill and Mountain Roads.....  | 172      |
| If the Vehicle is Stuck.....  | 174      |
| Impaired.....                 | 169      |
| Loss of Control.....          | 171      |
| Off-Road Recovery.....        | 171      |
| Vehicle Load Limits.....      | 174      |
| Wet Roads.....                | 171      |
| Winter.....                   | 173      |
| Driving the Vehicle.....      | 2        |

## E

|                                    |     |
|------------------------------------|-----|
| E85 or FlexFuel.....               | 217 |
| Electric                           |     |
| Brake Boost.....                   | 189 |
| Parking Brake.....                 | 190 |
| Parking Brake Light.....           | 97  |
| Electrical                         |     |
| Equipment, Add-On.....             | 220 |
| Electrical System                  |     |
| Engine Compartment Fuse Block..... | 248 |
| Fuses and Circuit Breakers.....    | 247 |

|                                          |     |
|------------------------------------------|-----|
| Instrument Panel Fuse Block.....         | 250 |
| Overload.....                            | 246 |
| Electronic Stability Control (ESC) Off   |     |
| Light.....                               | 100 |
| Emergency                                |     |
| OnStar.....                              | 315 |
| Engine                                   |     |
| Air Cleaner/Filter.....                  | 231 |
| Air Filter Life System.....              | 231 |
| Check Light (Malfunction Indicator)..... | 95  |
| Compartment Overview.....                | 225 |
| Coolant Temperature Gauge.....           | 92  |
| Coolant Temperature Warning Light.....   | 100 |
| Cooling System.....                      | 233 |
| Drive Belt Routing.....                  | 300 |
| Exhaust.....                             | 185 |
| Heater.....                              | 184 |
| Oil Life System.....                     | 230 |
| Oil Pressure Light.....                  | 101 |
| Overheating.....                         | 236 |
| Power Messages.....                      | 108 |
| Running While Parked.....                | 186 |
| Starting.....                            | 181 |
| Entry Lighting.....                      | 115 |
| Event Data Recorders.....                | 313 |
| Exit Lighting.....                       | 116 |
| Extended Parking.....                    | 185 |
| Extender, Seat Belt.....                 | 46  |

|                             |     |
|-----------------------------|-----|
| Exterior                    |     |
| Lighting Battery Saver..... | 116 |

## F

|                                        |          |
|----------------------------------------|----------|
| Filter                                 |          |
| Engine Air Cleaner.....                | 231      |
| Flashers, Hazard Warning.....          | 113      |
| Flat Tire.....                         | 270      |
| Changing.....                          | 271      |
| Floor Mats.....                        | 289      |
| Fluid                                  |          |
| Automatic Transmission.....            | 231      |
| Brakes.....                            | 238      |
| Washer.....                            | 237      |
| Folding Mirrors.....                   | 28       |
| Frequency Statement                    |          |
| Radio.....                             | 311      |
| Front                                  |          |
| Heated Seats.....                      | 38       |
| Front Seats                            |          |
| Adjustment.....                        | 35       |
| Fuel                                   |          |
| Recommended.....                       | 215, 216 |
| Additives.....                         | 216      |
| E85.....                               | 217      |
| Economy, Driving for Better.....       | 168      |
| Filling a Portable Fuel Container..... | 219      |
| Filling the Tank.....                  | 217      |
| Foreign Countries.....                 | 216      |

|                                    |     |
|------------------------------------|-----|
| Gauge.....                         | 90  |
| Low Fuel Warning Light.....        | 101 |
| Prohibited Fuels.....              | 216 |
| Top Tier.....                      | 215 |
| Fuses                              |     |
| Engine Compartment Fuse Block..... | 248 |
| Fuses and Circuit Breakers.....    | 247 |
| Instrument Panel Fuse Block.....   | 250 |

## G

|                                        |     |
|----------------------------------------|-----|
| Gas Strut(s).....                      | 242 |
| Gauges                                 |     |
| Engine Coolant Temperature.....        | 92  |
| Fuel.....                              | 90  |
| Odometer.....                          | 90  |
| Speedometer.....                       | 90  |
| Tachometer.....                        | 90  |
| Trip Odometer.....                     | 90  |
| Warning Lights and Indicators.....     | 86  |
| General Information                    |     |
| Service and Maintenance.....           | 290 |
| Towing.....                            | 219 |
| Vehicle Care.....                      | 222 |
| Glove Box.....                         | 76  |
| GM Mobility Reimbursement Program..... | 306 |

## H

|                              |     |
|------------------------------|-----|
| Halogen Bulbs.....           | 243 |
| Hazard Warning Flashers..... | 113 |

|                                      |     |
|--------------------------------------|-----|
| Headlights                           |     |
| Aiming, Front.....                   | 243 |
| Bulb Replacement.....                | 243 |
| Controls.....                        | 110 |
| High-Beam On Light.....              | 102 |
| System, Automatic.....               | 113 |
| Head Restraints.....                 | 33  |
| Heated                               |     |
| Front Seats.....                     | 38  |
| Mirrors.....                         | 28  |
| Steering Wheel.....                  | 81  |
| Heater                               |     |
| Engine.....                          | 184 |
| Heating and Cooling.....             | 161 |
| High-Beam                            |     |
| On Light.....                        | 102 |
| Systems.....                         | 110 |
| High-Speed Operation.....            | 259 |
| Hill                                 |     |
| and Mountain Roads.....              | 172 |
| Start Assist (HSA).....              | 191 |
| Hood.....                            | 223 |
| Horn.....                            | 81  |
| How to Wear Seat Belts Properly..... | 41  |

## I

|                         |          |
|-------------------------|----------|
| Ignition Positions..... | 178, 180 |
| Immobilizer.....        | 27       |

|                                             |             |
|---------------------------------------------|-------------|
| Indicator                                   |             |
| Auto Stop.....                              | 102         |
| Indicators                                  |             |
| Pedestrian Ahead.....                       | 99          |
| Vehicle Ahead.....                          | 99          |
| Warning Lights and Gauges.....              | 86          |
| Infants and Young Children, Restraints..... | 58          |
| Information                                 |             |
| Publication Ordering.....                   | 310         |
| Infotainment                                |             |
| Using the System.....                       | 121         |
| Inspection                                  |             |
| Multi-Point Vehicle.....                    | 293         |
| Instrument Cluster.....                     | 87, 89      |
| Instrument Panel                            |             |
| Storage Area.....                           | 76          |
| Instrument Panel Overview.....              | 4           |
| Interior                                    |             |
| Rearview Mirrors.....                       | 28          |
| Introduction.....                           | 2, 119, 138 |

## J

|               |     |
|---------------|-----|
| Jump          |     |
| Starting..... | 275 |

## K

|                       |        |
|-----------------------|--------|
| Keys.....             | 7, 8   |
| Remote.....           | 9      |
| Remote Operation..... | 10, 15 |

**L**

|                                             |     |
|---------------------------------------------|-----|
| Labeling, Tire Sidewall.....                | 254 |
| Lane                                        |     |
| Keep Assist Light.....                      | 98  |
| Lap-Shoulder Belt.....                      | 43  |
| LATCH System                                |     |
| Replacing Parts after a Crash.....          | 70  |
| LED Lighting.....                           | 243 |
| Liftgate.....                               | 23  |
| Lighting                                    |     |
| Entry.....                                  | 115 |
| Exit.....                                   | 116 |
| Illumination Control.....                   | 114 |
| LED.....                                    | 243 |
| Lights                                      |     |
| Adaptive Cruise Control.....                | 103 |
| Airbag Readiness.....                       | 94  |
| Antilock Brake System (ABS) Warning....     | 98  |
| Automatic Emergency Braking (AEB)           |     |
| Disabled.....                               | 98  |
| Brake System Warning.....                   | 97  |
| Charging System.....                        | 95  |
| Cruise Control Light.....                   | 102 |
| Daytime Running.....                        | 112 |
| Dome.....                                   | 114 |
| Door Ajar.....                              | 103 |
| Electric Parking Brake.....                 | 97  |
| Electronic Stability Control (ESC), Off.... | 100 |

|                                           |     |
|-------------------------------------------|-----|
| Engine Coolant Temperature                |     |
| Warning.....                              | 100 |
| Engine Oil Pressure.....                  | 101 |
| Exterior Lighting Battery Saver.....      | 116 |
| Gauges and Indicators.....                | 86  |
| Headlights, Front Turn Signal,            |     |
| Sidemarker, and Parking Lights.....       | 244 |
| High-Beam On.....                         | 102 |
| Lane Keep Assist.....                     | 98  |
| Low Fuel Warning.....                     | 101 |
| Malfunction Indicator (Check Engine)..... | 95  |
| On Reminder.....                          | 102 |
| Reading.....                              | 115 |
| Seat Belt Reminders.....                  | 93  |
| Security.....                             | 102 |
| Service Electric Parking Brake.....       | 97  |
| Taillights, Turn Signal, Sidemarker,      |     |
| Stoplights, and Back-Up Lights.....       | 245 |
| Tire Pressure.....                        | 100 |
| Traction Control System (TCS)/            |     |
| Electronic Stability Control Light.....   | 99  |
| Traction Off.....                         | 99  |
| Locks                                     |     |
| Automatic Door.....                       | 22  |
| Delayed Locking.....                      | 21  |
| Door.....                                 | 19  |
| Lockout Protection.....                   | 22  |
| Power Door.....                           | 21  |
| Safety.....                               | 22  |

|                                        |     |
|----------------------------------------|-----|
| Loss of Control.....                   | 171 |
| Lower Anchors and Tethers for Children |     |
| (LATCH System).....                    | 63  |
| Low Fuel Warning Light.....            | 101 |
| Lumbar Adjustment                      |     |
| Front Seats.....                       | 37  |

**M**

|                                 |          |
|---------------------------------|----------|
| Maintenance                     |          |
| Records.....                    | 297      |
| Schedule.....                   | 291      |
| Maintenance Schedule            |          |
| Recommended Fluids and          |          |
| Lubricants.....                 | 296      |
| Manual                          |          |
| Mode.....                       | 188      |
| Media                           |          |
| Avoiding Untrusted Devices..... | 125, 145 |
| Messages                        |          |
| Engine Power.....               | 108      |
| Vehicle.....                    | 108      |
| Vehicle Speed.....              | 109      |
| Mirrors                         |          |
| Automatic Dimming Rearview..... | 29       |
| Convex.....                     | 28       |
| Folding.....                    | 28       |
| Heated.....                     | 28       |
| Interior Rearview.....          | 28       |

|                                            |          |
|--------------------------------------------|----------|
| Manual Rearview.....                       | 29       |
| Power.....                                 | 28       |
| Monitor System, Tire Pressure.....         | 259      |
| Multi-band Antenna.....                    | 124, 145 |
| Multi-Point Vehicle Inspection (MPVI)..... | 293      |

## N

|                           |     |
|---------------------------|-----|
| Navigation                |     |
| Connected Services.....   | 319 |
| New Vehicle Break-In..... | 178 |

## O

|                                          |     |
|------------------------------------------|-----|
| Odometer.....                            | 90  |
| Trip.....                                | 90  |
| Off-Road                                 |     |
| Recovery.....                            | 171 |
| Oil                                      |     |
| Engine.....                              | 228 |
| Engine Oil Life System.....              | 230 |
| Pressure Light.....                      | 101 |
| Older Children, Restraints.....          | 57  |
| Online Account and Customer Support..... | 305 |
| OnStar.....                              | 313 |
| Additional Information.....              | 315 |
| Emergency.....                           | 315 |
| Overview.....                            | 314 |
| Security.....                            | 315 |
| Outlets                                  |     |
| Power.....                               | 83  |

|                          |          |
|--------------------------|----------|
| Overheating, Engine..... | 236      |
| Overview.....            | 119, 139 |
| Instrument Panel.....    | 4        |

## P

|                                         |                    |
|-----------------------------------------|--------------------|
| Park                                    |                    |
| Assist.....                             | 205                |
| Parking                                 |                    |
| Brake and P (Park) Mechanism Check..... | 241                |
| Extended.....                           | 185                |
| Over Things That Burn.....              | 185                |
| Parking or Backing                      |                    |
| Assistance Systems.....                 | 205                |
| Passenger                               |                    |
| Airbag Status Indicator.....            | 94                 |
| Compartment Air Filter.....             | 166                |
| Sensing System.....                     | 52                 |
| Pedestrian                              |                    |
| Ahead Indicator.....                    | 99                 |
| Perchlorate Materials Requirements,     |                    |
| California.....                         | 222                |
| Phone                                   |                    |
| Apple CarPlay and Android Auto.....     | 130, 152           |
| Bluetooth.....                          | 125, 126, 148, 149 |
| Port                                    |                    |
| USB.....                                | 125, 145           |
| Power                                   |                    |
| Door Locks.....                         | 21                 |
| Mirrors.....                            | 28                 |

|                                       |     |
|---------------------------------------|-----|
| Outlets.....                          | 83  |
| Protection, Battery.....              | 116 |
| Retained Accessory (RAP).....         | 185 |
| Seat Adjustment.....                  | 35  |
| Windows.....                          | 29  |
| Pregnancy, Using Seat Belts.....      | 45  |
| Privacy                               |     |
| Vehicle Data Recording.....           | 312 |
| Program                               |     |
| Courtesy Transportation.....          | 308 |
| Prohibited Fuels.....                 | 216 |
| Proposition 65 Warning                |     |
| California.....                       | 1   |
| Publication Ordering Information..... | 310 |

## R

|                          |          |
|--------------------------|----------|
| Radiator.....            | 233      |
| Radio                    |          |
| AM-FM.....               | 142      |
| AM-FM Radio.....         | 122      |
| Data System (RDS).....   | 143      |
| Frequency Statement..... | 311      |
| Reception.....           | 124, 144 |
| Satellite.....           | 124, 144 |
| Reading Lights.....      | 115      |
| Rear                     |          |
| Seat Reminder.....       | 38       |
| Seats.....               | 39       |
| Window Washer/Wiper..... | 82       |

|                                           |          |
|-------------------------------------------|----------|
| Rearview Mirrors.....                     | 29       |
| Automatic Dimming.....                    | 29       |
| Reclining Seatbacks.....                  | 36       |
| Recommended                               |          |
| Fuel.....                                 | 215, 216 |
| Recommended Fluids and Lubricants.....    | 296      |
| Records                                   |          |
| Maintenance.....                          | 297      |
| Recreational Vehicle Towing.....          | 279      |
| Reimbursement Program, GM Mobility....    | 306      |
| Reminder                                  |          |
| Lights On.....                            | 102      |
| Seat Belt.....                            | 93       |
| Remote                                    |          |
| Key.....                                  | 9        |
| Key Operation.....                        | 10, 15   |
| Start.....                                | 18       |
| Replacement Parts                         |          |
| Airbags.....                              | 56       |
| Replacing                                 |          |
| Airbag System.....                        | 56       |
| LATCH System Parts After a Crash.....     | 70       |
| Seat Belt System Parts after a Crash..... | 47       |
| Reporting Safety Defects                  |          |
| Canadian Government.....                  | 311      |
| General Motors.....                       | 312      |
| U.S. Government.....                      | 311      |
| Retained Accessory Power (RAP).....       | 185      |

|                                       |     |
|---------------------------------------|-----|
| Roads                                 |     |
| Driving, Wet.....                     | 171 |
| Roadside Assistance Program.....      | 306 |
| Roof                                  |     |
| Rack System.....                      | 78  |
| Sunroof.....                          | 31  |
| Rotation                              |     |
| Tires.....                            | 264 |
| Routing, Engine Drive Belt.....       | 300 |
| Running the Vehicle While Parked..... | 186 |

## S

|                                      |          |
|--------------------------------------|----------|
| Safety                               |          |
| Locks.....                           | 22       |
| System Check.....                    | 46       |
| Safety Defects Reporting             |          |
| Canadian Government.....             | 311      |
| General Motors.....                  | 312      |
| U.S. Government.....                 | 311      |
| Satellite Radio.....                 | 124, 144 |
| Scheduling Appointments.....         | 308      |
| Seat Belts.....                      | 40       |
| Buckle To Drive.....                 | 41       |
| Care.....                            | 46       |
| Extender.....                        | 46       |
| How to Wear Seat Belts Properly..... | 41       |
| Lap-Shoulder Belt.....               | 43       |
| Reminders.....                       | 93       |

|                                       |          |
|---------------------------------------|----------|
| Replacing after a Crash.....          | 47       |
| Use During Pregnancy.....             | 45       |
| Seats                                 |          |
| Adjustment, Front.....                | 35       |
| Head Restraints.....                  | 33       |
| Heated Front.....                     | 38       |
| Lumbar Adjustment, Front.....         | 37       |
| Power Adjustment, Front.....          | 35       |
| Rear.....                             | 39       |
| Rear Seat Reminder.....               | 38       |
| Reclining Seatbacks.....              | 36       |
| Securing Child Restraints.....        | 70, 72   |
| Security                              |          |
| Light.....                            | 102      |
| OnStar.....                           | 315      |
| Vehicle.....                          | 26       |
| Vehicle Alarm.....                    | 26       |
| Service.....                          | 166      |
| Maintenance Records.....              | 297      |
| Accessories and Modifications.....    | 222      |
| Doing Your Own Work.....              | 222      |
| Electric Parking Brake Light.....     | 97       |
| Maintenance, General Information..... | 290      |
| Parts Identification.....             | 298      |
| Scheduling Appointments.....          | 308      |
| Services                              |          |
| Special Application.....              | 294      |
| Servicing the Airbag System.....      | 55       |
| Settings.....                         | 131, 154 |

|                                    |     |
|------------------------------------|-----|
| Shift Lock Control Function Check, |     |
| Automatic Transmission.....        | 240 |
| Signals, Turn and Lane-Change..... | 114 |
| Software Updates.....              | 122 |
| Spare Tire                         |     |
| Compact.....                       | 275 |
| Special Application Services.....  | 294 |
| Specifications and Capacities..... | 299 |
| Speedometer.....                   | 90  |
| Start                              |     |
| Assist, Hill.....                  | 191 |
| Remote.....                        | 18  |
| Starter Switch Check.....          | 240 |
| Starting the Engine.....           | 181 |
| Status                             |     |
| Vehicle.....                       | 106 |
| Steering.....                      | 170 |
| Heated Wheel.....                  | 81  |
| Wheel Adjustment.....              | 81  |
| Wheel Controls.....                | 120 |
| Steering Wheel Controls.....       | 139 |
| Stop/Start System.....             | 182 |
| Storage                            |     |
| Center Console.....                | 77  |
| Compartments.....                  | 76  |
| Cupholders.....                    | 77  |
| Glove Box.....                     | 76  |
| Instrument Panel Areas.....        | 76  |
| Roof Rack System.....              | 78  |

|                              |     |
|------------------------------|-----|
| Storage Areas                |     |
| Cargo Cover.....             | 77  |
| Cargo Management System..... | 78  |
| Struts                       |     |
| Gas.....                     | 242 |
| Stuck Vehicle.....           | 174 |
| Sunroof.....                 | 31  |
| Sun Visors.....              | 30  |
| Symbols.....                 | 3   |
| System                       |     |
| Engine Air Filter Life.....  | 231 |
| Systems                      |     |
| Airbag.....                  | 47  |
| High Beam.....               | 110 |
| Roof Rack.....               | 78  |

## T

|                                        |          |
|----------------------------------------|----------|
| Tachometer.....                        | 90       |
| Teen Driver.....                       | 133, 155 |
| Text Telephone (TTY) Users.....        | 305      |
| Theft-Deterrent Systems.....           | 27       |
| Immobilizer.....                       | 27       |
| Tires.....                             | 253      |
| All-Season.....                        | 253      |
| Buying New Tires.....                  | 266      |
| Chains and Other Traction Devices..... | 269      |
| Changing.....                          | 271      |
| Compact Spare.....                     | 275      |
| Designations.....                      | 256      |

|                                           |          |
|-------------------------------------------|----------|
| Different Size.....                       | 267      |
| If a Tire Goes Flat.....                  | 270      |
| Inspection.....                           | 264      |
| Pressure.....                             | 258, 259 |
| Pressure Light.....                       | 100      |
| Pressure Monitor Operation.....           | 260      |
| Pressure Monitor System.....              | 259      |
| Rotation.....                             | 264      |
| Sidewall Labeling.....                    | 254      |
| Terminology and Definitions.....          | 256      |
| Uniform Tire Quality Grading.....         | 267      |
| Wheel Alignment and Tire Balance.....     | 268      |
| Wheel Replacement.....                    | 269      |
| When It Is Time for New Tires.....        | 265      |
| Winter.....                               | 254      |
| Top Tier Fuel.....                        | 215      |
| Towing                                    |          |
| General Information.....                  | 219      |
| Recreational Vehicle.....                 | 279      |
| Traction                                  |          |
| Control System (TCS)/Electronic           |          |
| Stability Control Light.....              | 99       |
| Control/Electronic Stability Control..... | 191      |
| Off Light.....                            | 99       |
| Trademarks and License                    |          |
| Agreements.....                           | 136, 158 |
| Transmission                              |          |
| Automatic.....                            | 186      |
| Fluid, Automatic.....                     | 231      |

|                                       |     |
|---------------------------------------|-----|
| Transportation Program, Courtesy..... | 308 |
| Transporting                          |     |
| a Disabled Vehicle.....               | 278 |
| Trip Odometer.....                    | 90  |
| TTY Users                             |     |
| Customer Assistance.....              | 305 |
| Turn and Lane-Change Signals.....     | 114 |

## U

|                                   |          |
|-----------------------------------|----------|
| Uniform Tire Quality Grading..... | 267      |
| Updates                           |          |
| Software.....                     | 122      |
| USB Port.....                     | 125, 145 |
| Using                             |          |
| Infotainment System.....          | 121      |
| This Manual.....                  | 2        |
| Using the System.....             | 140      |

## V

|                                  |     |
|----------------------------------|-----|
| Vehicle                          |     |
| Ahead Indicator.....             | 99  |
| Alarm System.....                | 26  |
| Canadian Owners.....             | 2   |
| Control.....                     | 169 |
| Data Recording and Privacy.....  | 312 |
| Design.....                      | 168 |
| Identification Number (VIN)..... | 298 |
| Load Limits.....                 | 174 |
| Messages.....                    | 108 |

|                       |     |
|-----------------------|-----|
| Security.....         | 26  |
| Speed Messages.....   | 109 |
| Status.....           | 106 |
| Symbols.....          | 3   |
| Vehicle Care          |     |
| Tire Pressure.....    | 258 |
| Ventilation, Air..... | 165 |
| Visors.....           | 30  |

## W

|                                     |     |
|-------------------------------------|-----|
| Warning                             |     |
| Brake System Light.....             | 97  |
| Caution and Danger.....             | 2   |
| Hazard Flashers.....                | 113 |
| Lights, Gauges, and Indicators..... | 86  |
| Warranty Information                |     |
| California.....                     | 303 |
| Washer Fluid.....                   | 237 |
| Wheels                              |     |
| Alignment and Tire Balance.....     | 268 |
| Different Size.....                 | 267 |
| Replacement.....                    | 269 |
| Where to Put the Restraint.....     | 62  |
| Windows.....                        | 29  |
| Power.....                          | 29  |
| Windshield                          |     |
| Replacement.....                    | 242 |
| Wiper/Washer.....                   | 81  |

|                              |     |
|------------------------------|-----|
| Winter                       |     |
| Driving.....                 | 173 |
| Tires.....                   | 254 |
| Wiper                        |     |
| Blade Replacement.....       | 241 |
| Rear Washer.....             | 82  |
| Wireless Phone Charging..... | 84  |



## Scan to Access

### United States



Owner's Manuals  
Warranty Information  
Reference Guides  
Links to GM Brand Websites  
Many Additional Resources

### Canada



Connected Services  
1-888-4-ONSTAR



86527833 A

