GMC

2025

Sierra/Sierra Denali EV

Essential Operating and Safety Information

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Introduction

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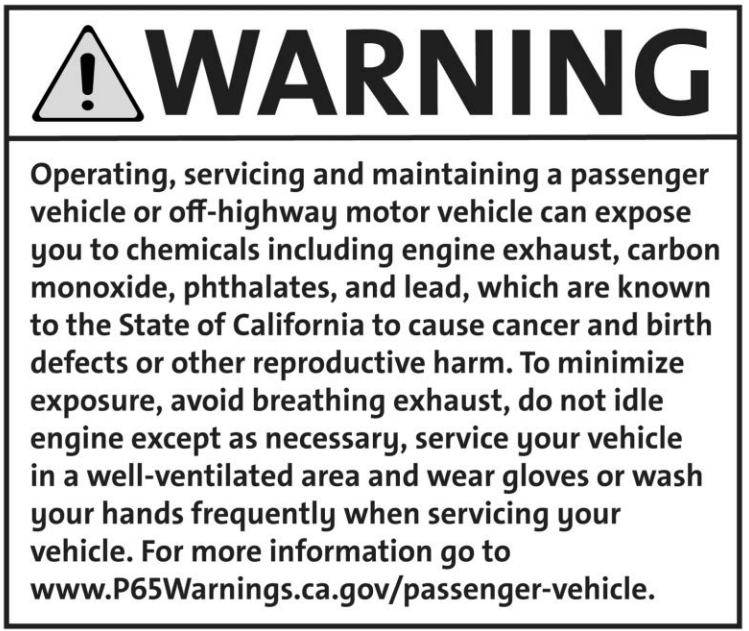

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Introduction

This document includes essential operating and safety information for your vehicle.

For complete operating information and instructions, see the Owner's Manual on the myGMC app in the vehicle infotainment system, at www.gmc.com, or on the myGMC mobile app.

To verify your vehicle has a downloaded Owner's Manual in the infotainment system, go to the myGMC app, touch the Settings icon, and touch Owner's Manual Details.

If your vehicle has a downloaded Owner's Manual, the downloaded version is accurate at the time of installation. To ensure you are viewing the most up-to-date, connected version of the Owner's Manual, accept the Terms and Conditions and have an active Wi-Fi or data connection. If there are discrepancies between the digital and printed versions of the essential operating and safety information in this manual and the Owner's Manual, refer to the connected version of the Owner's Manual on the myGMC app in the vehicle's infotainment system for the most up-to-date version. Up-to-date versions of the Owner's Manual are also accessible at www.gmc.com and on the myGMC mobile app.

To view digital versions or to order printed versions of the Owner's Manual or warranty information, or to view additional vehicle information, scan the code below or visit gmc.com/support/vehicle/manuals-guides (U.S.) or gmccanada.ca/en/support/vehicle/manuals-guides (Canada):

United States **Canada**

Keep this manual in the vehicle for quick reference.

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Canadian Vehicle Owners

You can obtain a copy of this guide in French from your dealer, at 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.

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

: Energy Usage and Charge Mode Selection

: Flame/Fire Prohibited

: Flammable

: First Responder

: Forward Collision Alert

: Fuse Block Cover Lock Location

: Fuses

: High Voltage

: ISOFIX/LATCH System Child Restraints

: Keep Fuse Block Covers Properly Installed

: Lane Change Alert

: Lane Departure Warning

: Lane Keep Assist

: Park Assist

: Pedestrian Ahead Indicator

: Power

: Rear Cross Traffic Alert

: Registered Technician

: Remote Start

: Risk of Electrical Fire

: Seat Belt Reminders

: Service Vehicle Soon

: Side Blind Zone Alert

: Tire Pressure Monitor

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

: Under Pressure

: Vehicle Ahead Indicator

READY : Vehicle Ready

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."

Keys, Doors, and Windows

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Keys and Locks

Keys

⚠ 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 mechanical key inside the remote key is used for the driver door and glove box.

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

The mechanical key may have a bar-coded key tag that the dealer or qualified locksmith can use to make new keys. Store this information in a safe place, not in the vehicle.

See your dealer if a replacement key or additional key is needed.

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

With an active OnStar or connected service plan, an OnStar Advisor may remotely unlock the vehicle. See your owner's manual.

If locked out of the vehicle, see *Roadside Assistance Program* ⇨ *138*.

If equipped with memory seats, remote keys 1 and 2 are linked to seating positions of memory 1 or 2. See *Memory Seats* ⇨ *19*.

Door Locks

⚠ Warning

Unlocked doors can be dangerous.

- Passengers, especially children, can easily open the doors and fall out of a moving vehicle. The doors can be unlocked and opened while the vehicle is moving. The chance of being thrown out of the vehicle in a crash is increased if the doors are not locked. So, all passengers should wear seat belts properly and the doors should be locked whenever the vehicle is driven.
- 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 your owner's manual.
- Young children who get into unlocked vehicles may be unable to get out. A child can be overcome by extreme

(Continued)

Warning (Continued)

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.

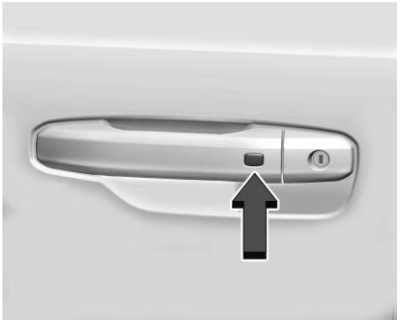
To lock or unlock the doors from outside the vehicle:

- Press 🔒 or 🔓 on the remote key. See your owner's manual.
- Use the mechanical key in the driver door.

To lock or unlock the doors from inside the vehicle:

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

Keyless Access



The remote key must be within 1 m (3 ft) of the eTrunk or door being opened or locked. Press the button on the door handle to open. See “Keyless Access Operation” in your owner's manual.

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 fully, rotate the key to unlock the vehicle.

Doors

Hood

⚠ 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. When the hood is not closed, the vehicle will not exceed 42 km/h (26 mph). Close the hood to drive faster than 42 km/h (26 mph).

The hood can be opened in several ways to access the underhood compartment.

Ensure the hood is clear of any objects before opening.

If the hood is not closed, the electronic drive unit lockout prevents the vehicle from shifting out of P (Park). Close the hood to shift out of P (Park). Confirm the hood is closed by checking that the hood is flush with the surrounding components.

If the hood is closed but the ajar message is present, the electronic drive unit lockout can be overridden. Hold the brake for 20 seconds and then shift into D (Drive). The vehicle will not exceed 42 km/h (26 mph). See your dealer for service.

Power Hood Operation

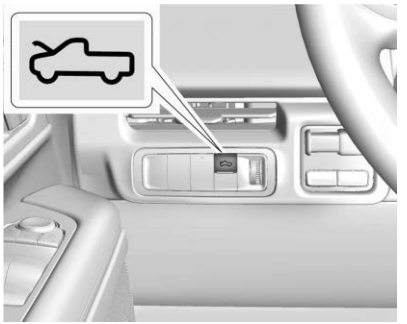
⚠ Warning

You or others could be injured if caught in the path of the power hood. Always supervise the operation of the power hood until it is fully opened or closed and keep hands and other body parts away from the hood when in use.

Ensure the hood is clear of any objects before opening.

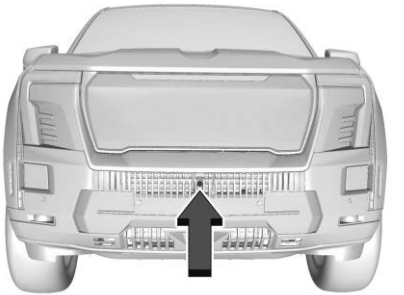
The vehicle must be in P (Park), doors unlocked, or the remote key in range of the vehicle to operate the power hood.

To open or close the power hood, do one of the following:



- To open the hood, press the hood button on the instrument panel to the left of the steering wheel.

  To close the hood, press and hold the hood button until the hood closes.



- If equipped, to open or close the hood, press the touchpad on the front fascia once, when the vehicle is unlocked, or the remote key is within 1 m (3 ft) of the vehicle.
- On the remote key, press x2 twice to open the power hood. To close the power hood, press x2 twice and hold the second time until the hood closes. Releasing the button will stop the hood motion. The vehicle must be in P (Park). See your owner's manual.

Pull to Close

Caution
Manually operating the hood during a power open or close can damage the hood system. Always wait for the power operation to complete before manually operating the hood.

To close the hood without using the switches, pull down on the hood until the power assist engages to close the rest of the way. A chime will sound to indicate power assist activation. The power assist will only activate when the hood is above a minimum open position.

Manually forcing the hood to open or close can damage the vehicle. Always allow the automatic operation to complete before using the hood again.

Open Settings

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

Maximum

The hood opens to the full open position. Use caution in this mode to avoid hitting overhead obstructions.

Custom

To adjust the hood open angle, press the exterior switch or press the remote key button twice. When the hood reaches the desired position where the height is to be programmed, press the remote key button or the exterior switch one time. The hood will stop.

The hood can be manually moved up or down. Pulling the hood too quickly may cause power assist to engage and close the hood. Press the hood open button until the exterior lights flash and a chime sounds. The hood cannot be set below the preset minimum programmable height. If no exterior lights flash or sound, then the height adjustment may be too low.

The hood is restricted to only open to a default height when the vehicle is on a steep downhill grade.

Off (Manual Operation)

Press and release the touch pad on the front grille. Lift the hood to open to a desired height. Pull down on the hood until the power assist engages to close. A chime will sound to indicate power activation. The power assist will only activate when the hood is above a minimum open position.

To prevent damage to the vehicle, do not move the hood too quickly or use excessive force.

Obstacle Detection Features

If the hood encounters an obstacle during a power open or close cycle, the hood will automatically reverse direction and move away from the obstacle. After removing the obstruction, the power hood operation can be used again.

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

Falling Hood Detection

If the power hood encounters excess weight or a possible mechanical failure, a repetitive chime will sound and the hood will automatically lower to a stable position. If the hood stops before fulling closing, carefully push the hood closed while keeping hands away from the edges of the hood.

If the hood continues to automatically close after opening, see your dealer for service before using the power hood.

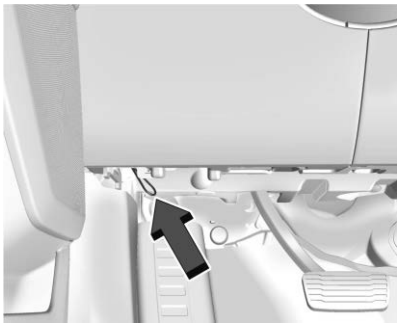
Interfering with the power hood motion or manually closing the hood too quickly may activate the falling hood detection feature. Allow the hood to complete its operation and wait a few seconds before manually closing the hood.

Operating the Hood When There is No Electrical Power

⚠ 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.

The manual release cable should only be used for service and/or emergency use, such as loss of vehicle electrical power. Do not store any cargo in the area near the hood release cable.



To open the hood:

1. Firmly pull the hood release cable twice to release the hood. It is on the lower left side of the instrument panel.
2. Go to the front of the vehicle and lift the hood to the desired height.

To close the hood:

1. Before closing the hood, make sure all cargo is properly stowed and does not go above or across the hood seal.
2. Pull the hood down until it is secured in the latch.
3. Check to make sure the hood is latched completely. Push down on the hood to latch if it does not latch completely. Repeat this step with additional force if necessary.

When the hood is not latched, a message will display on the Driver Information Center (DIC) and the vehicle will not be able to shift out of P (Park). To override this function, press and hold the shift button and brake pedal until the DIC message shifter unlock complete is displayed. The vehicle's speed will be limited to 42 km/h (26 mph) when the hood is not completely closed.

If the vehicle has lost power, and the hood is open when the power is restored, the power hood and power closing latch will not operate. To allow powered hood operation again, the hood must be manually closed and fully latched.

Emergency Hood Release Button

⚠ Warning

The emergency hood release button inside the underhood compartment will not function when the battery is disconnected or depleted. To avoid personal injury or death, always keep the hood fully closed and latched when storing the vehicle. If the hood is not latched, a person could climb into the underhood compartment and inadvertently close the hood. People should never climb inside the underhood compartment. Never shut the hood when a person is inside.

The underhood compartment is equipped with a glow-in-the-dark emergency hood release button. This button will glow following exposure to light. Press the button to open the hood from inside the underhood compartment.

Vehicle Security

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 vehicle is turned on 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 the 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.

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

If the vehicle will not turn on or off, and the remote key appears to be undamaged, try another remote key. You may also try placing the remote key in the backup location. See your owner's manual.

If the vehicle will not turn on or off with the other remote key or in the backup location, the vehicle needs service. If the vehicle does turn on or off, the first remote key may be faulty. See your dealer.

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. To program additional remote keys, see "Programming Remote Keys to the Vehicle" in your owner's manual.

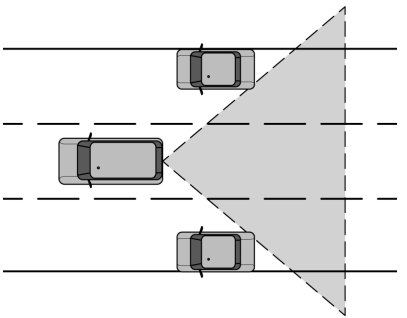
Do not leave the remote key or device that disarms or deactivates the theft-deterrent system in the vehicle.

Interior Mirrors

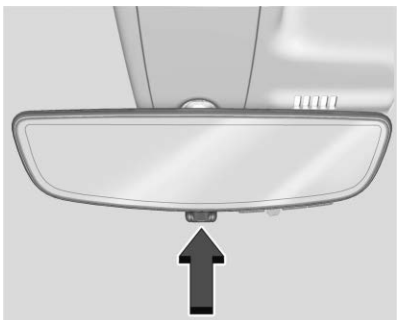
Rear Camera Mirror

⚠ Warning

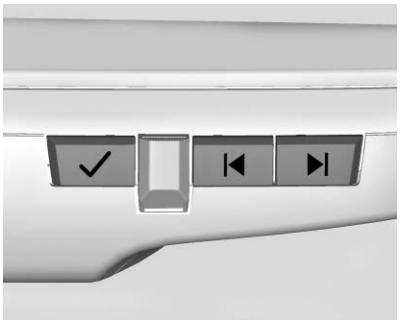
The Rear Camera Mirror (RCM) has a limited view. Portions of the road, vehicles, and other objects may not be seen. Do not drive or park the vehicle using only this camera. Objects may appear closer than they are. Check the outside mirrors or glance over your shoulder when making lane changes or merging.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



The rear camera mirror provides a wide angle camera view of the area behind the vehicle.



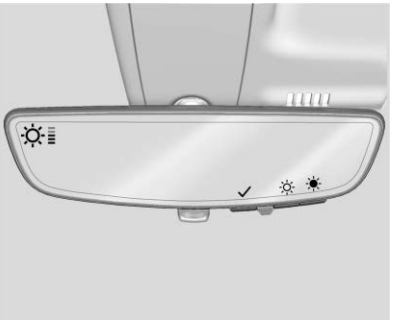
Pull the tab back to turn on the display. Push the tab to turn it off. When off the mirror automatically dims. Adjust the mirror for a clear view of the area behind the vehicle while the display is off.



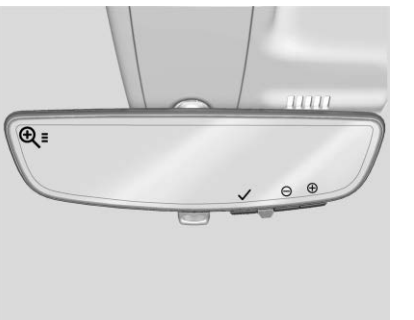
Press ✓ to scroll through the adjustment options.

Press ◀| and |▶ to adjust the settings using the indicators on the mirror. The indicators will remain visible for five seconds after the last button activation, and the settings will remain saved.

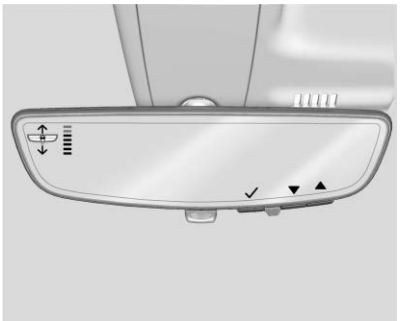
The adjustment options are:



- Brightness

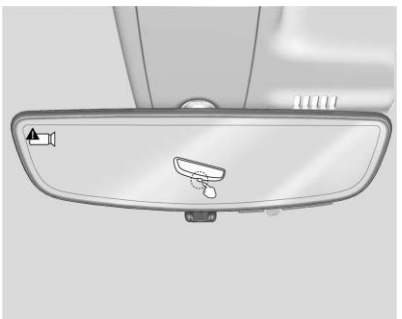


- Zoom



- Tilt

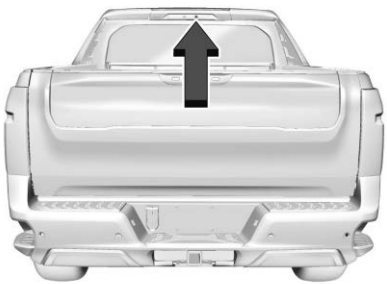
Troubleshooting



See your dealer for service if a blue screen and are displayed in the mirror, and the display shuts off. Also, push the tab forward to return to the automatic dimming mode.

The Rear Camera Mirror may not work properly or display a clear image if:

- There is glare from the sun or headlights. This may obstruct objects from view. If needed, push the tab to turn off the display.
- Dirt, snow, or other debris blocks the camera lens. Clean the lens with a soft damp cloth.
- The camera mounting on the vehicle has been damaged, and/or the position or the mounting angle of the camera has changed.



Windows

⚠ Warning

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

The vehicle aerodynamics are designed to improve vehicle range performance. This may result in a pulsing sound when either rear

window is down and the front windows are up. To reduce the sound, open either a front window or the sunroof, if equipped.

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Head Restraints

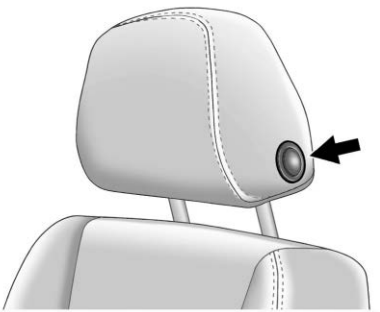
⚠ Warning

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.

Front Seats

The vehicle's 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 chance of a neck injury in a crash.



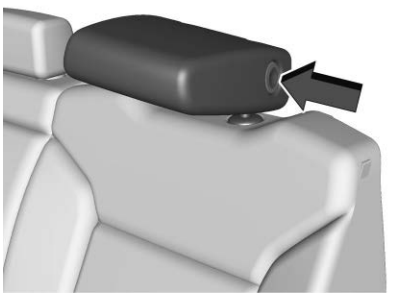
To raise or lower the head restraint, press the button on the side of the head restraint and pull up or push the head restraint down and release the button.

Pull and push on the head restraint after the button is released to make sure that it is locked in place.

The front seat outboard head restraints are not removable.

Rear Head Restraints

The vehicle's rear seat has head restraints in the outboard seating positions that cannot be adjusted.

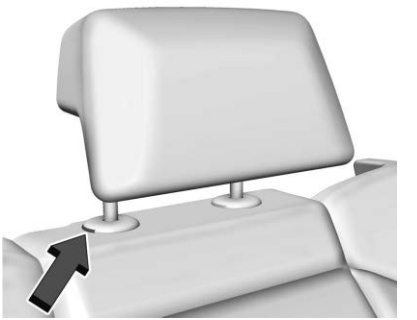


The head restraint can be folded forward to allow for better visibility when the rear seat is unoccupied. To fold the head restraint, press the button on the side of the head restraint.

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

If you are installing a child restraint in the rear seat, see *Lower Anchors and Tethers for Children (LATCH System)* ⇨ *49*.

Center Headrest



The vehicle's rear seat has adjustable headrest in the center seating position. The headrest can be fully lowered into the seatback to allow for better visibility when the rear seat is unoccupied. When an occupant is in the seat, always pull the headrest up to raise it. Try to move the headrest to make sure that it is locked in place.

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

If you are installing a child restraint in the rear seat, see *Lower Anchors and Tethers for Children (LATCH System)* ⇨ *49*.

Front Seats

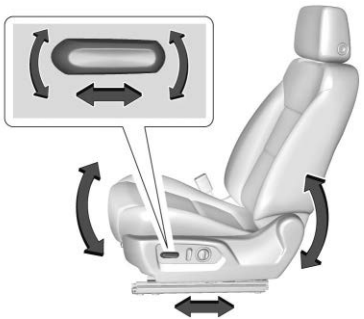
Power Seat Adjustment

⚠ 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 vehicle off. Children could operate the power seats and be injured. Never leave children alone in the vehicle.



To adjust a power seat, if equipped:

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

To adjust the seatback, see *Reclining Seatbacks* ⇨ *17*.

To adjust the lumbar support, see your owner's manual.

Some vehicles are equipped with a feature that activates a vibrating pulse alert in the driver seat to help the driver avoid crashes. See your owner's manual.

Reclining Seatbacks

⚠ 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.

Manual 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.

To adjust a manual seatback:

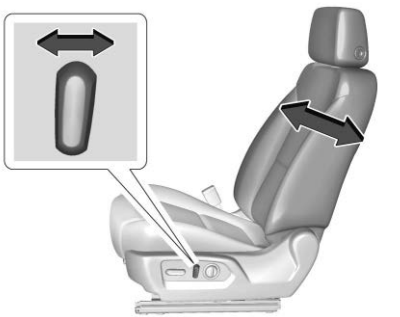
1. Lift the lever.

   The seatback will automatically fold forward.
2. To recline, move the seatback rearward 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 the upright position:

1. Lift the lever fully without applying pressure to the seatback, and the seatback will return to the upright position.
2. Push and pull on the seatback to make sure it is locked.

Power Reclining Seatbacks



To recline a power seatback, if equipped:

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

Memory Seats

Overview

If equipped, the memory seat feature allows drivers to save their unique driving positions and a shared exit position. See "Saving Seating Positions" later in this section. The saved positions can be recalled manually by all drivers, see "Manually Recalling Seating Positions" later in this section, and drivers with remote key 1 and 2 can also recall them automatically. See "Auto Seat Entry Memory Recall" or "Auto Seat Exit Memory Recall" later in this section. To enable automatic recalls, turn on Seat Entry Memory and/or Seat Exit Memory. See "Enabling Automatic Recalls" later in this section. The memory recalls may be canceled at any time during the recall. See "Cancel Memory Seating Recalls" later in this section.

Identifying Driver Number

The vehicle identifies the current driver by their remote key number 1–8. The current remote key number may be identified by Driver Information Center (DIC) welcome message, "You are driver x for memory recalls." This message is displayed the first few times the vehicle is turned on when a different remote key is used. For Seat Entry Memory to work properly, save positions to the 1 or 2 memory button matching the driver number of this welcome message. To aid in identifying remote key IDs, it is recommended to only carry one remote key when entering the vehicle. Perform the following if the welcome message is not displayed:

1. Move all keys and remote keys away from the vehicle.
2. Start the vehicle with another remote key. A DIC welcome message should display indicating the driver number of the other remote key. Turn the vehicle off and remove the other key or remote key from the vehicle.
3. Start the vehicle with the initial key or remote key. The DIC welcome message should display the driver number of the initial remote key.

Saving Seating Positions

Read these instructions completely before saving memory positions.

To save preferred driving positions to 1 and 2:

1. Turn the vehicle on. A DIC welcome message may indicate the driver number of the current remote key. See "Identifying Driver Number" previously in this section.
2. Adjust all available memory features to the desired driving position.
3. Press and release SET; a beep will sound.
4. Immediately upon releasing SET, press and hold memory button 1 or 2 matching the current remote key number until two beeps sound. If too much time passes between releasing SET and pressing 1 or 2, the two beeps will not sound indicating memory position were not saved. Repeat Steps 3 and 4 to try again.

5. Repeat Steps 1–4 for the other remote key 1 or 2 using the other 1 or 2 memory button.

It is recommended to save the preferred driving positions to both 1 and 2 if you are the only driver.

To save the common exit seating position to that is used by all drivers for Manually Recalling Seating Positions and Auto Seat Exit Memory Recall features, repeat Steps 1–4 using , the exit button.

Manually Recalling Seating Positions

Press and hold 1, 2, or button until the recall is complete, to recall the positions previously saved to that button.

Manual Memory recall movement for 1, 2 or buttons may be initiated and will complete to the saved memory position if the vehicle is in or out of P (Park).

Enabling Automatic Recalls

- Seat Entry Memory moves the driver seat to the selected 1 or 2 position when the vehicle is started. Select Settings > Vehicle > Seating Position > Seat Entry Memory > ON or OFF. See "Auto Seat Entry Memory Recall" later in this section.
- Seat Exit Memory moves the driver seat to the preferred exit position of the button when the vehicle is turned off and the door is opened. Select Settings > Vehicle > Seating Position > Seat Exit Memory > Select ON or OFF. See "Auto Seat Exit Memory Recall" later in this section.

Auto Seat Entry Memory Recall

Seat Entry Memory will automatically begin movement to the seating positions of the 1 or 2 button corresponding to remote key number 1 or 2 detected by the vehicle when:

- The vehicle is turned ON.
- Seating positions have been previously saved to the same 1 or 2 button. See "Saving Seating Positions" previously in this section.
- Seat Entry Memory is enabled. See "Enabling Automatic Recalls" previously in this section.
- The vehicle is in P (Park).

Seat Entry Memory Recall will continue if the vehicle is shifted out of P (Park) prior to reaching the saved memory position.

If the saved memory seat position does not automatically recall, verify the recall is enabled. See "Enabling Automatic Recalls" previously in this section.

If the memory seat recalls to the wrong position, remote key number 1 or 2 may not match the memory button number positions they were saved to. Try the other remote key or try saving the positions to the other 1 or 2 memory button. See "Saving Seating Positions" previously in this section.

Automatic Seat Entry Memory recalls are only available for remote key numbers 1 and 2. Remote keys 3–8 will not provide Seat Entry Memory recalls.

Auto Seat Exit Memory Recall

Seat Exit Memory will begin movement to the seating position of the button when:

- The vehicle is turned off and the driver door is open or opened within a short time.
- A seating position has been previously been saved to the memory button. See "Saving Seating Positions" previously in this section.

- Seat Exit Memory is enabled. See "Enabling Automatic Recalls" previously in this section.
- The vehicle is in P (Park).

Seat Exit Memory recall will continue if the vehicle is shifted out of P (Park) prior to reaching the saved memory position.

Seat Exit Memory is not linked to a remote key. The seating position saved to is used for all drivers.

Cancel Memory Seating Recalls

- During any memory recall:

  Press a power seat control

  Press SET memory button
- During Manual memory recall:

  Release 1, 2, or memory button
- During Auto Seat Entry Memory Recall:

  Turn vehicle off

  Press SET, 1, 2, or memory buttons
- During Auto Seat Exit Memory Recall:

  Press SET, 1, 2, or memory buttons

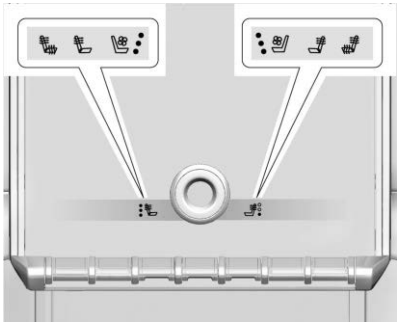
Obstructions

If something has blocked the seat while recalling a memory position, the recall may stop. Remove the obstruction and try the recall again. If the memory position still does not recall, see your dealer.

Heated and Ventilated Front Seats

Warning

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



To operate, select the heated and ventilated seats launch icon. The panel will remain open for approximately five seconds.

Select or to heat the driver or passenger seatback.

Select or to heat the driver or passenger seatback and cushion.

Select or , if available, to ventilate the driver or passenger seat. A ventilated seat has a fan that circulates air through the seat. The air is not cooled. When this feature is off, the heated and ventilated seat symbols are white. When a heated seat is on, the symbol is red. When a ventilated seat is on, the symbol is blue.

Select the icon once for the highest setting. With each press of the icon, the seat will change to the next lower setting, and then to the off setting. The indicator lights next to the icons indicate three for the highest setting and one for the lowest. If the heated seats are on high, the level may automatically be lowered after approximately 45 minutes.

The passenger seat may take longer to heat up.

Auto Heated and Ventilated Seats

When the vehicle is on, this feature will automatically activate the heated or ventilated seats at the level required by the vehicle's interior temperature.

The active high, medium, low, or off heated or ventilated seat level will be indicated by the manual heated or ventilated seat buttons on the door panel. Use the manual heated or ventilated seat buttons on the door panel to turn auto heated or ventilated seats off. If the passenger seat is unoccupied, the auto heated or ventilated seats feature will not activate that seat. To enable or disable auto heated or ventilated seats, select Settings > Vehicle > Climate and Air Quality > Auto Cooled or Auto Heated Seats > ON or OFF.

Remote Start Heated and Ventilated Seats

During a remote start, the heated or ventilated seats, if equipped, can be turned on automatically. When it is cold outside, the heated seats turn on, and when it is hot outside the ventilated seats turn on. If the auto heated or ventilated seats feature is not on when then vehicle is turned on, the heated or ventilated seats may be canceled. If necessary, press the heated or ventilated seat button to use the heated or ventilated seats after the vehicle is started.

The heated or ventilated seat indicator lights may 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 or ventilated seats, select Settings > Vehicle > Remote Lock, Unlock, and Start > Remote Start Auto Heat Seats or Remote Start Auto Cool Seats > ON or OFF. See your owner's manual.

Rear Seats

Rear Seat Reminder

If equipped, the message REAR SEAT REMINDER LOOK IN REAR SEAT displays under certain conditions indicating there may be an item or passenger in the rear seat. Check 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 an alert 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.

Folding the Rear Seat Cushion (Uplevel Models)

Either side of the rear seat cushion can be folded down for added cargo space.

⚠ 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.

⚠ Warning

Do not operate the vehicle with the rear seat cushion(s) folded down and the rear seatbacks in the upright position. The folded seat cushion is not locked. It can move when the vehicle is in motion. People in the vehicle could be injured in a sudden stop or crash. Be sure to return the seat cushion to the seating position or fold the adjoining seatback down before driving the vehicle. Push and pull on the seat cushion to make sure it is locked into place.

Make sure that nothing is on the seat cushion and the floor area in front of the rear seats is clear.

Pull the strap on the rear edge of the rear seat cushion to release the cushion. Tilt the seat cushion forward toward the front of the vehicle.

Raising the Rear Seat Cushion (Uplevel Models)

Return the seat cushion to its original position and push down on the rear part of the seat cushion until it latches. Make sure the seat belts and seat belt buckles are not trapped under the seat cushion and are properly positioned for use.

Folding the Rear Seatback (Uplevel Models)

⚠ Warning

Folding a rear seatback with the head restraint in the upright position may cause damage to the seat or the head restraint. Always fold the head restraint before folding the seatback. See *Head Restraints* ➪ *15*.

Caution

Folding the rear seatback prior to tilting the seat cushion forward may damage the rear seat. Always tilt the rear seat cushion forward before folding the seatback.

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

The seat cushion must be tilted forward before the folding seatback is folded down. Otherwise, the seatback will not fold down properly.

Pull the release strap located below the seat cushion to unlock the seatback. Fold the seatback forward and down.

Raising the Seatback (Uplevel Models)

⚠ 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 restoring the seat to the normal seating position, always check to be sure that the seat belts are properly routed and attached, and are not twisted.

1. Lift the seatback and push it rearward to lock it in place.

   Make sure the seat belts are not pinched by the seatback locking mechanism.

2. Push and pull the top of the seatback to be sure it is locked into position.

If additional cargo space is not needed, the seatbacks should be kept in the upright, locked position.

Folding the Rear Seat Cushion (Base Models)

Either side of the rear seat cushion can be folded up for added cargo space.

⚠ 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.

Make sure that nothing is on the seat cushion and the floor area in front of the rear seats is clear.

To fold the seat, slowly pull the seat cushion up.

To return the seat to the normal seating position, slowly pull the seat cushion down.

⚠ 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 restoring the seat to the normal seating position, always check to be sure that the seat belts are properly routed and attached, and are not twisted.

Heated Rear Seats

Warning

If you cannot feel temperature change or pain to the skin, the seat heater may cause burns. See the Warning under *Heated and Ventilated Front Seats* ⇨ *21*.

If available, the buttons are on the rear of the center console. To operate, the vehicle must be on.

Press or to heat the left or right outboard seat cushion. An indicator on the climate control display appears when this feature is on.

This feature turns on at the highest setting. With each press of the button, the heated seat changes to the next lower setting, and then the off setting. Three lights indicate the highest setting, and one light indicates the lowest. If the heated seats are on high, the level may automatically be lowered after approximately 30 minutes.

Remote Start Heated Seats

If equipped, the heated seats will turn on automatically during a remote start if it is cold outside. The heated seat indicators may come on during this operation. The heated seats may cancel when the vehicle is turned on. These features can be manually selected with the heated seat buttons after the vehicle is turned on.

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

To enable or disable remote start heated seats, select Settings > Vehicle > Remote Lock, Unlock, and Start > Remote Start Auto Heat Seats > ON or OFF. See your owner's manual.

Seat Belts

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

Warning

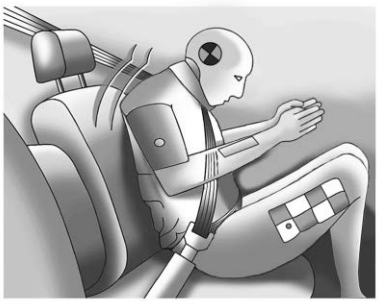
Do not let anyone ride where a seat belt cannot be worn properly. In a crash, if you or your passenger(s) are not wearing seat belts, injuries can be much worse than if you are wearing seat belts. You can be seriously injured or killed by hitting things inside the vehicle harder or by being ejected from 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* ⇨ *67*.

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.

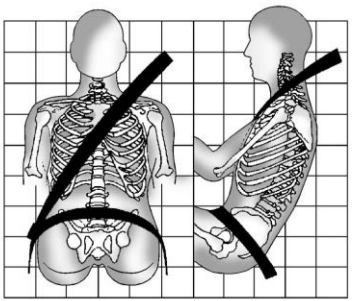
How to Wear Seat Belts Properly

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* ⇨ *42* or *Infants and Young Children* ⇨ *44*. 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.



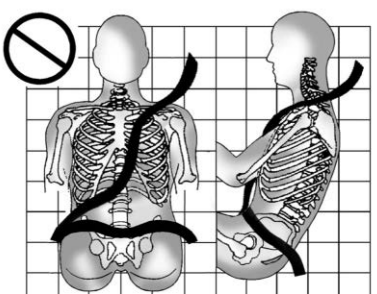
- Sit up straight and always keep your feet on the floor in front of you (if possible).
- Wear the lap part of the belt low and snug on the hips, just touching the thighs. In a crash, this applies force to the strong pelvic bones and you would be less likely

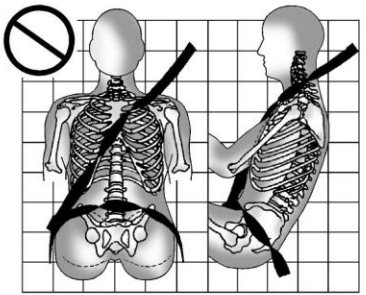
to slide under the lap belt. If you slid under it, the belt would apply force on your abdomen. This could cause serious or even fatal injuries.

- 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.

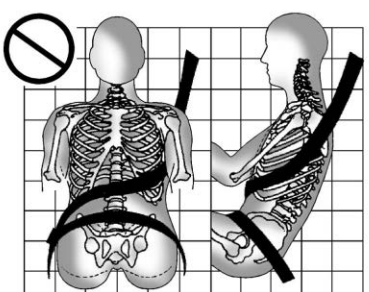
⚠ Warning

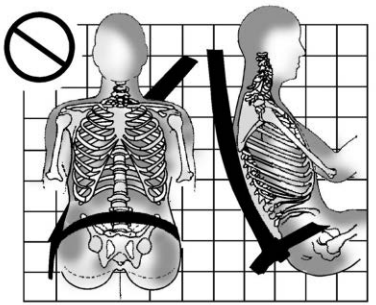
You can be seriously injured, or even killed, by not wearing your seat belt properly.



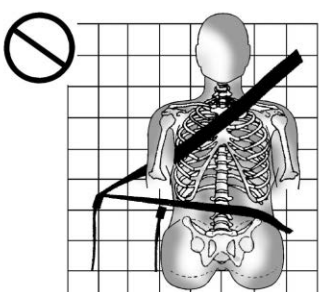


Never allow the lap or shoulder belt to become loose or twisted.

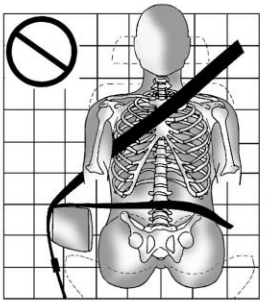




Never wear the shoulder belt under both arms or behind your back.



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

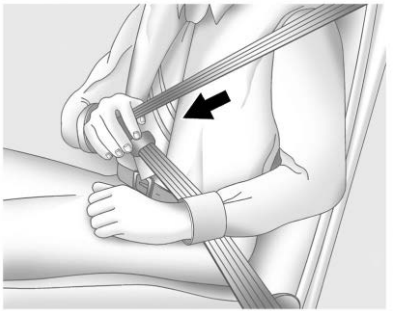
You can be seriously injured or killed if the shoulder belt is worn behind your back, under your legs, or wrapped around your neck. The shoulder belt can tighten but cannot be loosened if it is locked. The shoulder belt locks when it is pulled all the way out of the retractor. It unlocks when the shoulder 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.



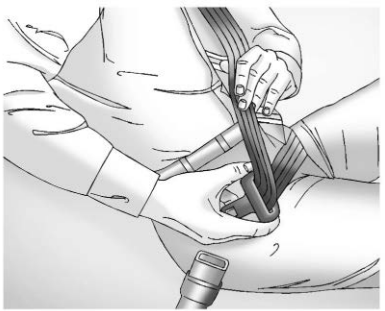
2. Pick up the latch plate and pull the belt across you. Do not let it get twisted.

   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.

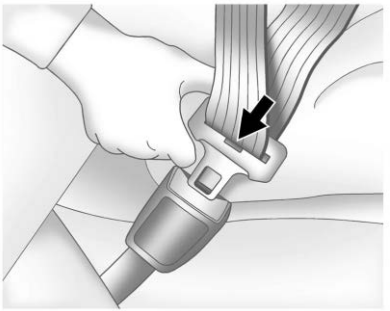
   If the shoulder portion of a passenger belt is pulled out all the way, the child restraint locking feature may be engaged. See *Child Restraint Systems* ⇨ *46*. If this occurs, let the belt go back all the way and start again. If the locking feature stays engaged after letting the belt go back to stowed position

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, if equipped. See *Passenger Sensing System* ⇨ *37*.



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

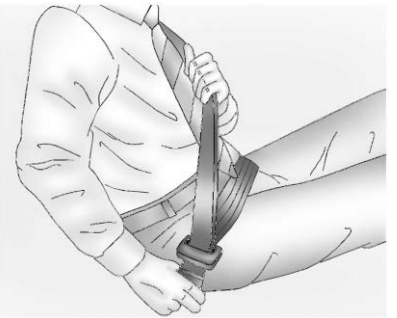


3. Push the latch plate into the buckle until it clicks.

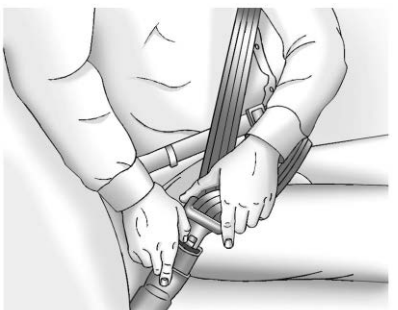
   Pull up on the latch plate to make sure it is secure. If the belt is not long enough, see *Seat Belt Extender* ⇨ *31*.

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

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



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.

Shoulder Belt Height Adjuster

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

Adjust the height so the shoulder portion of the belt is on the shoulder and not falling off of it. The belt should be close to, but not contacting, the neck. Improper shoulder belt height adjustment could reduce the effectiveness of the seat belt in a crash. See *How to Wear Seat Belts Properly* ⇨ *26*.

Push the release button to move the height adjuster to the desired position.

After the adjuster is set to the desired position, try to move it down without pushing the release button to make sure it has locked into position.

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 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* ⇨ *32*.

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 comfort 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* ⇨ *67*.

Keep seat belts clean and dry. See *Seat Belt Care* ⇨ *31*.

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* ⇨ *68*.

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 the passenger seated directly behind the driver
- A roof-rail airbag for the front outboard passenger and the passenger seated directly behind the front outboard passenger

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

For frontal airbags, the word AIRBAG is on the 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?* ⇨ *35*.

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

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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* ⇨ *42* or *Infants and Young Children* ⇨ *44*.

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* ⇨ *68*.

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 second row 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

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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* ⇨ *32*. 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, rear impacts, or many side impacts.

In addition, the vehicle has advanced technology frontal airbags. Advanced technology frontal airbags adjust the restraint according to either crash severity or occupant interaction.

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?* ⇨ *33*.

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?* ⇨ *35*.

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?* ⇨ *33*.

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

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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 lamps and hazard warning flashers 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 doors can be locked, the interior lamps 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 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 attempting to restart the vehicle after a crash has occurred.

Plug-in vehicles have a high voltage battery and a standard 12-volt battery.

If an airbag inflates or the vehicle has been in a crash, the sensing system may shut down the high voltage system. When this occurs, the high voltage battery is disconnected and the vehicle will not start. Before the vehicle can be operated again, it must be serviced at your dealer.

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* ⇨ *141* and *Event Data Recorders* ⇨ *142*.
- 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.

The words ON and OFF will be visible during the system check. When the system check is complete, either the word ON or OFF will be visible. See *Passenger Airbag Status Indicator* ⇨ *69*.

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.

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

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Warning (Continued)

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.

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* ⇨ *69*.

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* ⇨ *68* 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)* ⇨ *59 Securing Child Restraints (With the Seat Belt in the Front Passenger Seat)* ⇨ *63*.

   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* ⇨ *15*.
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

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Warning (Continued)

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* ➪ *41* 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 your owner's manual.

⚠ 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* ⇨ *37*.

If the vehicle has rollover roof-rail airbags, see *Different Size Tires and Wheels* ⇨ *124* for additional important information.

If the vehicle must be modified because you have a disability and have questions about whether the modifications will affect the vehicle's airbag system, or if you have questions about whether the airbag system will be affected if the vehicle is modified for any other reason, call Customer Assistance. See your owner's manual.

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* ⇨ *68*.

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?* ⇨ *33*. See your dealer for service.

Replacing Airbag System Parts After a Crash

⚠ Warning

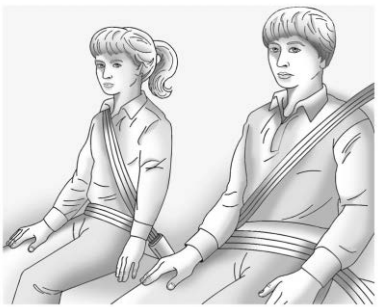
A crash can damage the airbag systems in the vehicle. A damaged airbag system may not properly protect you and your passenger(s) in a crash, resulting in serious injury or even death. To help make sure the airbag systems are working properly after a crash, have them inspected and any necessary replacements 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* ⇨ *68*.

Child Restraints

Older Children



Older children who have outgrown booster seats should wear the vehicle seat belts. See *How to Wear Seat Belts Properly* ⇨ *26*.

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* ⇨ *28*. 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* ⇨ *28*.

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.

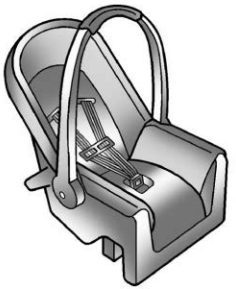
⚠ Warning

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



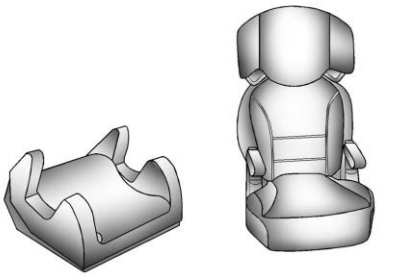
Rear-Facing Infant Restraint

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* ⇨ *42*.

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)* ⇨ *49* 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* ⇨ *37* 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. This 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 restraint.

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 installed using only the top tether.

For a forward-facing 5-pt 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 Shown 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 (65 lb)	**X**	**X**		
Rear-Facing Child Restraint	Greater than 29.5 kg (65 lb)		**X**		
Forward-Facing Child Restraint	Up to 29.5 kg (65 lb)			**X**	**X**
Forward-Facing Child Restraint	Greater than 29.5 kg (65 lb)				**X**

See *Securing Child Restraints (With the Seat Belt in the Rear Seat)* ⇨ *59 Securing Child Restraints (With the Seat Belt in the Front Passenger Seat)* ⇨ *63*.

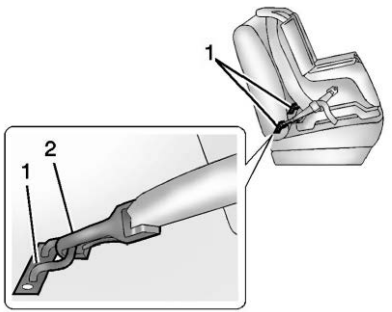
Child restraints built after March 2014 are labeled with the maximum child weight, with which the LATCH system can be used for installing the child restraint.

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*

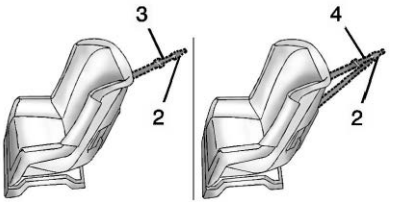
Restraints (With the Seat Belt in the Rear Seat) ⇨ *59 Securing Child Restraints (With the Seat Belt in the Front Passenger Seat)* ⇨ *63.*

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

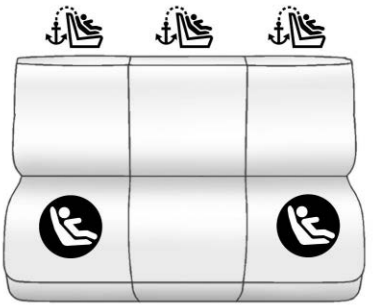


A top tether (3, 4) is used to secure the top of the child restraint to the vehicle. A top tether anchor is built into the vehicle. The top tether attachment hook (2) on the child restraint connects to the top tether anchor in the vehicle in order to reduce the forward movement and rotation of the child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



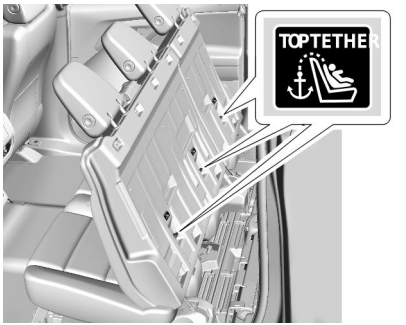
: Seating positions with top tether anchors.

: Seating positions with two lower anchors.

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

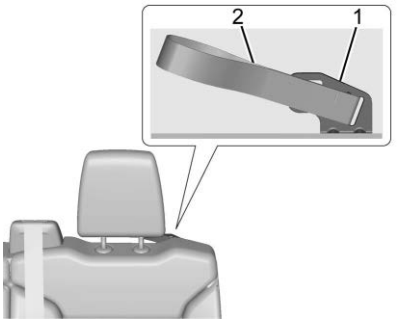
Do not install a child restraint that requires lower anchors in the center rear seating position. See *Securing Child Restraints (With the Seat Belt in the Rear Seat)* ⇨ *59 Securing Child Restraints (With the Seat Belt in the Front Passenger Seat)* ⇨ *63* for more information.

For uplevel models, there are top tether anchor symbols to assist you in locating the top tether anchors.

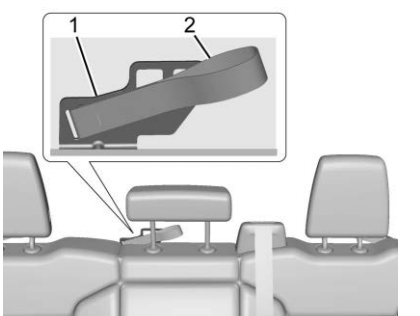


Uplevel Models

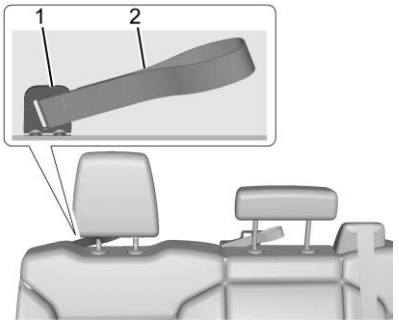
For uplevel models, the top tether anchors for each rear seating position are on the back of the rear seatback. Release the seatback and rotate the seatback forward to access the anchors. See *Rear Seats* ⇨ *22*. Be sure to use an anchor located directly behind the seating position where the child restraint will be placed.



Driver Side Anchor and Loop (Base Model)



Center Anchor and Loop (Base Model)



Passenger Side Loop (Base Model)

For base models, the top tether is routed through loops (2) to the top tether anchors (1). Be sure to use the correct anchor for the seating position where the child restraint will be placed.

Be sure to read the following instructions to properly install a child restraint using these loops and anchors.

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* ⇨ *48* 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

Do not attach more than one child restraint to a single anchor, except for the center top tether anchors in the crew cab models. Attaching more than one child restraint to

(Continued)

Warning (Continued)

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. To reduce the risk of serious or fatal injuries during a crash, attach only one child restraint per anchor.

⚠ 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

(Continued)

Warning (Continued)

of the retractor to set the lock, and tighten the belt behind the child restraint after the child restraint has been installed.

Caution

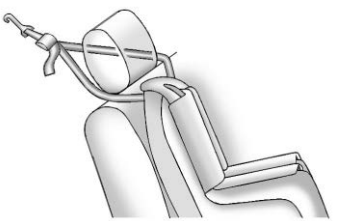
Do not let the LATCH attachments rub against the vehicle's seat belts. This may damage these parts. If necessary, move buckled seat belts to avoid rubbing the LATCH attachments.

Do not fold the rear seat cushion 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* ⇨ *48*.

Uplevel Models

1. For forward-facing child restraints, attach and tighten the top tether to the top tether anchor, if your vehicle has one. Follow the child restraint instructions and the vehicle LATCH anchor weight limits described at the beginning of this section, and the following steps:
   - 1.1 Set/Place the child restraint on the seat cushion.
   - 1.2 Fold the seatback forward. See *Rear Seats* ⇨ *22*.
   - 1.3 Route and attach the top tether according to your child restraint instructions and the following instructions:



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.

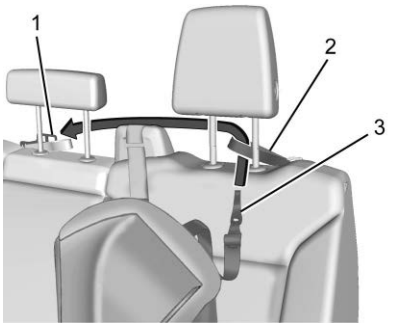
If the child restraint is installed next to a center seat, make sure the top tether does not interfere with the center seating position shoulder belt/retractor. If it does, find another suitable seating position to install the child restraint.

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. Make sure the top tether does not interfere with the center seating position shoulder belt/retractor.

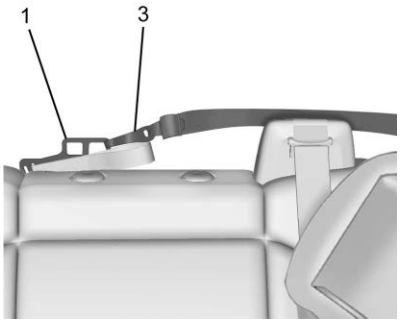
2. Make sure the child restraint top tether hook is completely closed and secured to the top tether anchor.
   - 2.1 While pulling on the top tether strap to remove the slack, and keeping the child restraint in contact with the seat cushion and seatback, fold the seatback to the latched position.
   - 2.2 All slack needs to be removed from the top tether before securing the seatback to the latches.
3. Raise the seatback. See *Rear Seats* ⇨ *22*.
   - 3.1 Confirm the seatback is secure on the latches.
   - 3.2 Confirm the child restraint is contacting the seat cushion and seatback.
4. 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.
   - 4.1 Find the lower anchors for the desired seating position.
   - 4.2 Attach and tighten the lower attachments on the child restraint to the lower anchors.
5. Tighten the top tether.
6. 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.

Base Models

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. For forward-facing child restraints, attach and tighten the top tether to the top tether anchor, if your vehicle has one. Follow the child restraint instructions and the vehicle LATCH anchor weight limits described at the beginning of this section, and the following steps:



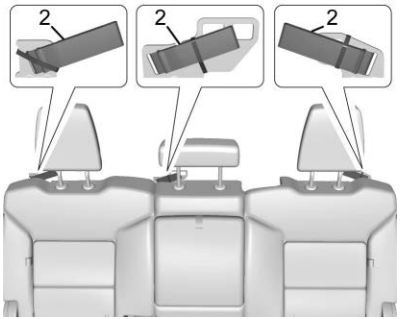
Rear Driver Side Position



Rear Driver Side Position

2.1 For a top tether in the rear driver side position:

2.1.1 Remove the driver side head restraint and center headrest. See “Head Restraint or Headrest Removal and Reinstallation” later in this section.

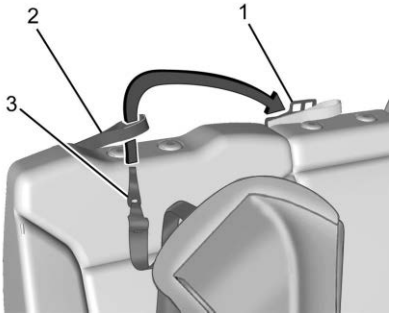


2.1.2 For first time use, remove and discard the rubber band from the top tether loop (2).

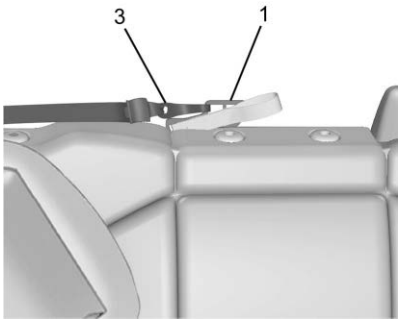
2.1.3 Route the top tether (3) through the loop (2).

2.1.4 Attach the top tether (3) to the driver side of the center top tether metal anchor (1).

2.1.5 Make sure the child restraint top tether hook is completely closed and secured to the top tether anchor.



Rear Passenger Side Position



Rear Passenger Side Position

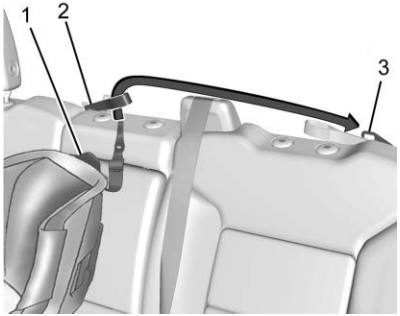
2.2 For a top tether in the rear passenger side position:

2.2.1 Remove the passenger side head restraint and center headrest. See “Head Restraint or Headrest Removal and Reinstallation” later in this section.

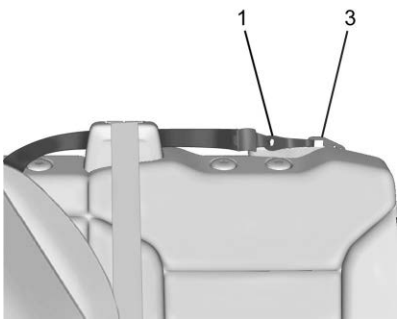
2.2.2 Route the top tether (3) through the loop (2).

2.2.3 Attach the top tether (3) to the passenger side of the center top tether metal anchor (1).

2.2.4 Make sure the child restraint top tether hook is completely closed and secured to the top tether anchor.



Rear Center Position



Rear Center Position

2.3 For a top tether in the rear center position:

2.3.1 Remove the driver side head restraint and center headrest. See “Head Restraint or Headrest Removal and Reinstallation” later in this section.

2.3.2 Route the top tether (1) through the center loop (2).

2.3.3 Attach the top tether (1) to the driver side top tether metal anchor (3).

2.3.4 Make sure the child restraint top tether hook is completely closed and secured to the top tether anchor.

3. Tighten the top tether per the child restraint manufacturer's instructions.

   When the top tether is properly tightened, the loop may bend. This is normal and will not damage the vehicle.

   If child restraints are installed in both outboard positions, both top tethers can be attached to the center anchor. Top tethers can be attached for child restraints in all three rear seating positions at the same time, following the routing instructions above.

4. 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.

Head Restraint or Headrest Removal and Reinstallation

For base models, the second row outboard head restraints or center headrest can be removed if they interfere with the proper installation of the child restraint.

To remove the second row head restraints or center headrest:

1. Press both buttons on the head restraint or headrest posts at the same time, and pull up on the head restraint or headrest.
2. Store the head restraint or headrest in a secure place.
3. When the child restraint is removed, reinstall the head restraint or headrest before the seating position is used.

⚠ 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.

To reinstall the head restraint or headrest:

1. Insert the head restraint or headrest posts into the holes in the top of the seatback. The notches on the posts must face the driver side of the vehicle.
2. Push the head restraint or headrest down.
3. Try to move the head restraint or headrest to make sure that it is locked in place.

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)* ⇨ *49* 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)* ⇨ *49* for top tether anchor locations.

Do not secure a child seat in a position without a top tether anchor if a national or local law requires that the top tether be anchored, or if the instructions that come with the child restraint say that the top strap must be anchored. Refer to the instructions that came with the child restraint and see *Lower Anchors and Tethers for Children (LATCH System)* ⇨ *49*.

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* ⇨ *48*.

Uplevel Models

1. For forward-facing child restraints, attach and tighten the top tether to the top tether anchor, if your vehicle has one.
   - 1.1 Place the child restraint on the seat cushion.
   - 1.2 Rotate the seatback forward. See *Rear Seats* ⇨ *22*.
   - 1.3 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*

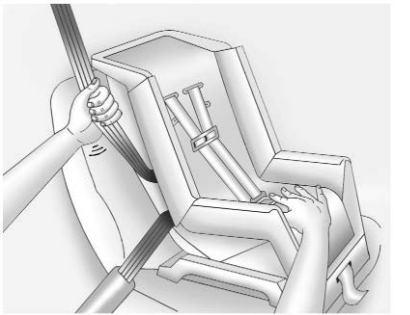
Tethers for Children (LATCH System) ⇨ *49* for more information on using the top tether anchors.

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

If the head restraint was removed, reinstall it before the seating position is used. See "Head Restraint Removal and Reinstallation" under *Lower Anchors and Tethers for Children (LATCH System)* ⇨ *49* for additional information on installing the head restraint properly.

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.

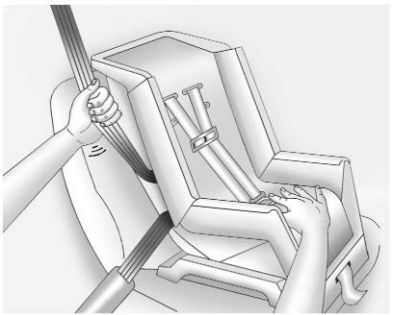
Base Models

1. Put the child restraint on the seat.
2. If the head restraint interferes with the proper installation of the child restraint, the head restraint may be removed. See "Head Restraint Removal and Reinstallation" under *Lower Anchors and Tethers for Children (LATCH System)* ⇨ *49*.
3. Pick up the latch plate and run the lap and shoulder portions of the vehicle seat belt through or around the child restraint. Ensure the seat belt webbing is routed as directly as possible and is not caught on seat handles or plastic trim. The child restraint instructions will show you how.

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, 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. Tighten the top tether. See *Lower Anchors and Tethers for Children (LATCH System)* ⇨ *49*.

8. 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)* ⇨ *49* for more information on using the top tether anchors.

9. 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.

If the head restraint was removed, reinstall it before the seating position is used. See "Head Restraint Removal and Reinstallation" under *Lower Anchors and Tethers for Children (LATCH System)* ⇨ *49* for additional information on installing the head restraint properly.

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 Passenger 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* ⇨ *48*.

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* ⇨ *37* and *Passenger Airbag Status Indicator* ⇨ *69* for more information, including important safety information.

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 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 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* ⇨ *37* for additional information.

If the child restraint uses a top tether, see *Lower Anchors and Tethers for Children (LATCH System)* ⇨ *49* 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.

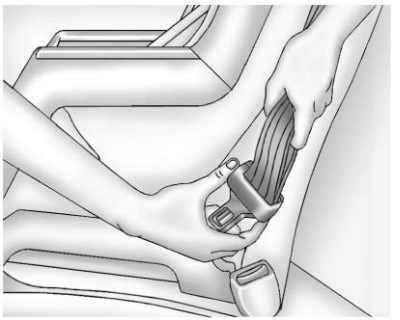
When using the lap-shoulder belt to secure the child restraint in this position, follow the instructions that came with the child restraint and the following instructions:

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* ⇨ *69*.

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.

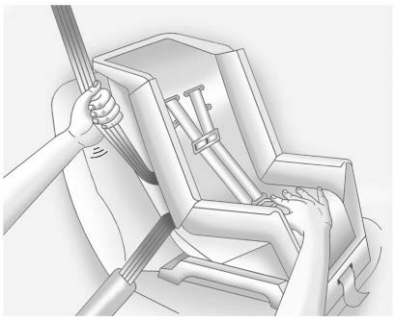


Tilt the latch plate to adjust the belt if needed.

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. 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 airbag is 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* ⇨ *37*.

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

Instruments and Controls

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Controls

Windshield Wiper/Washer

⚠ Warning

In freezing weather, do not use the washer until the windshield is warmed. Otherwise the washer fluid can form ice on the windshield, blocking your vision.

⚠ Warning

Before driving the vehicle, always clear snow and ice from the hood, windshield, washer nozzles, roof, and rear of the vehicle, including all lights and windows. Reduced visibility from snow and ice buildup could lead to a crash.

The windshield wiper/washer lever is on the left side of the steering column. With the vehicle on or in accessory mode, move the windshield wiper knob to select the wiper speed.

HI: Use for fast wipes.

LO: Use for slow wipes.

INT: Turn the knob to INT for intermittent wipes, then turn the INT band up for more frequent wipes or down for less frequent wipes.

OFF: Use to turn the wipers off.

: For a single wipe, push the button to the first stop position briefly and release. For several wipes, hold the button at the first stop position longer and release.

: Push the button beyond the first stop position to spray windshield washer fluid and activate the wipers. The wipers will continue until the button is released or the maximum wash time is reached. When the windshield

wiper button is released, additional wipes may occur depending on how long the windshield washer has been activated. See your owner's manual for information on filling the windshield washer fluid reservoir.

Clear snow and ice from the wiper blades and windshield before using them. If frozen to the windshield, carefully loosen or thaw them. Damaged blades should be replaced. See your owner's manual.

Heavy snow or ice can overload the wiper motor.

Wiper Parking

If the vehicle 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 vehicle 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.

Rain Sense

If equipped with Rain Sense and the feature is turned on, a sensor near the top center of the windshield detects the amount of water on the windshield and controls the frequency of the windshield wiper based on the current sensitivity setting.

Keep this area of the windshield clear of debris to allow for best system performance.

To turn the Rain Sense feature on or off, from the infotainment home screen, select Settings > Vehicle > Comfort and Convenience > Rain Sense > Enable/Disable.

If Rain Sense is enabled in Settings, turning the wiper lever to INT will activate Rain Sense.

Warning Lights, Gauges, and Indicators

Warning lights and gauges can signal that something is wrong before it becomes serious enough to cause an expensive repair or replacement. Paying attention to the warning lights and gauges could prevent injury.

Some warning lights come on briefly when the propulsion system is started to indicate they are working. When one of the warning lights comes on and stays on while driving, or when one of the gauges shows there may be a problem, check the section that explains what to do. Waiting to do repairs can be costly and even dangerous.

Seat Belt Reminders

Driver Seat Belt Reminder Light

There is a driver seat belt reminder light on the instrument cluster.

When the vehicle is started, this light flashes and a chime may come on to remind the driver to fasten their seat belt.

Then the light stays on solid until the belt is buckled. This cycle may continue several times if the driver remains or becomes unbuckled while the vehicle is moving.

If the driver seat belt is buckled, neither the light nor the chime comes on.

Front Passenger Seat Belt Reminder Light

The vehicle may have a front passenger seat belt reminder light near the passenger airbag status indicator. See *Passenger Sensing System* ⇨ *37*.

When the vehicle is started, this light flashes and a chime may come on to remind passengers to fasten their seat belt.

Then the light stays on solid until the belt is buckled. This cycle continues several times if the front passenger remains or becomes unbuckled while the vehicle is moving.

If the front passenger seat belt is buckled, neither the chime nor the light comes on.

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

Second Row Passenger Seat Belt Reminder Lights

The vehicle may have second row passenger seat belt reminder lights. The vehicle has one of the following displays.

- A shaded or green light indicates the seat belt is buckled.

- An X indicates the seat belt is not buckled. A check mark indicates the seat belt is buckled.

  For information on the front seat belt reminder lights, see "Driver Seat Belt Reminder Light" and "Front Passenger Seat Belt Reminder Light" listed previously in this section.

When the vehicle is started, these lights come on solid to remind rear passengers to fasten their seat belts. Then each light may stay on solid or flash, and a chime may come on if the rear passenger remains unbuckled, or becomes unbuckled, when the vehicle is moving.

If all rear seat positions are buckled, neither the chime nor the lights will come on.

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* ⇨ *32*.

The airbag readiness light comes on for several seconds when the vehicle is started. If the light does not come on then, have it fixed immediately.

⚠ Warning

If the airbag readiness light stays on after the vehicle is started or comes on while driving, it means the airbag system might not be working properly. The airbags in the vehicle might not inflate in a crash, or they could even inflate without a crash. To help avoid injury, have the vehicle serviced right away.

If there is a problem with the airbag system, a Driver Information Center (DIC) message may also come on.

Passenger Airbag Status Indicator

The vehicle has a passenger sensing system. See *Passenger Sensing System* ⇨ *37* for important safety information. The overhead console has a passenger airbag status indicator.

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

If the word ON 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 is lit on the passenger 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, or if the airbag readiness light is on, there may be a problem with the lights or the passenger sensing system. See your dealer for service right away.

⚠ 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* ⇨ *68* for more information, including important safety information.

Brake System Warning Light

Metric **English**

⚠ Warning

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

(Continued)

Warning (Continued)

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 comes on briefly when the vehicle is turned on to show that the light is working. If it does not come on then, have it fixed so it will be ready to warn you if there is a problem.

If the light comes on and stays on, there is a brake problem. Have the brake system inspected right away. This light may come on if the brake fluid is low. See your owner's manual.

If the light comes on while driving, pull off the road and stop carefully. The brake system has electric brake boost. Vehicle speed may be limited when the brake system warning light comes on. 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* ⇨ *134*.

Tire Pressure Light

If equipped with the Tire Pressure Monitor System (TPMS), this light comes on briefly when the vehicle is started. It provides information about tire pressures and the TPMS.

When the Light Is On Steady

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

A Driver Information Center (DIC) 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* ⇨ *116*.

When the Light Flashes First and Then Is On Steady

If the light flashes for about a minute and then stays on, there may be a problem with the TPMS. If the problem is not corrected, the light will come on every time the vehicle is started. See *Tire Pressure Monitor Operation* ⇨ *118*.

Lighting

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Exterior Lighting

Exterior Lamp Controls

The headlight control is located on the infotainment screen. Touch the ☼ symbol, then select any of the following options.

Off: Turns off the exterior lights.

For vehicles first sold in Canada, the Daytime Running Lamps (DRL) automatically activate when the vehicle is shifted out of P (Park). See your owner's manual.

Auto: Enables the automatic headlamp system, which controls the exterior lights and instrument panel lights depending on outside lighting. See your owner's manual.

: Turns on the parking lights. If the vehicle is not in P (Park), the DRL also come on.

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

Headlights can also be activated in the Controls & Safety app. On the infotainment home screen, touch the Controls icon, then select See More Controls > Lights > Headlights.

Optional Reminder If Headlights Are Off

You can set a reminder for the vehicle to display a message if it is dark outside and the headlights are off. On the infotainment home screen, touch > See More Controls > Lights > Headlights, then touch > in the upper corner of the Headlights menu. Touch the box next to Turn Headlight Reminder On to enable or disable the option.

High-Beam Systems

IntelliBeam System

If equipped, this system turns the high-beam headlamps on and off according to surrounding traffic conditions.

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

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

Turning the IntelliBeam System On and Off

To enable the IntelliBeam system, from the infotainment home screen, select Controls App > Auto High Beams > On. The system can also be enabled at > See More Controls > Lights > Auto High Beams > On.

The system engages only when the Headlights control is set to or Auto.

To disable the system, select > Auto High Beams > Off.

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).

The blue High-Beam On light AUTO appears on 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 headlamps 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 headlamps are not required.
- The system detects an approaching vehicle's headlamps.
- The system detects a preceding vehicle's taillamps.

The high-beam headlamps may not turn off automatically if the system cannot detect another vehicle's lamps because of any of the following:

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

The IntelliBeam system may need to be disabled if any of the above conditions exist.

Hazard Warning Flashers

⚠ : Press this button on the overhead console to make the front and rear turn signal lamps flash on and off. This warns others that you are having trouble. Press again to turn the flashers off.

The turn signals do not work while the hazard warning flashers are on.

The hazard warning flashers turn on automatically if the airbags deploy.

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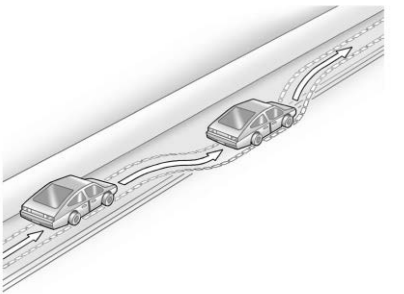
Driving Information

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.

Off-Road Driving

⚠ Warning

This vehicle is neither rated nor equipped for full off-road use. Attempting to drive in off-road conditions may be unsafe and can result in vehicle damage or personal injury.

This vehicle may be used for light recreational driving away from paved roads. It should not be used in off-road conditions.

The electric four-wheel drive (e4WD) system on this vehicle is for on-road use and is not the same as a traditional 4x4 system. See *Four-Wheel Drive* ⇨ *86*.

This vehicle is equipped with all-season tires. Vehicles that are not equipped with all-terrain or On-Off Road (OOR) tires must not be driven off-road except on a level, solid surface.

Preparing to Drive Away from Paved Roads

Charge the vehicle and check inflation pressure in all tires, including the spare, if equipped.

Select Off Road mode on the Driver Mode Control. See your owner's manual.

Driving Guidelines

Use only established trails, roads, and areas that are reserved for public off-road recreational driving. Obey all posted regulations. Do not damage shrubs, flowers, trees, grasses, or disturb wildlife.

Do not drive up or down off-road inclines in this vehicle. Do not drive through mud, loose sand, packed snow, or deep water. This vehicle is not equipped to handle these conditions.

After Driving Away from Paved Roads

Be sure to switch out of Off Road mode to return to normal driving. See your owner's manual.

Hill and Mountain Roads

⚠ Warning

Do not charge your vehicle's battery above an 80% charge if you are going to drive down long, steep grades such as mountain passes. This provides room in the battery for regenerative braking to supplement your conventional brakes during the descent. This is especially

(Continued)

Warning (Continued)

important when towing a trailer, which puts additional stress on your vehicle's braking system.

If the battery becomes full, regenerative braking will be limited or unavailable. The brakes will have to do all the work of slowing down the vehicle and could become too hot. Hot brakes may not be able to slow the vehicle enough to maintain speed and control. To help avoid the risk of a crash, limit the battery's charge and, if you experience brake fade or receive a brake warning, stop the vehicle and allow the brakes to cool.

See "Charge Now" in your owner's manual for information on setting charge limits.

Driving on steep hills or through mountains is different than driving on flat or rolling terrain. Be sure to:

- Use regenerative braking to help slow the vehicle or maintain speed by keeping the vehicle in gear and limiting the initial battery charge to 80% or less. See your owner's manual.

- When braking is necessary, use frequent, light taps of the brake pedal. This maximizes regenerative braking and minimizes the load on the vehicle brake system.
- Keep the vehicle serviced and in good shape.
- Check all fluid levels, brakes, tires, and cooling system.
- 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.

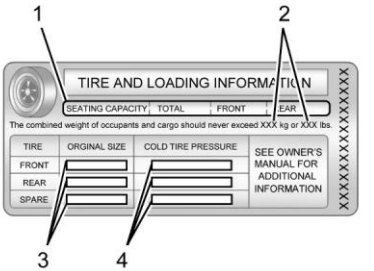
Vehicle Load Limits

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 was designed to carry: the Tire and Loading Information label and the Certification/Tire label.

Tire and Loading Information Label

⚠ Warning

Do not load the vehicle any heavier than the Gross Vehicle Weight Rating (GVWR), or either the maximum front or rear Gross Axle Weight Rating (GAWR). This can cause systems to break and change the way the vehicle handles. This could cause loss of control and a crash. Overloading can also reduce stopping performance, damage the tires, and shorten the life of the vehicle.



Label Example

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* ⇨ *112* and *Tire Pressure* ⇨ *116*.

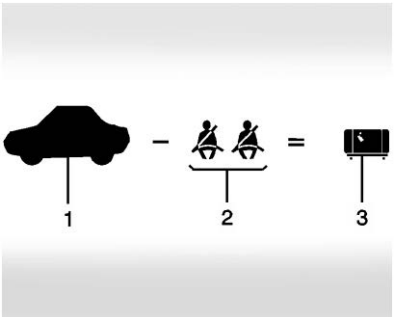
There is also important loading information on the vehicle Certification/ Tire label. It may show the Gross Vehicle Weight Rating (GVWR) and the Gross Axle Weight Rating (GAWR) for the front and rear axles. See “Certification/Tire Label” later in this section.

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.
6. If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.

See your owner's manual for important information on towing a trailer, towing safety rules, and trailering tips.

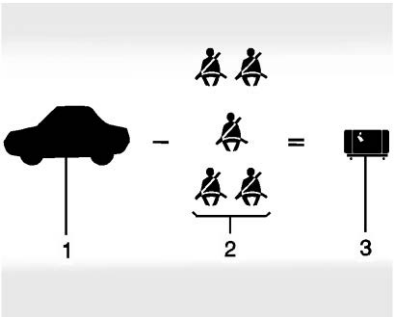
If aftermarket accessories are installed on the vehicle, for example a rooftop carrier, be sure to add the weight of all installed accessories to the combined weight of luggage and cargo.



Example 1

1. Vehicle Capacity Weight for Example 1 = 453 kg (1,000 lb)

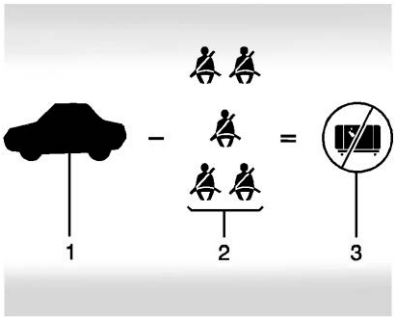
   Then subtract Accessory Weight, for example a rooftop cargo box = 15.8 kg (35 lb)
2. Subtract Occupant Weight @ 68 kg (150 lb) × 2 = 136 kg (300 lb)
3. Remaining available capacity for Cargo Weight = 301.2 kg (665 lb)



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) × 5 = 340 kg (750 lb)
3. Remaining available capacity for Cargo Weight = 94.9 kg (210 lb)

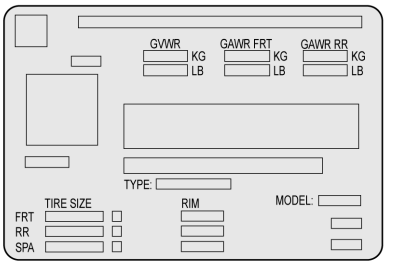


Example 3

1. Vehicle Capacity Weight for Example 3 = 453 kg (1,000 lb)
2. Subtract Occupant Weight @ 91 kg (200 lb) × 5 = 453 kg (1,000 lb)
3. Available Cargo Weight = 0 kg (0 lb)

Refer to the 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



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. This is called Gross Vehicle Weight Rating (GVWR). The GVWR includes the weight of the vehicle, all occupants, and cargo.

The Certification/Tire label also may show the maximum weights for the front and rear axles, called Gross Axle Weight Rating

(GAWR). To determine 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.

The Certification/Tire label also contains important information about the Front Axle Reserve Capacity.

⚠ Warning

In the case of a sudden stop or collision, things carried in the bed of your truck could shift forward and come into the passenger area, injuring you and others. If you put things in the bed of your truck, you should make sure they are properly secured.

Using heavier suspension components to get added durability might not change the weight ratings. Ask your dealer to help load the vehicle the right way.

⚠ Warning

Things you put inside the vehicle can strike and injure people in a sudden stop or turn, or in a crash.

- Put things in the cargo area of the vehicle. 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.
- When you carry something inside the vehicle, secure it whenever you can.
- Do not leave a seat folded down unless you need to.

Add-On Equipment

Caution

Overloading the vehicle may cause damage. Repairs would not be covered by the vehicle warranty. Do not overload the vehicle.

When carrying removable items, a limit on how many people carried inside the vehicle may be necessary. Be sure to weigh the vehicle before buying and installing the new equipment.

Remember not to exceed the Gross Axle Weight Rating (GAWR) of the front or rear axle.

Truck-Camper Loading Information

The vehicle was neither designed nor intended to carry a slide-in camper.

Caution

Adding a slide-in camper or similar equipment to the vehicle can damage it, and the repairs would not be covered by the vehicle warranty. Do not install a slide-in camper or similar equipment on the vehicle.

Starting and Operating

Power Modes

Powering On

This vehicle is equipped with Hands-Free Start, which automatically starts the vehicle when you enter with a remote key, press the brake, or close the driver door.

If a remote key was left in the vehicle after the last power cycle, closing the driver door will not turn on the vehicle. The brake pedal must be pressed to turn the vehicle on. Driver Information Center (DIC) messages will display explaining how to turn on the vehicle.

If the remote key is not in the vehicle or something is interfering with the remote key, a message displays in the DIC.

If the vehicle does not turn on due to a low remote key battery, the vehicle can still be driven. See your owner's manual.

A vehicle ready light displays on the instrument cluster when the vehicle is ready to be driven. This could take up to 15 seconds at extremely cold temperatures.

The instrument cluster also displays an active battery gauge when the vehicle is ready to be driven.

A chime will sound if the driver door is opened while the vehicle is on.

Powering Off

When the drive cycle has been completed and the vehicle is shifted to P (Park), the vehicle will turn off when a driver exit is detected. The vehicle can also be turned off by pressing OFF on the infotainment display.

Retained Accessory Power (RAP) will remain active until the driver door is opened.

If the vehicle has not been shifted out of P (Park), it will not turn off based on driver exit detection and will need to be turned off through OFF or waiting for the automatic shutdown timeout.

If the vehicle must be shut off in an emergency:

1. Brake using firm and steady pressure. Do not pump the brakes repeatedly. This may deplete power assist, requiring increased brake pedal force.
2. Shift the vehicle to N (Neutral). This can be done while the vehicle is moving. After shifting to N (Neutral), firmly apply the brakes and steer the vehicle to a safe location.
3. Come to a complete stop, shift to P (Park), and turn the vehicle off.
4. Set the parking brake. See *Electric Parking Brake* ⇨ *86*.

⚠ Warning

Turning off the vehicle while moving may disable the airbags. While driving, only shut the propulsion system off in an emergency.

If a drive mode is entered where OFF is present while moving, the vehicle can be shut off while driving. Press OFF and follow the instructions displayed in the DIC to confirm that vehicle off mode is desired.

Climate control functions, such as defrost, heating, and air conditioning are only available while the vehicle is powered on. Turning the vehicle off will turn off all climate controls.

If a collision is detected an additional emergency vehicle off display will be shown and can be pressed to turn the vehicle off.

Keeping Vehicle On After Driver Exit

⚠ Warning

It is dangerous to get out of the vehicle if the P (Park) button is not pressed with the parking brake set. The vehicle can roll.

Do not leave the vehicle when the propulsion system is running. If you have left the propulsion system running, the vehicle can move suddenly. You or others could be injured. To be sure the vehicle will

(Continued)

Warning (Continued)

not move, even when you are on fairly level ground, always set the parking brake and press the P (Park) button.

Press on the infotainment display to keep the vehicle on after a driver exit is detected. can only be activated while the vehicle is in P (Park). The vehicle will remain on for a set time displayed in a notification upon activation. can be reselected to restart the time interval.

Before exiting the vehicle, press the P (Park) button and the Electric Parking Brake (EPB) switch, then activate . See *Shifting Into Park* ➪ *82*.

Using will reduce the charge level of the high voltage battery. Ensure your battery has sufficient charge before activating . See your owner's manual.

should only be used when the vehicle is attended. A horn chirp will sound if the vehicle turns off during the set time interval.

Service Mode

This mode is available for service and diagnostics, and to verify the proper operation of the service vehicle soon light as may be required for inspection or maintenance purposes.

To place the vehicle in Service Mode:

1. Ensure the vehicle is off, the driver door is open, and the brake pedal is not applied.
2. Press and release the accelerator pedal three times within five seconds, keeping the accelerator pressed on the third time.

The instrument cluster and infotainment systems will operate normally, but the vehicle will not be able to be driven. The propulsion system will not be active in Service Mode. Press the brake pedal to turn the vehicle on or press OFF on the infotainment display to turn the vehicle off.

Caution

Placing the vehicle in Service Mode will use the 12-volt battery. Do not use Service Mode for an extended period, or the vehicle may not start.

Shifting Into Park

Warning

Parking on grades with poor traction such as ice, snow, mud, or gravel may cause the vehicle to unintentionally move and could result in injury, death, and/or vehicle damage. Be sure to apply the parking brake. See *Electric Parking Brake* ⇨ *86*.

To shift into P (Park):

1. Hold the brake pedal down and set the parking brake. See *Electric Parking Brake* ⇨ *86*.
2. Press the P (Park) switch at the end of the shift lever. See *Electric Drive Unit* ⇨ *83*.
3. The P indicator on the shift lever will turn red when the vehicle is in P (Park).

If the vehicle is shifted into P (Park) on a hill, the Electric Parking Brake (EPB) may apply automatically. The driver may not be able to release the EPB using the EPB switch. It should automatically release when the vehicle is shifted out of P (Park).

Leaving the Vehicle with the Propulsion System On

Warning

It is dangerous to get out of the vehicle if the vehicle is not in P (Park) with the parking brake set. The vehicle can roll.

Do not leave the vehicle when the propulsion system is on. If you have left the propulsion system on, 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 press the P (Park) button. See *Shifting Into Park* ⇨ *82*.

If the vehicle must be left with the propulsion system on, be sure that the vehicle is in P (Park) with the EPB set, before leaving the vehicle. After pressing the P (Park) button, hold down the regular brake pedal. If you cannot see the P (Park) indicator in the instrument cluster, it means that the vehicle has not shifted to P (Park).

Shifting out of Park

This vehicle is equipped with an electric drive unit. To shift out of P (Park) the vehicle must be on, the brake pedal applied, and the charge cord unplugged.

Parking the vehicle in extreme cold for several days without the charge cord connected may cause the vehicle not to start. Plug the vehicle in to allow the high voltage battery to be warmed sufficiently.

To shift out of P (Park):

1. Apply the brake pedal.
2. Verify that the vehicle is unplugged and the vehicle ready light is on.
3. Move the shift lever to the desired position.

After releasing the shift lever, it will return to the center position.

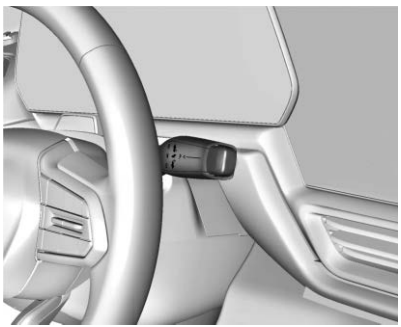
The P indicator will turn white and the gear indicator on the shift lever will turn red when the vehicle is no longer in P (Park).

If the vehicle cannot shift from P (Park), a Driver Information Center (DIC) message may be displayed. Check that the vehicle is on, the vehicle ready light is on, and the brake pedal is applied when you are attempting to shift out of

P (Park). If all of these are met but the vehicle will not shift out of P (Park), see your dealer for service.

If equipped, the Buckle to Drive feature may prevent shifting from P (Park). See your owner's manual.

Electric Drive Unit

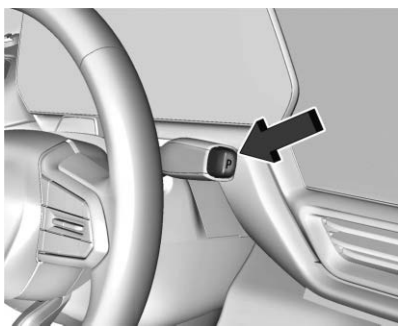


The vehicle uses an electric drive unit. The shift pattern is displayed on the front of the shift lever. The selected gear position will illuminate red on the shift lever, while all others will be displayed in white. If the shift is not immediate, as in very cold conditions, the indicator on the shift switch may blink until it is fully engaged.

⚠ Warning

It is dangerous to get out of the vehicle if the P (Park) button is not pressed with the parking brake set. The vehicle can roll.

Do not leave the vehicle when the propulsion system is running. If you have left the propulsion system 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 press the P (Park) button.



P: This position locks the drive wheels. Use P (Park) when starting the vehicle to ensure the vehicle does not move.

If the vehicle is on, the vehicle can be shifted into P (Park).

If OFF is pressed while at a relatively high speed, instructions will display on the Driver Information Center (DIC) to confirm that vehicle off mode is desired. Once confirmed, the vehicle will turn off and automatically shift to N (Neutral). When the vehicle is stopped, P (Park) can be selected.

When the vehicle is stopped, press OFF to turn off the vehicle. The vehicle will shift to P (Park) automatically unless the vehicle is in N (Neutral). See “Car Wash Mode” later in this section.

The vehicle will not shift into P (Park) if it is moving too fast. Stop the vehicle and shift into P (Park).

To shift in and out of P (Park), see *Shifting Into Park* ⇨ *82* and *Shifting out of Park* ⇨ *82*.

Service Shift Lever Message

If the message SERVICE SHIFTER SEE OWNER'S MANUAL appears in the Driver Information Center (DIC), the shifter needs service. Have

the vehicle serviced as soon as possible. If the vehicle is automatically shifting into P (Park), check to see if the P (Park) button is stuck. To operate the vehicle, hold the shift lever in the desired gear, R (Reverse) or D (Drive), until vehicle speeds exceed 16 km/h (10 mph), then release the shift lever.

R: This position is used to back up.

If the vehicle is shifted from either R (Reverse) to D (Drive) or D (Drive) to R (Reverse) while the speed is too high, the vehicle may shift to N (Neutral). Reduce the vehicle speed and try the shift again.

To shift into R (Reverse):

1. Bring the vehicle to a complete stop.
2. From the center position, move the shift lever rearward toward you, and then up. R is illuminated in red.
3. After releasing the shift lever, it will return to the center position.

To shift out of R (Reverse):

1. Bring the vehicle to a complete stop.
2. Shift to the desired gear.
3. After releasing the shift lever, it will return to the center position.

At low vehicle speeds, R (Reverse) can be used to rock the vehicle back and forth to get out of snow, ice, or sand without damaging the electric drive unit. See your owner's manual.

Caution
The vehicle is not designed to stay in N (Neutral) for extended periods of time. It will automatically shift into P (Park).

N: In this position, the propulsion system is inactive. If the vehicle is moving and turned off, restart the propulsion system in N (Neutral) only.

To shift into N (Neutral):

1. Move the shift lever rearward toward the driver.
   - If the vehicle is in P (Park), apply the brake pedal while moving the shift lever rearward.
   - The N indicator will illuminate red.
2. After releasing the shift lever, it will return to the center position.

To shift out of N (Neutral):

1. Bring the vehicle to a complete stop.
2. Hold the brake pedal down
3. Shift into the desired gear.

If the brake pedal is not applied, the vehicle may remain in N (Neutral).

Car Wash Mode

This vehicle includes a Car Wash Mode that allows the vehicle to remain in N (Neutral) for use in automatic car washes.

The vehicle was neither designed nor intended to be towed with any of its wheels on the ground. If your vehicle is disabled and needs to be towed, see *Transporting a Disabled Vehicle* ⇨ *134*.

Caution
The vehicle is not designed to stay in N (Neutral) for extended periods of time. It will automatically shift into P (Park).

Car Wash Mode (Vehicle Off) – Driver In Vehicle

To place the vehicle in N (Neutral) with the vehicle off and occupied:

1. Drive to the entrance of the car wash.

2. Apply the brake pedal.
3. Shift to N (Neutral).
4. Turn off the vehicle and release the brake pedal.
5. The indicator should continue to show N. If it does not, repeat Steps 2–4.
6. The vehicle is now ready for the car wash.

Car Wash Mode (Vehicle Off) – Driver Out of Vehicle

To place the vehicle in N (Neutral) with the vehicle off and unoccupied:

1. Drive to the entrance of the car wash.
2. Apply the brake pedal.
3. Open the door.
4. Shift to N (Neutral).
5. Turn off the vehicle and release the brake pedal.
6. The indicator should continue to show N. If it does not, repeat Steps 2–5.
7. Exit the vehicle and close the door. The vehicle is now ready for the car wash.
8. The vehicle may automatically shift into P (Park) upon reentry.

Car Wash Mode (Vehicle On) – Driver In Vehicle

To place the vehicle in N (Neutral) with the vehicle on and occupied:

1. Drive to the entrance of the car wash.
2. Apply the brake pedal.
3. Shift to N (Neutral).
4. Release the brake pedal. The vehicle is now ready for the car wash.

Car Wash Mode (Vehicle On) – Driver Out of Vehicle

To place the vehicle in N (Neutral) with the vehicle on and unoccupied:

1. Drive to the entrance of the car wash.
2. Apply the brake pedal.
3. Open the door.
4. Shift to N (Neutral), then release the brake pedal.
5. The indicator should continue to show N. If it does not, repeat Steps 2–4.
6. Exit the vehicle and close the door. The vehicle is now ready for the car wash.
7. The vehicle may automatically shift into P (Park) upon reentry.

D: This position is for normal driving. If more power is needed for passing, press the accelerator pedal down.

Caution
Spinning the tires excessively may damage the electric drive unit. The repair will not be covered by the vehicle warranty. If you are stuck, do not spin the tires.

To shift into D (Drive):

1. Bring the vehicle to a complete stop.
2. From the center position, move the shift lever rearward toward you and then down.
   - If the vehicle is in P (Park), press the brake pedal while moving the shift lever.
   - D will illuminate red.
3. After releasing the shift lever, it will return to the center position.

To shift out of D (Drive):

1. Bring the vehicle to a complete stop.
2. Shift to the desired gear.

When stopping on a steep hill, use the brakes to hold the vehicle in place.

When shifting to P (Park) on a hill, use the brakes to hold the vehicle then shift to P (Park).

Drive Systems

Four-Wheel Drive

This vehicle is equipped with advanced electric four-wheel drive (e4WD). The e4WD system delivers power to all four wheels, and the system adjusts automatically to the driving conditions. The e4WD system continuously varies the drive power to the front and rear wheels to maximize driving efficiency and improve driving dynamics. Your vehicle has exceptional driving capability, but care must always be taken to adjust driving style to the traffic and road conditions.

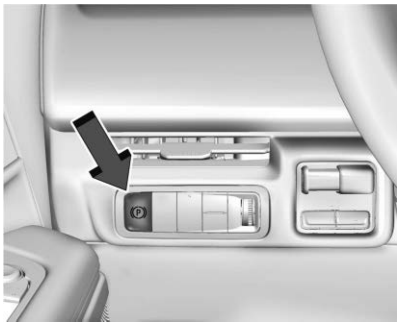
Torque Vectoring

If equipped, the torque vectoring feature of e4WD enhances vehicle performance by focusing the vehicle torque to the optimal wheel(s).

The vehicle e4WD settings may be customized for the driver mode selected. See your owner's manual for more information.

Brakes

Electric Parking Brake



The Electric Parking Brake (EPB) can be applied when the vehicle is on or off. If there is not enough 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 EPB status light and an amber service EPB warning light. See your owner's manual. There are also parking brake-related Driver Information Center (DIC) messages.

Before leaving the vehicle, check the red EPB status light to ensure that the EPB is applied.

If a message displays on the DIC indicating the electric drive unit is unable to shift, the service EPB light is on, and the EPB light flashes at the same time, the system must be reset. Start the vehicle, apply the EPB, and then release it. The message and light should turn off. See your owner's manual.

EPB Apply

To apply the EPB:

1. Be sure the vehicle is at a complete stop.
2. Press the EPB switch.

The red EPB status light will flash and then stay on once the EPB is fully applied. If the red EPB 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 EPB light is flashing. See your dealer.

If the amber service EPB warning light is on, press the EPB switch. Continue to hold the switch until the red EPB status light remains on. If the amber service EPB 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 pressed. If the switch is pressed until the vehicle comes to a stop, the EPB will remain applied.

The vehicle may automatically apply the EPB in some situations when the vehicle is not moving. This is normal, and is done to periodically check the correct operation of the EPB system, or as required by 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.

The EPB is released when the red parking brake status light is off.

If the amber service EPB 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.

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.

If you are towing a trailer and parking on a hill, see your owner's manual.

Automatic EPB Release

The EPB automatically releases 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.

Ride Control Systems

Traction Control/Electronic Stability Control

The 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 come on automatically when the vehicle is started and begins to move.

The Traction Control System activates if it senses any of the drive wheels are spinning or beginning to lose traction. When this happens, the traction system applies the brakes to the spinning wheels and reduces vehicle power 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 one or more of the vehicle wheel brakes to assist the driver in keeping the vehicle on the intended path.

If cruise control is being used and the traction control or stability control system begins to limit wheel spin, cruise control will disengage. Cruise control may be turned back on when road conditions allow.

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 your owner's manual and “Turning the Systems Off and On” later in this section.

If equipped, Trailer Sway Control turns on automatically when the vehicle is started. See your owner's manual.

The indicator light for both systems is in the instrument cluster. This light:

- Flashes when the Traction Control System is limiting wheel spin
- Flashes when the StabiliTrak/Electronic Stability Control system is activated
- Turns on and stay on when either system is not working

See your owner's manual.

If either system fails to turn on or to activate, a message displays in the Driver Information Center, and comes on and stays on to indicate that the system is inactive and is not assisting the driver in maintaining control. Adjust driving accordingly.

If comes on and stays on:

1. Stop the vehicle.
2. Turn the vehicle off and wait 15 seconds.
3. Start the vehicle.
4. Drive the vehicle.

If comes on and stays on, see your dealer as soon as possible.

Turning the Systems Off and On

Caution
Do not repeatedly brake or accelerate heavily when the Traction Control System is off. The vehicle driveline could be damaged.

To turn the Traction Control System on and off, on the infotainment home screen, select Controls > DRIVE & PARK > Traction Control. To turn the StabiliTrak/Electronic Stability Control system 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

The Traction Off light displays in the instrument cluster when Traction Control System is turned off. When the Traction Control System is turned back on, the Traction Off light displayed in the instrument cluster will turn off. See your owner's manual.

If the traction system is actively limiting wheel spin when disabled, the system will not turn off until the wheels stop spinning.

To turn the StabiliTrak/Electronic Stability Control system off, select > next to the Traction Control menu. Select the Traction Control and StabiliTrak/ESC Off option. The StabiliTrak/Electronic Stability Control Off light will display in the instrument cluster. See your owner's manual.

The Traction Control System cannot be on when the StabiliTrak/Electronic Stability Control system is off.

The StabiliTrak/Electronic Stability Control system will automatically turn on if the vehicle exceeds 56 km/h (35 mph) and cannot be turned off again until speed is reduced. The Traction Control System will remain off.

Vehicles equipped with the air suspension will re-enable StabiliTrak/Electronic Stability Control system at 32 km/h (20 mph).

Entering Teen Driver will automatically enable both the Traction Control System and StabiliTrak/Electronic Stability Control system, and prevent these safety features from being turned off. See your owner's manual.

Adding accessories can affect the vehicle performance. See your owner's manual.

Advanced Driver Assistance Systems

If equipped, this vehicle may have features that work together to help avoid crashes or reduce crash damage while driving, backing, and parking. Read the owner's manual for more important feature limitations and information before using these systems.

⚠ Warning

Do not rely on the Driver Assistance Systems. These systems do not replace the need for paying attention and driving safely. You may not hear or feel alerts or warnings provided by these systems. Failure to use proper care when driving may result in injury, death, or vehicle damage. See your owner's manual.

Under many conditions, these systems will not:

- Detect children, pedestrians, bicyclists, or animals.
- Detect vehicles or objects outside the area monitored by the system.

(Continued)

Warning (Continued)

- Work at all driving speeds.
- Warn you or provide you with enough time to avoid a crash.
- Work under poor visibility or bad weather conditions.
- Work if the detection sensor is not cleaned or is covered by ice, snow, mud, or dirt.
- Work if the detection sensor is covered up, such as with a sticker, magnet, or metal plate.
- Work if the area surrounding the detection sensor is damaged or not properly repaired.

Complete attention is always required while driving, and you should be ready to take action and apply the brakes and/or steer the vehicle to avoid crashes.

Your vehicle may be equipped with the following driver assistance systems, depending on vehicle production:

Audible or Safety Alert Seat

Some driver assistance features alert the driver of obstacles by beeping. To change the volume of the warning chime, see "Comfort and Convenience" under "Vehicle Personalization" in the Owner's Manual.

With the Safety Alert Seat, the driver seat cushion may provide a vibrating pulse alert instead of beeping. To change this, see "Collision/Detection Systems" under "Vehicle Personalization" in the Owner's Manual.

Rear Vision Camera (RVC)

Rear Vision Camera shows you an image of the area directly behind your vehicle when you're in Reverse at low speeds. This may help you park and avoid nearby objects.

Surround Vision System

Surround Vision uses multiple cameras to display an overhead image of the area around your vehicle along with Rear Vision Camera or front views. It works at low speeds and may help you park and avoid nearby objects.

Front and Rear Park Assist

: Front and Rear Park Assist can provide distance alerts to nearby detected objects in front of or behind your vehicle to help you park and avoid collisions at low speeds.

Rear Pedestrian Alert

Rear Pedestrian Alert can help alert you to detected pedestrians directly behind your vehicle so you can quickly take action. The system works when you're in Reverse during the daytime. It has limited nighttime and low visibility performance.

Rear Cross Traffic Alert (RCTA) System

: Rear Cross Traffic Alert can warn you of detected left or right cross traffic behind your vehicle when you're in Reverse.

Forward Collision Alert (FCA) System

: Forward Collision Alert can warn you if it detects a potential front-end collision with a vehicle you're following so you can quickly take action. It can also provide a tailgating alert if you're following a vehicle much too closely.

Automatic Emergency Braking (AEB)

Automatic Emergency Braking works with Forward Collision Alert to help you avoid or reduce the severity of a front-end collision with a detected vehicle you're following. This feature works at speeds below 50 mph. Camera technology is used to automatically provide hard emergency braking or enhance the driver's hard braking.

Front Pedestrian Braking (FPB) System

: Front Pedestrian Braking can help you avoid or reduce the severity of a front-end collision with a pedestrian it detects directly ahead of you. It provides pedestrian alerts and can even automatically provide hard emergency braking or enhance the driver's hard braking. The system works at speeds below 50 mph during the daytime. It has limited nighttime and low visibility performance.

Side Blind Zone Alert (SBZA)

: Side Blind Zone Alert can provide side-mirror visual alerts when a moving vehicle is detected in a side blind zone. It can help you avoid lane change collisions.

Lane Change Alert (LCA)

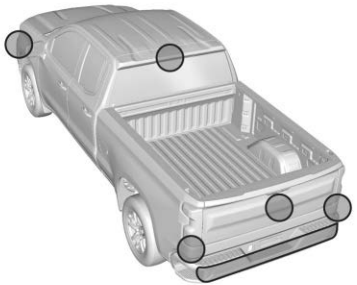
: Lane Change Alert with Side Blind Zone Alert can provide side-mirror visual alerts when a detected moving vehicle is quickly approaching or is in your side blind zone. It can help you avoid lane change collisions.

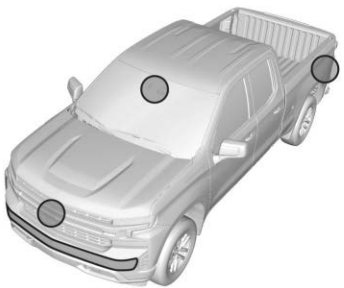
Lane Keep Assist (LKA)

: Lane Keep Assist with Lane Departure Warning uses a brief, gentle steering wheel turn to alert you when you may be unintentionally drifting out of detected lane lines, so you can steer to stay safely in your lane. If needed, you may receive additional Lane Departure Warning alerts. System alerts do not occur if you're using your turn signal or it detects you may be intentionally leaving your lane.

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 headlamps
- 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 in the tailgate handle
- Rear Camera Mirror and Cargo View Camera in the Center High-Mounted Stoplamp

Radio Frequency

This vehicle may be equipped with driver assistance systems that operate using radio frequency. See *Radio Frequency Statement* ⇨ *140*.

Charging

When to Charge

When the high voltage battery is low, the following charging messages may display on the Driver Information Center (DIC):

CHARGE VEHICLE SOON : The battery needs to be charged soon.

REDUCED ACCELERATION DRIVE WITH CARE : The accelerator pedal response is reduced and the remaining range value changes to LOW, charge the vehicle immediately.

OUT OF ENERGY, CHARGE VEHICLE NOW : The battery charge is fully depleted. The vehicle will slow to a stop. Brake and steering assist will continue operating. Once stopped, turn the vehicle off. See your owner's manual.

⚠ Warning

Do not charge your vehicle's battery above an 80% charge if you are going to drive down long, steep grades such as mountain passes. This provides room in the battery for regenerative braking to supplement your conventional brakes during the descent. This is especially important when towing a trailer, which puts additional stress on your vehicle's braking system.

See *Hill and Mountain Roads* ⇨ *75* for important information about driving on grades.

Plug-In Charging

Caution

To avoid damage to the vehicle, make sure the charging cord plug is in good condition, is not worn or damaged, and is connected securely to the vehicle's charging port. If vehicle charging is intermittent, disconnect the cord and inspect for damage. An excessively worn or damaged AC or DC charging cord plug may result in an intermittent connection and potential damage to the vehicle's charging port.

Plug-in charge times vary based on the battery condition, charge level, and the outside temperature. See your owner's manual for charge mode selection.

Do not allow the vehicle to remain in temperature extremes for long periods without being driven or plugged in. When temperatures are below 0 °C (32 °F) and above 32 °C (90 °F), plug in the vehicle to maximize high voltage battery life.

In extreme temperature conditions, a full charge will take additional time.

Charging will slow down as the battery fills up. Charge the battery to 80% for daily driving, or when driving in mountainous terrain. The vehicle can be charged above 80% for long trips when not driving in mountainous terrain.

GM recommends the following:

- Unless your drive requires a full charge, charge the high voltage battery to 80% or less.
- Avoid allowing the high voltage battery to fall below 20% charged, if possible. See *Battery - North America* ⇨ *109*.
- If your route includes steep mountain terrain or if you are towing a trailer, it is important that your battery charge level is 80% or less to maximize regenerative braking performance.

It is normal to hear fans, pumps, and electrical devices clicking while the vehicle is turned off and charging.

The vehicle does not require indoor charging area ventilation before, during, or after charging.

The vehicle cannot be driven while the charge cord is plugged into the vehicle.

⚠ Warning

Use of charge cord adaptors may cause electrical overheating, resulting in vehicle damage or personal injury. Only use GM approved adaptors with the charge cord.

To charge your vehicle, it may be necessary to use a special adapter to match the format of the charger you intend to use. The most common adapter for GM vehicles is a North American Charging Standard on a DC Fast Charger to CCS (the connector on your vehicle). If you use an adapter which is not sold, provided, or approved by General Motors and it causes damage to your vehicle's battery, said damage would not be covered under warranty.

There are several infotainment screens that will display depending on the current charging status. See your owner's manual.

Charging Override

A CHARGING OVERRIDE/INTERRUPTION OCCURRED message may display to indicate that a charging override or interruption has occurred due to one or more of the following events:

- Override of the charge settings by the owner.
- Unintended interruption of AC power at the vehicle's charge port.
- Interruption of charging by the utility company.

AC Charging

A loss of AC power alert may sound for a short time if AC power is lost for over one minute. This sound alert can be turned off. See your owner's manual.

AC Charge Cord Vehicle Plug

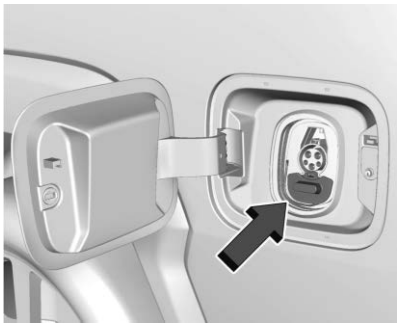
To Start AC Charging

1. Put the vehicle in P (Park).

2. The charge port door is on the rear drivers side of the vehicle. Push the rearward edge of the charge port door and release to open.

   In cold weather conditions, ice may form around the charge port door. Remove ice from the area before attempting to open or close the charge port door.

3. Plug the charge cord into the electrical outlet. To verify the charge cord status, see your owner's manual and *Charge Cord* ⇨ *96*. For instructions to set cord limit settings for a charge session, see your owner's manual.



4. Plug in the AC charge cord into the vehicle charge port . Make sure the AC vehicle plug is fully connected to the AC charge port. If it is not properly connected, the vehicle may not be charged.
5. Verify that the Headlamp Charging Status Indicator (CSI) illuminates on the headlamps (if enabled), charge port light turns on, and an audible chirp occurs. See your owner's manual.

To End AC Charging

1. Unlock the charge cord from the vehicle by pressing the button on the top of the charge cord plug. Unplug the charge cord from the vehicle.
2. Close the charge port door by pressing firmly in the center until it latches.
3. Unplug the charge cord from the electrical outlet.
4. Place the charge cord into the storage case.

DC Charging

DC Charging Station Hardware

⚠ Warning

Do not use the charging station if the handle has defects such as cracks, exposed wires, burnt or missing pins, or any other damage. A damaged handle may result in personal injury and/or damage to the vehicle, the charging port or other property.

The vehicle can be charged using DC charging equipment typically found at service stations and other public locations.

Check the charging station DC vehicle plug for compatibility with the DC charge port on this vehicle. This vehicle is compatible with a Combined Charging System 1 (CCS1) connector.

When recharging at a DC charge station, the charging cable connected to the vehicle must be less than 10 m (33 ft) in length to meet functionality and regulatory requirements.

For maximum charging performance, and to prevent charging interruptions or damage to the high voltage battery and vehicle:

- Remove your hands from the charging handle once it has been plugged in. If not done, this can cause a charging interruption.
- Ensure that the charge cord plug clicks.

Follow the steps listed on the charging station to perform a DC vehicle charge.

If for any reason DC charging does not begin or is interrupted, check the DC charging station display for messages. Unplug the cord to restart the DC charging process.

To Start DC Charging

Caution

Do not attempt to disconnect the DC vehicle plug while charging is active. This action may damage the vehicle or charging station hardware.

1. Put the vehicle in P (Park).
2. Press the Electric Parking brake (EPB) switch. See *Electric Parking Brake* ⇨ *86*.

3. Push the rearward edge of the charge port door and release to open the door.

   In cold weather conditions, ice may form around the charge port door. The charge port door may not open on the first attempt. Remove ice from the area and repeat attempting to open the charge port door.

4. Unlatch the DC charging dust cover and push it to the side.
5. Plug in the DC charge cord into the vehicle charge port. Make sure that the DC vehicle plug is fully connected to the DC charge port. If it is not properly connected, the vehicle may not be charged. Check the Driver Information Center (DIC) to make sure the vehicle plug is connected properly.
6. Follow the steps listed on the charging station to start charging.
7. When charging is active, the DC vehicle plug is locked to the DC charge port and cannot be disconnected.
8. Verify that the Headlamp Charging Status Indicator (CSI) illuminates on the headlamps (if enabled), charge port light turns on, and an audible chirp occurs. See your owner's manual.

To Stop DC Charging – Automatic

When the vehicle no longer needs power from the charging station, it stops charging and the DC vehicle plug unlocks from the DC charge port.

Energy can still be consumed from the charging station when the vehicle displays and indicators show that the battery is fully charged. This is to ensure the battery is in optimal temperature operating range to maximize vehicle range. See your owner's manual.

To End DC Charging

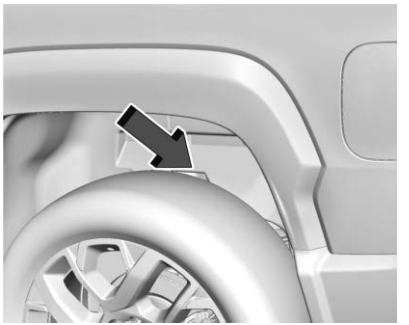
When the vehicle is fully charged, charging automatically stops and the plug unlocks. You can also manually stop charging using the button on the DC vehicle plug, the controls at the charging station or by tapping "Stop" on the Charging page on your infotainment screen.

If the vehicle plug does not unlock from the vehicle charge port after a charge, contact Roadside Assistance. See *Roadside Assistance Program* ⇨ *138*.

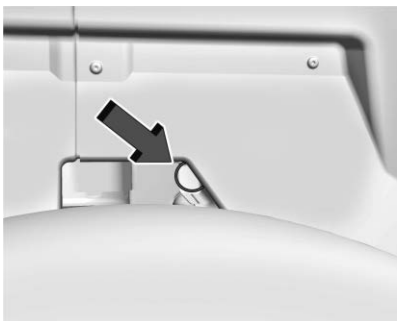
1. Unplug the DC vehicle plug from the DC charge port on the vehicle and close the dust cover.
2. Close the charge port door by pressing firmly in the center until it latches.
3. Manually disengage the Electric Parking Brake (EPB) before driving the vehicle.

Emergency Manual Charge Cord Release

The charge cord is equipped with an emergency manual charge cord release in the event the cord cannot be released normally in DC charging.



1. Reach around the tire to find the emergency manual charge cord release.



2. Pull the emergency manual charge cord release handle. The DC charge cord will release.

To Stop AC or DC Charging

Controls on the charging station can be used to stop the charge process at any time.

To stop charging when inside the vehicle, use the Stop Charge button on the Charging screen. See “Active Charging” in your owner's manual.

Charge Cord

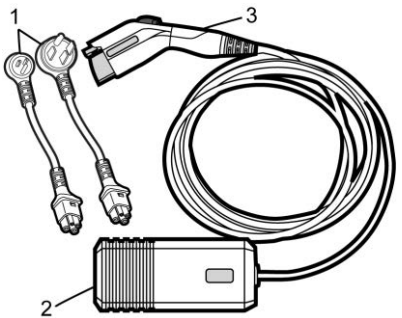
INSTRUCTIONS PERTAINING TO A RISK OF FIRE OR ELECTRIC SHOCK

IMPORTANT SAFETY INSTRUCTIONS

This symbol indicates risk of electrical shock.

The portable charge cord is used to charge the high voltage battery. When used correctly, the charge cord provides a safe connection between a standard electrical outlet and your vehicle's on-board charger.

When storing the charge cord in the vehicle, ensure the charge cord bag is secured. Depending on the storage location, tether the charge cord bag to vehicle.



1. 120-volt and 240-volt Connectors
2. Charge Cord Control Box and Charge Cord Status Indicator
3. Charge Cord Vehicle Plug

Important Information about Portable Electric Vehicle (EV) Charging

⚠ Warning

When using electric products, basic precautions should always be followed, including the following:

- Read all the safety warnings and instructions before using this product. Failure to follow the warnings and the instructions may result in electric shock, fire, and/or serious injury.
- Never leave children unattended near the vehicle while the vehicle is charging and never allow children to play with the charge cord.
- If the plug provided does not fit the electrical outlet, do not modify the plug. Arrange for a qualified electrician to inspect the electrical outlet.
- Do not put fingers into the electric vehicle connector.

⚠ Warning

Improper use of portable electric vehicle charge cords may cause a fire, electrical shock, or burns, and may result in damage to property, serious injury, or death.

- Do not use extension cords, multi-outlet power strips, splitters, grounding adapters, surge protectors, or similar devices.
- Do not use an electrical outlet that is worn or damaged, or will not hold the plug firmly in place.
- Do not use an electrical outlet that is not properly grounded.
- Do not use an electrical outlet that is on a circuit with other electrical loads.
- Do not wrap the charge cord around the housing of the control box.

⚠ Warning

- To reduce the risk of fire, installations shall comply with the requirements of National Electric Code, ANSI/NFPA 70 (USA), Canadian Electrical Code CSA 22.1 and IEC 60364 – Electrical installations in buildings, depending on the region in which the unit is being installed. The installer shall comply with any additional local requirements mandated by the country and/or municipality.
- Do not use this product if the flexible power cord or the electric vehicle cable is frayed, has broken insulation, or shows any other signs of damage.
- For Canada only: Not for use in commercial garages.
- Do not use this product if the enclosure or the vehicle plug is broken, cracked, open, or shows any other indication of damage.

(Continued)

Warning (Continued)

- The plug must be plugged into an appropriate electrical outlet that is properly installed in accordance with all local codes and ordinances. Do not modify the plug provided with the product. If the plug does not fit the electrical outlet, have a proper electrical outlet installed by a qualified electrician. If ground is missing, the charge cord indicators will indicate an electrical system fault and the vehicle may not charge.

⚠ Warning

Connecting charging components incorrectly or to a damaged outlet can cause vehicle or property damage, personal injury, or death. When charging your vehicle, ensure all components are connected properly, there is no damage, and the outlet has power.

⚠ Warning

Disconnecting the charge cord from the grid outlet while charging can result in damage and/or injury. Do not disconnect while the vehicle while charging.

⚠ Warning

Water, moisture, and other foreign objects can pose a risk when using the charge cord. When charging outdoors, plug into an electrical outlet that is weatherproof and avoid situations where water can run along the charge cord to the vehicle inlet or the grid outlet. Do not place the control box and charge cord in a location where it may be submerged in water. Do not use the charge cord in severe weather conditions.

⚠ Warning

Check the electrical outlet/plug while charging and discontinue use if the electrical outlet/plug appears hot. Using a hot electrical outlet/plug could result

(Continued)

Warning (Continued)

in vehicle or property damage, personal injury, or death. Have the electrical outlet serviced by a qualified electrician.

⚠ Warning

Water, moisture, and other foreign objects can damage the portable charge cord. Damage to the charge cord could result in electrical malfunction, vehicle damage, electrical shock, or death. Protect the portable charge cord against water, moisture and foreign objects at all times.

Caution

Coiling or storing the charge cord in a location it may be crushed or forced into space to form a circle smaller than 178 mm (7 in) can damage the cord. Avoid restricting the charge cord rotation or applying excessive pulling force while wrapping.

Caution

Using non-approved electrical sources to charge can cause damage to the charging system. Do not attempt to use the charge cord with non-utility supplied electrical power sources such as backup generating equipment.

Caution

Electrical outlets may wear out with normal usage or may be damaged over time making them unsuitable for electric vehicle charging. Regularly inspect outlets for wear and tear. Do not use if worn or damaged.

Before plugging the charge cord into any electrical outlet, have a qualified electrician inspect and verify the electrical system (electrical outlet, wiring, junctions, and protection devices) is suitable for a heavy-duty service.

Installing and Operating the Portable Charge Cord

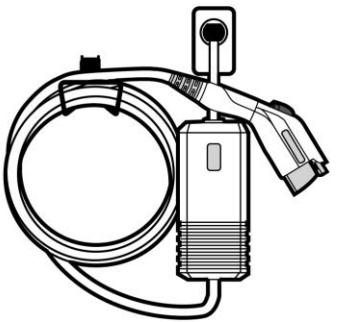
The charge cord must be on a dedicated individual branch circuit. A dedicated circuit ensures that there is enough power available without overloading the system.

If a dedicated circuit is not used, the circuit breaker could trip or open. If a dedicated circuit is not available, contact a qualified electrician. See “Grounding Instructions” later on in this section.

The charge cord must operate at a temperature between -30 °C (-22 °F) and 50 °C (122 °F).

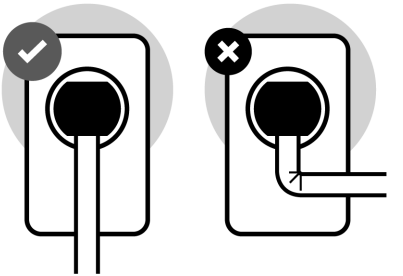
1. Snap the desired connectors into the control box before making any other connections.

Ensure the connectors are fully inserted into the control box or the charge cord will not work properly.



2. Mount the charge cord to reduce strain on the electrical outlet/plug. Mount the control box in a suitable location to prevent physical stress on the electrical outlets and charge cord components.

   Mount the control box directly to the wall or stud near a suitable electrical outlet. The retention eyelets on the control box are optimized for use with #10 drywall screws.



3. Handle electrical cables with care. Do not sharply bend, pull, or crush cables.
4. Connect the attachment plug to the electrical outlet. Refer to the "Charge Cord Status Indicator" section to ensure the charge cord is working properly.
5. Insert the vehicle plug into the vehicle charge port to initiate charging.
6. To disconnect the charge cord, press and hold the latch release button on the vehicle plug. Once disconnected from the vehicle, the charge cord can be unplugged from the wall.

Charge Cord Status Indicator

After plugging in the charge cord, it will perform a quick self test.

Verify the charge cord status on the charge cord control box. The charge cord uses a combination of red and green indicators to display the status of the charge cord.

Green	Red	Reason	Action
–	–	The charge cord has no power.	Verify all components are connected properly, there is no damage, and the outlet has power. If the error continues, contact your dealer.
On	–	The charge cord is ready to use.	Plug the charge cord into the vehicle charge port to begin charging.
Blinking	–	Vehicle is actively charging.	No action needed.
Blinking	Blinking	An error has occurred and the charge cord is rebooting.	Wait for the charge cord to return to a solid green. If it reboots two or three more times, unplug the charge cord from the vehicle. If the error continues, contact your dealer.
Blinking	Three blinks	Due to internal overheating from the charge cord control box, charging is at a reduced rate.	If unplugging and plugging back in does not work, move the charge cord away from direct sunlight and/or hot surfaces such as asphalt paving.
Blinking	One blink	Due to overheating on the AC plug or electrical outlet, charging is at a reduced rate.	Disconnect from the electrical outlet. If the error persists, have a qualified electrician inspect and repair the issue.

Green	Red	Reason	Action
–	One blink	The charger is troubleshooting after an error and requires a reboot.	Try the following actions to restore the full charging rate: – Verify all components are connected properly. Ensure the connectors are fully inserted into the control box or the charge cord will not work properly. – Unplug and plug in the connector. – If the charge cord is in a warm environment, try charging in a cooler area. – Try a different outlet or connector, if available. If the error continues, contact your dealer.
–	Two blinks	There is a Ground Fault Circuit Interruption (GFCI) fault.	After 15 minutes, it will auto-reset. Try a different connector, if available. If the error continues, contact your dealer.
–	On	There is a cordset internal fault.	Immediately disconnect from the electrical outlet and the vehicle. Contact your dealer for a replacement.

If the charge cord status indicator is not lit, ensure the electrical outlet has power.

Charge Cord Auto-Restart

Your charge cord set is equipped with the auto-restart feature. When charging your vehicle, if there is an error detected, the auto-restart feature works to eliminate the error and resume charging.

If the error is caused by a Ground Fault Circuit Interruption (GFCI) fault, the charger attempts to restart for a 15 minute interval. After the fourth attempt to restart, the charger shuts down and the red indicator stays on. Unplug and plug the charge cord back in to reset the charging. If this error continues, stop charging your vehicle. See your dealer for service.

Charge Level Selection

⚠ Warning

Using a vehicle charge level that exceeds the electrical circuit or electrical outlet capacity may start a fire or damage the electrical circuit. Use the lowest vehicle charge level until a qualified electrician inspects the electrical circuit capacity. Use the lowest vehicle charge level if the electrical circuit or electrical outlet capacity is not known.

Charge level selection can be made using the Settings tab in the Charging app on the infotainment display. For instructions to set vehicle charge level settings for a charge session, see your owner's manual.

Troubleshooting

Disconnect the charge cord from the vehicle and confirm that the attachment plug is not too hot to grasp before removing.

If it is not hot, manually reboot the charge cord by unplugging and plugging the attachment plug back into the electrical outlet. If the same fault reoccurs, test the charge cord with a different electrical outlet.

The charge cord monitors temperature at several locations and may reduce charging power or interrupt charging if temperatures become too high. The charge cord status indicators illuminate and identify this fault. In hot climates, move the charge cord away from direct sunlight and/or hot surfaces such as asphalt pavement for approximately 30 minutes.

If there are signs of melting or scorching, do not touch the charge cord or attachment plug. Have a qualified electrician inspect and repair the issue.

If there are no signs of damage, check how firm the fit of the plug is. If the plug easily pulls away from the electrical outlet, test the plug on a known good electrical outlet. If the fault condition returns, have your charge cord inspected by your dealership. If the fault does not return, stop using the suspected circuit and have a qualified electrician inspect and repair the issue.

Grounding Instructions

⚠ Warning

Improper connection of the charge cord ground may cause electrical shock. Check with a qualified electrician if there is doubt as to whether the charge circuit is properly grounded. Do not modify the plug provided with the product. If it will not fit the electrical outlet, have a proper electrical outlet installed by a qualified electrician.

The charge circuit must be grounded. If the charge circuit should malfunction or break down, grounding provides a path of least resistance for the electric current to reduce the risk of electric shock. This product is equipped with a cord that has an equipment grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

User Maintenance

The portable charge cord is not serviceable. Do not attempt to perform maintenance on the charge cord, see your dealer for replacement

parts. Clean the charge cord and control box with a dry cloth and do not use any cleaning products.

Moving and Storage

When moving the charge cord equipment, use care to prevent damage to the equipment. Do not twist, pull, or drag the charge cord. Do not lift or carry the equipment by the charge cord only.

Keep the charge cord mounted and plugged into the electrical outlet for daily use. If the charge cord will not be used for a long period, unplug it and store in a clean, temperature controlled location between -40 °C (-40 °F) and 85 °C (185 °F).

FCC Information

See *Radio Frequency Statement* ⇨ *140*.

Charge Cord Specifications

Voltage: 85–265 volts, AC single phase/split phase only

Frequency: 45–66 Hz

Enclosure: NEMA 4X

Current: Max 32 amps (Grid plug specific)

NEMA 5–15P Max Cordset: 12 amps

NEMA 14–50P Max Cordset: 32 amps

SAVE THESE INSTRUCTIONS

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Tire Sealant and Compressor Kit 126
Jump Starting
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Towing the Vehicle
Transporting a Disabled Vehicle 134

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:

GENUINE PARTS

ACDelco

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.

Vehicle Checks

Doing Your Own Service Work

⚠ Warning

Never try to do your own service on high voltage battery components. You can be injured and the vehicle can be damaged if you try to do your own service work. Service and repair of these high voltage battery components should only be performed by a trained dealer technician with the proper knowledge and tools.

Exposure to high voltage can cause shock, burns, and even death. The high voltage components in the vehicle can only be serviced by technicians with special training.

High voltage components are identified by labels. Do not remove, open, take apart, or modify these components. High voltage

(Continued)

Warning (Continued)

cable or wiring has orange covering. Do not probe, tamper with, cut, or modify high voltage cable or wiring.

⚠ Warning

Unexpected wheel motion and/or direction when one or more wheels are off the ground for service work may result in injury. The vehicle may:

- Allow the wheels to rotate unexpectedly in either direction regardless of mode selection.
- Allow the wheels to rotate in reaction to attempts to rotate the tire(s) manually.
- Resist attempts to rotate the wheels manually.

Before lifting the vehicle to do your own service work, turn the vehicle off or place the vehicle in the Service Mode. To place the vehicle in Service Mode, see "Service Mode" under *Power Modes* ⇨ *80*.

⚠ Warning

It can be dangerous to work on your vehicle if you do not have the proper knowledge, service manual, tools, or parts. Always follow owner's manual procedures and consult the service manual for your vehicle before doing any service work.

If doing some of your own service work, use the proper service manual. It tells you much more about how to service the vehicle than this manual can. To order the proper service manual, see your owner's manual.

This vehicle has an airbag system. Before attempting to do your own service work, see *Servicing the Airbag-Equipped Vehicle* ⇨ *40*.

Keep a record with all parts receipts and list the mileage and the date of any service work performed. See your owner's manual.

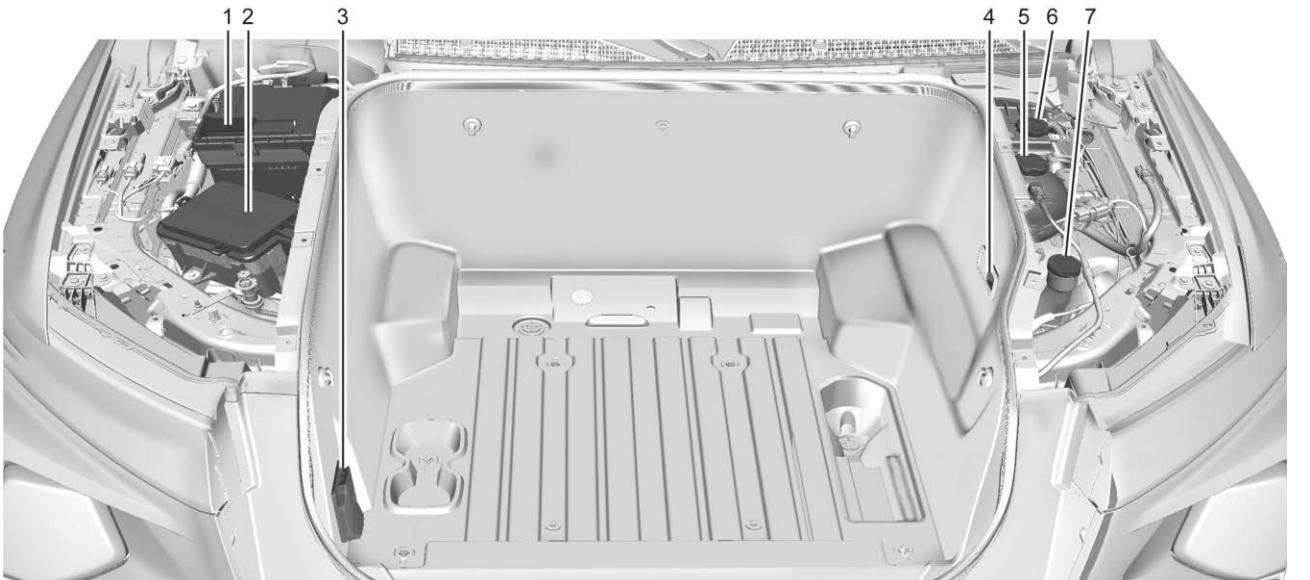
Underhood Compartment Overview

⚠ Warning

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

There are several items located under the hood that you should check periodically.

For instructions on opening the hood, see *Hood* ⇨ 7.



1. Battery (Under Cover). See *Battery - North America* ⇨ *109*.
2. Underhood Compartment Fuse Block (Under Cover). See your owner's manual.
3. Power Outlet. See your owner's manual.
4. Emergency Hood Release Button. See *Hood* ⇨ 7.
5. Coolant Surge Tank and Pressure Cap (Under Cover). See your owner's manual.
6. Brake Fluid Reservoir (Under Cover). See your owner's manual.

7. Windshield Washer Fluid Reservoir. See your owner's manual.

Battery - North America

This vehicle has a high voltage battery and a standard 12-volt battery.

See your dealer if either the 12-volt or high voltage battery needs service.

⚠ 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.

See *California Proposition 65 Warning* ⇨ *1*.

Absorbent Glass Mat/Valve Regulated Lead Acid 12-Volt Battery

The vehicle has an Absorbent Glass Mat (AGM)/Valve regulated lead acid (VRLA) 12-volt, maintenance-free battery.

- Do not remove the cap or add fluid.
- Do not install a standard 12-volt battery. Doing so will result in reduced battery life.
- If using a battery charger, use the AGM setting, if equipped, to limit the charge voltage to 14.8 volts.
- Do not disconnect the 12-volt battery during storage.

High Voltage Battery

Only a trained service technician should inspect, test, or replace the high voltage battery. The dealer has information on how to recycle the high voltage battery. There is also information available at https://www.recyclemybattery.com.

⚠ Warning

Damage to the high voltage battery or high voltage system can create a risk of electric shock, overheating, or fire.

If the vehicle is damaged from a moderate to severe crash, flood, fire, or other event, the vehicle should be inspected as soon

(Continued)

Warning (Continued)

as possible. Until the vehicle has been inspected, store it outside at least 15 m (50 ft) from any structure or anything that can burn. Ventilate the vehicle by opening a window or a door.

Contact Customer Assistance as soon as possible to determine whether an inspection is needed. See your owner's manual.

If the vehicle is in a crash, the sensing system may shut down the high voltage system. When this occurs, the high voltage battery is disconnected and the vehicle will not start. The SERVICE VEHICLE SOON message in the Driver Information Center (DIC) will display. Before the vehicle can operate again, it must be serviced at your dealer. If a crash occurs or an airbag(s) inflates, see “If a Crash Occurs” in your owner's manual and *What Will You See After an Airbag Inflates?* ⇨ *36* for additional information.

Keep the vehicle plugged in, even when fully charged, to keep the high voltage battery temperature ready for the next drive. This is important when outside temperatures are extremely hot or cold.

Propulsion power may be reduced in extremely cold temperatures, or if the high voltage battery is too cold. The message BATTERY TOO COLD, PLUG IN TO WARM will display. If the message displays, a level 2 charger is required to heat the battery to a minimum temperature to enable propulsion or charging.

A vehicle cover, which can reduce sun loading on the vehicle and improve high voltage battery life, is available from your dealer.

⚠ Warning

This vehicle is equipped with high voltage battery thermal detection, mitigation, and notification software. If the high voltage battery overheats, it may create a risk of a vehicle fire and may result in damage to property, serious injury, or death.

(Continued)

Warning (Continued)

If the high voltage battery overheats, an audible alarm may sound, a message may display on the Driver Information Center (DIC), and OnStar may be called. To alert others outside your vehicle, the horn may sound, and the lights may flash.

If driving, pull over as soon as possible to a safe location at least 50 feet (15 m) away from any structure or anything that may burn. Park your vehicle, set the parking brake, and turn the vehicle off. Open a window or door for ventilation.

Remove the remote key and move yourself and others to a safe, upwind location away from the vehicle. Do not return to the vehicle or attempt to restart or drive the vehicle.

Call emergency services and inform them that an electrical vehicle high voltage battery is overheating.

Never attempt to put out a vehicle fire.

(Continued)

Warning (Continued)

Your vehicle must be towed to an authorized dealer to have the high voltage battery inspected before the vehicle can be operated again.

See *Radio Frequency Statement* ⇨ *140*.

Federal Communications Commission (FCC) Radiation Exposure Statement

This equipment has been evaluated to be installed and operated at a minimum distance of 5.7 cm (2.2 in) between the device and your body. The vehicle design ensures this distance is maintained during normal use. Changes or modifications to any of these systems by other than an authorized service facility could void authorization to use this equipment.

Innovation, Science, and Economic Development (ISED) Radiation Exposure Statement

This equipment complies with RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 5.7 cm (2.2 in) between

the radiator and any part of your body. The vehicle design ensures this distance is maintained during normal use. Changes or modifications to any of these systems by other than an authorized service facility could void authorization to use this equipment.

Vehicle Storage

The best way to store the vehicle for any length of time is to plug in the charge cord and leave it plugged in. The vehicle monitors and maintains the 12-volt battery daily. It is okay to leave the vehicle plugged in for extended periods of time. Once charged to full, very little energy is required to maintain the 12-volt battery and high voltage battery.

If it is not possible to charge the vehicle with the charge cord left plugged in, be sure to fully charge the high voltage battery before storing. The vehicle will stop maintenance of the 12-volt battery if the high voltage battery state of charge gets too low.

When storing the vehicle on a long-term basis:

– Keep the high voltage battery state of charge at 30%.
– Attach an AGM/VRLA compatible battery tender or trickle charger to the 12-volt battery.
– Keep the remote key more than 3 m (10 ft) away from the vehicle.

12-volt Battery

⚠ 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 ⇨ 132* for tips on working around a battery without getting hurt.

Caution

The vehicle is equipped with an AGM/VRLA 12-volt battery, which can be damaged by using the incorrect type of trickle charger. An AGM/VRLA-compatible charger must be used, with the appropriate setting selected. Follow the trickle charger manufacturer instructions.

A trickle charger may be attached to the 12-volt battery terminals or trickle charge from the underhood remote positive (+) and negative (–) terminals. See *Jump Starting - North America ⇨ 132* for location of these terminals.

With a trickle charger connected to the 12-volt battery, the vehicle will still monitor the 12-volt battery daily, but it will not use energy from the high voltage battery for maintenance.

High Voltage Battery

After extended storage, it is possible that the vehicle may not operate. If this happens, the high voltage battery may need to be plugged in and charged.

Headlamp Aiming

Front Headlamp Aiming

Headlamp aim has been preset and should need no further adjustment.

If the vehicle is damaged in a crash, the headlamp aim may be affected. If adjustment to the headlamps is necessary, see your dealer.

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* ⇨ *76*.
- 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)

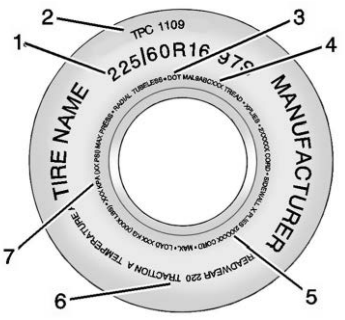
Warning (Continued)

- 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 your owner's manual for inflation pressure adjustment for high-speed driving.

Tire Sidewall Labeling

Useful information about a tire is molded into its sidewall. The example shows a typical passenger 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 later 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 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.

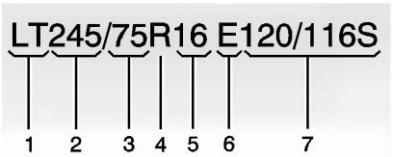
(6) Uniform Tire Quality Grading (UTQG) : Tire manufacturers are required to grade tires based on three performance factors: treadwear, traction, and temperature resistance. For more information, see *Uniform Tire Quality Grading* ⇨ *125*.

(7) Maximum Cold Inflation Load Limit : Maximum load that can be carried and the maximum pressure needed to support that load.

Tire Designations

Tire Size

The examples show a typical light truck tire size.



Light Truck (LT-Metric) Tire

(1) Light Truck (LT-Metric) Tire : The United States version of a metric tire sizing system. The letters LT as the first two characters in the tire size mean a light truck 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 light truck (LT-Metric) tire 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) Load Range : Load Range.

(7) Service Description : The service description indicates the load index and speed rating of a tire. If two numbers are given as in the example, 120/116, then this represents the load index for single versus dual wheel usage (single/dual). 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* ⇨ *116*.

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* ⇨ *76*.

GAWR FRT : Gross Axle Weight Rating for the front axle. See *Vehicle Load Limits* ⇨ *76*.

GAWR RR : Gross Axle Weight Rating for the rear axle. See *Vehicle Load Limits* ⇨ *76*.

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* ⇨ *116* and *Vehicle Load Limits* ⇨ *76*.

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* ⇨ *123*.

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* ⇨ *125*.

Vehicle Capacity Weight : The number of designated seating positions multiplied by 68 kg (150 lbs) plus the rated cargo load. See *Vehicle Load Limits* ⇨ *76*.

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* ⇨ *76*.

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

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* ⇨ *76*.

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.

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 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* ⇨ *118*.

See *Radio Frequency Statement* ⇨ *140*.

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 located 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* ⇨ *76*.

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. If the vehicle has DIC buttons, tire pressure levels can be viewed. For additional information and details about the DIC operation and displays see your owner's manual.

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* ⇨ *76*, for an example of the Tire and Loading Information label and its location. Also see *Tire Pressure* ⇨ *116*.

The TPMS can warn about a low tire pressure condition but it does not replace normal tire maintenance. See *Tire Inspection* ⇨ *121*, *Tire Rotation* ⇨ *122*, and *Tires* ⇨ *112*.

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. 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 for the remainder of the time the vehicle is on. A DIC warning message also displays. The malfunction light and DIC warning message will come on each time

the vehicle is turned on 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* ⇨ *123*.
- 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.
3. Place the vehicle in P (Park).
4. Add air to the tire that is underinflated. The turn signal lamp will flash.

   When the recommended pressure is reached, the horn sounds once and the turn signal lamp 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* ⇨ *112* and *Vehicle Load Limits* ⇨ *76*.

If the tire is overinflated by more than 35 kPa (5 psi), the horn will sound multiple times and the turn signal lamp will continue to flash for several seconds after filling stops. To release and correct the pressure, while the turn signal lamp 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 lamp 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 lamps.
- 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 to confirm tire pressure.

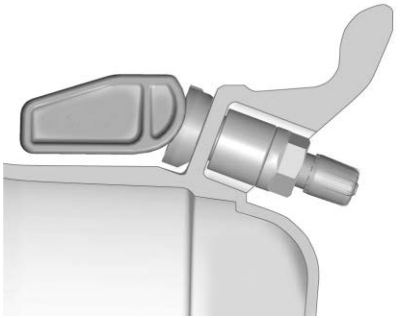
TPMS Sensor Matching Process — Auto Learn Function

Each TPMS sensor has a unique identification code. The identification code needs to be matched to a new tire/wheel position after rotating the tires or replacing one or more of the TPMS sensors. When a tire is installed, the vehicle must be stationary for about 20 minutes before the system recalculates. The following relearn process takes up to 10 minutes, driving at a minimum speed of 20 km/h (12 mph). A dash (-) or pressure value will display in the DIC. See your owner's manual. A warning message displays in the DIC if a problem occurs during the relearn process.

Trailer Tire Pressure Monitoring Operation

If equipped, the Trailer Tire Pressure Monitoring System (TTPMS) is designed to monitor the pressure of the trailer tires and warn the driver when a low pressure condition exists. TTPMS sensors for four tires are provided. The system can accommodate a trailer with up to six tires if additional sensors are purchased from the dealer. Also, the system can be paired with up to five individual trailers.

Prior to use, the vehicle must learn the sensors by following the learning process. See your owner's manual.



Contact your trailer service center or tire service center to have the pressure sensors installed inside the trailer tires. The technician should insert the sensor stem through the hole in the trailer wheel. When the sensor is correctly positioned, the nut on the sensor stem should be tightened to 8 N•m (6 lb ft). When mounting the trailer tire onto the trailer wheel be careful not to damage the sensor.

The Trailering App can be used to view the tire pressures after the recommended trailer tire pressures have been entered. Refer to the trailer tire placard on the trailer or the trailer tire sidewall for the recommended tire pressure.

The system is compatible with trailer tires that have placard pressure values from 103–689 kpa (15–100 psi) or 103–1020 kpa (15–148 psi). The hole in the wheel for the tire stem must be 11.43 mm (0.453 in) in diameter. Use of the pressure sensors on a wheel with a different stem hole size could result in loss of air from the tire.

If a low trailer tire pressure condition is detected, the TTPMS displays a warning message on the DIC. If the warning message is displayed, stop as soon as possible and inflate the tires to the recommended pressure shown on the tire placard on the trailer.

In addition, the TTPMS monitors the temperature of the trailer tires. If the system detects a high temperature on one or more of the trailer tires, a warning message will be displayed on the DIC. If this warning message is displayed, stop as soon as possible, and inspect the overheated trailer tire. Common causes for high trailer tire temperature are underinflation, overloading, or tire damage.

TTPMS Malfunction Message

The TTPMS will not function properly if one or more of the trailer tire sensors are missing or inoperable. If the system detects a malfunction, a DIC message indicates that the system requires service. Some of the conditions that can cause the service message to occur are:

- One of the trailer tires has been replaced with the spare tire which does not have a learned TTPMS sensor. The DIC message should turn off after the pressure sensor is installed in the tire, and the learning process is performed successfully. See "TTPMS Sensor Learning Process" in your owner's manual.
- The TTPMS sensor learning process was not done or not completed successfully. The DIC message should go off after successfully completing the sensor learning process. See "TTPMS Sensor Learning Process" in your owner's manual.
- One or more TTPMS sensors are missing or damaged. The DIC message should go off when the TTPMS sensors are installed and the sensor learning process is performed successfully. See "TTPMS Sensor Learning Process" in your owner's manual.
- Operating electronic devices or being near facilities using radio wave frequencies similar to the TTPMS could cause interference to the TTPMS which could cause loss of signal reception from the sensor.
- If the system does not receive the signal from an individual sensor, an error message may not occur until the vehicle has been driver for a period of time.

If the TTPMS is not functioning properly, it cannot detect or signal a low tire condition. See your dealer for service if the DIC message comes on and stays on when the trailer tire pressures have been checked and determined to be correct.

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.

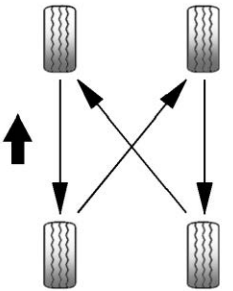
- The tread or sidewall is cracked, cut, or snagged deep enough to show cord or fabric.
- The tire has a bump, bulge, or split.
- The tire has a puncture, cut, or other damage that cannot be repaired well because of the size or location of the damage.

Tire Rotation

Tires should be rotated according to the interval listed in the Maintenance Schedule. See your owner's manual.

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* ⇨ *123* and your owner's manual.



Use this rotation pattern when rotating the tires.

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* ⇨ *116* and *Vehicle Load Limits* ⇨ *76*.

Reset the Tire Pressure Monitor System. See *Tire Pressure Monitor Operation* ⇨ *118*.

Check that all wheel nuts are properly tightened. See "Wheel Nut Torque" in your owner's manual.

⚠ 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.

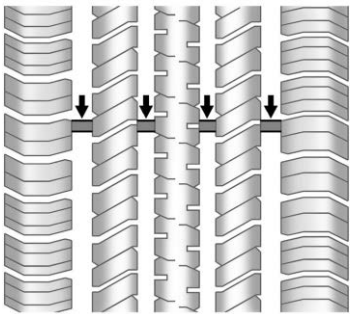
Lightly coat the inner diameter of the wheel hub opening with wheel bearing grease after a wheel change or tire rotation to prevent corrosion or rust buildup.

⚠ 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.

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* ⇨ *121* and *Tire Rotation* ⇨ *122*.

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.

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* ⇨ *122*.

⚠ 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.

⚠ 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.

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.

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* ⇨ *76*.

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* ⇨ *123* and your owner's manual.

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.

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* ⇨ *112*.

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.

The vehicle has no spare tire, no tire changing equipment, and no place to store a tire.

⚠ 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 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.

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* ⇨ *73*.

This vehicle may come with a tire sealant and compressor kit. To use the tire sealant and compressor kit, see *Tire Sealant and Compressor Kit* ⇨ *126*.

Tire Sealant and Compressor Kit

⚠ Warning

Overinflating a tire could cause the tire to rupture and you or others could be injured. Be sure to read and follow the tire sealant and compressor kit instructions and inflate the tire to its recommended pressure. Do not exceed the recommended pressure.

⚠ Warning

Storing the tire sealant and compressor kit 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 the tire sealant and compressor kit in its original location.

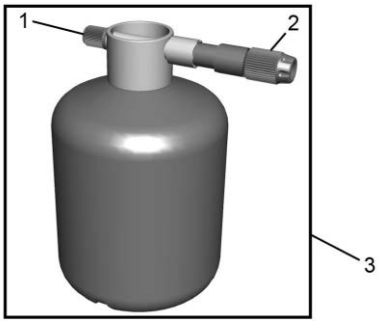
If this vehicle has a tire sealant and compressor kit, there may not be a spare tire or tire changing equipment, and on some vehicles there may not be a place to store a tire.

The tire sealant and compressor can be used to temporarily seal punctures up to 6 mm (0.25 in) in the tread area of the tire. It can also be used to inflate an underinflated tire.

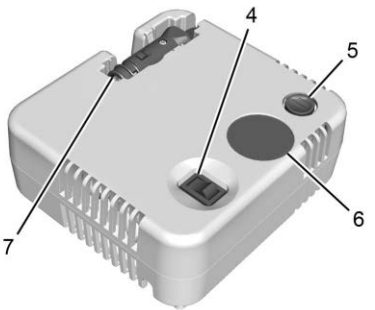
If the tire has been separated from the wheel, has damaged sidewalls, or has a large puncture, the tire is too severely damaged for the tire sealant and compressor kit to be effective. See *Roadside Assistance Program* ⇨ *138*.

Read and follow all of the tire sealant and compressor kit instructions.

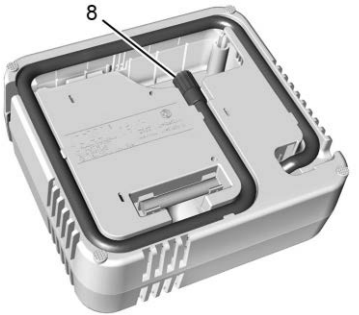
The kit includes:



1. Sealant Canister Inlet Valve
2. Sealant/Air Hose
3. Tire Sealant Canister



4. On/Off Button
5. Pressure Deflation Button
6. Pressure Gauge
7. Power Plug



8. Air Only Hose

Tire Sealant

Read and follow the safe handling instructions on the label adhered to the tire sealant canister (3).

Check the tire sealant expiration date on the tire sealant canister. The tire sealant canister (3) should be replaced before its expiration date. Replacement tire sealant canisters are available at your local dealer.

There is only enough sealant to seal one tire. After usage, the tire sealant canister must be replaced.

Using the Tire Sealant and Compressor Kit to Temporarily Seal and Inflate a Punctured Tire

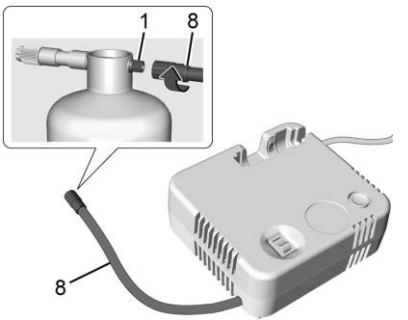
When using the tire sealant and compressor kit during cold temperatures, warm the kit in a heated environment for five minutes. This will help to inflate the tire faster.

If a tire goes flat, avoid further tire and wheel damage by driving slowly to a level place. Turn on the hazard warning flashers. See *Hazard Warning Flashers* ⇨ *73*.

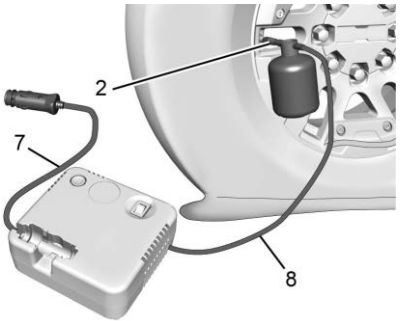
See *If a Tire Goes Flat* ⇨ *126* for other important safety warnings.

Do not remove any objects that have penetrated the tire.

1. Remove the tire sealant canister (3) and compressor from its storage location. See your owner's manual.
2. Remove the air only hose (8) and the power plug (7) from the compressor.
3. Place the compressor on the ground near the flat tire.



4. Remove the cap from the sealant canister inlet valve (1) by turning it counterclockwise. Attach the air only hose (8) to the sealant canister inlet valve (1) by turning it clockwise until tight.
5. Remove the valve stem cap from the flat tire by turning it counterclockwise.



6. Attach the sealant/air hose (2) to the tire valve stem by turning it clockwise until tight.
7. Plug the power plug (7) into the accessory power outlet in the vehicle. Unplug all items from other accessory power outlets. See your owner's manual.

   If the vehicle has an accessory power outlet, do not use the cigarette lighter.

   If the vehicle only has a cigarette lighter, use the cigarette lighter.

   Do not pinch the power plug cord in the door or window.
8. Start the vehicle. The vehicle must be running while using the air compressor.

9. Press the on/off button (4) to turn the tire sealant and compressor kit on.

   The compressor will inject sealant and air into the tire.

   The pressure gauge (6) will initially show a high pressure while the compressor pushes the sealant into the tire. Once the sealant is completely dispersed into the tire, the pressure will quickly drop and start to rise again as the tire inflates with air only.

10. Inflate the tire to the recommended inflation pressure using the pressure gauge (6). The recommended inflation pressure can be found on the Tire and Loading Information label. See *Tire Pressure* ⇨ *116*.

    The pressure gauge (6) may read higher than the actual tire pressure while the compressor is on. Turn the compressor off to get an accurate pressure reading. The compressor may be turned on/off until the correct pressure is reached.

Caution

If the recommended pressure cannot be reached after approximately 25 minutes, the vehicle should not be driven farther. The tire is too severely damaged and the tire sealant and compressor kit cannot inflate the tire. Remove the power plug from the accessory power outlet and unscrew the inflating hose from the tire valve. See *Roadside Assistance Program* ⇨ *138*.

11. Press the on/off button (4) to turn the tire sealant and compressor kit off.

    The tire is not sealed and will continue to leak air until the vehicle is driven and the sealant is distributed in the tire. Therefore, Steps 12–20 must be done immediately after Step 11.

    Be careful while handling the tire sealant and compressor kit as it could be warm after usage.

12. Unplug the power plug (7) from the accessory power outlet in the vehicle.

13. Turn the sealant/air hose (2) counterclockwise to remove it from the tire valve stem.

14. Replace the tire valve stem cap.

15. Turn the air only hose (8) counterclockwise to remove it from the tire sealant canister inlet valve (1).

16. Replace the tire sealant canister inlet valve (1) cap.

17. Return the air only hose (8) and power plug (7) back to their original storage location.

18. If the flat tire was able to inflate to the recommended inflation pressure, remove the maximum speed label from the sealant canister and place it in a highly visible location.

    Do not exceed the speed on this label until the damaged tire is repaired or replaced.

19. Return the equipment to its original storage location in the vehicle.

20. Immediately drive the vehicle 8 km (5 mi) to distribute the sealant in the tire.

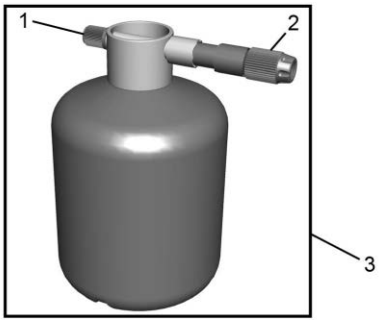
21. Stop at a safe location and check the tire pressure. Refer to Steps 1–10 under "Using the Tire Sealant and Compressor Kit without Sealant to Inflate a Tire (Not Punctured)."

    If the tire pressure has fallen more than 68 kPa (10 psi) below the recommended inflation pressure, stop driving the vehicle. The tire is too severely damaged and the tire sealant cannot seal the tire. See *Roadside Assistance Program* ⇨ *138*.

    If the tire pressure has not dropped more than 68 kPa (10 psi) from the recommended inflation pressure, inflate the tire to the recommended inflation pressure.
22. Wipe off any sealant from the wheel, tire, or vehicle.
23. Dispose of the used tire sealant canister (3) at a local dealer or in accordance with local state codes and practices.
24. Replace it with a new canister available from your dealer.
25. After temporarily sealing a tire using the tire sealant and compressor kit, take the vehicle to an authorized dealer within 161 km (100 mi) of driving to have the tire repaired or replaced.

Using the Tire Sealant and Compressor Kit without Sealant to Inflate a Tire (Not Punctured)

The kit includes:



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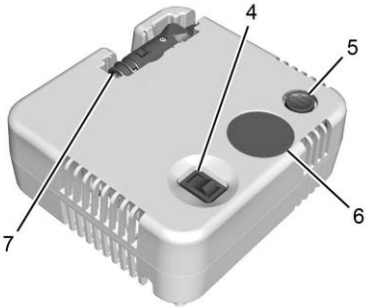
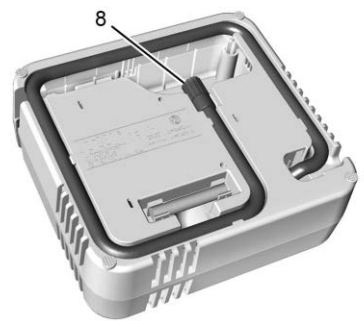


4. On/Off Button
5. Pressure Deflation Button
6. Pressure Gauge

7. Power Plug



8. Air Only Hose

If a tire goes flat, avoid further tire and wheel damage by driving slowly to a level place. Turn on the hazard warning flashers. See *Hazard Warning Flashers* ⇨ *73*.

See *If a Tire Goes Flat* ⇨ *126* for other important safety warnings.

1. Remove the compressor from its storage location. See your owner's manual.
2. Remove the air only hose (8) and the power plug (7) from the compressor.
3. Place the compressor on the ground near the flat tire.

   Make sure the tire valve stem is positioned close to the ground so the hose will reach it.
4. Remove the valve stem cap from the flat tire by turning it counterclockwise.
5. Attach the air only hose (8) to the tire valve stem by turning it clockwise until tight.
6. Plug the power plug (7) into the accessory power outlet in the vehicle. Unplug all items from other accessory power outlets. See your owner's manual.

   If the vehicle has an accessory power outlet, do not use the cigarette lighter.

   If the vehicle only has a cigarette lighter, use the cigarette lighter.

   Do not pinch the power plug cord in the door or window.
7. Start the vehicle. The vehicle must be running while using the air compressor.
8. Press the on/off button (4) to turn the tire sealant and compressor kit on.

   The compressor will inflate the tire with air only.
9. Inflate the tire to the recommended inflation pressure using the pressure gauge (6). The recommended inflation pressure can be found on the Tire and Loading Information label. See *Tire Pressure* ⇨ *116*.

   The pressure gauge (6) may read higher than the actual tire pressure while the compressor is on. Turn the compressor off to get an accurate pressure reading. The compressor may be turned on/off until the correct pressure is reached.

Caution

If the recommended pressure cannot be reached after approximately 25 minutes, the vehicle should not be driven farther. The tire is too severely damaged and the tire sealant and compressor kit cannot inflate the tire. Remove the power plug from the accessory power outlet and unscrew the inflating hose from the tire valve. See *Roadside Assistance Program* ⇨ *138*.

10. Press the on/off button (4) to turn the tire sealant and compressor kit off.

    Be careful while handling the compressor as it could be warm after usage.

11. Unplug the power plug (7) from the accessory power outlet in the vehicle.
12. Turn the air only hose (8) counterclockwise to remove it from the tire valve stem.
13. Replace the tire valve stem cap.
14. Return the air only hose (8) and power plug (7) back to their original storage location.
15. Return the equipment to its original storage location in the vehicle.

Accessory adapters that can be used to inflate an air mattress or a ball, etc., are located on the bottom of the compressor kit

Jump Starting

Jump Starting - North America

For more information about the vehicle battery, see *Battery - North America* ⇨ *109*.

If the battery has run down, use another vehicle and some jumper cables to start the 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.

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.

⚠ Warning

Charging the 12-volt battery and the high voltage battery at the same time may result in overheating or failure. Do not attempt to charge the 12-volt battery and the high voltage battery at the same time. If jumpstarting fails, see your dealer for service.

Caution

The vehicle is equipped with an AGM/VRLA 12-volt battery, which can be damaged by using the incorrect type of trickle charger. An AGM/VRLA-compatible charger must be used, with the appropriate setting selected. Follow the trickle charger manufacturer instructions.

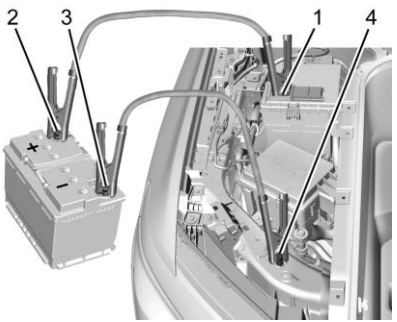
Caution

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.

The battery is under a cover in the underhood compartment.

To access the battery under the hood, the left cover needs to be removed.

Before you connect the cables, here are some basic things you should know. Positive (+) will go to the positive (+) terminal. Negative (−) will go to the negative (−) terminal on the battery providing the jump start to the negative grounding point for the discharged battery.



Connection Points and Sequence

1. Discharged Battery Positive (+) Terminal
2. Good Battery Positive (+) Terminal
3. Good Battery Negative (−) Terminal
4. Discharged Battery Negative (−) Grounding Point

The good battery positive (+) terminal and the good battery negative (−) terminal are on the battery of the vehicle providing the jump start.

The discharged battery positive (+) terminal and the discharged battery negative (−) grounding point are on the passenger side of the vehicle.

The discharged battery positive (+) terminal is under a cover. Remove 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.

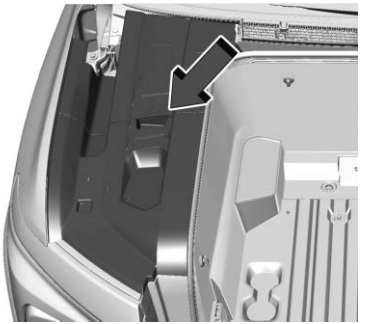
1. Check the other vehicle. It must have a 12-volt battery with a negative ground system.
2. Get the vehicles close enough so the jumper cables can reach, but be sure the vehicles are not touching each other. If they are, it could cause a ground connection you do not want. You would not be able to start the vehicle, and the bad grounding could damage the electrical systems.

   To avoid the possibility of the vehicles rolling, set the parking brake firmly on both vehicles involved in the jump start procedure. Put the vehicles into P (Park). If the other vehicle has a manual transmission, put the vehicle in N (Neutral) before setting the parking brakes.

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.

3. Turn off both vehicles. Unplug unnecessary accessories plugged into the cigarette lighter or the accessory power outlet. Turn off the radio and all lamps that are not needed. This will avoid sparks and help save both batteries. And it could save the radio!
4. Open the hood. See *Hood* ⇨ 7.



5. Lift and remove the left side access cover.
6. Locate the battery positive (+) terminal and negative (−) grounding point.
7. Check that the jumper cables do not have loose or missing insulation. If they do, you could get a shock. The vehicles could be damaged too.
8. Connect one end of the red positive (+) cable to the discharged battery positive (+) terminal.

   Do not let the other end touch metal.
9. Connect the other end of the red positive (+) cable to the good battery positive (+) terminal.
10. Connect one end of the black negative (−) cable to the good battery negative (−) terminal.

    Do not let the other end touch anything until the next step.
11. Connect the other end of the negative (−) cable to the discharged battery negative (−) grounding point.
12. Now start the vehicle with the good battery and keep the vehicle running for a while.
13. Try to start the vehicle that had the dead battery. If it will not start after a few tries, it probably needs service.

Caution
If the 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.

Jumper Cable Removal

Reverse the sequence exactly when removing the jumper cables.

After starting the disabled vehicle and removing the jumper cables, allow it to idle for several minutes.

After removing the jumper cables, install the left side access cover by pressing it down.

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 an electronic shifter. In the event of a loss of 12-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.

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.

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 vehicle will not start but still has 12-volt battery power, press and hold the brake pedal for 60 seconds and shift into N (Neutral).
- If the vehicle is equipped with Car Wash Mode and has 12-volt battery power, see "Car Wash Mode" under *Electric Drive Unit* ⇨ *83* to place the vehicle in N (Neutral).
- If the 12-volt battery is dead and/or the vehicle will not start. Try to jump start the vehicle. See *Jump Starting - North America* ⇨ *132* and if the jump start is successful, retry the "Car Wash Mode" procedure.

Front Attachment Points

The vehicle is equipped with specific attachment points to be used to pull the vehicle onto a flatbed car carrier from a flat road surface. Do not use these attachment points to pull the vehicle from snow, mud, sand, or a ditch.

Service and Maintenance

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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 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.

The Additional Required Services are for vehicles that:

- Carry passengers and cargo within recommended limits on the Tire and Loading Information label. See *Vehicle Load Limits* ⇨ *76*.
- Are driven on reasonable road surfaces within legal driving limits.

⚠ 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* ⇨ *106*.

Additional Maintenance and Care

Windshield

For safety, appearance, and the best viewing, keep the windshield clean and clear.

- Signs of damage include scratches, cracks, and chips.
- Trained dealer technicians can inspect the windshield and recommend proper replacement if needed.

Clean the outside of the windshield with glass cleaner.

Wiper Blades

Wiper blades need to be cleaned and kept in good condition to provide a clear view.

- Signs of wear include streaking, skipping across the windshield, and worn or split rubber.
- Trained dealer technicians can check the wiper blades and replace them when needed.

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.

Replace the wiper blades if they are worn or damaged. Damage can be caused by extreme dusty conditions, sand, salt, heat, sun, snow, and ice.

Interior Glass

To clean, use a microfiber cloth fabric dampened with water. Wipe droplets left behind with a clean dry cloth. If necessary, use a commercial glass cleaner after cleaning with plain water.

Caution

To prevent scratching, never use abrasive cleaners on automotive glass. Abrasive cleaners or aggressive cleaning may damage the rear window defogger.

Cleaning the windshield with water during the first three to six months of ownership will reduce tendency to fog.

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Online Account and Customer Support

Create a GMC Account (U.S.) at gmc.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.

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 dealer and view locations, maps, phone numbers, and hours.

: Track your vehicle's warranty information.

: View active recalls by Vehicle Identification Number (VIN). See your owner's manual.

: Manage your profile and payment information. View your GM Rewards Card earnings and My GMC Rewards points.

: Chat live with online help representatives.

Visit gmc.com and create an account today.

GMC Account (Canada)

Visit your GMC Account at gmccanada.ca/en (English) or gmccanada.ca/fr (French) to access similar benefits.

Roadside Assistance Program

From the U.S., call GMC EV Line 844-515-1418; (Text Telephone (TTY): 1-888-889-2438).

From Canada, call: 844-637-1756.

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.
- 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

For Roadside coverage duration, see the Limited Warranty and Owner Assistance Information Manual. For questions on additional Roadside coverage, contact GMC Roadside Assistance.

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 GMC reserve the right to make any changes or discontinue the Roadside Assistance program at any time without notification.

General Motors North America and GMC 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 many times.

Services Provided

- **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.
- **Tow from a Public Road or Highway:** Tow to the nearest certified GMC EV dealer for warranty service, or if the vehicle was in a crash and cannot be driven. Assistance is not given when the vehicle is stuck in the sand, mud, or snow. If the vehicle is out of charge, Roadside will tow the vehicle to the nearest charging station or to the customer's home, whichever is closest.
- **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. Items considered are reasonable and customary hotel, meals, rental car, or a vehicle being delivered back to the customer, up to 500 miles. Contact GMC Roadside Assistance for Trip Interruption eligibility at the time of vehicle disablement.

Services Not Included in Roadside Assistance

- Impound towing caused by violation of any laws
- Reimbursement of legal fines
- Reimbursement of police mandated laws
- 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.

Services Specific to Canadian-Purchased Vehicles

- **Lock-Out Service:** Vehicle registration is required.
- **Trip Interruption Benefits and Assistance:** Must be traveling 150 km from where the 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.

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 (English)

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 NHTSA (or Transport Canada) in a situation like this, notify General Motors.

In the U.S., call 1-800-462-8782, or write:

GMC Customer Assistance Center
P.O. Box 33172
Detroit, MI 48232-5172

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 800-466-0812 or 800-466-0801.

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 electric drive unit performance, to monitor the conditions for airbag deployment and to 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 energy 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.

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- myGMC Mobile App
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- Scheduled Maintenance
- Vehicle Features
- Many Additional Resources

United States

Canada

United States

Customer Assistance
1-800-462-8782
Roadside Assistance
1-888-881-3302

United States and Canada

Connected Services
1-888-4-ONSTAR

Canada

Customer Assistance
1-800-263-3777
Roadside Assistance
1-800-268-6800

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Papier | Pour une gestion forestière responsable
Papel | Apoyando la silvicultura responsable
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