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Introduction



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

This manual describes features that may or may not be on the vehicle because of optional equipment that was not purchased on the vehicle, model variants, country specifications, features/applications that may not be available in your region, or changes subsequent to this publication's release, including changes in standard or optional content.

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

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.

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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

: Vehicle Ready

Additional Instructions or Information

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

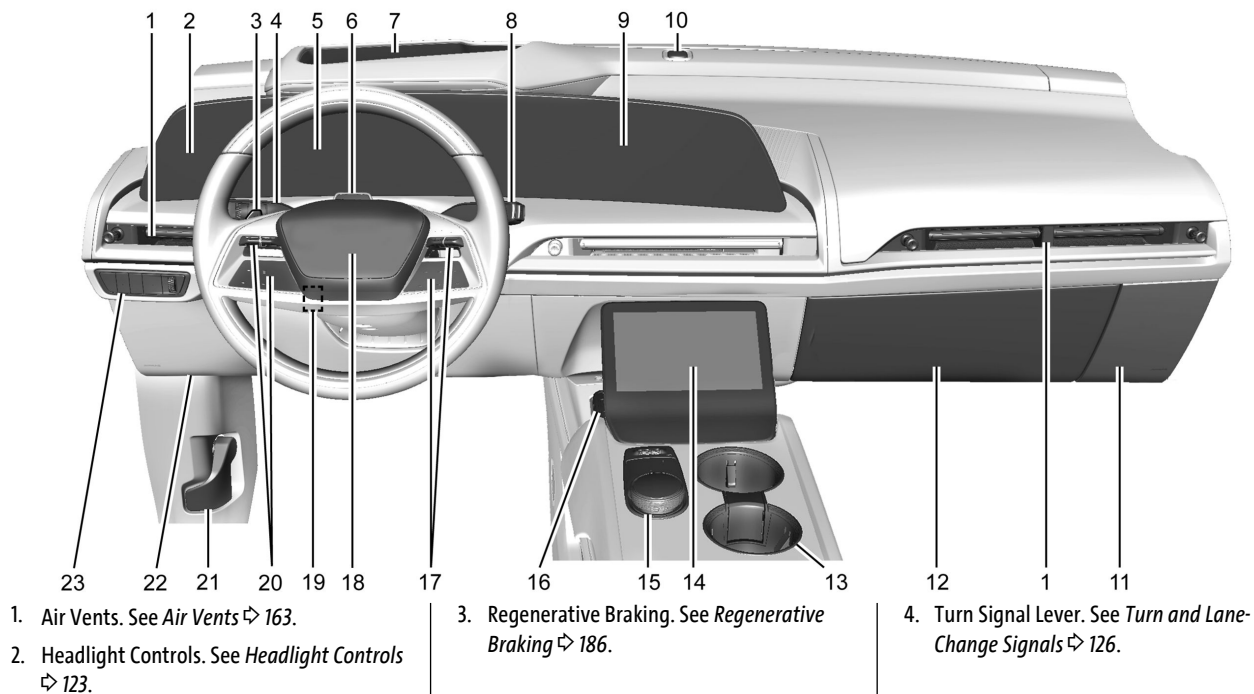
: Shown when the owner's manual has additional instructions or information.

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

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

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Instrument Panel Overview



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- | | | |
|--|--|---|
| <p>Windshield Wiper/Washer. See <i>Windshield Wiper/Washer</i> ⇨ 90.</p> <p>5. Instrument Cluster. See <i>Instrument Cluster</i> ⇨ 96.</p> <p>6. Driver Attention Assist. See <i>Driver Attention Assist</i> ⇨ 241.</p> <p>7. Head-Up Display (HUD). See <i>Head-Up Display (HUD)</i> ⇨ 117.</p> <p>8. Shift Lever. See <i>Electric Drive Unit</i> ⇨ 179.</p> <p>9. Infotainment Display. See <i>Using the System</i> ⇨ 134.</p> <p>10. Light Sensor. See <i>Automatic Headlight System</i> ⇨ 125.</p> <p>11. Instrument Panel Fuse Block. See <i>Instrument Panel Fuse Block</i> ⇨ 281.</p> <p>12. Glove Box. See <i>Glove Box</i> ⇨ 84.</p> <p>13. Cupholders. See <i>Cupholders</i> ⇨ 84.</p> <p>14. Center Console Display. See <i>Using the System</i> ⇨ 134.</p> <p>Dual Automatic Climate Control System. See <i>Dual Automatic Climate Control System</i> ⇨ 159.</p> | <p>Power Seat Adjustment. See <i>Power Seat Adjustment</i> ⇨ 35.</p> <p>15. Infotainment Controls. See <i>Overview</i> ⇨ 133.</p> <p>16. Wireless Charging. See <i>Wireless Charging</i> ⇨ 94.</p> <p>17. Radio Controls. See <i>Steering Wheel Controls</i> ⇨ 134.</p> <p>18. Horn. See <i>Horn</i> ⇨ 89.</p> <p>19. Steering Wheel Adjustment. See <i>Steering Wheel Adjustment</i> ⇨ 89 (Out of View).</p> <p>20. Adaptive Cruise Control. See <i>Adaptive Cruise Control</i> ⇨ 193 (Advanced).</p> <p>Super Cruise. See <i>Super Cruise</i> ⇨ 203.</p> <p>Forward Collision Alert (FCA) System. See <i>Forward Collision Alert (FCA) System</i> ⇨ 226.</p> <p>Heated Steering Wheel. See <i>Heated Steering Wheel</i> ⇨ 89.</p> <p>21. Hood Release. See <i>Hood</i> ⇨ 261.</p> <p>22. Data Link Connector. See <i>Service Vehicle Soon Light (Propulsion System Failure)</i> ⇨ 102.</p> <p>23. Electric Parking Brake. See <i>Electric Parking Brake</i> ⇨ 184.</p> | <p>Ride Height. See <i>Air Suspension</i> ⇨ 191.</p> <p>Automatic Vehicle Hold (AVH) Light. See <i>Automatic Vehicle Hold (AVH) Light</i> ⇨ 104.</p> <p>Liftgate Control. See <i>Liftgate</i> ⇨ 17.</p> <p>Instrument Panel Illumination Control. See <i>Instrument Panel Illumination Control</i> ⇨ 127.</p> |
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6 Keys, Doors, and Windows

Keys, Doors, and Windows

Keys and Locks

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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 that is inside of the remote key can be used for all locks.



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

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

See your dealer if a new key is needed.

With an active OnStar or connected service plan, an OnStar Advisor may remotely unlock the vehicle. See *OnStar Overview* ⇨ 342.

Remote Key

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

- Check the distance. The remote key may be too far from the vehicle.
- Check the location. Other vehicles or objects may be blocking the signal.
- Check the remote key's battery. See "Battery Replacement" under *Remote Key Operation* ⇨ 7.
- If the remote key is still not working correctly, see your dealer or a qualified technician for service.

Remote Key Operation

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

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

Other conditions can impact the performance of the remote key. See *Remote Key* ⇨ 7.



 : Press to lock all doors.

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If enabled, the turn signal indicators may flash and/or the horn may sound on the second press to indicate locking. To view available settings from the infotainment home screen, touch Settings > Vehicle > Remote Lock, Unlock, Start.

If the driver door is open when  is pressed, all doors will lock and the driver door will immediately unlock, if enabled. To view available settings from the infotainment home screen, touch Settings > Vehicle > Remote Lock, Unlock, Start.

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

Pressing  may also arm the alarm system. See *Vehicle Alarm System* ⇨ 21.

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

If equipped and enabled with remote window operation, double press and hold  until the windows fully open. Double press and hold  until the windows fully close. To view available

settings from the infotainment screen, touch Settings > Vehicle > Remote Lock, Unlock, Start. See *Power Windows* ⇨ 29.

If enabled, the turn signal lights flash twice to indicate that the unlocking has occurred. The exterior lights may also be programmed to turn on. To view available settings from the infotainment home screen, touch Settings > Vehicle > Remote Lock, Unlock, Start.

If equipped and enabled with auto folding mirrors, press  to unfold the mirrors. Press  to fold the mirrors. To view available settings from the infotainment home screen, touch Settings > Vehicle > Comfort and Convenience. See *Folding Mirrors* ⇨ 25.

Pressing  will disarm the alarm system. See *Vehicle Alarm System* ⇨ 21.

 : Press twice to open or close the liftgate. Press once to stop the liftgate from moving. The vehicle must be in P (Park).

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

Press and hold  for at least three seconds to sound the panic alarm. The horn sounds and the turn signals flash for about 30 seconds or until  is pressed again or the vehicle is started.

 (x2) : Press  twice to remote start the vehicle. See *Remote Start* ⇨ 12.

 OFF x2 : Press twice to stop charging the vehicle.

Keyless Access Operation

The Keyless Access system allows the doors and liftgate to be unlocked without pressing the remote key button. The remote key must be within 1 m (3 ft) of the liftgate or door being opened.

Doors can be programmed to lock after exiting the vehicle through Passive locking or delayed locking. The remote key can also be used to lock the doors.

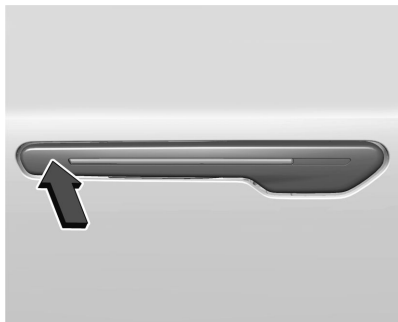
Keyless Access can be programmed to unlock all doors when the driver door handle is pulled. All doors will unlock when any non-driver door handle is pulled regardless of the current setting. To view available settings from the infotainment screen, touch Settings > Vehicle > Remote Lock, Unlock, Start.

Keyless Unlocking from the Driver Door**Caution**

Manually forcing the door handle closed could damage it. Do not close the door handle manually. Allow the handle to electronically retract.

When the doors are locked and the remote key is within 1 m (3 ft) of the driver door handle, pulling the handle will unlock and unlatch the driver door.

If the door handle is retracted and the remote key is within 1 m (3 ft) of the driver door, press the front of the door handle to deploy it.



All outside door handles will deploy whenever the doors are unlocked, or when any door is opened or closed. The handles can also be programmed to deploy when the remote key approaches. To view available settings from the infotainment screen, touch Settings > Vehicle > Remote Lock, Unlock, Start.

All outside door handles will retract whenever the doors are locked, or after a short time.

Keyless Unlocking/Locking from Passenger Doors

When the doors are locked and the remote key is within 1 m (3 ft) of the door, pulling a handle will unlatch the door and unlock all doors.

If the door handle is retracted and the remote key is within 1 m (3 ft) of a passenger door, press the front of the handle to deploy it. Pressing the handle will also unlock all other doors.

Passive Locking

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

If other electronic devices interfere with the remote key signal, the vehicle may not detect the remote key inside the vehicle.

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

To view available settings from the infotainment home screen, touch Settings > Vehicle > Power Door Locks.

Temporary Disable of Passive Locking

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

Remote Left In Vehicle Alert

When the vehicle is turned off and a remote key is left in the vehicle, the horn will chirp three times after all doors are closed.

To view available settings from the infotainment home screen, touch Settings > Vehicle > Remote Lock, Unlock, Start.

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Remote Removed From Vehicle Alert

If the vehicle is on with a door open, and then all doors are closed, the vehicle will check for remote keys inside. If a remote key is not detected, the Driver Information Center will display NO KEY FOUND and the horn will chirp three times.

This occurs only once each time the vehicle is driven.

To view available settings from the infotainment home screen, touch Settings > Vehicle > Remote Lock, Unlock, Start.

Keyless Liftgate Opening

Press the Cadillac emblem on the underside of the liftgate glass and lift up to open if the remote key is within 1 m (3 ft) and the doors are locked. If the doors are unlocked, the remote key is not required to open the liftgate. See *Liftgate* ⇨ 17.

Key Access

To access a vehicle with a weak remote key battery, see *Door Locks* ⇨ 13.

Programming Remote Keys to the Vehicle

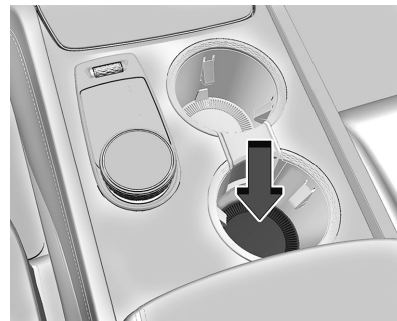
Only remote keys programmed to the vehicle will work. If a remote key is lost or stolen, a replacement can be purchased and programmed through your dealer. The vehicle can be reprogrammed so that lost or stolen remote keys no longer work. Any remaining remote keys will need to be reprogrammed. Each vehicle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

Starting the Vehicle with a Low Remote Key Battery

For improved Vehicle security, the remote key is equipped with a motion sensor. When starting the vehicle, if the remote key has been idle for an extended period of time, the Driver Information Center may display KEY IN SLEEP MODE, MOVE KEY, THEN START. Move the remote key slightly and try starting the vehicle.

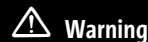
If the remote key battery is weak or if there is interference with the signal, the Driver Information Center may display NO KEY FOUND, REPLACE BATTERY IN KEY or NO REMOTE KEY WAS DETECTED PLACE KEY IN KEY POCKET THEN START YOUR VEHICLE when starting the vehicle.

To start the vehicle:



1. Place the remote key in the rear cupholder with the buttons facing down.
2. With the vehicle in P (Park) or N (Neutral), press the brake pedal or close the door. See *Power Modes* ⇨ 177. Replace the remote key battery as soon as possible.

Battery Replacement



Warning

Never allow children to play with the remote key. The remote key contains a small battery, which can be a choking

(Continued)

Warning (Continued)

hazard. If swallowed, internal burns can occur, resulting in severe injury or death. Seek medical attention immediately if a battery is swallowed.

Warning

To avoid personal injury, do not touch metal surfaces on the remote key when it has been exposed to extreme heat. These surfaces can be hot to the touch at temperatures above 59 °C (138 °F).

Caution

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

Caution

Always replace the battery with the correct type. Replacing the battery with an incorrect type could potentially create a risk of battery explosion. Dispose of used batteries according to instructions and local laws. Do not attempt to burn, crush, or cut the used battery, and avoid exposing the battery to environments with extremely low air pressures or high temperatures.

Caution

If the remote key is not reassembled properly, liquids could enter the housing and damage the circuitry, resulting in a remote key malfunction and/or failure. To prevent damage, always follow the steps for remote key reassembly in this manual to ensure the remote key is sealed properly whenever the remote key is opened.

Replace the battery if the Driver Information Center displays REPLACE BATTERY IN KEY.

The battery is not rechargeable. To replace the battery:

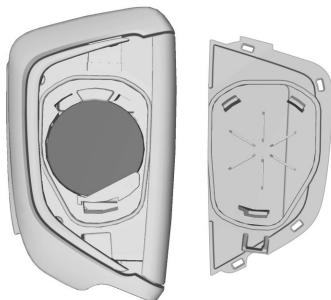


1. Press the button on the side of the remote key near the bottom and pull the mechanical key out. Never pull the mechanical key out without pressing the button.

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2. Use the mechanical key blade in the slot to remove the battery cover by hand.



3. Remove the battery cover.

4. Pull the seal by pulling on the tab to access the battery.
5. Remove the old battery. Do not use a metal object.
6. Insert the new battery, positive side facing up. Replace with a CR2450 Lithium or equivalent battery.
7. Place the seal back into the groove around the battery compartment.
8. Replace the battery cover by snapping it back into the remote key.
9. Reinsert the mechanical key.

Remote Start

This feature starts the heating or air conditioning systems and the rear window defogger from outside the vehicle.

If the outside temperature is below 7 °C (45 °F), and the rear window defogger is on, the area of the windshield beneath the windshield wipers will warm up to melt accumulated snow or ice, if equipped.

Use remote start to heat or cool the interior when the vehicle is plugged in to maximize electric range by utilizing electricity from the electrical outlet. Normal system operation will return after the vehicle has been turned on.

(x2) : This button is on the remote key.

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

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

The vehicle cannot be remote started if:

- The remote key is in the vehicle.
- The total 60 minutes of remote start time has been used.
- The hazard flashers are on.
- The vehicle is not in P (Park).
- The vehicle is already started.

If the battery level is low, do not use the remote start feature. The battery may fully deplete. The remote key range may be less while the vehicle is running.

Other conditions may affect the range and performance of the remote key. See *Remote Key* ⇨ 7.

Starting the Vehicle Using Remote Start

Press  twice on the remote key. The turn signal lights will flash to confirm the remote start request was received. During the remote start, the parking lights will remain on as long as the vehicle is on.

The vehicle will turn off after 60 minutes, unless you stop the remote start before remote start cycle has completed or the vehicle is turned on.

To drive, start the vehicle. See *Power Modes* ⇨ 177.

Extending Remote Start Time

Remote start can be used for up to 60 minutes total.

After a remote start of 60 minutes, or multiple shorter starts totaling 60 minutes, the vehicle must be started and then turned off before the remote start can be used again.

Canceling a Remote Start

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

- Press . The parking lights will turn off.
- Turn on the hazard warning flashers.
- Turn the vehicle on and then off.

Door Locks



Warning

Unlocked doors can be dangerous.

(Continued)

Warning (Continued)

- Passengers, especially children, can easily open the doors and fall out of a moving vehicle. The doors can be unlocked and opened while the vehicle is moving. The chance of being thrown out of the vehicle in a crash is increased if the doors are not locked. So, all passengers should wear seat belts properly and the doors should be locked whenever the vehicle is driven.
- Do not pull the door handles while the vehicle is in motion. The door may open with only a single pull. Always use safety locks when children are in the rear seats. See *Safety Locks* ⇨ 15.
- Young children who get into unlocked vehicles may be unable to get out. A child can be overcome by extreme heat and can suffer permanent injuries or even death from heat stroke. Always lock the vehicle whenever leaving it.
- Outsiders can easily enter through an unlocked door when you slow down or stop the vehicle. Locking the doors can help prevent this from happening.

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To lock or unlock the doors from outside the vehicle:

- Use the key in the liftgate to lock and unlock the door without the remote key. See *Liftgate* ⇨ 17.
- Press  or  on the remote key to lock and unlock the doors.



To lock or unlock the doors from inside the vehicle:

- Press  or  on the power door lock switch.

- Pull the door handle up. It is located on the door trim. Pull a front door handle once to unlock and open it. Pull a rear door handle once to unlock it and again to open it.

If the vehicle loses power, the door can still be opened by fully pulling the handle on the door trim.

Keyless Access

The remote key must be within 1 m (3 ft) of the liftgate or door being opened. Pull on the presented handle to open. See “Keyless Access Operation” in *Remote Key Operation* ⇨ 7.

Opening a Door from the Exterior

The door handles are power operated and cannot be used to open the vehicle unless one of the following occurs:

- When the vehicle detects a remote key approaching
- Whenever the doors are unlocked
- When the deploy switch is pressed and the doors are unlocked
- When a door is opened or closed.

The power door handles will remain pivoted outward for a short time, unless the vehicle is locked or begins moving. The timer is reset if any of the conditions listed above are met.

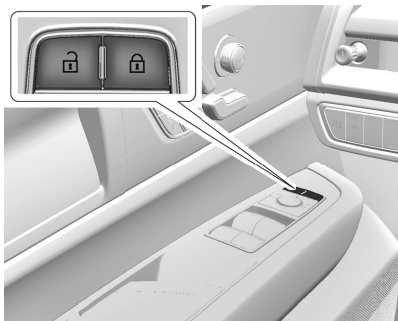
Cinching



You or others could be injured if caught in the path of a closing door. Make sure the area is clear when using the automatic soft-close/cinching feature.

If equipped, to close any door, gently push or pull it until the power cinch motor draws the door the rest of the way closed and latches.

Power Door Locks



 : Press to unlock the doors.

 : Press to lock the doors.

Locking and unlocking the doors will also unlock the liftgate. See *Liftgate* ⇨ 17.

Delayed Locking

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

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

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

Press  on the door lock switch again or press  on the remote key to lock the doors immediately.

To view available settings from the infotainment home screen, touch Settings > Vehicle > Power Door Locks.

Automatic Door Locks

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

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

To unlock the doors:

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

Automatic door locking cannot be disabled.

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

Lockout Protection

This feature protects you from locking remote keys in the vehicle.

When the lock button is pressed and the vehicle is on, with the driver door open, all of the doors will lock and then the driver door will unlock.

If the vehicle is off and locking is requested while a door is open, when all doors are closed the vehicle will check for remote keys inside. If a remote key is detected and the number of remote keys inside has not reduced, the driver door will unlock and the horn will sound three times.

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

Safety Locks

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

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To activate/deactivate the safety locks from the infotainment home screen, select:

- Controls > Child Safety Locks > On or Off
- Controls > See More Controls > Safety > Child Safety Locks > On or Off

or

- Controls > See More Controls > Doors & Windows > Child Safety Locks > On or Off

It is recommended to turn child safety locks on when a child restraint is present in the rear seats.

Rear Control Lock prevents rear passengers from using the rear center display screen.

To activate/deactivate the Rear Control Lock, on the infotainment home screen, select Controls > Safety > Rear Control Lock > On/Off.

Digital Key

If equipped and enabled, the Digital Key feature allows you to access and operate the vehicle using a smartphone. Many of the functions performed by a remote key can also be done using a Digital Key. See *Remote Key Operation* ⇨ 7.

Digital Key communicates with the vehicle using Ultrawide Band technology.

Only certain smartphones support Digital Key. Please see the myCadillac app to see if your device is compatible.

If the smartphone battery is weak or if there is interference with the signal, the Driver Information Center may display NO KEY FOUND or NO REMOTE KEY WAS DETECTED, PLACE KEY IN KEY POCKET THEN START YOUR VEHICLE when starting the vehicle. Charge the smartphone battery as soon as possible.

You can use the myCadillac mobile app and Wallet to pair, manage, or delete your Digital Key.

If the Digital Key is not working:

- Check the distance. The smartphone may be too far from the vehicle.
- Check the location. Other vehicles or objects may be blocking the signal. Your body could also impact the signal. Hold the smartphone in your hand, away from your body, and toward the vehicle for best results.
- Check that the smartphone is turned on and has sufficient battery power.
- Check the connection. Your smartphone's Bluetooth connection must be enabled.

Setting up Digital Key

Digital Key is only available with an OnStar account associated with the vehicle.

1. Log in to your OnStar account in the myCadillac mobile app.
2. Select Controls > Keys, then follow the steps on your screen to pair your phone.

Using Your Digital Key

Digital Key allows you to:

- Use keyless access features to lock and unlock the vehicle's doors, and access the rear compartments without a remote key. See "Keyless Access Operation" under *Remote Key Operation* ⇨ 7.
- Start the vehicle with just your phone present.
- Use remote commands in the myCadillac app to lock, unlock, and remote start the vehicle.

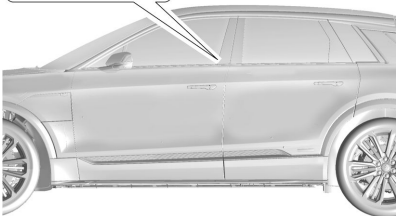
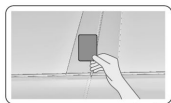
Key Card

Your vehicle may be equipped with a key card that unlocks, locks, and starts the vehicle. The key card works by tapping it on the location of the vehicle shown on the back of the key card.

It is highly recommended to carry a key card as a back up to the Digital Key in case the Digital Key battery is weak or there is interference to the signal.

Only key cards programmed to the vehicle will work. If a key card is lost or stolen, a replacement can be purchased and programmed through your dealer. To prevent lost or stolen key cards from being able to operate the vehicle, see your dealer.

Each vehicle can have up to eight key cards programmed to it.



Unlocking with the Key Card

Tap your key card on the rectangular symbol on the driver door near the edge of the window to unlock the driver door. Only the driver door may be unlocked this way. See *Door Locks* ⇨ 13 for how to unlock the other doors and rear compartment.

Locking with the Key Card

With all doors closed, the vehicle off, and any door unlocked, tap your key card on the rectangular symbol on the driver door near the edge of the window to lock all doors.

Starting with the Key Card

You can start your vehicle for a short period after unlocking it with your key card. If the period has ended, you will need to unlock the vehicle with the key card again to start your vehicle.

Doors Liftgate

Caution

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

To lock or unlock the liftgate from the outside, press  or  on the remote key.

To lock or unlock the liftgate from the inside, press  or  on the instrument panel.

Power Liftgate Operation

Warning

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

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Caution

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

Power Liftgate Mode Selection

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

Choose from the following selections:

Maximum: Opens to the maximum height.

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

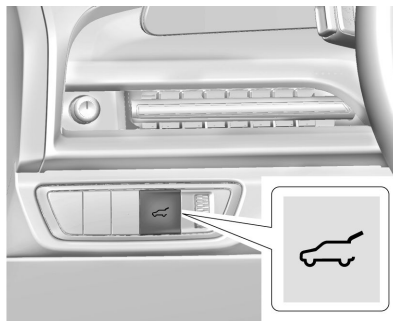
Use to prevent the liftgate from opening into overhead obstructions, such as a garage door or roof-mounted cargo. The liftgate can be manually opened all the way.

Off: Opens manually only.

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

To open or close the liftgate using the remote key, press  twice quickly until the liftgate moves.

Operating the Power Liftgate from the Inside



To open or close the liftgate from the inside, press .

Keyless Liftgate Opening

Caution

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

The remote key must be within 1 m (3 ft), when the doors are locked, to open the liftgate. If the doors are unlocked, the remote key is not required to open the liftgate.

Press the Cadillac emblem on the underside of the liftglass to power open the liftgate when the power liftgate mode is set to Maximum or Custom.

Press the Cadillac emblem on the underside of the liftgate glass and lift up to open when the power liftgate mode is set to Off.

See “Power Liftgate Mode Selection” earlier in this section.



To open the liftgate, press the Cadillac emblem.



When closing the liftgate, press the button on the bottom of the gate.

Press any liftgate button, the Cadillac emblem, or  on the remote key while the liftgate is moving to stop it.

Pressing any liftgate button or pressing  twice quickly on the remote key restarts the operation in the reverse direction. Pressing the Cadillac emblem will restart the motion, but only in the opening direction.

The power liftgate may be temporarily disabled in extremely low temperatures, or after repeated opening and closings over a short period of time. If this occurs, the liftgate can still be operated manually.

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

Falling Liftgate Detection

If the power liftgate automatically closes after a power opening cycle, it indicates that the system is reacting to excess weight on the liftgate or a possible support strut failure. A repetitive chime will sound while the

falling liftgate detection feature is operating. Remove any excess weight. If the liftgate continues to automatically close after opening, see your dealer for service before using the power liftgate.

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

Obstacle Detection Features

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

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

Setting the Custom Opening Height

To change the position the liftgate stops at when opening:

1. Select MAX or Custom mode and power open the liftgate.
2. Stop the liftgate movement at the desired height by pressing any liftgate button. Manually adjust the liftgate position if needed.
3. Press and hold  on the bottom edge of the liftgate next to the latch on the outside of the liftgate until the turn signals flash and a beep sounds. This indicates the setting has been recorded.

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

Liftgate Key Lock Cylinder Access (In Case of Dead Battery)



To access the liftgate key lock cylinder, insert the mechanical key into the cylinder and turn to unlock. See *Keys* ➔ 6.

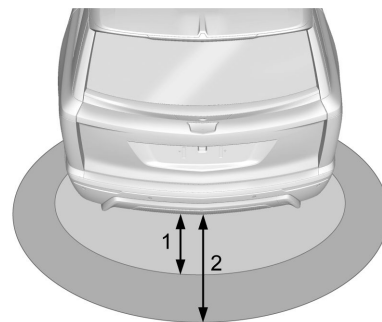
Free-Turning Locks

The key cylinder turns freely when either the wrong key is used, or the correct key is not fully inserted. The free-turning 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 and then 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.

Hands-Free Operation

If equipped, the liftgate may be opened with a remote key by entering the authentication zone from outside the approach zone. Both zones are located near the rear of the vehicle.



1. Authentication Zone
2. Approach Zone

To cancel the feature after entering the authentication zone, the user may perform a single press of the  button, press the exterior liftgate switch, or step out of the

authentication zone. The hands-free feature will not operate while the liftgate is moving. To stop the liftgate while in motion, use any of the liftgate switches.

The hands-free feature can be customized. To view available settings for this feature, from the infotainment screen, select Settings > Vehicle > Comfort and Convenience. Choose from the following:

On-Open Only : The presence feature is activated to only open the liftgate.

Off: The feature is disabled.

This feature can be turned on and off using the exterior liftgate switch while the remote key is in the authentication zone. To do this, press and hold the switch for several seconds. Upon successfully enabling or disabling the feature using this method, the vehicle taillights will flash.

Troubleshooting Hands-Free Operation

If the feature does not operate, the remote key may be in a muted state. Press any button on the remote key or any exterior vehicle switch to unmute the remote key.

The feature will be unavailable until the remote key has been out of the approach zone for some time if any of the following occur:

- After successfully opening the liftgate using the hands-free feature.
- If the key enters the approach zone but does not enter the authentication zone within a short period of time.
- If the user has cancelled the feature by using the remote key liftgate button, the exterior liftgate switch, or stepping out of the authentication zone for more than a few seconds.

The hands-free feature will not be active under these conditions:

- The feature is set to OFF in vehicle personalization.
- If the vehicle is equipped with the side approach feature, this rear closure hands-free may not work when the rear doors are open.
- Vehicle battery is low.
- Power Liftgate is set to OFF
- A remote key is inside the vehicle.
- The vehicle is not in P (Park).

- The vehicle remains parked for more than several days, with no remote key use or Keyless Access operation. To re-enable, press any button on the remote key or open and close any vehicle door.

Vehicle Security

This vehicle has theft-deterrent features, but is not theft-proof.

Vehicle Alarm System

Arming the Alarm System

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

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

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

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

Disarming the Alarm System

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

- Press  on the remote key.
- Unlock the vehicle using the Keyless Access system.
- Start the vehicle.

To avoid setting off the alarm by accident:

- Lock the vehicle after all occupants have exited.
- Always unlock a door with the remote key, or use the Keyless Access system.
Unlocking the driver door with the mechanical key will not disarm the system or turn off the alarm.

How to Detect a Tamper Condition

If  is pressed on the remote key and the horn chirps three times, an alarm occurred previously while the alarm system was armed.

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

Power Sounder Inclination and Motion Sensor

In addition to the standard theft-deterrent system features, this system may also have a motion sensor.

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

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

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

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

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

Activating and Deactivating the Motion Sensor

It is recommended that the motion sensor is deactivated if pets are left in the vehicle or the vehicle is being transported.

To activate or deactivate the motion sensor, from the infotainment home screen, select the Controls icon > Motion Sensor or Controls icon > See More Controls > Drive & Park > Motion Sensor > On/Off.

The indicator light may come on momentarily, or a message may display on the instrument cluster, indicating that the sensor has been deactivated until the next time the system is armed.

Steering Column Lock

The steering column lock is a theft-deterrent device. If equipped, this feature locks the steering column when you open the driver door, before or after turning off the vehicle. The steering column unlocks when you turn the vehicle on.

The Driver Information Center may display one of the following:

- **Service Steering Column Lock:** Indicates an issue with the column lock feature. Have vehicle serviced.
- **Steering Column Lock Active:** Indicates the vehicle is on and the steering column lock is active. It is normal for the column to lock during a remote start, but it should unlock after you press the brake and start the vehicle. No message will display during a remote start.

- **Turn Steering Wheel and Restart Vehicle:** Indicates the column lock is binding, the column locking device is unable to unlock the steering column, and the vehicle does not start. If this happens, immediately turn the steering wheel from side to side.

If you are still unable to unlock the steering column:

1. Turn the vehicle off and open the driver door.
2. Turn the vehicle on.
3. Immediately turn the steering wheel side to side for about 15 seconds. It may take significant force to unlock the column.

To prevent the steering column from locking, always straighten the front wheels before turning off the vehicle.

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. Or, you may try placing

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the remote key in the backup location. See “Starting the Vehicle with a Low Remote Key Battery” in *Remote Key Operation* ⇨ 7.

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” under *Remote Key Operation* ⇨ 7.

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

Exterior Mirrors

Convex Mirrors

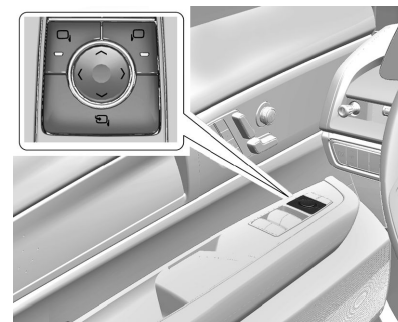


Warning

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

The passenger side mirror is convex shaped so more can be seen from the driver seat.

Power Mirrors



To adjust the mirrors:

1. Press  or  to choose the driver or passenger mirror. An indicator will show the selected mirror.
2. Press one of the four arrows on the control pad while the indicator light on button  or  is illuminated, to move the mirror in the desired direction.
3. Adjust each outside mirror so that a little of the vehicle and the area behind it can be seen.

4. Press  or  again to deselect the mirror. If you do not deselect the mirror, the mirror adjustment will turn off after about one minute.

Folding Mirrors



To adjust power folding mirrors:

1. Press  to fold the mirrors inward.
2. Press  again to return the mirrors to the driving position.

The outside mirrors may automatically unfold when the vehicle is driven above 20 km/h (12 mph), but may be folded with the power folding mirror switch. If the vehicle speed is

driven above 40 km/h (25 mph), they may automatically unfold and may not be refolded with the power folding mirror switch.

Resetting the Power Folding Mirrors

Reset the power folding mirrors if:

- The mirrors are accidentally obstructed while folding.
- They are accidentally manually folded/unfolded.
- The mirrors do not stay in the unfolded position.
- The mirrors vibrate at normal driving speeds.
- One mirror folds while the other unfolds.

Fold and unfold the mirrors one time using the mirror controls to reset them to their normal position. A noise may be heard during the resetting of the power folding mirrors. This sound is normal after a manual folding operation.

If one mirror folds while the other unfolds, fold and unfold the mirrors three times using the mirror controls to reset them to their normal position. A noise may be heard

during the resetting of the power folding mirrors. This sound is normal after a manual folding operation.

Remote Mirror Folding

If the mirrors have been folded with the power folding mirror switch, they may not be unfolded by use of remote key.

If the mirrors have not been folded with the power folding mirror switch and the vehicle is in P (Park), they may be automatically folded/unfolded as follows:

- If doors are locked by pressing  on the remote key, the mirrors will fold. If doors are unlocked by pressing  on the remote key, the mirrors will unfold. See *Remote Key Operation* ⇨ 7.
- If doors are locked by pressing the door handle button, the mirrors will fold. If doors are unlocked by pressing the door handle button, the mirrors will unfold. See “Keyless Unlocking/Locking from the Driver Door” in *Remote Key Operation* ⇨ 7.
- If passive locking is enabled and doors are locked by that feature, the mirrors will fold. See “Passive Locking” in *Remote Key Operation* ⇨ 7.

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Lane Change Alert (LCA)

The vehicle may have LCA. See *Lane Change Alert (LCA)* ⇨ 236.

Turn Signal Indicator

The vehicle may have a turn signal indicator on the mirror housings. The indicator will flash when a turn signal or the hazard warning flashers are used.

Puddle Light

If equipped, puddle lights project light from the bottom of the mirror to the area of ground below the driver and passenger doors. See *Entry Lighting* ⇨ 128 and *Exit Lighting* ⇨ 129.

Heated Mirrors

 **REAR** : Press to heat the outside rearview mirrors. Heated mirrors will melt snow, ice, and frost from the rearview mirrors, improving visibility.

 will be present on both side mirrors. See “Rear Window Defogger” under *Dual Automatic Climate Control System* ⇨ 159. The symbol does not illuminate when the heated mirrors are active.

Automatic Dimming Mirror

If equipped, the driver outside mirror automatically adjusts for the glare of the headlights from behind. This feature comes on when the vehicle is started.

Reverse Tilt Mirrors

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

The mirror(s) may move from their tilted position when:

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

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

Interior Mirrors

Interior Rearview Mirrors

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

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

Automatic Dimming Rearview Mirror

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

Rear Camera Mirror

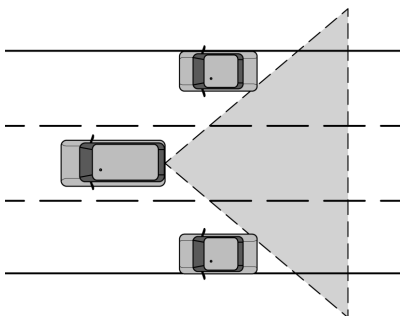


The Rear Camera Mirror (RCM) has a limited view. Portions of the road, vehicles, and other objects may not be seen. Do not drive or park the vehicle using only this camera. Objects may appear closer than they are. Check the outside mirrors or glance over

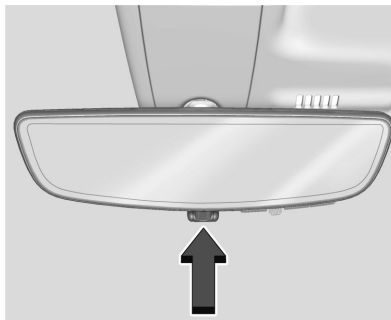
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Warning (Continued)

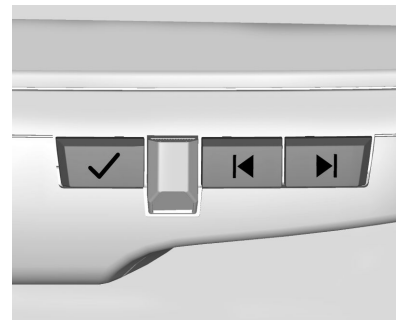
your shoulder when making lane changes or merging. Failure to use proper care may result in injury, death, or vehicle damage.



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



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

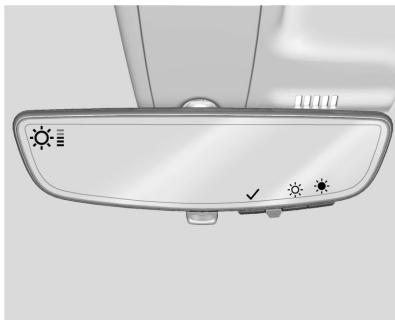


Press ✓ to scroll through the adjustment options.

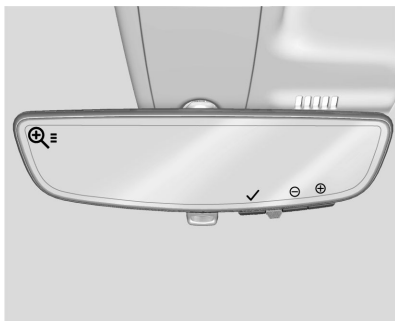
Press ◀ and ▶ to adjust the settings using the indicators on the mirror. The indicators will remain visible for five seconds after the last button activation, and the settings will remain saved.

The adjustment options are:

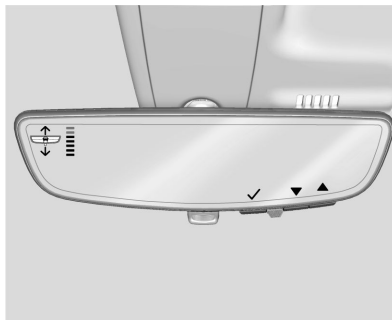
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- Brightness

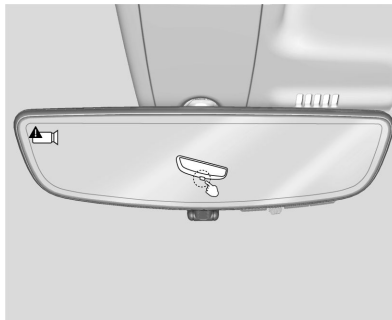


- Zoom



- Tilt

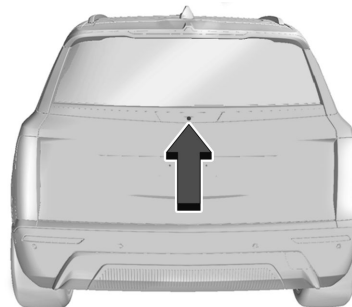
Troubleshooting



See your dealer for service if a blue screen and  are displayed in the mirror, and the display shuts off. Also, push the tab as indicated 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. To clean the rear camera, see *Windshield Wiper/Washer* ⇨ 90 or clean the lens with a soft damp cloth.



- The camera's 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 electric 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.

Power Windows

Warning

Children could be seriously injured or killed if caught in the path of a closing window. Never leave the remote key in a vehicle with children. When there are children in the rear seat, use the window lockout switch to prevent operation of the windows. See *Keys* ⇨ 6.



The power windows work with the vehicle on. Using the window switch, press to open or pull to close the window.

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

Window Lockout

This feature prevents rear seat passengers from opening the rear windows.

To enable or disable this feature from the infotainment home screen, select Controls App > Power Window Lockout quick control.

Window Express Movement

This feature allows you to open all windows fully without holding the switches down. Press the switch down fully, then release to express open the window.

Pull the window switch up fully and quickly release to express close the window.

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

Window Automatic Reversal System

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

Automatic Reversal System Override



Warning

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

(Continued)

Warning (Continued)

injured and the window could be damaged. Before using automatic reversal system override, make sure that all people and obstructions are clear of the window path.

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

Programming the Power Windows

Programming may be necessary if the vehicle battery is disconnected or discharged. To program an express-close window:

1. Close all doors.
2. Turn the vehicle on.
3. Partially open the window you want to program, then close it and continue to pull the switch briefly after the window has fully closed.
4. Open the window and continue to press the switch briefly after the window has fully opened.

Remote Window Operation

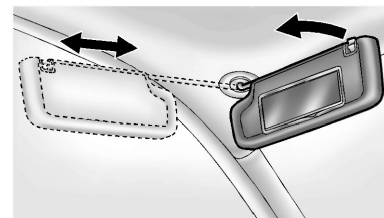
If equipped and enabled, this feature allows you to open all the windows remotely.

To view available settings and enable Remote Window Operation, from the infotainment home screen, touch Settings > Vehicle > Remote Lock, Unlock, Start.

To open the windows remotely, press twice and hold  on the remote key.

If equipped, all windows can also be closed using the remote key. To close all windows remotely, press twice and hold  on the remote key.

Sun Visors



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

Visor Vanity Mirror

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

Roof

Sunroof



1. Sunroof Switch
2. Sunshade Switch

If equipped, the sunroof only operates when the vehicle is on or in Service Mode or when Retained Accessory Power (RAP) is active. See *Power Modes* ⇨ 177.

Sunroof Switch Express-Open/Express-Close :

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

If a roof rack is installed, the sunroof may not be able to open or close. To prevent damage to the sunroof, do not continually try to open or close the sunroof while the roof rack is present.

Open/Close (Manual Mode) : To open the sunroof, press and hold  (1) until the sunroof reaches the desired position. Press and hold  (1) to close it.

Vent : From the closed position, press  (1) to vent the sunroof.

Sunshade Switch Express-Open/Express-Close : To express-open the sunshade, fully press and release  (2). To express-close the sunshade, fully press and release  (2). Press the switch again to stop it.

Open/Close : To open the sunshade, press and hold  (2) until the sunshade reaches the desired position. Press  (2) to close the sunshade.

When the sunroof is opened, an air deflector will automatically raise. The air deflector will retract when the sunroof is closed.

Comfort Position

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

Automatic Reversal System

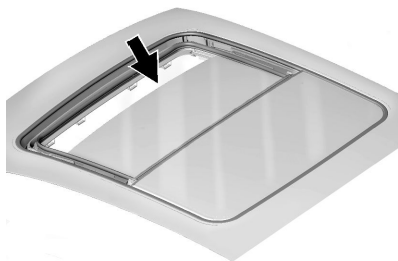
The sunroof has an automatic reversal system that is only active when the sunroof is operated in express-close mode.

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

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

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



Dirt and debris may collect on the sunroof seal or in the track. This could cause an issue with sunroof operation or noise. It could also plug the water drainage system.

Periodically open the sunroof and remove any obstacles or loose debris. Wipe the sunroof seal and roof sealing area using a clean cloth, mild soap, and water. Do not remove grease from the sunroof.

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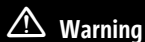
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Head Restraints

Front Seats



Warning

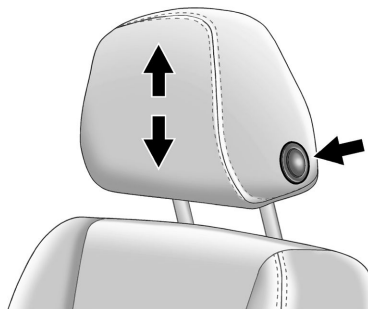
With head restraints that are not installed and adjusted properly, there is a greater chance that occupants will suffer a neck/spinal injury in a crash. Do not drive until the head restraints for all occupants are installed and adjusted properly.

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



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

The height of the head restraint can be adjusted.



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

The front seat outboard head restraints are not removable.

Rear Seats

Second Row Seats

The second row seats have adjustable head restraints in all three seating positions.

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



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

The second row head restraints are not removable.

Third Row Seats

The third row head restraints in the outboard seating positions that cannot be adjusted.

The third row head restraints are not removable.

The third row head restraints are designed to be folded.

When folding the seatback down, the head restraint will automatically fold out of the way as the seat is folded down.

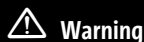
After returning the seatback to the seating position, return the lowered head restraint to the upright position until it locks in place. Push and pull on the head restraint to make sure it is locked.

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

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

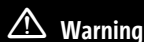
Front Seats

Power Seat Adjustment



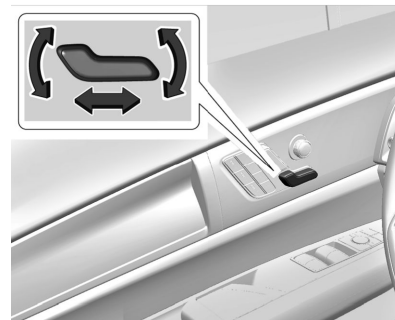
Warning

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 the seat:

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

The seats can also be adjusted from the front center display screen.

- Touch  Position and then select the desired adjustment on the seat image.
- To adjust the passenger seats, select Passenger.

Thigh Support Adjustment

To adjust thigh support from the front center display screen, touch  > Position > Adjustments and then select the desired adjustment on the seat image.

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.

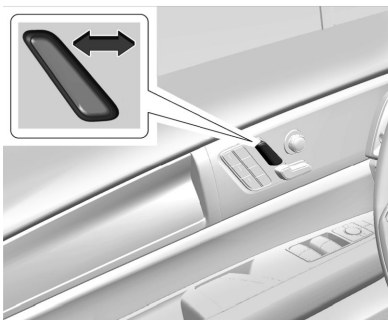
The shoulder belt will not be against your body. Instead, it will be in front of you. In a crash, you could go into it, receiving neck or other injuries.

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.



- Move the control back to recline.

- Move the control forward to raise.

To adjust the reclining seatbacks from the front center display screen, touch  > Position and then select the desired adjustment on the seat image.

Lumbar Adjustment



- Press and hold the front or rear of the control to increase or decrease lumbar support.
- If equipped, press and hold the top or bottom of the control to raise or lower lumbar support.

To adjust the lumbar feature from the front center display screen, touch  > Position > Adjustments and then select the desired adjustment on the seat image.

Bolster Support

To adjust bolster support from the front center display screen, touch  > Position > Adjustments and then select the desired adjustment on the seat image.

Shoulder Support Adjustment

To adjust shoulder support from the front center display screen, touch  > Position > Adjustments and then select the desired adjustment on the seat image.

Massage



Driver Seat Shown, Passenger Seat Similar

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

To activate and adjust massage using the door panel control:

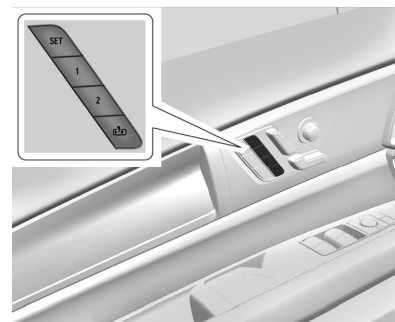
- Rotate the center of the control to activate the massage screen on the front center display screen.
- To turn massage off or to activate massage at last massage type and intensity settings, press the center of the control.

The massage feature will turn off after approximately 20 minutes. Press the center of the control to restart the massage feature.

To activate and adjust massage with the front center display screen, select  > Massage.

Select the options on the display for Driver or Passenger.

Memory Seats



If equipped, the memory seat feature allows drivers to save their unique driving positions and a shared exit position.

38 Seats and Restraints

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 a Driver Information Center 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 remote keys away from the vehicle.
2. Turn the vehicle on with another remote key. A Driver Information Center welcome message should display indicating the driver number of the other remote key. Turn the vehicle off and remove the other remote key from the vehicle.
3. Turn the vehicle on with the initial remote key. The Driver Information Center 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 Driver Information Center 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 chime will sound.
4. Immediately upon releasing SET, press and hold memory button 1 or 2 matching the current driver’s remote key number until two chimes sound. If too much time passes between releasing SET and pressing 1 or 2, the two chimes 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.

The seat positions can also be adjusted and saved from the front center display screen.

Touch  on the front center display screen, select the Position tab, then touch and hold the desired position type. See *Power Seat Adjustment* ⇨ 35.

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 > Driver 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 > Driver Seat Exit Memory > 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 the driver's 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, the driver's 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 driver's 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 the driver's 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

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- During Manual memory recall:
Release 1, 2, or  memory button
- During Auto Seat Entry Memory Recall:
Turn the 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

(Continued)

Warning (Continued)

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.



Heated and Ventilated Seat Buttons Shown,
Heated Seat Buttons Similar

If equipped, the buttons are located on the door panel. To operate, the vehicle must be on.

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

Press  or  to heat the driver or passenger seatback.

Press  or , if available, to ventilate the driver or passenger seat. A ventilated seat has a fan that pulls or pushes air through the seat. The air is not cooled.

When this feature is off, the heated and ventilated seat symbols on the buttons are white. When a heated seat is on, the symbol is red. When a ventilated seat is on, the symbol is blue.

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

The passenger seat may take longer to heat up. The heated and ventilated front seat controls can also be accessed by touching  on the front center display screen then selecting the Temperature tab. Additional heated and ventilated seat options can be selected by touching the seat image.

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 > Heated or Cooled/Ventilated Seats on Startup > 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, if equipped, is not turned on, the heated or ventilated seats may be canceled when the vehicle is turned on. 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 Heated Seats or Remote Start Auto Cooled/Ventilated Seats > ON or OFF. See *Remote Start* ⇨ 12.

Rear Seats

Rear Seat Reminder

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

This feature will activate when a second row door is opened while the vehicle is on or up to 10 minutes before the vehicle is turned on.

There will be the Driver Information Center message and an audible alert activated when the vehicle is turned off. The alert does not directly detect objects in the rear seat; instead, under certain conditions, it detects when a rear door is opened and closed, indicating that there may be something in the rear seat.

The feature is active only once each time the vehicle is turned on and off, and will require reactivation by opening and closing the second row doors. There may be an alert even when there is nothing in the rear seat; for example, if a child entered the vehicle through the rear door and left the vehicle without the vehicle being shut off.

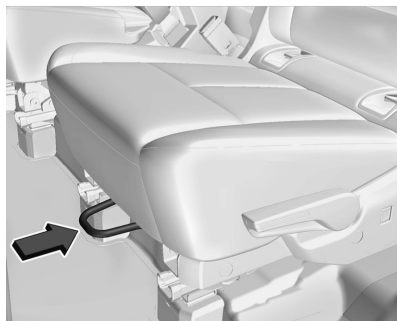
The feature can be turned on or off. Select Settings > Vehicle > Rear Seat Reminder > ON or OFF.

Second Row Seats

Rear Seat Adjustment

The second row seats slide forward for more room.

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Captain Seat Shown, Bench Seat Similar

To adjust the seat position:

1. Remove objects on the floor in front of or on the second row seat, or in the seat tracks on the floor.
2. Lift the lever below the seat cushion and slide the seat forward or backward.
3. Push and pull on the seatback to ensure the seat is locked in place.

Entering and Exiting the Third Row

Warning

Using the third row seating position while the second row is folded could cause injury in a sudden stop or crash. Be sure to return the seat to the passenger seating position. Push and pull on the seat to make sure it is locked into place.

Warning

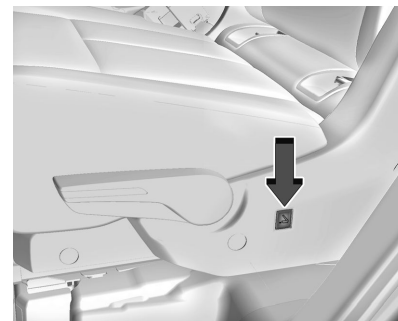
If the seatback and seat base are not locked, the seat could move forward in a sudden stop or crash and injure the occupant. Always push and pull on the seatbacks to be sure the seatback and seat base are locked.

Warning

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

To access the third row :

1. Remove objects on the floor in front of or on the second row seat, or in the seat tracks on the floor.
2. Make sure that the seat belt is unfastened and in the stowed position.



3. Press the switch on the side of the seat cushion.



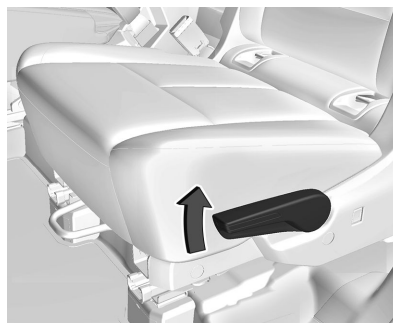
The second row seat can also be moved for third row exit by pressing the switch on the seatback of the second row seat.

To return the second row seat to its normal seating position:

1. Remove objects on the floor behind the second row seat or in the seat tracks on the floor.
2. Push rearward on the seatback until both the seatback and seat tracks are in a locked position.
3. Push and pull on the seatback to ensure the seatback and tracks are locked in place.

Reclining the Seatback

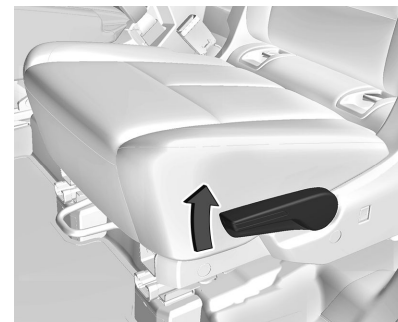
To recline the seatback:



1. Leaning rearward in the seat, pull the reclining seatback lever.
2. Move the seatback to the desired position, and then release the lever to lock the seatback in place.
3. Push and pull on the seatback to make sure it is locked.

Folding the Seatback

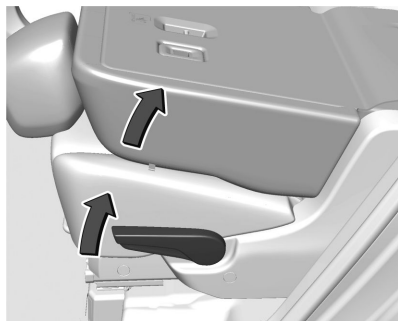
To fold the second row seatbacks from the second row seating area :



1. Remove anything on or under the seat.
2. Pull up on the reclining seatback lever. The seatback will move forward and fold flat on top of the cushion. Do not place anything on the seat during this operation.

44 Seats and Restraints

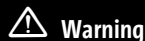
Returning the Folded Seat to the Seating Position



To return the second row seat to its normal seating position:

1. Remove objects on the floor behind the second row seat or in the seat tracks on the floor.
2. Lift the lever, lift the seatback, release the lever and push the seatback rearward until it locks into place. Push and pull on the seatback to make sure it is locked.
3. Check that the seat belt is not under the seat cushion.

Emergency Pull Strap



Warning

The emergency pull strap is designed for emergency use only. Do not use the emergency pull strap to manually incline the seat forward. Overuse of the emergency pull strap may cause damage to the strap and people in the third row could be injured.



Use the emergency pull strap only if the vehicle loses power. The emergency strap can be pulled from the second or third row seat to incline the seat forward for exit of a person in the third row.

To fold the second row seatbacks by using the emergency pull strap:

1. Remove anything on or under the seat.
2. Pull the strap on the seatback. Pull up on the reclining seatback lever. The seatback will move forward and fold flat on top of the cushion. Do not place anything on the seat during this operation.

Folding the Second Row Seats from the Cargo Area



To fold the seat from the cargo area:

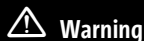
Make sure that there is nothing under, in front of, or on the seat.

Press the switch on the side trim of the cargo area to fold the second row seatback.

The left switch folds the left seatback, and the right switch folds the right seatback.

There are additional switches which can be used to fold the third row seatbacks from the cargo area. See *Third Row Seats* ⇨ 45.

Heated Rear Seats



Warning

If temperature change or pain to the skin cannot be felt, the seat heater may cause burns. See the Warning under *Heated and Ventilated Front Seats* ⇨ 40.

You can turn on the heated rear seats from the rear center display screen.

Select  or  to heat the seats.

Touch the icon once for the highest setting. With each touch of the icon, the seat will change to the next lower setting, and then to the off setting. The indicators 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 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 Heated Seats > ON or OFF. See *Remote Start* ⇨ 12.

Third Row Seats



Warning

Using the third row seating position while the second row is folded, or pushed forward in the entry position, could cause injury in a sudden stop or crash. Be sure to return the seat to the passenger seating position. Push and pull on the seat to make sure it is locked into place.



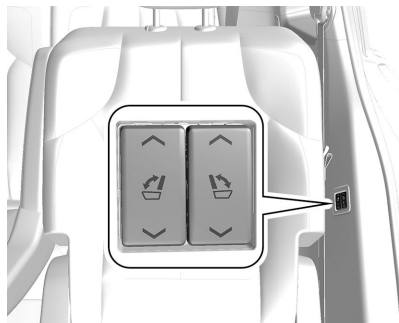
Warning

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.

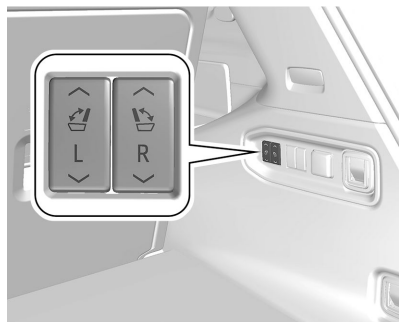
Power Seatback Folding

1. Remove objects on the floor in front of or on the third row seat, or in the seat tracks on the floor.
2. If the second row seat is in the full rear position, adjust it forward to allow the third row seat to fold fully flat.

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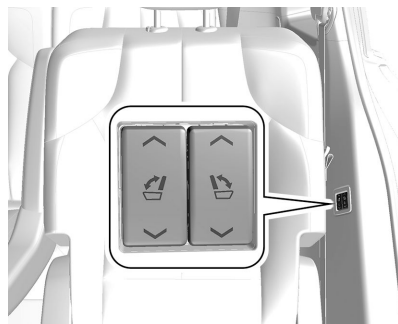


3. To fold the third row seatback from the second row seating area, press the seatback folding switch on the right or left side of the second row seating area.



4. To fold the third row seatback from the cargo area, press the seatback folding switch on the passenger side of the rear cargo area.
5. Repeat for the other seatback, if necessary.

Returning the Seat to the Seating Position



1. To return the seatback to the seating position from the second row seating area, press the seatback folding switch on the right or left side of the second row seating area.



2. To return the seatback to the seating position from the cargo area, press the seatback folding switch on the passenger side of the rear cargo area.

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.

3. Push and pull on the seatback to make sure it is locked in place.

4. Return the lowered head restraint to the upright position until it locks in place.

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.

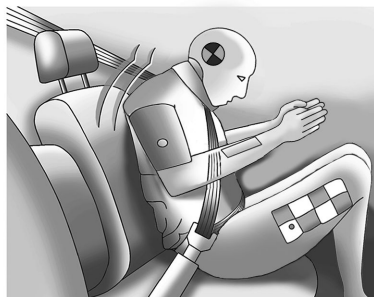
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Warning (Continued)

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* ⇨ 99.

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.

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Seats and Restraints

Buckle To Drive

If equipped, this feature delays the vehicle from shifting out of P (Park) when the driver seat belt is not buckled. The Buckle to Drive feature must be turned ON in the infotainment system to work. To turn the Buckle to Drive feature on or off, select Settings > Vehicle > Buckle to Drive. See *Teen Driver* ⇨ 154, if equipped.

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

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

passenger seat. If this happens, remove the object from the seat or buckle the seat belt to shift out of P (Park).

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

If the driver seat belt or the front passenger seat belt is unbuckled when driving, the seat belt reminder chime and light(s) will come on. See *Seat Belt Reminders* ⇨ 99. This feature may not function properly if the airbag readiness light is on. See *Airbag Readiness Light* ⇨ 100.

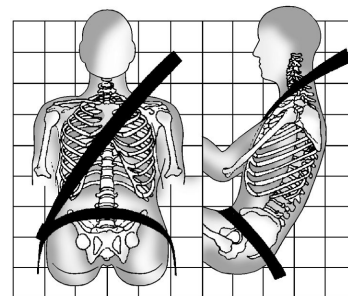
How to Wear Seat Belts Properly

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* ⇨ 65 or *Infants and Young Children* ⇨ 66. 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.

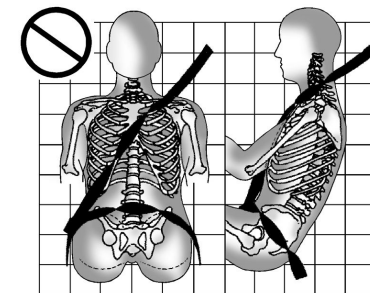
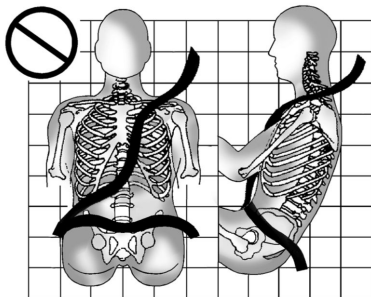


- Sit up straight and always keep your feet on the floor in front of you (if possible).
- Wear the lap part of the belt low and snug on the hips, just touching the thighs. In a crash, this applies force to the strong pelvic bones and you would be less likely to slide under the lap belt. If you slid under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

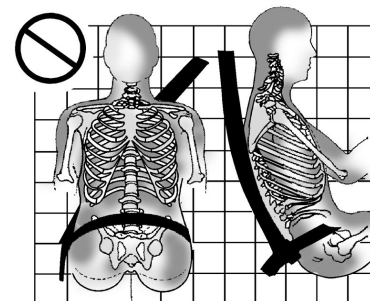
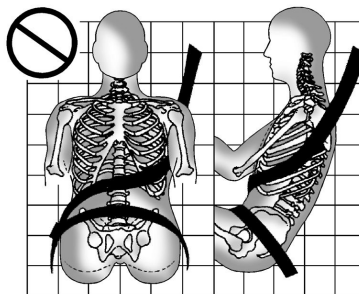
- Wear the shoulder belt over the shoulder and across the chest. These parts of the body are best able to take belt restraining forces. The shoulder belt locks if there is a sudden stop or crash.

 Warning

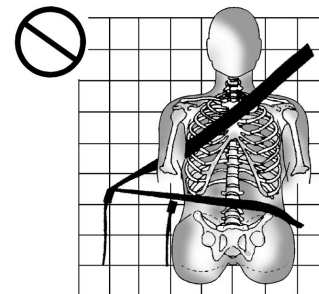
You can be seriously injured, or even killed, by not wearing your seat belt properly.



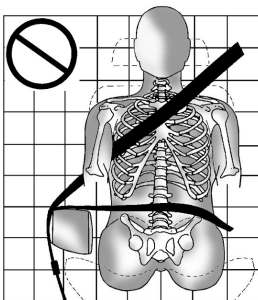
Never allow the lap or shoulder belt to become loose or twisted.



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

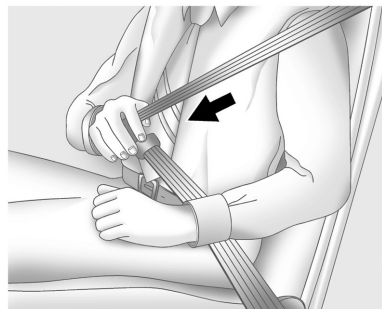
You can be seriously injured or killed if the shoulder belt is worn behind your back, under your legs, or wrapped around your neck. The shoulder belt can tighten but cannot be loosened if it is locked. The shoulder belt locks when it is pulled all the way out of the retractor. It unlocks when the shoulder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



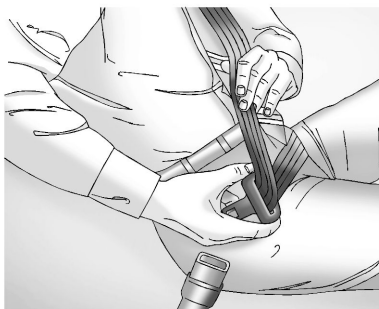
2. Pick up the latch plate and pull the belt across you. Do not let it get twisted.

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.

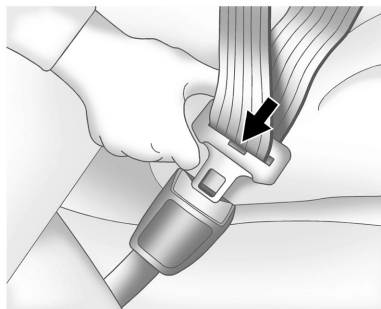
If the shoulder portion of a passenger belt is pulled out all the way, the child restraint locking feature may be engaged. See *Child Restraint Systems* ⇨ 68. If this occurs, let the belt go back all the way and start again. If the locking feature stays engaged after letting the belt go back to stowed position

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

If the shoulder portion of the driver belt is pulled out all the way, the shoulder belt retractor lock feature may be engaged. If this happens, 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.



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

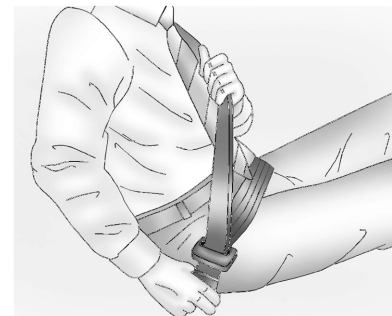


3. Push the latch plate into the buckle until it clicks.

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

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

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



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



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

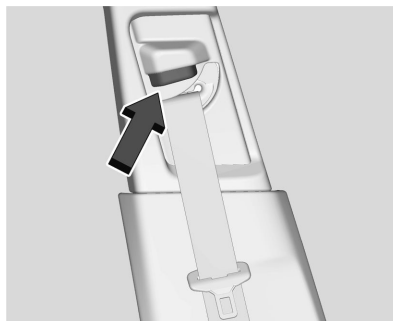
Always stow the seat belt slowly. If the seat belt webbing returns quickly to the stowed position, the retractor may lock and cannot be pulled out. If this happens, pull the seat belt straight out firmly to unlock the webbing, and then release it. If the webbing is still locked in the retractor, see 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 has a shoulder belt height adjuster for the driver and front outboard passenger seating positions.

Adjust the height so the shoulder portion of the belt is on the shoulder and not falling off 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* ⇨ 48.



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

Seat Belt Pretensioners

This vehicle has seat belt pretensioners for front row and second row outboard occupants. Although the seat belt pretensioners cannot be seen, they are part of the seat belt assembly. They can help tighten the seat belts during the early stages of a moderate to severe frontal, near frontal, or rear crash if the threshold

conditions for pretensioner activation are met. Seat belt pretensioners can also help tighten the seat belts in a side crash or a rollover event.

Pretensioners work only once. If the pretensioners activate in a crash, the pretensioners and probably other parts of the vehicle seat belt system will need to be replaced. See *Replacing Seat Belt System Parts After a Crash* ⇨ 54.

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

Rear Seat Belt Comfort Guides

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

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

Seat Belt Use During Pregnancy

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



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

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

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* ⇨ 99.

Keep seat belts clean and dry. See *Seat Belt Care* ⇨ 53.

Seat Belt Care

Keep belts clean and dry.

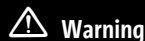
Seat belts should be properly cared for and maintained.

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* ⇨ 100.

Airbag System

The vehicle has the following airbags:

- A frontal airbag for the driver.
- A frontal airbag for the front outboard passenger.
- A knee airbag for the driver.
- A knee airbag for the front outboard passenger.
- A front center airbag for the driver and front outboard passenger.
- A seat-mounted side impact airbag for the driver.
- A seat-mounted side impact airbag for the front outboard passenger.
- A roof-rail airbag for the driver and for the second and third row passengers seated directly behind the driver.

- A roof-rail airbag for the front outboard passenger and for the second and third row passengers seated directly behind the front outboard passenger.

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

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

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

For the front center airbag, the word AIRBAG is on the inboard side of the driver seatback.

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?* ⇨ 57.

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

(Continued)

Warning (Continued)

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

Occupants should not lean on or sleep against the front center armrest or console in vehicles with a front center airbag.

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* ⇨ 65 or *Infants and Young Children* ⇨ 66.

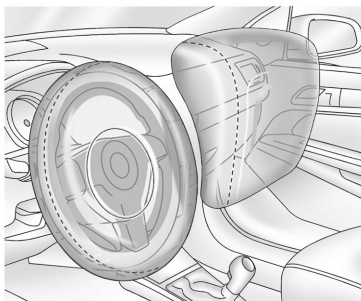


There is an airbag readiness light on the instrument cluster, which shows the airbag symbol.

The system checks the airbag electrical system for malfunctions. The light tells you if there is an electrical problem. See *Airbag Readiness Light* ⇨ 100.

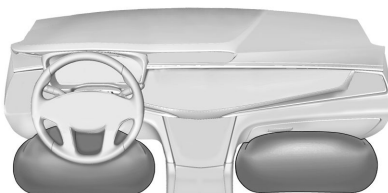
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Where Are the Airbags?



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.



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



The front center airbag is in the inboard side of the driver seatback.



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 for the second and third 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

(Continued)

Warning (Continued)

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

Do not use seat or console accessories that block the inflation path of a seat-mounted side impact airbag or the front center 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* ⇨ 54. Airbags are designed to inflate if the impact exceeds the specific airbag system's deployment threshold. Deployment thresholds are used to predict how severe a crash is likely to be in time for the airbags to inflate and help restrain the occupants. The vehicle has electronic sensors that help the

airbag system determine the severity of the impact. Deployment thresholds can vary with specific vehicle design.

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

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

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

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

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

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

The front center airbag is designed to inflate in moderate to severe side crashes depending on the location of the impact, when either side of the vehicle is struck. In addition, the front center airbag is designed to inflate when the sensing system predicts that the vehicle is about to roll over on its side. The front center airbag is not designed to inflate in frontal impacts, near frontal impacts, or rear impacts.

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

Roof-rail airbags are designed to inflate in moderate to severe side crashes depending on the location of the impact. In addition, these roof-rail airbags may inflate during a rollover or in a severe frontal impact. Roof-rail airbags

are not designed to inflate in rear impacts. Both roof-rail airbags may inflate when either side of the vehicle is struck or if the sensing system predicts that the vehicle is about to roll over on its side, or in a severe frontal impact.

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

What Makes an Airbag Inflate?

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

For airbag locations, see *Where Are the Airbags?* ⇨ 56.

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, second, and third 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?* ⇨ 57.

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

What Will You See After an Airbag Inflates?

After frontal, knee, and seat-mounted side impact airbags inflate, they quickly deflate, so quickly that some people may not even realize the airbags inflated. The front center airbag and 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?* ➔ 56.

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 have breathing problems but cannot get out of the vehicle after an airbag inflates, then get fresh air by opening a window or a door. If you experience breathing problems following an airbag deployment, you should seek medical attention.

The vehicle has a feature that may automatically unlock the doors, turn on the interior lights and hazard warning flashers

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 lights can be turned off, and the hazard warning flashers can be turned off using the controls for those features. If any of these systems are damaged in the crash they may not operate as normal.

Warning

A crash severe enough to inflate the airbags may have also damaged important functions in the vehicle, such as the 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,

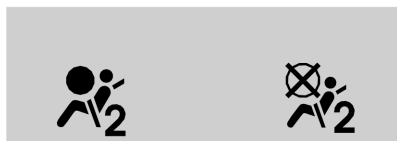
the high voltage battery is disconnected and the vehicle will not start. Before the vehicle can be operated again, it must be serviced at your dealer.

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* ➔ 339 and *Event Data Recorders* ➔ 340.
- 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 symbols for on and off, will be visible during the system check. When the system check is complete, either the symbol for on or off, will be visible. See *Passenger Airbag Status Indicator* ⇨ 101.

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

The passenger sensing system works with sensors that are part of the front outboard passenger seat and seat belt. The sensors are designed to detect the presence of a properly

seated occupant and determine if the front outboard passenger frontal airbag and knee airbag should be allowed to inflate or not.

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

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

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

Warning

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

Even if the passenger sensing system has turned off the front outboard passenger airbag(s), no system is fail-safe. No one can

(Continued)

Warning (Continued)

guarantee that an airbag will not deploy under some unusual circumstance, even though the airbag(s) are off.

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

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

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

When the passenger sensing system has turned off the front outboard passenger frontal airbag and knee airbag, the OFF indicator will light and stay lit as a reminder that the airbags are off. See *Passenger Airbag Status Indicator* ⇨ 101.

The passenger sensing system is designed to turn on the front outboard passenger frontal airbag and knee airbag, anytime the system senses that a person of adult size is sitting properly in the front outboard passenger seat.

When the passenger sensing system has allowed the airbags to be enabled, the ON indicator will light and stay lit as a reminder that the airbags are active.

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



Warning

If the airbag readiness light ever comes on and stays on, it means that something may be wrong with the airbag system. To help avoid injury to yourself or others, have the vehicle serviced right away. See *Airbag Readiness Light* ⇨ 100 for more information, including important safety information.

If the On Indicator Is Lit for a Child Restraint

The passenger sensing system is designed to turn off the front outboard passenger frontal airbag and knee airbag, if the system determines that an infant is present in a child restraint. If a child restraint has been installed and the ON indicator is lit:

1. Turn the vehicle off.
2. Remove the child restraint from the vehicle.
3. Remove any additional items from the seat such as blankets, cushions, seat covers, seat heaters, or seat massagers.
4. Reinstall the child restraint following the directions provided by the child restraint manufacturer and refer to *Securing Child*

Restraints (With the Seat Belt in the Rear Seat) ⇨ 79 *Securing Child Restraints (With the Seat Belt in the Front Seat)* ⇨ 81.

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* ⇨ 34.

6. Restart the vehicle.

The passenger sensing system may or may not turn off the airbags for a child in a child restraint depending upon the child's size. It is better to

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secure the child restraint in a rear seat. Never put a rear-facing child restraint in the front seat, even if the ON indicator is not lit.

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



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

1. Turn the vehicle off.

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

Warning

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

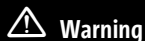
Additional Factors Affecting System Operation

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

A thick layer of additional material, such as a blanket or cushion, or aftermarket equipment such as seat covers, seat heaters, and seat massagers can affect how well the passenger sensing system operates. We recommend that you not use seat covers or other aftermarket equipment except when approved by GM for

your specific vehicle. See *Adding Equipment to the Airbag-Equipped Vehicle* ➔ 63 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**

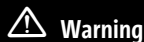
Stowing articles under the passenger seat or between the passenger seat cushion and seatback may interfere with the proper operation of the passenger sensing system.

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.

**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.

**Warning**

Safety procedures must always be observed when disposing of the vehicle or vehicle parts. Disposal should only be performed by an authorized service center, to help protect the environment and your health.

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, airbag wiring, or front center console
- 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* ⇨ 60.

If the vehicle has rollover roof-rail airbags, see *Different Size Tires and Wheels* ⇨ 297 for additional important information.

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

Airbag System Check

The airbag system does not need regularly scheduled maintenance or replacement. Make sure the airbag readiness light is working. See *Airbag Readiness Light* ⇨ 100.

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?* ⇨ 56. See your dealer for service.

Replacing Airbag System Parts After a Crash



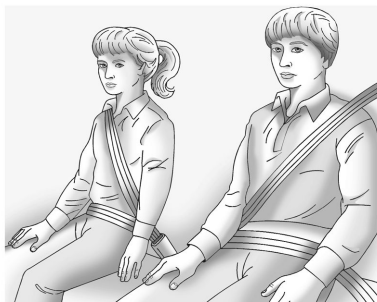
Warning

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* ⇨ 100.

Child Restraints

Older Children



Older children who have outgrown booster seats should wear the vehicle seat belts. See *How to Wear Seat Belts Properly* ⇨ 48.

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* ⇨ 50. 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* ⇨ 50.

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.

 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 passenger 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 a forward-facing child restraint must be secured in the front passenger seat, always move the front passenger seat as far back as it will go.

If a child restraint is installed in the second row center seat, move the second row seat to the rearward position, whenever possible, to minimize contact with the front center airbag.



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.

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

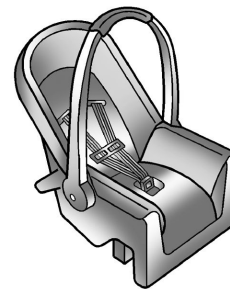
A young child's hip bones are still so small that the vehicle seat belt may not remain low on the hip bones, as it should. Instead, it

(Continued)

Warning (Continued)

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

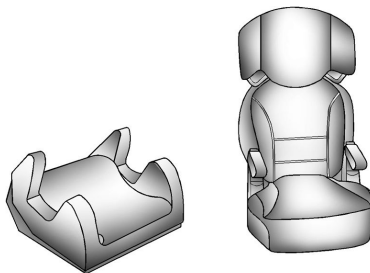
A rear-facing child restraint provides restraint with the seating surface against the back of the infant.

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



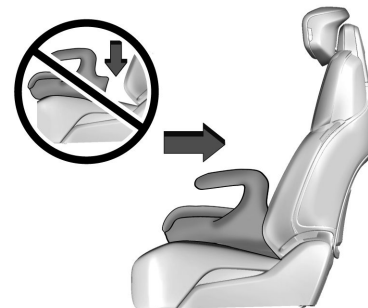
Forward-Facing Child Restraint

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* ⇨ 65.



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) ⇨ 72 for more information. 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.

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.

The vehicle is equipped with a front center airbag in the inboard side of the driver seat. Even with a front center airbag, a child restraint can be installed in any second row 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.

See *Passenger Sensing System* ⇨ 60 for additional information.

(Continued)

Warning (Continued)

If a child restraint is installed in a second row center seat, move the second row seat to the rearward position, whenever possible, to minimize contact with the front center airbag.

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.

Caution

Child restraints can scratch the surface and cause damage to the screens. Avoid contacting the screens with the child restraint.

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.

When installing a child restraint in an adjustable second row seating position, the seat should be adjusted fore or aft to ensure proper installation according to the child restraint manual. If the seat is able to recline, the seat back should be positioned to its full upright position before installing a child restraint.

**Warning**

To reduce risk of injury, adjust the reclining rear seat back to a near upright seating position according to the child restraint manufacturer instructions. The child restraint must rest against the seat back.

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 attached 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)* ⇨ 79 *Securing Child Restraints (With the Seat Belt in the Front Seat)* ⇨ 81.

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.

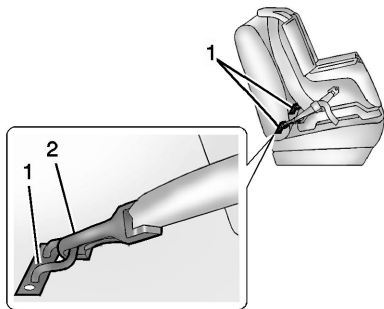
The following explains how to attach a child restraint with these attachments in the vehicle.

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*

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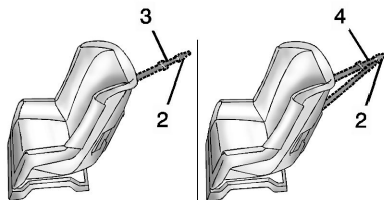
Restraints (With the Seat Belt in the Rear Seat)
 ⇨ 79 *Securing Child Restraints (With the Seat Belt in the Front Seat)* ⇨ 81.

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.

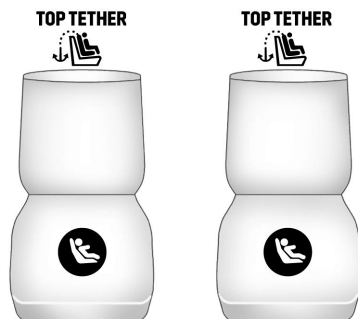
Lower Anchor and Top Tether Anchor Locations



To assist in locating the lower anchors, each second row anchor position has a label, near the crease between the seatback and the seat cushion.



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



Second Row - Captain's Chairs

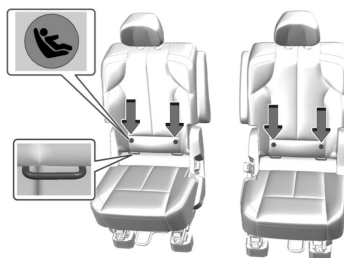
TOP TETHER



: Seating positions with top tether anchors.



: Seating positions with two lower anchors.

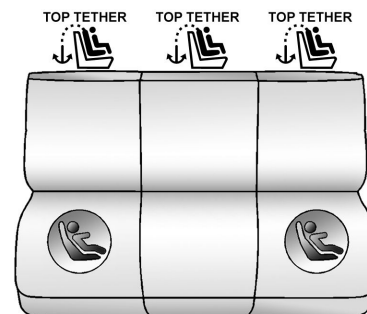


The lower anchors are located in the crease between the seatback and seat cushion.



The top tether anchors are on the rear of the seatback for each seating position in the second row.

Be sure to use an anchor located directly behind the seating position where the child restraint will be placed.



Second Row - 60/40 Bench

TOP TETHER

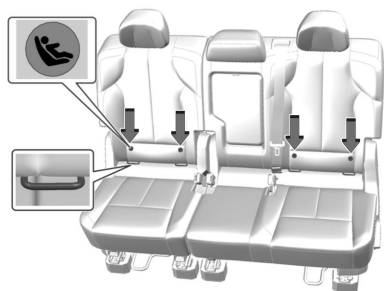


: Seating positions with top tether anchors.



: Seating positions with two lower anchors.

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The lower anchors are located in the crease between the seatback and 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)* ⇨ 79 *Securing Child Restraints (With the Seat Belt in the Front Seat)* ⇨ 81.



The top tether anchors are on the rear of the seatback for each seating position in the second row.

Be sure to use an anchor located directly behind the seating position where the child restraint will be placed.



Third Row



: Seating positions with top tether anchors.



The top tether anchors for each rear seating position are on the back of the rear seatback. Be sure to use an anchor located directly behind the seating position where the child restraint will be placed.

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

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

According to accident statistics, children and infants are safer when properly restrained in a child restraint system or infant restraint system secured in a rear seating position. See *Where to Put the Restraint* ⇨ 70 for additional information.

Securing a Child Restraint Designed for the LATCH System

Warning

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

Warning

To reduce the risk of serious or fatal injuries during a crash, do not attach more than one child restraint to a single anchor. Attaching more than one child restraint to a single anchor could cause the anchor or attachment to come loose or even break during a crash. A child or others could be injured.

Warning

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

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

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Caution

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

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

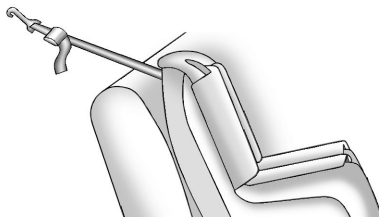
If you need to secure more than one child restraint in the rear seat, see *Where to Put the Restraint* ⇨ 70.

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

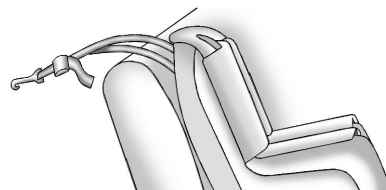
- 1.1 Find the lower anchors for the desired seating position.
- 1.2 Put the child restraint on the seat.
- 1.3 Attach and tighten the lower attachments on the child restraint to the lower anchors.

2. If the child restraint manufacturer recommends that the top tether be attached, adjust the top tether to its full length and attach it to the anchor. Refer to the child restraint instructions and the following steps:

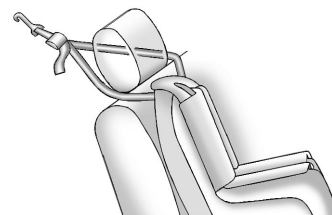
- 2.1 Find the top tether anchor.
- 2.2 Route, attach and tighten the top tether according to your child restraint instructions and the following instructions:



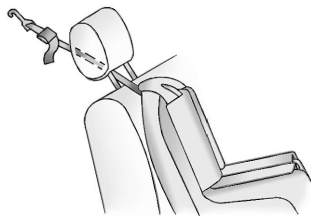
- If the position you are using does not have a headrest or head restraint and you are using a single tether, route the tether over the seatback.



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



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

3. Before placing a child in the child restraint, make sure it is securely held in place. To check, firmly grip the child restraint at the LATCH path and attempt to move it side to side and back and forth. There should be no more than 2.5 cm (1 in) of movement for proper installation.

Replacing LATCH System Parts After a Crash

Warning

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

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

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

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

The vehicle is equipped with a front center airbag in the inboard side of the driver seat. Even with a front center airbag, a child restraint can be installed in any second row seating position. If you install a child restraint in a second row center seat, move the second row seat to the rearward position, whenever possible, to minimize contact with the front center airbag.

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)* ⇨ 72 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

80 Seats and Restraints

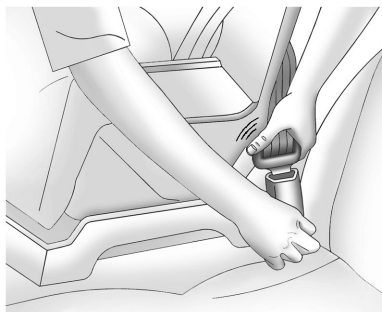
it uses a top tether, see *Lower Anchors and Tethers for Children (LATCH System)* ⇨ 72 for top tether anchor locations.

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)* ⇨ 72.

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.

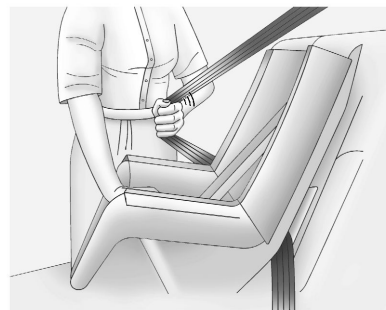
If more than one child restraint needs to be installed in the rear seat, be sure to read *Where to Put the Restraint* ⇨ 70.

1. Put the child restraint on the seat.
2. Pick up the latch plate and run the lap and shoulder portions of the vehicle seat belt through or around the 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.

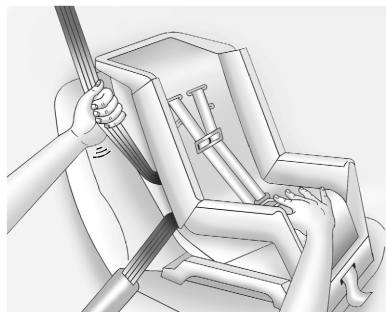


3. Push the latch plate into the buckle until it clicks.

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. Tighten the top tether. See *Lower Anchors and Tethers for Children (LATCH System)* ⇨ 72.
7. If the child restraint has a top tether, follow the child restraint manufacturer's instructions regarding the use of the top tether. See *Lower Anchors and Tethers for Children (LATCH System)* ⇨ 72.

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

To remove the child restraint, unbuckle the vehicle seat belt and let it return to the stowed position. If the top tether is attached to a top tether anchor, disconnect it.

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

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

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

This vehicle has airbags. A rear seat is a safer place to secure a forward-facing child restraint. See *Where to Put the Restraint* ⇨ 70.

In addition, the vehicle has a passenger sensing system which is designed to turn off the front outboard passenger frontal airbag and knee airbag under certain conditions. See *Passenger Sensing System* ⇨ 60 and *Passenger Airbag Status Indicator* ⇨ 101 for more information, including important safety information.

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



Warning

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

(Continued)

Warning (Continued)

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

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

Secure rear-facing child restraints in a rear seat, even if the airbag(s) are 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* ⇨ 60 for additional information.

If the child restraint uses a top tether, see *Lower Anchors and Tethers for Children (LATCH System)* ⇨ 72 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,

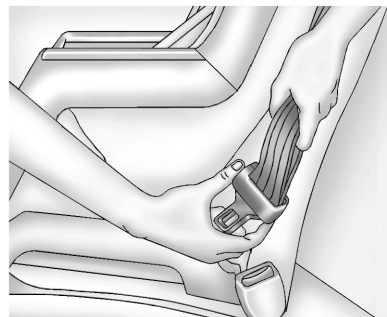
or if the instructions that come with the child restraint say that the top tether must be anchored.

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:

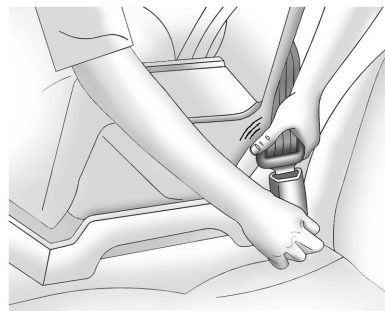
1. Move the seat as far back as it will go before securing the forward-facing child restraint. Move the seat upward or the seatback to an upright position, if needed, to get a tight installation of the child restraint.

When the passenger sensing system has turned off the front outboard passenger frontal airbag and knee 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* ⇨ 101.

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.

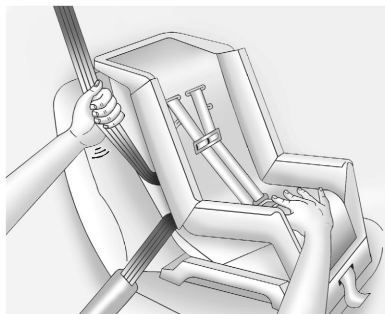


4. Push the latch plate into the buckle until it clicks.

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. Refer to your child restraint manufacturer's instructions.

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

If a child restraint has been installed and the on indicator is lit, see "If the On Indicator Is Lit for a Child Restraint" under *Passenger Sensing System* ⇨ 60.

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

84 Storage

Storage

Storage Compartments

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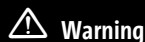
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Roof Rack System

Roof Rack System	86
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Storage Compartments



Warning

Do not store heavy or sharp objects in storage compartments. In a crash, these objects may cause the cover to open and could result in injury.

Glove Box

To open the glove box, press the Glove Box Release button on the controls home page of the infotainment screen or tap Controls > Doors & Windows > Glove Box Release.

If the vehicle is stationary, a Glove Box Release icon appears on the infotainment home screen. Tap the icon to open the glove box.

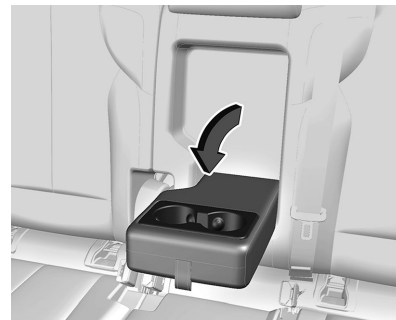
If the vehicle is off, you can still open the glove box. Press the volume button on the Multi-function Controller (MFC) to wake the infotainment home screen and access the virtual Glove Box Release button.

To close the glove box, push the glove box up until it latches.

If the 12-volt battery is dead, the glove box will not open. See *Jump Starting* ⇨ 299.

Cupholders

The front cupholders are in the center console.



If equipped, lower the armrest to access the rear cupholders.

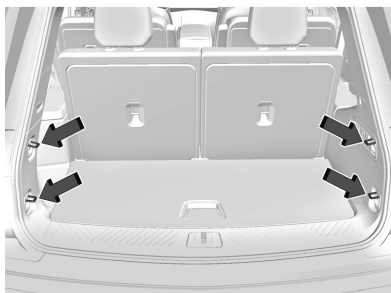
Center Console Storage



Lift the armrest up to access the storage area. There is a USB port. If equipped, the front of the console may also have an additional USB port.

Additional Storage Features

Cargo Tie-Downs

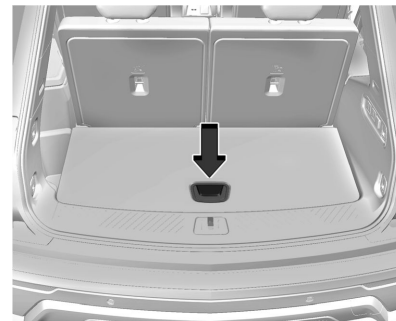


The vehicle has four cargo tie-downs in the rear compartment.

Cargo Management System

Caution

Overloading the cargo management system can cause damage to the vehicle. Do not place cargo that weighs more than 20 kg (44 lb) in the bin or on top of the plastic lid (if equipped).

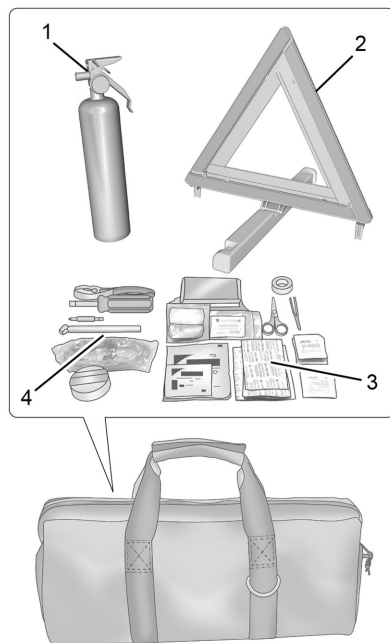


There is storage under the load floor.



Press the handle and pull up the load floor to access.

Safety Kit



The safety kit is a freestanding bag in the cargo area.

The items stored in the safety kit bag include:

1. Fire Extinguisher
2. Warning Triangle
3. First Aid Kit
4. Highway Safety Kit

Warning

Perform fire extinguisher maintenance in intervals specified by its manufacturer. Periodically check:

- The internal pressure is still indicated by the green operating zone of the pressure gauge.
- The lead seal is not breached.
- The extinguisher validity is not expired.

If the fire extinguisher is put to use or if there is an issue with its operation, replace the extinguisher with a new one that meets current country regulations.

Lack of proper maintenance may lead to injury or death if the fire extinguisher does not function properly.

Roof Rack System

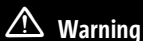
Warning

Before driving and occasionally during a trip, check that cargo is securely fastened, rests evenly between the cross rails and does not block the vehicle's lights or windows. Never load cargo directly on the roof of the vehicle or allow cargo to hang over the rear or sides of the vehicle. Never load cargo without first properly installing cross rails and other accessories designed to carry cargo. Personal injury, death or damage to the vehicle or other property may occur.

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

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

Cargo Weight Limits



Never load the roof rack with more weight than specified in this section. Loading cargo on the roof rack will make the vehicle's center of gravity higher. To avoid losing control of the vehicle, avoid overloading, high speeds, sudden starts, sharp turns, sudden braking, or abrupt maneuvers when carrying cargo on the roof rack.

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

The weight of any cargo carried on the roof rack system must be included in calculating the loaded weight of the vehicle. Do not exceed the maximum vehicle capacity when loading the vehicle, including cargo carried on the roof rack system and passengers and cargo carried

in the vehicle. For more information on vehicle capacity and loading, see *Vehicle Load Limits* ⇨ 173.

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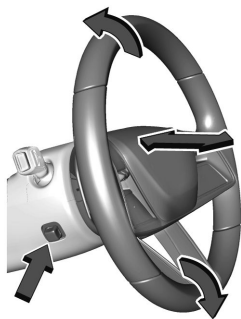
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Controls

Steering Wheel Adjustment

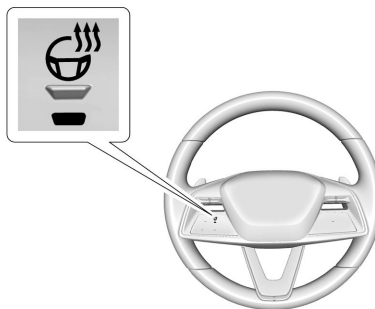


To adjust the power tilt and telescoping steering wheel:

1. Press the control up or down to tilt the steering wheel up or down.
2. Press the control rearward or forward to move the steering wheel closer or away from you.

Do not adjust the steering wheel while driving.

Heated Steering Wheel



 : Press to turn the heated steering wheel on or off. An indicator below the button is lit when the feature is turned on.

The steering wheel takes about three minutes to start heating.

Automatic Heated Steering Wheel

The heated steering wheel may turn on during a remote start along with the heated seats when it is cold outside. The heated steering wheel indicator may come on in remote start.

The heated steering wheel will turn on when the auto heated seat is activated. The heated steering wheel indicator will display the state of the steering wheel heat.

See *Heated and Ventilated Front Seats* ⇨ 40.

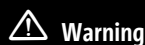
Horn

To sound the horn, press  on the steering wheel.

Pedestrian Safety Signal

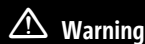
The vehicle is equipped with automatic sound generation. The automatic sound is generated to indicate the vehicle presence to pedestrians. The sound changes if the vehicle is speeding up or slowing down. It is activated when the vehicle is shifted into a forward gear, N (Neutral), or R (Reverse), up to driving speeds of 34 km/h (21 mph).

Windshield Wiper/Washer



Warning

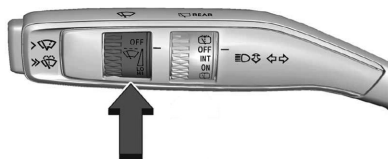
In freezing weather, do not use the washer until the windshield is warmed. Otherwise the washer fluid can form ice on the windshield, blocking your vision.



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.

This vehicle is equipped with Rainsense and 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.



With the vehicle on, turn the windshield wiper band to select the wiper speed.

OFF: Use to turn the wipers off.

LO: Use for slow wipes.

HI: Use for fast wipes.

Turn the band to select the frequency of intermittent wipes between OFF and LO.

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 *Wiper Blade Replacement* ⇨ 273.

Wiper Arm Assembly Protection

When using an automatic car wash, turn the windshield wiper band to OFF. This disables the automatic Rainsense windshield wipers.

With Rainsense, if the vehicle is in N (Neutral) and the speed is very slow, the wipers will automatically stop at the base of the windshield.

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

Windshield Washer



>  : For a single wipe, push the button on the side of the windshield to the first stop position briefly and then release. For several wipes, keep holding at the first stop position for longer and then release.

>>  : Push the button on the side of the windshield wiper lever all the way to the end, beyond the first stop position, to spray washer fluid and activate the wipers. When the button is released, additional wipes may occur

depending on how long the windshield washer had been activated. See *Washer Fluid* ⇨ 266 for information on filling the windshield washer fluid reservoir.

Wiper Parking

If the vehicle is turned off while the wipers are on LO or HI, 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 or Rainsense, the wipers continue to run until they reach the base of the windshield.

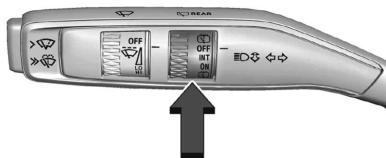
Heated Wiper Parking

If equipped, the heated wipers turn on when the rear window defogger is on and helps to clear frost from the wipers.

: This button is on the climate control panel.

See “Rear Window Defogger” under *Dual Automatic Climate Control System* ⇨ 159.

Rear Window Wiper/Washer



With the vehicle on, turn the rear window wiper band to adjust the setting.

OFF : Turns the wiper off.

INT : Turns on the rear wiper with a delay between wipes.

ON : Turns on the rear wiper.

 : Turn the band to = to spray washer fluid on the rear window. Release the band when done. See *Washer Fluid* ⇨ 266 for information on filling the windshield washer fluid reservoir.

The rear window wiper/washer will not operate if the liftgate is open or ajar. If the liftgate is opened while the rear wiper is on, the wiper returns to the parked position and stops.

Rear Wiper Arm Assembly Protection

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

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

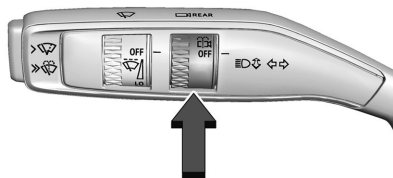
Auto Wipe in Reverse Gear

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

This feature can be turned on or off. See “Auto Wipe in Reverse Gear” under Settings > Vehicle > Comfort and Convenience > Auto Wipe in Reverse Gear.

The windshield washer reservoir is used for the windshield, rear window, and Camera, if equipped. See *Rear Camera Mirror* ⇨ 26. Check the fluid level in the reservoir if either washer is not working. See *Washer Fluid* ⇨ 266.

Rear Camera Washer



If equipped, turn the band to  to spray washer fluid on the rear camera lens. Release the band when done. See *Rear Camera Mirror* ⇨ 26.

Night Vision Camera Washer

When it is dark enough for the night vision system to operate, activate the front windshield washer five times to clean the camera sensor.

See *Night Vision System* ⇨ 234 for information on using the night vision system.

Compass

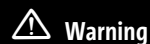
The vehicle may have a compass display on the Driver Information Center (DIC). The compass receives its heading and other information from the Global Positioning System (GPS) antenna, StabiliTrak/Electronic Stability Control (ESC), and vehicle speed information.

The compass system can operate for a limited distance or degrees of turn before needing an update from the GPS satellites. When the compass display shows CAL, drive the vehicle to a clear or open area. The system will automatically search for a GPS signal and provide a heading again when the link to the satellites is re-established.

Clock

Set the time and date using the infotainment system. See "Date/Time" under *Settings* ⇨ 152.

Power Outlets



Warning

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

Caution

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

Caution

Hanging heavy equipment from the power outlet can cause damage not covered by the vehicle warranty. The power outlets are designed for accessory power plugs only, such as cell phone charge cords.

Power Outlets 12-Volt Direct Current

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



The power outlet is located in the rear cargo area.

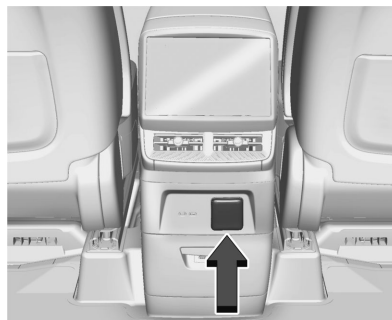
Lift the cover to access the outlet and replace when not in use.

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

When adding electrical equipment, be sure to follow the proper installation instructions included with the equipment. See *Add-On Electrical Equipment* ➤ 257.

Power Outlet 230-Volt Alternating Current

If equipped with this power outlet it can be used to plug in electrical equipment that uses a maximum limit of 400 watts.



The power outlet is on the rear of the center console.

An indicator light on the outlet turns on to show it is in use. The light comes on when the vehicle is on, equipment requiring less than 400 watts is plugged into the outlet, and no system fault is detected.

The indicator light does not come on when the vehicle is off or if the equipment is not fully seated into the outlet.

If equipment is connected using more than 400 watts or a system fault is detected, a protection circuit shuts off the power supply and the indicator light turns off. To reset the circuit, unplug the item and plug it back in or turn the Retained Accessory Power (RAP) off and then back on. See Retained Accessory Power (RAP). The power restarts when equipment using 400 watts or less is plugged into the outlet and a system fault is not detected.

The power outlet is not designed for and may not work properly, if the following are plugged in:

- Equipment with high initial peak wattage, such as compressor-driven refrigerators and electric power tools
- Other equipment requiring an extremely stable power supply, such as microcomputer-controlled electric blankets and touch sensor lights
- Medical equipment

Wireless Charging

Warning

Wireless charging may affect the operation of an implanted pacemaker or other medical devices. If you have one, it is recommended to consult with your doctor before using the wireless charging system.

Warning

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

On the rare occasion that the charging system does not detect an object, and the object gets wedged between the smartphone and charger, remove the smartphone and allow the object to cool before removing it from the charger, to prevent burns.

If equipped and enabled, the vehicle has up to 2 wireless chargers in the front of the center console storage bin. The system operates at 127.7 kHz and wireless charges one Qi compatible smartphone per charger. The power output of the system is capable of charging at a rate up to 3 amp (15 W), as requested by the compatible smartphone.

The vehicle must be on, in accessory mode, or Retained Accessory Power (RAP) must be active. The wireless charging feature may not correctly indicate charging when the vehicle is in RAP, during a Bluetooth phone call, or when phone projection (e.g., Apple CarPlay/Android Auto) is active. See *Power Modes* ⇨ 177.

The operating temperature is -40 °C (-40 °F) to 85 °C (185 °F) for the charging system and 0 °C (32 °F) to 35 °C (95 °F) for the phone. A charging stopped alert may be displayed on the infotainment screen, if the wireless charger or smartphone are outside of normal operating temperature. Charging will automatically resume when a normal operating temperature is reached.



To charge a compatible smartphone:

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

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

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

4. A green  appears on the infotainment display next to the phone icon when the smartphone is detected.

The smartphone may become warm during charging. This is normal. In warmer temperatures, your phone may take longer to charge.

Troubleshooting Wireless Charging

If a smartphone is placed on the charger and  appears, remove the smartphone and any objects from the pocket. Turn the smartphone 180 degrees and wait a few seconds before placing/aligning it on the pocket again.

If a smartphone is placed on the charger and  appears, the charger and/or the smartphone is overheated. Remove the smartphone and any objects from the charger in order to cool the system.

For vehicles with wireless phone projection, the smartphone may overheat during wireless charging. The smartphone may slow down, stop charging, or shut down to protect the

battery. The phone may need to be removed from its case to prevent overheating. The  may flash while the phone is cooling down enough for wireless charging to automatically resume. This is normal. Individual phone performance may vary.

Certain vehicle and smartphone accessories may not be compatible with the wireless charging system. See your dealer for additional information.

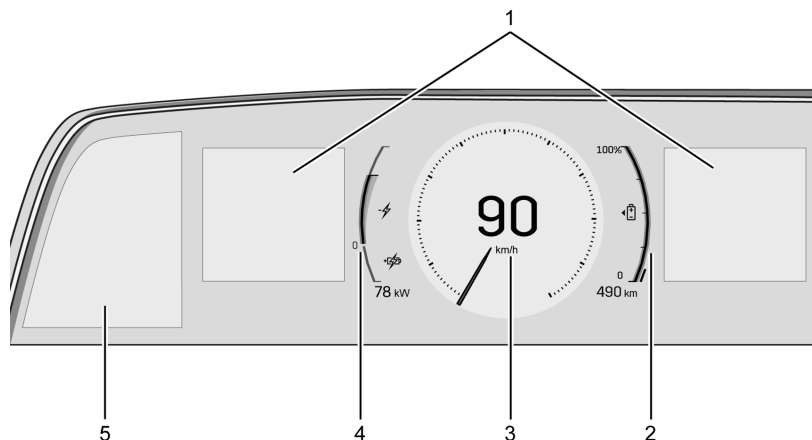
Warning Lights, Gauges, and Indicators

Warning lights, gauges, and indicators can alert you to an issue with your vehicle. Some warning lights display briefly to show that they are working when you start the vehicle. However, if a warning light persists while driving, or if a gauge shows there may be a problem, be sure to refer to the sections under “Warning Lights, Gauges, and Indicators.”

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

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Instrument Cluster



Tour Mode Gauge View Shown, Others Similar

1. Driver Information Center (DIC) ⇨ 115
2. Battery Gauge (High Voltage) ⇨ 98
3. Speedometer ⇨ 97
4. Power Indicator Gauge ⇨ 99
5. Control Panel. See “Control Panel” later in this section.

Reconfigurable Instrument Cluster

The instrument cluster display layout can be changed. There are two display configurations to choose from based on the driver mode selected: Tour and Sport. To see how to change the Driver Mode, see “Mode Activation” under *Driver Mode Control* ⇨ 189.

- Tour configuration displays the speedometer in the center of the display. The battery gauge is located on the right of the speedometer and the power indicator gauge is on the left of it. There are two Driver Information Center (DIC) areas on the left and right of the display.
- Sport configuration displays the speedometer in the center of the display. The battery gauge is located below the speedometer and the power indicator gauge is above it. There are two Driver Information Center (DIC) areas on the left and right of the display.

The following are selectable views:

Gauge: Displays information zones to the left and right of the speedometer.

Energy: Displays the energy usage of the vehicle.

Map: Displays a navigation map.

Assist: If equipped, displays information for Adaptive Cruise Control (ACC), Follow Distance, Lane Keep Assist (LKA), Forward Collision Alert (FCA), and Super Cruise. There is one information zone to the right of the display. There are two gauges located on the bottom of the display.

Clean: Displays no information zones.

Night Vision: If equipped, displays the Night Vision camera onto the instrument cluster. See Night Vision System.

To change the cluster configuration, touch  on the control panel to the left of the instrument cluster. Select the desired option from the list.

Selecting a different view could hide the vehicle status displayed in the information zones on the cluster. Once a view with information zones is selected, the last selected vehicle status will be displayed. See *Driver Information Center (DIC)* ⇨ 115 and *Vehicle Status* ⇨ 116.

Control Panel

There is a touchscreen to the left of the instrument cluster. Use it for the following:

List Page

Touch  to view and select the available list options. View options by swiping right or left on the touchscreen.

Lane Keep Assist (LKA)

If equipped, touch  to select the available Lane Keep Assist (LKA) options. See Lane Keep Assist (LKA).

Headlights

If equipped, touch  to select the available headlight options. See Headlight Controls.

Head-Up Display (HUD)

If equipped, touch HUD to select the height and brightness of the head-up display. See Head-Up Display (HUD).

Trip Information

Touch TRIP to view distance and efficiency for the trip. View other trip information by swiping right or left on the touchscreen.

Touch and hold to reset the trip.

Night Vision

If equipped, touch NIGHT VISION to select the sharpness and brightness of the night vision. See Night Vision System.

Display Settings

The following options can be turned on or off using the infotainment display. Some may not be available for your particular vehicle. See *Settings* ⇨ 152.

Speed Sign

Shows sign information from a roadway database in the onboard navigation. The sign will show “--” when there is no detected speed limit or the system is unavailable.

Turn-by-Turn Graphics

Provides Turn-by-Turn navigation graphics during an active route in your driver display.

Speedometer

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

This vehicle is equipped with an overspeed warning device. When the vehicle's speed reaches 120 km/h (75 mph), an audible alert will sound. A message also displays in the Driver Information Center. See *Vehicle Speed Messages* ⇨ 120.

Odometer

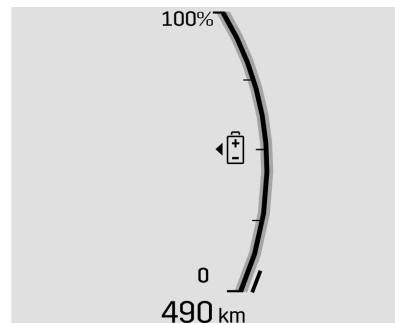
The odometer displays the distance the vehicle has been driven, in either kilometers or miles.

Trip Odometer

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

Access and reset the trip odometer through the control panel near the instrument cluster. See *Instrument Cluster* ➞ 96.

Battery Gauge (High Voltage)



Tour Mode Gauge View Shown, Others Similar

This displays the high voltage battery state of charge. The value at the bottom is an estimate of how far the vehicle can be driven on the remaining charge based on recent driving habits, conditions, and HVAC usage.

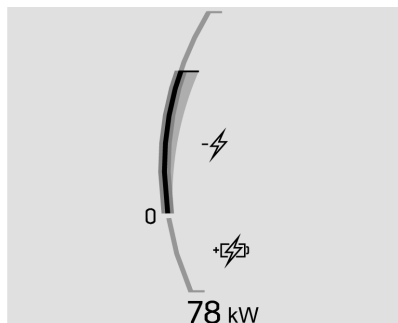
The fill bars shown inside of the gauge indicate the percentage range as estimated from current vehicle conditions and climate settings. The range estimate may be affected by climate settings, current vehicle conditions,

and ambient conditions. Estimated range may increase and decrease based on climate control energy consumption.

Driving aggressively through hard acceleration and/or braking events, excessive HVAC usage, using heated or cooled seats, battery preconditioning, and performance modes can affect vehicle range estimates.

When the high voltage battery state of charge level gets low, the gauge will change color to amber. When the charge is very low, the estimated range value will change to LOW. Additional alerts may display and a sound may also be heard at low state of charge.

Power Indicator Gauge



Tour Mode Gauge View Shown, Others Similar

The power indicator gauge is in the center of the display to the left of the speedometer in the Tour mode gauge view.

This gauge displays the instantaneous charge and consumption power of the high voltage battery. Maximum power consumption is available when the high voltage battery is fully charged. During normal operation, a slight reduction in consumption power may occur as the high voltage battery state of charge decreases.

Regenerative Braking

When regenerative (regen) braking is active, the regen battery icon displays and will fill the lower section of the gauge. The power indicator gauge value shows the amount of instantaneous power being regenerated.

Regenerative Power Limited

Regenerative power may be limited when the high voltage battery is near full charge or cold. This will affect the vehicle's maximum regenerative braking power.

Seat Belt Reminders

Driver Seat Belt Reminder Light

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



When the vehicle is started, or if the driver remains or becomes unbuckled while the vehicle is moving, this light flashes and an audible alert sounds to alert the driver to fasten

their seat belt. The light will then display solid until the driver seat belt is buckled. This cycle may continue several times until the driver seat belt is buckled. If the driver seat belt is buckled, the light will not display and audible alert will not sound.

Front Passenger Seat Belt Reminder Light

This vehicle may have a front passenger seat belt reminder light near the passenger airbag status indicator. See *Passenger Sensing System* ⇨ 60.



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

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several times until the front passenger seat belt is buckled. If the front passenger seat belt is buckled, the light will not display and the audible alert will not sound.

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

Second and Third Row Passenger Seat Belt Reminder Light

This vehicle may have second and third row passenger seat belt reminder lights.



When the vehicle is started and not moving, and if a rear passenger has not buckled their seat belt, the light will display solid. If a rear passenger remains or becomes unbuckled while the vehicle is moving, this light flashes and an audible alert sounds to alert the rear passengers to fasten their seat belt.

An **X** indicates the seat belt is not buckled. A **✓** 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.

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

Airbag Readiness Light

This light shows if there is an electrical problem with the airbag system. It is located in the instrument cluster. The system check includes the airbag sensor(s), the passenger sensing system, the pretensioners, the airbag modules, the wiring, and the crash sensing and diagnostic module. For more information on the airbag system, see *Airbag System* ⇨ 54.



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* ⇨ 60 for important safety information. The passenger airbag status indicator is in the overhead console.



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

If the on symbol is lit on the passenger airbag status indicator, it means that the front outboard passenger frontal airbag and knee airbag are allowed to inflate.

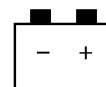
If the off symbol is lit on the airbag status indicator, it means that the passenger sensing system has turned off the front outboard passenger frontal airbag and knee airbag.

If, after several seconds, both status indicator lights remain on, 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* ⇨ 100 for more information, including important safety information.

Charging System Light (12-Volt Battery)



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

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

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

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Low State of Charge Light



This light displays amber when the vehicle state of charge is low. Proceed to a charging station to charge the vehicle.

Charge Cord Connected Light



This light displays when a charge cord is connected to the vehicle.

Battery Fault Light



This light displays when there is a fault with the high voltage battery. A message may also display in the Driver Information Center (DIC). See your dealer for service.

Propulsion Power is Limited Light



These lights display when vehicle propulsion power is limited. The vehicle is drivable, but the ability to accelerate the vehicle may be reduced.

Service Vehicle Soon Light (Propulsion System Failure)



This light displays to indicate there may be an issue with your vehicle. See your dealer for service as soon as possible.

Brake System Warning Light



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

If the light stays on, have the brake system inspected immediately. This light may display if the brake fluid is low. See *Brake Fluid* ⇨ 268. If the light displays 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 displays. The brake pedal might be harder to push, or the brake pedal may go closer to the floor. It could take longer to stop. If the light is still on, have the vehicle towed for service. See *Transporting a Disabled Vehicle* ⇨ 302.

Electric Parking Brake Light

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

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

Service Electric Parking Brake Light

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

If this light stays on or displays while driving, there is a problem with the Electric Parking Brake. Take the vehicle to a dealer as soon as possible. In addition to the parking brake, other safety functions that use the Electric Parking Brake may also be affected. A message may also display in the Driver Information Center. See *Electric Parking Brake* ⇨ 184.

Antilock Brake System (ABS) Warning Light

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

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

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

See *Brake System Warning Light* ⇨ 102.

Service All-Wheel Drive Light

eAWD

This light displays amber when the electric All-Wheel Drive System is limited, and will turn off when the system is working normally.

If this light displays red, there may be a malfunction. See your dealer.

See *All-Wheel Drive* ⇨ 183.

Automatic Vehicle Hold (AVH) Light

AUTO
HOLD

This light displays when Automatic Vehicle Hold is actively holding the vehicle. See *Automatic Vehicle Hold (AVH)* ⇨ 186.

Lane Keep Assist (LKA) Light



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

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

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

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

Lane Centering Assistance Light



If equipped, this light displays the Lane Centering Assistance status.



If equipped, this light displays when you need to take control.

See *Super Cruise* ⇨ 203.

Automatic Emergency Braking (AEB) Disabled Light



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

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

See *Automatic Emergency Braking (AEB)* ⇨ 228.

See *Front Pedestrian Braking (FPB) System* ⇨ 232.

Vehicle Ahead Indicator



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

See *Forward Collision Alert System*.

Pedestrian Ahead Indicator



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

See *Front Pedestrian Braking System*.

Traction Off Light



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

The traction off light displays when the Traction Control System has been turned off. When StabiliTrak/Electronic Stability Control is turned off, the Traction Control System is also turned off. To turn the Traction Control System and StabiliTrak/Electronic Stability Control off and on, see *Traction Control/Electronic Stability Control* ⇨ 187.

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

Traction Control System (TCS)/ Electronic Stability Control Light



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

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

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

See *Traction Control/Electronic Stability Control* ⇨ 187.

Electronic Stability Control (ESC) Off Light



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

This light displays when the StabiliTrak/Electronic Stability Control system is turned off. When StabiliTrak/Electronic Stability Control is off, the Traction Control System is also off. To turn StabiliTrak/Electronic Stability Control off and on, see *Traction Control/Electronic Stability Control* ⇨ 187.

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

Driver Mode Control Light



This light displays when you select Sport mode.



This light displays when you select Snow/Ice mode.



This light displays when you select My Mode.



If equipped, this light displays when you select Velocity Max mode.

See *Driver Mode Control* ⇨ 189.

Four-Wheel Steering Light



This light displays amber when Rear-Wheel Steering is off.



This light displays amber when Four-Wheel Steering is active.

See *Four-Wheel Steering* ⇨ 190.

Air Suspension Light



This light displays when the vehicle is raised to increased ground clearance height.

It flashes green to indicate that the vehicle is raising the ride height.



This light displays when the vehicle is lowered to lowered height.

It flashes green to indicate that the vehicle is lowering the ride height.



This light displays when the vehicle is in Service mode or Alignment mode.

It flashes green to indicate that the vehicle is raising the ride height.



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This light comes on when the air suspension is lowered for easy entry and exit from the vehicle.

See *Air Suspension* ⇨ 191.

Tire Pressure Light



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

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

If the Light Stays On

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

A Driver Information Center tire pressure message may also display. Stop as soon as possible and inflate the tires to the pressure value shown on the Tire and Loading Information label. See *Tire Pressure* ⇨ 287.

If the Light Flashes and Then Remains On

If the light flashes for about a minute and then stays on, there may be a problem with the Tire Pressure Monitor System. If the problem is not corrected, the light will display every time the vehicle is started. See *Tire Pressure Monitor Operation* ⇨ 291.

Security Light



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

If the light stays on and the vehicle does not start, there could be a problem with the theft-deterrent system. See *Immobilizer Operation* ⇨ 23.

Vehicle Ready Light



The vehicle ready light displays when the vehicle is ready to be driven.

High-Beam On Light



This light displays when the high-beam headlights are in use. See *High-Beam Systems* ⇨ 123.

Automatic High-Beam Light

If equipped, this light displays when the IntelliBeam system is enabled. See *High-Beam Systems* ⇨ 123.

Service Headlight System Indicator

If equipped, this light displays when there is a problem with the Headlight system.

Lights On Reminder

This light displays when the exterior lights are in use. The light will not display when only the Daytime Running Lights are active. See *Headlight Controls* ⇨ 123.

Cruise Control Light

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

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

Adaptive Cruise Control Light

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

Curve Speed Control Light

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

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

See *Adaptive Cruise Control* ⇨ 193.

Super Cruise Light



If equipped, this light displays the Super Cruise status. See *Super Cruise* ⇨ 203.

Driver Attention Assist Light



If equipped, this light displays amber when:

- Drowsiness assistance is not available
- Driver Attention Assist has been disabled

See *Driver Attention Assist* ⇨ 241.

Door Ajar Light



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

Information Displays

Charging

Important Information about Electric Vehicle Charging

Danger

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.

(Continued)

Danger (Continued)

- 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.
- Charging an electric vehicle (EV) and increased charging rates can stress a building's electrical system more than a typical household appliance.
- Before plugging the charge cord into an electrical outlet for the first time, have a qualified electrician inspect and verify the electrical system (electrical outlet, wiring, junctions, and protection devices) for heavy-duty service at a 12 amp continuous load.

- Check electrical outlets often, as they may wear out with normal use or become damaged over time, making them unsuitable for EV charging.
- Check the electrical outlet/plug while charging. If the electrical outlet/plug appears hot, discontinue using it immediately and have the electrical outlet serviced by a qualified electrician.
- When charging outdoors, use an electrical outlet that is weatherproof.
- Mount the charging cord to reduce strain on the electrical outlet/plug.
- Do not place the charge cord in a position where there is risk of it being submerged in water.

Charging App

The Charging app provides access to features which help you to review and manage charging preferences.

To launch the Charging app from the infotainment home screen, select the Charging icon. There are three selections to choose from: Next Charge, Schedule, and Settings. When you launch Charging for the first time, the Next Charge screen will display.

Next Charge

To view the current charging status in the infotainment screen, select .

On the Next Charge screen, you can review information for the next charging session and specify if you want to Charge Now or Charge Later.

Charge Now

Charge Now is the default charging mode for your vehicle. The vehicle begins charging immediately when it is plugged in and authenticated at the charging location.

With Charge Now selected, the screen displays:

- Text indicating that the vehicle will charge immediately when plugged in
- The estimated time at which the vehicle will reach the desired charge level
- Target Charge Level Gauge: The percentage at which the vehicle will stop charging. The gauge also displays an estimate of the vehicle's range upon completing the charging session.

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* ⇨ 171 for important information about driving on grades.

The default charge level is 80% when plugged in to protect battery life. To set a different charge level, drag the circular marker on the Target Charge Level Gauge to the preferred value. To lower the desired charge level, drag the Charge Level marker counterclockwise, and to increase it drag the marker clockwise. The charge level can also be changed by selecting  and  inside the gauge on the screen. The range estimate updates once the desired

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charge level is set. To optimize battery health, the minimum allowable charge level is determined by the vehicle.

Charge Later

Instead of charging immediately to a desired charge level, you may choose to delay the charge to the vehicle and have it completed by your desired departure time. This may be a more economical choice and a more efficient use of energy when charging at home. To use this mode, touch Charge Later on the Next Charge screen.

With Charge Later selected, the screen displays:

- Text indicating that your vehicle will delay charging to be ready by the time specified
- The ability to set the desired time at which the vehicle will finish charging and be ready for departure
- Target Charge Level Gauge: Ability to set the percentage at which the vehicle will stop charging. The gauge also displays an estimate of the vehicle's range upon completing the charging session.

- Preconditioning: Ability to heat or cool the cabin to your desired temperature using energy from the charger. Energy from the battery is not used to condition the cabin, ensuring the vehicle gets the maximum range from the charging session. Preconditioning happens at the end of the charge, and right before the departure time.

To set the time at which the vehicle will complete the charge and be ready for departure:

Drag each value up or down within the time selector until the preferred time is selected. If the desired charge level cannot be reached by the selected time, a message will display that one of the two preferences must be adjusted.

To adjust the desired charge level in Charge Later mode, see "Charge Now" earlier in this section.

Setting the Preconditioning preference:

Select the switch to turn on Preconditioning. The Preconditioning temperature can be adjusted by selecting Preconditioning on this screen, or in Settings.

Active Charging

For information on the vehicle battery and charging, see *Plug-In Charging* ⇨ 244.

During an active charging session, the Charging screen displays and continuously updates the following items:

- The current charging status
- The range the vehicle is capable of driving at the current charge level
- Range accumulation per hour of charging
- The estimated time at which the vehicle will reach the desired charge level
- The current amount of power provided by the charging station
- The maximum amount of power your vehicle is able to charge at
- Target Charge Level Gauge: The current charge level value represented as a percentage and a colored section of the circular gauge.

To update the desired charge level for the active charging session, drag the marker on the Target Charge Level Gauge.

If the charge coupler is locked, the Stop Charge button will display. Selecting the Stop Charge button at any time ends the active charging session.

For Level 1 and Level 2 chargers, you can also select the appropriate charge cord limit for your location. This determines how much current can flow from an electrical outlet to the vehicle battery. It also ensures proper charge time estimates.

When the charge cord limit is changed to the highest setting on a 120-volt circuit a notification is displayed.

If no Home Location is set, the Level 1 cord limit will revert to the lowest setting every time the vehicle is shifted out of (P) Park.

Range and charge time estimates fluctuate depending on a number of factors such as charge cord level/limit, battery temperature, and outside air temperature.

The peek-in charging screen can be used to monitor your vehicle's charge status when the vehicle is off, see *Instrument Cluster* ⇨ 96. To monitor the charging status remotely, download the myCadillac app on your mobile device.

Fast Charging

If equipped, the vehicle will immediately begin charging when plugged into a fast charge station. While fast charging, the vehicle will bypass any schedule or departure time selection. See *Plug-In Charging* ⇨ 244.

Schedule

Select  to schedule a custom charging plan for each day of the week. When the vehicle is plugged in at the Home Location, the Schedule feature will automatically charge to the desired charge level and precondition the cabin by the time set in the Schedule. This feature acts as a more customizable Charge Later setting than the one on the Next Charge screen.

Creating a Schedule

To create a schedule, touch Create Schedule. If there is no Home Location set, you will be prompted to create one.

The Charging Schedule dialog displays:

- Days of the week.
- A value selector for setting the desired charge level.
- A time selector for setting the time the vehicle will reach the desired charge level.

- Preconditioning: Allows the vehicle to heat or cool the cabin to the desired temperature by using energy from the charger.
- An **X** allowing you to close the Charging Schedule screen.
- Save & Close button: Applies any changes made and exits the dialog.

Days can be assigned to the schedule. Days of the week are represented in toggles containing their first letter. Touching each day illuminates the graphic, confirming that day is assigned that to the schedule. Touching a second time unassigns days from this schedule, dimming the toggle once again. Select all days you wish to adhere to the settings in this schedule. If there are multiple charge schedules, days must be unassigned from their current schedule before they can be assigned to a new one.

Once completed with the charging schedule, select the Save & Close button to finish creating the schedule.

On days that are not assigned a schedule, the vehicle will begin charging to 80% as soon as it is plugged in, unless otherwise specified on the Next Charge screen.

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Home Charge Schedule can be turned ON or OFF. To enable or disable all charging schedules, select the toggle switch next to Home Charge Schedule on the Schedule screen.

Modifying and Deleting Charge Schedules

To modify a schedule, select the card on the Schedule screen. This will open a screen. Make the desired changes and select the Save & Close button when finished. To delete the schedule, select the Delete Schedule button and confirm your decision when prompted.

Charge Settings

To view and change the Charge Settings, select



Use this screen to set vehicle charging preferences. Touching any item will display options for specifying their behavior.

The Settings screen displays:

Home Location

With a Home Location set, the vehicle can determine whether it is plugged in at home and will charge according to any existing schedules. The Home Location can be changed or deleted at this screen.

The wireless service and GPS satellite technologies must be available and operating for features to function properly. These systems may not operate if the battery is disconnected, or if the vehicle has been off for an extended period. If GPS is unavailable, a message displays on the infotainment screen. GPS functionality may resume after the next time you drive the vehicle.

Notifications

This section contains on/off preferences for multiple notifications triggered during the Charging session.

Charge Status Feedback: When on, your vehicle will chirp to accompany changes in the charging status.

Charge Cord Unplugged Alert: If equipped, when on and your vehicle is locked and connected to a portable cord (120-volt) charger, the horn will sound and the headlights will flash if the charge cord becomes unplugged.

Charge Power Loss Alert: When on, your vehicle will chirp for an extended period if charging power is cut off.

Headlight Charge Status Indicator: If equipped, when on, your vehicle's headlights will show the charging status. As the battery charges,

more LED bars within the headlights will turn on. The headlights will automatically turn off when charging is complete.

Fast Charge Prep

If equipped, adjusts the battery to the optimal temperature for quicker Fast Charging. This should be done before charging at a Fast Charger.

Depending on the outside and battery temperature, battery conditioning could take longer to reach the optimal temperature.

Preconditioning Temperature

Allows you to set the preferred cabin temperature. During a planned charging session at the Home Location, the vehicle cabin is warmed or cooled to this temperature if set to ON in either the Charge Later screen or in an active Schedule.

Preferred Charge Times

Allows you to enable preferred charge time windows for the Home Location during both weekday and weekend planned charging sessions. It does so whether the vehicle is set to Charge Later or observing a scheduled charge. This allows for charging at a lower cost

by prioritizing charging during the electrical provider's off-peak period. The vehicle will use these times to reach the desired charge level by the scheduled time. If the vehicle cannot reach the desired charge level within these times, it will charge as needed outside of this time window.

Driver Information Center (DIC)

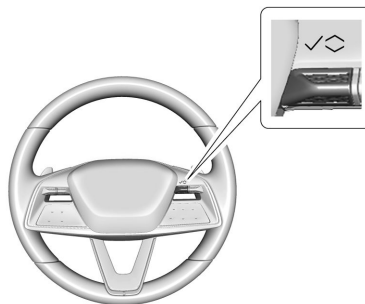
Driver information is displayed in the instrument cluster. It shows the status of many vehicle systems.

Information is broken down into three main zones:

Control Panel: A touchscreen display to left of the instrument cluster.

Left Zone: Displays on the instrument cluster to the left of the speedometer.

Right Zone: Displays on the instrument cluster to the right of the speedometer.



^ or v : Use to scroll to the previous or next selection.

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

Information Display Options

Select which info display to view by selecting Add to Driver Display in the Vehicle Status on the infotainment display. See *Vehicle Status* ⇨ 116.

Information Displays

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

Control Panel

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

The Average Efficiency shows the approximate average kWh per 100 kilometers (kWh/100 km), kilometers per kilowatt hour kWh (km/kWh), or miles per kilowatt hour kWh(mi/kWh). This number is calculated based on the number of kWh/100 km, km/kWh, or mi/kWh recorded since the last time this menu item was reset. This number only reflects the approximate average electrical energy economy that the vehicle has at that moment, and changes as driving conditions change.

Current Trip: If equipped, displays distance driven and average efficiency since vehicle startup. It resets when you turn your vehicle off.

Left Zone

Time/Date: Displays current date and time information. If equipped, Air Quality information is shown below date and time information. Air Quality shows the measured

Particulate Matter (PM2.5), along with the status of the air quality. This indicates how clean or polluted outdoor air is. Higher numbers indicate more pollutants and a greater potential for adverse health effects.

Auto Lane Change: Displays the status of a driver-requested lane change when Super Cruise is active. See *Super Cruise* ⇨ 203.

Tire Pressure: Displays the approximate pressures of all four tires. Tire pressure is displayed in either kilopascal (kPa) or in pounds per square inch (psi). If the pressure is low, the value for that tire is shown in amber. See *Tire Pressure Monitor System* ⇨ 290 and *Tire Pressure Monitor Operation* ⇨ 291.

Energy Usage: Displays energy usage of the Driving, Remote Climate, and Climate and Fast Charge Prep vehicle systems as percentages of overall vehicle energy use.

Energy Efficiency: Displays a graph showing the energy efficiency that has been used by the vehicle over a recently driven distance.

Right Zone

Audio Now Playing: Displays the actively playing audio.

Navigation: Displays a variety of navigation information.

Phone: Displays a variety of call information.

Vehicle Status

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

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

Touch Add to Driver Display to send the desired content to the Driver Information Center (DIC) on the instrument cluster. Touch Remove from Display to remove the selected content from the instrument cluster. See *Driver Information Center (DIC)* ⇨ 115.

Options

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

Overview

Displays an interactive image of your vehicle that shows performance and health information.

Tires

Tire Pressure: Displays the approximate pressures of all four tires. Tire pressure is displayed in either kilopascal (kPa) or in pounds per square inch (psi). If the pressure is low, the value for that tire is shown in amber. See *Tire Pressure Monitor System* ⇨ 290 and *Tire Pressure Monitor Operation* ⇨ 291.

The following options may be chosen: Relearn Sensors and Add to Driver Display.

Energy Info

Energy Usage: Displays how energy is being used for the current drive since the last time the vehicle was started. Percentages of the Driving, Remote Climate, and Climate and Fast Charge Prep vehicle systems as overall vehicle energy use are shown. When selected, distance driven, total energy, energy usage bar diagram, and selectable categories are displayed. Select a category to learn more about how your vehicle uses energy from the battery.

Add to Driver Display may be chosen.

Energy Efficiency: Displays a graph showing the energy efficiency that has been used by the vehicle over a recently driven distance. When selected, regenerated range, and instant efficiency is shown along with average efficiency in the dialog.

Add to Driver Display may be chosen.

Air Quality

Displays the measured Particulate Matter (PM_{2.5}), along with the status of the air quality. This indicates how clean or polluted outdoor air is. Higher numbers indicate more pollutants and a greater potential for adverse health effects. When Air Quality Index numbers are high, close your vehicle's windows and doors, set your climate system to Auto, and turn on air recirculation. Air Quality Index displays all of the possible measurement ranges, along with the status that is attributed to those ranges. The following options may be chosen: Air Quality Index and Add to Driver Display.

Head-Up Display (HUD)

If equipped with Augmented Reality HUD, vehicle information will be projected in two areas on the windshield. The near plane will display information like speed and indicator lights. The far plane will display dynamic content like navigation and alerts over the road ahead during certain situations.



Warning

If the HUD image is too bright or too high in your field of view, it may take you more time to see things you need to see when it is dark outside. Be sure to keep the HUD image dim and placed low in your field of view.

Caution

If you try to use the HUD image as a parking aid, you may misjudge the distance and damage your vehicle. Do not use the HUD image as a parking aid.

Polarized sunglasses can make the HUD image harder to see.

The HUD information can be displayed in various languages. The speedometer reading and other numerical values can be displayed in either English or metric units.

The language selection and the units of measurement are changed through the infotainment screen. See *Settings* ⇨ 152.

Depending on how the vehicle is equipped, the HUD may display the following vehicle information, messages, or alerts:

- Speed
- Phone
- Navigation
- Driver Assistance Features
- Vehicle Messages

Some vehicle messages or alerts displayed in the HUD may be cleared by using the steering wheel controls.

HUD Controls

If equipped, the HUD controls are located on the instrument cluster touchscreen to the left of the steering wheel. There are two screens to select from, swipe to alternate. The HUD power

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on/off button is located next to the Brightness controls. This feature may only be available in P (Park).

To adjust the HUD image:

1. Adjust the driver seat to your optimal driving position.
2. Start the vehicle.
3. Select HUD on the touchscreen to the left of the steering wheel.
4. Swipe to the controls screen and use the Rotation and Height icons to adjust the HUD to a position that is level with the ground and the entire image is fully visible and clear.
5. The HUD image will automatically dim and brighten to compensate for outside lighting. Adjust as needed using the Brightness icons.

Only the near plane image can be adjusted for height and rotation. The far plane is fixed. Sometimes moving your seat position higher can improve view of far plane.

The HUD image can temporarily light up depending on the angle and position of sunlight on the HUD image. This is normal.

HUD Views

If equipped, you can select certain content to view on the HUD using the controls. There are three views to choose from. All views display information in the near plane. Some views only show dynamic information in the far plane during certain situations. Some vehicle information and vehicle messages or alerts are available in all views. Critical alerts may display in the HUD, even when it is turned off.

All Views (Near Plane): Displays the speedometer, speed limit, incoming calls, alerts, and select indicators, see *Symbols* ⇨ 2. If a route is active using on-board navigation, the Augmented Reality view will display Turn-by-Turn navigation instructions.

Standard View (Far Plane): Displays Turn-by-Turn navigation instructions when in an active route using on-board navigation. If no route is set, the far plane will not display any information.

Augmented Reality View (Far Plane): Displays augmented reality graphics and text that corresponds to the real world in certain situations, including:

- Imminent Collision Alert triangle

- Lane Change on Demand, if equipped with Super Cruise
- Navigation directions, when in an active route
- Driver Assistance features, including Lane Keep Assist and gap adjustment

Assist View (Far Plane): Displays driver assistance graphics to show system status when features are active and Turn-by-Turn navigation instructions when in an active route using on-board navigation.

Care of the HUD

Clean the inside of the windshield to remove any dirt or film that could reduce the sharpness or clarity of the HUD image.

Clean the HUD lens with a soft cloth sprayed with glass cleaner. Wipe the lens gently, then dry it.

HUD Troubleshooting

If you cannot see the HUD image when the vehicle is on, ensure that:

- Nothing is covering the HUD lens.
- The HUD brightness setting is not too dim or too bright.

- The HUD is adjusted to the proper height and rotation.
- You are not wearing polarized sunglasses.
- The windshield and HUD lens are clean.

If you continue to experience problems with the HUD, contact your dealer.

The windshield is part of the HUD system. See *Windshield Replacement* ⇨ 274.

Vehicle Messages

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

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

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

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

If a SERVICE message appears, see your dealer.

The system may display messages concerning:

- Service Messages
- Fluid Levels
- Vehicle Security
- Brakes
- Ride Control Systems
- Advanced Driver Assistance Systems
- Cruise Control
- Lighting and Bulb Replacement
- Wiper/Washer Systems
- Doors and Windows
- Seat Belts
- Airbag Systems
- Propulsion

- Tire Pressure
- Battery
- Steering

Propulsion Power Messages

REDUCED ACCELERATION DRIVE WITH CARE

A message displays when the vehicle's propulsion power is reduced. A reduction in propulsion power can affect the vehicle's ability to accelerate. If this message is on, but there is no observed reduction in performance, proceed to your destination. Under certain conditions, the performance may be reduced the next time the vehicle is driven. The vehicle may be driven while this message is on, but maximum acceleration and speed may be reduced. Anytime this message stays on, or displays repeatedly, the vehicle should be taken to your dealer for service as soon as possible.

This message can be displayed when the high voltage battery charge level is low. This is normal behavior as the vehicle is limiting power due to reduced battery capability.

Under certain operating conditions propulsion will be disabled. Try restarting after the vehicle has been off for two minutes.

PROPULSION POWER REDUCED DUE TO TEMPERATURE

A message displays when the vehicle is on, the battery temperature is low, and the vehicle power is limited. The duration of the limited vehicle performance depends, in part, on the high voltage battery charge level. If the high voltage battery charge level is relatively high, as the vehicle is driven, the battery temperature will increase, and the vehicle will return to normal operation. If the high voltage battery charge level is relatively low the vehicle will not return to normal operation until charged.

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.

Vehicle Speed Messages

SPEED LIMITED TO XXX KM/H (MPH)

This message shows that the vehicle speed has been limited to the speed displayed. The limited speed is a protection for various propulsion and vehicle systems, such as lubrication; thermal; brake; suspension; tire; or, if equipped, Teen Driver.

Universal Remote System

Universal Remote System Programming

The Universal Remote System can replace up to eight remote control transmitters (remote controls), such as garage door openers, security systems, and home automation devices. These instructions address garage door openers, but will work for other devices, too.

Do not use the Universal Remote System with any garage door opener that does not have the stop and reverse feature. This includes any garage door opener model manufactured before April 1, 1982.

Keep the original hand-held transmitter for use in other vehicles and future programming and erase the system if you terminate vehicle ownership. See “Erasing Universal Remotes” later in this section.

Programming the Universal Remote System

Programming involves time-sensitive steps. You must complete these steps within the allotted time, or you will have to repeat programming.

Read these instructions completely before programming the Universal Remote System. It may help to have another person assist with the programming process.

1. If your garage door opener includes a hand-held transmitter, make sure it has a new battery for quick and accurate transmission of the radio-frequency signal.
2. Clear all people and objects away from the garage door.
3. Park your vehicle outside and directly facing the garage door opener receiver. The vehicle must remain in P (Park) for the entire duration of the programming.

4. From the Controls menu, select Universal Remotes > Add Remote.

Depending on the vehicle, access the Controls menu from either the infotainment home screen or the front center console.

5. If you have a hand-held transmitter, make sure to press Yes to continue to the next step.

If your garage door opener does not include a hand-held transmitter, press either D-Mode (mostly used in North America), or UR-Mode (mostly used in Europe, Mideast, and Asia), and jump to “D-Mode and UR-Mode Based Programming” later in this section.

Hand-Held Transmitter Based Programming

Once you press Yes for the hand-held transmitter, you should see a screen with Searching for Signal.

6. While Searching for Signal is displayed, press and hold the hand-held transmitter button about 3 to 8 cm (1 to 3 in) away from the rear-view mirror. Do not release the button until Signal Found displays.

If Signal Found does not display after 45 seconds, press  and return to Step 4 to try again.

Some garage door openers require a modification to Step 6. See “Radio Signals for Some Gate Operators” later in this section.

7. Once Signal Found displays, press the Test button. You may need to press it several times, as some garage door openers require multiple valid signals when programming.

8. If your garage door moves, press the It Worked button to confirm programming was successful and end the process.

If programming was not successful, you can return to Step 4 and try again or follow additional steps described in “D-Mode and UR-Mode Based Programming” later in this section. You can also consult with HomeLink by jumping to “Contact HomeLink” later in this section.

D-Mode and UR-Mode Based Programming

If supported, you may be able to program D or UR mode garage door receiver remotes.

9. Locate the Learn or Smart button on the garage door opener receiver in the garage. The name and color may vary by manufacturer but is usually located near the antenna wire. If you have any difficulty finding the button, refer to the garage door opener manufacturer’s instructions.

10. Press and release the Learn or Smart button on the garage door opener receiver, then complete the next step within 30 seconds of pressing the button. If it takes longer than 30 seconds, press the button again.

11. Return to the vehicle and press the Test button on the screen. You may need to press the Test button several times. If your garage door moves, then programming was successful. Press the It Worked button to confirm programming was successful and end the process.

If programming was not successful, you may retry steps above by pressing the It Didn’t Work button or consult with HomeLink by jumping to “Contact HomeLink” later in this section.

Contact HomeLink

For questions or programming help, visit www.homelink.com/gm.

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Using Universal Remotes

After successfully programming your Universal Remote, you can change the name and location of the remote as desired by selecting  next to the remote on the screen. Be sure that you are nearby your programmed garage door opener when you select Update Location.

Each successfully programmed remote creates a shortcut icon. Tap the desired shortcut icon to operate the remote. You can press and drag icons to reposition them on the screen as desired.

Erasing Universal Remotes

To erase an individual programmed Universal Remote, select  next to the remote on the screen you wish to erase. Then select Delete.

To erase ALL programmed Universal Remotes, select  next to any remote on the screen. Then select Delete All.

Radio Signals for Some Gate Operators

Some gate operators and radio-frequency laws require transmitter signals to time out after several seconds of transmission.

This may not be long enough for the Universal Remote system to pick up the signal during programming. If programming did not work, replace Step 6 under “Programming the Universal Remote System,” previously in the section, with the following:

Press and release the hand-held transmitter button every two seconds until Signal Found appears on the screen. Continue to Step 7 to complete programming.

Universal Remote System Operation

Using the Universal Remote System

Press the desired Universal Remote button on the infotainment screen or the front center console, depending on the vehicle.

Reprogramming a Single Universal Remote System Button

To reprogram any of the system buttons:

1. Select the universal remote to be reprogrammed.
2. Select “Delete.”

3. Select “Add Remote.” Follow the instructions in *Universal Remote System Programming* ⇨ 120.

Lighting

Exterior Lighting

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Exterior Lighting

Headlight Controls

The headlight control is located in the control panel area of the instrument cluster. See *Instrument Cluster* ⇨ 96.

Touch the Headlights  icon, then select any of the following options.

Off: Turns off the exterior lights.

Auto: Enables the automatic headlight system, which controls the exterior lights and instrument panel lights depending on outside lighting. See *Automatic Headlight System* ⇨ 125.

: Turns on the parking lights, taillights, and license plate lights.

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

Headlights can also be activated in the Controls & Safety app. On the infotainment home screen, 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, select  > 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

Manual High-Beam Controls

High/Low-Beam Changer

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

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

Flash-to-Pass

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

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Automatic High-Beam System — IntelliBeam

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

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

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

Turning the IntelliBeam System On and Off

To enable the IntelliBeam system, 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 Headlight control  is set to Auto or . See *Headlight Controls* ➔ 123.

To disable the system, either select  > Auto High Beams > Off, or turn on the manual high beams with either the high/low-beam changer or flash-to-pass.

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  appears in the instrument cluster when the high beams are on.

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

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

- The vehicle speed drops below 20 km/h (12 mph).
- The outside light is bright enough that high-beam headlights are not required.
- The system detects an approaching vehicle's headlights.
- The system detects a preceding vehicle's taillights.
- The IntelliBeam system is manually disabled.
- The headlight control is set to Off or Parking .

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

- The other vehicle's lights are missing, damaged, obstructed from view, or otherwise undetected.
- The other vehicle's lights are covered with dirt, snow, and/or road spray.

- The other vehicle's lights cannot be detected due to dense exhaust, smoke, fog, snow, road spray, mist, or other airborne obstructions.
- The vehicle windshield is dirty, cracked, or obstructed by something that blocks the view of the light sensor.
- The vehicle is loaded such that the front end points upward, causing the light sensor to aim high and not detect headlights and taillights.
- The vehicle is being driven on winding or hilly roads.

Headlights Off Reminder

A warning chime sounds if the driver door is opened when the vehicle is off and the headlights are on.

Daytime Running Lights

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

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

When Daytime Running Lights Turn On

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

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

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

When Daytime Running Lights Turn Off

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

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

Automatic Headlight System

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

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

- If it is dark enough outside, the system turns on the exterior lights—such as headlights, taillights, parking lights, and license plate lights—and the interior instrument panel lights.
- If it is bright enough outside, the system turns off the exterior lights and instrument panel lights, and may turn on the Daytime Running Lights (DRL).

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

Low Light Conditions During Daylight Hours

When driving through a parking garage, tunnel, or heavy overcast weather, the automatic headlight system may sense a low light level and turn on the headlights. This is normal.

If the vehicle is started in a dark garage, the headlights come on immediately. If it is light outside when the vehicle leaves the garage, there is a slight delay before the automatic headlight system switches over the headlights to DRL. During that delay, the instrument cluster may not be as bright as usual. Make sure

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Lighting

the instrument panel brightness control is in the full bright position. See *Instrument Panel Illumination Control* ⇨ 127.

Location of Light Sensor

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

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

Lights On with Wipers

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

Set the headlight control to Off or Parking  to disable this feature.

Headlight Leveling Control

Automatic Headlight Leveling Control

If equipped, headlight leveling automatically adjusts based on the vehicle load to reduce glare for other drivers.

Dynamic Automatic Headlight Leveling Control

If equipped, headlight leveling automatically adjusts based on vehicle's angle, which is determined by the road and vehicle conditions.

Hazard Warning Flashers



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

The hazard warning flashers work even when the vehicle is turned off, and turn on automatically if the airbags deploy.

When the hazard warning flashers are on, the turn signals do not work.

Turn and Lane-Change Signals

Raise or lower the turn signal lever until the arrow on the instrument cluster starts to flash in the corresponding direction. See *Instrument Panel Overview* ⇨ 4.

Changing Lanes: Hold the lever in place until you complete the lane change. Let go of the lever and it returns to its starting position.

If you raise or lower the lever quickly then release it, the turn signal flashes three times.

If you change lanes without using the turn signal, the Lane Keep Assist system, if equipped, may respond. See *Lane Keep Assist (LKA)* ⇨ 242.

Turning Corners: Move the lever all the way up or down so that it stays in place when you let go. When you complete the turn, bringing the steering wheel back to center will automatically turn off the turn signal.

If the steering wheel did not turn far enough, the turn signal will remain flashing until you move the lever back to its starting position.

Turn Signal On Alert

If you leave the turn signal on for more than 1.2 km (0.75 mi), an audible alert sounds at each flash of the turn signal. The message TURN SIGNAL ON also appears in the Driver Information Center. To turn off both the audible alert and message, move the turn signal lever back to its starting position.

Turn Signal Not Working Normally

If the indicator arrow flashes rapidly when using the turn signal, an exterior LED may have burned out. See your dealer for service.

If the exterior LED is not burned out, check the fuse. See *Instrument Panel Fuse Block* ⇨ 281.

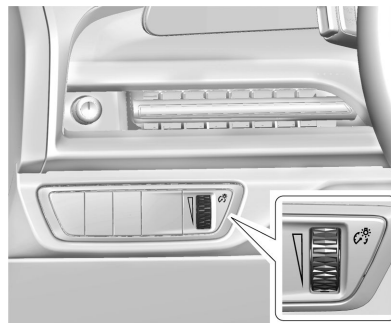
Cornering Lights

The cornering lights automatically turn on when all the following conditions occur:

- The low-beam headlights are on.
- You activate the turn signals or turn the steering wheel to turn a corner.
- The vehicle speed is below 40 km/h (25 mph).

Interior Lighting

Instrument Panel Illumination Control



This feature adjusts the brightness of all illuminated controls.

 : Move the thumbwheel up or down to brighten or dim the lights.

The brightness adjustment is functional at night, or when the headlights or parking lights are on.

During the day, the display brightness adjusts automatically based on outdoor lighting.

Stealth Mode

Stealth mode is only available at night. To enable stealth mode, turn the thumbwheel to the OFF position.

In stealth mode, most graphics are not visible on the instrument cluster. Coolant temperature, energy usage, digital speed, and any active telltales or alerts remain visible.

Dome Lights

Dome lights provide overhead interior lighting and lighting in the rear cargo compartment. They may turn on automatically as part of entry lighting and exit lighting.

To turn the dome lights on or off manually, on the infotainment screen, select  > .

128 Lighting

Auto Mode

You can set an option for the dome lights to turn on automatically or to stay off when you open any door.

Select  > See More Controls > Lights.

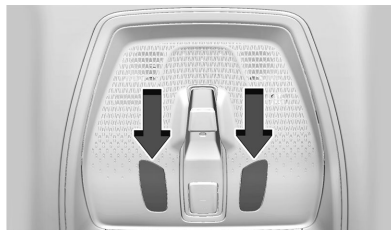
Touch  in the upper corner of the Dome Light menu.

Touch the Auto box to enable or disable this option.

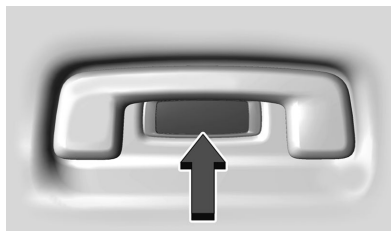
Reading Lights

Reading lights are located on the overhead console and over the middle and rear seats. To turn a reading light on or off, press the light lens.

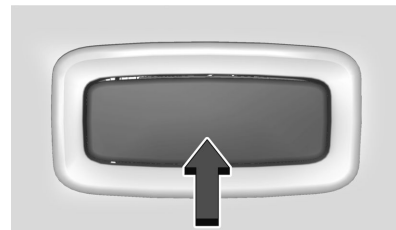
The reading lights are also used as dome lights, and may come on with entry and exit lighting. See *Dome Lights* ⇨ 127.



Front Reading Lights



Middle Row Reading Lights



Third Row Reading Lights

Lighting Features

Entry Lighting

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

Interior: The interior lights may turn on when you open any doors or press  on the remote key.

For interior lights to turn on, you must enable the Auto option for the dome lights. See *Dome Lights* ⇨ 127.

Exterior: Some exterior lights also turn on when you press  on the remote key.

Low-beam headlights will only turn on briefly at night, or in areas with limited lighting.

All interior and exterior lights turn off when you press  on the remote key or start the vehicle. The lights eventually turn off automatically if you do not interact with the vehicle.

To change this feature, on the infotainment home screen, select Settings > Vehicle > Lighting.

Approach Detection

If equipped, entry lighting activates when the vehicle detects the remote key within approximately 2 m (6 ft).

If you do not use the remote key or keyless access for an extended period while the vehicle is parked, approach detection deactivates. To reactivate approach detection, press any button on the remote key or open and close all doors.

Exit Lighting

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

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

The interior lights turn on when the vehicle is turned off.

The exterior lights turn off immediately when the headlight control is set to Off.

This feature can be changed. On the infotainment home screen, select Settings > Vehicle > Lighting.

Ambient Lighting

This feature enables you to customize the ambient lighting throughout the passenger cabin. On the infotainment home screen, select Ambient Lighting.

To enable the ambient lighting feature, slide the on-screen toggle to the right. This toggle control is present on each screen in the ambient lighting app. Changes to any of the settings are applied immediately.

To disable ambient lighting and revert to standard interior lighting, slide the toggle to the left.

Overview

Styles: Styles are a series of presets. Swipe the row of boxes to display more choices. Touch a box to change all cabin ambient lighting to the same style.

Current Lighting: Touch the effect name to apply it to all ambient lighting areas.

Customize

On this screen, you can set different colors and effects for various areas of the cabin.

Touch a dot to select which cabin area to change, then select the effect name. Touch a colored bar to apply that color, then touch Confirm to keep the selection.

- Touch Sync to apply the same selection to all cabin areas at once.
- Touch Undo to revert to the previous selection.

To save your set of selections, touch Save to Styles. To find your custom style, go to the Styles tab and swipe the row of presets.

Brightness

To customize the brightness of each effect, tap the  or  icons, or drag the marker across the slider bar.

Sync Brightness: Select this option to apply the same adjustment to all effects at the same time.

130 Lighting

Styles

Styles are a series of presets for all cabin ambient lighting. Swipe the row of tiles to display more choices. Touch a box to change all cabin ambient lighting to that saved style.

Modes, If Equipped

Link to Theme: If equipped, select **Link to Theme** to pair the ambient lighting with the infotainment Themes app. When you select a theme, the ambient lighting changes to a preset color that coordinates with the theme. The ambient lighting retains the theme color until you choose another theme, manually select another color, or select the Set to Drive Mode option.

Link to Drive Mode: If equipped, select **Link to Drive Mode** to pair the ambient lighting with drive modes. When you select a drive mode, the ambient lighting changes to a preset color assigned to that mode. See *Driver Mode Control* ⇨ 189.

To unlink from Drive Mode and revert to the default lighting, leave the Modes tab then go back to it. A prompt to unlink will be displayed. Touch Unlink to confirm.

Custom: Select this option to enable the selections on the other screens of the Ambient Lighting app.

Demo Mode: If equipped, touch this button to activate a demonstration that cycles through the available colors. The vehicle must be in P (Park) to use Demo Mode.

Battery Load Management

Electric Power Management estimates the battery temperature and state of charge. It then adjusts the voltage for best performance and extended life of the battery.

When the battery state of charge is low, the voltage raises slightly to quickly increase the charge. When the state of charge is high, the voltage lowers slightly to prevent overcharging. As this adjustment occurs, you may see the voltage move up or down on the voltmeter gauge or voltage display, if equipped, on the instrument cluster. This is normal. If a problem occurs, an alert will display. See *Instrument Cluster* ⇨ 96.

If the electrical loads are too high, the battery can be discharged when the vehicle is stationary. A high electrical load occurs when several of the following features are on:

headlights, high beams, rear window defogger, climate control fan at high speed, heated seats, motor cooling fans, trailer loads, and loads plugged into accessory power outlets.

Electric Power Management prevents excessive discharge of the battery by balancing the electrical system output and the vehicle's electrical needs. In some cases, it can temporarily reduce the power demands of some accessories.

These actions occur in steps or levels without being noticeable. In rare cases at the highest levels of corrective action, you may notice these actions and a Driver Information Center battery voltage and charging message displays. If so, reduce the electrical loads as much as possible. See *Driver Information Center (DIC)* ⇨ 115.

Battery Power Protection

This feature helps prevent the battery from being drained if you leave the interior dome lights or reading lights on. These lights automatically turn off 10 minutes after you turn the vehicle off. The lights will not turn back on again until one of the following actions occurs:

- You start the vehicle.
- You close the doors, then re-open them.

Exterior Lighting Battery Saver

If you leave the parking lights or headlights on manually, they turn off about 10 minutes after you turn the vehicle off. This protects against draining the battery.

To restart the 10-minute timer, set the headlight control to  and then select  or .

To keep the parking lights or headlights on for more than 10 minutes, start the vehicle.

132 Infotainment System

Infotainment System

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Introduction

Read the following pages to become familiar with the features.



Warning

Taking your eyes off the road for too long or too often while using any infotainment feature can cause a crash. You or others could be injured or killed. Do not give extended attention to infotainment tasks while driving. Limit your glances at the vehicle displays and focus your attention on driving. Use voice commands whenever possible.

The infotainment system has built-in features intended to help avoid distraction by disabling some features when driving. These features may become disabled when they are unavailable. Many infotainment features are also available through the instrument cluster and steering wheel controls.

Before driving:

- Become familiar with the operation, center stack controls, steering wheel controls, and infotainment display.

- Set up the audio by presetting favorite stations, setting the tone, and adjusting the speakers.
- Set up phone numbers in advance so they can be called easily by pressing a single control or by using a single voice command.

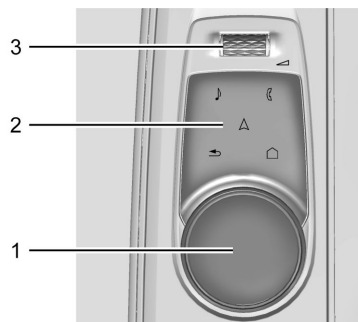
See Distracted Driving.

Overview

Infotainment System

The infotainment system is controlled by using the infotainment display, Multi-Function Controller on the center console, steering wheel controls, and voice recognition, if available.

Infotainment Controls on the Multi-Function Controller



1. Primary Knob

- Turn to highlight a feature. Press to activate the highlighted feature.
- Move right/left or up/down to change the highlighted area on the display screen.
For cleaning and care see Interior Care.

2. Selection Area

-  (Radio/Audio)
Press to open the audio app page.

-  (Phone)
Press to access the phone menu.
 -  (Navigation)
Press to access the navigation screen (if equipped).
 -  (Back)
Press to return to the previous display in a menu.
 -  (Infotainment Home Screen)
Press to access the infotainment home screen. See “Infotainment Home Screen” later in this section.
- #### 3. (Power/Volume) Scroll Wheel
- Press to turn the power on.
 - Press and hold when the system is on to turn the power off.
 - Press to mute/unmute the system when on.
 - Scroll up or down to increase or decrease the volume.

Infotainment Home Screen

The infotainment home screen is where vehicle application icons are accessed. Some applications are disabled when the vehicle is moving.

Swipe left or right across the display or use the Multi-Function Controller to move the infotainment home screen. Move the knob right/left to change the page.

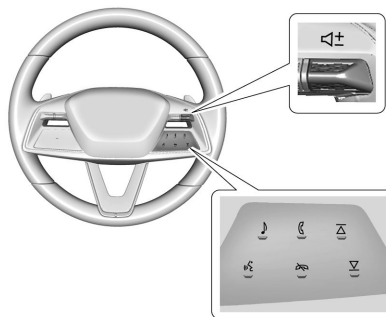
Managing Infotainment Home Screen Icons

1. Touch and hold any of the infotainment home screen icons to enter edit mode. Edit mode is not available when the vehicle is moving.
2. Continue holding the icon and drag it to the desired position.
3. Release your finger to drop the icon in the desired position.
4. To move an application to another page, drag the icon to the edge of the display toward the desired page.
5. Continue dragging and dropping application icons as desired.

There will always be 10 icons per page except on the last page. If an icon is moved from the first page to the second, then that icon from the second page will replace the one removed from the first.

Steering Wheel Controls

If equipped, some audio controls can be adjusted at the steering wheel.



or : Toggle up or down to increase or decrease the volume.

: Press show the audio sources list.

: Press to answer an incoming phone call or show the recent phone call list when not in a call.

or : Press to go to the next or previous favorite when listening to the radio. Press to go to the next or previous track when listening to a media source.

: Press to reject an incoming phone call, end an active phone call, end a voice recognition session, or mute the audio when there is no phone call.

: Press initiate voice assistant.

Using the System

Audio

Touch the Audio icon on the infotainment display or on the Multi-Function Controller to display the active audio source page. Examples of available sources may include AM, FM, USB, and Bluetooth.

Phone

Touch the Phone icon on the infotainment display or on the Multi-Function Controller to display the Phone menu. See *Bluetooth (Pairing and Using a Phone)* ⇨ 147 *Bluetooth (Overview)* ⇨ 146.

Maps

Touch the Maps icon to display the Google Maps screen. See *Using the Navigation System* ⇨ 141.

Google Assistant

Touch the Google Assistant icon to open the Google Assistant app. See *Voice Recognition* ⇨ 145.

Google Play

Touch to download some of your favorite apps in your vehicle. Downloading apps on Google Play require you to sign into a Google Account with an active service plan with data. Some third-party apps require a separate account and, in some cases, a paid subscription for in-vehicle access.

Apple CarPlay

If equipped, touch the Apple CarPlay icon to activate Apple CarPlay after a supported device is connected. See *Apple CarPlay and Android Auto* ⇨ 151.

Android Auto

If equipped, touch the Android Auto icon to activate Android Auto after a supported device is connected. See *Apple CarPlay and Android Auto* ⇨ 151.

Settings

Touch the Settings icon to display the Settings menu. See *Settings* ⇨ 152.

Controls

Touch the Controls icon to display the Controls menu.

Conversation Enhancement

Microphones and some speakers in the vehicle amplify the speaking volume of passengers to help make conversation between the front and back of the vehicle easier. To turn this feature on or off, touch the Conversation Enhancement icon on the controls home page of the infotainment screen.

Close the windows, doors, roof, and liftgate, and ensure the media volume is at a normal level. The feature will not work if you are playing loud music or during calls or speech recognition sessions.

Application Tray

The Application Tray is along the bottom of the display. It shows up to six applications.

Infotainment Gestures

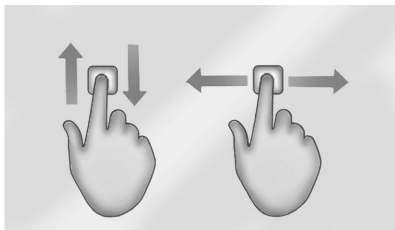
Use the following finger gestures to control the infotainment system.

Touch/Tap

Touch/tap is used to select an icon or option, activate an application, or change the location inside a map.

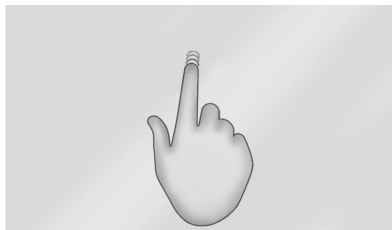
Touch and Hold

Touch and hold can be used to move or delete an application.

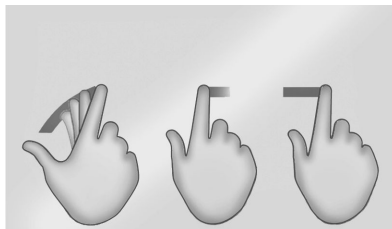
Drag

Drag is used to move applications on the infotainment home screen, or to pan the map. To drag the item, it must be held and moved along the display to the new location. This can

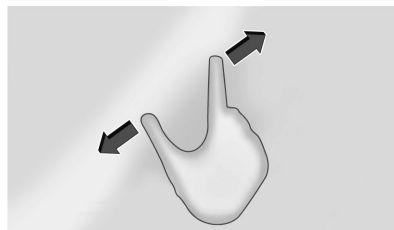
be done up, down, right, or left. This feature is only available when vehicle is parked and not in motion.

Nudge

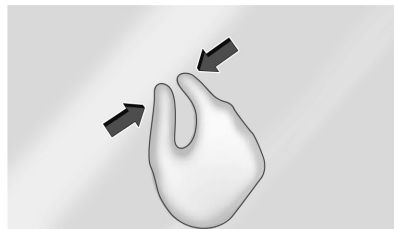
Nudge is used to move items a short distance on a list or a map. To nudge, hold and move the selected item up or down to a new location.

Fling or Swipe

Fling or swipe is used to scroll through a list, pan the map, or change page views. Do this by placing a finger on the display then moving it rapidly up and down or right and left.

Spread

Spread is used to zoom in on a map, certain images, or a web page. Place finger and thumb together on the display, then move them apart.

Pinch

Pinch is used to zoom out on a map, certain images, or a web page. Place finger and thumb apart on the display, then move them together.

Cleaning High Gloss Surfaces or Vehicle and Radio Displays

For vehicles with high gloss surfaces or vehicle displays, use a microfiber cloth to wipe surfaces. Before wiping the surface with the microfiber cloth, remove dirt that could scratch the surface. Then use the microfiber cloth by gently rubbing to clean. Never use window cleaners or solvents. Periodically hand wash the microfiber cloth separately, using mild soap. Do not use bleach or fabric softener. Rinse thoroughly and air dry before next use.

Software Updates

Over-the-Air Software Updates

If equipped, see “Updates” under *Settings*
 ⇨ 152 for details on software updates.

Radio

AM-FM Radio

Playing the Radio

From the infotainment home screen, touch the Audio icon to display the active audio source page. Touch the source icon such as AM, FM, DAB, or Bluetooth on the top of the page to change the source.

Finding a Station

Seeking a Station

From the AM, FM, or DAB screen, touch ◀◀ or ▶▶ on the infotainment display to search for the previous or next strong station.

Tune

Touch  on the infotainment display to display the Tune screen. Enter a station using the keypad.

The keypad will gray out entries that do not contribute to a valid frequency and will automatically place a decimal point within the frequency number.

Touch  to delete one number at a time.

Touch and hold  to delete all numbers.

A valid AM, FM, or DAB station will automatically tune to the new frequency and display the now playing screen.

The list of all available stations are on the right side of the Tune display to browse. Touch to go to that station or touch  to save the station as a favorite.

Storing Radio Station Favorites

Favorites show in the area on the left of the display.

AM, FM, or DAB: Favorites can be stored by touching Hold to Set on the left side of the screen.

The number of favorites is displayed automatically.

Audio Settings

From the AM or FM screen, touch  to display the following:

Equalizer : Touch to adjust Bass, Midrange, or Treble using the options on the infotainment display.

Fade/Balance : Touch to adjust by using the controls on the infotainment display.

Sound Mode : Touch to select Front or Rear to provide the best sound for the front or rear seating positions.

Adjust the Surround controls to change from Stereo to Surround mode.

Adaptive Volume : Touch to turn On or Off.

Manage Radio Favorites : Touch to display a list of Audio favorites.

Favorites can be moved or deleted.

To move, touch and hold the move icon, and then drag up or down to rearrange the position.

Radio Text : This allows the Radio Data System (RDS) to be turned on or off.

Touch Off or On.

Radio Text Categories : When on, category information about current radio content will be shown.

Traffic Program Alert (TP) : When on and the radio detects a traffic alert, a notification will be shown and an audio message will be heard.

Region : When on, radio settings will automatically adjust to your current region.

DAB Announcements : Allows you to choose which categories you would like to receive DAB Announcements for.

DAB-DAB Linking : When on and a DAB radio station's signal becomes weak, the radio can tune to the same station on a different DAB ensemble if it's available.

DAB-FM Linking : When on and a DAB radio station's signal becomes weak, the radio will try tuning to the station's FM variant. If DAB-DAB Linking is available, the radio will try linking to the station on another DAB ensemble first.

Radio Data System (RDS)

RDS relies on receiving specific RDS information from radio stations and only works when the information is available. It is possible that a radio station could broadcast information that causes the radio to work improperly.

In addition, RDS features are region and country of sale specific. This means specific RDS content may not be available in your listening area or in the country you operate the vehicle.

To turn RDS features on or off, see "Audio Settings" previously.

The following core and region specific RDS features may be supported by radio broadcasters in your listening area:

Core RDS Features

- Display radio station call letters
- Display messages from radio stations
- Provide radio station category information (when available)

Region Specific RDS Features

- Support Traffic Program (TP) Alerts
- Support Alternate Frequency (AF) Switching
- Support Region Switching

Dolby Atmos

If equipped, Dolby Atmos is a spatial audio technology that creates an immersive sound experience in your vehicle. You just need entertainment created in Dolby Atmos on a compatible app to play content. Use or download a compatible app from the Google Play Store to get started.

Digital Audio Broadcast (DAB) Radio

If equipped, Digital Audio Broadcasting (DAB) Radio is a digital broadcast system that provides CD level audio quality along with

supporting radio program station information (e.g., station name, artist, song) on the infotainment display. Unlike AM/FM, the DAB signal is less likely to be impacted by interference during normal operation. However, the reception quality of DAB can be reduced if the signal is blocked by natural obstacles or buildings. If the DAB signal is unclear, reception is interrupted completely.

Playing the Radio

From the Home screen, touch the Audio icon to display the Now Playing screen for the active audio source. Touch the source button such as DAB, AM, or FM to change the source.

Finding a Station

Seeking a Station

From the DAB screen, touch the back or forward buttons to search for the previous or next strong station.

Tune

Touch the tune icon on the infotainment display to enter the Tune screen. Enter a DAB station number using the alpha-numeric keypad (e.g., 5A).

Touch the ☆ to save the station as a favorite.

After entering a valid DAB station, the radio will automatically tune to the new station but not close the Tune screen. Alternatively, touch the Go button or a DAB station in the list to begin playing the station. The tune page will close and return to the Now Playing screen.

DAB Now Playing Screen

While tuned to a DAB station, your display may include relevant information such as station label, text information regarding artist and song, and a station logo. This information is provided by the DAB broadcaster and may not always be available in your listening region.

Storing DAB Radio Station Favorites

Saved favorite stations will show at the bottom of the Now Playing screen.

DAB favorites can be stored by pressing and holding a favorite slot while listening to that station.

DAB Linking

If equipped, your radio may support DAB to DAB Linking and DAB to FM Linking.

DAB to DAB Linking supports the automatic switching of your now playing DAB station to another DAB station with the same content.

This happens if the Now Playing DAB station reception weakens and a DAB station with the same content and better reception can be received.

DAB to FM Linking supports the automatic switching of your now playing DAB station to another station on the FM band with the same content. This happens if the Now Playing DAB station reception weakens and an alternate FM station with the same content and better reception can be received.

DAB linking settings can be turned on or off in the Settings menu.

DAB Announcements

If equipped, DAB announcements represent a grouping of broadcast announcements defined by category. Examples include news, emergency, weather, sports, finance, etc. Desired announcement types can be selected by the user through the DAB Announcement screen. Emergency announcements are always enabled and cannot be disabled.

Selected announcements will be automatically received by the radio, when available. Your radio will provide a pop-up window to notify

you that a pending announcement will begin playing. You can choose to listen to or dismiss the announcement.

DAB announcement settings can be managed in the Audio Settings menu.

Radio Reception

Unplug any electronic devices from the accessory power outlets if there is static interference.

FM

FM signals only reach about 16 to 65 km (10 to 40 mi). Although the radio has a built-in electronic circuit that automatically works to reduce interference, some static can occur, especially around tall buildings or hills, causing the sound to fade in and out.

AM

The range for most AM stations is greater than FM, especially at night. The longer range may also cause station frequencies to interfere with each other. Storms and power lines may also interfere with radio reception. Try reducing the treble on the radio if static interference occurs.

Digital Audio Broadcasting (DAB)

If equipped, Digital Audio Broadcasting (DAB) is a universal broadcast system that indicates stations by the radio program name on the infotainment display. The DAB signal produces a constant volume and is not affected by interference from nearby frequencies. The reception quality of DAB improves if the signal is reflected by natural obstacles or buildings. If the DAB signal is unclear, reception is interrupted completely.

Mobile Phone Usage

Making or receiving calls, charging, or just having a mobile device on may cause static interference. Unplug or turn off any mobile devices if this happens.

Multi-Band Antenna

The multi-band antenna may be used for radio, navigation, and other communication systems, depending on the equipped options. To ensure clear reception, keep the antenna clear of obstructions like snow and ice. An open sunroof or roof-mounted cargo can also affect reception.

Audio Players

Avoiding Untrusted Media Devices

Avoid using untrusted mobile and USB media devices that may negatively affect system operation or performance.

USB Port

The vehicle may be equipped with multiple USB ports. Music may be played from a connected USB device. Ports may also be used for charging.

Caution

To avoid vehicle damage, unplug all accessories and disconnect all accessory cables from the vehicle when not in use. Accessory cables left plugged into the vehicle, unconnected to a device, could be damaged or cause an electrical short if the unconnected end comes in contact with liquids or another power source such as the accessory power outlet.

USB Audio

To play music via USB:

1. On the audio now playing screen, touch source and select USB.
2. If there is no device connected, follow the screen prompts to connect the device.
3. Supported media content will appear on the display.

Bluetooth Audio

Music may be played from a connected Bluetooth mobile device.

Volume and song selection may be controlled by using the infotainment controls. If Bluetooth is selected and no volume is present, check the volume setting on the infotainment system or the connected mobile device.

To play music via Bluetooth:

1. On the audio now playing screen, select source and select the desired Bluetooth mobile device.
2. If there is no mobile device connected, follow the screen prompts to pair the device.

3. Supported media content will appear on the display.

Manage Bluetooth Devices

Managing Bluetooth devices allows you to add, delete, or select another paired mobile device. Only one mobile device can be active at a time.

Some mobile devices support sending Bluetooth music information to be displayed on the radio.

Navigation**Using the Navigation System**

The Navigation software is provided by Google Maps. The information provided in this section is a general overview and is subject to change. For the latest functional information, see g.co/mapsincar.

Accept the Terms and Conditions to use.

Internet Connectivity

Google Maps relies on a subscription data plan for full functionality, including availability of offline maps. With an applicable connected services plan, Google Maps can be used offline

when driving through connectivity dead zones by auto-downloading offline maps prior to going offline.

Profiles

Sign in to a Google Account for personalized service. Information available in the Google Account will be shown.

To log into a profile, see *Accounts* under *Settings* ⇨ 152.

Voice Assistant

If equipped, Google Maps can be controlled by voice commands, see *Google Assistant* under *Voice Recognition* ⇨ 145.

Language

To change the language, see *Settings* ⇨ 152.

Mute Settings

During active route guidance, Google Maps can give audible voice directions, traffic alerts, or can be muted. In the Google Maps app, touch *Settings*, then *Mute* settings to access the options. Alternatively, audible voice directions and traffic alerts can be muted by touching the sound icon on the navigation map screen during active navigation.

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Compass

The Google Maps orientation can be changed between the direction currently traveling, pointing north, and route overview. Touch the compass to switch between these options.

To recenter the map to the current location, touch the location icon.

Electric Vehicle (EV) Features with Google Maps

When vehicle data is shared with Google, some of the Maps features for EVs are as follows:

- Estimated battery charge level at arrival
- Estimated minimum charging time in order to reach destination

If the vehicle needs to be charged to reach a destination, charging stations may automatically be added to a route.

Maps

Auto-Downloaded Maps

Google Maps downloads maps automatically for use when not connected to the Internet. Offline maps make map data available to vehicle features regardless of connectivity.

To turn on auto-download:

1. Open Google Maps.
2. Touch the Settings icon.
3. Touch Privacy center, then select Offline maps.
4. Select Auto-download offline maps.
5. Check the Internet connection and wait for the download to finish.

Downloading Offline Maps

1. Open Google Maps.
2. Touch Settings, then Offline maps.
3. Touch the Select your own map square icon.
4. Adjust the map to cover the desired area to download.
5. Touch Download.

Navigation Symbols

The following are the most common symbols that may appear in Google Maps.



This indicates the vehicle's current location and direction on the map.



The destination pin marks the location of the final destination. Touch the pin to view the destination address or to add it or remove it from the Favorites list. Hide the information by touching the pin one more time. It will automatically time out if no action is taken.

A second pin in the menu is the route overview. Touch this pin to show more details of the destination or to remove the destination.

Destination

Searching for a Destination

A destination can be searched using Google Assistant.

To search for a destination without Google Assistant:

1. Open Google Maps.
2. Touch the Search field.
3. Enter the destination.
4. Touch the Navigation icon.

Alternate Routes

Alternate routes are displayed as separate lines. While in either Turn-by-Turn navigation or on the route overview, touch the suggested alternate route.

Adding a Stop on Route by Voice

1. While in Turn-by-Turn navigation, touch the Search icon at the bottom.
2. Touch the Google Assistant mic icon and say the destination to search by voice.
3. Select the desired search result from the list.
4. Touch the Add stop icon.

Adding a Stop on Route by Category

1. While in Turn-by-Turn navigation, touch the Search icon at the bottom.
2. Select a category.
3. Select the desired search result from the list.
4. Touch the Add stop icon.

Adding a Home or Work Address

To edit a home or work address, an account must be logged in. See Accounts under *Settings* ⇨ 152.

1. Open Google Maps.
2. Touch Settings, then touch Edit home or work.
3. Enter the address.

Search by Category

Destinations can be searched by category, such as restaurant or grocery store.

1. Open Google Maps.
2. Touch the search bar.
3. Touch Categories, then select a category.
4. Touch the desired location, then touch the Navigation icon.

Avoid Tolls, Highways, or Ferries

1. Open Google Maps.
2. Touch the Settings icon.
3. Select Route options.
4. Select the desired options and then touch X to close.

An Alternative Way for General Route Options

1. During active route guidance, touch Route Overview.
2. Select Route options.
3. Select the desired option and then touch X to close.

Traffic Layers

1. Open Google Maps.
2. Touch the Settings icon.
3. Touch Traffic to turn on or off.

Global Positioning System (GPS)

The current position of the vehicle is determined by using satellite signals and various vehicle signals.

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At times, other interference such as the satellite condition, road configuration, condition of the vehicle, and/or other circumstances can affect the navigation system's ability to determine the accurate position of the vehicle.

This system might not be available or interference can occur if any of the following are true:

- Signals are obstructed by tall buildings, trees, large trucks, or a tunnel.
- Satellites are being repaired or improved.

For more information if the GPS is not functioning properly, see *Problems with Route Guidance* ⇨ 144.

Vehicle Positioning

At times, the position of the vehicle on the map could be inaccurate due to one or more of the following reasons:

- The road system has changed.
- The vehicle is driving on slippery road surfaces such as sand, gravel, or snow.
- The vehicle is traveling on winding roads or long, straight roads.

- The vehicle is approaching a tall building or a large vehicle.
- The surface streets run parallel to a freeway.
- The vehicle has been transferred by a vehicle carrier or a ferry.
- The current position calibration is set incorrectly.
- The vehicle is traveling at high speed.
- The vehicle changes directions more than once, or the vehicle is turning on a turn table in a parking lot.
- The vehicle is entering and/or exiting a parking lot, garage, or a lot with a roof.
- The GPS signal is not received.
- A roof carrier is installed on the vehicle.
- Tire traction devices are installed on the vehicle.
- The tires are replaced or worn.
- The tire pressure for the tires is incorrect.
- This is the first navigation use after the map data is updated.
- The 12-volt battery has been disconnected for several days.

- The vehicle is driving in heavy traffic where driving is at low speeds, and the vehicle is stopped and started repeatedly.

Problems with Route Guidance

Incorrect route guidance can occur under one or more of the following conditions:

- The turn was not made on the road indicated.
- Route guidance might not be available when using automatic rerouting for the next right or left turn.
- The route might not be changed when using automatic rerouting.
- There is no route guidance when turning at an intersection.
- Automatic rerouting might display a route returning to the set waypoint if heading for a destination without passing through a set waypoint.
- The route prohibits the entry of a vehicle due to a regulation by time or season or any other regulation which may be given.
- Some routes might not be searched.

- The route to the destination might not be shown if there are new roads, if roads have recently changed, or if certain roads are not listed in Maps.

To recalibrate the vehicle's position on the map, drive to a safe location with a clear view of the sky and free from large obstructions. Place the vehicle in (P) Park with the ignition on for two to five minutes until the vehicle position updates.

Voice Recognition

If equipped, the vehicle's built in Google Assistant allows for hands-free use of media and messaging, navigation and climate control functionality in the vehicle. To activate, quickly press and release (symbol) on the steering wheel, touch Google Assistant on the infotainment home screen, or use the wake up words "Hey Google" or "OK Google." Google Assistant must be set as the default assistant for steering wheel and wake word activation to work.

However, not all features within these areas are supported by voice commands and requires the user to have a valid data subscription plan or be able to connect to an external WiFi in order to use the Google Assistant features.

Using Voice Recognition

Voice recognition becomes available once the system is initialized. This begins when the vehicle is turned on. Initialization may take a few moments.

1. Press (symbol) on the steering wheel controls, touch Google Assistant on the Home screen, or use the wake up words "Hey Google" or "OK Google" to activate voice recognition. Google Assistant must be set as the Default Assistant for the (symbol) and the wake word options to work.
2. Clearly speak one of the commands described later in this section.

Canceling Google Assistant

- Press (symbol) on the steering wheel controls to cancel the Google Assistant request.

Helpful Hints for Speaking Commands

Voice recognition identifies commands that are naturally stated in sentence form, or direct commands that state the application and the task.

For best results:

- Speak the command naturally, not too fast, not too slow.

- Use direct commands without a lot of extra words. For example, "Call <name> at work," "Play" followed by the artist or song name, or "Play" followed by the radio station number.

Direct commands are more clearly understood by the system. An example of a direct command is "Call <number>."

If a cell phone number was saved with a name and a place, the direct command should include both. For example "Call <name> at work."

Voice Recognition for the Radio

When voice is started, the voice recognition commands for AM, FM, and media apps (if supported) are available.

"Play <AM frequency> AM": Tune to the radio station frequency identified in the command (like "nine fifty").

"Play <FM frequency> FM": Tune to the radio station frequency identified in the command (like "one oh one point one").

"Play <Media> on <Audio Source>": Play media like a song or channel using a specified audio source such as Pandora or Spotify. This command may require an online connection.

Voice Recognition for the Phone

Make sure the phone is paired using Bluetooth to use the phone related voice commands.

“Call <contact name>”: Initiate a call to a stored contact. The command may include location if the contact has location numbers stored. You must accept Personal Results permission during set up for access to the contacts.

“Call < phone number>”: Initiate a call to a phone number of seven digits or 10 digits.

“Send a message to <contact name>”: Send a message to a stored contact.

Voice Recognition for Navigation

Navigation commands can be used to start, cancel route, or add way points/POI.

“Navigate to <destination address>”: Initiate navigation to the address in the command.

“Find a <Place of Interest>”: Find and initiate navigation to a POI in the command.

“Add <destination> on my way”: Adds a way-point to the current route.

“Take me home”: Starts navigation to Home location set in Google maps.

Onboard Vehicle Commands

These commands can be used to adjust vehicle temperature, control window defrosters, etc.

“Turn on the A/C”: Turns on the air conditioning.

“Set temperature to <desired number> degrees”: Set to a specific temperature inside your vehicle.

Phone Assistant Voice Recognition

While a mobile phone is connected via Bluetooth, press and hold  on the steering wheel controls until you hear the phone's Voice Assistant tone, which will launch the Voice Assistant on the connected mobile phone (e.g, Google Assistant, Siri, etc.).

Phone

Bluetooth (Overview)

The vehicle's Bluetooth system can interact with a mobile device to:

- Place and receive calls in a hands-free mode.
- Share the device's address book or contact list with the vehicle.
- Stream audio (music, podcasts).

- Notify receipt of text messages.

To minimize driver distraction, before driving, and with the vehicle parked:

- Become familiar with the features of the mobile device. Organize the phone book and contact lists clearly and delete duplicate or unused entries.
- Review the controls and operation of the infotainment system.
- Pair mobile device(s) to the vehicle. The system may not work with all mobile devices. See “Pairing” later in this section.

Vehicles with a Bluetooth system can use a Bluetooth-capable mobile device with a Hands-Free Profile to make and receive phone calls. The infotainment system and voice recognition feature are used to control the system. The system can be used while the vehicle is on or in accessory mode. The range of the Bluetooth system can be up to 9.1 m (30 ft). Not all mobile devices support all functions and not all mobile devices work with the Bluetooth system. See your dealer for more information about compatible mobile devices.

Controls

Use the controls on the infotainment display and the steering wheel to operate the Bluetooth system.

Steering Wheel Controls

 : Press and release to answer incoming calls on your connected Bluetooth mobile device. Press and hold for mobile device assistant.

 : Press to end a call, decline a call, or cancel an operation. Press to mute or unmute the infotainment system when not on a call.

Infotainment System Controls

For information about how to navigate the menu system using the infotainment controls, see *Using the System* ⇨ 134.

Audio System

When using the Bluetooth mobile device system, sound comes through the vehicle's front audio system speakers and overrides the audio system. The volume level while on a mobile device call can be adjusted by pressing the steering wheel controls or the volume controls for the infotainment system.

The adjusted volume level remains in memory for later calls. The volume cannot be lowered beyond a certain level.

Bluetooth (Pairing and Using a Phone)

Pairing

A Bluetooth-enabled mobile device must be paired to the Bluetooth system and then connected to the vehicle before it can be used. See the mobile device manufacturer's user guide for Bluetooth functions before pairing the device.

Pairing Information

- Select the phone icon on the infotainment home screen.
- If no mobile device has been paired, a message on the infotainment display will show the **Manage Phones** option. Select this option and the **Phones** screen will display. See "Pairing a Phone" later in this section.
- A Bluetooth mobile device with music capability can be paired to the vehicle as a phone and a music player at the same time.

- Up to 10 devices can be paired to the Bluetooth system.
- The pairing process is disabled when the vehicle is moving.
- Pairing only needs to be completed once, unless the pairing information on the mobile device changes or the phone is deleted from the system.
- If a previously paired mobile device is not connecting to the Bluetooth system, try forgetting the mobile device on the vehicle's infotainment system and also forgetting the vehicle in the Bluetooth settings of the mobile device. Then repeat the pairing process.
- If multiple paired mobile devices are within range of the system, the system connects to the paired mobile device that is set to **First to Connect**. If there is no mobile device set to **First to Connect**, it will connect to the mobile device which was used last. To connect to a different paired mobile device, see "Connecting to a Different Phone" later in this section.

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Pairing a Phone

1. Make sure Bluetooth has been enabled on the phone before starting the pairing process.
2. Select the phone icon on the infotainment home screen.
3. If a phone has been previously added, select Settings > Connections > Phones to reach the device manager. From the device manager, select "Add Phone." If a phone has been previously added, the "Add Phone" card will just be a "+" button.
4. Select Manage Phones to display the Phones screen.
5. Select Add Phone.
If a phone has been previously added or disconnected, the "Add Phone" card will just be a "+" card.
6. The code on both the phone and infotainment display need to be acknowledged for pairing to be successful.
7. Follow the instructions on the phone to confirm the six-digit code showing on the infotainment display and select Pair.

The code on the phone and infotainment display need to be acknowledged for pairing to be successful.

8. If a previously paired mobile device is not connecting to the Bluetooth system, try forgetting the mobile device on the vehicle's infotainment system and also forgetting the vehicle in the Bluetooth settings of the mobile device.
9. If the vehicle name does not appear on your phone under the "other devices" or "available devices" menu, there are a few ways to start the pairing process over:
 - Turn Bluetooth off then back on, on your phone.
 - Go back to the beginning of the Phone menus on the infotainment display and restart the pairing process.
 - Turn the phone off and then back on.
 - Reset the phone, but this step should be done as a last effort.
10. If the phone prompts to accept connection or allow phone book download, select Always Accept and Allow. The phone book may not be available if not accepted.

11. To pair additional phones, select Settings > Connections > Phones.

First to Connect Paired Phones

If multiple paired phones are within range of the system, the system connects to the paired phone that is set as First to Connect. To enable a paired phone as the First to Connect phone:

1. Make sure the phone is turned on.
2. Select the Settings icon on the infotainment home screen.
3. Select Connections.
4. Select Phone.
5. Select Options under the connected phone.
6. Select First to Connect from the phone's settings menu and set First to Connect to On.

Phones and mobile devices can be added, removed, connected, and disconnected. A sub-menu will display whenever a request is made to add or manage phones and mobile devices.

Accessing the Device List Screen

There are two ways to access the device list screen:

Using the Settings Icon

1. Select the Settings icon on the infotainment home screen or the Settings icon on the application tray near the left of the display.
2. Select Connections.
3. Select Phones.

Using the Phone Icon

1. Select the Phone icon on the infotainment home screen or the Phone icon on the application tray near the left of the display.
2. Select  on the Phones screen.
3. Select Connected Phone.

Disconnecting a Connected Phone

To disconnect a phone:

1. Open the Device List Screen. See “Accessing the Device List Screen” previously in this section.
2. Select Option on the phone card to show the phone’s or mobile device’s settings.
3. Select Disconnect.

Deleting a Paired Phone

To delete a paired phone:

1. Open the Device List Screen. See “Accessing the Device List Screen” previously in this section.
2. Select Option on the phone card to show the phone’s or mobile device’s settings.
3. Select Forget Phone.

Connecting to a Different Phone

To connect to a different phone, the new phone must be in the vehicle and paired to the Bluetooth system.

To connect to a different phone:

1. Open the Device List Screen. See “Accessing the Device List Screen” previously in this section.
2. Select the new phone you want to connect to from the list of available phones. See “First to Connect Paired Phones” previously in this section.

Switching to Handset or Hands-Free Mode

To switch between handset or hands-free mode:

- While the active call is hands-free, select the Audio Output option, then select Phone to switch to the handset mode.

The mute icon will not be available or functional while Handset mode is active.

- While the active call is on the handset, select the Audio Output option, then select Car Speakers to switch to the hands-free mode.

Making a Call Using Contacts

Calls can be made through the Bluetooth system using personal phone contact information for all phones that support the Phone Book feature. Become familiar with the phone settings and operation and that the phone is set to allow the sharing of contacts over Bluetooth with the vehicle. Verify the phone supports this feature and that the phone is set to allow the sharing of contacts over Bluetooth with the vehicle.

The Contacts menu accesses the phone book stored in the phone.

To make a call using the Contacts menu:

1. Select the Phone icon on the infotainment home screen or on the application tray near the left of the display.
2. Select Contacts.
3. There are two methods to search for contacts:

- **Search bar** – Select the search icon on the top right of the Phones window and type the name or number of the contact on the keyboard. Search results will be displayed corresponding to the user input. Select the name to call.
- **Scroll** – Select the list and scroll, or use the scrollbar on the left side of the Phones window. Select the name to call.

Making a Call Using the Recents Menu

The Recents menu accesses the recents call list from your phone.

To make a call using the Recents menu:

1. Select the Phone icon on the infotainment home screen or on the application tray near the left of the display.
2. Select Recents.
3. Select the name or number to call.

Making a Call Using the Keypad

To make a call by dialing the numbers:

1. Select the Phone icon on the infotainment home screen or on the application tray near the left of the display.
2. Select Keypad and enter a phone number.
3. Select the phone icon on the infotainment display to start dialing the number.

Searching Contacts Using the Keypad

To search for contacts using the keypad:

1. Select the Phone icon on the infotainment home screen.
2. Select Keypad and enter partial phone numbers or contact names using the digits on the keypad to search.
Results appear on the right side of the display. Select one to place a call.

Accepting or Declining a Call

When an incoming call is received, the infotainment system mutes and a ring tone is heard in the vehicle.

Accepting a Call

There are two ways to accept a call:

- Press  on the steering wheel controls.
- Select Answer on the infotainment display.

Declining a Call

There are two ways to decline a call:

- Press  on the steering wheel controls.
- Select Decline on the infotainment display.

Call Waiting

Call waiting must be supported on the Bluetooth phone and enabled by the wireless service carrier to work.

Accepting a Call

Press  to answer, then select Switch on the infotainment display.

Declining a Call

Press  to decline, then select Decline on the infotainment display.

Switching Between Calls (Call Waiting Calls Only)

To switch between calls, select Phone on the infotainment home screen to display Call View. While in Call View, select the call information of the call on hold to change calls.

Ending a Call

- Press  on the steering wheel controls.
- Select  on the infotainment display, next to a call, to end only that call.

Dual Tone Multi-Frequency (DTMF) Tones

The in-vehicle Bluetooth system can send numbers during a call. This is used when calling a menu-driven phone system. Use the Keypad to enter the number.

Apple CarPlay and Android Auto

If equipped, Apple CarPlay and/or Android Auto capability may be available through a compatible smartphone. If the phone is paired and projections are available, Apple CarPlay and/or Android Auto icons will become illuminated on the infotainment home screen.

To use Apple CarPlay and/or Android Auto:

For Wired Phone Projection

1. For Android 9 smartphones and older, download the Android Auto app to your phone from the phones Google Play Store. There is no app required for Apple CarPlay.

2. Connect your Android phone or Apple iPhone by using the factory-provided phone USB cable and plugging into a USB data port. For best performance, it is highly recommended to use the device's factory-provided USB cable, which should be replaced after significant wear to maintain connection quality. Aftermarket or third-party cables may not work.

3. When the phone is first connected to activate Apple CarPlay or Android Auto, accept the terms and conditions on both the infotainment system and the phone.

4. Follow the instructions on the phone.

The Apple CarPlay and Android Auto icons on the infotainment home screen will illuminate. Apple CarPlay and/or Android Auto may automatically launch the next time the USB is connected. If not, select the Apple CarPlay or Android Auto icon on the infotainment home screen to launch.

Select  on the center stack to return to the infotainment home screen.

For Wireless Phone Projection (If equipped)

If available for your region, verify your phone is wireless compatible by visiting the Apple CarPlay or Android Auto support page.

1. For Android 9 smartphones and older, download the Android Auto app to your phone from the phones Google Play Store. There is no app required for Apple CarPlay.
2. For first time connection, make sure Bluetooth and Wi-Fi are turned on in phone settings. To connect the phone over Bluetooth, see *Bluetooth (Pairing and Using a Phone)* ⇨ 147 *Bluetooth (Overview)* ⇨ 146.
3. When the phone is first connected to activate Apple CarPlay or Android Auto, agree to the terms and conditions on both the infotainment system and the phone.
4. Follow the instructions on the phone.

The Apple CarPlay and Android Auto icons on the infotainment home screen will illuminate. Apple CarPlay and/or Android Auto may automatically launch upon wireless connection. If not, select the Apple CarPlay or Android Auto icon on the infotainment home screen to launch.

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Wireless CarPlay and/or Wireless Android Auto may experience occasional service disruption due to outside Wi-Fi interference.

To disconnect the phones wireless projection for that paired device:

1. Select the Settings from the infotainment home screen.
2. Select Connections.
3. Select Phones.
4. Select the Bluetooth icon or Options on the phone card.
5. Select Connection Type from the list and choose Bluetooth Calling and Media.

Select  on the center stack to return to the infotainment home screen.

Features are subject to change. For further information on how to set up Apple CarPlay and Android Auto in the vehicle, see your dealer.

CarPlay will not support Fast Connect on iPhones with iOS versions older than 14.0.

Android Auto is provided by Google and is subject to Google's terms and privacy policy. Apple CarPlay is provided by Apple and is subject to Apple's terms and privacy policy. Data plan rates apply. For Android

Auto support and to see if your phone is compatible, see <https://support.google.com/androidauto>. For Apple CarPlay support and to see if your phone is compatible, see www.apple.com/ios/carplay/. Apple or Google may change or suspend availability at any time. Android Auto, Android, Google, Google Play, and other marks are trademarks of Google Inc.; Apple CarPlay is a trademark of Apple Inc.

Select  on the center stack to exit Android Auto or Apple CarPlay. To enter back into Android Auto or Apple CarPlay, press and hold  on the center stack.

If applicable, Apple CarPlay and/or Android Auto may be disabled from the infotainment system. To do this, select Home > Settings > Connections. Scroll down the list to find Android Auto or Apple CarPlay. Use the On/Off toggle to turn Apple CarPlay or Android Auto on or off for the entire system.

Settings

To access the Settings menus:

1. Touch Settings on the infotainment home screen.

2. Touch the desired feature setting.
3. Touch the options on the infotainment display to change a setting.
4. Touch  to go back.

The Settings menu may contain the following:

Connections

The menu may contain the following:

Phones

Allows connecting to a different cell phone or mobile device source, disconnecting a cell phone or media device, or deleting a cell phone or media device.

Wi-Fi Networks

Shows connected and available Wi-Fi networks.

Wi-Fi Hotspot

Allows adjustment of different Wi-Fi features.

Vehicle-to-Phone Sharing

Allows GM apps to use vehicle data on the listed phones shown.

Trusted Device

Allows for setting a phone as your trusted device to establish a secure communication channel between your phone and vehicle that enables convenient features like instant profile unlocking and account sign in. When nearby, your trusted device is recognized automatically via a unique Bluetooth connection. Requires MyBrand app.

Vehicle

The menu may contain the following:

Drive Mode Customization

See Driver Mode Control.

Teen Driver

See *Teen Driver* ⇨ 154.

Rear Seat Reminder

Allows for a chime and a message when the rear door has been opened before or during operation of the vehicle.

Buckle to Drive

This feature can prevent shifting out of (P) Park when the driver's, and if applicable the front passenger's, seat belt is not buckled. See Buckle To Drive.

Climate and Air Quality

Allows adjustment of different climate settings.

Collision/Detection Systems

Allows adjustment of different driver assistance system settings.

Comfort and Convenience

Allows adjustment of different comfort and convenience settings.

Lighting

Allows adjustment of different lighting settings.

Power Door Locks

Allows adjustment of different door lock settings.

Remote Lock, Unlock, and Start

Allows adjustment of different remote lock settings.

Seating Position

Allows adjustment of different seating position settings.

Notifications

Shows a list of installed apps and the permissions used.

Apps

This menu allows adjustment of the infotainment apps settings.

Date / Time

Allows setting of the clock.

Display

Allows adjustment of the infotainment display.

Sounds

Allows adjustment of the infotainment system sounds.

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Profiles and Accounts

Modifies the infotainment system's profiles and provides access to the accounts assigned to the currently active profile.

Privacy

This menu allows adjustment of the infotainment privacy settings.

Accessibility

This menu shows the accessibility information on the infotainment system.

Storage

This menu shows the storage info on the infotainment system.

Security

This menu allows adjustment of the infotainment security settings.

System

The menu may contain the following:

Language

This will set the display language used on the infotainment display.

Keyboard and Speech

Touch to change keyboard and speech settings.

Units

Touch to change units settings.

Reset Options

Touch to change reset settings.

TTY Mode

Touch to turn off or on.

About

Touch to view the infotainment system software information.

Legal Information

Touch to view legal and license information.

Updates

This menu allows adjustment of the vehicle update settings.

Google

This menu allows adjustment of the Google settings.

Teen Driver

If equipped, this allows multiple keys to be registered for beginner drivers to encourage safe driving habits. When the vehicle is started with a Teen Driver key, it will automatically activate certain safety systems, allow setting of some features, and limit the use of others. The Report Card will record vehicle data about driving behavior that can be viewed later. When the vehicle is started with a Teen Driver key, the Driver Information Center (DIC) displays a message that Teen Driver is active.

To access:

1. From the infotainment home screen, select Settings > Vehicle > Teen Driver.
2. Create a Personal Identification Number (PIN) by choosing a four-digit PIN. Re-enter the PIN to confirm. To change the PIN, touch Change PIN.

The PIN is required to:

- Set up/Add or remove keys.
- Change Teen Driver settings.
- Change or clear the Teen Driver PIN.
- Access or delete Report Card data.

Set up/Add keys to activate Teen Driver and assign restrictions to the key:

Any vehicle key can be registered, up to a maximum of eight keys. Label the Teen Driver key to tell it apart from the other keys.

For a pushbutton start system:

1. Start the vehicle.
2. The vehicle must be in P (Park).
3. From the Settings menu, touch Vehicle and then Teen Driver.
4. Enter the PIN.
5. Place the remote key you wish to register in the transmitter pocket. The key does not need to be the one that started the vehicle.
6. From the Teen Driver menu, touch Setup Keys or Add/Remove Teen Driver Keys.
 - If the remote key has not previously been registered, the option to add the key displays. Touch Add and a confirmation message displays. Teen Driver restrictions will be applied whenever this remote key is used to operate the vehicle.

- If the remote key has already been registered, the option to remove the key displays. If Remove is touched, the remote key is no longer registered. A confirmation message displays, and Teen Driver restrictions will not be applied if this remote key is used to operate the vehicle.

In vehicles with a pushbutton start system, if a Teen Driver and a non-Teen Driver key are both present at start up, the vehicle will recognize the non-Teen Driver key to start the vehicle. The Teen Driver settings will not be active.

Manage Settings or Teen Driver Settings

Depending on the options of your vehicle, the following menu items may be displayed:

Buckle to Drive : When turned ON, Buckle to Drive prevents the driver from shifting out of P (Park) for a period of time after the brake pedal is pressed if the driver, or on some vehicles the detected passenger, has not buckled their seat belt. On some vehicles, Buckle to Drive is always ON when Teen Driver is active and is not configurable.

Audio Volume Limit : Allows a maximum audio volume to be set. Turn the audio volume limit on or off. Use the arrows to choose the maximum allowable level for the audio volume. On some infotainment systems, touch Set Audio Volume Limit to choose the maximum allowable audio volume level.

Set Audio Volume Limit : Use the arrows to choose the maximum allowable level for the audio volume.

Teen Driver Speed Limiter : Limits the maximum speed of the vehicle. When the speed limiter is turned on and the vehicle is started with a Teen Driver key, the DIC displays a message that the top speed is limited.

On certain vehicles, when the Speed Limiter is turned ON, the vehicle's maximum acceleration will be limited. The DIC will display a message that the acceleration is limited.

Teen Driver Speed Warning : Displays a warning in the DIC when exceeding a selectable speed. Turn the speed warning on or off and choose the desired speed warning level. The speed warning does not limit the speed of the vehicle. On some infotainment systems, touch Set Teen Driver Speed Warning to set the warning speed.

Set Teen Driver Speed Warning : Choose the desired speed warning level. The speed warning does not limit the speed of the vehicle.

When Teen Driver is Active:

- If equipped, the radio will mute when the driver seat belt, and in some vehicles the front passenger seat belt, is not buckled. The audio from any device paired to the vehicle will also be muted.
- An object placed on the front passenger seat, such as a briefcase, handbag, grocery bag, laptop, or other electronic device, could cause the passenger sensing system to falsely sense an unbuckled front passenger and mute the radio. If this happens, remove the object from the seat.
- Some safety systems, such as Automatic Emergency Braking, if equipped, cannot be turned off.
- The gap setting for Adaptive Cruise Control and alert timing for Forward Collision Alert, if equipped, cannot be changed.
- When trying to change a safety feature that is not configurable in Teen Driver, the feature may be grayed out or removed from the infotainment menu, or the DIC

will display a message indicating that Teen Driver is active and the action is not available.

- Super Cruise, if equipped, is not available.
- Do not tow a trailer if equipped with Automatic Emergency Braking.
- Daytime Running Lights or headlights are always on when the vehicle is shifted out of P (Park). Even if the headlight control is set to Off or , the Automatic Headlight System is engaged and ensures that either the Daytime Running Lights or headlights come on based on outside light level.

Report Card

The vehicle owner must secure the driver's consent to record certain vehicle data when the vehicle is driven with a registered Teen Driver key. There is one Report Card per vehicle. Data is only recorded when a registered Teen Driver key is used to operate the vehicle.

The Report Card data is collected from the time Teen Driver is activated or the last time the Report Card was reset. The following items may be recorded:

- Distance Driven – the total distance driven.

- Maximum Speed – the maximum vehicle speed detected.
- Overspeed Warnings – the number of times the speed warning setting was exceeded.
- Wide Open Throttle – the number of times the accelerator pedal was pressed nearly all the way down.
- Forward Collision Alerts (if equipped) – the number of times the driver was notified when approaching a vehicle ahead too quickly and at potential risk for a crash.
- Forward Automatic Braking, also called Automatic Emergency Braking (if equipped) – the number of times the vehicle detected that a forward collision was imminent and applied the brakes.
- Reverse Automatic Braking (if equipped) – the number of times the vehicle detected that a rearward collision was imminent and applied the brakes.
- Traction Control – the number of times the Traction Control System activated to reduce wheel spin or loss of traction.
- Stability Control – the number of events which required the use of electronic stability control.

- Antilock Braking System Active – The number of Antilock Brake System activations.
- Tailgating Alerts (if equipped) – the number of times the driver was alerted for following a vehicle ahead too closely.

Report Card Data

Cumulative Data is saved for all trips until the Report Card is reset or until the maximum count is exceeded. If the maximum count is exceeded for a Report Card line item, that item will no longer be updated in the Report Card until it is reset. Each item will report a maximum of 1,000 counts. The distance driven will report a maximum of 64,374 km (40,000 mi).

To delete Report Card data, do one of the following:

- From the Report Card display, touch Reset.
- Touch Clear PIN and All Teen Driver Keys from the Teen Driver menu. This will also unregister any Teen Driver keys and delete the PIN.

Forgotten PIN

See your dealer to reset the PIN.

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158 Infotainment System

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Climate Controls

Climate Control Systems

- Dual Automatic Climate Control System .. 159
- Rear Climate Control System 162

Air Vents

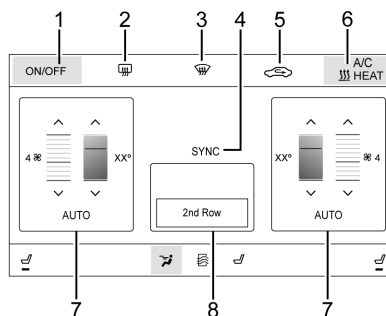
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Climate Control Systems

Dual Automatic Climate Control System



1. ON/OFF
2. Rear Window Defogger
3. Defrost
4. SYNC (Synchronized Temperature)
5. Recirculation
6. A/C (Air Conditioning)/HEAT Selection
7. Driver and Passenger Temperature, Fan, and AUTO Control
8. 2nd Row Climate Control Selection

8. Front/2nd Row/3rd Row Climate Control Selection

Automatic Operation

The system automatically controls the fan speed, air delivery, and recirculation to heat or cool the vehicle to the desired temperature.

When AUTO is underlined, the system is in full automatic operation. Either AC or HEAT will be underlined to indicate the system is automatically cooling or heating. Turning off the indicated button turns off that function resulting in fan operation only. If the air delivery mode or fan setting is manually adjusted, the auto indicator turns off and the display shows the selected settings. Auto operation can be turned off individually for climate settings.

For automatic operation:

1. Press AUTO.
2. Set the temperature. Allow the system time to stabilize. Then adjust the temperature as needed for best comfort.

160 Climate Controls

To improve efficiency and to warm or cool the vehicle faster, recirculation is automatically selected. The recirculation light will not come on. Press  to select recirculation; press it again to select outside air.

English units can be changed to metric units through the instrument cluster. Select Settings > Time, Date, and Unit > US or Metric.

OFF: Press OFF to turn the fan on or off. When OFF is selected, the system stops air from flowing into the cabin. If ON is selected or any other buttons are pressed, the climate control system will turn on and operate at the current setting.

 /  : The temperature can be adjusted separately for the driver and the passenger. Press to decrease or lift to increase the temperature. Press or lift and hold to rapidly increase or decrease the temperature. Press SYNC on the Climate Display to reset the Passenger Temperature to the Driver Temperature.

Front: Touch to open to the front climate control screen.

2nd Row: Touch to open the 2nd row climate control screen.

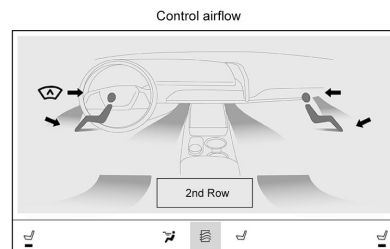
3rd Row: Touch to open the 3rd row climate control screen.

Manual Operation

   : Press to decrease or lift to increase the fan speed. Press or lift and hold the fan controls to adjust speed more quickly. The fan speed setting displays. Any adjustment of the fan speed cancels automatic fan control and the fan can be controlled manually. Press AUTO to return to automatic operation.

To turn off the fan and climate control system, press OFF on the center stack climate controls. The airflow will be blocked from entering in all air delivery modes, except defrost.

The maximum automatic fan speed can be set to low, medium, or high. To adjust Auto Fan Speed, select Settings > Climate and Air Quality > Auto Fan Speed.



Air Delivery Mode Control: To adjust the air distribution, touch the air distribution button on the bottom line of the screen. Press the desired air delivery mode on the climate control display to change the direction of the airflow. The selected air delivery mode button is lit. Pressing any of the air delivery buttons cancels automatic air delivery control and the direction of the airflow can be controlled manually. Press AUTO to return to automatic operation.

To change the current mode, select one or more of the following:

 : Air is directed to the windshield, outboard A/C outlets, and side window outlets.

 : Air is directed to the instrument panel outlets.

 : Air is directed to the floor outlets.

 **HEAT:** Touch to turn the automatic heater on or off. An indicator light comes on to show that the heater is enabled. If the fan is turned off, the heater will not run. Press AUTO to return to automatic operation.

 : Clears the windshield of fog or frost more quickly. Air is directed to the windshield. Press  to turn on or off. Changing the air delivery mode also turns the defrost off.

A/C: Touch A/C to turn the automatic air conditioning on or off. If the fan is turned off, the air conditioner will not run.

Press AUTO to return to automatic operation and the air conditioner runs as needed.

If fogging reoccurs while in vent or in a combination mode with mild temperature throughout the vehicle, turn on the air conditioner to reduce windshield fogging.

 : Press to alternate between recirculating air inside the vehicle or pulling in outside air. The indicator light on the button is lit when

recirculation mode is active. This helps to quickly cool the air inside the vehicle and reduce the entry of outside air and odors.

Pressing this button cancels automatic recirculation. Press AUTO to return to automatic operation; recirculation runs automatically as needed.

Manual recirculation mode is not available when in Defrost.

Ionizer: If equipped with an ionizer, this feature helps to clean the air inside the vehicle and remove contaminants such as pollen, odors, and dust. If the climate control system is on and the ionizer is enabled, the ionizer status indicator will be lit on the climate control display. To turn the Ionizer off or on, select Settings > Climate and Air Quality > Ionizer > Select ON or OFF.

The climate control system uses a sensor to automatically detect high humidity inside the vehicle. When high humidity is detected, the climate control system may adjust to outside air supply, turn on the heater and air conditioner, increase fan and temperature, and direct more air to the windshield. When the climate control system does not detect possible window fogging, it returns to normal operation. To turn Auto Defog off or on, select

Settings > Climate and Air Quality > Auto Defog > Select ON or OFF. If Auto Defog is turned off, or fogging does not clear quickly enough, select  to more quickly clear the windshield.

Rear Window Defogger

Caution

Do not try to clear frost or other material from the inside of the front windshield and rear window with a razor blade or anything else that is sharp. This may damage the rear window defogger grid and affect the radio's ability to pick up stations clearly. The repairs would not be covered by the vehicle warranty.

 : Press to turn the rear window defogger on or off. An indicator light on the button comes on to show that the rear window defogger is on.

The rear window defogger only works when the vehicle is on.

The rear window defogger can be set to automatic operation. When Auto Rear Defog is selected, the rear window defogger turns on automatically when the vehicle is first started

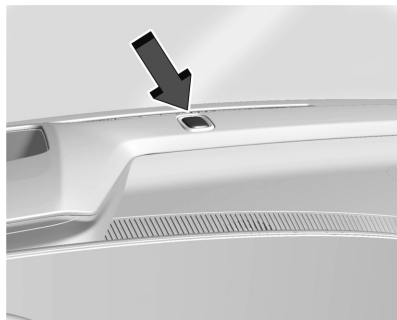
162 Climate Controls

in cold weather and turns off when the vehicle is warmed. To turn Auto Rear Defog off or on, select Settings > Climate and Air Quality > Auto Rear Defog > Select ON or OFF.

The heated outside rearview mirrors turn on when the rear window defogger button is on and help to clear fog or frost from the surface of the mirrors.

If the vehicle is equipped with heated wiper parking, the feature will turn on when the rear window defogger button is on and help to clear frost from the wipers. See *Windshield Wiper/Washer* ⇨ 90.

Sensor



The solar sensor, on top of the instrument panel near the windshield, monitors the solar heat.

The climate control system uses the sensor information to adjust the temperature, fan speed, recirculation, and air delivery mode for best comfort.

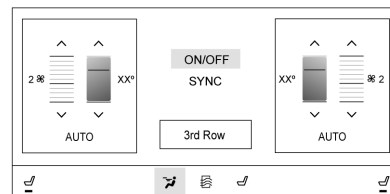
If the sensor is covered, the automatic climate control system may not work properly.

Remote Start Climate Control Operation: The climate control system may run when the vehicle is started remotely. The system uses the driver's previous settings to heat or cool the inside of the vehicle. The rear defog may come on during remote start based on cold ambient conditions. The rear defog indicator light does not come on during a remote start. If equipped with heated or cooled seats, they may come on during a remote start. See *Remote Start* ⇨ 12 and *Heated and Ventilated Front Seats* ⇨ 40.

Afterblow Feature

If equipped, under certain conditions, the fan may stay on or may turn on and off several times after you turn off and lock the vehicle. This is normal.

Rear Climate Control System



ON/OFF: Touch ON/OFF on the display to turn the rear climate control on or off.

SYNC: Touch to match the rear climate control settings to the front climate control driver settings. The SYNC button is highlighted.

2nd Row: Touch to open the 2nd row climate control screen.

3rd Row: Touch to open the 3rd row climate control screen.

The rear climate controls can also be adjusted on the front climate control display. See *Dual Automatic Climate Control System* ⇨ 159.

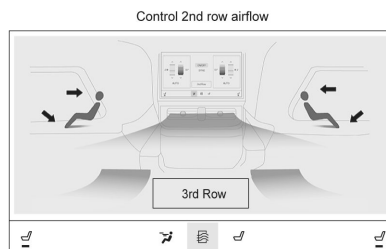
Automatic Operation

AUTO: Press to turn on or off. The air delivery is controlled automatically. If the temperature or fan speed is manually adjusted, this cancels full automatic operation.

Manual Operation

^ / v : The temperature can be adjusted separately for the left and right side seating areas. Press to decrease or increase the temperature. Press and hold to rapidly increase or decrease the temperature.

^ [fan icon] v : Press to decrease or increase the fan speed. Press and hold the fan controls to adjust speed more quickly. The fan speed setting displays. Any adjustment of the fan speed cancels automatic fan control and the fan can be controlled manually. Press AUTO to return to automatic operation.



Air Delivery Mode Control: To adjust the air distribution, touch the air distribution button on the bottom line of the screen. Press the desired air delivery mode on the climate control display to change the direction of the airflow. The selected air delivery mode button is lit. Pressing any of the air delivery buttons cancels automatic air delivery control and the direction of the airflow can be controlled manually.

Press AUTO to return to automatic operation.

ECO Climate

When ECO Climate is on, airflow to unoccupied rear seats will be reduced for energy efficiency. To turn ECO Climate off or on, select Settings > Vehicle > Climate and Air Quality > ECO Climate.

Air Vents

Use the multi-function joystick control on the front center and side air vents to change the direction of the airflow.

Air vents blow warm air on the side windows in cold weather. If floor, defog, or defrost modes are selected, a small amount of air will come from the vents close to the window.

- To fully open the front A/C vents, turn the multi-function joystick control knob until the indicator points straight up.
- To close the front A/C vents, turn the multi-function joystick control until the indicator points to the nine o'clock position.
- To close the rear A/C vents, move the sliding knobs to the full inboard position.

164 Climate Controls

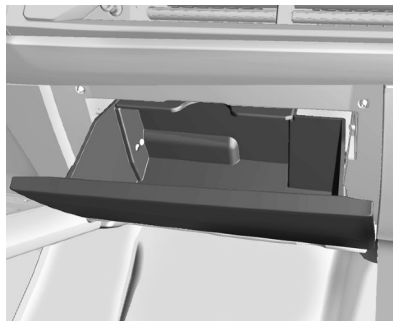
Operation Tips

- Clear away any ice, snow, or leaves from air inlets at the base of the windshield that could block the flow of air into the vehicle.
- Clear any snow off the hood to improve visibility and help decrease moisture drawn into the vehicle.
- Keep the path under the front seats clear of objects to help circulate the air inside of the vehicle more effectively.
- Use of non-GM approved hood deflectors can adversely affect the performance of the system. Check with your dealer before adding equipment to the outside of the vehicle.
- Do not attach any devices to the air vent slats. This will restrict airflow and may cause damage to the air vents.

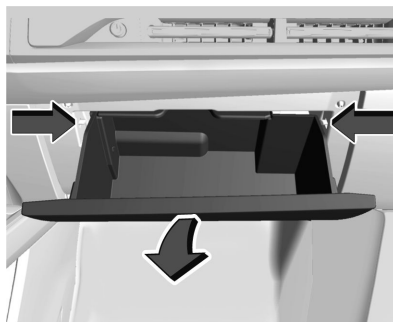
Maintenance

Passenger Compartment Air Filter

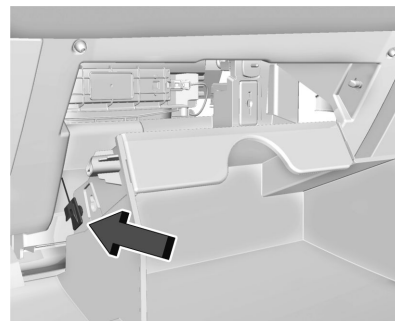
The filter reduces the dust, pollen, and other airborne irritants from outside air that is pulled into the vehicle.



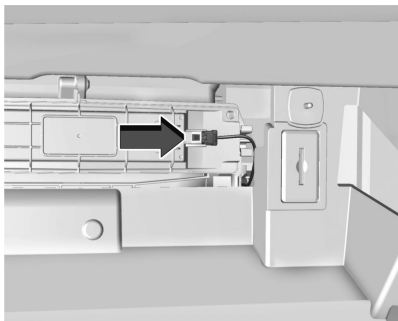
1. Open the glove box door completely.



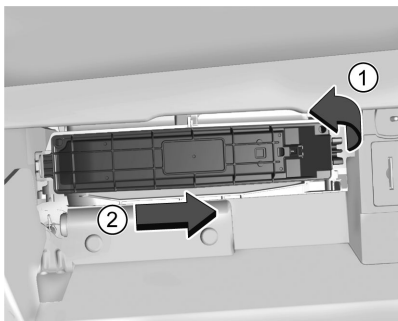
2. Press the sides of the glove box bin inward to clear the stoppers and turn downward to lower the bin.



3. Unhook the string dampener to fully remove the glove box bin.



4. Remove the connector from the filter door.



5. Release the clip (1) on the right side of the filter door and slide right (2), then remove the door. Remove the old filter.
6. Install the new air filter.
7. Reinstall the filter door.
8. Reinstall the connector.
9. Reverse the steps to reinstall the glove box.

See your dealer if additional assistance is needed.

Service

All vehicles have a label underhood that identifies the refrigerant used in the vehicle. The refrigerant system should only be serviced by trained and certified technicians. The air conditioning evaporator should never be repaired or replaced by one from a salvage vehicle. It should only be replaced by a new evaporator to ensure proper and safe operation.

During service, all refrigerants should be reclaimed with proper equipment. Venting refrigerants directly to the atmosphere is harmful to the environment and may

also create unsafe conditions based on inhalation, combustion, frostbite, or other health-based concerns.

The air conditioning system requires periodic maintenance. See your dealer for service.

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Driving and Operating

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Driving Information

Driving for Better Energy Efficiency

Use the tips in the categories below to help maximize energy efficiency and range.

In colder temperatures, while these efficiency tips will help, the electric vehicle driving range will be lower due to higher energy usage including energy spent heating the cabin.

The Energy Info feature available on the Vehicle Status app estimates the influence of the main factors impacting vehicle range. It displays how energy is being used for the current drive since the last time the vehicle was started and over a recently driven distance. See *Vehicle Status* ⇨ 116.

Acceleration, Braking, and Coasting

Avoid rapid accelerations and decelerations.

Use cruise control when appropriate.

Plan ahead for decelerations, and coast whenever possible. Do not rush to traffic signals, and do not shift to N (Neutral) to coast.

Use the One-Pedal Driving feature when appropriate to help recover energy during coasting and braking. One-Pedal mode recovers more energy while coasting and braking than D (Drive) mode. See *One-Pedal Driving* ⇨ 183.

Use the Regen on Demand feature during deceleration to help recover energy. See *Regenerative Braking* ⇨ 186.

Terrain and Vehicle Speed

Higher speeds and grade changes use more energy and can significantly reduce electric range.

Managing the Interior Temperature

Climate Settings

Using the heat and air conditioning systems decreases the energy available for electric driving. Optimal energy efficiency is achieved when the heat, air conditioning, and fan are turned off.

Use the heated and ventilated seat features (if equipped) instead of the climate control system. Heating and ventilating the seat uses less energy than heating and cooling the interior. See “Heated and Ventilating Front Seats” and “Heated Rear Seats.”

Use the Remote Start Climate Control feature to heat or cool the interior while the vehicle is plugged in to use electricity from the electrical outlet instead of using energy from the battery. See “Remote Start.”

On colder days, it is best to plug in the vehicle overnight, and then remote start the vehicle.

Use the Battery Gauge on the Instrument Cluster to view the effect of climate control settings on your estimated range. See *Battery Gauge (High Voltage)* ⇨ 98.

Other Ways to Affect Cabin Temperature

In hot weather, avoid parking in direct sunlight. Use sunshades inside the vehicle.

Keep the inside of the windows clean to reduce fogging. Turn off the front defroster and rear defogger when they are not needed.

Avoid driving with the windows open at highway speeds.

168 Driving and Operating

Vehicle Charging and Maintenance

Charging

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

If possible, use a 240 volt high power charge station for best results. This allows the interior of the vehicle and high voltage battery to warm to optimal temperature.

Allow the vehicle to warm up for 20 minutes before driving. This helps to optimize the high voltage battery temperature before driving.

Maintenance

Always keep the tires properly inflated and the vehicle properly aligned.

Avoid unnecessary use of electrical accessories. Power used for functions other than propelling the vehicle will reduce the available range.

Cargo Weight

The weight of excess cargo in the vehicle affects efficiency and range. Avoid carrying more than is needed.

Using a rooftop carrier will reduce efficiency due to additional weight and drag.

Distracted Driving

Distraction comes in many forms and can take your focus from the task of driving. Exercise good judgment and do not let other activities divert your attention away from the road. Many local governments have enacted laws regarding driver distraction. Become familiar with the local laws in your area.

To avoid distracted driving, keep your eyes on the road, keep your hands on the steering wheel, and focus your attention on driving.

- Do not use a mobile phone in demanding driving situations. Use a hands-free method to place or receive necessary phone calls.
- Watch the road. Do not read, take notes, or look up information on mobile phones or other electronic devices.
- Designate a front seat passenger to handle potential distractions.
- Become familiar with vehicle features before driving, such as programming favorite radio stations and adjusting

climate control and seat settings. Program all trip information into any navigation device prior to driving.

- Wait until the vehicle is parked to retrieve items that have fallen to the floor.
- Stop or park the vehicle to tend to children.
- Keep pets in an appropriate carrier or restraint.
- Avoid stressful conversations while driving, whether with a passenger or on a mobile phone.



Warning

Taking your eyes off the road too long or too often could cause a crash resulting in injury or death. Focus your attention on driving.

Refer to the Infotainment section for more information on using that system, including pairing and using a mobile phone.

Defensive Driving

Defensive driving means to always expect the unexpected. The first step in driving defensively is to wear a seat belt. See *Seat Belts* ⇨ 47.

- Assume that other road users (pedestrians, bicyclists, and other drivers) are going to be careless and make mistakes. Anticipate what they may do and be ready.
- Allow enough following distance between your vehicle and the vehicle in front of you.
- Focus on the task of driving.

Control of a Vehicle

Braking, steering, and accelerating are important factors in helping to control a vehicle while driving.

Braking

Braking action involves perception time and reaction time. Deciding to push the brake pedal is perception time. Actually doing it is reaction time.

Average driver reaction time is about three-quarters of a second. In that time, a vehicle moving at 100 km/h (60 mph) travels 20 m (66 ft), which could be a lot of distance in an emergency.

Helpful braking tips to keep in mind include:

- Keep enough distance between you and the vehicle in front of you.

- Avoid needless heavy braking.
- Keep pace with traffic.

If a brake fault occurs, the brakes may lose power assist. More effort will be required to stop the vehicle and it may take longer to stop.

If the vehicle loses propulsion power while driving, the brake boost system, which is powered by the 12-volt vehicle battery, will maintain the power assist for as long as the battery has sufficient voltage. Steer the vehicle out of the roadway and stop as soon as it is safe to do so. See *Electric Brake Boost* ⇨ 184.

Steering

Caution

To avoid damage to the steering system, do not drive over curbs, parking barriers, or similar objects at speeds greater than 3 km/h (1 mph). Use care when driving over other objects such as lane dividers and speed bumps. Damage caused by misuse of the vehicle is not covered by the vehicle warranty.

Electric Power Steering

The vehicle is equipped with an electric power steering system, which reduces the amount of effort needed to steer the vehicle. It does not have power steering fluid. Regular maintenance is not required.

If the vehicle experiences a system malfunction and loses power steering, greater steering effort may be required. Power steering assist also may be reduced if you turn the steering wheel as far as it can turn and hold it there with force for an extended period of time.

See your dealer if there is a problem.

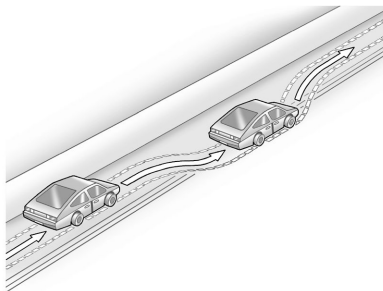
Curve Tips

- Take curves at a reasonable speed.
- Reduce speed before entering a curve.
- Maintain a reasonable steady speed through the curve.
- Wait until the vehicle is out of the curve before accelerating gently into the straightaway.

Steering in Emergencies

- There are some situations when steering around a problem may be more effective than braking.
- Holding both sides of the steering wheel allows you to turn 180 degrees without removing a hand.
- The Antilock Brake System (ABS) allows steering while braking.

Off-Road Recovery



The vehicle's right wheels can drop off the edge of a road onto the shoulder while driving. Follow these tips:

1. Ease off the accelerator and then, if there is nothing in the way, steer the vehicle so that it straddles the edge of the pavement.
2. Turn the steering wheel about one-eighth of a turn, until the right front tire contacts the pavement edge.
3. Turn the steering wheel to go straight down the roadway.

Loss of Control

Skidding

There are three types of skids that correspond to the vehicle's three control systems:

- Braking Skid — wheels are not rolling.
- Steering or Cornering Skid — too much speed or steering in a curve causes tires to slip and lose cornering force.
- Acceleration Skid — too much throttle causes the driving wheels to spin.

Antilock brakes help to avoid only the braking skid.

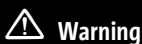
Defensive drivers avoid most skids by taking reasonable care suited to existing conditions, and by not exceeding those conditions. But skids are always possible.

If the vehicle starts to skid, follow these suggestions:

- Ease your foot off the accelerator pedal and steer the way you want the vehicle to go. The vehicle may straighten out, but if it skids again from oversteer, be ready to correct another skid if it occurs.
- Slow down and adjust your driving according to weather conditions. Stopping distance may be longer and vehicle control may be affected when traction is reduced by water, snow, ice, gravel, or other material on the road. Learn to recognize warning clues — such as enough water, ice, or packed snow on the road to make a mirrored surface — and slow down when you have any doubt.
- Try to avoid sudden steering, acceleration, or braking, including reducing vehicle speed by shifting to a lower gear. Any sudden changes could cause the tires to slide.

Driving on Wet Roads

Rain and wet roads can reduce vehicle traction and affect your ability to stop and accelerate. Always drive slower in these types of conditions, and avoid driving through large puddles and deep-standing or flowing water.



Warning

Wet brakes can cause crashes. They might not work as well in a quick stop and could cause pulling to one side. You could lose control of the vehicle.

After driving through a large puddle of water or a car/vehicle wash, lightly apply the brake pedal until the brakes work normally.

Flowing or rushing water creates strong forces. Driving through flowing water could cause the vehicle to be carried away. If this happens, you and other vehicle occupants could drown. Do not ignore police warnings and be very cautious about trying to drive through flowing water.

Hydroplaning

Hydroplaning is dangerous. Water can build up under the vehicle's tires so they actually ride on the water. This can happen if the road is wet enough and you are going fast enough. When the vehicle is hydroplaning, it has little or no contact with the road.

There is no hard and fast rule about hydroplaning. The best advice is to slow down when the road is wet.

Other Rainy Weather Tips

Besides slowing down, other wet weather driving tips include:

- Allow extra following distance.
- Pass with caution.
- Keep windshield wiper equipment in good shape, and keep the windshield washer fluid reservoir filled.
- Ensure the tires are maintained and have proper tread depth. See *Tires* ⇨ 286.
- Turn off any cruise control, if equipped. See *Adaptive Cruise Control* ⇨ 193 or *Super Cruise* ⇨ 203.

- Turn off One-Pedal Driving mode. See *One-Pedal Driving* ⇨ 183.
- Turn on the Traction Control System (TCS) and StabiliTrak/Electronic Stability Control (ESC). See *Traction Control/Electronic Stability Control* ⇨ 187.

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 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

(Continued)

Warning (Continued)

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" under *Charging* ⇨ 110 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 *Regenerative Braking* ⇨ 186.
- 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.

Winter Driving**Driving on Snow or Ice****Caution**

To avoid damage to the wheels and brake components, always clear snow and ice from inside the wheels and underneath the vehicle before driving.

Snow or ice between the tires and the road creates less traction or grip, so drive carefully. Wet ice can occur at about 0°C (32°F) when freezing rain begins to fall. Avoid driving on wet ice or in freezing rain until roads can be treated.

For Slippery Road Driving:

- Turn off cruise control.
- If enabled, turn off One-Pedal Driving. See *One-Pedal Driving* ⇨ 183.
- If turned off, turn on the Traction Control System (TCS) and Electronic Stability Control (ESC). See *Traction Control/Electronic Stability Control* ⇨ 187.
- Select the Snow/Ice driver mode. See *Driver Mode Control* ⇨ 189.
- Accelerate gently. Accelerating too quickly causes the wheels to spin and makes the surface under the tires slick.
- Allow greater following distance and watch for slippery spots. Icy patches can occur on otherwise clear roads in shaded areas. The surface of a curve or an overpass can remain icy when the surrounding roads are clear. Avoid sudden steering maneuvers and braking while on ice.
- Antilock Brake System (ABS) improves vehicle stability during hard stops, but the brakes should be applied sooner than when on dry pavement. See *Antilock Brake System (ABS)* ⇨ 184.

- Avoid using the Regen on Demand paddle. See *Regenerative Braking* ⇨ 186.

Blizzard Conditions

If you become stranded or cannot continue driving due to winter storm conditions, stop the vehicle in a safe place and signal for help. Stay with the vehicle unless there is help nearby.

If you stay in your vehicle while waiting, signal for help and keep everyone in the vehicle safe by turning on the hazard warning flashers and tying a red cloth to an outside mirror.

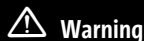
To conserve battery energy while waiting for help, run the vehicle for only short periods as needed to warm the vehicle and then shut the vehicle off and partially close the window. Moving about to keep warm also helps. For additional tips to help conserve battery energy in cold weather, see *Driving for Better Energy Efficiency* ⇨ 167.

If the Vehicle Is Stuck

Slowly and cautiously spin the wheels to free the vehicle when stuck in sand, mud, ice, or snow.

The traction control system can often help to free a stuck vehicle. See *Traction Control/Electronic Stability Control* ⇨ 187. If you cannot free the vehicle with traction control enabled, try “rocking” the vehicle as described below.

Rocking the Vehicle to Get It Out



Warning

If the vehicle's tires spin at high speed, they can explode, and you or others could be injured. Spin the wheels as little as possible and avoid going above 56 km/h (35 mph).

Turn the steering wheel left and right to clear the area around the front wheels. Turn off traction control. Shift back and forth between R (Reverse) and D (Drive), spinning the wheels as little as possible. To prevent electric drive unit wear, wait until the wheels stop spinning before shifting gears. Slowly spinning the wheels in the forward and reverse directions causes a rocking motion that could free the vehicle. If the vehicle does not move after a few attempts, it may need towing. See *Transporting a Disabled Vehicle* ⇨ 302.

Vehicle Load Limits

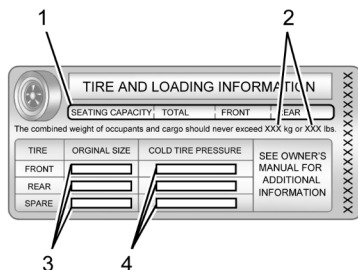


Warning

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.

It is very important to know how much weight the vehicle can carry. This weight is called the vehicle capacity weight and includes the weight of all occupants, cargo, and all non-factory-installed options. Two labels on the vehicle may show how much weight it may properly carry, the Tire and Loading Information label and the Certification/Tire label.

Tire and Loading Information Label



Example Label

A vehicle-specific Tire and Loading Information label is attached to the center pillar (B-pillar). The tire and loading information label shows the number of occupant seating positions (1), and the maximum vehicle capacity weight (2) in kilograms and pounds.

The Tire and Loading Information label also shows the size of the original equipment tires (3) and the recommended

cold tire inflation pressures (4). For more information on tires and inflation see *Tires* ⇨ 286 and *Tire Pressure* ⇨ 287.

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

Steps for Determining Correct Load Limit

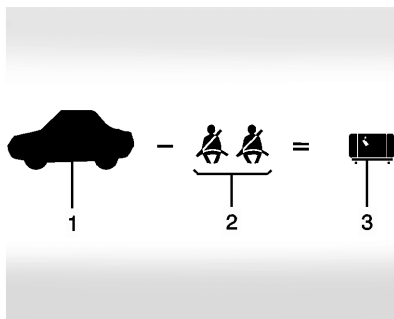
1. Locate the statement "The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs." on your vehicle's placard.
2. Determine the combined weight of the driver and passengers that will be riding in your vehicle.
3. Subtract the combined weight of the driver and passengers from XXX kg or XXX lbs.
4. The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the "XXX"

amount equals 1400 lbs. and there will be five 150 lb passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lbs. (1400-750 (5 x 150) = 650 lbs.)

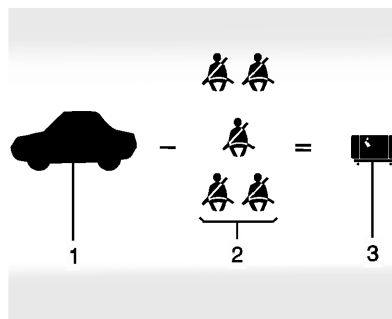
5. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.

This vehicle is neither designed nor intended to tow a trailer.

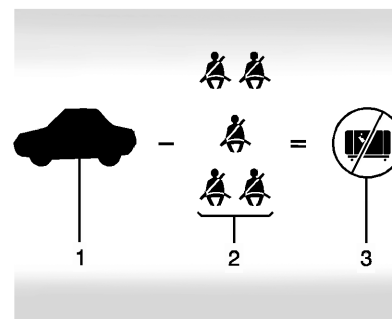
If aftermarket accessories are installed on the vehicle, for example a rooftop carrier, be sure to add the weight of all installed accessories to the combined weight of luggage and cargo.

**Example 1**

1. Vehicle Capacity Weight for Example 1 = 453 kg (1,000 lb)
Then subtract Accessory Weight, for example a rooftop cargo box = 15.8 kg (35 lb)
2. Subtract Occupant Weight @ 68 kg (150 lb) $\times 2 = 136$ kg (300 lb)
3. Remaining available capacity for Cargo Weight = 301.2 kg (665 lb)

**Example 2**

1. Vehicle Capacity Weight for Example 2 = 453 kg (1,000 lb)
Then subtract Accessory Weight, for example a rooftop cargo box = 18.1 kg (40 lb)
2. Subtract Occupant Weight @ 68 kg (150 lb) $\times 5 = 340$ kg (750 lb)
3. Remaining available capacity for Cargo Weight = 94.9 kg (210 lb)

**Example 3**

1. Vehicle Capacity Weight for Example 3 = 453 kg (1,000 lb)
2. Subtract Occupant Weight @ 91 kg (200 lb) $\times 5 = 453$ 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

The diagram shows a rectangular label with the following fields:

- GVWR**: A box with **KG** and **LB** units.
- GAWR FRT**: A box with **KG** and **LB** units.
- GAWR RR**: A box with **KG** and **LB** units.
- TIRE SIZE**: A box with **FRT**, **RR**, and **SPA** labels.
- RIM**: A box with **FRT**, **RR**, and **SPA** labels.
- MODEL**: A box with **FRT**, **RR**, and **SPA** labels.
- TYPE**: A box with **FRT**, **RR**, and **SPA** labels.

Label Example

A vehicle-specific Certification/Tire label is attached to the center pillar (B-pillar).

The label may show the size of the vehicle's original tires and the inflation pressures needed to obtain the gross weight capacity of the vehicle. The label shows the gross weight capacity of the vehicle. This is called the Gross Vehicle Weight Rating (GVWR). The GVWR includes the weight of the vehicle, all occupants, and cargo.

The Certification/Tire label may also show the maximum weights for the front and rear axles, called the Gross Axle Weight Rating (GAWR). To find out the actual loads on the front and rear axles, weigh the vehicle at a weigh station. Your dealer can help with this. Be sure to spread the load equally on both sides of the centerline.

How to Load a Vehicle Safely

Caution

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



Warning

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

(Continued)

Warning (Continued)

- Put things in the cargo area of the vehicle. In the cargo area, put them as far forward as possible. Try to spread the weight evenly.
- Never stack heavier things, like suitcases, inside the vehicle so that some of them are above the tops of the seats.
- Do not leave an unsecured child restraint in the vehicle.
- Secure loose items in the vehicle.
- Do not leave a seat folded down unless needed.

Starting and Operating
New Vehicle Break-In

Caution

Avoid making hard stops for the first 322 km (200 mi). During this time the new brake linings are not yet broken in. Hard stops with new linings can mean premature wear and earlier replacement. Follow this breaking-in guideline every time you get new brake linings. Following break-in, vehicle speed and load can be gradually increased.

Power Modes

Turning the Vehicle On

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



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.

If a remote key was left in the vehicle after being driven, closing the driver door will not turn on the vehicle. The brake pedal must be pressed to turn the vehicle on. Driver Information Center 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 Driver Information Center.

If the vehicle does not turn on due to a low remote key battery, the vehicle can still be driven. See *Remote Key Operation* ⇨ 7.

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

Turning the Vehicle Off



Warning

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

When the vehicle is shifted to P (Park), it will turn off when a driver exit is detected. The vehicle can also be turned off by pressing  on the infotainment display.

Retained Accessory Power remains active until the driver door is opened.

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

To turn off the vehicle 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.

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- 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.
- Come to a complete stop, shift to P (Park), and turn off the vehicle.
- Set the parking brake. See *Electric Parking Brake* ⇨ 184.

If a drive mode is entered where  is present while moving, the vehicle can be turned off while driving. Press  and follow the instructions displayed in the Driver Information Center.

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.

An additional emergency vehicle off button will display if a collision is detected. It can be pressed to turn off the vehicle.

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

To keep the vehicle on after a driver exit:

- Shift into P (Park) and press the parking brake switch. See *Electric Drive Unit* ⇨ 179.
- Press  on the infotainment display. The vehicle will remain on for a set time, which will be displayed upon activation. Press  to restart the time interval.

Using  will reduce the charge level of the high voltage battery. Ensure your battery has sufficient charge before activating . See *Battery Gauge (High Voltage)* ⇨ 98.

 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

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.

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.

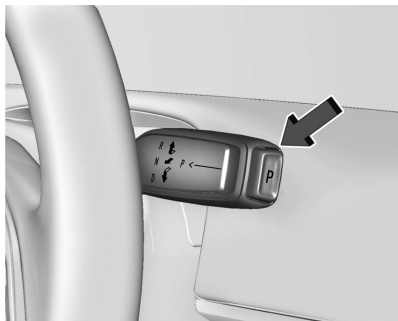
To place the vehicle in Service Mode:

- 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  on the infotainment display to turn the vehicle off.

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.

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

Shifting out of Park

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 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.

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* ⇨ 184.

To shift into P (Park):

1. Hold the brake pedal down and set the parking brake. See *Electric Parking Brake* ⇨ 184.
2. Press the P (Park) switch at the end of the shift lever.

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3. The P indicator on the shift lever will turn red when the vehicle is in P (Park).

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

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

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

If  is pressed while at relatively high speed, instructions will display on the Driver Information Center 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  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.

Leaving the Vehicle with the Propulsion System On



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) switch.

If the vehicle must be left with the propulsion system on, be sure that the vehicle is in P (Park) with the parking brake 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).

Service Shift Lever Message

If the message SERVICE SHIFTER SEE OWNER'S MANUAL appears in the Driver Information Center, the shifter needs service. Have the vehicle serviced as soon as possible. If the vehicle is automatically shifting into P (Park) and needs to be driven to a safe location, 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: Use this gear 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 *If the Vehicle Is Stuck* ⇨ 173.

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.

Caution

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

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* ⇨ 302.

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. Lock the doors with the interior lock switch or remote key to ensure that the outside door handles retract. 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).

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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.
8. Lock the doors with the remote key to ensure that the outside handles retract. The vehicle is now ready for the car wash.
9. The vehicle may automatically shift into P (Park) upon re-entry.

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.
5. Lock the doors with the interior lock switch or remote key to ensure that the outside door handles retract. 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.
7. Lock the doors with the remote key to ensure that the outside handles retract. The vehicle is now ready for the car wash.
8. 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).

One-Pedal Driving

One-Pedal Driving allows the use of the accelerator pedal to control the deceleration of the vehicle to a complete stop. Completely releasing the accelerator pedal will result in aggressive deceleration. Partially lifting off the accelerator pedal allows the deceleration of the vehicle to be adjusted as desired.

Use the brake pedal if emergency braking is required.

To view and configure One-Pedal Driving, from the infotainment display home screen, select Controls > See More Controls > Drive > One-Pedal Driving.

Select Off to disable One-Pedal Driving for traditional two-pedal driving, similar to a gasoline vehicle.

Select Normal to enable One-Pedal Driving where a moderate level of braking is applied when the accelerator pedal is released while driving.

Select High to enable One-Pedal Driving where a strong level of braking is applied when the accelerator pedal is released while driving.

When enabled, One-Pedal Driving applies in D (Drive). This feature remains enabled until manually disabled by the driver. Press the accelerator pedal to the desired speed. The brake lights will come on during substantial deceleration and when the vehicle is stopped.

If One-Pedal Driving is turned off while stopped, the vehicle will stay stopped. Press the accelerator pedal to return to two-pedal driving.

For faster access, One-Pedal Driving can be selected in the Drive Mode app or the controls tray near the bottom of the display. If equipped, the controls button can be enabled in the One-Pedal Driving settings menu to allow a change of level.

Touch  to turn One-Pedal Driving on or off. When turned on, One-Pedal Driving returns to the previously selected level. To change the level, press the Settings link in the pop-up box to go to the full One-Pedal Driving selection.

When possible, One-Pedal Driving uses regenerative braking to slow the vehicle for energy efficiency. Friction brakes may be used in some cases when regenerative braking is reduced. Friction brakes will be used to hold the vehicle after coming to a stop, and a noise may be noticed when the brakes apply.

When driving on slippery roads, it is recommended to turn off One-Pedal Driving. See *Winter Driving* ⇨ 172.

While using One-Pedal Driving, the parking brake may apply in some circumstances. This can occur when:

- The driver exits the vehicle.
- The vehicle has remained stationary for five minutes.
- The vehicle is brought to a stop on a steep hill.

To resume driving, press the accelerator pedal, and the parking brake will automatically disengage.

Drive Systems

All-Wheel Drive

If equipped, the electric All-Wheel Drive system maximizes driving efficiency by delivering power, as required, to all four wheels for improved traction and control.

Some electric All-Wheel Drive settings can be enhanced in certain driver modes. See *Driver Mode Control* ⇨ 189.

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Always take care to adjust your driving style to the traffic and road conditions when using electric All-Wheel Drive.

Brakes

Electric Brake Boost

Vehicles equipped with electric brake boost have hydraulic brake circuits that are electronically controlled when the brake pedal is applied during normal operation. The system performs routine tests and turns off within a few minutes after the vehicle is turned off. Noise may be heard during this time. If the brake pedal is pressed during the tests or when the electric brake boost system is off, a noticeable change in pedal force and travel may be felt. This is normal.

Antilock Brake System (ABS)

The Antilock Brake System (ABS) helps to prevent skidding and maintain steering control during hard braking.



If there is a problem, the Antilock Brake System (ABS) warning light stays on. See *Brake System Warning Light* ⇨ 102.

Using Antilock Brakes

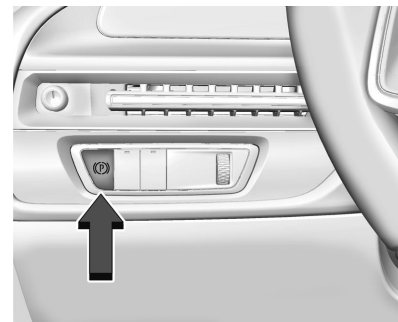
Do not pump the brakes. Just hold the brake pedal down firmly. It is normal to hear and feel the Antilock Brake System (ABS) operating.

Braking in Emergencies

The Antilock Brake System (ABS) does not always decrease stopping distance. If a vehicle suddenly slows or stops, there may not be enough time to apply the brakes. Always allow enough following distance between your vehicle and the vehicle ahead.

The Antilock Brake System (ABS) allows you to steer and brake at the same time. In many emergencies, steering to make an evasive maneuver can be more effective than braking.

Electric Parking Brake



The Electric Parking Brake (EPB) can always be applied, even if the vehicle is off. In case of insufficient electrical power, the EPB cannot be applied or released. To prevent draining the battery, avoid unnecessary repeated cycles of the EPB.

The system has a red parking brake status light and an amber service parking brake warning light. See *Electric Parking Brake Light* ⇨ 103 and *Service Electric Parking Brake Light* ⇨ 103. There are also parking brake-related Driver Information Center (DIC) messages.

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

EPB Apply

Caution

Driving with the parking brake on can overheat the brake system and cause premature wear or damage to brake system parts. Make sure that the parking brake is fully released and the brake warning light is off before driving.

To apply the EPB:

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

The red parking brake status light will flash and then stay on once the EPB is fully applied. If the red parking brake status light flashes continuously, then the EPB is only partially applied or there is a problem with the EPB. A DIC message will display. Release the EPB and try to apply it again. If the light does not come on, or keeps flashing, have the vehicle serviced. Do not drive the vehicle if the red parking brake status light is flashing, see your dealer.

If the amber service parking brake warning light is on, press the EPB switch. Continue to hold the switch until the red parking brake status light remains on. If the amber service parking brake warning light is on, see your dealer.

If the EPB is applied while the vehicle is moving, the vehicle will decelerate as long as the switch is 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 at the request of other safety functions that utilize the EPB.

If the EPB fails to apply, block the rear wheels to prevent vehicle movement.

EPB Release

To release the EPB:

1. Turn the vehicle on.
2. Apply and hold the brake pedal.
3. Press the EPB switch momentarily.

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

If the amber service parking brake warning light is on, release the EPB by pressing and holding the EPB switch. Continue to hold the switch until the red parking brake status light is off. If either light stays on after release is attempted, see your dealer.

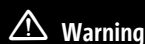
Automatic EPB Release

The EPB will automatically release if the vehicle is running, placed into gear, and an attempt is made to drive away. Avoid rapid acceleration when the EPB is applied, to preserve parking brake lining life.

Brake Assist

Brake Assist detects rapid brake pedal applications due to emergency braking situations. It also provides additional braking to activate the Antilock Brake System if the brake pedal is not applied hard enough to activate it normally. Minor noise, brake pedal pulsation, and/or pedal movement during this time may occur. Continue to apply the brake pedal as the driving situation dictates. Brake Assist disengages when the brake pedal is released.

Hill Start Assist (HSA)



Warning

Do not rely on the HSA feature. HSA does not replace the need to pay attention and drive safely. You may not hear or feel alerts or warnings provided by this system. Failure to use proper care when driving may result in injury, death, or vehicle damage. See *Defensive Driving* ⇨ 168.

When the vehicle is stopped on a grade, Hill Start Assist (HSA) prevents the vehicle from rolling in an unintended direction during the transition from brake pedal release to accelerator pedal apply. The brakes release when the accelerator pedal is applied. The brakes may also release under other conditions. Do not rely on HSA to hold the vehicle.

HSA is available when the vehicle is facing uphill in a forward gear, or when facing downhill in R (Reverse). The vehicle must come to a complete stop on a grade for HSA to activate.

Automatic Vehicle Hold (AVH)



Warning

Do not rely on this feature. It does not replace the need to pay attention and drive safely. You may not hear or feel alerts or warnings provided by this system. Failure to use proper care when driving may result in injury, death, or vehicle damage.

When Automatic Vehicle Hold (AVH) is turned on and the vehicle is braked to a stop, AVH prevents the vehicle from moving during the transition from brake pedal release to accelerator pedal apply. The brakes release when the accelerator pedal is applied. The brakes may also release under other conditions. Do not rely on AVH to hold the vehicle.

If the accelerator pedal is not applied within a few minutes, the Electric Parking Brake will apply. The parking brake will also apply if the driver door is opened or the driver seat belt is unfastened while AVH is holding the vehicle.

The AVH controls are in the Controls App on the infotainment home screen. Select Controls > Drive & Park > Auto Hold. The AVH indicator

will come on. While AVH is holding the vehicle, the AVH indicator will change to green. See *Automatic Vehicle Hold (AVH) Light* ⇨ 104.

Regenerative Braking

If equipped, the brake system on this vehicle may use a combination of regenerative and conventional hydraulic braking.

Regenerative braking transfers some energy from the moving vehicle into electrical energy. This energy then returns to the high voltage battery system, contributing to increased energy efficiency.

If the battery is fully charged or cold, regenerative power may be limited. See “Regenerative Power Limited” under *Power Indicator Gauge* ⇨ 99.

If available regenerative braking power is limited, you must apply the conventional hydraulic brakes to slow the vehicle.

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 "Active Charging" under *Charging* ⇨ 110 for information on setting charge limits. See *Hill and Mountain Roads* ⇨ 171 for important information about driving on grades.

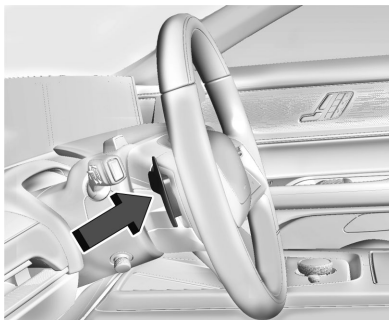
Regenerative braking supplements conventional brakes, especially when going downhill. If the vehicle is on a steep grade, you must use the brake pedal to hold the vehicle. See *Hill and Mountain Roads* ⇨ 171.

Do not use Regen on Demand under slippery road conditions. Instead, use the brake pedal as the primary braking device.

Regen on Demand

To use Regen on Demand:

1. The vehicle must be in D (Drive). Cruise control will turn off and the brake lights may come on once activated.



2. Press and hold the steering wheel paddle. This engages the feature and increases deceleration. Similarly, you can use the accelerator pedal to manage deceleration. See *One-Pedal Driving* ⇨ 183.

If you bring the vehicle to a complete stop using the Regen on Demand paddle, the vehicle will not creep forward when

you release the paddle. You must press the accelerator pedal to move the vehicle forward.

Ride Control Systems

Traction Control/Electronic Stability Control

This vehicle has a Traction Control System (TCS) and a StabiliTrak/Electronic Stability Control (ESC) system. These systems help limit wheel spin and assist the driver in maintaining control, especially on slippery road conditions. Both systems turn on automatically when the vehicle is started and begins to move.

The Traction Control System activates if any of the drive wheels are spinning and beginning to lose traction. If this happens, the traction system reduces power and applies the brakes to limit wheel spin.

The StabiliTrak/Electronic Stability Control system activates when the vehicle senses a difference between the intended path and the direction the vehicle is actually traveling. The stability control system selectively applies braking pressure to any one of the vehicle wheel brakes to assist the driver in keeping the vehicle on the intended path.

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If cruise control is engaged and the traction 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 *If the Vehicle Is Stuck* ⇨ 173 and “Turning the Systems Off and On” later in this section.



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

- Flash when the Traction Control System is limiting wheel spin.

- Flash when the StabiliTrak/Electronic Stability Control system is activated.
- Turn on and stay on when either system is not working.

See *Traction Control System (TCS)/Electronic Stability Control Light* ⇨ 106.

If either system fails to turn on or to activate, a message displays in the Driver Information Center. The vehicle is safe to drive, but adjust driving accordingly.

If  turns on and stays on:

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

If  stays on, the vehicle may need more time to diagnose the problem. If the condition persists, see your dealer.

Turning the Systems Off and On

Caution

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

To turn the Traction Control System on and off, in the controls app on the infotainment home screen, select Controls > See More Controls > Drive & Park > Traction Control. To turn 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 the 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 *Traction Off Light* ⇨ 105.

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

To turn 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 *Electronic Stability Control (ESC) Off Light* ⇨ 106.

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

The StabiliTrak/Electronic Stability Control system automatically engages 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.

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 *Teen Driver* ⇨ 154.

Adding accessories can affect the vehicle performance. See *Accessories and Modifications* ⇨ 260.

Driver Mode Control

Driver Mode Control allows the driver to adjust the overall driving experience by selecting different modes. Driver Mode Control may be equipped with the following modes: Tour, Sport, Snow/Ice, and one customizable mode: My Mode. These modes adjust multiple systems to fit specific the driving needs. Driver mode availability and affected vehicle subsystems are dependent upon trim level, region, and optional features.

If the vehicle is in Tour mode, My Mode, or Sport mode, it will stay in that mode through future on/off cycles. If the vehicle is in any other mode, it will return to Tour mode when the vehicle is restarted. When each mode, except Tour mode, is selected, a unique and persistent indicator is displayed in the instrument cluster.

Mode Activation

To activate each mode, open the Drive Modes app on the infotainment home screen. Activate each mode by selecting the mode icon.

Mode Descriptions

Tour Mode: Use for normal city and highway driving to provide a smooth ride. This setting provides balance between comfort and handling.

Sport Mode: Use where road conditions or personal preference demand a more controlled response. Sport mode improves vehicle handling and acceleration on dry pavement. When active, Sport mode modifies steering efforts, pedal tuning, electric vehicle sound enhancement, adaptive cruise control, and suspension tuning, if equipped.

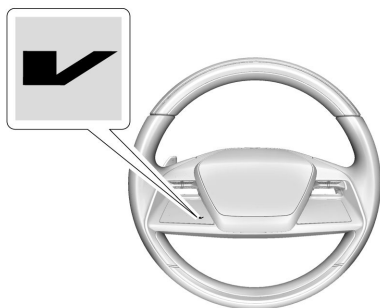
Snow/Ice Mode: Use for snow covered roads to improve vehicle acceleration. When active, Snow/Ice mode adjusts pedal tuning to optimize traction on slippery surfaces. This can compromise the acceleration on dry asphalt. Snow/Ice mode also modifies electric All-Wheel Drive and steering.

This feature is not intended for use when the vehicle is stuck in sand, mud, ice, snow, or gravel. If the vehicle becomes stuck, see *If the Vehicle Is Stuck* ⇨ 173.

Velocity Max: Use for short durations. This mode is not intended for daily use. Velocity Max provides maximum propulsion. Engaging

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Velocity Max will not change the currently active drive mode, but will provide additional propulsion torque for maximum acceleration. Remaining in this mode will reduce the range of the vehicle. Velocity Max will not function when the vehicle battery is low. Velocity Max adjusts the acceleration pedal map.



To activate/deactivate Velocity Max, press the Velocity Max button on the steering wheel.

My Mode: Use to personalize everyday driving. This mode allows the driver to configure the vehicle subsystem settings to their driving preferences. My Mode remains active across on/off cycles.

Through the infotainment screen, the following vehicle subsystems may be available for customization in this mode:

Acceleration Feel: Relaxed, Tour, Sport

Brake Feel: Tour, Sport

Steering: Tour, Sport

Suspension: Tour, Sport

Motor Sound: Tour, Sport

For a more detailed description of each selectable option, see “Drive Mode Customization.”

Drive Mode Customization

The vehicle is equipped to modify the following settings based on vehicle content. On the infotainment home screen, select Settings > Vehicle > Drive Mode Customization to personalize My Mode. These settings retain over each on/off cycle, and do not have to be reset each time the vehicle is started.

Acceleration Feel: Choose how responsive you want acceleration to feel. You can adjust the accelerator pedal to provide increased power.

Brake Feel: Brake response settings adjust the brake pedal response. Brake pedal feel is less sensitive at lower settings and more sensitive at higher settings.

Motor Sound: Customize how your vehicle sounds when you are accelerating. Your electric motor remains quiet outside but the sound you hear inside changes as you drive faster or slower.

Steering: Choose how responsive you want the steering to feel. You can set the steering wheel to provide more feedback, which requires more steering effort.

Suspension: Choose how responsive you want the suspension to feel. You can make the suspension stiffer or more comfortable.

Four-Wheel Steering

If equipped, four-wheel steering steers the vehicle with all wheels, which reduces the vehicle turn diameter and improves maneuverability of the vehicle.

At slower speeds, the front and rear wheels will turn in opposite directions. This helps the vehicle make tighter turns, such as during parking, cornering, and turning into tight spaces. At higher speeds, the front and rear wheels will turn in the same direction. This improves stability of the vehicle during lane changes and wide turns.

When the vehicle is off, the rear steering angle will automatically return to the forward position.

Four-wheel steering is not operational when Super Cruise, if equipped, is active. See *Super Cruise* ⇨ 203.

Maximum vehicle speed may be limited if the four-wheel steering system becomes inoperable.

When towing a trailer, the four-wheel steering provides enhanced stability allowing the trailer to follow the path of the tow vehicle more closely, especially during lane changes. See *General Towing Information* ⇨ 257 for more information on towing a trailer.

Four-Wheel Steering Behavior at 0 KM/H (0 MPH)

The rear wheels may not steer to full travel when the vehicle is stationary. Additional travel may be achieved once the vehicle begins to move.

Take care to ensure the vehicle path is clear of obstacles if the rear tires steer once the vehicle is moving.

Air Suspension

If equipped, the Air Suspension feature provides full time load leveling capability and the benefit of adjusting ride height for increased convenience and capability.

Warning

To help avoid personal injury or death, make sure the area underneath the vehicle and inside the wheel wells is clear when lowering the vehicle.

Warning

To help avoid personal injury or death, always select the lowest ride height for the current driving conditions. Higher ride heights raise the vehicle's center of gravity, increasing the chance of a rollover during extreme maneuvers.

Warning

Heavy loads on the roof rack will make the vehicle's center of gravity higher, increasing the possibility of a rollover. To avoid losing control of the vehicle, always select the normal height setting and avoid high speeds, sudden starts, sharp turns, sudden braking, or abrupt maneuvers when carrying cargo on the roof rack.

Changing Ride Height



Press either  or  on the Ride Height button to open the Ride Height menu. Select the desired ride height from the available

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options. After a brief pause, available selections finalize, and unavailable ride heights appear greyed out.

Ride Height Descriptions

Normal Height

Normal height is the standard vehicle height used for everyday driving.

If the My Mode customization settings for Suspension is set to Tour, then the vehicle maintains Normal height when My Mode is selected. For additional information, see *Driver Mode Control* ⇨ 189.

Entry/Exit Height

Entry/Exit height is 50 mm (2 in) lower than Normal height. This ride height lowers the vehicle for easy entry and exit from the vehicle as well as providing a lower height for loading and unloading cargo from any door or the rear liftgate.

This ride height can be selected in the Ride Height menu at any vehicle speed. When Entry/Exit height is selected at higher speeds, the vehicle will wait to lower until the vehicle slows to less than 12 km/h (7 mph).

The vehicle will automatically raise to Normal height from Entry/Exit height when speed increases above 8 km/h (5 mph). If no door has been opened since lowering to Entry/Exit height, the vehicle will wait to raise to Normal height until 24 km/h (15 mph). This gives the driver more flexibility when lowering to Entry/Exit height for passenger pick up and drop off.

The driver can enable Automatic Entry/Egress mode to automatically lower to Entry/Exit height when the vehicle is shifted to P (PARK). To enable Automatic Entry/Egress mode, on the infotainment home screen, select Settings > Vehicle > Ride Height. When the vehicle is higher than Normal height, Automatic Entry/Egress mode is disabled. When the vehicle is in Snow/Ice mode, Automatic Entry/Egress mode is disabled.

Increased Height

Increased height is 25 mm (1 in) higher than Normal height. This ride height raises the vehicle for additional ground clearance.

Increased height can be selected in the Ride height menu while vehicle speed is less than 80 km/h (50 mph). If vehicle speed exceeds 80 km/h (50 mph), the vehicle will automatically lower to Normal height.

Snow/Ice mode will automatically raise to Increased height when vehicle speed is less than 80 km/h (50 mph). If vehicle speed exceeds 80 km/h (50 mph), the vehicle will lower to Normal height. Normal height will be maintained until vehicle speed is slowed to less than 16 km/h (10 mph) and then the vehicle will automatically raise back to Increased height.

Aerodynamic Height

Aerodynamic height is 20 mm (0.75 in) lower than Normal height. This ride height lowers the vehicle at higher vehicle speeds to improve aerodynamics.

The vehicle will lower to Aerodynamic height when vehicle speed exceeds 105 km/h (65 mph) for a period of time. The vehicle will raise to Normal height when the vehicle slows to less than 48 km/h (30 mph).

Lowered Height

Lowered height is 15 mm (0.60 in) lower than Normal height. This ride height lowers the vehicle to enhance handling.

Sport mode will automatically set Lowered height when enabled. See *Driver Mode Control* ⇨ 189.

If the My Mode customization settings for Suspension is set to Sport, then the vehicle maintains Lowered height when My Mode is selected. For additional information, see *Driver Mode Control* ➞ 189.

Suspension Modes

The air suspension has two special modes, Service mode and Alignment mode. To enable these modes, on the infotainment home screen select Settings > Vehicle > Suspension.

Service Mode

Service mode will disable all air suspension operation including raising and lowering the vehicle and operation of the air compressor. This mode is useful when the vehicle is being towed on a flat bed or when any work under the vehicle is being performed.

Service mode is recommended when the vehicle is put on a hoist or floor jack is used to raise a corner. Service mode automatically disables when vehicle speed exceeds 32 km/h (20 mph).

Alignment Mode

Alignment mode will optimize the vehicle height to provide the most accurate wheel alignment. This mode should be enabled once the vehicle is driven onto the alignment station.

To enable Alignment mode, ensure the vehicle is at Normal height. Alignment mode automatically disables when vehicle speed exceeds 16 km/h (10 mph).

Air Suspension Operation with Door(s) or Hood Open

The air suspension will temporarily suspend all height changes while the hood or any door is open. The air suspension resumes height changes once the hood and all doors are closed. An open rear liftgate does not suspend the air suspension operation.

System Over-Temperature

If the air suspension is under heavy use, the system may temporarily suspend all height changes to allow compressor cooldown. When this occurs and a height change is requested, a "Leveling System Unavailable" message will be displayed in the instrument cluster.

Air Suspension Service

If a "Service Leveling System" message is displayed in the instrument cluster, see your authorized dealer immediately.

Cruise Control

Adaptive Cruise Control

If equipped, Adaptive Cruise Control (ACC) allows the cruise control set speed and following gap to be selected. Read this entire section before using this system. The following gap is the following time (or distance) between your vehicle and a vehicle detected directly ahead in your path, moving in the same direction. If no vehicle is detected in your path, ACC works like regular cruise control. ACC uses a camera and radar sensor(s) to detect other vehicles.

If a vehicle is detected in your path, ACC can apply acceleration or limited, moderate braking to maintain the selected following gap. To disengage ACC, apply the brake. If ACC is controlling the vehicle speed when the Traction Control System (TCS) or StabiliTrak/Electronic Stability Control (ESC) system activates, ACC may automatically disengage. See *Traction*

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Control/Electronic Stability Control ⇨ 187.
When road conditions allow ACC to be safely used, ACC can be turned back on.

Disabling the TCS or StabiliTrak/ESC system will disengage and prevent engagement of ACC.

ACC can reduce the need for you to frequently brake and accelerate, especially when used on expressways, freeways, and interstate highways. When used on other roads, you may need to take over the control of braking or acceleration more often.

Warning

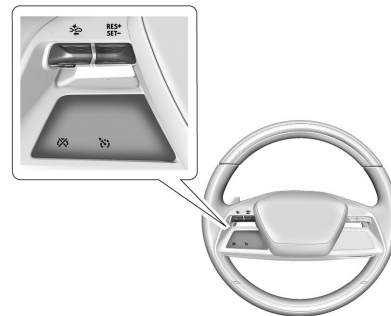
ACC has limited braking ability and may not have time to slow the vehicle down enough to avoid a collision with another vehicle you are following. This can occur when vehicles suddenly slow or stop ahead, or enter your lane. Also see “Alerting the Driver” later in this section. Complete attention is always required while driving and you should be ready to take action and apply the brakes. See *Defensive Driving* ⇨ 168.

Warning

ACC will not detect or brake for children, pedestrians, animals, or other objects.

Do not use ACC when:

- On winding and hilly roads or when the sensors are blocked by snow, ice, or dirt. The system may not detect a vehicle ahead. Keep the entire front of the vehicle clean.
- Visibility is poor due to rain, snow, fog, dirt, insect residue, or dust; when other foreign objects obscure the camera and/or radar; or when the vehicle in front or oncoming traffic causes additional environmental obstructions, such as road spray. ACC performance is limited under these conditions.
- On slippery roads where fast changes in tire traction can cause excessive wheel slip.



 : Press to turn the system on or off. The indicator turns white on the instrument cluster when ACC is turned on.

RES+: Press briefly to resume the previous set speed or to increase vehicle speed if ACC is already activated. To increase speed by about 1 km/h (1 mph), press RES+ to the first detent. To increase speed to the next 5 km/h (5 mph) mark on the speedometer, press RES+ to the second detent.

SET-: Press briefly to set the speed and activate ACC or to decrease vehicle speed if ACC is already activated. To decrease speed by about 1 km/h (1 mph), press SET- the first detent. To

decrease speed to the next 5 km/h (5 mph) mark on the speedometer, press SET- to the second detent.

 : Press to disengage ACC without erasing the selected set speed.

 : Press to select a following gap setting for ACC of Far, Medium, or Near.

The speedometer reading can be displayed in either English or metric units. See Instrument Cluster. The increment value used depends on the units displayed.

Switching Between ACC and Regular Cruise Control

To switch between ACC and regular cruise control, press and hold . A Driver Information Center (DIC) message displays. See Vehicle Messages.



ACC Indicator



Regular Cruise Control Indicator

When ACC is engaged, a green  indicator will be lit on the instrument cluster and the following gap will be displayed. When the regular cruise control is engaged, a green  indicator will be lit on the instrument cluster; the following gap will not display.

It is recommended to switch from ACC to regular cruise control only, when there are no vehicles ahead of your vehicle.

When the vehicle is turned on, the cruise control mode will be set to the last mode used before the vehicle was turned off.

Warning

Always check the cruise control indicator on the instrument cluster to determine which mode cruise control is in before using the feature. If ACC is not active, the vehicle will not automatically brake for other vehicles, which could cause a crash if the brakes are not applied manually. You and others could be seriously injured or killed.

Setting Adaptive Cruise Control

If  is on when not in use, it could get pressed and go into ACC when not desired. Keep  off when cruise is not being used.

Select the set speed desired for ACC. This is the vehicle speed when no vehicle is detected in your path.

While the vehicle is moving, ACC will not set at a speed below a minimum speed, although it can be resumed. If equipped with Super Cruise, this minimum speed is 5 km/h (3 mph), otherwise, it is 25 km/h (15 mph). The minimum allowable set speed is 25 km/h (15 mph).

To set ACC while moving:

1. Press .
2. Get up to the desired speed.
3. Press and release SET-.
4. Remove foot from the accelerator pedal.

After ACC is set, it may immediately apply the brakes if a vehicle ahead is detected closer than the selected following gap.

ACC can also be set while the vehicle is stopped if ACC is on and the brake pedal is applied.



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The ACC indicator displays on the instrument cluster and Head-Up Display (HUD), if equipped. When ACC is turned on, the indicator will be lit white. When ACC is active, the indicator will turn green.

Be mindful of speed limits, surrounding traffic speeds, and weather conditions when selecting the set speed.

Resuming a Set Speed

If the ACC is set at a desired speed and then the brakes are applied, ACC is disengaged without erasing the set speed from memory.

To begin using ACC again, press RES+ up briefly.

If the vehicle is moving more than 5 km/h (3 mph), it returns to the previous set speed.

If the vehicle is stopped with the brake pedal applied, press RES+ and release the brake pedal. ACC will hold the vehicle until RES+ or the accelerator pedal is pressed.

A green ACC indicator and the set speed display on the instrument cluster. The vehicle ahead indicator may be flashing if a vehicle ahead was present and moved. See "Approaching and Following a Vehicle" later in this section.

Once ACC has resumed, the vehicle speed will increase to the set speed under the following conditions:

- There is no vehicle ahead.
- The vehicle ahead is beyond the selected following gap.
- The vehicle speed is not being limited because of a sharp turn.

Increasing Speed While ACC Is at a Set Speed

If ACC is already activated, do one of the following:

- Use the accelerator to get to the higher speed. Briefly press and release SET– and release the accelerator pedal. The vehicle will now cruise at the higher speed. When the accelerator pedal is pressed, ACC will not brake because it is overridden. While overridden, the ACC indicator will turn blue on the instrument cluster or Head Up Display.
- Press and hold RES+ until the desired set speed is displayed, then release it.
- To increase speed in smaller increments, press RES+ to the first detent. For each press, the vehicle goes about 1 km/h (1 mph) faster.

- To increase speed in larger increments, press RES+ to the second detent. For each press, the vehicle speed increases to the next 5 km/h (5 mph) mark on the speedometer.

The set speed can also be increased while the vehicle is stopped if:

- stopped with the brake pedal applied, press RES+ until the desired set speed is displayed.
- ACC is holding the vehicle at a stop and there is another vehicle directly ahead, pressing RES+ will increase the set speed.
- and when pressing RES+ there is no longer a vehicle ahead or the vehicle ahead is pulling away and the brake is not applied with cause the ACC to resume.

When it is determined that there is no vehicle ahead or the vehicle ahead is beyond the selected following gap, then the vehicle speed will increase to the set speed.

Reducing Speed While ACC Is at a Set Speed

If ACC is already activated, do one of the following:

- Use the brake to get to the desired lower speed. Release the brake and press SET-. The vehicle will now cruise at the lower speed.
- Press and hold SET- until the desired lower speed is reached, then release it.
- To decrease speed in smaller increments, press SET- to the first detent. For each press, the vehicle goes about 1 km/h or (1 mph) slower.
- To decrease speed in larger increments, press SET- to the second detent. For each press, the vehicle speed decreases to the next 5 km/h (5 mph) mark on the speedometer.

The set speed can also be decreased while the vehicle is stopped.

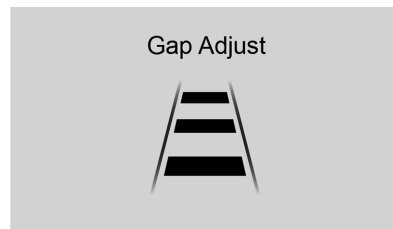
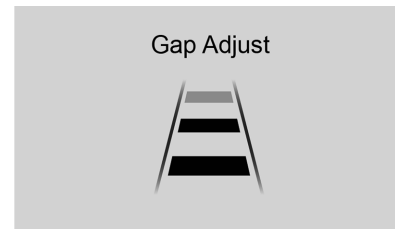
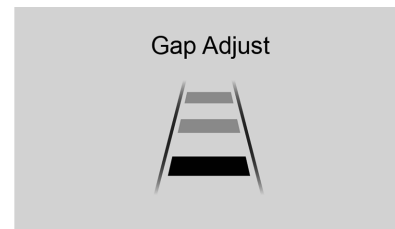
If stopped with the brake applied, press or hold SET- until the desired set speed is displayed.

Selecting the Follow Distance Gap

When a slower moving vehicle is detected ahead within the selected following gap, ACC will adjust the vehicle's speed and attempt to maintain the follow distance gap selected.

Press  on the steering wheel to adjust the following gap. Each press cycles the gap button through three settings: Far, Medium, or Near.

When pressed, the current gap setting displays briefly on the instrument cluster and HUD (if equipped). The gap setting will be maintained until it is changed.

**Far Gap Setting****Medium Gap Setting****Near Gap Setting**

Since each gap setting corresponds to a following time (Far, Medium, or Near), the following distance will vary based on vehicle speed. The faster the vehicle speed, the further back your vehicle will follow a vehicle detected ahead. Consider traffic and weather conditions

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when selecting the following gap. The range of selectable gaps may not be appropriate for all drivers and driving conditions.

Changing the gap setting automatically changes the alert timing sensitivity (Far, Medium, or Near) for the Forward Collision Alert (FCA) feature. See *Forward Collision Alert (FCA) System* ⇨ 226.

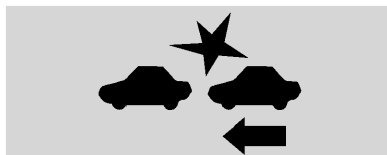
Courtesy Gap

Press and hold  on the steering wheel when vehicle is moving to temporarily increase the gap with the vehicle ahead to allow for merging traffic.

Press and hold  when stopped to cancel ACC from resuming automatically (if the stop is brief) and to remain stationary. This can be used to allow traffic to merge between you and the vehicle ahead. Press RES+ or the accelerator pedal to resume ACC.

Following distance gap will return to the original selection after hold.

Alerting the Driver



If ACC is engaged, driver action may be required when ACC cannot apply sufficient braking because of approaching a vehicle too rapidly.

When this condition occurs, the collision alert symbol will flash on the windshield. Either eight beeps will sound from the front, or both sides of the Safety Alert Seat will pulse five times. Touch the Settings icon on the infotainment home page. Select “Vehicle” to display the list of available options and select “Collision/Detection Systems”.

See *Defensive Driving* ⇨ 168.

Approaching and Following a Vehicle



The vehicle ahead indicator is in the instrument cluster and HUD (if equipped). It only displays when a vehicle is detected in your vehicle’s path moving in the same direction. If this symbol is not displaying, ACC will not respond to or brake for vehicles ahead.

ACC automatically slows the vehicle down and adjusts vehicle speed to follow a detected vehicle ahead at the selected following gap. The vehicle speed increases or decreases to follow a detected vehicle in front of your vehicle when that vehicle is traveling slower than your vehicle set speed. It may apply limited braking, if necessary. When braking is active, the brake lights will come on. The automatic braking may feel or sound different than if the brakes were applied manually. This is normal.

Passing a Vehicle While Using ACC

If the set speed is high enough, and the left turn signal is used to pass a vehicle ahead in the selected following gap, ACC may assist by gradually accelerating the vehicle prior to the lane change.

 Warning

When using ACC to pass a vehicle or perform a lane change, the following distance to the vehicle being passed may be reduced. ACC may not apply sufficient acceleration or braking when passing a vehicle or performing a lane change. Always be ready to manually accelerate or brake to complete the pass or lane change.

Stationary or Very Slow-Moving Objects **Warning**

ACC may not detect and react to stopped or slow-moving vehicles ahead of you. For example, the system may not brake for a vehicle it has never detected moving. This can occur in stop-and-go traffic or when a vehicle suddenly appears due to a vehicle ahead changing lanes. Your vehicle may not stop and could cause a crash. Use caution when using ACC. Your complete attention is always required while driving and you should be ready to take action and apply the brakes.

Irregular Objects Affecting ACC

ACC may have difficulty detecting the following objects:

- Vehicles with cargo extending from the back end.
- Non-standard shaped vehicles, such as vehicle transport, vehicles with a side car fitted, or horse carriages.
- Objects that are close to the front of your vehicle.

ACC Automatically Disengages

ACC may automatically disengage and the driver will need to manually apply the brakes to slow the vehicle if:

- The sensors are blocked.
- The Traction Control System (TCS) or StabiliTrak/ESC system has activated or been disabled.
- There is a fault in the system.
- The radar falsely reports blockage when driving in a desert or remote area with no other vehicles or roadside objects.
- A DIC message may display to indicate that ACC is temporarily unavailable.

The ACC indicator will turn white when ACC is no longer active.

In some cases, when ACC is temporarily unavailable, regular cruise control may be used. See “Switching Between ACC and Regular Cruise Control” previously in this section. Always consider driving conditions before using either cruise control system.

Notification to Resume ACC

ACC will maintain a follow gap behind a detected vehicle and slow your vehicle to a stop behind that vehicle.

If the stopped vehicle ahead has driven away and ACC has not resumed, the vehicle ahead indicator will flash as a reminder to check traffic ahead before proceeding. In addition, the left and right sides of the Safety Alert Seat will pulse three times, or three beeps will sound. Touch the Settings icon on the infotainment home page. Select “Vehicle” to display the list of available options and select “Alert Type” and “Adaptive Cruise Go Notifier” in “Collision/Detection Systems”.

If equipped with Driver Attention System (DAS), when the vehicle ahead drives away, and DAS determines that the driver's attention is on the road ahead, ACC resumes automatically.

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See "Attention to the Road" under Super Cruise. If necessary, press RES+ or the accelerator pedal to resume ACC. If stopped for more than two minutes or if the driver door is opened and the driver seat belt is unbuckled, the ACC automatically applies the Electric Parking Brake (EPB) to hold the vehicle. The EPB status light will turn on. See *Electric Parking Brake* ⇨ 184.

A DIC warning message may display indicating to shift to P (Park) before exiting the vehicle. See Vehicle Messages.

Warning

If ACC has stopped the vehicle, and if ACC is disengaged, turned off, or canceled, the vehicle will no longer be held at a stop. The vehicle can move. When ACC is holding the vehicle at a stop, always be prepared to manually apply the brakes.

Warning

Leaving the vehicle without placing it in P (Park) can be dangerous. Do not leave the vehicle while it is being held at a stop by ACC. Always place the vehicle in P (Park) and turn it off before leaving the vehicle.

ACC Override

If using the accelerator pedal while ACC is active, the ACC indicator turns blue on the instrument cluster or HUD (if equipped) indicating ACC braking will not occur. ACC will resume operation when the accelerator pedal is not being pressed.

Warning

The ACC will not automatically apply the brakes if your foot is resting on the accelerator pedal. You could crash into a vehicle ahead of you.

Curves in the Road

Warning

On curves, ACC may not detect a vehicle ahead in your lane. You could be startled if the vehicle accelerates up to the set speed, especially when following a vehicle exiting or entering exit ramps. You could lose control of the vehicle or crash. Do not use ACC while driving on an entrance or exit ramp. Always be ready to use the brakes if necessary.

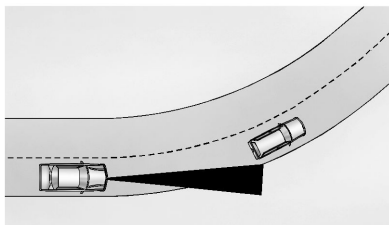
Warning

On curves, ACC may respond to a vehicle in another lane, or may not have time to react to a vehicle in your lane. You could crash into a vehicle ahead of you, or lose control of your vehicle. Give extra attention in curves and be ready to use the brakes if necessary. Select an appropriate speed while driving in curves.

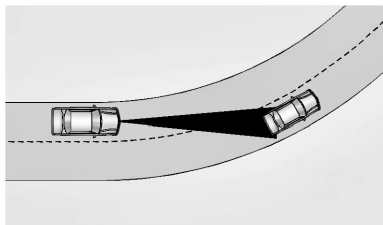
ACC may operate differently in a sharp curve. It may briefly reduce the vehicle speed if the curve is too sharp.

The curve speed control indicator  may illuminate green when ACC is actively controlling the vehicle speed and detects a sharp curve on the road ahead.

ACC automatically slows the vehicle down while navigating the curve and may increase speed out of the curve, but will not exceed the set speed.



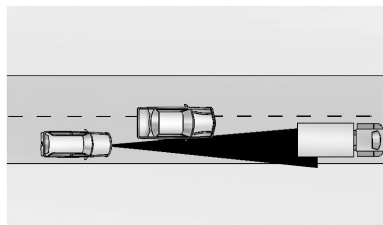
When following a vehicle and entering a curve, ACC may not detect the vehicle ahead and accelerate to the set speed. When this happens, the vehicle ahead indicator will not appear.



ACC may detect a vehicle that is not in your lane and apply the brakes.

ACC may occasionally provide an alert and/or braking that is considered unnecessary. It could respond to vehicles in different lanes or stationary objects when entering or exiting a curve. This is normal operation. The vehicle does not need service.

Other Vehicle Lane Changes



ACC will not detect a vehicle ahead until it is completely in the lane. The brakes may need to be manually applied.

Objects Not Directly in Front of Your Vehicle

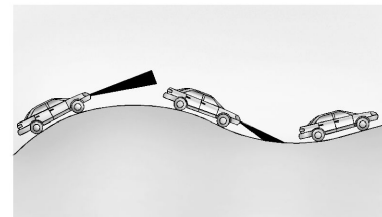
The detection of objects in front of the vehicle may not be possible if:

- The vehicle or object ahead is not within your lane.
- The vehicle ahead is shifted, not centered, or is shifted to one side of the lane.

Driving in Narrow Lanes

Vehicles in adjacent traffic lanes or roadside objects may be incorrectly detected when located along the roadway.

Do Not Use ACC on Hills



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Do not use ACC when driving on steep hills. ACC will not detect a vehicle ahead.

Do Not Use ACC When Towing a Trailer

ACC should not be used when towing a trailer.

Disengaging ACC

There are four ways to disengage ACC:

- Step lightly on the brake pedal.
- Press .
- Press .
- Press the Regen On Demand paddle.

Erasing Speed Memory

The ACC set speed is erased from memory if  is pressed or if the vehicle is turned off.

Auto Set Speed

If equipped, the Auto Set Speed function uses detected road speed limits to assist setting the vehicle speed while ACC is engaged.

You can enable or disable this feature through vehicle settings. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/Detection Systems.

Auto Set Speed will remain enabled or disabled until another selection is made, even if the vehicle is turned off and on.

When ACC is engaged and Auto Set Speed is enabled, the vehicle will:

- use the road speed limit to maintain a set vehicle speed.
- prompt you to accept or decline speed limit changes, when detected.
- change the ACC set speed to match the new road speed limit, if accepted when prompted.
- not make any changes, if declined when prompted.
- change ACC set speed to the new road speed limit if no action is taken after receiving a prompt.

Increase or decrease ACC set speed at any time using the SET- or RES+ buttons, to a predefined limit. The accelerator pedal can also be used to override the set speed. The change in the amount of increased or decreased speed, known as an offset, is stored and applied for next speed limit change. There is a predefined maximum allowed value of the offset, beyond which set speed cannot be changed.

The offset will not be retained if ACC is disengaged, Auto Set Speed has been turned off, or if vehicle is turned off.

Warning

When using Auto Set Speed with ACC, the auto set speed may not always be updated when the speed limit changes. The system also does not set the vehicle speed to speed limits shown with supplementary traffic signs, for example in construction zones. Always be attentive to your surroundings and adhere to posted speed limit signs.

This function will not work when regular Cruise Control is the selected Cruise Control mode.

This function may not work for conditional speed limit signs, for example, during specific times or where workers present.

Weather Conditions Affecting ACC

System operation may be limited under snow, heavy rain, or road spray conditions.

Accessory Installations and Vehicle Modifications

Do not install or place any object around the front camera windshield area that would obstruct the front camera view.

Do not install objects on top of the vehicle that overhang and obstruct the front camera, such as a canoe, kayak, or other items that can be transported.

Do not modify the hood, headlights, or fog lights, as this may limit the camera's ability to detect an object.

Warning

Stickers or accessories attached on or around the front or rear fascia of your vehicle can impair the radar sensors resulting in vehicle damage or personal injury. Your vehicle could brake suddenly. Do not attach anything on or around the front or rear fascia, including the license plate, the bumper, or the grille. Use only GM genuine accessories.

Do not attach anything to the front or rear fascia as this may interfere with the radar sensor operation.

Cleaning the Sensing System

The camera sensor on the windshield behind the rearview mirror, and the sensors on the front of the vehicle can become blocked by snow, ice, dirt, mud, or debris. This area needs to be cleaned for ACC to operate properly.

If ACC will not operate, regular cruise control may be available. See "Switching Between ACC and Regular Cruise Control" previously in this section. Always consider driving conditions before using either cruise control system.

For cleaning instructions, see "Washing the Vehicle" under *Exterior Care* ⇨ 304.

Super Cruise

Warning

Super Cruise does not perform all aspects of driving, nor does it do everything a driver can do. Super Cruise only steers to maintain vehicle position in the current lane or, under some circumstances, to change lanes. Super Cruise can only be used with Adaptive Cruise Control.

Super Cruise does:

(Continued)

Warning (Continued)

- Not prevent crashes or warn of possible crashes.
- Not steer to avoid stopped or slow-moving vehicles, cross-traffic, construction barriers or cones, motorcycles, children, pedestrians, animals, or other objects on the road.
- Not steer in response to vehicles or objects next to your vehicle, including vehicles attempting to enter your lane.
- Not respond to traffic lights, stop signs, or other traffic control devices.
- Not respond to crossing traffic.
- Not make turns.
- Not steer to merge onto or to exit highways.
- Not steer to avoid, or steer through construction zones.
- Not function on surface streets.
- Not respond to oncoming traffic.
- Not function in city driving conditions.

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Warning

Failure to supervise the driving task and to respond appropriately, even while Super Cruise is operating, can cause a crash. Super Cruise may not respond as you would to all driving situations and may not maintain lane position under all conditions.

It is extremely important to pay attention to the operation of the vehicle, even while using Super Cruise. Do not use a hand-held device while driving, even with Super Cruise engaged. To prevent serious injury or death:

- Always remain properly seated in the driver seat with your seat belt fastened.
- Never remove your hands from the steering wheel when Super Cruise is not operating.
- Always make sure traffic conditions are safe before using Super Cruise.
- Always keep the entire vehicle and the sensors clean. Sensors are on the front, sides, and rear of the vehicle.

(Continued)

Warning (Continued)

- Always observe posted speed limits. Only use Super Cruise at or below the posted speed limit.

Super Cruise should not be used in complex or uncertain driving conditions, including:

- Not in construction zones.
- Not when approaching or exiting toll plazas.
- Not when approaching an intersection that is controlled with a traffic light, stop sign, or other traffic control device.
- Not when lane markings are not present or cannot be detected. For example, there is too much glare, weather conditions are poor, or lanes are poorly marked.
- Not on slippery or icy roads.
- Not in adverse weather conditions, including rain, sleet, fog, ice, or snow.
- Not on winding or hilly roads.
- Not for city driving.
- Not during heavy or emergency braking.

(Continued)

Warning (Continued)

- Not on surface streets.
- Not on a road shoulder, service drive, or under an elevated freeway.
- Not when towing a trailer that does not meet GM approved guidelines.
- Not in a highway exit lane.



Warning

Super Cruise can only assist to maintain lane position, or steer to change lanes, when driving on compatible roads. You must supervise the driving task and monitor the road conditions. You may need to respond to traffic events by steering, braking, or accelerating. See Defensive Driving.

Super Cruise is:

- Not a self-driving system
- Not a crash avoidance or warning system
- Not a substitute for proper supervision of the driving task

 Warning

Some state and local laws may require hands to be kept on the steering wheel at all times. Only remove your hands from the steering wheel if Super Cruise is engaged, it is safe to do so, and it is permitted by state and local laws.

 Warning

To prevent serious injury or death, be alert and pay special attention when passing highway exits, entrances, and crossings with Super Cruise, and be ready to take control of the vehicle when necessary. Changes in lane markings around exits and entrances can momentarily cause Super Cruise to not detect the correct lane. If this occurs, Super Cruise may attempt steering inputs to bring the vehicle back into the correct lane and, in rare circumstances, could over-correct and cause the vehicle to momentarily cross into a lane next to your vehicle unless you manually steer to maintain your lane position.

If equipped, Super Cruise is an advanced driver assistance technology that allows hands-free driving on compatible roads. Additionally, it offers support for trailering, lane changes, and hands-on driving across an expanded set of roads. Super Cruise works with Adaptive Cruise Control (ACC) to maintain vehicle set speed and following distance. The Driver Attention System monitors your head pose and eye gaze to ensure you're paying attention to the road. The Driver Attention System does not record or save video.

Super Cruise is designed to operate only when:

- Teen Driver is not active.
- The camera and radar sensors are functioning and not covered, obstructed, or damaged.
- The Driver Attention System (DAS) detects the driver's head and eyes are directed toward the road ahead.
- The lane markings are clearly visible and detectable by the system.
- If equipped with Adjustable Ride Height; Super Cruise allowable ride height is selected.
- If the outside temperature is not too cold.

- There are not any other conditions preventing the system to work.

When Super Cruise is unavailable, a message will display with the reason. See "Super Cruise Message Summary" later in this section.

You may also press and hold  on the steering wheel to have the system display the unavailability message.

Engaging Super Cruise **Warning**

Super Cruise is a driver assistance system and cannot accurately detect or predict all situations. Super Cruise is not a crash avoidance system. To prevent serious injury or death, you must supervise the driving task and monitor the road conditions. You may need to respond to traffic events by steering, braking, or accelerating. See *Defensive Driving* ⇨ 168. Super Cruise also cannot determine whether you are awake, asleep, impaired, or properly focused on safe driving. The vehicle could crash into other vehicles, drive

(Continued)

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Warning (Continued)

out of the lane, or drive off the road. Complete attention is always required while driving, even while using Super Cruise. Be prepared to take over steering or apply the brakes at any time.

Warning

Super Cruise may not begin steering immediately, even when Super Cruise is available and  has been pressed. To prevent serious injury or death, only remove your hands from the steering wheel if the steering wheel light bar, the Super Cruise light , and the Adaptive Cruise Control (ACC) light  are green.

1. Make sure the vehicle is on and Adaptive Cruise Control is enabled. You will see one of two icons: a white illuminated  or a green illuminated  with the set speed limit. If you do not see either of these, press  on the steering wheel.

2. Press  on the steering wheel to activate Super Cruise.
3. Set the desired vehicle speed using the SET+/RES- button.

The system automatically engages the appropriate level of assistance based on availability and operating conditions. There are three possible assistance levels:

Adaptive Cruise Control: When Adaptive Cruise Control is active,  appears green in the instrument cluster. See *Adaptive Cruise Control*  193.

Hands-On: When the vehicle is centered in the lane, and  displays green in the instrument cluster, the vehicle will keep itself centered in the lane. While this light is on, you must keep your hands on the steering wheel.

Hands-Free: When the vehicle is centered in the lane,  displays green in the instrument cluster, and the steering wheel light bar turns green, you may take your hands off the steering wheel. This is the only level that allows for hands-free driving.

Lane Changes

Warning

To help prevent crashes before making a lane change:

- Always check mirrors.
- Glance over your shoulder.
- Use the turn signals.

Warning

Super Cruise Lane Change may not detect a vehicle in an adjacent lane. Always supervise the driving task and monitor traffic conditions when using the Super Cruise Lane Change feature. Only request a lane change when traffic conditions are safe for a lane change, and always be ready to manually steer the vehicle.

Super Cruise allows for manual, automatic, or turn signal activated lane changes. Automatic and turn signal activated lane changes are only available in Super Cruise hands-free functionality. Super Cruise Lane Change functionality may be disabled when a trailer

or other accessories (e.g. bike rack, cargo tray, etc.) are detected. Do not use Super Cruise Lane Change when towing a trailer.

To view the available settings, from the infotainment home screen, touch Settings > Vehicle > Super Cruise Lane Change.

Automatic Lane Changes

Automatic lane changes are initiated by the system under the following conditions to:

- pass a slower vehicle.
- merge out of a lane that is ending.
- allow space for other vehicles to merge from a highway entrance ramp.
- follow a route set on the built-in navigation system. See *General Towing Information* ⇨ 257.

To cancel an automatic lane change, activate the turn signal lever or steer manually.

Automatic Lane Change is not available when a construction zone is detected.

Turn Signal Activated Lane Changes

To initiate this type of lane change:

1. Ensure the adjacent lane is clear of traffic.

2. Activate the turn signal in the direction you want to go.
3. The system will steer the vehicle to perform the lane change.

To cancel a turn signal activated lane change, disengage the turn signal lever or steer manually.

Trailer Towing With Super Cruise

Super Cruise may be used when towing a trailer when the attached trailer is within size and weight limits designated in the Trailer Towing section. See *General Towing Information* ⇨ 257.

When Super Cruise is used with vehicles equipped with aftermarket trailer brake controller, disengage Super Cruise before applying the manual trailer brake. Super Cruise will not automatically disengage when manual trailer brake is applied.

Super Cruise can recognize when the vehicle is pulling a trailer and adjusts the following gap for extra stopping distance. Automatic and turn signal activated lane changes are disabled for safety while trailering.

Stationary or Very Slow-Moving Objects; Cross-Traffic



Warning

Super Cruise is not a crash avoidance system and will not steer or brake to avoid a crash. Super Cruise does not steer to prevent a crash with stopped or slow-moving vehicles. You must supervise the driving task and may need to steer and brake to prevent a crash, especially in stop-and-go traffic or when a vehicle suddenly enters your lane. Always pay attention when using Super Cruise. Failure to do so could result in a crash involving serious injury or death.

Curves in the Road



Warning

The vehicle could drift out of your lane of travel. To prevent crashes, always be ready to manually steer. Super Cruise may not detect your lane on curves in the road. Super Cruise may not detect the markings

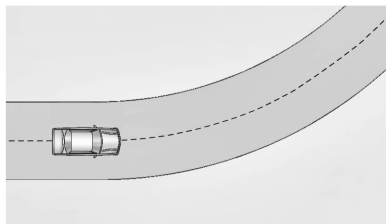
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Warning (Continued)

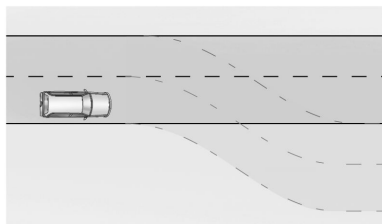
that show your lane. You may not have time to react to a vehicle in the lane next to your vehicle while on curves in the road. Super Cruise may hand control back to the driver more often driving around a sharp curve while towing a trailer.

Super Cruise may operate differently in sharp curves. It may drift out of your lane of travel if the curve is too sharp.



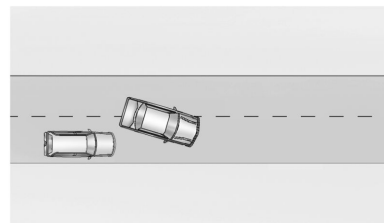
When entering a curve, Super Cruise may not detect the lane markings and may not adjust the steering enough to stay in your lane of travel. When this happens, you will need to steer the vehicle.

Super Cruise may detect other lane markings that are not in your lane and may or may not steer appropriately to maintain your lane.



Super Cruise may occasionally provide an alert and/or steering that is considered unnecessary. It could respond to lane markings in different lanes, signs, guardrails, and other stationary objects when entering or exiting a curve. This is normal operation. The vehicle does not need service.

Other Vehicles Entering Your Lane



Super Cruise may not detect a vehicle that enters your lane, or may not brake fast enough to avoid a crash. You must manually brake and steer the vehicle.

Intersections and Vehicles Crossing the Road Ahead

Super Cruise will not brake the vehicle when approaching an intersection that is controlled by a traffic light or stop sign. Super Cruise will not detect vehicles crossing the road ahead, including at intersections, and will not automatically steer or brake to prevent a collision. You must manually brake and steer the vehicle.

Super Cruise on Hills

Do not use Super Cruise while driving on steep hills.

Disengaging Super Cruise

To cancel or turn off Super Cruise in your vehicle, you can use one of the following methods:

- Press  on the steering wheel to disengage Super Cruise.
- Press the brake pedal to disengage Super Cruise and Adaptive Cruise Control.
- Turn Adaptive Cruise Control off. This also disengages Super Cruise.
- Use the Regen on Demand paddle to disengage Super Cruise and Adaptive Cruise Control.

Super Cruise Status and Lightbar



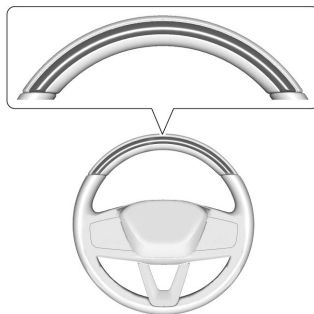
Warning

Super Cruise will not maintain the vehicle's speed while the steering wheel light bar is flashing red. If the steering wheel light bar

(Continued)

Warning (Continued)

flashes red, immediately resume manual steering to prevent serious injury or death. If you do not resume manual steering, the vehicle will begin to slow in the same lane and eventually come to a complete stop on the road.



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The steering wheel light bar and instrument cluster light provide the following important information about Super Cruise operation:

Steering Wheel Light Bar	Instrument Cluster Light	Super Cruise Description
Off	Off	Super Cruise is off. There is no automatic steering. Operate the vehicle manually.
Off	White	Super Cruise is available and can be engaged.
Solid Green	Solid Green	Super Cruise is steering. Pay attention to the road and vehicle operation.
Flashing Green	Solid Green	Super Cruise has detected you are not paying sufficiently close attention to the road. Pay attention to the road. .
Flashing Red	Solid Red	Take over steering immediately. Super Cruise will disengage.

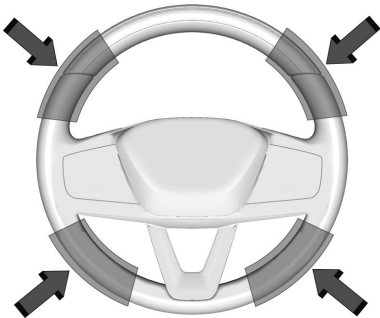
When Super Cruise is Steering

When the vehicle is positioned in the center of the lane, the steering wheel light bar and  will turn green, indicating Super Cruise is steering the vehicle.

When Super Cruise controls the steering, traffic and other conditions and laws permit, and it is safe to do so, your hands can be taken off the steering wheel.

Always pay attention to the road and the operation of the vehicle. Always monitor and be attentive of surrounding traffic, including vehicles that may cross the road in front of your vehicle.

Cooperative or Manual Steering



Super Cruise steering can be overridden with manual steering at any time. To begin steering manually, hold the steering wheel firmly with both hands.

You can adjust vehicle position within the lane by cooperatively steering the vehicle. If you steer out of the lane, the system will disengage.

When ready to allow Super Cruise to resume steering again, position the vehicle in the center of the lane, hold the steering wheel until the steering wheel light bar turns green, and then release the steering wheel when it is safe to do so.

Escalation Requiring Driver To Take Control of the Steering Wheel

When you are required to take control of the steering wheel, , and the steering wheel lightbar will turn red, and a message will display in the Driver Information Center (DIC). When you begin steering manually, Super Cruise will disengage.

In addition, audible alerts will sound, or the Safety Alert Seat will vibrate, if equipped. To view collision and detection settings, from the infotainment home screen, touch Settings > Vehicle > Collision/Detection Systems.

The red flashing steering wheel light bar could occur under any of the following conditions:

- The lane markings are poor, or visibility is limited.
- The Driver Attention System does not detect that the driver's head and eyes are directed toward the road ahead.
- Adaptive Cruise Control is cancelled.
- The vehicle is on a tight curve, the lane is too wide, or the vehicle enters a curve too quickly.
- The Super Cruise enabled road ends.
- The vehicle is approaching an intersection controlled by a traffic light, stop sign, or other traffic control device.
- A Super Cruise system fault occurs.
- Super Cruise is unable to complete a lane change maneuver.
- Super Cruise detects that the outside temperature is too cold to operate correctly.
- The driver's seatbelt becomes unbuckled.

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Super Cruise Message Summary

Subscription Required - Press OnStar Button	- The owner's required Connected Services subscription may have ended. - Press the Blue OnStar button in your vehicle to speak with an OnStar representative, who can help determine the issue and what actions to take
Unavailable Turn on Adaptive Cruise Control	Adaptive Cruise Control must be on before Super Cruise can be enabled. - Set speed is not required before enabling Super Cruise. - Adaptive Cruise Control is not required to be engaged before enabling Super Cruise.
Unavailable Lane Ending	Super Cruise is disabled because the driving lane is ending.
Unavailable No Road Information	- There is no map information available for that portion of the road. Recent road reconstruction may turn off Super Cruise for that section of road until new map information is available. - The vehicle is not on the correct type of road. A controlled access freeway or compatible divided or non-divided road is required for Super Cruise. - There are lanes entering or exiting on both the left and right side of the road.
Unavailable Sensors Can't Find Lane Lines	- Rain or snow is inhibiting the system's ability to see lane lines. - Direct sunlight is on the front camera at dawn or dusk. - There are missing or poor lane line markings on the road. - There is sun glare on the road surface. - There is heavy rain, puddles, road spray, or inclement weather conditions that are affecting system performance.

Unavailable Sensor Can't See Face Clearly	• Sun is shining into the DAS camera. • Dawn or dusk sun glare is on the driver's face. • Cups, food, hands, or other objects are obscuring the DAS view of the driver's face. • The steering column is pointed too high or low for the DAS to see the driver. Adjust the steering column or the seat if the message occurs frequently.
Unavailable Looking Away From Road for Too Long	The DAS system detects that the driver is not looking at the road.
Unavailable Driving Too Fast	The vehicle is traveling faster than 137 km/h (85 mph). The maximum Super Cruise speed in curves will vary based on how sharp the curve is. The vehicle will automatically decrease speed if needed.
Unavailable Driving in Exit Lane	The Super Cruise system has detected that the vehicle is in an exit lane.
Unavailable GPS Signal Lost	• There is poor reception in isolated areas. • Reception is being blocked by buildings or other large structures.
Unavailable You Have Taken Vehicle Control	• The brake pedal is being pressed. • Adaptive Cruise Control has been canceled or turned off.
Unavailable Sensor Blocked	Clear snow, ice, dirt, or other contaminants from the front and rear areas of the vehicle.
Unavailable Sharp Curve	Some curves are too sharp to be navigated by the Super Cruise system. Super Cruise will be available after the curve is traveled.

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Unavailable Over Weight Limit	Super Cruise has detected that the trailer is over the allowable weight limit.
Unavailable Trailer Too Unstable	Super Cruise has detected that the attached trailer is causing an unstable condition. Check the trailer and/or load.
Unavailable Trailer Too Large	Trailer size (length/width) is larger than supported for Super Cruise operation.
Unavailable Lane Too Narrow	Super Cruise has detected that the lane width ahead is too narrow for Super Cruise operation while towing a trailer.
Super Cruise Unavailable	Super Cruise is unavailable for reasons not described in other messages.
Super Cruise Locked Out See Owner's Manual	The driver did not take control of the vehicle when prompted by the Super Cruise system. The Super Cruise system will be disabled until the vehicle is turned off and back on.
Unavailable Seat Belt Not Fastened	The driver seat belt is not fastened.
Unavailable Teen Driver Mode Active	Teen Driver mode is active.
Unavailable Snow Mode	A snow plow is attached.
Unavailable Unsupported Intersection	Super Cruise has detected an unsupported intersection.
Unavailable Approaching Toll Booth	Super Cruise has detected that there is a toll booth ahead.

Unavailable Ride Height Out of Range	The vehicle ride height is out of Super Cruise operational range.
Caution Construction Zone - Drive With Care	Super Cruise has detected a construction zone.

Map Updates

Super Cruise relies on precise LIDAR based maps, these are often called High Definition (HD) Maps. These HD Maps are regularly updated by GM and sent to your vehicle. This will happen automatically as your vehicle is driven. This will not require any user input. If there is any issue with these HD Map updates, a Service Driver Assist error message will be displayed. If this message is displayed, please contact an authorized GM Service Center.

Connectivity

An active Connected Service plan that includes Super Cruise Services is required to use Super Cruise. If the vehicle is equipped with OnStar and has an active service plan, additional data may be collected through the OnStar system. This includes information about: the vehicle's operation; a crash involving the vehicle; the use of the vehicle and its features; and, in certain

situations, the location and approximate GPS speed of the vehicle. Refer to the OnStar Terms and Conditions and Privacy Statement on the OnStar website.

Location Services

This setting enables or disables sharing of vehicle location outside the vehicle for certain purposes. Even if the Location Services setting is disabled, vehicle location information will continue to be shared for emergency services and Super Cruise, if equipped.

System Care

Caution

The Super Cruise system is a highly sophisticated system and should only be serviced by technicians with the proper training, tools, and safety instructions, which your dealer has. Without proper training and tools the vehicle may become damaged.

The camera on the steering column has a lens cover that may become dirty over time and affect camera performance. Clean the lens cover with a soft cloth sprayed with glass cleaner. Wipe the lens gently, then dry it. Never use abrasive cloths/cleaners or corrosive chemicals of any kind on the lens cover.

Super Cruise uses the front radar, front camera, rear radar, and 360-degree cameras for its operation. Clean surfaces are required for Super Cruise operation. See *Adaptive Cruise Control* ⇨ 193, *Surround Vision System* ⇨ 218, and *Lane Keep Assist (LKA)* ⇨ 242 for care information.

Advanced Driver Assistance Systems

This vehicle may have features that work together to help avoid crashes or reduce crash damage while driving, backing, and parking. Read this entire section before using these systems.

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 see alerts or warnings provided by these systems. Failure to use proper care when driving may result in injury, death, or vehicle damage. See *Defensive Driving* ⇨ 168.

(Continued)

Warning (Continued)

Under many conditions, these systems will not:

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

(Continued)

Warning (Continued)

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.

Warning

Stickers or accessories attached on or around the front or rear fascia of your vehicle can impair the radar sensors resulting in vehicle damage or personal injury. Your vehicle could brake suddenly. Do not attach anything on or around the front or rear fascia, including the license plate, the bumper, or the grille. Use only GM genuine accessories.

Audible Alert or Safety Alert Seat

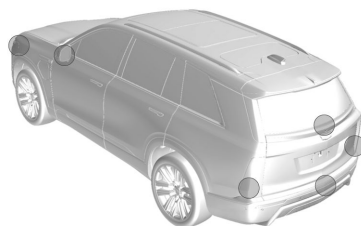
Some driver assistance features alert the driver of obstacles by beeping. To view available settings from the infotainment screen, touch Settings > Vehicle > Comfort and Convenience.

If equipped with the Safety Alert Seat, the driver seat cushion may provide a vibrating pulse alert instead of beeping. To view

available settings from the infotainment screen, touch Settings > Vehicle > Collision/Detection Systems.

Cleaning

Depending on vehicle options, keep these areas of the vehicle clean to ensure the best driver assistance feature performance. Driver Information Center (DIC) messages may display when the systems are unavailable or blocked.



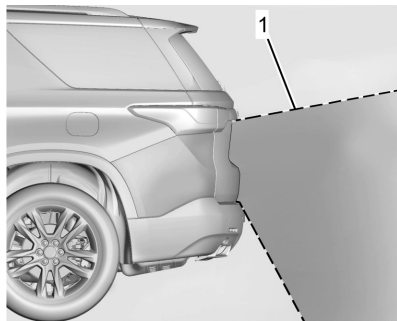
- Front and rear bumpers and the area below the bumpers
- Front grille and headlights
- Front camera lens in the front grille or near the front emblem
- Front side and rear side panels
- Outside of the windshield in front of the rearview mirror
- Side camera lens on the bottom of the outside mirrors
- Rear side corner bumpers
- Rear Vision Camera above the license plate

Assistance Systems for Parking or Backing

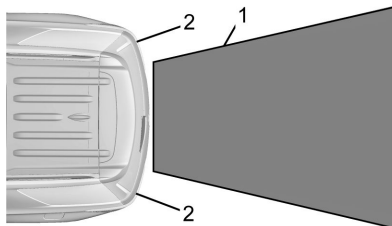
If equipped, the Rear Vision Camera (RVC), Front and Rear Park Assist (FRPA), Enhanced Automatic Park Assist (APA), Surround Vision, Side Bicycle Detection, and Rear Cross Traffic Alert (RCTA) may help the driver park or avoid objects. Always check around the vehicle when parking or backing.

Rear Vision Camera (RVC)

When the vehicle is shifted into R (Reverse), the RVC displays an image of the area behind the vehicle in the infotainment display. The previous screen displays when the vehicle is shifted out of R (Reverse) after a short delay. To return to the previous screen sooner, press  on the center stack, shift into P (Park), or reach a vehicle speed of approximately 12 km/h (8 mph).



1. View Displayed by the Camera



1. View Displayed by the Camera
2. Corners of the Rear Bumper

Displayed images may be farther or closer than they appear. The area displayed is limited and objects that are close to either corner of the bumper or under the bumper do not display.

A warning triangle may display to show that RPA has detected an object. This triangle changes from amber to red and increases in size the closer the object.

If  or a service message appears on the infotainment display, there may be a camera malfunction. See your dealer.

Warning

The camera(s) do not display children, pedestrians, bicyclists, crossing traffic, animals, or any other object outside of the cameras' field of view, below the bumper, or under the vehicle. Shown distances may be different from actual distances. Do not drive or park the vehicle using only these camera(s). Always check behind and around the vehicle before driving. Failure to use proper care may result in injury, death, or vehicle damage.

Surround Vision System

Warning

The Surround Vision cameras have blind spots and will not display all objects near the corners of the vehicle. Folding outside mirrors that are out of position may not display surround view correctly. Always check around the vehicle when parking or backing.

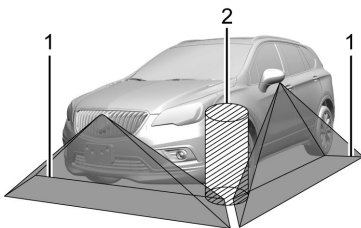
Warning

The camera(s) do not display children, pedestrians, bicyclists, crossing traffic, animals, or any other object outside of the cameras' field of view, below the bumper, or under the vehicle. Shown distances may be different from actual distances. Do not drive or park the vehicle using only these camera(s). Always check behind and around the vehicle before driving. Failure to use proper care may result in injury, death, or vehicle damage.

If equipped, the Surround Vision system can display various views surrounding the vehicle on the infotainment display. The front camera is in the grille or near the front emblem, the side cameras are on the bottom of the outside mirrors, and the rear camera is above the license plate.

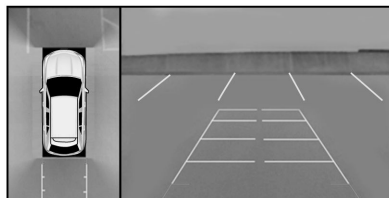


1. Views Displayed by the Surround Vision Cameras
2. Area Not Shown



1. Views Displayed by the Surround Vision Cameras
2. Area Not Shown

Camera Views



Touch the camera view buttons on the infotainment display to change views.

Front/Rear Standard View: Displays an image of the area in front or behind the vehicle. To select, touch Front/Rear Standard View on the infotainment display when a view is active. When hitch guidance is selected, Rear Standard view will remain visible across gear changes, otherwise the view will toggle between Front and Rear Standard View based on gear position.

If equipped, the Front Standard View also displays when the Park Assist system detects an object in front of the vehicle.

To access the Rear Standard View, select CAMERA on the infotainment display and select Rear Standard View. The view can be closed by selecting X, Home, or Back on the infotainment display.

Front/Rear Overhead View: Displays a front or rear overhead view of the vehicle. To view, select Front/Rear Top-Down View on the infotainment display when the camera app is active.

Side Forward/Rearward View: Displays a view that shows objects next to the front or rear sides of the vehicle. To select, touch Front/Rear Side View on the infotainment display when a camera view is active. Park Assist and Rear Cross Traffic Alert (RCTA) overlays are not available when Front/Rear Side View is active.

Camera App Guidance Lines: The Camera App supports three possible guidance modes: No Guidance, Vehicle Guidance and Trailing Guidance. The Guidance Lines Icon may appear as a selection on the screen when a view supports guidance lines. To change the guidance mode, select the appropriate guidance icon. Depending on the guidance

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mode and view selected, different guidance lines may appear. A grayed-out icon indicates that guidance lines are not available. Certain views do not support guidance lines.

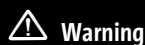
Top Down View: Touch the Surround View Icon to enable or disable the view. Displays an image of the area surrounding the vehicle. Top Down View is displayed alongside the currently selected view.

Bowl View: Displays a selectable view from different viewing angles around the vehicle. Touch Bowl View on the infotainment display when a camera view is active. Touch a circle button to change the viewing angle.

Hitch View

Displays a zoomed-in view of the hitch area to assist with aligning the vehicle's hitch ball with the trailer coupler and monitoring the trailer connection. To view, select Hitch View on the infotainment display when the Camera App is active. The view can be closed by selecting X, Home or Back on the infotainment display. Shifting into P (Park) while in this view will automatically engage the Electric Parking Brake (EPB).

Park Assist



Warning

The Park Assist System is no substitute for careful and attentive driving. The Park Assist system does not detect children, pedestrians, bicyclists, animals, or objects located below the bumper or that are too close or too far from the vehicle. It is not available at speeds greater than 9 km/h (6 mph). To prevent injury, death, or vehicle damage, even with Park Assist, always check the area around the vehicle and check all mirrors before moving forward or backing.

The vehicle may be equipped with Front and Rear Park Assist (FRPA). Under certain conditions, the Park Assist system can assist the driver during backing and parking maneuvers when the vehicle is driven at no more than 9 km/h (6 mph). An illuminated indicator in the Park Assist button indicates the system is ready.

Sensors located in the bumpers measure the distance between the vehicle and objects using sonar technology. These sensors are designed

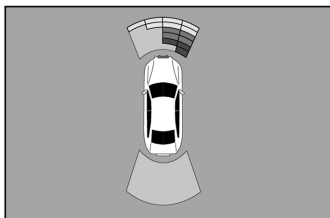
to detect certain objects up to 1.8 m (6 ft) behind and 1.2 m (4 ft) in front of your vehicle that are taller than 25 cm (10 in).

Different environmental conditions may affect whether and how far the Park Assist system can detect objects. Keep the sensors clean of mud, dirt, snow, ice, and slush; and clean sensors after a car wash in freezing temperatures. Sensors that are not clean may not detect objects or may cause the system to alert when not required.

How the System Works

The vehicle may have a Park Assist amphitheater-like display on the cluster with bars that represent the estimated location of a detected object and the vehicle's distance from the object. As a detected object becomes closer, more bars light up and change color from yellow to amber to red.

When an object is first detected in the rear, one beep will be heard from the rear, or the driver's seat will pulse two times, if equipped with Safety Alert Seat. When an object is very close, five beeps will sound from the front or rear (depending on the object's location), or the driver's seat will pulse five times. Beeps for front are higher pitched than the rear.



Turning the System On and Off

The Park Assist System can be turned on or off using the infotainment system. To view available settings from the infotainment home screen, touch Settings > Vehicle > Collision/ Detection Systems.

The **P** button in the Controls App is used to turn on or off the Park Assist, which also turns on or off the Backing Warning and Reverse Automatic Braking (RAB) at the same time. When the system is turned off, a system off message is shown on the display. This message disappears after a short period of time.

Turn off Park Assist when towing a trailer to prevent unwanted beeps and when a bike rack is attached to ensure proper operation.

When the System Does Not Seem to Work Properly

If a service message displays, check the following conditions:

- The sensors may not be clean. Keep the vehicle's front and rear bumpers free of mud, dirt, snow, ice, and slush. For cleaning instructions, see *Exterior Care* ⇨ 304.
- The Park Assist sensors may be covered by frost or ice. Frost or ice can form around and behind the sensors and may not always be seen; this can occur after washing the vehicle in cold weather. The message may not clear until the frost or ice has melted.

If a service message displays and the above conditions do not exist, take the vehicle to your dealer for repairs.

If the Park Assist System does not activate due to a temporary condition, a system off message is shown on the display. This can occur under the following conditions:

- The driver has disabled the system.

- An object is currently blocking the rear sensors (for example, bike rack, tailgate, trailer hitch, etc.). Once the object is removed, Park Assist will return to normal operation.
- The bumper is damaged. Take the vehicle to your dealer for repairs.
- Other conditions, such as vibrations from a jackhammer or the compression of air brakes on a very large truck, are affecting system performance.

Automatic Parking Assist (APA)



Warning

APA may not always detect objects in the parking space, objects that are not rigid (e.g. shrubs and chain-link fences), objects below the bumper, objects high off the ground (e.g. flatbed trucks), hanging objects, objects below ground level (e.g. large potholes), or moving objects (e.g. pedestrians, cyclists, vehicles). Always verify that the parking space is appropriate for parking a vehicle. APA may not respond

(Continued)

Warning (Continued)

to changes in the parking space, such as movement of an adjacent vehicle, or a person or object entering the parking space. APA does not detect or avoid traffic that is behind or alongside of the vehicle. Always be prepared to stop the vehicle during the parking maneuver.

If equipped, under certain conditions, APA can use sensors to detect a parking spot, and under the supervision of the driver, automatically park or unpark the vehicle. The vehicle will control gear selection, steering, acceleration, and braking, at or near idle speeds. The driver must always be prepared to apply braking as needed. A display and audible alerts help to guide the parking maneuvers.

How to Activate Automatic Parking

To activate APA, press  on the infotainment screen. While driving forward at no greater than 30 km/h (18 mph). APA searches for parking spots within the detection range, on the left or right side of the vehicle. To search for a parking space to the left, turn on the left turn signal or, if available, change the side selection

in the infotainment display. To choose or change the parking spot type, make a selection on the infotainment display.

APA cannot park in all empty parking spots. The parking spot must:

- Be sufficiently large to fit the vehicle comfortably.
- Not be too steep.

When driving past an eligible parking spot, an audible alert sounds and a notification to stop the vehicle is displayed in the Driver Information Center. Generally, APA selects the nearest empty parking spot behind the vehicle, but under some conditions may select a space that is further back. Slow down and bring the vehicle to a complete stop to begin.

Follow the displayed instructions. When the vehicle is ready to begin the maneuver, the steering wheel will vibrate as a reminder to remove hands from the steering wheel. After the vibration stops, check your surroundings and release the brakes to begin automatic parking. As the vehicle maneuvers into the parking spot, continue to check your surroundings, being prepared to brake to avoid vehicles, pedestrians, or objects.

A progress bar displays the status of the parking maneuver. Once automatic parking is finished and the vehicle has come to a full stop, APA will beep and display a message indicating parking is complete.

How to Activate Automatic Unparking

To activate APA, turn the vehicle on and leave it in P (park), then press  on the infotainment screen. A screen will display with unparking options. Like automatic parking, follow the displayed instructions and continue to check your surroundings, being prepared to brake to avoid vehicles, pedestrians, or objects.

Once automatic unparking is finished and the vehicle has come to a full stop, APA will display a message requesting the driver to take control. Press the brakes and take control of the vehicle to drive away.

How to Cancel Automatic Parking/Unparking

To cancel automatic parking or automatic unparking at any time, press  or X on the infotainment display. Be prepared to resume full control of the vehicle. APA holds the vehicle until the parking brake or brake is applied, or

the vehicle is shifted into P (Park). To start driving away, press the brakes and shift into D (Drive).

Certain vehicle conditions and driver interferences may also cancel automatic parking:

- The driver manually steers the vehicle.
- The driver shifts gears.
- The driver presses the accelerator pedal.
- There is a failure with the APA system.
- The Electronic stability control or antilock brakes are activated.
- The parking brake is applied.
- The driver unbuckles the seat belt and opens the door.

System Limitations

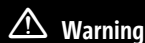
Automatic Parking Assist has certain limitations. The system cannot:

- Detect whether a parking space is legal or restricted.
- Park in an angled spot.
- Park exactly centered in a very large spot.
- Park in a very narrow spot.

- Always detect short curbs.
- Operate while towing any trailer.
- Operate with certain rear-mounted accessories, such as bike racks.
- Operate on a steep grade.
- Park the vehicle front first.

Reverse Automatic Braking (RAB)

Backing Warning and RAB



Warning

The Reverse Automatic Braking System only operates at speeds greater than 8 km/h (5 mph). It does not detect children, pedestrians, bicyclists, animals, or objects below the bumper or that are too close or too far from the vehicle. In some situations, such as at higher backing speeds, there may not be enough time for the short, sharp application of the vehicle brake system to occur.

(Continued)

Warning (Continued)

It may not avoid many types of backing crashes. Do not wait for the automatic braking to apply. This system is not designed to replace driver braking and only works in R (Reverse) when an object is detected directly behind the vehicle. It may not brake or stop in time to avoid a crash. It will not brake for objects when the vehicle is moving at very low speeds. The system will not work correctly under poor visibility or bad weather conditions, such as rain or snow.

To prevent injury, death, or vehicle damage, always check the area around the vehicle and check all mirrors before backing.

Caution

There may be instances where unexpected or undesired automatic braking occurs. If this happens, either press the brake pedal or firmly press the accelerator pedal to release the brakes. Before releasing the brakes,

(Continued)

Caution (Continued)

check the Rear Vision Camera and check the area around the vehicle to make sure it is safe to proceed.

If equipped and enabled, when in R (Reverse), Backing Warning alerts of rear objects at vehicle speeds greater than 8 km/h (5 mph) and RAB may automatically brake hard at speeds between 1–32 km/h (0.5–20 mph).

To view available settings from the infotainment home screen, touch Settings > Vehicle > Collision/Detection Systems.

The Backing Warning System will beep once from the rear when an object is first detected, or pulse twice on both sides of the Safety Alert Seat. When the system detects a potential crash, beeps will be heard from the rear, or five pulses will be felt on both sides of the Safety Alert Seat. There may also be a brief, sharp application of the brakes.

When the vehicle is in R (Reverse), if the system detects the vehicle is backing too fast to avoid a crash with a detected object behind your

vehicle in your path, it may automatically brake hard to a stop to help avoid or reduce the harm caused by a backing crash.

Pressing the brake pedal after the vehicle comes to a stop will release RAB. If the brake pedal is not pressed soon after the stop, the Electric Parking Brake (EPB) may be set. When it is safe, press the accelerator pedal firmly at any time to override RAB.

Unexpected braking events are possible with a static installed accessory, such as a bike rack or hitch-mounted cargo carrier.

Rear Pedestrian Alert**Warning**

Rear Pedestrian Alert does not automatically brake the vehicle. It also does not provide an alert unless it detects a pedestrian, and it may not detect all pedestrians if:

- The pedestrian is not directly behind the vehicle, fully visible to the Rear Vision Camera (RVC), or standing upright.

(Continued)

Warning (Continued)

- The pedestrian is part of a group.
- The pedestrian is a child.
- Visibility is poor, including nighttime conditions, fog, rain, or snow.
- The RVC is blocked by dirt, snow, or ice.
- The RVC, taillights, or back-up lights are not cleaned or in proper working condition.
- The vehicle is not in R (Reverse).

To help avoid death or injury, always check for pedestrians around the vehicle before backing up. Be ready to take action and apply the brakes. See *Defensive Driving* ⇨ 168. Keep the RVC, taillights, and back-up lights clean and in good repair.

If equipped, and under certain conditions, this feature provides alerts to the driver that a pedestrian may be behind the vehicle. This feature only works in R (Reverse) below 12 km/h (8 mph) when the pedestrian is directly behind the vehicle and within the system's

range of up to 8 m (26 ft) away during daytime driving. During nighttime driving, feature performance is very limited.



Rear Pedestrian Alert Indicator

When a pedestrian is detected within the system's range directly behind the vehicle, this symbol flashes amber on the infotainment display, along with seven audible alerts from the rear, or if equipped, two pulses from both sides of the driver seat. When a pedestrian is detected close to the vehicle, the symbol flashes red on the infotainment display, along with ten audible alerts from the rear, or if equipped, seven pulses from both sides of the driver seat.

Rear Pedestrian Alert can be set to Off or Alert. To view available settings from the infotainment home screen, touch Settings > Vehicle > Collision/Detection Systems.

If equipped, alerts can be set to beeps or seat pulses. To view available settings from the infotainment home screen, touch Settings > Vehicle > Collision/Detection Systems.

Rear Cross Traffic Alert (RCTA) System

Warning

The Rear Cross Traffic Alert System only operates at speeds greater than 8 km/h (5 mph). It does not detect children, pedestrians, bicyclists, animals, or objects below the bumper or that are too close or too far from the vehicle. In some situations, such as at higher backing speeds, there may not be enough time for the short, sharp application of the vehicle brake system to occur.

It may not avoid many types of backing crashes. Do not wait for the automatic braking to apply. This system is not designed to replace driver braking and only works in R (Reverse) when an object is detected directly behind the vehicle. It may

(Continued)

Warning (Continued)

not brake or stop in time to avoid a crash. It will not brake for objects when the vehicle is moving at very low speeds. The system will not work correctly under poor visibility or bad weather conditions, such as rain or snow.

To prevent injury, death, or vehicle damage, always check the area around the vehicle and check all mirrors before backing.

If equipped, Rear Cross Traffic Alert (RCTA) displays a red warning triangle with a left or right pointing arrow on the infotainment display to warn of traffic coming from the left or right. This system detects objects coming from up to 20 m (65 ft) from the left or right side of the vehicle. When an object is detected, either three chimes sound from the left or right, or three Safety Alert Seat pulses occur on the left or right side, depending on the direction of the detected vehicle.

Use caution while backing up when towing a trailer, as the RCTA detection zones that extend out from the back of the vehicle do not move farther back when a trailer is attached to the vehicle.

Rear Cross Traffic Braking (RCTB)

If equipped, RCTB displays a red warning triangle with a left or right pointing arrow on the infotainment screen to warn of traffic coming from the left or right. The system detects objects coming from up to 20 m (65 ft) from the left or right side of the vehicle. When an object is detected, three chimes sounds from the left or right, depending on the direction of the detected vehicle. RCTB will bring the vehicle to a full stop if a collision is imminent.

Driving With a Trailer

Use caution while backing up when towing a trailer. RCTA and RCTB are automatically disabled when a trailer is attached to the vehicle.

Turning the Features On or Off

RCTA can be turned on or off using the infotainment system. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/Detection Systems.

Assistance Systems for Driving

If equipped, when driving the vehicle in a forward gear, Forward Collision Alert (FCA), Lane Departure Warning (LDW), Lane Keep Assist (LKA), Blind Zone Steering Assist (BZSA), Lane Change Alert (LCA), Side Bicyclist Detection, Automatic Emergency Braking (AEB), Intersection Automatic Emergency Braking (I-AEB), and/or the Front Pedestrian Braking (FPB) System can help to avoid a crash or reduce crash damage.

Forward Collision Alert (FCA) System**Warning**

FCA is a warning system and does not apply the brakes. When approaching a slower-moving or stopped vehicle ahead too rapidly, or when following a vehicle too closely, FCA may not provide a warning with enough time to help avoid a crash. It also may not provide any warning at all. FCA does not warn of pedestrians, animals,

(Continued)

Warning (Continued)

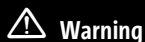
signs, guardrails, bridges, construction barrels, or other objects. Be ready to take action and apply the brakes. See *Defensive Driving* ⇨ 168.

The FCA system may help to avoid or reduce the harm caused by front-end crashes. When approaching a vehicle ahead too quickly, FCA provides a red flashing alert on the windshield and rapidly beeps or pulses the driver seat. FCA also lights an amber visual alert if following another vehicle much too closely.

FCA detects vehicles within a distance of approximately 110 m (360 ft) and operates at all speeds.

FCA can be disabled through vehicle settings. To view available settings from the infotainment home screen, touch Settings > Vehicle > Collision/Detection Systems.

Detecting the Vehicle Ahead



Warning

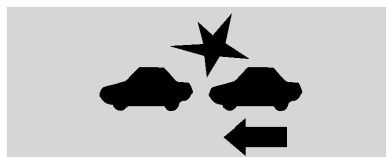
FCA does not provide a warning to help avoid a crash, unless it detects a vehicle. FCA may not detect a vehicle ahead if the FCA sensor is blocked by dirt, snow, or ice, or if the windshield is damaged. It may also not detect a vehicle on winding or hilly roads, or in conditions that can limit visibility such as fog, rain, or snow, or if the headlights or windshield are not cleaned or in proper condition. Keep the windshield, headlights, and FCA sensors clean and in good repair.



FCA warnings will not occur unless the FCA system detects a vehicle ahead. When a vehicle is detected, the vehicle ahead indicator will display green. Vehicles may not be detected on curves, highway exit ramps, or hills, due to poor visibility; or if a vehicle ahead is partially

blocked by pedestrians or other objects. FCA will not detect another vehicle ahead until it is completely in the driving lane.

Collision Alert



With Head-Up Display



Without Head-Up Display

When your vehicle approaches another detected vehicle too rapidly, the red FCA display will flash on the windshield. Also, eight rapid high-pitched beeps will sound from the front, or both sides of the Safety Alert Seat will pulse five times. When this collision alert occurs, the brake system may prepare for driver

braking to occur more rapidly which can cause a brief, mild deceleration. Continue to apply the brake pedal as needed.

Tailgating Alert



The vehicle ahead indicator will display amber when you are following a vehicle ahead much too closely.

Selecting the Alert Timing



The Collision Alert control is on the steering wheel. Press  to set the FCA timing to Far, Medium, or Near. The first button press shows the current setting on the DIC. Additional button presses will change this setting. The chosen setting will remain until it is changed

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and will affect the timing of both the Collision Alert and the Tailgating Alert features. The timing of both alerts will vary based on vehicle speed. The faster the vehicle speed, the farther away the alert will occur. Consider traffic and weather conditions when selecting the alert timing. The range of selectable alert timings may not be appropriate for all drivers and driving conditions.

If your vehicle is equipped with Adaptive Cruise Control (ACC), changing the FCA timing setting automatically changes the following gap setting (Far, Medium, or Near).

Following Distance Indicator

If equipped, the following distance to a moving vehicle ahead in your path is indicated in following time in seconds on the Driver Information Center (DIC). The minimum following time is 0.5 seconds away. If there is no vehicle detected ahead, or the vehicle ahead is out of sensor range, dashes will be displayed.

Unnecessary Alerts

FCA may provide unnecessary alerts for turning vehicles, vehicles in other lanes, objects that are not vehicles, or shadows. These alerts are normal operation and the vehicle does not need service.

Cleaning the System

If the FCA system does not seem to operate properly, this may correct the issue:

- Clean the outside of the windshield in front of the rearview mirror.
- Clean the entire front of the vehicle.
- Clean the headlights.

Automatic Emergency Braking (AEB)



Warning

AEB is an emergency crash preparation feature and is not designed to avoid crashes. Do not rely on AEB to brake the

(Continued)

Warning (Continued)

vehicle. AEB will not brake outside of its operating speed range and only responds to detected vehicles.

AEB may not:

- Detect a vehicle ahead on winding or hilly roads.
- Detect all vehicles, especially vehicles with a trailer, tractors, muddy vehicles, etc.
- Detect a vehicle when weather limits visibility, such as in fog, rain, or snow.
- Detect a vehicle ahead if it is partially blocked by pedestrians or other objects.

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

 Warning

AEB may automatically brake the vehicle suddenly in situations where it is unexpected and undesired. It could respond to a turning vehicle ahead, guardrails, signs, and other non-moving objects. To override AEB, firmly press the accelerator pedal, if it is safe to do so.

AEB may slow the vehicle to a complete stop to try to avoid a potential crash. If this happens, AEB may engage the Electric Parking Brake (EPB) to hold the vehicle at a stop. Release the EPB or firmly press the accelerator pedal.

The AEB system may help avoid or reduce the harm caused by front-end crashes. AEB also includes Intelligent Brake Assist (IBA). When the system detects a vehicle ahead in your path that is traveling in the same direction that you may be about to crash into, it can provide a boost to braking or automatically brake the vehicle. This can help avoid or lessen the severity of crashes when driving in a forward gear. Depending on the situation, the vehicle may automatically brake moderately or hard. Always wear a seat belt and ensure that all passengers are properly restrained. This

automatic emergency braking can only occur if a vehicle is detected. This is shown by the FCA vehicle ahead indicator being lit. See *Forward Collision Alert (FCA) System* ⇨ 226.

The system works when driving in a forward gear above 4km/h (2 mph). It can detect vehicles up to approximately 60 m (197 ft).

Intelligent Brake Assist (IBA) **Warning**

IBA may increase vehicle braking in situations when it may not be necessary. You could block the flow of traffic. If this occurs, take your foot off the brake pedal and then apply the brakes as needed.

 Warning

Using AEB or IBA while towing a trailer could cause you to lose control of the vehicle and crash. Turn the system to Alert or Off when towing a trailer.

IBA may activate when the brake pedal is applied quickly by providing a boost to braking based on the speed of approach and distance to a vehicle ahead.

Minor brake pedal pulsations or pedal movement during this time is normal and the brake pedal should continue to be applied as needed. IBA will automatically disengage only when the brake pedal is released.

AEB and IBA can be disabled through vehicle settings. To view available settings from the infotainment home screen, touch Settings > Vehicle > Collision/Detection Systems.

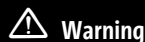
A system unavailable message may display if:

- The front of the vehicle or windshield is not clean.
- Heavy rain or snow is interfering with object detection.
- There is a problem with the StabiliTrak/Electronic Stability Control (ESC) system.

The AEB system does not need service.

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Intersection Automatic Emergency Braking (I-AEB) System



Warning

I-AEB is an emergency crash preparation feature. Do not rely on I-AEB to brake or avoid crashes. I-AEB will not brake outside of its operating speed range and only responds to detected intersecting vehicles. I-AEB may not:

- detect a crossing or oncoming vehicle on winding or hilly roads.
- detect all vehicles, especially vehicles with a trailer, tractors, muddy vehicles, etc.
- detect a vehicle when weather limits visibility, such as in fog, rain, or snow.
- detect a vehicle ahead if it is partially blocked by pedestrians or other objects.

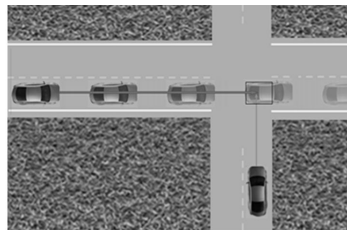
Complete attention is always required while driving, and you should be ready to take action and apply the brakes and/or steer the vehicle to avoid crashes.

If equipped, the I-AEB system may help avoid or reduce the harm caused by front-end crashes with crossing vehicles.

The system works when driving in a forward gear above 15 km/h (9 mph) and less than 80 km/h (50 mph). It can detect oncoming vehicles up to approximately 60 m (197 ft).

Vehicle Crossing the Path Ahead

When there is a crossing vehicle detected approaching from the right or the left side that may lead to a collision, I-AEB provides a red flashing alert on the windshield and rapidly beeps or pulses the Safety Alert Seat. See *Advanced Driver Assistance Systems* ⇨ 216. I-AEB can provide a boost to braking or automatically brake the vehicle.



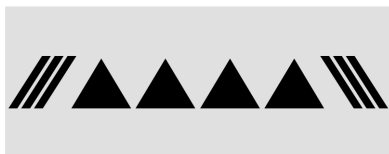
I-AEB can be set to Off, Alert, or Alert and Brake. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/Detection Systems.

Crossing Traffic Alert

When your vehicle approaches an intersecting vehicle too rapidly and there is risk of a collision, a red warning graphic will flash on the windshield. Also, eight rapid high-pitched beeps will sound, or the driver seat will pulse five times. The side of the seat that is pulsed and the location of the beeps will depend on the direction that the intersecting vehicle is detected from. When this collision alert occurs, the brake system may prepare for driver braking to occur more rapidly which can cause a brief, mild deceleration. Continue to apply the brake pedal as needed.



With Head-Up Display



Without Head-Up Display

Turning Across Oncoming Traffic Alert

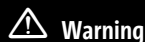
When your vehicle approaches another detected vehicle too rapidly, a red graphic will flash on the windshield. Also, eight rapid high-pitched beeps will sound from the front, or both sides of the Safety Alert Seat will pulse five times. When this Collision Alert occurs, the brake system may prepare for driver braking to occur more rapidly which can cause a brief, mild deceleration. Continue to apply the brake pedal as needed.



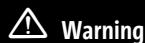
With Head-Up Display



Without Head-Up Display

Automatic Braking**Warning**

I-AEB may automatically brake or increase vehicle braking in situations when it may not be necessary or desired. Your vehicle could block the flow of traffic. I-AEB may respond to stationary or parked vehicles, signs, and other non-moving objects. To override AEB, firmly press the accelerator pedal, if it is safe to do so.

**Warning**

Using I-AEB while towing a trailer could cause you to lose control of the vehicle and crash. Turn the system to Alert or Off when towing a trailer.

If I-AEB detects it is about to crash into an intersecting vehicle, and the brakes have not been applied, I-AEB may automatically brake moderately or hard. This can help to avoid some crashes or lessen impact by reducing the speed of the vehicle. Always wear a seat belt and check that all passengers are properly restrained. I-AEB can automatically brake between 15 km/h (9 mph) and 80 km/h (50 mph). Automatic braking levels may be reduced under certain conditions, such as higher speeds.

I-AEB may slow the vehicle to a complete stop to try to avoid a potential crash. If this happens, I-AEB may engage the Electric Parking Brake (EPB) to hold the vehicle at a stop. Release the EPB or firmly press the accelerator pedal to continue driving.

I-AEB may also apply the brakes automatically when there is an intersecting vehicle at risk of collision and the system determines that the driver is not braking with sufficient force.

Minor brake pedal pulsations or pedal movement during this time is normal and the brake pedal should continue to be applied as needed.

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Cleaning the System

If I-AEB does not seem to operate properly, cleaning the outside of the windshield in front of the rearview mirror may correct the issue.

Front Pedestrian Braking (FPB) System



Warning

FPB does not provide an alert or automatically brake the vehicle, unless it detects a pedestrian or bicyclist. FPB may not detect pedestrians, including children, or bicyclists:

- When the pedestrian or bicyclist is not directly ahead, fully visible, or standing upright, or when part of a group.
- Due to poor visibility, including nighttime conditions, fog, rain, or snow.
- If the FPB sensor is blocked by dirt, snow, or ice.
- If the headlights or windshield are not cleaned or in proper condition.

(Continued)

Warning (Continued)

Be ready to take action and apply the brakes. For more information, see *Defensive Driving* ⇨ 168. Keep the windshield, headlights, and FPB sensor clean and in good repair.

If equipped, the FPB system may help avoid or reduce the harm caused by front-end crashes with pedestrians and bicyclists near the forward path of the vehicle when driving in a forward gear. FPB displays an amber indicator, , when a nearby pedestrian or bicyclist is detected ahead. When approaching a detected pedestrian too quickly, FPB provides a red flashing alert on the windshield and rapidly beeps or pulses the driver seat. FPB can provide a boost to braking or automatically brake the vehicle. This system includes Intelligent Brake Assist (IBA), and the Automatic Emergency Braking (AEB) system may also respond to pedestrians or bicyclists. See *Automatic Emergency Braking (AEB)* ⇨ 228. Always wear a seat belt and ensure that all passengers are properly restrained.

The FPB system can detect and alert to pedestrians or bicyclists in a forward gear at speeds between 8 km/h (5 mph) and 80 km/h (50 mph). During daytime driving, the system detects pedestrians or bicyclists up to a distance of approximately 40 m (131 ft). During nighttime driving, system performance is very limited.

FPB can be set to Off, Alert, or Alert and Brake through vehicle settings. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/Detection Systems.

Detecting the Pedestrian Ahead

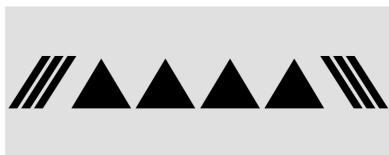


FPB alerts and automatic braking will not occur unless the FPB system detects a pedestrian or bicyclist. When a pedestrian or bicyclist that may enter the forward path of the vehicle is detected, the pedestrian ahead indicator will display amber.

Front Pedestrian Alert



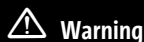
With Head-Up Display



Without Head-Up Display

When the vehicle approaches a pedestrian or bicyclist ahead too rapidly, the red FPB alert display will flash on the windshield. Eight rapid high-pitched beeps will sound from the front, or both sides of the Safety Alert Seat will pulse five times. When this Pedestrian Alert occurs, the brake system may prepare for driver braking to occur more rapidly which can cause a brief, mild deceleration. Continue to apply the brake pedal as needed. Cruise control may be disengaged when the Front Pedestrian Alert occurs.

Automatic Braking



Warning

FPB may alert or automatically brake the vehicle suddenly in situations where it is unexpected and undesired. It could falsely alert or brake for objects similar in shape or size to pedestrians or bicyclists, including shadows. This is normal operation and the vehicle does not need service. To override Automatic Braking, firmly press the accelerator pedal, if it is safe to do so.



Warning

Using the Front Pedestrian Braking system while towing a trailer could cause you to lose control of the vehicle and crash. Turn the system to Alert or Off when towing a trailer.

If FPB detects it is about to crash into a pedestrian or bicyclist directly ahead, and the brakes have not been applied, FPB may automatically brake moderately or brake hard. This can help to avoid some very low speed pedestrian or bicyclist crashes or reduce

pedestrian injury. FPB can automatically brake to detected pedestrians or bicyclist between 8 km/h (5 mph) and 80 km/h (50 mph). Automatic braking levels may be reduced under certain conditions, such as higher speeds.

FPB may slow the vehicle to a complete stop to try to avoid a potential collision with a pedestrian or bicyclist. If this happens, Automatic Braking may engage the Electric Parking Brake (EPB) to hold the vehicle at a stop. Release the EPB. A firm press of the accelerator pedal will also release Automatic Braking and the EPB.

Automatic Braking can be disabled through vehicle settings. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/Detection Systems.

Cleaning the System

If FPB does not seem to operate properly, cleaning the outside of the windshield in front of the rearview mirror may correct the issue.

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Night Vision System

Warning

The Night Vision system does not automatically brake the vehicle. It does not provide alerts unless it detects a pedestrian or large animal. The system may not detect pedestrians, including children, or animals:

- If they are less than 10 m (33 ft) away.
- If they are not directly ahead in the sensor coverage area, fully visible, standing upright, or part of a group.
- If the person or animal is moving too quickly through the field of view, such as a bicyclist.
- If the pedestrian is wearing insulated clothing.
- If headlights are off, except when parked.
- If the outside temperature is above 30 °C (86 °F).
- Due to poor visibility, including in heavy fog, rain, or snow.

(Continued)

Warning (Continued)

- If the sensor is blocked by dirt, snow, rain, or ice.
- When traveling faster than 113 km/h (70 mph).

Be ready to take action and apply the brakes. For more information, see *Defensive Driving* ⇨ 168. Keep the Night Vision sensor clean and in good repair.

Warning

The system does not detect all objects or the vehicle distance from objects. The system may not provide a warning with enough time to help avoid a crash.

Caution

Do not use the Night Vision System during heavy precipitation if you are prone to photosensitivity. The image on the Driver Information Center (DIC) may flash or strobe.

Warning

Do not stare at the image while driving as this might cause important objects ahead not to be seen. You could crash, and you or others could be injured.

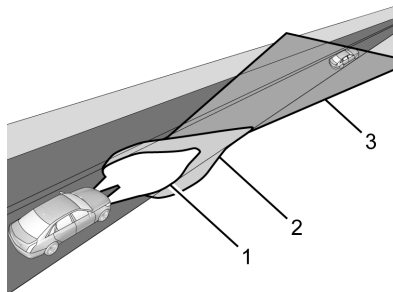
If equipped, this nighttime feature can alert the driver to pedestrians or large animals beyond the headlight beam more than 25 m (82 ft) away. A thermal image of the view ahead displays when it is dark enough outside. If a pedestrian or large animal is detected, an amber icon displays and will change to red if the vehicle is approaching the pedestrian or animal too quickly.



If equipped, when the Front Pedestrian Braking system is turned on, Night Vision provides a red Head-Up Display (HUD) alert, if equipped,

when the system detects that the vehicle is approaching a pedestrian or large animal ahead too quickly. In addition, an audible alert will sound or the Safety Alert Seat pulses, if equipped. See *Front Pedestrian Braking (FPB) System* ⇨ 232.

When a pedestrian or large animal is detected, an amber box displays around the pedestrian or animal on the Night Vision display and an amber pedestrian icon, , or animal icon, , displays on the instrument cluster. This pedestrian icon is also shown on the Head-Up Display (HUD), if equipped. When the system detects the vehicle is approaching a pedestrian too quickly, the amber pedestrian icon and box turns red, and a red flashing icon, , displays on the Head-Up Display (HUD), if equipped, with rapid beeping or pulsing of the Safety Alert Seat, if equipped.



1. Low-Beam Headlights
2. High-Beam Headlights
3. Night Vision System

Select a view on the instrument cluster to display the Night Vision image. See *Instrument Cluster* ⇨ 96. The Night Vision system can detect objects only if:

- The ignition is on.
- The vehicle is in P (Park) or a forward gear.
- It is dark enough outside.
- The headlights are on, except when parked.

The thermal image is visible during the day, however detections are unavailable.   will display on the instrument cluster.

Adjust the instrument panel brightness to make the image no brighter than necessary. Turn the image off by selecting another view on the instrument cluster.

Warm objects, such as pedestrians, animals, and other moving vehicles, should appear whiter on the Night Vision display. Cold objects, such as the sky, trees, and parked vehicles, should appear darker. Night Vision only shows objects that are warmer or colder than the surroundings. It does not detect brake lights, turn signals, emergency flashers, traffic lights, or sign information.

When the system detects the vehicle is approaching an animal too quickly, the amber animal icon and box turns red, and a red flashing icon, , displays on the Head-Up Display (HUD), if equipped, with rapid beeping or pulsing of the Safety Alert Seat, if equipped.

System pedestrian icons, beeps, and (if equipped) Safety Alert Seat pulses can be set to Off through vehicle settings by turning off the Front Pedestrian Braking system. To view available settings from

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the infotainment screen, touch Settings > Vehicle > Collision/Detection Systems > Front Pedestrian Detection.

Pedestrian detection may not be available in high outside temperatures. An icon, , displays. The system does not need service.

In rain, snow, or fog the image may not be clear and the direction of the road ahead may not be seen. In more severe weather conditions, the image may be unclear and unusable. The system does not need service.

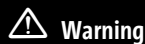
Keep the system sensor clean by activating the front window washer five times when it is dark enough for the system to operate. If the Night Vision image still looks blurry, use a soft wet cloth to gently clean the sensor camera lens and dry thoroughly. The sensor is behind the lower front grille below the driver side headlight.

The camera must also be aligned to work correctly. If the camera needs adjustment, see your dealer. Do not attempt to adjust the camera yourself.

If the vehicle displays SERVICE NIGHT VISION, do not attempt to adjust camera yourself. See your dealer.

If the night vision camera gets blocked while driving, the system will attempt to detect the blockage and automatically clean the camera lens. This will happen a maximum of three times per drive. In the event the system cannot clear the blockage the system will display a message on the Driver Information Center saying NIGHT VISION TEMP. UNAVAILABLE. The system does not need service. Please manually clean the lens following the instructions in this section.

Lane Change Alert (LCA)

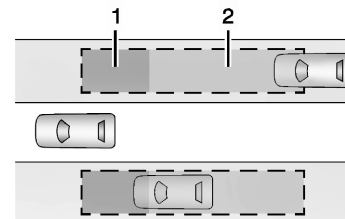


LCA does not alert the driver to vehicles outside of the system detection zones, pedestrians, bicyclists, or animals. It may not provide alerts when changing lanes under all driving conditions. Failure to use proper care when changing lanes may result in injury, death, or vehicle damage. Before making a lane change, always check mirrors, glance over your shoulder, and use the turn signals.

If equipped, the LCA system is a lane-changing aid that assists drivers with avoiding lane change crashes that occur with moving vehicles in the side blind zone (or spot) areas or with vehicles rapidly approaching these areas from behind. The LCA warning display will light up in the corresponding outside mirror and will flash if the turn signal is on.

Side Blind Zone Alert (SBZA) is included as part of the LCA system.

LCA Detection Zones



1. SBZA Detection Zone
2. LCA Detection Zone

The LCA sensor covers a zone of approximately one lane over from both sides of the vehicle, or 3.5 m (11 ft). The height of the zone is approximately between 0.5 m (1.5 ft) and 2 m (6 ft) off the ground. The Side Blind Zone Alert

(SBZA) warning area starts at approximately the middle of the vehicle and goes back 5 m (16 ft). Drivers are also warned of vehicles rapidly approaching from up to 70 m (230 ft) behind the vehicle.

How the System Works

The LCA symbol lights up in the side mirrors when the system detects a moving vehicle in the next lane over that is in the side blind zone or rapidly approaching that zone from behind. A lit LCA symbol indicates it may be unsafe to change lanes. Before making a lane change, check the LCA display, check mirrors, glance over your shoulder, and use the turn signals.



**Left Side Mirror
Display**



**Right Side Mirror
Display**

When the vehicle is started, both outside mirror LCA displays will briefly come on to indicate the system is operating. When the vehicle is in a forward gear, the left or right side mirror

display will light up if a moving vehicle is detected in the next lane over in that blind zone or rapidly approaching that zone. If the turn signal is activated in the same direction as a detected vehicle, this display will flash as an extra warning not to change lanes.

LCA can be disabled through vehicle personalization. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/Detection Systems. If LCA is disabled by the driver, the LCA mirror displays will not light up.

When the System Does Not Seem to Work Properly

The LCA system requires some driving for the system to calibrate to maximum performance. This calibration may occur more quickly if the vehicle is driven on a straight highway road with traffic and roadside objects (e.g., guardrails, barriers). During a trip, the LCA system is not operational until the vehicle first reaches a speed of 24 km/h (15 mph).

LCA displays may not come on when passing a vehicle quickly or for a stopped vehicle. LCA may alert to objects attached to the vehicle, such as a bicycle, or object extending out to either side of the vehicle. Attached objects may

also interfere with the detection of vehicles. This is normal system operation; the vehicle does not need service.

LCA may not always alert the driver to vehicles in the next lane over, especially in wet conditions or when driving on sharp curves. The system does not need to be serviced. The system may light up due to guardrails, signs, trees, shrubs, and other non-moving objects. This is normal system operation; the vehicle does not need service.

LCA may not operate when the LCA sensors in the left or right corners of the rear bumper are covered with mud, dirt, snow, ice, or slush, or in heavy rainstorms. For cleaning instructions, see "Washing the Vehicle" under *Exterior Care* ⇨ 304. If the Driver Information Center (DIC) still displays the system unavailable message after cleaning both sides of the vehicle toward the rear corners of the vehicle, see your dealer.

If the LCA displays do not light up when moving vehicles are in the side blind zone or rapidly approaching this zone and the system is clean, the system may need service. Take the vehicle to your dealer.

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Driving with a Trailer

If equipped with Lane Change Alert (LCA), the LCA detection zones that extend back from the side of the vehicle do not move further back when a trailer is towed.

Use caution while changing lanes when towing a trailer.

Side Bicycle Detection

If equipped, the system may detect a bicyclist approaching from the side or rear of the vehicle.

If this occurs, a chime will sound in the direction of the detection, and the Safety Alert Seat will pulse if enabled through vehicle settings. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/Detection Systems.

Bicyclist Detection is available when the vehicle is in D (Drive), P (Park), and for a short time after the vehicle is turned off.

If the vehicle detects a bicyclist when it is off, a DIC message may display and alert to the direction of the detection. In some cases, an Unavailable message may display. This is normal and does not mean that the system is broken.

Detection Zones

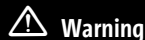
When the vehicle is in P (Park) or is turned off, a bicyclist can be detected 11 m (36 ft) behind the vehicle or 10 m (33 ft) to the side of the vehicle.

When the vehicle is in D (Drive), a bicyclist can be detected 3 m (10 ft) behind the vehicle or to the side of the vehicle.

Turning the Feature On or Off

Bicyclist Detection can be turned on or off through vehicle settings. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/Detection Systems.

Blind Zone Steering Assist (BZSA)



Warning

Do not rely on Blind Zone Steering Assist (BZSA) to prevent crashes. This system does not replace the need to pay attention and drive safely. Failure to use proper care when driving may result in vehicle damage, injury, or death.

(Continued)

Warning (Continued)

- BZSA performance may be affected by weather and road conditions.
- BZSA does not provide steering assistance to avoid a vehicle that is in, or has entered, your lane of travel.
- BZSA will not prevent a towed trailer from crossing into the adjacent lane. Always monitor the trailer position while towing to ensure it is in the same lane as your vehicle. BZSA is only designed to detect when your vehicle unintentionally crosses detected lane lines.

If equipped, the Blind Zone Steering Assist (BZSA) system can detect a potential crash with a moving vehicle in the lane you are entering. It provides a brief, urgent turn of the steering wheel to alert you to take action to avoid a collision.

BZSA works with Lane Keep Assist (LKA) and Lane Change Alert (LCA). BZSA operates when the vehicle is in a forward gear, and only when

LKA and LCA are enabled and able to assist. See *Lane Keep Assist (LKA)* ⇨ 242. See *Lane Change Alert (LCA)* ⇨ 236.

BZSA will provide a steering correction when your vehicle is about to leave the current lane of travel, with the possibility of a collision with a vehicle in the adjacent lane. This steering correction happens closer to the center of the lane and has a stronger steering correction than LKA. Unlike LKA, the steering correction with BSZA will happen even if your turn signal is on in the direction of lane departure.

In addition to the BZSA steering intervention, the  will turn amber, six beeps or six seat pulses will occur, if equipped with Safety Alert Seat, and  or  will flash on the outside rear view mirror.

Traffic Sign Assistant

If equipped, Traffic Sign Assistant recognizes designated traffic signs via the front camera located behind the windshield in front of the interior rear view mirror, and displays the detected speed limit in the Driver Information Center (DIC). Additionally, speed limit information from the navigation system map database may be used.

Caution

The system is intended to assist the driver within a defined speed range to discern certain traffic signs. Always pay attention to posted speed limit signs.

Do not ignore traffic signs which are not displayed by the system.

The system does not discern any signs other than the conventional traffic signs that might give or end a speed limit. It may not detect some electronic speed signs.

Depending on the weather conditions or problems with traffic signs, a traffic sign may not be recognized or a sign different from the actual traffic sign may be displayed.

Do not let this special feature tempt you into taking risks when driving.

Always adapt vehicle speed to the road conditions.

Driver assistance systems do not relieve the driver from full responsibility for vehicle operation.

Traffic signs that are detected are:

- Speed Limit
- Constraint Signs

Display Indication

The currently detected speed limit is displayed in the DIC until the next speed limit or end of speed limit sign is detected. Depending on the vehicle, the current valid speed limit is permanently displayed on the DIC or in the upper left of the instrument cluster.

A (--) symbol in a frame indicates there is a sign detected which cannot be clearly identified by the system.

A (/) symbol in a frame indicates that the feature is turned off or has failed.

See Driver Information Center (DIC).

Alert Function

If equipped, a chime may sound when you have exceeded the indicated speed limit, or if a new speed limit is detected.

The alert function can be turned on or off. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/ Detection Systems.

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Each time the vehicle is started, the customization options will be turned on.

Exceeding Indicated Speed Limit

If the indicated traffic sign speed limit is exceeded by 5 km/h (3 mph) or more, the permanently displayed traffic sign symbol will flash until the vehicle speed is reduced to or below the indicated speed limit.

System Reset

The content of the traffic sign display can be cleared. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/Detection Systems.

Upon successful reset, a (-) symbol displays until the next traffic sign is detected or provided by the navigation system map data. In some cases, traffic sign memory is cleared automatically by the system.

Alert function will automatically be turned on when the system is reset.

See Driver Information Center (DIC).

Navigation System Traffic Sign Detection

The currently displayed sign can either originate from sign detection using the camera, or from the navigation system map data. If the currently displayed sign originates from map data and the map information changes, a new sign will be displayed. This may lead to detection of a new sign although no sign on the road may have been passed. If the map data is unavailable, Traffic Sign Assistant will turn off automatically.

Traffic Sign Map Data Update

In order for the system to keep operating correctly, the traffic sign map data must be updated on at least an annual basis. Periodic updates will be made available to you at no cost for 14 years from the manufacturing date of the vehicle.

Your vehicle will remind you to update the traffic sign map data once a year. Check for new updates at www.gmnavdisc.navigation.com/speedsignmap.

To update:

1. Download the map updates to a USB-C flash drive.

2. Insert USB-C flash drive into the vehicle's USB port. See USB Port.
3. From the infotainment home screen, touch Settings > Display > Instrument Cluster > Traffic Sign Recognition > Traffic Sign Data and follow the prompts on screen.

Do not plug anything else into the USB ports while the transfer is in progress. A message will appear on the infotainment screen when the transfer is complete.

Limitations

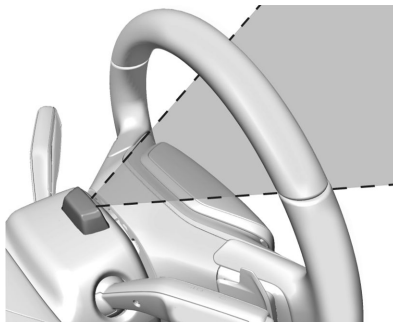
Traffic sign memory may not operate correctly if:

- The area of the windshield, where the front camera is located, is not clean or is affected by foreign objects, e.g. stickers, window tinting, etc.
- Traffic signs are completely or partially covered, are too low or high or difficult to discern.
- Traffic signs are incorrectly mounted or are damaged.
- Traffic signs do not comply with the approved traffic sign standards.

- The speed limit is displayed by certain types of electronic speed signs.
- There are adverse environmental conditions, e.g. heavy rain, snow, direct sunlight or shadows.
- The headlights are dirty or not correctly aligned when driving at night.
- The navigation map data is out of date.
- The navigation map is unavailable.

Driver Attention Assist

If equipped, Driver Attention Assist alerts the driver to pay closer attention to the road ahead. Driver Attention Assist uses a camera-based Driver Monitoring System. The Driver Monitoring System on the steering column continually monitors the driver's head movements and eye gaze location to determine if the driver is drowsy or distracted. Depending on the level of the driver's distraction or drowsiness, Driver Attention Assist will provide visual warnings, audible alerts, and Safety Alert Seat vibrations to gently guide the driver to refocus on the driving task.



Sunglasses, hats, or other types of clothing that change the shape of the head may interfere with camera performance. To improve camera performance, raise or lower the steering wheel, wear lighter tinted glasses, or change the seat position.

Driver Attention Assist does not record video or audio. It is only active while driving with the feature enabled.

How to Activate Driver Attention Assist

The feature can be enabled or disabled through vehicle settings. To view available settings from the infotainment screen, select Settings > Vehicle > Driver Attention Assist.

Distracted Driving

Depending on the attention level, Driver Attention Assist will display escalating alerts in the instrument cluster that advance from level one to level two as the attention level decreases. Depending on the driver's distraction level, the system will also send audible alerts or Safety Alert Seat vibrations, if equipped with Safety Alert Seat. See *Driver Attention Assist Light* ⇨ 110.

If the system detects that you are severely distracted, it will display a timer for you to take action. If you remain unresponsive, the system will activate Automatic Emergency Braking and Lane Keep Assist, even if they are currently disabled, and reduce the vehicle speed. Driver Attention Assist can automatically adjust the sensitivity of Automatic Emergency Braking and Lane Keep Assist. See *Lane Keep Assist (LKA)* ⇨ 242 and *Automatic Emergency Braking (AEB)* ⇨ 228.

If equipped with Super Cruise, the system will instead start Super Cruise, call OnStar, and bring the vehicle to a stop. See *Super Cruise* ⇨ 203.

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The driver always retains full control of the vehicle and can cancel these interventions at any time. When the system detects that sufficient attention is restored, it will return to the original state of attention monitoring.

Drowsy Driving

The system monitors the driver for signs of extreme fatigue, such as yawning or a change in blinking frequency. Driver Attention Assist provides escalating alerts that may include audible alerts and, if equipped with Safety Alert Seat, vibrations. Escalating alerts will occur with increasing frequency. Not all types of alerts may occur during a drowsy event. The provided alerts range from when the driver is deemed severely tired, and requiring effort to stay awake, to fighting to stay awake, or drifting in and out of sleep.

When the maximum drowsiness alert occurs, the driver will be presented with the following options on the infotainment screen:

- Phone a Friend
- Start a Playlist
- Navigate to Nearest Point of Interest (POI)

Select an option from the list and follow the instructions displayed on infotainment screen.

When you are extremely drowsy or asleep, a timer will appear for action to be taken. If you remain unresponsive, the system will activate Automatic Emergency Braking and Lane Keep Assist, even if they are currently disabled, and reduce the vehicle's speed. Driver Attention Assist can automatically adjust the sensitivity of Automatic Emergency Braking and Lane Keep Assist. See *Lane Keep Assist (LKA)* ⇨ 242 and *Automatic Emergency Braking (AEB)* ⇨ 228.

If equipped with Super Cruise, the system will instead start Super Cruise, call OnStar, and bring the vehicle to a stop. See *Super Cruise* ⇨ 203.

Cleaning the Camera

The camera lens cover on the steering column may become dirty over time. If this occurs, clean the lens cover with a soft cloth sprayed with glass cleaner. Wipe the lens gently, then dry it. Never use abrasive cloths, cleaners, or corrosive chemicals of any kind on the lens cover.

Limitations

Some factors can impact the performance of the Driver Attention Assist feature, causing it to not to function as intended. These include (but are not limited to):

- Damage to the Driver Monitoring System, camera, or lens.
- The camera being blocked by the steering wheel, hands, or objects.

If there is a problem with the system, a Driver Information Center message or icon in the instrument cluster may display.

Lane Keep Assist (LKA)



Warning

The LKA system does not continuously steer the vehicle. It may not keep the vehicle in the lane or give a Lane Departure Warning (LDW) alert, even if a lane marking is detected.

The LKA and LDW systems may not:

- Provide an alert or enough steering assist to avoid a lane departure or crash.

(Continued)

Warning (Continued)

- Detect lane markings under poor weather or visibility conditions. This can occur if the windshield or headlights are blocked by dirt, snow, or ice, if they are not in proper condition, or if the sun shines directly into the camera.
- Detect road edges.
- Detect lanes on winding or hilly roads.

If LKA only detects lane markings on one side of the road, it will only assist or provide an LDW alert when approaching the lane on the side where it has detected a lane marking. Even with LKA and LDW, you must steer the vehicle. Always keep your attention on the road and maintain proper vehicle position within the lane, or vehicle damage, injury, or death could occur. Always keep the windshield, headlights, and camera sensors clean and in good repair. Do not use LKA in bad weather conditions.

**Warning**

Using LKA while towing a trailer or on slippery roads could cause loss of control of the vehicle and a crash. Turn the system off.

If equipped, LKA may help avoid crashes due to unintentional lane departures. This system uses a camera to detect lane markings. The LKA system can be ready to assist above approximately 50 km/h (31 mph). LKA may assist by gently turning the steering wheel if the vehicle approaches a detected lane marking. It may also provide a Lane Departure Warning (LDW) alert if the vehicle unintentionally crosses a detected lane marking. LKA will not assist or alert if the turn signal is active in the direction of the lane departure, or if it detects that you are accelerating, braking, or actively steering. LKA can be overridden by turning the steering wheel. If the system detects you are steering intentionally across a lane marker, the LDW may not be given. Do not expect the LDW to occur when you are intentionally crossing a lane marker.

How the System Works

The LKA camera sensor is on the windshield ahead of the rearview mirror.

LKA can be turned on or off through the infotainment screen.

LKA may not be available in extremely cold temperatures of less than approximately -30° F (-34° C).

When on,  is white and changes green if LKA is available to assist and provide LDW alerts. It may assist by gently turning the steering wheel and display  as amber if the vehicle approaches a detected lane marking without using a turn signal in that direction. It may also provide an LDW alert by flashing  amber as the lane marking is crossed. Additionally, there may be three chimes on the right or left, depending on the lane departure direction.

Take Steering

The LKA system does not continuously steer the vehicle. If LKA does not detect active driver steering, an alert, chime, or Driver Information Center (DIC) message may be provided. Move the steering wheel to dismiss.

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When the System Does Not Seem to Work Properly

The system performance may be affected by:

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

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

A system unavailable message may display if the camera is blocked. The LKA system does not need service.

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

Charging

When to Charge

When the high voltage battery is low, an amber warning light may appear and the following charging messages may display on the Driver Information Center (DIC):

CHARGE VEHICLE SOON : Charge the battery as soon as possible.

REDUCED ACCELERATION DRIVE WITH CARE :

There is reduced accelerator pedal response and the remaining range value changes to LOW. Charge the vehicle immediately. See *Propulsion Power Messages* ⇨ 119.

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.

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, outside temperature, and charge station capability. See *Charging* ⇨ 110 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 slows down as the battery recharges. 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* ⇨ 269.
- 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.

There are several infotainment screens that will display depending on the current charging status. See *Charging* ⇨ 110.

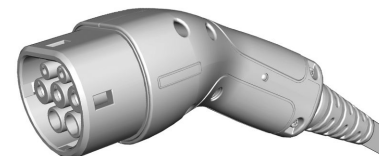
Charging Override

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

If equipped, a loss of AC power alert may sound briefly if AC power is lost for over one minute. This sound alert can be turned off. See *Charging* ⇨ 110.



AC Charge Cord Vehicle Plug

To Start AC Charging

1. Put the vehicle in P (Park).



2. Push and release the top right corner of the charge port door to open it.

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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.

- Open the liftgate, lift the load floor cover, and remove the charge cord.
- Plug the charge cord into the electrical outlet. To verify the charge cord status, see *Electrical Requirements for Battery Charging* ⇨ 257 and *Charge Cord* ⇨ 252. For instructions to set cord limit settings for a charge session, see *Charging* ⇨ 110.
- 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 charge.
- Verify that the charge status light turns on and an audible chirp occurs. See *Charging Status Feedback* ⇨ 249.

To End AC Charging

- Press  on the remote key to unlock the charge cord or by tapping "Stop" on the Charging page on your infotainment screen.

- Unplug the charge cord from the vehicle.



- Press the button to manually close the charge port door.
- Unplug the charge cord from the electrical outlet.
- Place the charge cord into the storage compartment.

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.

You can charge the vehicle using DC charging equipment typically found at service stations and other public locations.

This vehicle is compatible with Combined Charging System 2 (CCS2) connector. Check the charging station DC vehicle plug for compatibility with the DC charge port on this vehicle.

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. Push and release the top right corner of the charge port door to open it.

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. Unlatch the DC charging dust cover and lower it fully.
4. 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 charge. Check the Driver Information Center (DIC) to make sure the vehicle plug is connected properly.
5. Follow the steps listed on the charging station to start charging.
6. When charging is active, the DC vehicle plug is locked to the DC charge port and cannot be disconnected.

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7. Verify that the charge status light turns on and an audible chirp occurs. See *Charging Status Feedback* ⇨ 249.

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 screen on the infotainment display.

If the vehicle plug does not unlock from the vehicle charge port after a charge, contact your dealer or use the emergency manual charge cord release. See "Emergency Manual Charge Cord Release" later in this section.

1. Unplug the DC vehicle plug from the DC charge port on the vehicle and close the dust cover.
2. The charge port door will automatically close when the charge cord is unplugged.

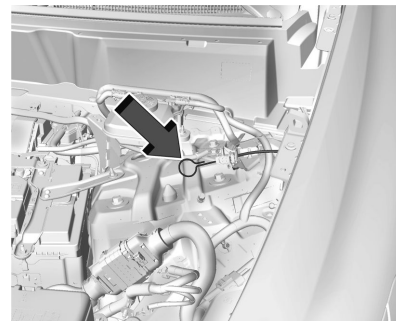


3. Press the button to manually close the charge port door.

Emergency Manual Charge Cord Release

This vehicle is equipped with an emergency manual charge cord release in the event the DC vehicle plug does not release normally.

1. Open the hood. See "Hood."



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

To Stop AC or DC Charging

Use the controls on the charging station 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" under *Charging* ⇨ 110.

Delayed Charging Override

To override a delayed charge event, unplug the charge cord from the charge port and then plug it back in within five seconds. A single audible chirp will sound and charging will begin immediately.

To cancel an override, unplug the charge cord, wait for 10 seconds, and then plug the charge cord back in. A double audible chirp will sound and delayed charging will resume.

See *Charging* ⇨ 110 for advanced charge scheduling options.

Charging Status Feedback

The vehicle is equipped with a charge port status light.



When the charge cord is plugged in, a color appears to indicate the charging status.

Refer to the table for charging status feedback:

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Charge Port Status Light Color	Sound	Action/Reason
Solid Blue	None	Initial connection is successful.
Pulsing Blue	Two audible chirps	Charging is delayed by charging screen or by a total utility interruption. Charging will begin later. See “Utility Interruption of Charging.” Utility Override (“Demand Response”).
Blinking Green (the longer the blink, the higher the state of charge)	One audible chirp	Vehicle is actively charging.
Solid Green	None	Charging is complete.
Pulsing Red	None	Error or charging has not initialized at the charging station. Check the charge cord connection. There may be no power supplied to the vehicle. Follow the instructions at the charging station to initialize charging.

Charge Port Status Light Color	Sound	Action/Reason
None (upon plug-in)	None	Check the charge cord connection.
None (after blue and green lights up)	None	Check the charge cord connection. If the connection is good, this may indicate a power failure or a total utility interruption, and charging will begin later. It may also occur if a high voltage charging system fault is detected. See “Utility Interruption of Charging.” or <i>Service Vehicle Soon Light (Propulsion System Failure)</i> ⇨ 102.
None	Three audible chirps when the driver door is opened	The charge port door is open.

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Charge Port Status Light Color	Sound	Action/Reason
Flashing Green (the longer the blink, the higher the state of charge)	Four audible chirps	The currently set departure time cannot be met. May be due to charging power level or charge schedule setting factors. Refer to the charging screen for actual charge completion time. See <i>Charging</i> ⇨ 110.
Pulsing Green	One audible chirp	The vehicle is actively discharging through the vehicle to vehicle cord.
None	Four audible chirps	When using Persistent Power, the vehicle is approaching the Range Reserve Limit or the Timer (if enabled) to end the session.

Charge Cord

This vehicle may come with a portable charge cord. Read and follow all operation and troubleshooting instructions, warnings, and limitations that come with the charge cord before use.

IMPORTANT SAFETY INSTRUCTIONS**⚠ Danger**

This symbol indicates risk of electrical shock.

If anything on the charge cord is broken, do not touch components with this symbol. To avoid injury, do not touch any metal on the charge cord as this could cause electrical current to flow to your body.

⚠ 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

(Continued)

Warning (Continued)

the lowest vehicle charge level if the electrical circuit or electrical outlet capacity is not known.

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 in this section.

⚠ 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.

(Continued)

Warning (Continued)

- 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

- To reduce the risk of fire, installations shall comply with the requirements of Electric Code IEC 60364 – Electrical Installations in Buildings and any other standard and regulation that apply 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.

(Continued)

Warning (Continued)

- 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.
- Do not use this product if the enclosure or the vehicle plug is broken, cracked, open, or shows any other indication of damage.
- 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

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

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

(Continued)

Warning (Continued)

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 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.

 Warning

- Charging an EV can stress a building's electrical system more than a typical household appliance.
- 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.
- Electrical outlets may wear out with normal usage or may be damaged over time, making them unsuitable for EV charging.
- Check the electrical outlet/plug while charging and discontinue use if the electrical outlet/plug appears hot, then have the electrical outlet serviced by a qualified electrician.

(Continued)

Warning (Continued)

- Use an electrical outlet that is weatherproof while charging outdoors. Make sure that the outlet complies with all the standards and regulations for outdoors usage by region.
- Do not attempt to use the charge cord with non-utility supplied electrical power sources such as backup generating equipment.
- If the charge cord overheats, remove from direct sunlight.
- Disconnect the charge cord from the vehicle before disconnecting the attachment plug from the wall.
- When charging your vehicle, ensure all components are connected properly, there is no damage, and the outlet has power.

**Warning**

When using the charge cord, ensure that ambient temperature and any environmental condition (i.e. altitude) are within the range of operation specified in the instructions that come with the cord. Ensure that the charge cord is stored properly and in a location that meets the range of temperature and environmental conditions specified in the instructions that come with the cord.

Do not:

- Place the control box and charge cord in a location where it may be submerged in water (or other liquid substances) or subject to physical abuse.
- Coil the charge cord too tightly, or store the charge cord in a location where it **may be crushed, stressed, or forced into a space.**
- Stress, excessively rotate, or apply excessive pulling force while wrapping the cord.

(Continued)

Warning (Continued)

- Wrap the charge cord around the housing of the control box.
- Store the charge cord in places where water or dust may **damage or pose a risk to the integrity of the cord.**

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.

Troubleshooting**Warning**

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.

Confirm that the attachment plug is not too hot to grasp before disconnecting the charge cord from the vehicle.

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 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.

Electrical Requirements for Battery Charging

The vehicle is designed for compatibility with most standard vehicle charging equipment in the region of sale. Check for charger compatibility before purchasing a charger.

See *Charge Cord* ⇨ 252.

Trailer Towing

General Towing Information

Only use towing equipment that has been designed for the vehicle. Contact your dealer or trailering dealer for assistance with preparing the vehicle to tow a trailer. Read the entire section before towing a trailer.

To tow a disabled vehicle, see *Transporting a Disabled Vehicle* ⇨ 302.

Conversions and Add-Ons

Add-On Electrical Equipment

Warning

The Data Link Connector (DLC) is used for vehicle service and Emission Inspection/Maintenance testing. See *Service Vehicle Soon Light (Propulsion System Failure)* ⇨ 102. A device connected to the DLC — such as an aftermarket fleet or driver-behavior tracking device — may interfere with vehicle systems. This could affect vehicle operation and cause a crash. Such devices may also access information stored in the vehicle's systems.

Caution

Some electrical equipment can damage the vehicle or cause components to not work and would not be covered by the vehicle warranty. Always check with your dealer before adding electrical equipment.

Add-on equipment can drain the vehicle's 12-volt battery, even if the vehicle is not operating.

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When adding electrical equipment, it should only be connected using the accessory power outlets. The maximum power that can be supplied by one accessory power outlet or spread across all three is 200 watts or 15 amps. Exceeding 200 watts or 15 amps may cause erratic vehicle operation.

The vehicle has an airbag system. Before attempting to add anything electrical to the vehicle, see *Servicing the Airbag-Equipped Vehicle* ⇨ 63 and *Adding Equipment to the Airbag-Equipped Vehicle* ⇨ 63.

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General Information

For service and parts needs, visit your dealer. You will receive genuine parts and trained and supported service people.

Accessories and Modifications

Adding non-dealer accessories or making modifications to the vehicle can affect vehicle performance and safety, including such things as airbags, braking, stability, ride and handling, emissions systems, aerodynamics, durability, Driver Assistance Systems, and electronic systems like antilock brakes, traction control, and stability control. These accessories or modifications could even cause malfunction or damage not covered by the vehicle warranty.

Damage to suspension components caused by modifying vehicle height outside of factory settings will not be covered by the vehicle warranty.

Damage to vehicle components resulting from modifications or the installation or use of non-GM certified parts, including control module or software modifications, is not covered under the terms of the vehicle warranty and may affect remaining warranty coverage for affected parts.

GM Accessories are designed to complement and function with other systems on the vehicle. See your dealer to accessorize the vehicle using genuine GM Accessories installed by a dealer technician.

Also, see *Adding Equipment to the Airbag-Equipped Vehicle* ⇨ 63.

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.

(Continued)

Warning (Continued)

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

(Continued)

Warning (Continued)

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, with the vehicle off and the brake pedal not applied, press and hold POWER for more than five seconds.

 Warning

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

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

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

Hood **Warning**

Components under the hood can get hot. To help avoid the risk of burning unprotected skin, never touch these components until they have cooled, and always use a glove or towel to avoid direct skin contact.

To open the hood:**Caution**

The hood release handle can become damaged if pulled while the driver side door is closed. Open the driver side door to pull the hood release handle. Do not use the hood release handle when the driver side door is closed.

1. Open the driver's side door to enable the hood release handle's full range of motion.
2. Pull the hood release handle on the lower left side of the instrument panel.



3. Release the handle, then pull the handle again to fully open the hood.
4. Go to the front of the vehicle and lift the hood open.

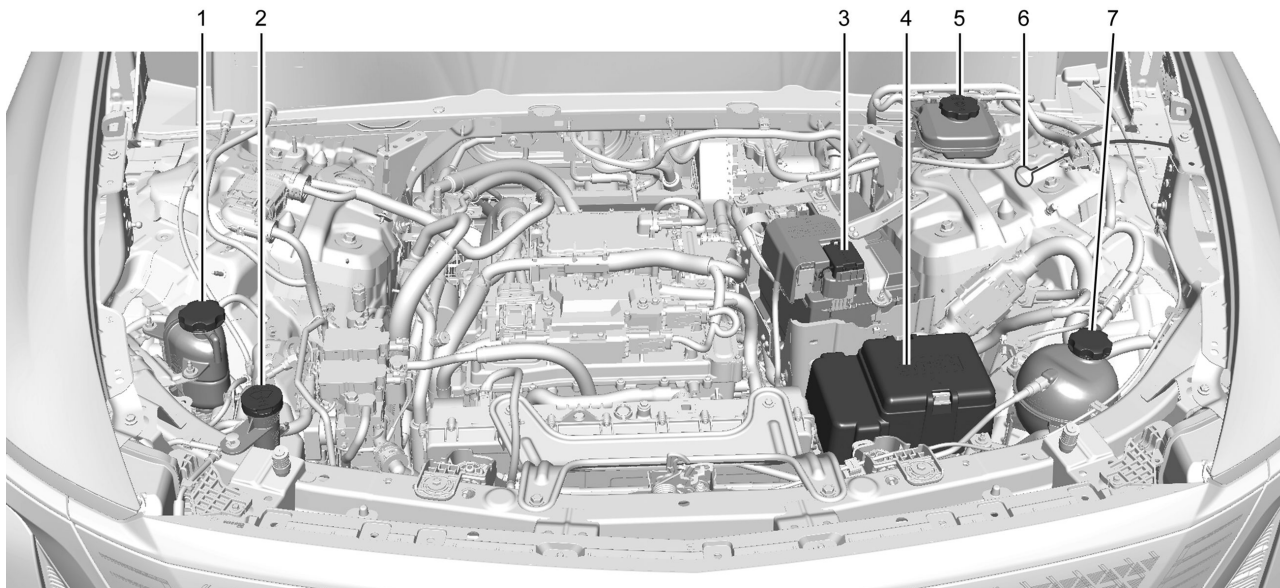
To close the hood: **Warning**

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.

262 **Vehicle Care**

1. Be sure all filler caps are on properly and all tools are removed.
2. Lower the hood down until the strut system is no longer holding up the hood.
3. Allow the hood to fall. Check to make sure the hood is latched completely. Repeat this process with additional force if necessary.
4. If the hood does not latch, a message will display on the Driver Information Center (DIC) indicating the vehicle will not shift out of (P) Park. To override this function and shift out of park, press and hold the brake pedal until the override completion message is displayed on DIC. The speed of the vehicle may be limited after overriding the message.

Underhood Compartment Overview



1. Coolant Reservoir. (3rd Row AC and Heating) See *Cooling System* ⇨ 264.

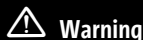
2. Windshield Washer Fluid Reservoir. See *Washer Fluid* ⇨ 266.

3. Battery. No access to battery. See *Battery* ⇨ 269.

264 Vehicle Care

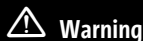
4. Fuse Block. See *Underhood Compartment Fuse Block* ⇨ 277.
5. Brake Fluid Reservoir. See *Brake Fluid* ⇨ 268.
6. Coolant Reservoir. See *Cooling System* ⇨ 264.

Cooling System



Warning

If the coolant inside the surge tank is boiling, do not do anything else until the cooling system cools down. You or others could be burned. You should have your vehicle checked by your GM dealer.



Warning

The coolant system hoses and related components become hot during vehicle operation. To avoid potential burns, do not touch these components while they are still hot.

Electric vehicles have one or more independent cooling systems designed to control the temperature of the high voltage battery, power electronic modules, and cabin heating. These cooling systems are complex and should only be serviced by a qualified technician.

The following explains the cooling systems and how to check coolant levels.

High Voltage Battery Cooling System

The high voltage battery cooling system works to keep the vehicle battery within a normal operating temperature range. If the temperature rises above this range, the battery cooling system turns on the air conditioning compressor to regulate the temperature. If the temperature falls below this temperature, a high voltage heater, located outside the battery on a cradle, heats the coolant until the correct temperature is reached.

Single Power Inverter Module, Accessory Power Module, and Charger Module

The Single Power Inverter Module (SPIM), Accessory Power Module (APM), and charger module are cooled using a separate coolant loop. These modules are kept below

a maximum temperature. If the temperature rises above this temperature, the electric cooling fan will turn on to cool the coolant.

Cabin Heating

Cabin heating is maintained by coolant heated by the Coolant Heater Control Module (CHCM), separate from the power electronics and battery coolant loops. This module heats the coolant based on temperature inputs from the cabin climate control systems.

Cooling System Pressure Caps

Caution

If the pressure caps are not secured and tightened properly, coolant loss and damage to the vehicle and/or its electrical systems may occur. Always visit your local GM dealer/retailer for service to the electric vehicle cooling systems.

Electric vehicle cooling system pressure caps are tamper-resistant and must be fully installed on the coolant surge tanks at all times. The coolant should only be serviced by a qualified technician.

Coolant

Caution

GM electric vehicle cooling systems require a 50/50 mix of DEXCOOL and de-ionized water. Use only ACDelco Premix (50/50 mixture of DEXCOOL and de-ionized water), which is available from your dealer. Do not use DEXCOOL mixed with tap water or distilled water in an electric vehicle cooling system as it could damage and/or contaminate the cooling system and related components. The vehicle could become disabled.

The electric vehicle cooling systems are filled with coolant that meets GM Standards GMW18270 and GMW3420 (DEXCOOL). This coolant is designed to remain in the vehicle for five years or 240,000 km (150,000 miles), whichever occurs first.

Checking Coolant

 Warning

Do not drive the vehicle if there is a coolant leak. Coolant loss can indicate a problem. All the coolant could leak out, causing the vehicle to suddenly lose propulsion while driving, which could result in a crash causing vehicle damage or personal injury/death. Always visit your local GM dealer/retailer for electric vehicle cooling systems service.

The coolant needs to be replaced at the appropriate interval. See *Maintenance Schedule* ⇨ 314.

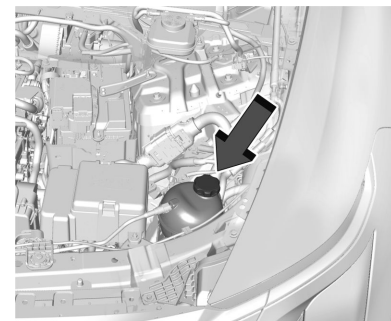
The coolant reservoir is in the underhood compartment. See *Underhood Compartment Overview* ⇨ 263.

How to Add Coolant to the Coolant Surge Tank

 Warning

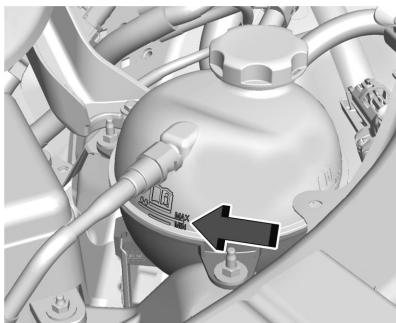
Use only ACDelco Premix (50/50 mixture of DEXCOOL and de-ionized water), which is available from your dealer. Do not use any other coolant or mixture. Plain water or other liquid may cause cooling system corrosion and/or cooling system being frozen which eventually may cause a loss of propulsion while driving.

1. Park on a level surface and turn the vehicle off.
2. Open the hood. See *Hood* ⇨ 261.



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3. After the system has completely cooled, check the coolant level in the reservoir.



4. If the coolant level is not visible or needs to be adjusted within the reservoir, contact your dealer.

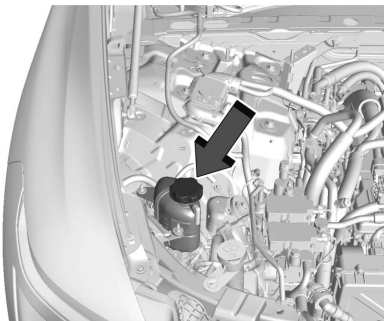
Checking Coolant for Third Row A/C and Heating

The coolant needs to be replaced at the appropriate interval.

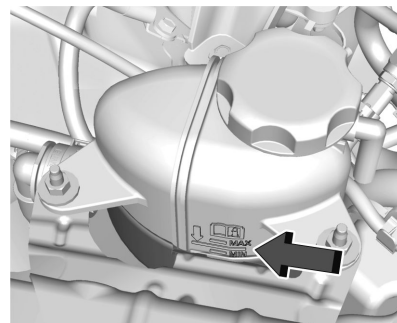
The coolant reservoir is in the underhood compartment. See *Underhood Compartment Overview* ⇨ 263.

To access the coolant reservoir under the hood, the left side access cover needs to be removed.

1. Park on a level surface and turn the vehicle off.
2. Open the hood. See *Hood* ⇨ 261.



3. After the system has completely cooled, check that the coolant level in the reservoir.



4. If the coolant level is not visible or needs to be adjusted within the reservoir, contact your dealer.

Washer Fluid

What to Use

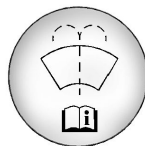
When windshield washer fluid is needed, be sure to read the manufacturer's instructions before use. If operating the vehicle in an area where the temperature may fall below freezing, use a fluid that has sufficient protection against freezing.

Adding Washer Fluid

Caution

- Do not use washer fluid that contains any type of water repellent coating. This can cause the wiper blades to chatter or skip.
- Do not use engine coolant (antifreeze) in the windshield washer. It can damage the windshield washer system and paint.
- Do not mix water with ready-to-use washer fluid. Water can cause the solution to freeze and damage the washer fluid tank and other parts of the washer system.
- When using concentrated washer fluid, follow the manufacturer instructions for adding water.
- Fill the washer fluid tank only three-quarters full when it is very cold. This allows for fluid expansion if freezing occurs, which could damage the tank if it is completely full.

If the vehicle is equipped with a washer fluid level indicator, and the washer fluid reservoir is low, a message displays on the Driver Information Center (DIC). See Driver Information Center (DIC) for more information.



Open the cap with the washer symbol on it. Add washer fluid until the tank is full. See *Underhood Compartment Overview* ⇨ 263 for reservoir location.

Brakes

Inspections

Visually inspect brake system components as follows:

- Brake lines and hoses for proper attachment, connections, binding, leaks, cracks, and chafing.
- Disc brake pads for wear and rotors for surface condition.

- Drum brake linings/shoes for wear or cracks.
- All other brake parts for cracks and leaks.

When tires are rotated, inspect drum brake linings or disc brake pads for wear.

Troubleshooting

Brake Pedal Travel

See your dealer if the brake pedal does not return to normal height, or if there is a rapid increase in pedal travel. This could be a sign that brake service may be required.

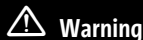
Brake Pulsation

If brakes are pulsating:

- Inspect rotors, pads, linings for uneven wear. Resurface or replace as needed.
- Check torque on all wheel nuts. Properly torqued wheel nuts are necessary to help prevent brake pulsation. Evenly tighten wheel nuts in the proper sequence to torque specifications. See *Capacities and Specifications* ⇨ 320.

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Brake Squeal and Brake Wear Indicators



Warning

The brake wear warning sound means that soon the brakes will not work well. That could lead to a crash. When the brake wear warning sound is heard, have the vehicle serviced.

Disc brake linings have built-in wear indicators that make a high-pitched warning sound when the brake linings are worn, and new linings are needed. The sound can come and go or can be heard all the time when the vehicle is moving, except when applying the brake pedal firmly.

Some driving conditions or climates can cause a brake squeal when the brakes are first applied, clearing up following several applications. This does not mean something is wrong with the brakes.

Replacing Brake System Parts

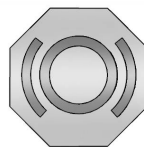
Caution

Continuing to drive with worn-out brake linings could result in costly brake repairs.

Brake pads should be replaced as complete axle sets.

Always replace brake system parts with new, approved replacement parts. If this is not done, the brakes may not work properly. The braking performance can change in many ways if the wrong brake parts are installed or if parts are improperly installed.

Brake Fluid



The brake master cylinder reservoir is filled with GM approved DOT 4 brake fluid as indicated on the reservoir cap. See *Underhood Compartment Overview* ⇨ 263 for the location of the reservoir.

When the brake fluid falls to a low level, the brake warning light comes on. See *Brake System Warning Light* ⇨ 102.

Checking Brake Fluid

Caution

If too much brake fluid is added, the brake fluid can spill and cause vehicle damage, including damage to electrical components and surfaces. Add brake fluid only when work is done on the brake hydraulic system.

Always clean the brake fluid reservoir cap and the area around the cap before removing it.

To check the brake fluid, place the vehicle in P (Park) on a level surface. The brake fluid level should be between the Min and Max marks on the brake fluid reservoir.

There are only two reasons why brake fluid may be low:

- Normal brake lining wear. When new linings are installed, the fluid level will return to normal.
- Brake system fluid leak. With a leak, the brakes will not work well. To have the brake hydraulic system fixed, see your dealer.

Do not top off the brake fluid. Adding fluid does not correct a leak. If fluid is added when the linings are worn, there will be too much fluid

when new brake linings are installed. Add or remove fluid, as necessary, only when work is done on the brake hydraulic system.

Brake fluid absorbs water over time which degrades the effectiveness of the brake fluid. Replace brake fluid at the specified intervals to prevent increased stopping distance. See *Maintenance Schedule* ⇨ 314.

What to Add

Warning

The wrong or contaminated brake fluid could result in damage to the brake system. This could result in the loss of braking leading to a possible injury. Always use the proper GM approved brake fluid.

Caution

If brake fluid is spilled on the vehicle's painted surfaces, the paint finish can be damaged. Immediately wash off any painted surface.

Use only GM approved DOT 4 brake fluid from a clean, sealed container. See *Recommended Fluids and Lubricants* ⇨ 318.

Battery

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.

Using a trickle charger is not recommended on an electric vehicle installed battery during plug-in charging.

Do not high voltage charge the vehicle while the 12-volt battery is being charged.

12-Volt Battery



Warning

Do not use a match or flame near a vehicle's battery. If you need more light, use a flashlight.

Do not smoke near a vehicle's battery.

When working around a vehicle's battery, shield your eyes with protective glasses.

Keep children away from vehicle batteries.

 Warning

Batteries have acid that can burn you and gas that can explode. You can be hurt badly if you are not careful.

Follow instructions carefully when working around a battery.

Battery posts, terminals and related accessories contain lead and lead compounds which can cause cancer and reproductive harm. Wash hands after handling.

 Warning

The battery contains acid that can be exposed if the battery is tipped or opened. Exposure to the battery acid could result in chemical burns which could damage the vehicle and cause personal injury. Do not tip or open the battery.

The original equipment battery is maintenance free. Do not remove the cap and do not add fluid.

Do not disconnect the 12-volt battery during storage.

Refer to the replacement number shown on the original battery label when a new 12-volt battery is needed. The vehicle has an Absorbent Glass Mat (AGM)/Valve regulated lead acid battery (VRLA) 12-volt battery. Installation of a standard 12-volt battery will result in reduced 12-volt battery life.

Some 12-volt chargers have an AGM battery setting. This setting limits the charge voltage to 14.8 volts and helps extend the battery life. If available, use the AGM setting when charging the battery.

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.

(Continued)

Warning (Continued)

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

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.

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.

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

(Continued)

Warning (Continued)

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.

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

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 hurt badly if you are not careful.

(Continued)

Warning (Continued)

Always wear eye protection. Follow instructions carefully when working around a battery.

Battery posts, terminals and related accessories contain lead and lead compounds which can cause cancer and reproductive harm. Wash hands after handling.

Do not disconnect the 12-volt battery during storage.

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” for location of these terminals.

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

(Continued)

Caution (Continued)

must be used, with the appropriate setting selected. Follow the trickle charger manufacturer instructions.

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.

Park Brake and P (Park) Mechanism Check**Warning**

When you are doing this check, the vehicle could begin to move. You or others could be injured and property could be damaged.

(Continued)

Warning (Continued)

Make sure there is room in front of the vehicle in case it begins to roll. Be ready to apply the regular brake at once should the vehicle begin to move.

Park on a steep hill, with the vehicle facing downhill. Keeping your foot on the regular brake, set the Electric Parking Brake.

- To check the Electric Parking Brake's holding ability: With the propulsion system active and the electric drive unit in N (Neutral), slowly remove foot pressure from the regular brake pedal. Do this until the vehicle is held by the Electric Parking Brake only.
- To check the P (Park) mechanism's holding ability: With the propulsion system active, shift to P (Park). Then release the Electric Parking Brake and slowly remove foot pressure from the regular brake pedal.

Contact your dealer if service is required.

Wiper Blade Replacement

Windshield wiper blades should be replaced periodically. See the *Maintenance Schedule* ⇨ 314.

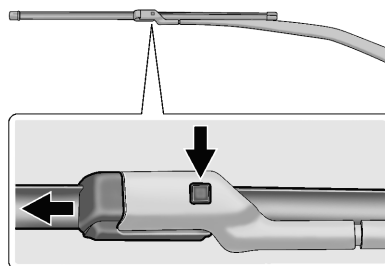
Replacement blades come in different types and are removed in different ways. For proper type and length, see your dealer.

Caution

Allowing the wiper arm to touch the windshield when no wiper blade is installed could damage the windshield. Any damage that occurs would not be covered by the vehicle warranty. Do not allow the wiper arm to touch the windshield.

To replace the windshield wiper blade:

1. Pull the windshield wiper assembly away from the windshield.



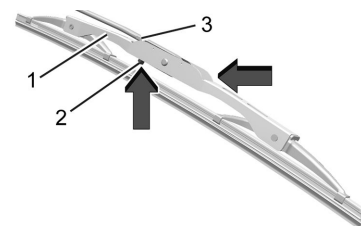
2. Press the button in the middle of the wiper arm connector, and pull the wiper blade away from the arm connector.
3. Remove the wiper blade.
4. Reverse Steps 1–3 for wiper blade replacement.

Rear Wiper Blade Replacement

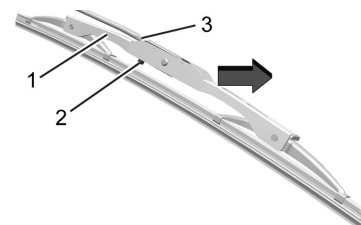
To replace the wiper blade assembly:

1. Turn on the rear windshield wiper. The wiper will stop pointing down. See *Rear Window Wiper/Washer* ⇨ 91
2. Turn the vehicle off when the wiper is on proper position to replace.

3. Pull the wiper arm away from the window.



4. Push the release lever (2) to disengage the wiper arm (3) hook from the wiper blade (1) assembly.
5. Remove the wiper blade.



6. Push the new wiper blade (1) assembly securely on the wiper arm (3) until the release lever (2) clicks into place.

274 Vehicle Care

7. Start the engine and the rear wiper will return to its normal position.

Windshield Replacement

Advanced Driver Assistance Systems

If the windshield needs to be replaced and the vehicle is equipped with a front camera sensor for the Advanced Driver Assistance Systems, a GM replacement windshield is recommended. The replacement windshield must be installed according to GM specifications for proper alignment. If it is not, error messages may display, or these systems may not work properly or at all. See your dealer for proper windshield replacement.

Acoustic, Attenuating Solar Glass, and Heated Wiper Park Windshield

The vehicle is equipped with an acoustic, attenuating solar glass, and Heated Wiper Park windshield. If the windshield needs replacement, make sure to use a GM windshield compatible with these features.

Gas Strut(s)



Warning

If the gas struts that hold open the hood, trunk, and/or liftgate fail, you or others could be seriously injured. Take the vehicle to your dealer for service immediately. Visually inspect the gas struts for signs of wear, cracks, or other damage periodically. Check to make sure the hood/trunk/liftgate is held open with enough force. If struts are failing to hold the hood/trunk/liftgate, do not operate. Have the vehicle serviced.

Caution

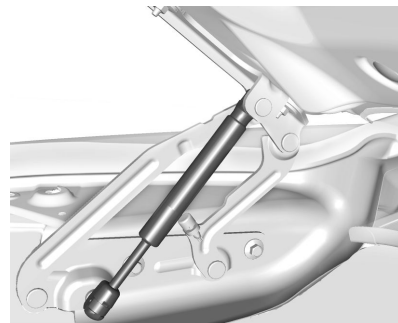
Do not apply tape or hang any objects from gas struts. Also do not push down or pull on gas struts. This may cause damage to the vehicle.

Your vehicle may be equipped with gas strut(s) to provide assistance in lifting and holding open the hood/trunk/liftgate system in full open position.

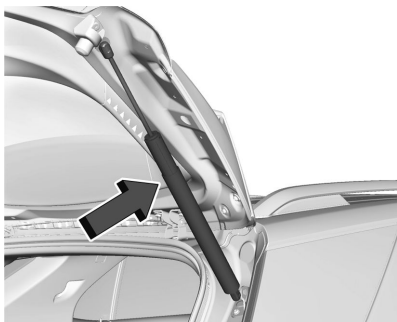
See *Maintenance Schedule* ⇨ 314.



Hood



Trunk



Liftgate

Headlight Aiming

Front Headlight Aiming

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

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

Bulb Replacement

LED Lighting

This vehicle is equipped with LED light sources for all exterior lights.

The light assemblies do not contain any serviceable light sources (e.g., incandescent bulbs).

For replacement of any LED lighting assembly, contact your dealer.

Electrical System

High Voltage Devices and Wiring



Warning

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

Electrical System Overload

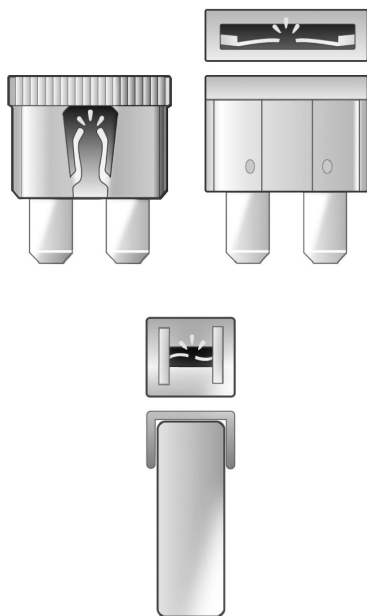
The vehicle has fuses and circuit breakers to protect against an electrical system overload.

When the current electrical load is too heavy, the circuit breaker opens and closes, protecting the circuit until the current load returns to normal or the problem is fixed. This greatly reduces the chance of circuit overload and fire caused by electrical problems.

Fuses and circuit breakers protect the wires that provide the power to the devices in your vehicle.

If there is a problem on the road and a fuse needs to be replaced, the same amperage fuse can be borrowed. Choose some feature of the vehicle that is not needed to use and replace it as soon as possible.

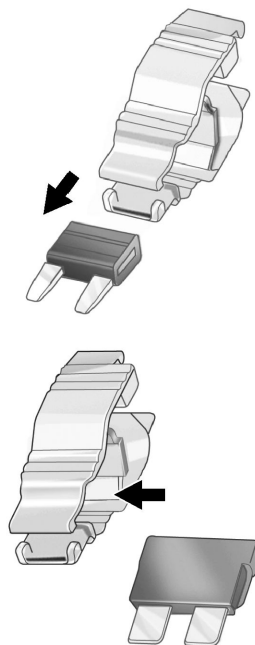
To check a fuse, look at the band inside the fuse. If the band is broken or melted, replace the fuse. Be sure to replace a bad fuse with a fuse of the identical size and rating.



Replacing a Blown Fuse

1. Turn off the vehicle.

2. Locate the fuse puller in the underhood compartment fuse block.



3. Use the fuse puller to remove the fuse from the top or side, as shown above.
4. If the fuse must be replaced immediately, borrow a replacement fuse with the same amperage from the fuse block. Choose a vehicle feature that is not needed to safely operate the vehicle. Repeat Steps 2–3.
5. Insert the replacement fuse into the empty slot of the blown fuse.

At the next opportunity, see your dealer to replace the blown fuse.

Headlight Wiring

An electrical overload may cause the lights to go on and off, or in some cases to remain off. Have the headlight wiring checked right away if the lights go on and off or remain off.

Windshield Wipers

If the wiper motor overheats due to heavy snow or ice, the windshield wipers will stop until the motor cools and will then restart.

Although the circuit is protected from electrical overload, overload due to heavy snow or ice may cause wiper linkage damage. Always clear ice and heavy snow from the windshield before using the windshield wipers.

If the overload is caused by an electrical problem and not snow or ice, be sure to get it fixed.

Fuses and Circuit Breakers

Danger

Fuses and circuit breakers are marked with their ampere rating. Do not exceed the specified amperage rating when replacing fuses and circuit breakers. Use of an oversized fuse or circuit breaker can result in a vehicle fire. You and others could be seriously injured or killed.

Warning

Installation or use of fuses that do not meet GM's original fuse specifications is dangerous. The fuses could fail, and result in a fire. You or others could be injured or killed, and the vehicle could be damaged.

The fuses and circuit breakers protect the electrical system from short circuits, greatly reducing the chance of electrical damage or fire.



See *Accessories and Modifications* ⇨ 260 and *General Information* ⇨ 260.

To check or replace a blown fuse, see *Electrical System Overload* ⇨ 275.

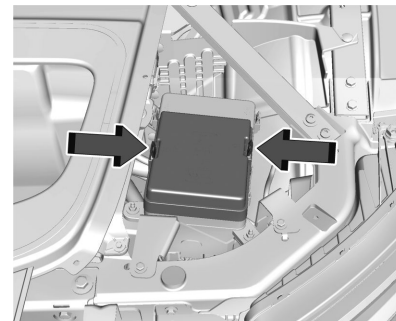
Underhood Compartment Fuse Block

To Access:

1. Open the hood. See *Hood* ⇨ 261.

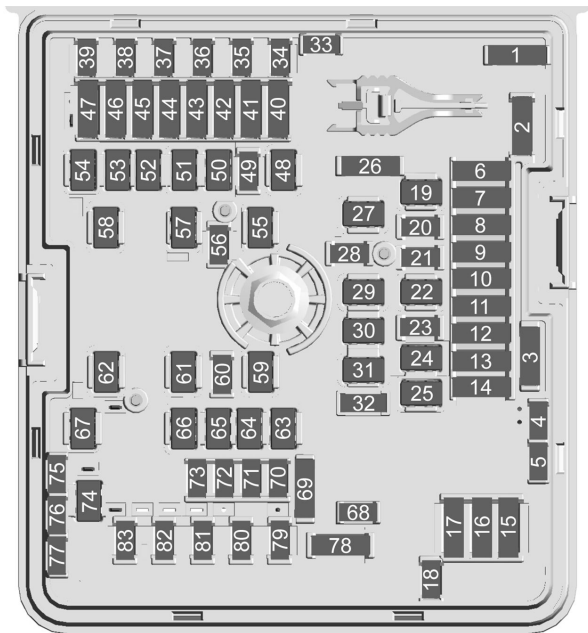
Caution

Spilling liquid on any electrical component on the vehicle may damage it. Always keep the covers on any electrical component.



2. To open the fuse block cover, press the clips at the side and back and pull the cover up.

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A fuse puller is in the underhood compartment fuse block.

The vehicle may not be equipped with all of the fuses and features shown.

Fuses	Usage
F01	Spare
F02	TUMBLE_SEAT_RT_MTR – Power Fold Tumble Rear Right Seat Motor
F03	Spare
F04	Spare
F05	Spare
F06	MSM/MBM – Memory Seat Module/Memory Bolster Module
F07	MTR_PEEV_SCEV – Motor: Primary Evaporator Expansion Valve/Secondary Chiller Expansion Valve
	IRM – Integrated Refrigerant Model
F08	MTR_MCV – Motor Main Coolant Valve
F09	-

Fuses	Usage
F10	–
F11	–
F12	IPE_AWD – Integrated Power Electronics AWD OBCM2 – On Board Charging Module 2
F13	ESSCP – Energy Storage System Coolant Pump PECP – Power Electronics Coolant Pump
F14	–
F15	TRLR PRK LIGHT – Trailer Park Lights
F16	MTR_CCCP – Cabin Conditioning Coolant Pump TRLR REV LIGHT – Trailer Reverse Light
F17	–

Fuses	Usage
F18	GLBX DR RELSE – Glove Box Door Release
F19	–
F20	TUMBLE_SEAT_LT_MTR – Power Fold Tumble Rear Left Seat Motor
F21	CPDM – Charge Port Door Motor
F22	DC_AC_INVERTER – DC AC Inverter
F23	–
F24	–
F25	–
F26	Spare
F27	–
F28	SENSOR FARM HEATER
F29	–

Fuses	Usage
F30	RR_CARGO_APO – Rear Cargo Auxiliary Power Outlet
F31	TIM1 – Trailer Interface Module 1
F32	Spare
F33	Spare
F34	ELM5 – Exterior Lighting Module 5
F35	ELM4 – Exterior Lighting Module 4
F36	ETC MOD – Electronic Toll Collection Module
F37	–
F38	ELM7 – Exterior Lighting Module 7
F39	ELM3 – Exterior Lighting Module 3

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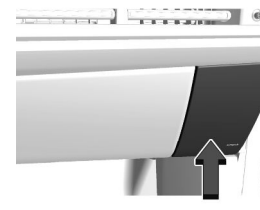
Fuses	Usage	Fuses	Usage	Fuses	Usage
F40	TPIM1 – Trailer Interface Module 1	F45	PLCM – Power Line Communication Module	F52	MTR WDW LIFTER RT – Motor Window Lifter Right
	TPIM3 – Trailer Interface Module 3		RFR – Remote Function Receiver	F53	DRIVER FRT WPR – Driver Front Wiper
F41	DSP_FRT – Door Switch Panel Front	F46	PFA – Pedestrian Friendly Alert &	F54	TRAILER_BATT – Trailer Battery
	VLM_E – Vehicle Leveling Module		AFS/AHL – Adaptive Forward Lighting/Automatic Headlight Leveling	F55	REAR DEFOG – Rear Defog
F42	SEAT_SW_ROW1 – Seat Switch Row 1	F47	LIGHT_GRILLE_EMBLEM – Light Grille Emblem	F56	FOLD SEAT RIGHT MOTOR – Fold Seat Right Motor
	VKM SNSR/RLH SNSR – Virtual Key Module Sensor/ Rain Light Humidity Sensor		SADS – Semi Active Damping System	F57	EBCM_1 – Electronic Brake Control Module 1
F43	ESCL – Electric Steering Column Lock	F48	PWR_TAILGATE – Power Tailgate	F58	CFM – Cooling Fan Motor
	CHIM – Charge Interface Module	F49	–	F59	–
F44	PWR_SOUNDER – Power Sounder	F50	MTR WDW LIFTER LT – Motor Window Lifter Left	F60	HORN
	AERO SHUT – Aero Shutter	F51	VLM_M – Vehicle Leveling Module	F61	–
				F62	MTR_RR_BLOWER – Motor Rear Blower

Fuses	Usage
F63	MTR_SUNROOF – Motor Sunroof
F64	MSM_M_DRIVER – Memory Seat Module Driver
F65	MSM_M_CO_DRIVER – Memory Seat Module Co-Driver
F66	MTR_FRT_BLOWER – Motor Front Blower
F67	WPR_DE_ICE – Wiper De-Ice
F68	Spare
F69	Spare
F70	RELAY'S COIL
F71	REAR_HEATED_SEAT2 – Rear Heated Seat 2
F72	FRONT_HEATED_SEAT1 – Front Heated Seat 1
F73	FOLD SEAT LEFT MOTOR – Fold Seat Left Motor

Fuses	Usage
F74	TIM 2 – Trailer Interface Module 2
F75	Spare
F76	Spare
F77	Spare
F78	TRLR ST/TRN RT – Trailer Stop/Turn Right
	TRLR ST/TRN LT – Trailer Stop/Turn Left
F79	REAR_HEATED_SEAT1 – Rear Heated Seat 1
F80	FRONT_HEATED_SEAT2 – Front Heated Seat 2
F81	OUT OF PARK DISABLE
F82	WASH PUMP
F83	CAMERA WASH

Instrument Panel Fuse Block

The instrument panel fuse block is to the right of the glove box.

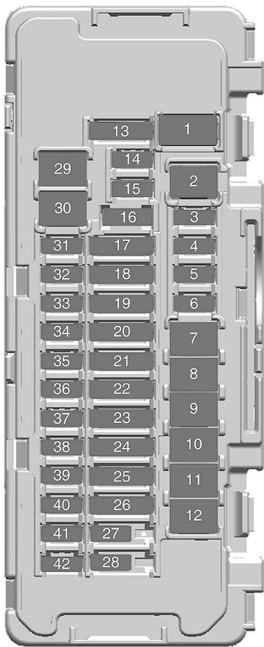


To access the fuses, remove the panel, pulling the bottom and disengaging the panel clips.

To reinstall the door, place the panel clips into the slots and push the bottom and top.

See your dealer if additional assistance is needed.

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The vehicle may not be equipped with all of the fuses and features shown.

Fuses	Usage
F01	APO – Auxiliary Power Outlet
F02	CHARGE_USB_ROW 3_CONSOLE – Charge USB Row 3 Console
F03	–
F04	HVPO_CHARGE_USB_ROW 2 – High Voltage Power Outlet Charge USB ROW 2
F05	ESCL_RC – Electric Steering Column Lock
F06	ELM1 – Exterior Lighting Module 1
F07	PRESENTING_DR_RT – Presenting Door Right
F08	DR_LATCH_RT – Door Latch Right
F09	DR_LATCH_LT – Door Latch Left
F10	CPM – Steering Column Position Module

Fuses	Usage
F11	ACP 4 – ADAS Compute Platform 4
F12	PRESENTING_DR_LT – Presenting Door Left
F13	TRAILER_EU & IPE_AWD_VICM_TPIM – Trailer EU & Integrated Power Electronics AWD/ Vehicle Integration Control Module/Traction Power Inverter Module
F14	RR_WIPER – Rear Wiper
F15	LRR-FRT/LIDAR – Front Long Range Radar/LIDAR
F16	CLOCK SPRING
F17	SEAT_FAN_RT & SEAT_FAN_LT – Seat Fan Right & Seat Fan Left
F18	VCD & SRR – Virtual Cockpit Display & Short Range Radar

Fuses	Usage	Fuses	Usage	Fuses	Usage
F19	MISC2 & MISC1 – RUN/ CRANK Miscellaneous 2 Switch Bank/Electronic Toll Collection/Interior Particulate Matter Sensor/ Reflective Light Auxiliary Display and Miscellaneous 1 Electronic Brake Control Module/Exterior Lighting Module/Sensing and Diagnostic Module/Inside Rear View Mirror	F23	T/LIGHT RT & T/LIGHT LT – Tail Light Right & Tail Light Left	F27	BCM 3 – Body Control Module 3
F20	BCM 1 & VICM – Body Control Module 1 & Vehicle Integration Control Module	F24	PAM_SBZA & SDM/AOS – Park Assist Module_Side Blind Zone Alert & Sensing and Diagnostic Module/Automatic Occupant Sensing	F28	BCM 2 – Body Control Module 2
F21	RSI_JACK & SW_BANK_ETRS - Rear Seat Infotainment Jack & Switch Bank Electronic Transmission Range Select	F25	ACP2/FCM/MFC & DMS/CGM/DLC/VDM – ADAS Compute Platform/ Front Camera Module/ Multi-Function Control & Driver Monitoring System/ Central Gateway Module/ Diagnostic Link Connector/ Vehicle Data Monitor	F29	–
F22	VKM/AUX JACK & ACP 3 – Virtual Key Module/ Auxiliary Jack & ADAS Compute Platform 3	F26	ACEC & HUD/HVAC DISPLAY - AC Electric Compressor & Head Up Display/ Heating, Ventilation and Air Conditioning Display	F30	BCM 4 – Body Control Module 4
				F31	SD CARD/AQI/ILSS/OHC – SD Card/Air Quality Ionizer/ Integrated Light and Solar Sensor/Overhead Console
				F32	HDLT LT – Headlight Left
				F33	HDLT RT – Headlight Right
				F34	ELM 2 – Exterior Lighting Module 2
				F35	HSWM – Heated Steering Wheel Module
				F36	VCU 1 – Virtual Cockpit Unit 1

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Fuses	Usage
F37	TCP – Telematics Control Platform
F38	WCM_FRT – Wireless Charging Module Front
F39	HVSL – High Voltage System Lockout
F40	VCU 2 – Virtual Cockpit Unit 2
F41	ELM 6 – Exterior Lighting Module 6
F42	–

Rear Compartment Fuse Block

The rear compartment fuse block is behind a cover on the driver side of the rear compartment.



Caution

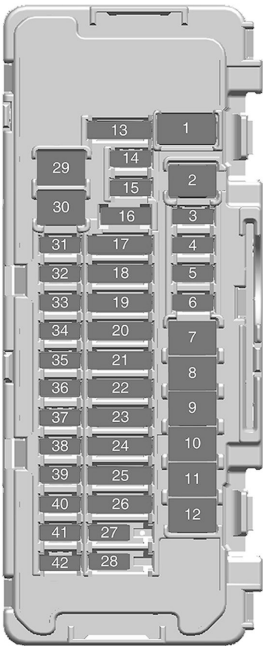
Spilling liquid on any electrical component on the vehicle may damage it. Always keep the covers on any electrical component.

Lift the load floor and pull the access cover to access the fuse block.

See your dealer if additional assistance is needed.

A fuse puller is in the underhood compartment fuse block.

The vehicle may not be equipped with all of the fuses and features shown.



Rear Compartment Fuse Block

Fuses	Usage	Fuses	Usage	Fuses	Usage
F01	–	F14	–	F25	VKBM & NVM - Virtual Key Backup Module & Night Vision Module
F02	–	F15	–	F26	TPIM2 - Traction Power Inverter Module 2
F03	–	F16	–	F27	–
F04	–	F17	–	F28	–
F05	–	F18	–	F29	AMP - Audio Amplifier
F06	–	F19	–	F30	FOLD_SEAT_ROW3 - Fold Seat Row 3
F07	–	F20	–	F31	RSI_DISPLAY - Rear Seat Infotainment Display
F08	–	F21	LRR_REAR - Long Range Radar Rear	F32	–
F09	–	F22	MSM_E_ROW2_RT & MSM_E_ROW2_LT - Memory Seat Module Row 2 Right & Memory Seat Module Row 2 Left	F33	RSI - Rear Seat Infotainment
F10	MSM_M_ROW2_LT - Memory Seat Module Row 2 Left	F23	–	F34	–
F11	MSM_M_ROW2_RT - Memory Seat Module Row 2 Right	F24	ODS & HFRC - Occupant Detection Sensor & Hands Free Rear Closure	F35	–
F12	MTR_RR2_BLOWER - Motor Row 2 Blower			F36	–
F13	–			F37	–

Fuses	Usage
F38	CEH2 - Coolant Electric Heater 2
F39	WCM_ROW2 - Wireless Charging Module Row 2
F40	–
F41	AMP_AUX - Audio Amplifier Auxiliary
F42	–

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* ⇨ 173.
- Underinflated tires pose the same danger as overloaded tires. The resulting crash could cause serious injury. Check all tires frequently 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.

(Continued)

Warning (Continued)

- 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.
- Do not spin the tires in excess of 56 km/h (35 mph) on slippery surfaces such as snow, mud, ice, etc. Excessive spinning may cause the tires to explode.

See *Tire Pressure for High-Speed Operation* ⇨ 289 for inflation pressure adjustment for high-speed driving.

All-Season Tires

This vehicle may come with all-season tires. These tires are designed to provide good overall performance on most road surfaces and weather conditions. Original equipment tires designed to GM's specific Tire Performance Criteria (TPC) have a TPC specification code molded onto the sidewall.

Consider installing winter tires on the vehicle if frequent driving on snow or ice-covered roads is expected. All-season tires provide adequate performance for most winter driving conditions, but they may not offer the same level of traction or performance as winter tires on snow or ice-covered roads. See "Winter Tires" following.

Winter Tires

This vehicle was not originally equipped with winter tires. Winter tires are designed for increased traction on snow and ice-covered roads. Consider installing winter tires on the vehicle if frequent driving on ice or snow covered roads is expected. See your dealer for details regarding winter tire availability and proper tire selection. Also, see *Buying New Tires* ⇨ 295.

With winter tires, there may be decreased dry road traction, increased road noise, and shorter tread life. After changing to winter tires, be alert for changes in vehicle handling and braking.

If using winter tires:

- Use tires of the same brand and tread type on all four wheel positions.
- Use only radial ply tires of the same size, load range, and speed rating as the original equipment tires.

Winter tires with the same speed rating as the original equipment tires may not be available for H, V, W, Y, and ZR speed rated tires. If winter tires with a lower speed rating are chosen, never exceed the tire's maximum speed capability.

Self-Sealing Tires

Caution
Do not drive on a deflated self-sealing tire as this could damage the tire. Make sure the tire is inflated to the recommended pressure or have it immediately repaired or replaced.

This vehicle may have self-sealing tires. These tires have a material inside that can seal punctures from common road hazards, such as nails and screws, in the tread area. The tire may lose air pressure if the sidewall is damaged or the tread puncture is too large. If the Tire Pressure Monitor System indicates the tire pressure is low, inspect the tire for damage and inflate it to the recommended pressure. If the tire is unable to maintain the recommended pressure, contact the nearest authorized GM servicing facility immediately for inspection and repair or replacement. To locate the nearest GM servicing facility, call GM Customer Assistance.

When tire replacement is needed, replace with a self-sealing tire, because the vehicle does not come with a spare tire or tire changing equipment.

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* ⇨ 173.

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

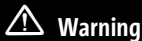
Use a good quality pocket-type gauge to check tire pressure. Proper tire inflation cannot be determined by looking at the tire. Check the tire inflation pressure when the tires are cold, meaning the vehicle has not been driven for at least three hours or no more than 1.6 km (1 mi).

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 for High-Speed Operation



Driving at high speeds, 160 km/h (100 mph) or higher, puts additional strain on tires. Sustained high-speed driving causes excessive heat buildup and can cause sudden tire failure. This could cause a crash, and you or others could be killed. Some high-speed rated tires require inflation pressure adjustment for high-speed operation. When speed limits and road conditions allow the vehicle to be driven at high speeds, make sure the tires are rated for high-speed operation, are in excellent condition, and are set to the correct cold tire inflation pressure for the vehicle load.

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Vehicles with tire sizes listed in the High Speed Operation Inflation Pressures table require inflation pressure adjustment when driving the vehicle at speeds of 160 km/h (100 mph) or higher. Set the cold tire inflation pressure to the corresponding value in the table for the tire size on the vehicle.

High Speed Operation Inflation Pressures	
Tire Size	Cold Inflation Pressure kPa (psi)
285/45R21 XL 113H	290 kPa (42 psi)
295/40R22 XL 112H	300 kPa (44 psi)

Return the tires to the recommended cold tire inflation pressure when high-speed driving has ended. See *Vehicle Load Limits* ⇨ 173 and *Tire Pressure* ⇨ 287.

Tire Pressure Monitor System

Caution
Modifications made to the Tire Pressure Monitor System (TPMS) by anyone other than an authorized service facility may void authorization to use the system.

The Tire Pressure Monitor System (TPMS) uses radio and sensor technology to check tire pressure levels. The TPMS sensors monitor the air pressure in your tires and transmit tire pressure readings to a receiver located in the vehicle.

Each tire, including the spare (if provided), should be checked monthly when cold and inflated to the inflation pressure recommended by the vehicle manufacturer on the vehicle placard or tire inflation pressure label. (If your vehicle has tires of a different size than the size indicated on the vehicle placard or tire inflation pressure label, you should determine the proper tire inflation pressure for those tires.)

As an added safety feature, your vehicle has been equipped with a tire pressure monitoring system (TPMS) that illuminates a low tire pressure telltale when one or more of your tires is significantly under-inflated.

Accordingly, when the low tire pressure telltale illuminates, you should stop and check your tires as soon as possible, and inflate them to the proper pressure. Driving on a significantly under-inflated tire causes the tire to overheat and can lead to tire failure. Under-inflation also reduces energy efficiency and tire tread life, and may affect the vehicle's handling and stopping ability.

Please note that the TPMS is not a substitute for proper tire maintenance, and it is the driver's responsibility to maintain correct tire pressure, even if under-inflation has not reached the level to trigger illumination of the TPMS low tire pressure telltale.

Your vehicle has also been equipped with a TPMS malfunction indicator to indicate when the system is not operating properly. The TPMS malfunction indicator is combined with the low tire pressure telltale. When the system detects a malfunction, the telltale will flash for approximately one minute and then remain continuously illuminated. This sequence will continue upon subsequent vehicle start-ups as long as the malfunction exists.

When the malfunction indicator is illuminated, the system may not be able to detect or signal low tire pressure as intended. TPMS malfunctions may occur for a variety of reasons, including the installation of replacement or alternate tires or wheels on the vehicle that prevent the TPMS from functioning properly. Always check the TPMS malfunction telltale after replacing one or more tires or wheels on your vehicle to ensure that the replacement or alternate tires and wheels allow the TPMS to continue to function properly.

See “Tire Pressure Monitor Operation” following.

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* ⇨ 173.

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 *Driver Information Center (DIC)* ⇨ 115.

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 shows the size of the original equipment tires and the correct inflation pressure for the tires when they are cold. See *Vehicle Load Limits* ⇨ 173, for an example of the Tire and Loading Information label and its location. Also see *Tire Pressure* ⇨ 287.

The TPMS can warn about a low tire pressure condition but it does not replace normal tire maintenance. See *Tire Inspection* ⇨ 293, *Tire Rotation* ⇨ 294, and *Tires* ⇨ 286.

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 the DIC message should go off after the road tire is replaced and the sensor matching process is performed successfully. See "TPMS Sensor Matching Process — Auto Learn Function" 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 — Auto Learn Function" 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* ⇨ 295.

- Operating electronic devices or being near facilities using radio wave frequencies similar to the TPMS could cause the TPMS sensors to malfunction.

If the TPMS is not functioning properly, it cannot detect or signal a low tire pressure condition. See your dealer for service if the TPMS malfunction light and DIC message come on and stay on.

Tire Fill Alert (If Equipped)

This feature provides visual and audible alerts outside the vehicle to help when inflating an underinflated tire to the recommended cold tire pressure.

When the low tire pressure warning light comes on:

1. Park the vehicle in a safe, level place.
2. Set the parking brake firmly.
3. Place the vehicle in P (Park).
4. Add air to the tire that is underinflated. The turn signal light will flash.

When the recommended pressure is reached, the horn sounds once and the turn signal light will stop flashing and briefly turn solid.

Repeat these steps for all underinflated tires that have illuminated the low tire pressure warning light.

 Warning

Overinflating a tire could cause the tire to rupture and you or others could be injured. Do not exceed the maximum pressure listed on the tire sidewall.

If the tire is overinflated by more than 35 kPa (5 psi), the horn will sound multiple times and the turn signal light will continue to flash for several seconds after filling stops. To release and correct the pressure, while the turn signal light is still flashing, briefly press the center of the valve stem. When the recommended pressure is reached, the horn sounds once.

If the turn signal light does not flash within 15 seconds after starting to inflate the tire, the tire fill alert has not been activated or is not working.

If the hazard warning flashers are on, the tire fill alert visual feedback will not work properly.

The TPMS will not activate the tire fill alert properly under the following conditions:

- There is interference from an external device or transmitter.
- The air pressure from the inflation device is not sufficient to inflate the tire.
- There is a malfunction in the TPMS.
- There is a malfunction in the horn or turn signal lights.
- The TPMS sensor identification code is not registered to the system.
- The TPMS sensor battery is low.

If the tire fill alert does not operate due to TPMS interference, move the vehicle about 1 m (3 ft) back or forward and try again. If the tire fill alert feature is not working, use a tire pressure gauge.

TPMS Sensor Matching Process — 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 *Driver Information Center (DIC)* ⇨ 115. A warning message displays in the DIC if a problem occurs during the relearn process.

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.

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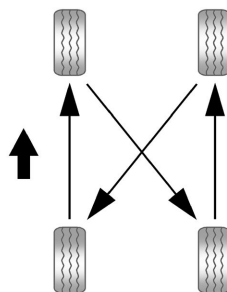
- The tire has a puncture, cut, or other damage that cannot be repaired well because of the size or location of the damage.

Tire Rotation

Tires should be rotated according to the interval listed in the maintenance schedule. See *Maintenance Schedule* ⇨ 314.

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* ⇨ 295 and *Wheel Replacement* ⇨ 297.



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* ⇨ 287 and *Vehicle Load Limits* ⇨ 173.

Reset the Tire Pressure Monitor System. See *Tire Pressure Monitor Operation* ⇨ 291.

Warning

Rust or dirt on a wheel, or on the parts to which it is fastened, can cause wheel nuts to become loose over time. The wheel could come off and cause a crash. When changing a wheel, remove any rust or dirt from places where the wheel attaches to the vehicle. In an emergency, a cloth or paper towel can be used; however, use a scraper or wire brush later to remove all rust or dirt.

Warning

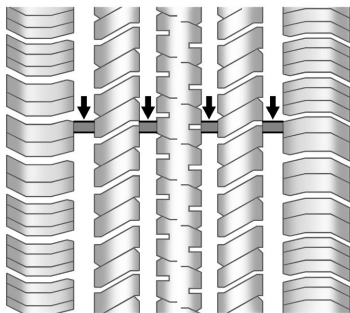
Do not apply grease to the wheel mounting surface, wheel conical seats, or the wheel nuts or bolts. Grease applied to these areas could cause a wheel to become loose or come off, resulting in a crash.

Check that all wheel nuts are properly tightened. See “Wheel Nut Torque” under *Capacities and Specifications* ⇨ 320.

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 build-up.

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* ⇨ 293 and *Tire Rotation* ⇨ 294.

The rubber in tires ages over time. This also applies to the spare tire, if the vehicle has one, even if it is never used. Multiple factors including temperatures, loading conditions, and inflation pressure maintenance affect how fast aging takes place. GM recommends that tires, including the spare if equipped, be replaced after six years, regardless of tread wear. To identify the age of a tire, use the tire manufacture date, which is the last four digits of the DOT Tire Identification Number (TIN) molded into one side of the tire sidewall. The last four digits of the TIN indicate the tire manufactured date. The first two digits represent the week and the last two digits, the year. For example, the third week of the year 2020 would have a 4-digit DOT date of 0320. Week 01 is the first full week (Sunday through Saturday) of each year.

Vehicle Storage

Tires age when stored normally mounted on a parked vehicle. Park a vehicle that will be stored for at least a month in a cool, dry, clean area away from direct sunlight to slow aging. This area should be free of grease, gasoline, or other substances that can deteriorate rubber.

Parking for an extended period can cause flat spots on the tires that may result in vibrations while driving. When storing a vehicle for at least a month, remove the tires or raise the vehicle to reduce the weight from the tires.

Buying New Tires

GM has developed and matched specific tires for the vehicle. The original equipment tires installed were designed to meet General Motors Tire Performance Criteria Specification (TPC Spec) system rating. When replacement tires are needed, GM strongly recommends buying tires with the same TPC Spec rating.

GM's exclusive TPC Spec system considers over a dozen critical specifications that impact the overall performance of the vehicle, including brake system performance, ride and handling, traction control, and tire pressure monitoring performance. GM's TPC Spec number is molded onto the tire's sidewall near the tire size.

Warning

Tires could explode during improper service. Attempting to mount or dismount a tire could cause injury or death. Only your dealer or authorized tire service center should mount or dismount the tires.

Warning

Mixing tires of different sizes (other than those originally installed on the vehicle), brands, tread patterns, or types may cause loss of vehicle control, resulting in a crash or other vehicle damage. Use the correct size, brand, and type of tire on all wheels.

GM recommends replacing worn tires in complete sets of four. Uniform tread depth on all tires will help to maintain the performance of the vehicle. Braking and handling performance may be adversely affected if all the tires are not replaced at the same time. If proper rotation and

maintenance have been done, all four tires should wear out at about the same time. However, if it is necessary to replace only one axle set of worn tires, place the new tires on the rear axle. See *Tire Rotation* ⇨ 294.

Winter tires with the same speed rating as the original equipment tires may not be available for H, V, W, Y and ZR speed rated tires. Never exceed the winter tires' maximum speed capability when using winter tires with a lower speed rating.

Warning

Using bias-ply tires on the vehicle may cause the wheel rim flanges to develop cracks after many miles of driving. A tire and/or wheel could fail suddenly and cause a crash. Use only radial-ply tires with the wheels on the vehicle.

If the vehicle tires must be replaced with a tire that does not have a TPC Spec number, make sure they are the same size, load range, speed rating, and construction (radial) as the original tires.

The Tire and Loading Information label indicates the original equipment tires on the vehicle. See *Vehicle Load Limits* ⇨ 173.

Reverse Rim Wheels

This vehicle may be equipped with Reverse Rim Wheels. Reverse Rim Wheels can be identified by the logo on the rim near the service valve, as shown.

 Warning

Reverse Rim Wheels must be mounted to tires using specialized service equipment by your GM Dealer or qualified tire service center. Servicing Reverse Rim Wheels incorrectly can damage the tire, wheel, and vehicle, which could result in a crash causing severe injury or death. Do not attempt to service Reverse Rim Wheels yourself, see your dealer for service.

 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.

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* ⇨ 295 and *Accessories and Modifications* ⇨ 260.

Wheel Alignment and Tire Balance

The tires and wheels were aligned and balanced at the factory to provide the longest tire life and best overall performance. Adjustments to wheel alignment and tire balancing are not necessary on a regular basis. Consider an alignment check if there is unusual tire wear or the vehicle is significantly pulling to one side or the other. Some slight pull to the left or right, depending on the slope of the road and/or other road surface variations such as troughs or ruts, is normal. If the vehicle is vibrating when driving on a smooth road, the tires and wheels may need to be rebalanced. See your dealer for proper diagnosis.

Wheel Replacement

 Warning

Using the wrong replacement wheels, wheel bolts, or wheel nuts can be dangerous. It could affect the braking and handling of the vehicle. Tires can lose

(Continued)

Warning (Continued)

air and cause loss of control, resulting in a crash. Always use the correct wheel, wheel bolts, and wheel nuts for replacement.

**Warning**

Replacing a wheel with a used one is dangerous. How it has been used or how far it has been driven may be unknown. It could fail suddenly and cause a crash. When replacing wheels, use a new GM original equipment wheel.

Caution

The wrong wheel can also cause problems with bearing life, brake cooling, speedometer or odometer calibration, headlight aim, bumper height, vehicle ground clearance, and tire or tire chain clearance to the body and chassis.

Replace any wheel that is bent, cracked, or badly rusted or corroded. If wheel nuts keep coming loose, the wheel, wheel bolts, and wheel nuts should be replaced. If the wheel leaks air, replace it. Some aluminum wheels can be repaired. See your dealer if any of these conditions exist.

Your dealer will know the kind of wheel that is needed.

Each new wheel should have the same load-carrying capacity, diameter, width, offset, and be mounted the same way as the one it replaces.

Replace wheels, wheel bolts, wheel nuts, or Tire Pressure Monitor System (TPMS) sensors with new GM original equipment parts.

Tire Chains and Other Traction Devices

Caution

If the vehicle is equipped with tire size 285/45R21, use tire winter traction devices only where legal and only when necessary.

(Continued)

Caution (Continued)

Use only textile traction devices, such as tire snow socks, that are the proper size for the tires. Install them on the tires of the drive axle only. Drive slowly and follow the traction device manufacturer's instructions. Driving too fast or spinning the wheels, with the traction device installed, can damage the traction device.

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* ⇨ 286.

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.

If the vehicle has self-sealing tires, see *Self-Sealing Tires* ⇨ 287. Tread punctures typically will not cause tires to lose air. However, if the vehicle does get a flat tire, there is no spare tire, tire changing equipment, or place to store a tire. Contact Roadside Assistance for help.

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* ⇨ 126.

Jump Starting

For more information about the vehicle battery, see *Battery* ⇨ 269.

If the battery has run down, try to use another vehicle and some jumper cables to start your vehicle. Be sure to use the following steps to do it safely.

Warning

Batteries can hurt you. They can be dangerous because:

- They contain acid that can burn you.
- They contain gas that can explode or ignite.
- They contain enough electricity to burn you.

(Continued)

Warning (Continued)

Use eye protection when handling the battery. 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.

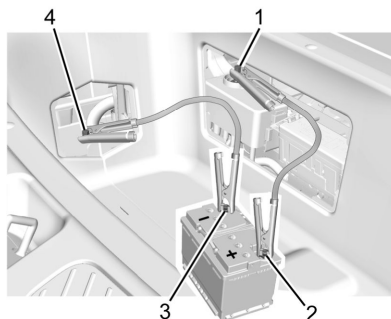
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Caution

Ignoring these steps could result in costly damage to the vehicle that would not be covered by the vehicle warranty. Trying to start the vehicle by pushing or pulling it will not work, and it could damage the vehicle.

Caution

If the jumper cables are connected or removed in the wrong order, electrical shorting may occur and damage the vehicle. The repairs would not be covered by the vehicle warranty. Always connect and remove the jumper cables in the correct order, making sure that the cables do not touch each other or other metal.



Connection Points and Sequence

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

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

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

The discharged battery positive (+) terminal and the discharged Battery Negative (-) Grounding Point are under the cargo management system in the rear of the vehicle. Remove the compartment on the driver side 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.

Caution

If the vehicles touch each other while jump starting, a ground connection may occur that disables your vehicle and/or damages the electrical systems of one or both vehicles.

2. Get the vehicles close enough so the jumper cables can reach, but make sure the vehicles are not touching each other.

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.

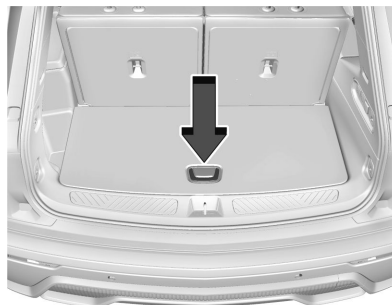
Caution

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 lights that are not needed.
4. Open the liftgate. See *Liftgate* ⇨ 17.



5. Pull the handle and lift the load floor to access the storage bins.



6. Pull the cover to access the positive terminal.



7. Pull the cover to access the negative grounding point.



8. Remove the cover on the positive terminal.
9. Locate the battery positive (+) terminal and negative (-) grounding point.

Warning

Always inspect jumper cables prior to use. Jumper cables with loose or missing insulation could shock you or cause vehicle damage. Do not use jumper cables that appear damaged.

10. Check that the jumper cables do not have loose or missing insulation.

11. Connect one end of the red positive (+) cable to the discharged battery positive (+) terminal. Do not let the other end touch metal.
12. Connect the other end of the red positive (+) cable to the good battery positive (+) terminal.
13. 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.
14. Connect the other end of the negative (-) cable to the discharged battery negative (-) grounding point.
15. Now start the vehicle with the good battery and keep the vehicle running for a while.
16. Try to start the vehicle that had the dead battery. If it will not start after a few tries, it probably needs service.

Jumper Cable Removal

Reverse Steps 11–14 exactly when removing the jumper cables.

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

Towing the Vehicle

Transporting a Disabled Vehicle

Caution

Incorrectly transporting a disabled vehicle may cause damage to the vehicle. Use proper tire straps to secure the vehicle to the flatbed tow truck. Do not strap or hook to any frame, underbody, or suspension component not specified below. Do not move vehicles with drive axle tires on the ground. Damage is not covered by the vehicle warranty.

Caution

The vehicle may be equipped with an Electric Parking Brake (EPB) and/or an electronic shifter. In the event of a loss of 12-volt battery power, the EPB cannot

(Continued)

Caution (Continued)

be released, and the vehicle cannot be shifted to N (Neutral). Tire skates or dollies must be used under the non-rolling tires to prevent damage while loading/unloading the vehicle. Dragging the vehicle will cause damage not covered by the vehicle warranty.

Caution

The vehicle may be equipped with a tow eye. Improper use of the tow eye may cause damage to the vehicle and is not covered by the vehicle warranty. If equipped, use the tow eye to load the vehicle onto a flatbed tow truck from a flat road surface, or to move the vehicle a very short distance at a walking pace. The tow eye is not designed for off-road recovery. The vehicle must be in N (Neutral) with the Electric Parking Brake (EPB) released when using the tow eye.

Contact a professional towing service if the disabled vehicle must be transported. GM recommends a flatbed tow truck to transport a disabled vehicle. Use ramps to help reduce approach angles, if necessary.

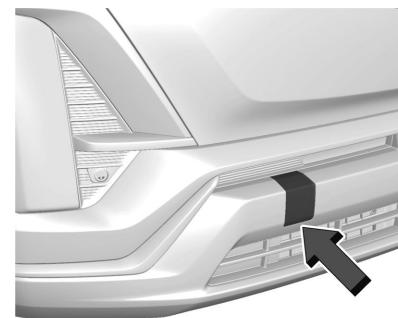
If equipped, a tow eye may be located near the spare tire or emergency jack. Do not use the tow eye to pull the vehicle from snow, mud, sand, or a ditch. Tow eye threads may have right- or left-hand threads. Use caution when installing or removing the tow eye.

The vehicle must be in N (Neutral) and the Electric Parking Brake (EPB) 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* ⇨ 179 to place the vehicle in N (Neutral).
- If the 12-volt battery is dead and/or the vehicle will not start, the vehicle will not move. Try to jump start the vehicle. See

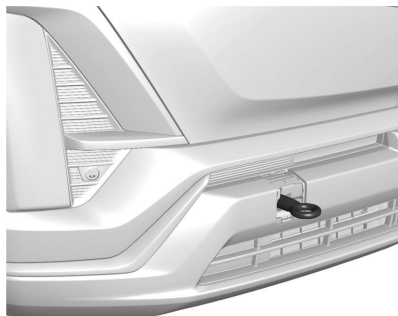
Jump Starting ⇨ 299 and if the jump start is successful, retry the “Car Wash Mode” procedure.

- If jump starting is unsuccessful, the vehicle will not move. Tire skates or dollies must be used under the non-rolling tires to prevent vehicle damage.

Front Tow Eye Attachment Point

1. Carefully open the cover on the fascia by using the small notch that conceals the tow eye socket.

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2. Install the tow eye into the socket and turn it until it is fully tightened. When the tow eye is removed, reinstall the cover with the notch in the original position.

Rear Tow Eye Attachment Point (If Equipped)



1. Carefully open the cover on the fascia by using the small notch that conceals the tow eye socket.



2. Install the tow eye into the socket and turn it until it is fully tightened. When the tow eye is removed, reinstall the cover with the notch in the original position.

Appearance Care

Exterior Care

Locks

Locks are lubricated at the factory. Use a de-icing agent only when absolutely necessary, and have the locks greased after using. See *Recommended Fluids and Lubricants* ⇨ 318.

Washing the Vehicle**Caution**

Do not use petroleum-based, acidic, or abrasive cleaning agents as they can damage the vehicle's paint, metal, or plastic parts. Damage caused by non-approved cleaning products is not covered by the vehicle warranty. Follow all manufacturer directions regarding correct product usage, necessary safety precautions, and appropriate disposal of any vehicle care product.

Caution

Avoid using high-pressure washers closer than 30 cm (12 in) to the surface of the vehicle. Use of power washers exceeding 8,274 kPa (1,200 psi) can result in damage or removal of paint and decals.

Caution

To avoid damage to a matte paint finish, do not use an automatic car wash equipped with brushes or scrubbers. Only use touchless automatic car washes.

To preserve the vehicle's finish, wash it often out of direct sunlight.

If using an automatic car wash, follow the car wash instructions. The windshield wiper and rear window wiper, if equipped, must be off. Remove any accessories that may be damaged or interfere with the car wash equipment.

Rinse the vehicle well, before washing and after, to remove all cleaning agents completely. If they are allowed to dry on the surface, they could stain.

Dry the finish with a soft, clean chamois or an all-cotton towel to avoid surface scratches and water spotting.

Cleaning Underhood Components**Caution**

Do not power wash any component under the hood. This could cause damage that would not be covered by the vehicle warranty.

Solvents or aggressive cleaners may harm underhood components. Avoid using these chemicals. Water is recommended.

Finish Care**Caution**

Machine compounding or aggressive polishing on a basecoat/clearcoat paint finish may damage it. Use only non-abrasive waxes and polishes that are made for a basecoat/clearcoat paint finish on the vehicle.

Caution

Do not apply waxes or polishes to uncoated plastic, vinyl, rubber, decals, simulated wood, or matte paint as damage can occur.

Application of aftermarket clearcoat sealant/wax materials is not recommended. If painted surfaces are damaged, see your dealer to have the damage assessed and repaired. Foreign materials such as calcium chloride and other salts, ice melting agents, road oil and tar, tree sap, bird droppings, chemicals from industrial chimneys, etc., can damage the vehicle's finish if they remain on painted surfaces. Wash the vehicle as soon as possible. If necessary, use non-abrasive cleaners that are marked safe for painted surfaces to remove foreign matter.

Occasional hand waxing or mild polishing should be done to remove residue from the paint finish. See your dealer for approved cleaning products.

To keep the paint finish looking new, keep the vehicle garaged or covered whenever possible.

Protecting Exterior Bright Metal Moldings**Caution**

Failure to clean and protect the bright metal moldings can result in a hazy white finish or pitting. This damage would not be covered by the vehicle warranty.

The bright metal moldings on the vehicle are aluminum, chrome, or stainless steel. To prevent damage always follow these cleaning instructions:

- Be sure the molding is cool to the touch before applying any cleaning solution.
- Use only approved cleaning solutions from dealer for aluminum, chrome, or stainless steel. Some cleaners are highly acidic or contain alkaline substances and can damage the moldings.
- Always dilute a concentrated cleaner according to the manufacturer's instructions.
- Do not use cleaners that are not intended for automotive use.

- Use a nonabrasive wax on the vehicle after washing to protect and extend the molding finish.

Cleaning Exterior Lights/Lenses, Emblems, Decals, and Stripes**Caution**

Failure to clean lights properly can cause damage to the light cover that would not be covered by the vehicle warranty.

Caution

Using wax on low gloss black finish stripes can increase the gloss level and create a non-uniform finish. Clean low gloss stripes with soap and water only.

Use only lukewarm or cold water, a soft cloth, and a car washing soap to clean exterior lights, lenses, emblems, decals, and stripes. Follow instructions under "Washing the Vehicle" previously in this section.

Light covers are made of plastic, and some have a UV protective coating. Do not clean or wipe them when dry.

Do not use any of the following on light covers:

- Abrasive or caustic agents.
- Washer fluids and other cleaning agents in higher concentrations than suggested by the manufacturer.
- Solvents, alcohols, or other harsh cleaners.
- Ice scrapers or other hard items.
- Aftermarket appearance caps or covers while the lights are illuminated, due to excessive heat generated.

Air Intakes

Clear debris from the air intakes, between the hood and windshield, when washing the vehicle.

Windshield and Wiper Blades

Clean the outside of the windshield with glass cleaner.

Clean rubber blades using a lint-free cloth or paper towel soaked with windshield washer fluid or a mild detergent. Wash the windshield thoroughly when cleaning the blades. Bugs, road grime, sap, and a buildup of vehicle wash/wax treatments may cause wiper streaking.

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

Weatherstrips

Apply recommended lubricant on weatherstrips to make them last longer, seal better, and not stick or squeak. Lubricate weatherstrips at least once a year. Hot, dry climates may require more frequent application. Black marks from rubber material on painted surfaces can be removed by rubbing with a clean cloth.

Tires

Caution

Using petroleum-based tire dressing products on the vehicle may damage the paint finish and/or tires. When applying a tire dressing, always wipe off any overspray from all painted surfaces on the vehicle.

Use a stiff brush with tire cleaner to clean the tires.

Wheels and Wheel Trim

Caution

Chrome wheels and chrome wheel trim may be damaged if the vehicle is not washed after driving on roads that have been sprayed with magnesium chloride or calcium chloride. These are used on roads for conditions such as dust and ice. Always wash the chrome with soap and water after exposure.

Caution

To avoid surface damage on wheels and wheel trim, do not use strong soaps, chemicals, abrasive polishes, cleaners, or brushes. Use only GM approved cleaners. Do not drive the vehicle through an automatic car wash that uses silicon carbide tire/wheel cleaning brushes. Damage could occur and the repairs would not be covered by the vehicle warranty.

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Use a soft, clean cloth with mild soap and water to clean the wheels. After rinsing thoroughly with clean water, dry with a soft, clean towel. A wax may then be applied.

Body Component Lubrication

Lubricate all key lock cylinders, hood hinges, and liftgate hinges unless the components are plastic. Applying silicone grease on weatherstrips with a clean cloth will make them last longer, seal better, and not stick or squeak.

Underbody Maintenance

Caution

For electric or hybrid vehicles, perform regular care around the high voltage system. Do not direct high pressure spray at or around connectors, cables, or any of the vents. High pressure can damage the seals and battery components.

At least twice a year, spring and fall, use plain water to flush any corrosive materials from the underbody. Take care to thoroughly clean any areas where mud and other debris can collect.

Do not directly power wash the transfer case and/or front/rear axle output seals. High pressure water can overcome the seals and contaminate the fluid. Contaminated fluid will decrease the life of the transfer case and/or axles and should be replaced.

Sheet Metal Damage

If the vehicle is damaged and requires sheet metal repair or replacement, make sure the body repair shop applies anti-corrosion material to parts repaired or replaced to restore corrosion protection.

Original manufacturer replacement parts will provide the corrosion protection while maintaining the vehicle warranty.

Finish Damage

Quickly repair minor chips and scratches with touch-up materials available from your dealer to avoid corrosion. Larger areas of finish damage can be corrected in your dealer's body and paint shop.

Chemical Paint Spotting

Airborne pollutants can fall upon and attack painted vehicle surfaces causing blotchy, ring-shaped discolorations, and small, irregular dark spots etched into the paint surface. See "Finish Care" previously in this section.

Interior Care

Caution

Immediately remove cleaners, hand lotions, sunscreen, and insect repellent from all interior surfaces or permanent damage may result.

Caution

Use cleaners specifically designed for the surfaces being cleaned to prevent permanent damage to the vehicle. Apply all cleaners directly to a cleaning cloth. Do not spray cleaners on any switches or controls.

Caution

To prevent damage:

- Never use a razor or any other sharp object to remove soil from any interior surface.
- Never use a brush with stiff bristles.
- Never rub any surface aggressively or with too much pressure.
- Do not get any exposed electrical components wet.
- Do not use laundry detergents or dishwashing soaps with degreasers. Do not use solutions that contain strong or caustic soap.
- Do not heavily saturate the upholstery when cleaning.
- Do not use solvents or cleaners containing solvents.
- Do not use disinfecting wipes that are scented or contain bleach. Do not use wipes or cleaners that show

(Continued)

Caution (Continued)

a color transfer to the wipe or change the appearance of the interior surface when used.

- Do not use scented or gel-type hand sanitizers. If hand sanitizer comes in contact with interior surfaces of the vehicle, blot immediately and clean with a soft cloth dampened with a mild soap and water solution.

To prevent dirt particle abrasions, regularly clean the vehicle's interior. Before using cleaners, read and follow all safety instructions on the label. While cleaning the interior, open the doors and windows for proper ventilation. Newspapers or dark garments can transfer color to the vehicle's interior.

When using liquid soap cleaners, follow the directions on the specific cleaner or soap solution for dilution instructions.

Interior Glass**Caution**

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

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.

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

Speaker Covers

Vacuum around a speaker cover gently, so that the speaker will not be damaged. Clean spots with water and mild soap.

Coated Moldings

Clean coated moldings.

- When lightly soiled, wipe with a sponge or soft, lint-free cloth dampened with water.

- When heavily soiled, use warm soapy water.

Vinyl/Rubber



Warning

Do not use cleaners that contain silicone, wax-based products, or cleaners that increase gloss on vinyl/rubber floor and mats. These cleaners can permanently change the appearance and feel of the vinyl/rubber and can make the floor slippery. Your foot could slip while operating the vehicle, and you could lose control, resulting in a crash. You or others could be injured.

If equipped with vinyl floor and rubber floor mats, use a soft cloth and/or brush dampened with water to remove dust and loose dirt. For more thorough cleaning, use a mild soap and water solution.

Fabric/Carpet/Suede

Start by vacuuming the surface using a soft brush attachment. If a rotating vacuum brush attachment is used, only use it on the floor carpet. Before cleaning, gently remove as much of the soil as possible:

- Gently blot liquids with a paper towel. Continue blotting until no more soil can be removed.
- For solid soils, remove as much as possible prior to vacuuming.

To clean:

1. Saturate a clean, lint-free colorfast cloth with water. Microfiber cloth is recommended to prevent lint transfer to the fabric or carpet.
2. Remove excess moisture by gently wringing until water does not drip from the cleaning cloth.
3. Start on the outside edge of the soil and gently rub toward the center. Fold the cleaning cloth to a clean area frequently to prevent forcing the soil into the fabric.
4. Continue gently rubbing the soiled area until there is no longer any color transfer from the soil to the cleaning cloth.

5. If the soil is not completely removed, use a mild soap solution followed only by plain water.

If the soil is not completely removed, it may be necessary to use a commercial upholstery cleaner or spot lifter. Test a small hidden area for colorfastness before using a commercial upholstery cleaner or spot lifter. If ring formation occurs, clean the entire fabric or carpet.

After cleaning, use a paper towel to blot excess moisture.

Cleaning High Gloss Surfaces and Vehicle Status and Radio Displays

Caution

Do not attach a device with a suction cup to the display. This may cause damage and would not be covered by the vehicle warranty.

Use a microfiber cloth on high gloss surfaces or vehicle displays. First, use a soft bristle brush to remove dirt that can scratch the surface. Then gently clean by rubbing with a microfiber cloth. Never use window cleaners or solvents.

Periodically hand wash the microfiber cloth separately, using mild soap. Do not use bleach or fabric softener. Rinse thoroughly and air dry before next use.

Instrument Panel, Leather, Vinyl, Other Plastic Surfaces, Low Gloss Paint Surfaces, and Natural Open Pore Wood Surfaces

Caution

Soaking or saturating leather, especially perforated leather, as well as other interior surfaces, may cause permanent damage. Wipe excess moisture from these surfaces after cleaning and allow them to dry naturally. Never use heat, steam, or spot removers. Do not use liquids that contain alcohol or solvents on leather seats. Do not use cleaners that contain silicone or wax-based products. Cleaners containing these solvents can permanently change the appearance and feel of leather or soft trim and are not recommended.

Caution

Use of air fresheners may cause permanent damage to plastics and painted surfaces. If an air freshener comes in contact with any plastic or painted surface in the vehicle, blot immediately and clean with a soft cloth dampened with a mild soap solution. Damage caused by air fresheners would not be covered by the vehicle warranty.

Use compressed air or a vacuum to remove dust under the Multi-Functional Controller (MFC) cap, if equipped.

Use a soft bristle brush to remove dust from knobs and crevices on the instrument cluster. Use a soft microfiber cloth dampened with water to remove dust and loose dirt. For a more thorough cleaning, use a soft microfiber cloth dampened with a mild soap and water solution.

Do not use cleaners that increase gloss, especially on the instrument panel. Reflected glare can decrease visibility through the windshield under certain conditions.

Cargo Cover and Convenience Net

If equipped, wash with warm water and mild detergent. Do not use chlorine bleach. Rinse with cold water, and then dry completely.

Care of Seat Belts



Warning

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

Keep belts clean and dry.

Floor Mats



Warning

If a floor mat is the wrong size or is not properly installed, it can interfere with the pedals. Interference with the pedals can cause unintended acceleration and/or

(Continued)

Warning (Continued)

increased stopping distance which can cause a crash and injury. Make sure the floor mat does not interfere with the pedals.

Use the following guidelines for proper floor mat use:

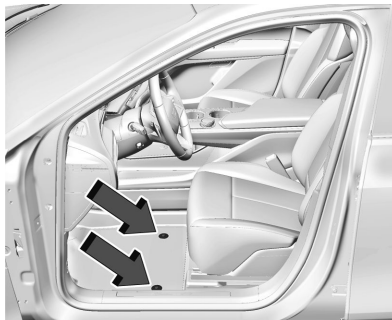
- The original equipment floor mats are designed for your vehicle. If the floor mats need to be replaced, it is recommended that GM-certified floor mats are purchased. Non-GM floor mats may not fit properly and may interfere with the pedals. Always check that the floor mats do not interfere with the pedals.
- Do not use a floor mat if the vehicle is not equipped with a floor mat retainer on the driver side floor.
- Use the floor mat with the correct side up. Do not turn it over.
- Do not place anything on top of the driver side floor mat.
- Use only a single floor mat on the driver side.

- Do not place one floor mat on top of another.

Removing and Replacing the Floor Mats

The driver side floor mat is held in place by two button-type retainers.

The passenger side floor mat is held in place by two button-type retainers.



1. Pull up on the rear of the floor mat to unlock each retainer and remove.
2. Reinstall by lining up the floor mat retainer openings over the carpet retainers and snapping into position.

3. Make sure the floor mat is properly secured in place. Verify the floor mat does not interfere with the pedals.

Cleaning Rubber Floor Mats (All-Weather Mats and Floor Liners)

See "Vinyl/Rubber" under *Interior Care* ⇨ 308 for important cleaning information.

Service and Maintenance

General Information
General Information 313

Maintenance Schedule
Maintenance Schedule 314

Owner Checks and Services
Owner Checks and Services 315

Additional Maintenance and Care
Additional Maintenance and Care 316

Recommended Fluids, Lubricants, and Parts
Recommended Fluids and Lubricants 318

Maintenance Records
Maintenance Records 319

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.

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 10 000 km. Proper vehicle maintenance helps to keep the vehicle in good working condition.

314 Service and Maintenance

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* ⇨ 173.
- 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 service hub to have a trained technician do the work. See *Doing Your Own Service Work* ⇨ 260.

Maintenance Schedule

Owner Checks and Services

Once a Month

- Check the tire inflation pressures. See *Tire Pressure* ⇨ 287.

- Inspect the tires for wear. See *Tire Inspection* ⇨ 293.
- Check the windshield washer fluid level. See *Washer Fluid* ⇨ 266.

Every Five Years

- Replace brake fluid. See *Brake Fluid* ⇨ 268.

Air Conditioning Desiccant (Replace Every Seven Years)

The air conditioning system requires maintenance every seven years. This service requires replacement of the desiccant to help the longevity and efficient operation of the air conditioning system. This service can be complex. See your dealer.

Tire Rotation and Required Services Every 10 000 km

Rotate the tires, if recommended for the vehicle, and perform the following services. See *Tire Rotation* ⇨ 294.

- Check vehicle coolant level.
- Check windshield washer fluid level. See *Washer Fluid* ⇨ 266.

- Visually inspect windshield wiper blades for wear, cracking, or contamination. See *Exterior Care* ⇨ 304. Replace worn or damaged wiper blades. See *Wiper Blade Replacement* ⇨ 273.
- Check tire inflation pressures. See *Tire Pressure* ⇨ 287.
- Inspect tire wear. See *Tire Inspection* ⇨ 293.
- Visually check for fluid leaks.
- Inspect brake system. See *Exterior Care* ⇨ 304.
- Visually inspect steering, suspension, and chassis components for damage, including cracks or tears in the rubber boots, loose or missing parts, or signs of wear at least once a year. See *Exterior Care* ⇨ 304.
- Inspect power steering for proper attachment, connections, binding, leaks, cracks, chafing, etc.
- Visually inspect halfshafts and drive shafts for excessive wear, lubricant leaks, and/or damage including: tube dents or cracks, constant velocity joint or universal joint looseness, cracked or missing boots, loose

or missing boot clamps, center bearing excessive looseness, loose or missing fasteners, and axle seal leaks.

- Check restraint system components. See *Safety System Check* ⇨ 53.
- Lubricate body components. See *Exterior Care* ⇨ 304.
- Check accelerator pedal for damage, high effort, or binding. Replace if needed.
- Visually inspect gas strut for signs of wear, cracks, or other damage. Check the hold open ability of the strut. If the hold open ability is low, service the gas strut. See *Gas Strut(s)* ⇨ 274.

Additional Required Services — Normal Service

Every 10 000 km

- Replace passenger compartment air filter. Or every 12 months, whichever comes first. More frequent passenger compartment air filter replacement may be needed if driving in areas with heavy traffic, poor air quality, high dust levels, or environmental allergens. Passenger compartment air filter replacement may also be needed if there is reduced airflow, window fogging, or odors. Your GM dealer can help determine when to replace the filter.

Every 160 000 km

- Replace hood and/or body lift support gas struts. Or every 10 years, whichever comes first. See *Gas Strut(s)* ⇨ 274.

Every 240 000 km

- Drain and fill coolant circuits. Or every five years, whichever comes first. See *Cooling System* ⇨ 264.

Severe Conditions Requiring More Frequent Maintenance

- Frequently driven in heavy city traffic in hot weather.
- Frequently driven in hilly or mountainous terrain.
- Frequently towing a trailer.
- Used for high speed or competitive driving.
- Used for taxi, police, or delivery service.

Additional Required Services — Severe Service

Every 70 000 km

- Change electric drive unit fluid. See *Recommended Fluids and Lubricants* ⇨ 318.

Owner Checks and Services

- At least twice a year, have underbody flushing service performed. See "Underbody Maintenance" in *Exterior Care* ⇨ 304.

Additional Maintenance and Care

Your vehicle is an important investment and caring for it properly may help to avoid future costly repairs. To maintain vehicle performance, additional maintenance services may be required.

It is recommended that your dealer perform these services — their trained dealer technicians know your vehicle best. Your dealer can also perform a thorough assessment with a multi-point inspection to recommend when your vehicle may need attention.

The following list is intended to explain the services and conditions to look for that may indicate services are required.

Battery

The 12-volt battery supplies power to start the engine and operate any additional electrical accessories.

- To avoid break-down or failure to start the vehicle, maintain a battery with full cranking power.

- Trained dealer technicians have the diagnostic equipment to test the battery and ensure that the connections and cables are corrosion-free.

Belts

- Belts may need replacing if they squeak or show signs of cracking or splitting.
- Trained dealer technicians have access to tools and equipment to inspect the belts and recommend adjustment or replacement when necessary.

Brakes

Brakes stop the vehicle and are crucial to safe driving.

- Signs of brake wear may include chirping, grinding, or squealing noises, or difficulty stopping.
- Trained dealer technicians have access to tools and equipment to inspect the brakes and recommend quality parts engineered for the vehicle.

Fluids

Proper fluid levels and approved fluids protect the vehicle's systems and components. See *Recommended Fluids and Lubricants* ⇨ 318 for GM approved fluids.

- Engine oil and windshield washer fluid levels should be checked at every fuel fill.
- Instrument cluster lights may come on to indicate that fluids may be low and need to be filled.

Hoses

Hoses transport fluids and should be regularly inspected to ensure that there are no cracks or leaks. With a multi-point inspection, your dealer can inspect the hoses and advise if replacement is needed.

Lights

Properly working headlights, taillights, and brake lights are important to see and be seen on the road.

- Signs that the headlights need attention include dimming, failure to light, cracking, or damage. The brake lights need to be checked periodically to ensure that they light when braking.

- With a multi-point inspection, your dealer can check the lights and note any concerns.

Shocks and Struts

Shocks and struts help aid in control for a smoother ride.

- Signs of wear may include steering wheel vibration, bounce/sway while braking, longer stopping distance, or uneven tire wear.
- As part of the multi-point inspection, trained dealer technicians can visually inspect the shocks and struts for signs of leaking, blown seals, or damage, and can advise when service is needed.

Tires

Tires need to be properly inflated, rotated, and balanced. Maintaining the tires can save money and fuel, and can reduce the risk of tire failure.

- Signs that the tires need to be replaced include three or more visible treadwear indicators; cord or fabric showing through the rubber; cracks or cuts in the tread or sidewall; or a bulge or split in the tire.

- Trained dealer technicians can inspect and recommend the right tires. Your dealer can also provide tire/wheel balancing services to ensure smooth vehicle operation at all speeds. Your dealer sells and services name brand tires.

Vehicle Care

To help keep the vehicle looking like new, vehicle care products are available from your dealer. For information on how to clean and protect the vehicle's interior and exterior, see *Interior Care* ⇨ 308 and *Exterior Care* ⇨ 304.

Wheel Alignment

Wheel alignment is critical for ensuring that the tires deliver optimal wear and performance.

- Signs that the alignment may need to be adjusted include pulling, improper vehicle handling, or unusual tire wear.
- Your dealer has the required equipment to ensure proper wheel alignment.

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.

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.

318 Service and Maintenance**Recommended Fluids, Lubricants, and Parts****Recommended Fluids and Lubricants**

Fluids and lubricants identified below by name or specification, including fluids or lubricants not listed here, can be obtained from your dealer.

Usage	Fluid/Lubricant
Electric Drive Unit	DEXRON ULV Automatic Transmission Fluid.
Hydraulic Brake System	GM approved DOT 4 Hydraulic Brake Fluid.
Key Lock Cylinders, Hood and Liftgate Hinges	Multi-Purpose Lubricant, Superlube. See your dealer.
Vehicle Coolant Circuits	Use only ACDelco Premix (50/50 mixture of de-ionized water and DEX-COOL Coolant). See your dealer.
Windshield Washer	Automotive windshield washer fluid that meets regional freeze protection requirements.

Maintenance Records

After the scheduled services are performed, record the date, odometer reading, who performed the service, and the type of services performed in the boxes provided. Retain all maintenance receipts.

[illegible]

Technical Data

Vehicle Identification

Vehicle Identification Number (VIN)	320
Service Parts Identification	320

Vehicle Data

Capacities and Specifications	320
-------------------------------------	-----

Vehicle Identification

Vehicle Identification Number (VIN)



This legal identifier is in the front corner of the instrument panel, on the driver side of the vehicle. It can be seen through the windshield from outside. The Vehicle Identification Number (VIN) also appears on the Vehicle Certification label and certificates of title and registration.

Service Parts Identification

The certification label is intended to provide the service technician with vehicle service information.

There may be a large barcode on the certification label located on the driver door or the center pillar (B-pillar) that the service technician can scan for the following information:

- Vehicle Identification Number (VIN)
- Model designation
- Paint information
- Production options

Vehicle Data

Capacities and Specifications

The following approximate capacities are given in metric and English conversions.

Refer to *Recommended Fluids and Lubricants* ⇨ 318 for more information.

Application	Capacities	
	Metric	English
Air Conditioning Refrigerant	For the air conditioning system refrigerant charge type and amount, see the refrigerant label under the hood. See your dealer for more information.	
Total Cooling System*	See your dealer.	
Wheel Nut Torque	190 N•m	140 lb ft
*The refilling or adding coolant procedures can be complex. See your dealer.		

322 Technical Data

Electric Drive Unit Specifications

Power	458 kW
Torque	880 N•m

Performance

Vehicle Top Speed	210 km/h
-------------------	----------

Customer Information

Customer Information

Windshield Radio Frequency Identification	324
Declaration of Conformity	324

Vehicle Data Recording and Privacy

Vehicle Data Recording and Privacy	339
Cybersecurity	339
Event Data Recorders	340
OnStar	340
Infotainment System	341

Windshield Radio Frequency Identification

Windshields may impact the readability of Radio Frequency Identification (RFID) tags.

Radio Frequency Identification tags act as wireless toll collection tags and/or electronic entry/exit cards that allow you to drive through designated areas using wireless technology.

These tags will only function properly when placed horizontally on the interior passenger side of the windshield next to the rearview mirror.

Declaration of Conformity

Radio Frequency Devices

China

- Shall not change transmission frequency, increase transmission power (including additional RF power amplifier), and shall not connect external antenna or change the transmitting antenna.
- When used, it shall not generate harmful interference to various legitimate radio communication services. Once interference

is found, it shall be stopped immediately, and measures shall be taken to eliminate interference before it can continue to be used.

- When using micropower radio equipment, interference from various radio services or radiation interference from industrial, scientific and medical applications must be tolerated.
- Shall not be used near aircraft and airports.
- The use of micro-power short-distance radio transmission equipment shall comply with the relevant regulations of the State on Radio Management.

Nigeria

Connection and use of this communications equipment is permitted by the Nigerian Communications Commission.

Battery Radio Frequency Module —
Single (Vitesco)

European Union (EU)



Japan



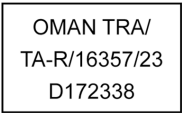
Jordan

Type Approval No. TRC/34/12766/2023

Kazakhstan



Oman



United Arab Emirates (UAE)



United Kingdom (Great Britain)



Battery Radio Frequency Module —
Single (Visteon)

Australia



European Union (EU)

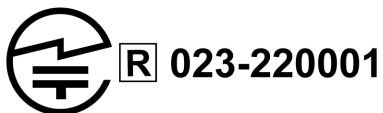


Israel

Wireless approval signed by the Ministry of
Communication no. 56-03041

326 Customer Information

Japan



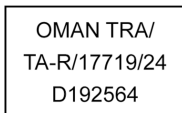
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Type Approval No. TRC/34/10926/2022

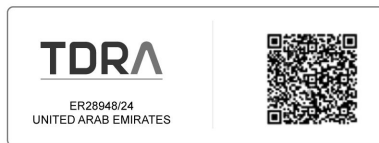
Kazakhstan



Oman



United Arab Emirates (UAE)



United Kingdom (Great Britain)



Body Control Module (B2NA0)

Passive Entry Passive Start System (LF Transmitter and LF Transceiver)

Australia



China

Model: B2NA0

Report No. 202215011233

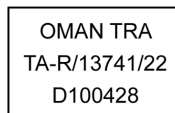
Israel

Certificate No. 56-05544

Jordan

Type Approval No. TRC/34/10062/2022

Oman



United Arab Emirates (UAE)



Cell Monitoring Unit (Sense Line
Assembly) (SLA 3P8S) Vitesco
European Union (EU)



Japan



Jordan

Type Approval No. TRC/34/12765/2023

Kazakhstan

Registration No. EA3C KG4171035.Д.0016665



Oman

OMAN TRA/
R/16358/23
D172338

United Arab Emirates (UAE)



United Kingdom (Great Britain)



Cell Monitoring Unit (Sense Line
Assembly) (SLA8) Visteon

Australia

Test Report No. 3625ERM.003A1



European Union (EU)

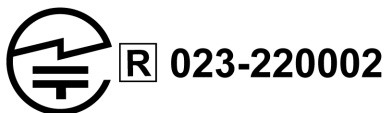


328 Customer Information

Israel

Wireless approval signed by the Ministry of Communication no. 56-06931

Japan



The Cell Monitoring Unit is compliant with the Radio Act certification (grant ID 023-220002).

This device should not be modified (otherwise the granted designation number will become invalid).

Jordan

Approval No. TRC/34/10865/2022

Kazakhstan



New Zealand

Test Report No. 3625ERM.002A2



Oman

OMAN TRA
TA-R/14681/22
D172338

United Arab Emirates (UAE)



Garage Door Opener with LIN (LMHL5A)

European Union (EU)



Israel

Certificate No. 56-04413

United Kingdom (UK)



Radar Interior

European Union (EU)



Japan



Jordan

Type Approval No. TRC/31/13444/2023

Kazakhstan

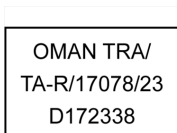
Registration No. EA3C KG417/031.Д.0054452



New Zealand



Oman



United Arab Emirates (UAE)

TDRA Authorization No. ER89680/20

United Kingdom (UK)

Certificate Number T.2023.10.0004



Radar Long Range (LRR120)

European Union (EU)

Certificate No. T.2019.04.0003



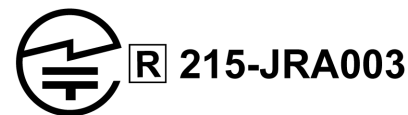
Israel

Certificate No. 51-92147

Japan

CETECOM Construction Type Certificate

Registration No. 18-1-0245401T09



Jordan

Type Approval No. TRC/32/6863/2020

330 Customer Information

Kazakhstan

Registration No. EAЭC KG417/031.Д.0000561



Oman

OMAN TRA
TA-R/7713/19
D172338

United Arab Emirates (UAE)

TRA
REGISTERED No:
ER72325/19
DEALER No:
DA0020858/10

United Kingdom (Great Britain)

Certificate No. T.2019.04.0003



Radar Short Range (SRR/SBZA)

China

SBZA: CMIIT ID: 2022LJ11830

SRR: CMIIT ID: 2022LJ11657

European Union (EU)

Type Examination Certificate
No. T.2021.12.0004

Israel

Certificate No. 56-06773

Japan

This device is granted pursuant to the Japanese
Radio Law under the grant ID no.: 219-210023

This device should not be modified (otherwise
the granted designation number will
become invalid).

Jordan

Type Approval No. TRC/31/10345/2022

Kazakhstan

Registration No. EAЭC N RU Д-
DE.PA05.B.26050/22



New Zealand



Supplier No. E3516

Oman

OMAN TRA
TA-R/14101/22
D172338

United Arab Emirates (UAE)

TRA
REGISTERED No:
ER11776/22
DEALER No:
DA44932/15

United Kingdom (UK)

UK Type Examination Certificate No. 10611

UKAS Inspection No. 4511



Radio (VCU)

China

Type Approval Certificate CMIIT ID: 2022DJ2391

Israel

Certificate No. 56-01612

Japan

Type Certification No. 21-112294-21-124151



R

204-A00036

Jordan

Type Approval No. TRC/34/13414/2023

Oman

OMAN TRA/
TA-R/17064/23
D172338

United Arab Emirates (UAE)

TDRA

ER16436/22
UNITED ARAB EMIRATES



Remote Function Receiver (RFR)

Australia



Israel

Certificate No. 56-03654

Jordan

Type Approval No. TRC/36/7716/2020

Kazakhstan

Registration No. EAЭC № RU Д-
DE.PA04.B.95537/23



332 Customer Information

New Zealand



Oman



United Arab Emirates (UAE)



United Kingdom (UK)

Certificate Registration No. R18-0527-01-TEC



Remote Key
Australia



European Union (EU)



Israel

Certificate No. 56-05720

Jordan

Type Approval No. TRC/36/7715/2020

Kazakhstan

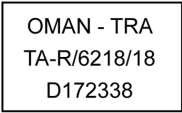
Registration No. EAЭC № RU Д-
DE.PA04.B.95523/23



New Zealand



Oman



United Arab Emirates (UAE)

TRA
REGISTERED No:
ER66704/18
DEALER No:
DA36976/14

Telematics Module (Continental)**China**

Vehicle Wireless Terminal

Model G12C50RG1: CCC Certificate
No. 2023011606547878

NAL Certificate No. 00-G855-238642

Type Approval Certificate CMIIT ID: 2023CJ5749

Model G12C51XG1: CCC Certificate
No. 2022011606471243

NAL Certificate No. 00-D923-228516

Type Approval Certificate CMIIT ID: 2022CJ9378

Model G12C400G1: CCC Certificate
No. 2022011606452060

NAL Certificate No. 17-D923-221126

Type Approval Certificate CMIIT ID: 2022CJ4258

Model G12C500G1: CCC Certificate
No. 2022011606512486

NAL Certificate No. 00-D923-229065

Type Approval Certificate CMIIT
ID: 2022CJ13704

Jordan

Type Approval No. TRC/34/12066/2023

Kazakhstan

Registration No. EA3C KG417/031.Д.0050606

**United Arab Emirates (UAE)****United Kingdom (UK)**

Model G12R400G1

Type Examination Certificate No. SN23A0079

**Telematics Module (LGE) Gen 12****Jordan**

Type Approval No. TRC/34/13342/2023

Kazakhstan

Registration No. EA3C N RU Д-
KR.PA10.B.04037/23

**Oman**

OMAN TRA/
TA-R/18360/24
D182435

334 Customer Information

United Arab Emirates (UAE)

Model TFGMEIBBCD9:



Model TFGMEIBBCDA:



Tire Pressure Sensor (G6GB4)

Australia



Israel

Certificate No. 51-91526

Jordan

Type Approval No. TRC/32/11961/2023

Kazakhstan



Registration No. BY/112 11.01. TP020
000.00 29767

New Zealand



Oman

OMAN TRA
R/7742/19
D090258

United Arab Emirates (UAE)



Tire Pressure Sensor (G6GB3)

Japan

Certificate No. 020-190091

Virtual Key Backup Module (VKBM)

Israel

Certificate No. 56-09594

Japan

Test Report No. 20221127-WAC0100280Ar0

Jordan

Type Approval No. TRC/36/11014/2022

Kazakhstan



No. BY/112 11.01.TP020 030.01 00148

Oman

OMAN TRA
TA-R/14721/22
D202897

United Arab Emirates (UAE)

TRA
REGISTERED No:
ER16852/23
DEALER No:
DA37380/15

Virtual Key Module (VKM)

Israel

Certificate No. 51-98111

Jordan

Type Approval No. TRC/36/10887/2022

Kazakhstan



No. AM-016/S.B-0479-2023

United Arab Emirates (UAE)

TRA
REGISTERED No:
ER15639/22
DEALER No:
Not Available

Virtual Key Sensor (VKS)

Israel

Model PKA2.0.0: Certificate No. 51-97928

Model PKA2.0.1: Certificate No. 51-97929

Jordan

Model PKA2.0.0: Type Approval No.
TRC/36/10884/2022Model PKA2.0.1: Type Approval No.
TRC/36/10885/2022

Kazakhstan

Registration No. AM-016/S.B-0479-2023

Models PKA2.0.0, PKA2.0.1

United Arab Emirates (UAE)

Model PKA2.0.0:



TDRA - UNITED ARAB Emirates

Mode Dealer ID Name: DA008982/12

TA RTTE: ER15747/22

Model Name: SLA8

Product Type: Short range devices/ Low power Devices



Model PKA2.0.1:



TDRA - UNITED ARAB Emirates

Mode Dealer ID Name: DA008982/12

TA RTTE: ER15881/22

Model Name: SLA8

Product Type: Short range devices/ Low power Devices



Model PKA2.1.1:



Roof Antenna (AM/FM/DAB Amplifier)

Jordan

Type Approval No. TRC/34/14285/2024

Wireless Phone Charger (Gen 3.1)

European Union



Israel

Certificate No. 56-05379

Japan

Certification No. AC-24111

Jordan

Type Approval No. TRC/20/14463/2024

Kazakhstan

Registration No. EAЭC KG417/026.US.02.14739



Oman

OMAN TRA
TA-R/18239/24
D172338

United Arab Emirates (UAE)

TDRA Authorization No. ER31751/24

United Kingdom (Great Britain)

UK Type Examination Certificate
No. EMA24RER0014



2014/53/EU Radio Equipment Directive (RED) Declaration of Conformity

This vehicle has systems that transmit and/or receive radio waves subject to 2014/53/EU.

The manufacturers of the systems listed below declare conformity with Directive 2014/53/EU. The full text of the EU declaration of conformity for each system is available at the following Internet address: www.cadillaceurope.com.

This vehicle has systems that transmit and/or receive radio waves subject to Radio Equipment Regulations of the United Kingdom. The manufacturers of the systems listed below declare conformity with Radio Equipment Regulations of the United Kingdom. The full text of the United Kingdom declaration of conformity for each system is available at the following Internet address: www.cadillaceurope.com.

**EU Importer**

GM Mobility Europe GmbH
 Bethmannstraße 50-54 Ort
 60311 Frankfurt am Main
 Hessen
 Germany

UK Importer

GM Specialty Vehicles UK Limited
 100 New Bridge Street
 London, EC4V 6JA, UK

Battery Radio Frequency Module — Single (Vitesco)

Vitesco Technologies GmbH
 Siemensstrasse 12
 Regensburg, 93055
 Germany
 Frequency Range: 2400-2483.5 MHz

Maximum Output Power: < 10 dBm EIRP (RMS)

Battery Radio Frequency Module — Single (Visteon)

Vitesco Technologies GmbH
 Siemensstrasse 12
 Regensburg, 93055
 Germany

Frequency Range: 2400-2483.5 MHz

Maximum Output Power: < 10 dBm EIRP (RMS)

Body Control Module (B2NA0)

DENSO INTERNATIONAL AMERICA INC.
 24777 DENSO Drive
 Southfield, MI 48033
 USA

Model: B2NA0

Operation Frequency: 125 kHz

Maximum Output Power (ERP): 1.58 mW

Cell Monitoring Unit (SLA 3P85)

Vitesco Technologies GmbH
 Siemensstrasse 12
 Regensburg, 93055

Germany

Frequency Range: 2400-2483.5 MHz

Maximum Output Power: < 10 dBm EIRP (RMS)

Cell Monitoring Unit (SLA8) Visteon

Visteon Corporation
 One Village Center Drive
 Van Buren Township, MI 48111
 USA

Frequency Range: 2405-2480 MHz

Maximum Output Power: 9.9 dBm e.i.r.p.

Garage Door Opener with LIN (LMHL5A)

Gentex Corporation
 600 N. Centennial
 Zeeland, MI 49464
 USA

Frequency Ranges: 286.0-303.5 MHz,
 307.5-321.0 MHz, 336.4-398.9 MHz,
 411.0-440.0 MHz

Maximum Transmit Power: 0.138 mW E.R.P.

Radar Hands-Free (B2311)

ALPS ALPINE CO., LTD.
 6-3-36, Furukawanakazato

338 Customer Information

Osaka-city, Miyagi-pref 989-6181
Japan

Product Description: Kick Sensor

Model No. B2311

Frequency Ranges: 24026.0–24224.0 MHz,
24125.0–24125.0 MHz

Radar Interior

Magna Electronics, LLC
26360 American Drive
Southfield, MI 48034
USA

Frequency Range: 60-64 GHz
Output Power: 6.6 dBm (AVG) EIRP

Radar Long Range (LRR120)

Magna Electronics, LLC
26360 American Drive
Southfield, MI 48034
USA

Frequency Range: 76-77 GHz
Output Power: 24.69 max. dBm (peak)
Output Watts: 0.153

Radar Short Range (SBZA)

Hella GmbH & Co. KGaA
Rixbecker Straße 75
59552 Lippstadt, Germany
Frequency: 76-77 GHz
Transmission Power: 20 dBm (average) EIRP

Radio

Robert Bosch GmbH
Robert-Bosch-Strasse 200
Hildesheim, 31139
Germany
Frequency Ranges: 5725–5850 MHz, 2400–
2483.5 MHz
Maximum Transmitting Power: ≤ 33 dBm
(EIRP), ≤ 20 dBm (EIRP)
Frequency Range: 88.0–108.0 MHz
Maximum transmit power: 13.87 dBm

Remote Function Receiver (RFR)

Huf Hülsbeck & Fürst and Co. KG
Steege Str. 17
Velbert, 42551
Germany

Operating Frequency: 433.92 MHz

Remote Key

Huf Hülsbeck & Fürst and Co. KG
Steege Str. 17
Velbert, 42551
Germany
Frequency Ranges: 433.2–434.65 MHz, 125 KHz
Output Power: 3.55 dBm

Roof Antennas (AM/FM, AM/FM/DAB)

Molex CVS GmbH
Daimlerring 31,
31135 Hildesheim
Germany

Telematics Module (Continental)

Continental Automotive Technologies GmbH
Siemensstrasse 12
D-93055 Regensburg
Germany

Telematics Module (LGE)

LG Electronics Inc
128, Yeouui-daero, Yeongdeungpo-gu,

Seoul, Republic of Korea

Tire Pressure Sensor (G6GB4)

Schrader Electronics Ltd.

11 Technology Park

Belfast Road

Antrim BT41 1QS

Northern Ireland

United Kingdom

Operating Frequency: 433.92 MHz

Maximum Transmit Power: 10 dBm

Virtual Key Backup Module (VKBM)

Vitesco Technologies GmbH

Siemensstrasse 12

Regensburg, 93055

Germany

Frequency Band: 13553-13567 kHz

Virtual Key Module (VKM)

Perfectly Keyless System for Automotive

Robert Bosch LLC

15000 Haggerty Rd.

Plymouth, MI 48170

Model PKM2.0

Frequency Range: 2400-2483.5 MHz - 5.8 dBm

Frequency Range: 6195-6780 MHz - 43.6 dBm

Frequency Range: 7684-8282 MHz - 42.8 dBm

Virtual Key Sensor (VKS)

Perfectly Keyless System for Automotive

Robert Bosch Corporation

15000 Haggerty Rd.

Plymouth, MI 48170

Model PKA2.0.0/PKA2.0.1

Frequency Range: 2400-2483.5 MHz - 4.6 dBm

Frequency Range: 6240-6740 MHz - 4.6 dBm

Frequency Range: 7737-8237 MHz - 42.4 dBm

Wireless Phone Charger (Gen 3.1)

Aptiv Services US, LLC

13085 Hamilton Crossing Blvd, Carmel.

46032. INDIANA

USA

Frequency bands : 13.56 MHz, 128 KHz

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.

340 Customer Information

The protection of vehicle electronics systems and customer data from unauthorized outside electronic access or control is important to GM. GM maintains appropriate security standards, practices, guidelines, and controls aimed at defending the vehicle and the vehicle service ecosystem against unauthorized electronic access, detecting possible malicious activity in related networks, and responding to suspected cybersecurity incidents in a timely, coordinated and effective manner. Security incidents could impact your safety or compromise your private data. To minimize security risks, please do not connect your vehicle electronic systems to unauthorized devices or connect your vehicle to any unknown or untrusted networks (such as Bluetooth, Wi-Fi, or similar technology). In the event you suspect any security incident impacting your data or the safe operation of your vehicle, please stop operating your vehicle and contact your dealer.

Event Data Recorders

This vehicle is equipped with an Event Data Recorder (EDR). The main purpose of an EDR is to record, in certain crash or near crash-like situations, such as an air bag deployment or

hitting a road obstacle, data that will assist in understanding how a vehicle's systems performed. The EDR is designed to record data related to vehicle dynamics and safety systems for a short period of time, typically 30 seconds or less. The EDR in this vehicle is designed to record such data as:

- How various systems in your vehicle were operating;
- Whether or not the driver and passenger safety belts were buckled/fastened;
- How far (if at all) the driver was depressing the accelerator and/or brake pedal; and,
- How fast the vehicle was traveling.

These data can help provide a better understanding of the circumstances in which crashes and injuries occur.

Note

EDR data are recorded by your vehicle only if a non-trivial crash situation occurs; no data are recorded by the EDR under normal driving conditions and no personal data (e.g., name, gender, age, and crash location) are recorded. However, other parties, such as law enforcement, could combine

the EDR data with the type of personally identifying data routinely acquired during a crash investigation.

To read data recorded by an EDR, special equipment is required, and access to the vehicle or the EDR is needed. In addition to the vehicle manufacturer, other parties, such as law enforcement, that have the special equipment, can read the information if they have access to the vehicle or the EDR.

GM will not access these data or share it with others except: with the consent of the vehicle owner or, if the vehicle is leased, with the consent of the lessee; in response to an official request by police or similar government office; as part of GM's defense of litigation through the discovery process; or, as permitted by law. Data that GM collects or receives may also be used for GM research needs or may be made available to others for research purposes, where a need is shown and the data is not tied to a specific vehicle or vehicle owner.

OnStar

If the vehicle is equipped with OnStar and has an active service plan, additional data may be collected and transmitted through the OnStar system. This includes information about the

vehicle's operation; collisions involving the vehicle; the use of the vehicle and its features, including infotainment; and the location and approximate GPS speed of the vehicle. Refer to the OnStar Terms and Conditions and Privacy Statement on the OnStar website.

See *OnStar Additional Information* ➞ 344.

Infotainment System

If the vehicle is equipped with a navigation system as part of the infotainment system, use of the system may result in the storage of destinations, addresses, telephone numbers, and other trip information. See the infotainment section for information on stored data and for deletion instructions.

OnStar

OnStar Overview

OnStar Overview 342

OnStar Services

Emergency 344

Security 344

OnStar Additional Information

OnStar Additional Information 344

OnStar Overview



 Privacy Button

 Blue OnStar Button

 Red Emergency Button

This vehicle may be equipped with a comprehensive, in-vehicle system that can connect to an OnStar Advisor for Emergency, Security, Navigation, Connections, and Diagnostics Services. OnStar and connected services may require a paid service plan and data plan. OnStar requires the vehicle battery and electrical system, cellular service, and GPS satellite signals to be available and operating. OnStar acts as a link to existing emergency service providers. OnStar may collect information about you and your vehicle, including location information. See OnStar User Terms, Privacy Statement, and

Software Terms for more details including system limitations at my.cadillacarabia.com or onstararabia.com.

The OnStar system status light is next to the OnStar buttons. If the status light is:

- Solid Green: System is ready.
- Flashing Green: On a call.
- Red: Indicates a problem.
- Off: System is off. Press  twice to speak with an OnStar Advisor.

Functionality of the Blue OnStar Button may vary by vehicle and region.

Press  to speak to an Advisor. See "Contacting OnStar" later in this section.

Press  to:

- Obtain and customize the Wi-Fi hotspot name (Service Set Identifier) and password, if equipped.

Or

- End incoming OnStar advisor call.

Press  to connect to an Advisor to:

- Verify account information or update contact information.

- Receive a Diagnostic check of the vehicle's key operating systems.
- Receive Roadside Assistance.
- Manage Wi-Fi Settings, if equipped.

Press SOS to get a priority connection to an OnStar Advisor available 24/7 to:

- Get help for an emergency.
- Be a Good Citizen.

Contacting OnStar

To contact an OnStar Advisor, press On or call one of the following phone numbers.

344 OnStar

Country	Phone Number
Bahrain	800 06956
Kuwait	22285334
UAE	800 0444433
Saudi Arabia STC	800 8449102
Saudi Arabia not STC	800 8500674

OnStar Services Emergency

Emergency Services require an active safety and security plan. With Automatic Crash Response, built-in sensors can automatically alert a specially trained OnStar Advisor who is immediately connected in to the vehicle to help.

Press  for a priority connection to an OnStar Advisor who can contact emergency service providers, direct them to your exact location, and relay important information.

With Roadside Assistance, Advisors can locate a nearby service provider to help with a flat tire or a battery jump.

Security

If equipped, OnStar provides these services:

- With Stolen Vehicle Assistance, OnStar Advisors can use GPS to pinpoint the vehicle and help authorities quickly recover it.
- With Remote Ignition Block, if equipped, OnStar can block the vehicle from being restarted.
- With Stolen Vehicle Slowdown, if equipped, OnStar can work with law enforcement to gradually slow the vehicle down.

Theft Alarm Notification

If equipped, if the doors are locked and the vehicle alarm sounds, a notification by text, email, or phone call will be sent. If the vehicle is stolen, an OnStar Advisor can work with authorities to recover the vehicle.

OnStar Additional Information

Transferring Service

Press  to request account transfer eligibility information. The Advisor can cancel or change account information.

Selling/Transferring the Vehicle

Call immediately to terminate your OnStar or connected services if the vehicle is disposed of, sold, transferred, or if the lease ends. See "Contacting OnStar" later in this section.

Reactivation for Subsequent Owners

Press  and follow the prompts to speak to an Advisor as soon as possible. The Advisor will update vehicle records and explain OnStar or connected service options.

How OnStar Service Works

Automatic Crash Response, Emergency Services, Stolen Vehicle Assistance, Remote Services, and Roadside Assistance are available on most vehicles. Not all OnStar services are available everywhere or on all vehicles. For more information, a full description of OnStar services, system limitations, and OnStar User Terms, Privacy Statement, and Software Terms, see “Contacting OnStar” later in this section.

- See my.cadillacarabia.com.
- Press  to speak with an Advisor.

OnStar or connected services cannot work unless the vehicle is in a place where OnStar has an agreement with a wireless service provider for service in that area. The wireless service provider must also have coverage, network capacity, reception, and technology compatible with OnStar or connected services. Service involving location information about the vehicle cannot work unless GPS signals are available, unobstructed, and compatible with the OnStar hardware. OnStar or connected services may not work if the OnStar equipment is not properly installed or it has not been properly maintained. If equipment or software is added, connected, or modified, OnStar

or connected services may not work. Other problems beyond the control of OnStar — such as hills, tall buildings, tunnels, weather, electrical system design and architecture of the vehicle, damage to the vehicle in a crash, or wireless phone network congestion or jamming — may prevent service.

OnStar Personal Identification Number (PIN)

A PIN is needed to access some OnStar services. The PIN must be changed the first time when speaking with an Advisor. To change the OnStar PIN, contact an OnStar Advisor by pressing  or calling. See “Contacting OnStar” later in this section.

Warranty

OnStar equipment may be warranted as part of the vehicle warranty.

Languages

The vehicle can be programmed to respond in multiple languages. Press  and ask for an Advisor. Advisors are available in English and Arabic. Available languages may vary by vehicle.

Potential Issues

OnStar cannot perform Remote Door Unlock or Stolen Vehicle Assistance after the vehicle has been off continuously for 10 days without being started. If the vehicle has not been started for 10 days, OnStar can contact Roadside Assistance or a locksmith to help gain access to the vehicle.

Global Positioning System (GPS)

- Obstruction of the GPS can occur in a large city with tall buildings; in parking garages; around airports; in tunnels and underpasses; or in an area with very dense trees. If GPS signals are not available, the OnStar system should still operate to call OnStar. However, OnStar could have difficulty identifying the exact location.
- In emergency situations, OnStar can use the last stored GPS location to send to emergency responders.

Cellular and GPS Antennas

Cellular reception is required for OnStar to send remote signals to the vehicle. Do not place items over or near the antenna to prevent blocking cellular and GPS signal reception.

Unable to Connect to OnStar Message

If there is limited cellular coverage or the cellular network has reached maximum capacity, this message may come on. Press  to try the call again or try again after driving a few miles into another cellular area.

Vehicle and Power Issues

OnStar services require a vehicle electrical system, wireless service, and GPS satellite technologies to be available and operating for features to function properly. These systems may not operate if the battery is discharged or disconnected.

Add-on Electrical Equipment

The OnStar system is integrated into the electrical architecture of the vehicle. Do not add any electrical equipment. See *Add-On Electrical Equipment* ⇨ 257. Added electrical equipment may interfere with the operation of the OnStar system and cause it to not operate.

Vehicle Software Updates

OnStar or GM may remotely deliver software updates or changes to the vehicle without further notice or consent. These updates or changes may enhance or maintain safety,

security, or the operation of the vehicle or the vehicle systems. Software updates or changes may affect or erase data or settings that are stored in the vehicle, such as saved navigation destinations or pre-set radio stations. Neither OnStar nor GM is responsible for any affected or erased data or settings. These updates or changes may also collect personal information. Such collection is described in the OnStar privacy statement or separately disclosed at the time of installation. These updates or changes may also cause a system to automatically communicate with GM servers to collect information about vehicle system status, identify whether updates or changes are available, or deliver updates or changes. An active OnStar agreement constitutes consent to these software updates or changes and agreement that either OnStar or GM may remotely deliver them to the vehicle.

Privacy

The complete OnStar Privacy Statement may be found at my.cadillacarabia.com. We recommend that you review it. If you have any questions, call or press  to speak with an Advisor. Users of wireless communications are cautioned that the privacy of any information sent via wireless cellular communications

cannot be assured. Third parties may unlawfully intercept or access transmissions and private communications without consent.

OnStar - Software Acknowledgements

To obtain the source code under GPL, LGPL, MPL, and other open source licenses, that is contained in this product, please visit <https://opensource.lge.com>. In addition to the source code, all referred license terms, warranty disclaimers, and copyright notices are available for download. This offer is valid for a period of three years after our last shipment of this product. This offer is valid to anyone in receipt of this information.

*Provided through LG Electronics Inc., who is solely responsible for provisions of related OSS compliance.

Contacting OnStar

To contact an OnStar Advisor, press  or call one of the following phone numbers.

Country	Phone Number
Bahrain	80006956
Kuwait	22285334
UAE	800 04444433
Saudi Arabia STC	800 8449102
Saudi Arabia not STC	800 8500674

eCall

eCall Overview

eCall Overview (UAE)348

eCall Overview

eCall Overview (UAE)

This vehicle may be equipped with a 999 based eCall system that is free of charge. In the event of a crash, an eCall-equipped vehicle may automatically call the nearest 999 emergency center. If built-in sensors detect a crash, an emergency call is placed automatically. An advisor will determine whether help is needed. The exact location of the crash site is sent to the emergency center even if the occupants of the vehicle are unable to communicate with emergency personnel.

The eCall system can also be activated manually. Press  on the overhead console to contact the nearest 999 emergency center. Press  within two seconds to cancel the manually activated eCall.



A problem with the system may be indicated by the following:

- A red light near the  button displays.
- The  button does not light when the vehicle is on.
- A Driver Information Center (DIC) message appears.

See your dealer for service.

When the system is active, the green light near the  button is lit.

Usage of personal data is strictly limited to the purpose of handling the emergency call to the emergency number 999.

The eCall system may collect and process the following data:

- Vehicle Identification Number
- Vehicle type, such as passenger vehicle or light commercial vehicle
- Vehicle propulsion storage type, such as gasoline, diesel, Compressed Natural Gas (CNG), Liquefied Petroleum Gas (LPG), electric, or hydrogen
- Last three vehicle locations and direction of travel

- Automatic activation log file for the system and its timestamp
- Number of passengers/number of occupants in the vehicle
- Location of impact
- Delta V — difference between velocity just after and just before impact

Data collected by the eCall system is shared only with the 999 emergency center when a connection is made.

Data collected by the system is:

- Temporarily stored in the system memory, but it is not available outside of the system before an eCall is triggered.
- Not traceable and not subject to constant tracking during normal system operation.
- Stored in the system's memory but is automatically and continuously deleted.

Vehicle location data is continuously overwritten and limited to the last three locations for normal operation of the system.

The system activity log is kept for the duration of the emergency call, or a maximum of 13 hours after the call was initiated.

The data subject, or vehicle owner, has the right to access the data and as appropriate, to request the rectification, erasure, or blocking of personal data when processing of the data does not comply with local regulations. Any third parties who received the data must be notified of any rectification, erasure, or blocking done to comply with local regulations unless it proves impossible or involves a disproportionate effort.

The data subject, or vehicle owner, has a right to complain to the competent data protection authority if he or she feels that his or her rights have been infringed as a result of the processing of his or her personal data.

This vehicle is equipped with GM's third-party service system called OnStar. See *OnStar Overview* ⇨ 342.

When OnStar Automatic Crash Response is enabled, emergency calls will be handled by OnStar and the nearest 999 emergency center as a backup. When OnStar Automatic Crash Response is disabled, emergency calls will be answered by the nearest 999 emergency center.

OnStar processes personal data only after the vehicle owner's explicit consent. See OnStar Privacy Policy at [https://](https://www.onstararabia.com/en/privacy-policy)

www.onstararabia.com/en/privacy-policy for information regarding traceability, tracking, and processing of personal data.

The owner of a vehicle equipped with OnStar service in addition to the 999-based eCall in-vehicle system has the right to choose to use the 999-based eCall in-vehicle system rather than OnStar. You may cancel your OnStar service at any time by pushing your blue OnStar button or by calling 800 04444433.

Connected Services

Connected Services

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Navigation

Navigation requires a specific OnStar or connected service plan.

Send Destination to Vehicle

Directions can be sent to the vehicle's navigation screen, if equipped.

Press , then ask the Advisor to download directions to the vehicle's navigation system, if equipped. After the call ends, the navigation screen will provide prompts to begin driving directions. Routes that are sent to the navigation screen can only be canceled through the navigation system.

See my.cadillacarabia.com.

Connections

The following services help with staying connected.

For more information, see my.cadillacarabia.com.

Ensuring Security

- Change the default password for the myCadillac mobile application. Use a combination of letters and numbers to increase the security.
- Change the Wi-Fi hotspot name (Service Set Identifier) and password. The Service Set Identifier is your network's name that is visible to other wireless devices. Choose a unique name and avoid family names or vehicle descriptions.

Wi-Fi Hotspot

If equipped and enabled, the vehicle has a built-in Wi-Fi hotspot that provides access to the Internet and web content up to 5G. Multiple devices can be connected, but a data plan is required. Use the in-vehicle controls only when it is safe to do so.

1. To retrieve Wi-Fi hotspot information, touch the Wi-Fi Hotspot icon on the infotainment home screen.
2. The Wi-Fi settings will display the Wi-Fi hotspot name (SSID), password, and on some vehicles, the connection type (no Internet connection, 3G, 4G, 4G LTE, 5G), and signal quality (poor, good, excellent) is also

- displayed. The LTE icon shows connection to Wi-Fi. It is possible that the icon may not illuminate even though the vehicle has an active connection.
3. To change the SSID or password, press . On some vehicles, the SSID and password can be changed in the Wi-Fi Hotspot menu, or call to connect with an Advisor if you are unable to change it yourself.

352 Connected Services

Country	Phone Number
Bahrain	80006956
Kuwait	00965 22285334
UAE	8000444433
Saudi Arabia STC	800 8449102
Saudi Arabia not STC	800 8500674
International	0020 221601847

After initial set-up, your vehicle's Wi-Fi hotspot will connect automatically to your mobile devices. Manage data usage by turning Wi-Fi on or off on your mobile device, using the myCadillac mobile app, or by contacting an OnStar Advisor. On some vehicles, Wi-Fi can also be managed from the Wi-Fi Hotspot menu.

myCadillac App

If available, download the myCadillac mobile app to compatible Apple and Android smartphones.

Features are subject to change. For myCadillac mobile app information and compatibility, see my.cadillacarabia.com.

An active OnStar or connected service plan may be required. A compatible device, factory-installed remote start, and power locks are required. Data rates apply. See www.cadillacarabia.com or www.onstararabia.com for details and system limitations.

Wireless Configuration

Export of this vehicle to another region may require reset of internal settings for wireless communication configuration to ensure regulatory compliance or enable connectivity. See your dealer. The end-user of the device does not have an option to modify the regulatory wireless configuration.

Diagnostics

By monitoring and reporting on the vehicle's key systems, OnStar Advanced Diagnostics, if equipped, provides a way to keep up on maintenance. Capabilities vary by model. See www.onstararabia.com for details and system limitations. Features are subject to change. For updates on feature capabilities, see my.cadillacarabia.com. Message and data rates may apply.

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