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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, GMC, the GMC Truck Emblem, TERRAIN, and DENALI are trademarks and/or service marks of General Motors LLC, its subsidiaries, affiliates, or licensors.

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

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

Keep this manual in the vehicle for quick reference.

Using this Manual

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

Danger, Warning, and Caution

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

⚠ Danger

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

2 Introduction

⚠ Warning

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

Caution

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



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

Symbols

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

Vehicle Symbol Chart

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

☼: Air Conditioning System

: Air Conditioning Refrigerant Oil

☆: Airbag Readiness Light

(ABS) : Antilock Brake System (ABS)

(1) : Brake System Warning Light

: Dispose of Used Components Properly

⇒ : Do Not Apply High Pressure Water

: Engine Coolant Temperature

③: Flame/Fire Prohibited

🎂 : Flammable

⇒ : Forward Collision Alert

☐ ⇒: Fuse Block Cover Lock Location

₮: Fuses

2: ISOFIX/LATCH System Child Restraints

: Keep Fuse Block Covers Properly Installed

☆: Lane Change Alert

🕼 : Lane Departure Warning

: Lane Keep Assist

にご: Malfunction Indicator Lamp

° : Oil Pressure

P//▲: Park Assist

🔭 : Pedestrian Ahead Indicator

(1) · Power

∴ Rear Cross Traffic Alert

: Registered Technician

(x2): Remote Start

: Risk of Electrical Fire

: Seat Belt Reminders

คง²: Side Blind Zone Alert

(A): Stop/Start

: Tire Pressure Monitor

\$\fraction Control/StabiliTrak/Electronic Stability Control (ESC)

A: Under Pressure

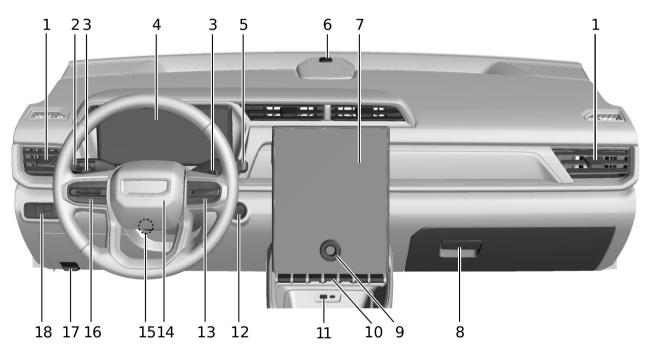
: Vehicle Ahead Indicator

Additional Instructions or Information

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

Introduction

Instrument Panel Overview



Introduction

- 1. Air Vents \$\ 143.

Windshield Wiper/Washer \Rightarrow 78.

Rear Window Wiper/Washer \Rightarrow 80.

- 3. Tap Shift Paddles. See *Manual Mode* ⇔ 168.
- 4. Instrument Cluster \$ 85.
- 6. Light Sensor. See Automatic Headlamp System \$\displays 107.

Vehicle Alarm System Indicator. See *Vehicle Alarm System* ⇒ 21.

- 7. Infotainment Display. See *Using the System*

 ⇒ 113.
- 8. Glove Box \$\infty 73.
- 9. Infotainment Controls. See *Overview* $\stackrel{\triangleleft}{\hookrightarrow}$ 112.
- 10. Climate Control Systems ❖ 138.
- 11. USB Port \$\dip\$ 119.
- 12. ENGINE START/STOP Button. See *Ignition*Positions \$\Display\$ 160

13. Steering Wheel Controls \$\Display\$ 113.

Heated Steering Wheel \$\simeq 78.

Driver Information Center (DIC) Controls. See *Driver Information Center (DIC)* ♀ 99.

- 14. Horn \$\to\$ 78.
- 15. Steering Wheel Adjustment ⇒ 78 (Out of View).
- Adaptive Cruise Control
 175.

 Forward Collision Alert (FCA) System
 190.

 Manual Mode
 168
- 17. Hood Release. See *Hood* ▷ 219.
- Electric Parking Brake

 → 170.
 Driver Mode Control

 → 174.

All-Wheel Drive \$\sime\$ 169 (If Equipped).

Automatic Vehicle Hold (AVH) \$\sip\$ 172.

Auto Stop Disable Switch. See Stop/Start
System \$\sip\$ 162.

Keys, Doors, and Windows

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Keys and Locks Keys

⚠ Warning

Leaving children in a vehicle with a remote key is dangerous and children or others could be seriously injured or killed. They could operate the power windows or other controls or make the vehicle move. The windows will function with the remote key in the vehicle, and children or others could be caught in the path of a closing window. Do not leave children in a vehicle with a remote key.



The mechanical key inside the remote key can be used for all locks.



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

If it becomes difficult to turn the mechanical key, inspect the key blade for debris.

See your dealer if a new mechanical key is needed.

With an active OnStar or connected service plan, an OnStar Advisor may remotely unlock the vehicle. See *OnStar Overview* ♀ 292.

Remote Key

If there is a decrease in remote key operating range:

- Check the distance. The remote key may be too far from the vehicle.
- Checkthe location. Other vehicles or objects may be blocking the signal.
- Check the remote key's battery. See "Battery Replacement" in 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" following.

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* \diamondsuit 7.



With Power Liftgate Shown, Without Similar

: Press to lock all doors. The turn signal indicators may flash and/or the horn may sound on the first press to indicate locking. To

view available settings for this feature from the infotainment screen, touch Settings > Vehicle > Remote Lock, Unlock, Start.

If the driver door is open when a is pressed, all doors will lock and the driver door will immediately unlock.

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

If equipped with remote folding mirrors, double press and hold for one second to remotely fold the mirrors. To view available settings for this feature from the infotainment screen, touch Settings > Vehicle > Comfort and Convenience.

eress to unlock the driver door. Press again within five seconds to unlock all doors. The remote key can be programmed to unlock all doors on the first button press. To view available settings for this feature from the infotainment screen, touch Settings > Vehicle > Remote Lock, Unlock, Start. When remotely unlocking the vehicle at night, the lights come on briefly to light your approach to the vehicle. The turn signal indicators may flash to indicate unlocking.

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

If equipped with remote folding mirrors, double press and hold for one second to remotely unfold the mirrors. To view available settings for this feature from the infotainment screen, touch Settings > Vehicle > Comfort and Convenience.

Double press and hold auntil the windows fully open. Windows will not operate unless remote window operation is enabled. To view available settings for this feature from the infotainment screen, touch Settings > Vehicle > Remote Lock, Unlock, Start.

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

: If equipped, press twice quickly to open or close the liftgate.

Press once to stop the liftgate from moving.

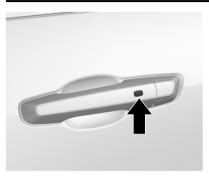
Keyless Access Operation

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

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

Keyless Unlocking/Locking from the Driver Door

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



Driver Shown, Passenger Similar

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

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

Keyless Unlocking/Locking from Passenger Doors

When the doors are locked and the remote key is within 1 m (3 ft) of the door handle, pressing the lock/unlock button on that door handle will unlock all doors. Pressing the lock/unlock button will cause all doors to lock if either of the following occurs:

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

Disable/Enable Keyless Unlocking of Exterior Door Handles and Liftgate

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

Disabling Keyless Unlocking

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

quickly, indicating access is disabled. If disabled, disarm the alarm system before starting the vehicle.

Enabling Keyless Unlocking

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

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

Anti-Theft Locking from Any Door

When all doors are locked using the lock/ unlock button, a second press of the button within five seconds will activate the Anti-theft Locking System.

Anti-Theft Unlocking from Any Door

When all doors are unlocked using the lock/ unlock button, the Anti-theft Locking System is deactivated.

Passive Locking

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

The fuel door will also lock

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

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

Temporary Disable of Passive Locking

Remote Key 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 for this feature from the infotainment screen, touch Settings > Vehicle > Remote Lock, Unlock, Start.

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 key(s) inside. If a remote key is not detected, the Driver Information Center (DIC) will display NO KEY FOUND and the horn will chirp three times.

This occurs only once each time the vehicle is started.

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

Keyless Liftgate Opening

Press the touchpad on the liftgate handle to open the liftgate. The remote key must be within 1 m (3 ft).

Key Access

To access a vehicle with a weak remote key battery, see *Door Locks* ❖ 14.

Programming Remote Keys to the Vehicle

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

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 DIC 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 DIC may displau NO KEY FOUND, REPLACE BATTERY IN KEY OF 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 center console.
- 2. With the vehicle in P (Park) or N (Neutral), press the brake pedal and ENGINE START/STOP.

Replace the remote key battery as soon as possible.

Battery Replacement



Warning

Never allow children to play with the remote key. The remote key contains a small battery, which can be a choking 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 DIC displays REPLACE BATTERY IN KEY.



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 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.



Separate the two halves of the remote key by using the blade of the mechanical key inserted into the bottom center of the remote key. Do not use the key slot.





- 3. Remove the old battery. Do not use a metal object.
- 4. Pull the seal by pulling on the tab to access the batteru.
- 5. Remove the battery cover.
- Insert the new battery with the positive side facing up. Replace with a CR2450 Lithium or equivalent battery.
- 7. Ensure that the silicone mat is correctly positioned with no gaps or wrinkles.
- 8. Set the transmitter button side down on a hard surface and press the other half straight down to force the halves together.
- 9. Reinsert the mechanical key.

Remote Vehicle Start

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

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

The climate control system will use the previous settings during a remote start. The rear window defogger may come on during

remote start based on cold ambient conditions. The rear defog indicator light does not come on during remote start.

If equipped, the heated front seats may also come on when the vehicle personalization setting is enabled.

If equipped with a remote start heated steering wheel, it may come on during a remote start. See *Heated Steering Wheel* ▷ 78.

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

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

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

Other conditions can affect the performance of the remote key. See *Remote Key* ▷ 7.

You are allowed multiple starts totaling 30 minutes of engine run time. The maximum run time of a single start is 15 minutes, and it will shut off automatically. You could do three 10 minute starts if you manually shut off after 10

minutes. The last 10 minute start would shut off automatically as your total 30 minutes will have been used.

Starting the Engine Using Remote Start

- 1. Press (x2) twice on the remote key. The turn signal lamps will flash. The lamps flash to confirm the request to remote start the vehicle has been received. During the remote start, the parking lamps will remain on as long as the engine is running.
- The engine will shut off after 15 minutes or after the remainder of the 30 minute total running time is used, unless you stop the remote start before engine running has completed or the vehicle is turned on.
- After entering the vehicle during a remote start, press the brake and ENGINE START/ STOP with the remote key in the vehicle to drive the vehicle.

Additional Engine Run Time

Remote start can be used for up to 30 minutes of total engine run time.

After two remote starts of 15 minutes, or multiple shorter time starts totaling 30 minutes have been used, the vehicle must be started normally before the remote start can be used again.

Canceling a Remote Start

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

- Press (x2). The parking lamps will turn off.
- Turn on the hazard warning flashers.
- Turn the vehicle on and then back off.

Conditions in Which Remote Start Will Not Work

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

- The ignition is in any mode other than off.
- A remote key is in the vehicle.
- The hood is not closed.
- The hazard warning flashers are on.
- There is an emission control system malfunction.
- The engine coolant temperature is too high.
- The oil pressure is low.

- The 30 minutes of engine run time have been used.
- The vehicle is not in P (Park).

Door Locks

⚠ Warning

Unlocked doors can be dangerous.

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

(Continued)

Warning (Continued)

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

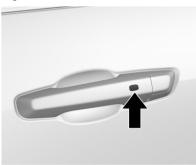
To lock/unlock the doors from the outside:

- Press or or on the remote key. See Remote Key Operation \$\sim 7.
- Use the key in the driver door. The key lock cylinder is covered with a cap.

To lock/unlock the doors from the inside:

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

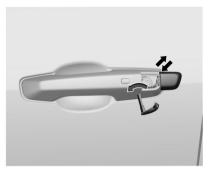
Keyless Access



The remote key must be within 1 m (3 ft) of the liftgate or door being opened. Press the button on the door handle to open. See *Remote Key Operation* ▷ 7.

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

To access the driver door key lock cylinder:



- 1. Insert the key into the slot at the bottom of the Handle by the Key Cylinder Cover.
- 2. Rotate Key counterclockwise and push key cylinder cover away from the Handle.
- 3. Remove the key.

To replace the cap:

- 1. Insert the key into the slot at the bottom of the Handle by the Key Cylinder Cover.
- 2. Rotate Key counterclockwise and push key cylinder cover toward the Handle.
- 3. Check that the cap is secure. Remove the key.

Free-Turning Locks

The door key lock cylinder turns freely when either the wrong key is used, or the correct key is not fully inserted. The free-turning door lock feature prevents the lock cylinder from being forced open. To reset the lock cylinder, ensure the correct key is fully inserted into the lock cylinder. Rotate the key until you feel the lock cylinder click back into place. Remove the key and reinsert fully, rotate the key to unlock the vehicle.

Power Door Locks



: Press to lock the doors.

: Press to unlock the doors.

Delayed Locking

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

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

When a 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.

This feature can also be programmed. To view available settings from the infotainment home screen, touch Settings > Vehicle > Power Door Locks.

Automatic Door Locks

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The vehicle is programmed so that when the doors are closed, the ignition is on, and the shift lever is moved out of P (Park), the doors will lock

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 transmission into P (Park).

Automatic door locking cannot be disabled. Automatic door unlocking can be programmed. To view available settings for this feature, on the infotainment home screen, select Settings > Vehicle > Power Door Locks.

Lockout Protection

If the vehicle is started or in accessory mode and the power door lock switch is pressed with the driver door open, all the doors will lock and only the driver door will unlock.

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

Lockout Protection can be manually overridden by pressing and holding $\widehat{\ }$ on the power door lock switch.

Open Door Anti-Lockout

If Open Door Anti-Lockout is turned on and the vehicle is off, the driver door is open, and locking is requested, all the doors will lock and the driver door will remain open. The Open Door Anti-Lockout feature can be turned on or off. To view available settings from the infotainment screen, touch Settings > Vehicle > Power Door Locks.

Safety Locks

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

Manual Safety Locks



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

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

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

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

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

To cancel the safety lock:

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

Doors Liftgate

⚠ Warning

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

If the vehicle must be driven with the liftgate or trunk/hatch open:

(Continued)

Warning (Continued)

- Close all of the windows.
- Fully open the air outlets on or under the instrument panel.
- Adjust the climate control system to a setting that brings in only outside air and set the fan speed to the highest setting. See "Climate Control Systems" in the Index
- If the vehicle is equipped with a power liftgate, disable the power liftgate function.

See Engine Exhaust \$\sime\$ 164.

Caution

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

Manual Liftgate

To unlock the liftgate, press \blacksquare on the power door lock switch or press \blacksquare on the remote key twice within five seconds. See *Remote Key Operation* \triangleright 7.



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

If equipped with Keyless Access, the liftgate can be opened when locked if the remote key is within 1 m (3 ft) of the liftgate. See *Remote Key Operation* ♀ 7.

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

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

Always close the liftgate before driving.

Power Liftgate Operation

⚠ Warning

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

Caution

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

Power Liftgate Mode Selection

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

Choose from the following selections:

Maximum: Opens to the maximum height.

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

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

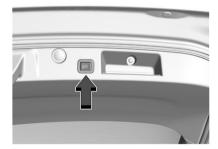
Off: Opens manually only.

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

To open or close the liftgate:



- Press x2 twice quickly on the remote key until the liftgate moves.
- Press on the driver door. The driver door must be unlocked.
- Press the touch pad in the liftgate handle after unlocking all doors to open the liftgate. A locked vehicle can be opened if the remote key is within 1 m (3 ft) of the liftgate.



 Press on the bottom of the liftgate to close.

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

Caution

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

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

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

Falling Liftgate Detection

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

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

Obstacle Detection Features

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

deactivate. After removing the obstructions, manually close the liftgate which will allow normal power operation functions to resume.

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

Setting the Custom Opening Height

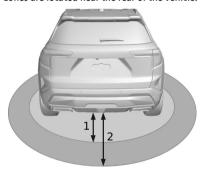
To change the position the liftgate stops at when opening:

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

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:

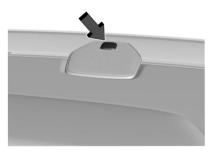
- The feature is set to OFF in vehicle personalization.
- If the vehicle is equipped with the side approach feature, this rear closure handsfree may not work when the rear doors are open.
- Vehicle battery is low.
- Power Liftgate is set to OFF
- A remote key is inside the vehicle.
- The vehicle is not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

This vehicle has an anti-theft alarm system.



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

Off: Alarm system is disarmed.

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

Fast Flash: Vehicle is unsecured. A door, the hood, or the liftgate is open.

Slow Flash: Alarm system is armed.

Arming the Alarm System

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

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

If the driver door is opened without first unlocking with the remote key, the horn will chirp and the lights will flash to indicate prealarm. If the vehicle is not started, or the door is not unlocked by pressing an 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 liftgate, or the hood is opened without first disarming the system. When the alarm is activated, the turn signals flash and the horn sounds for about 30 seconds. The alarm system will then re-arm to monitor for the next unauthorized event

Disarming the Alarm System

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

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

To avoid setting off the alarm by accident:

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

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

How to Detect a Tamper Condition

22

If is pressed and the horn chirps and the lights flash three times, the alarm was activated while the alarm system was armed. If the alarm system has been activated, a message will appear on the DIC.

Immobilizer Operation

This vehicle has a passive theftdeterrent system.

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

The vehicle is automatically immobilized when the remote key leaves the vehicle.

The immobilization system is disarmed when the ignition is turned on or in ACC/ACCESSORY and a valid remote key is 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 the vehicle.

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

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

If the ignition will not change from off to on or ACC/ACCESSORY, and the remote key appears to be undamaged, try another remote key. Or, you may try placing the remote key in the cupholder in the center console. See *Remote Key Operation* ♀ 7.

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

It is possible for the immobilizer system to learn new or replacement remote keys. Up to eight remote keys can be programmed to 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 right lane, you could hit a vehicle on the right. Check the inside mirror or glance over your shoulder before changing lanes.

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

Power Mirrors



To adjust the mirrors:

- 1. Press ☐ or I☐ to choose the driver or passenger mirror.
- 2. Press the arrows on the control pad to move each mirror in the desired direction.

Folding Mirrors

Manual Folding Mirrors

The mirrors can be folded inward toward the vehicle to prevent damage when going through an automatic car wash. Push the mirror outward to return it to the original position.

Heated Mirrors

If equipped, the heated outside mirrors turn on when the rear window defogger is on and help to clear fog or frost from the surface of the mirrors.

REAR: This button is on the climate control panel.

See "Rear Window Defogger" under Dual

Automatic Climate Control System \$\triangle\$ 141.

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.

Manual Rearview Mirror

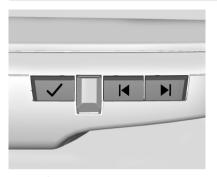
If equipped, push the tab forward for daytime use and pull it rearward for nighttime use to avoid glare of the headlights from behind.

Rear Camera Mirror

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



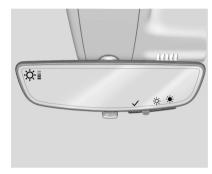
Pull the tab to turn on the display. Push the tab to turn it off. When off the mirror has automatic dimming. Adjust the mirror for a clear view of the area behind the vehicle while the display is off.



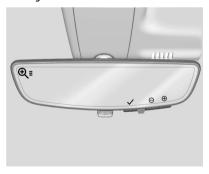
Press \checkmark to scroll through the adjustment options.

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

The adjustment options are:



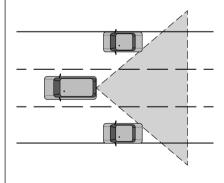
• Brightness







• Tilt



⚠ Warning

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

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 headlamps.
 This may obstruct objects from view. If needed, push the tab to turn off the display.



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

Power Windows

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⚠ Warning

Children could be seriously injured or killed if caught in the path of a closing window. Never leave the remote key in

(Continued)

Warning (Continued)



The power windows work when the ignition is on, in accessory mode, or when Retained Accessory Power (RAP) is active. See *Retained Accessory Power (RAP)* ⇔ 162.

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

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

Window Lockout

This feature stops the rear passenger window switches from working.

There is a button on the infotainment display used to enable or disable this feature.

Window Express Movement

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

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

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

Window Automatic Reversal System

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

Automatic Reversal System Override

⚠ Warning

If automatic reversal system override is active, the window will not reverse automatically. You or others could be injured and the window could be damaged. Before using automatic reversal system override, make sure that all people and obstructions are clear of the window path.

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

Programming the Power Windows

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

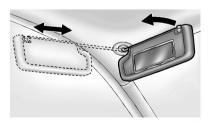
- 1. Close all doors.
- 2. Turn the ignition on or to accessory mode.

- Partially open the window to be programmed. Then close it and continue to pull the switch briefly after the window has fully closed.
- Open the window and continue to press the switch briefly after the window has fully opened.

Remote Window Operation

If equipped, this feature allows all the windows to be opened remotely. If enabled in vehicle settings, press and hold on the remote key. To view available settings for this feature, touch the Settings icon on the infotainment home page. Select "Vehicle" to display the list of available options and select "Remote Lock, Unlock. Start".

Sun Visors



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

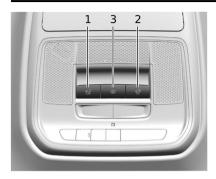
Roof

Sunroof

If equipped, the ignition must be on or in accessory mode, or Retained Accessory Power (RAP) must be active to operate the sunroof. See *Ignition Positions* ⇔ 160 and Retained Accessory Power (RAP) ⇔ 162.

While the sunroof always operates in express mode, movement can be stopped by pressing the switch again.

The sunroof cannot be opened or closed if the vehicle has an electrical failure.



- 1. SLIDE Switch
- 2. Power Sunshade Switch
- 3. TILT Switch

Sunroof Operation:

- Press and release (1) to express-open to a partially opened comfort stop position.
- Press and release SLIDE (1) again to expressopen to the fully open position.
- Pull and release SLIDE (1) to express-close.
- Press or pull SLIDE (1) again to stop at the desired location.

- Press and hold SLIDE (1) to manually open to desired location.
- Pull and hold SLIDE (1) to manually close to desired location.

Sunshade Operation:

- Press and release 🗟 (3) to express-open.
- Pull and release 🗟 (3) to express-close.
- Press or pull (3) again to stop at the desired location.

Sunroof Vent Operation:

- Press and release Till (2) to vent the sunroof.
- Pull and release (2) to close the sunroof vent.

Automatic Reversal System

The sunroof and power sunshade have an automatic reversal system that is only active when the sunroof and power sunshade are operated in express-close mode.

If an object is in the path while expressclosing, the reversal system will detect an object, stop, and open the sunroof or power sunshade slightly. If frost or other conditions prevent closing, override the feature by closing the sunroof or power sunshade in manual mode. To stop movement, release the switch.



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

Seats and Restraints

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Head Restraints

Front Seats

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.

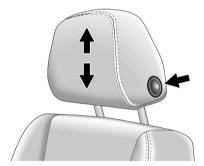
The vehicle's front seats have adjustable head restraints in the outboard seating positions.



30 Seats and Restraints

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.



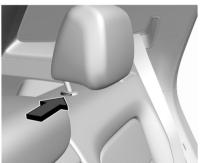
To raise or lower the head restraint, press the button located on the side of the head restraint, and pull up or push the head restraint down, and release the button. Pull and push on the head restraint after the button is released to make sure that it is locked in place.

The front seat outboard head restraints are not removable

Rear Seats

The vehicle's rear seats have adjustable head restraints in the outboard and center 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.



Outboard Shown, Center Similar

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

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

The rear seat outboard head restraints are not removable.

Front Seats 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.



To adjust a manual seat:

- 1. Lift the handle at the front of the seat cushion.
- 2. Move the seat forward or rearward to adjust the seat position.
- 3. Release the handle to stop the seat from moving.
- 4. Try to move the seat back and forth to be sure it is locked in place.

Seat Height Adjuster



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

Power Seat Adjustment

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

⚠ Warning

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



To adjust the seat:

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

32 Seats and Restraints

To adjust the lumbar support, see *Lumbar Adjustment* \$\infty\$ 33.

Reclining Seatbacks

⚠ Warning

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

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

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

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



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

Manual Reclining Seatbacks

⚠ Warning

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



To recline the seatback:

- 1. Lift the lever.
- 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

To return the seatback to the upright position:

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

Power Reclining Seatbacks



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

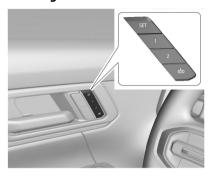
Lumbar Adjustment



To adjust the lumbar, if equipped

 Press and hold the front or rear of the control to increase or decrease lumbar support.

Memory Seats



Overview

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

34 Seats and Restraints

later in this section. The memory recalls may be cancelled at any time during the recall. See "Cancel Memory Seating Recalls" later in this section.

Identifying Driver Number

The vehicle identifies the current driver by their remote key number 1–8. The current remote key number may be identified by Driver Information Center (DIC) message. For Seat Entry Memory to work properly, save positions to the 1 or 2 memory button matching the driver number of this message. To aid in identifying remote key IDs, it is recommended to only carry one remote key when entering the vehicle.

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 or to accessory mode.
- 2. Adjust all available memory features to the desired driving position.
- Press and release SET; a chime will sound. A DIC message may indicate to press memory button 1 or 2 to save seating position.

- 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 beeps will not sound indicating memory position were not saved. Repeat Steps 3 and 4 to try again.
- 5. Repeat Steps 1–4 for the other remote key 1 or 2 using the other 1 or 2 memory button.

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

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

Manually Recalling Seating Positions

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

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

Enabling Automatic Recalls

- Seat Entry Memory moves the driver seat to the selected 1 or 2 position when the vehicle is started. Select Settings > Vehicle > Seating Position > Seat Entry Memory > On or Off. See "Auto Seat Entry Memory Recall" later in this section
- ▶ Seat Exit Memory moves the driver seat to the preferred exit position of the → button when the vehicle is turned off and the door is opened. Select Settings > Vehicle > Seating Position > Seat Exit Memory > 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 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
- During Manual memory recall:
 Release 1, 2, or memory button
- During Auto Seat Entry Memory Recall:

Turn vehicle off

Press SET, 1, 2, or memory buttons

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

Obstructions

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

Heated and Ventilated Front Seats

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

36 Seats and Restraints

If equipped, the heated and ventilated seat controls are in the climate bar on the infotainment screen. To operate, the engine must be running.

Auto Heated and Ventilated Seats

If the vehicle is equipped with auto heated or ventilated seats, and the engine is running, 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 indicator lights on the infotainment screen. Use the heated or ventilated seat controls on the infotainment display 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 > Cooled / Ventilated Seats on Startup or Heated 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, operate the heated or ventilated seat controls to use the heated or ventilated seats after the vehicle is started.

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.

Rear Seats

Rear Seat Reminder

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

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

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

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

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

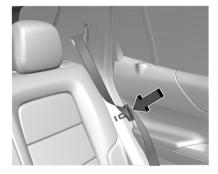
Folding the Seatback

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

⚠ Warning

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

To fold the seatback:



1. Stow the seat belt latch plate in the stowage slot.



- 2. Pull the handle on top of the seatback to unlock it.
 - A red indicator near the seatback becomes visible when the seatback is unlocked.
- 3. Fold the seatback forward. Repeat the steps to fold the other seatback, if desired.

Raising the Seatback

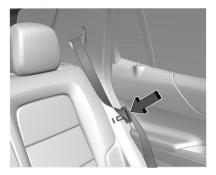
⚠ Warning

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.

Marning

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

To raise a seatback:



- 1. Ensure the seat belt latch plate is in the stowage slot.
- 2. Lift the seatback up and push it rearward to lock it in place.
 - The red indicator near the seatback handle retracts when the seatback is locked in place.
- Push and pull the top of the seatback to be sure it is locked into position.
- 4. Repeat the steps to raise the other seatback, if necessary.

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

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 \$\phi\$ 35.



If equipped, the buttons are on the rear of the center console.

This feature turns on at the highest setting. With each press of the button, the heated seat changes to the next lower setting, and then the offsetting. Three lights indicate the highest setting, and one light indicates the lowest.

Seat Belts

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

<u> Marning</u>

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

(Continued)

Warning (Continued)

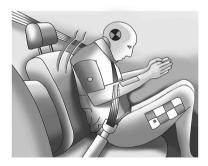
killed. Do not allow passengers to ride in any area of the vehicle that is not equipped with seats and seat belts.

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

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

⇒ 88.

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 regions, the law requires wearing seat belts.

Buckle To Drive

If equipped, and Teen Driver is active, this feature delays the vehicle from being shifted out of P (Park) when the driver seat belt is not buckled. The Buckle to Drive feature must be turned ON in the Teen Driver Personalization menu in the infotainment system to work. See Teen Driver ❖ 133

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

and shift out of P (Park). Shifting from P (Park) will be delayed once for each time the vehicle is started.

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 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 remain 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 \$\infty\$ 88. This feature may not function properly if the airbag readiness light is on. See Airbag Readiness Light \$\infty\$ 89.

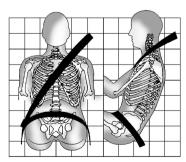
How to Wear Seat Belts Properly

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* ❖ 55 or *Infants and Young Children* ❖ 57. 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.

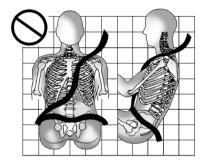
There are important things to know about wearing a seat belt properly.

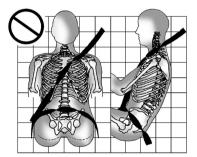


- Sit up straight and always keep your feet on the floor in front of you (if possible).
- Wear the lap part of the belt low and snug on the hips, just touching the thighs. In a crash, this applies force to the strong pelvic bones and you would be less likely to slide under the lap belt. If you slid under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

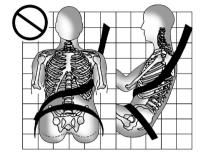
<u> Ma</u>rning

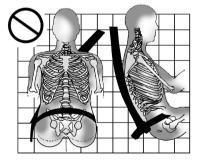
You can be seriously injured, or even killed, by not wearing your seat belt properly.



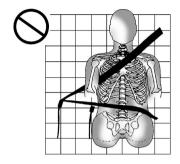


Never allow the lap or shoulder belt to become loose or twisted.

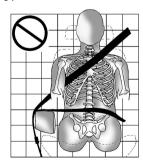




Never wear the shoulder belt under both arms or behind your back.



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 lapshoulder belt.

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

 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.

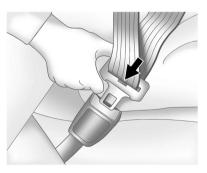
If the shoulder portion of a passenger belt is pulled out all the way, the child restraint locking feature may be engaged. See *Child Restraint Systems* \$\sip 59\$. If this occurs, let the belt go back all the way and start again. If the locking feature stays engaged after letting the belt go back to stowed position on the seat, move the seat rearward or recline the seat until the shoulder belt retractor lock releases.

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

> 50.



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



Push the latch plate into the buckle until it clicks.

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

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

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



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



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

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

Adjust the height so that 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 \$\times 40\$.



Press and hold the release button while raising or lowering the height adjuster to the desired position.

After the height 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 the 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's seat belt system will need to be replaced. See Replacing Seat Belt System Parts After a Crash

45.

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.

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, fraued, or twisted seat belts may not protect you in a crash. Torn or fraued seat belts can rip apart under impact forces. If a belt is torn or fraued, 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* ⇔ 88.

Keep seat belts clean and dry. See *Seat Belt Care* ⇔ 45

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 ♥ 89.

Airbag System

The vehicle has the following airbags:

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

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

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

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

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

Airbags are designed to supplement the protection provided by seat belts. Even though today's airbags are also designed to help reduce the risk of injury from the force of an inflating bag, all airbags must inflate very quickly to do their job.

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

⚠ Warning

You can be severely injured or killed in a crashifyou 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

(Continued)

Warning (Continued)

crash. In some crashes seat belts are the only restraint. See When Should an Airbag Inflate?

48.

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

⚠ Warning

Because airbags inflate with great force and faster than the blink of an eye, anyone who is up against, or very close to, any airbag when it inflates can be seriously injured or killed. Do not sit unnecessarily close to any 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

(Continued)

Warning (Continued)

far back as possible while still maintaining control of the vehicle. The seat belts and the front outboard passenger airbags are most effective when you are sitting well back and upright in the seat with both feet on the floor.

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

⚠ Warning

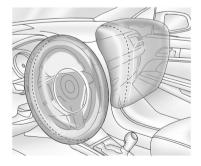
Children who are up against, or very close to, any airbag when it inflates can be seriously injured or killed. Always secure children properly in the vehicle. To read how, see Older Children ⇒ 55 or Infants and Young Children ⇒ 57.



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* ♀ 89.

Where Are the Airbags?



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

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



Driver Side Shown, Passenger Side Similar

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



Driver Side Shown, Passenger Side Similar

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

⚠ Warning

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

(Continued)

Warning (Continued)

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

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

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

When Should an Airbag Inflate?

This vehicle is equipped with airbags. See Airbag System ⇔ 46. Airbags are designed to inflate if the impact exceeds the specific airbag system's deployment threshold. Deployment thresholds are used to predict how severe a crash is likely to be in time for the airbags to inflate and help restrain the occupants. The vehicle has electronic sensors that help the airbag system determine the severity of the impact. Deployment thresholds can vary with specific vehicle design.

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

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

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

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

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

Seat-mounted side impact airbags are designed to inflate in moderate to severe side crashes depending on the location of the impact. These airbags may also inflate

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

Roof-rail airbags are designed to inflate in moderate to severe side crashes depending on the location of the impact. In addition, these roof-rail airbags may inflate during a rollover or in a severe frontal impact. Roof-rail airbags are not designed to inflate in rear impacts. Both roof-rail airbags may inflate when either side of the vehicle is struck or if the sensing system predicts that the vehicle is about to roll over on its side. or in a severe frontal impact.

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

What Makes an Airbag Inflate?

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

How Does an Airbag Restrain?

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

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

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

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

48.

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

What Will You See After an Airbag Inflates?

After frontal and seat-mounted side impact airbags inflate, they quickly deflate, so quickly that some people may not even realize the airbags inflated. Roof-rail airbags may still be at least partially inflated for some time after they inflate. Some components of the airbag module may be hot for several minutes. For location of the airbags, see *Where Are the Airbags*? ❖ 47.

The parts of the airbag that come into contact with you may be warm, but not too hot to touch. There may be some smoke and dust coming from the vents in the deflated airbags. Airbag inflation does not prevent people from leaving the vehicle.

⚠ Warning

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

(Continued)

Warning (Continued)

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

The vehicle has a feature that may automatically unlock the doors, turn on the interior lamps and hazard warning flashers, and shut off the fuel system after the airbags inflate. The feature may also activate, without airbag inflation, after an event that exceeds a predetermined threshold. After turning the vehicle off and then on again, the fuel system will return to normal operation; the doors can be locked, the interior lamps can be turned off, and the hazard warning flashers can be turned off using the controls for those features. If any of these systems are damaged in the crash they may not operate as normal.

⚠ Warning

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

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

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

 Airbags are designed to inflate only once. After an airbag inflates, you will need some new parts for the airbag system. If you do not get them, the airbag system will not be there to help protect you in another crash. A new system will include airbag modules and possibly other parts. The service manual for the vehicle covers the need to replace other parts.

- The vehicle has a crash sensing and diagnostic module which records information after a crash. See Vehicle Data Recording and Privacy \$\display 290\$ and Event Data Recorders \$\display 290\$.
- 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

⇒ 90.

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

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

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

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

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

⚠ Warning

A child in a rear-facing child restraint can be seriously injured or killed if the passenger frontal airbag inflates. This is because the back of the rear-facing child restraint would

(Continued)

Warning (Continued)

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

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

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

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

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

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

90.

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

When the passenger sensing system has allowed the airbag to be enabled, the on indicator will light and stay lit as a reminder that the airbag is active.

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

⚠ Warning

If the airbag readiness light ever comes on and stays on, it means that something may be wrong with the airbag system. To help avoid injury to yourself or others, have the vehicle serviced right away. See Airbag Readiness Light ⇒ 89 for more information, including important safety information.

If the On Indicator Is Lit for a Child Restraint

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

- Turn the vehicle off.
- 2. Remove the child restraint from the vehicle.

- 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) ⇒ 68 Securing Child Restraints (With the Seat Belt in the Front Seat) ⇒ 69.

 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 \$≥ 29.

6. Restart the vehicle.

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

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



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

- 1. Turn the vehicle off.
- 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.
- 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.

 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 \$ 54 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

Adding Equipment to the Airbag-Equipped Vehicle

Adding accessories that change the vehicle's frame, bumper system, height, front end, or side sheet metal may keep the airbag system from working properly.

The operation of the airbag system can also be affected by changing, including improperly repairing or replacing, any parts of the following:

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

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

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

In addition, the vehicle has a passenger sensing system for the front outboard passenger position, which includes sensors that are part of the passenger seat. The passenger sensing system may not operate properly if the original seat trim is replaced with non-GM covers, upholstery, or trim; or with GM covers, upholstery, or trim designed for a different vehicle. Any object, such as an aftermarket seat heater or a comfort-enhancing pad or device, installed under or on top of the seat fabric, could also interfere with the operation of the passenger sensing system. This could either prevent proper deployment of the passenger airbag(s) or prevent the passenger

sensing system from properly turning off the passenger airbag(s). See Passenger Sensing System

50.

If the vehicle has rollover roof-rail airbags, see *Different Size Tires and Wheels* ♀ 252 for additional important information.

If the vehicle must be modified because you have a disability and have questions about whether the modifications will affect the vehicle's airbag system, or if you have questions about whether the airbag system will be affected if the vehicle is modified for any other reason, 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 \heartsuit 89.

Caution

If an airbag covering is damaged, opened, or broken, the airbag may not work properly. Do not open or break the airbag coverings.

(Continued)

Caution (Continued)

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 ♥ 89.

Child Restraints Older Children



Older children who have outgrown booster seats should wear the vehicle seat belts. See How to Wear Seat Belts Properly \$40.

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, 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 lapshoulder 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.

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

(Continued)

Warning (Continued)

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

(Continued)

Warning (Continued)

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



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

There are three basic types of child restraints:

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

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

For each type of child restraint, there are many different models available. When purchasing a child restraint, be sure it is designed to be used in a motor vehicle and is designed by a genuine child restraint manufacturer

The instruction manual that is provided with the child restraint states the weight and height limitations for that particular child restraint. In addition, there are many kinds of child restraints available for children with special needs.

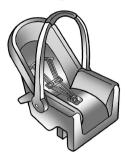
⚠ Warning

To reduce the risk of neck and head injury in a crash, infants and toddlers should be secured in a rear-facing child restraint until age two, or until they reach the maximum height and weight limits of their child restraint.

⚠ Warning

A young child's hip bones are still so small that the vehicle seat belt may not remain low on the hip bones, as it should. Instead, it may settle up around the child's abdomen. In a crash, the belt would apply force on a body areathat 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

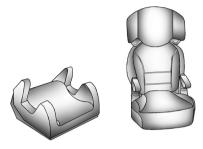
A rear-facing child restraint provides restraint with the seating surface against the back of the infant.

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 \$> 55.



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

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)

61 for more information. Children can be endangered in a crash if the child restraint is not properly secured in the vehicle.

When securing an add-on child restraint, 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.

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

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Warning (Continued)

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.

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

Child restraints and booster seats vary considerably in size, and some may fit in certain seating positions better than others. Do not install a child restraint in any rear seating position where it cannot be installed securely.

Depending on where you place the child restraint and the size of the child restraint, you may not be able to access adjacent seat belts or LATCH anchors for additional

passengers or child restraints. Adjacent seating positions should not be used if the child restraint prevents access to or interferes with the routing of the seat belt.

Adjust the seat in front of a child restraint to ensure proper installation according to the child restraint manual. Move the front seat forward to avoid contact between the child restraint and the seat or any accessories mounted to the seat.

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

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

Lower Anchors and Tethers for Children (LATCH System)

The LATCH system secures a child restraint during driving or in a crash. LATCH attachments on the child restraint are used to attach the

child restraint to the anchors in the vehicle. This system is designed to make installation of a child restraint easier.

In order to use the LATCH system in your vehicle, you need a child restraint that has LATCH attachments. LATCH-compatible rearfacing 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)	Х	Х		
Rear-Facing Child Restraint	Greater than 29.5 kg (65 lb)		Х		
Forward-Facing Child Restraint	Up to 29.5 kg (65 lb)			х	х
Forward-Facing Child Restraint	Greater than 29.5 kg (65 lb)				х

See Securing Child Restraints (With the Seat Belt in the Rear Seat) ⇔ 68 Securing Child Restraints (With the Seat Belt in the Front Seat) ⇔ 69.

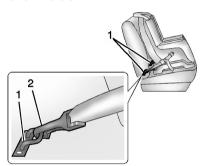
Child restraints built after March 2014 are labeled with the maximum child weight, with which the LATCH system can be used for installing the child restraint.

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

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

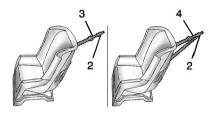
Restraints (With the Seat Belt in the Rear Seat) \Rightarrow 68 Securing Child Restraints (With the Seat Belt in the Front Seat) \Rightarrow 69.

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

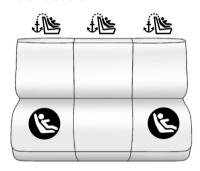


A top tether (3, 4) is used to secure the top of the child restraint to the vehicle. A top tether anchor is built into the vehicle. The top tether attachment hook (2) on the child restraint connects to the top tether anchor in the vehicle in order to reduce the forward movement and rotation of the child 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. Be sure to read and follow the instructions for your child restraint.

Lower Anchor and Top Tether Anchor Locations



Rear Seat

Seating positions with top tether anchors.

Seating positions with two lower anchors.



To assist in locating the lower anchors, each second row anchor position has a symbol, 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.



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.

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 \$\infty\$ 61 for additional information

Securing a Child Restraint Designed for the LATCH System

⚠ Warning

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

⚠ Warning

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

(Continued)

Warning (Continued)

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

⚠ Warning

Children can be seriously injured or strangled if a shoulder belt is wrapped around their neck. The shoulder belt can tighten but cannot be loosened if it is locked. The shoulder belt locks when it is pulled all the way out of the retractor. It unlocks when the shoulder belt is allowed to go all the way back into the retractor, but it cannot do this if it is wrapped around a child's neck. If the shoulder belt is locked and tightened around a child's neck, the only way to loosen the belt is to cut it. Buckle any unused seat belts behind the child restraint so children cannot reach them. Pull the shoulder belt all the way out of the retractor to set the lock, and tighten the belt behind the child restraint after the

child restraint has been installed.

Caution

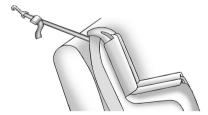
Do not let the LATCH attachments rub against the vehicle's seat belts. This may damage these parts. If necessary, move buckled seat belts to avoid rubbing the LATCH attachments.

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

If you need to secure more than one child restraint in the rear seat, see Where to Put the Restraint ⇒ 61.

 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
- 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:



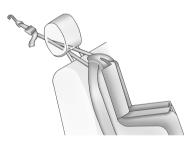
 If the position you are using does not have a headrest or head restraint and you are using a single tether, route the tether over the seatback.



 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 single tether, route the tether in between the headrest or head restraint posts.



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

Replacing LATCH System Parts After a Crash

⚠ Warning

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

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

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

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

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

If the child restraint has the LATCH system, see Lower Anchors and Tethers for Children (LATCH System) ⇔ 61 for how and where to install the child restraint using LATCH. If a child restraint is secured in the vehicle using a seat belt and it uses a top tether, see Lower Anchors and Tethers for Children (LATCH System) ⇔ 61 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) ▷ 61.

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 \$\dip\$ 61.

- 1. Put the child restraint on the seat.
- 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.

There must not be direct contact of the child restraint to the release pushbutton.



 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.
 - 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.
- 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)

 61.
- Before placing a child in the child restraint, make sure it is securely held in place. To check, grasp 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.

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 ⇔ 61.

In addition, the vehicle has a passenger sensing system which is designed to turn off the front outboard passenger frontal airbag under certain conditions. See Passenger Sensing System ▷ 50 and Passenger Airbag Status Indicator ▷ 90 for more information, including important safety information.

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

⚠ Warning

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

(Continued)

Warning (Continued)

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

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

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

If the child restraint uses a top tether, see Lower Anchors and Tethers for Children (LATCH System) ⇔ 61 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:

- . 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. There must be finger clearance between the release pushbutton and the child restraint. When the passenger sensing system has turned off the front outboard passenger frontal airbag, the off indicator on the passenger airbag status indicator should light and stay lit when you start the vehicle. See Passenger Airbag Status Indicator

 ⇒ 90.
- 2. Put the child restraint on the seat.
- 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.

71

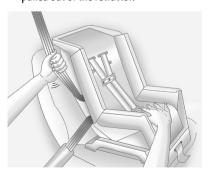


 Push the latch plate into the buckle until it clicks.

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



 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.



 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.

There must be finger clearance between the release pushbutton and the child restraint. If there is not clearance between the buckle release pushbutton and the child restraint, move the seat upward and repeat prior installation steps. Otherwise secure the child restraint in a rear seat.

When installing a forward-facing child restraint, it may be helpful to use your knee to push down on the child restraint as uou tighten the belt.

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

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

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

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

50.

To remove the child restraint, unbuckle the

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

Storage

Storage

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Roof Rack System	75

Storage Compartments

Marning

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.

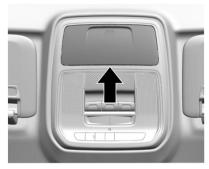
Glove Box

Open the glove box by lifting up on the lever.

Cupholders

Two cupholders are in the center console. Cupholders may be located in the second row seat armrest. To access, pull the armrest down.

Sunglasses Storage



If equipped, sunglasses storage is on the overhead console. Press the fixed button on the cover and release to access.

74 Storage

Center Console Storage



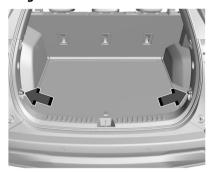
The center console has storage under the armrest. Press the button and lift to open.

Additional Storage Features Rear Compartment/Storage Panel Cover



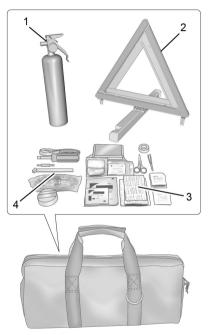
Lift the load floor to access the storage area.

Cargo Tie-Downs



There are cargo tie-downs in the rear compartment.

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

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.

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 lamps 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.

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.

76 Storage

Cargo Weight Limits

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.

⚠ Warning

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

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*

⇒ 156.

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Controls Steering Wheel Adjustment

78



To adjust the steering wheel:

- 1. Pull the lever down.
- 2. Move the steering wheel up or down.
- 3. Pull or push the steering wheel closer or away from you.
- 4. Pull the lever up to lock the steering wheel in place.

Do not adjust the steering wheel while driving.

Heated Steering Wheel



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

The steering wheel takes about three minutes to start heating.

If equipped with a remote start heated steering wheel, the heated steering wheel may turn on automatically in remote start along with the heated seats when it is cold outside. The heated steering wheel indicator light may not come on.

Horn

Press on the steering wheel pad to sound the horn.

Windshield Wiper/Washer

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, move the windshield wiper lever 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* ♀ 232.

⚠ 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.

Wiper Arm Assembly Protection

When using an automatic car wash, move the windshield wiper lever 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



> \sqrt{2}: Push the button on the side of the windshield wiper lever to the first detent to activate the wipers.

Wiper Parking

If the vehicle is 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 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.

Rear Window Wiper/Washer

80



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

Turn the controls 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 → 229 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 Rear Camera Mirror, if equipped. See *Rear Camera Mirror*⇒ 23. Check the fluid level in the reservoir if either washer is not working. See *Washer Fluid*⇒ 229.

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* ⇒ 23.

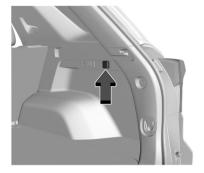
Compass

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.

Power Outlets

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



The power outlets are located in the rear cargo area.

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

There are also charging only USB ports on the rear of the center console.

⚠ 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 ignition is off will drain the battery. Always unplug electrical equipment when not in use and do not plug in equipment that exceeds the maximum 15 amp rating.

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* ⇒ 216.

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.

Wireless Charging

82

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

⚠ 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.

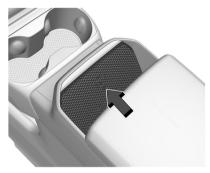
The vehicle must be on, in accessory mode, or Retained Accessory Power (RAP) must be active. The wireless charging feature may not correctly indicate charging when the vehicle is in RAP, during a Bluetooth phone call, or when phone projection (e.g. Apple CarPlay / Android Auto) is active. See Retained Accessory Power (RAP) ▷ 162.

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.

⚠ 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.



To charge a compatible smartphone:

- 1. Confirm the smartphone is capable of wireless charging.
- 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 charger.

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

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

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

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

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

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

Software Acknowledgements

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

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Freescale-WCT library

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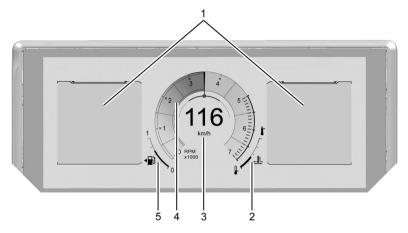
Warning Lights, Gauges, and Indicators

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

Some warning lights come on briefly when the engine is started to indicate they are working. When one of the warning lights comes on and stays on while driving, or when one of the

gauges shows there may be a problem, check the section that explains what to do. Waiting to do repairs can be costly and even dangerous.

Instrument Cluster



Single Gauge Layout Shown, Others Similar

- 1. Driver Information Center (DIC) ▷ 99
- 2. Engine Coolant Temperature Gauge \$≥88
- 3. Speedometer \$ 86
- 4. Tachometer \$\\$6
- 5. Fuel Gauge \$ 87

Reconfigurable Instrument Cluster

The cluster display layout can be changed. Some of the selectable views may not be available for your particular vehicle.

The following are selectable views:

Clean: If equipped, displays no information zones.

Single Gauge: Displays two information zones that are located to the left and right of the display. The gauges are located in the middle of the display.

Dual Gauge: If equipped, displays the speedometer and tachometer to the left and right of the information zone. The gauges are located to the left and right of the speedometer and tachometer.

Map: Displays a navigation map.

Driver Assistance: If equipped, displays information for Adaptive Cruise Control (ACC), Follow Distance, Lane Keep Assist (LKA), and Forward Collision Alert (FCA). There is one information zone to the right of the display.



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

To change the cluster configuration, press on the right steering wheel control.

If equipped, to change the gauge faces, press and hold → and use ∧ or ∨ on the right steering wheel control. Press ✓ on the right steering wheel control to select the desired option from the list.

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

- Engine Oil Temperature
- Engine Oil Pressure
- Transmission Temperature

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 ♀ 130.

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.

Traffic Sign Recognition

Displays the detected speed limit 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 may be equipped with an overspeed warning device. When the vehicle's speed reaches 120 km/h (75 mph), a chime will sound. A message also displays in the Driver Information Center (DIC). See *Vehicle Speed Messages*

⇒ 104.

Odometer

The odometer shows how far the vehicle has been driven, in either kilometers or miles.

Trip Odometer

The trip odometer shows how far the vehicle has been driven since the trip odometer was last reset.

The trip odometer is accessed and reset through the Vehicle Status. See *Vehicle Status*

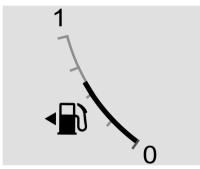
⇒ 101.

Tachometer

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

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

Fuel Gauge



Round Gauge Shown, Others Similar

When the ignition is on, the fuel gauge indicates about how much fuel is left in the tank.

There is an arrow near the fuel gauge pointing to the side of the vehicle the fuel door is on.

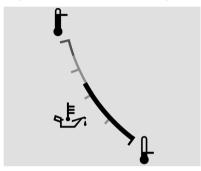
When the indicator nears empty, the low fuel light comes on. There still is a little fuel left, but the vehicle should be refueled soon.

The fuel gauge may:

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

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

Engine Oil Temperature Gauge



Round Gauge Shown, Others Similar

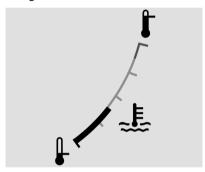
If equipped, this gauge shows the engine oil temperature.

If the gauge pointer moves into the high end, it means that the engine oil has overheated. If the vehicle has been operated under normal driving conditions, pull off the road, stop the vehicle, and turn off the engine as soon as possible.

See Engine Oil \$ 221.

Engine Coolant Temperature Gauge

88



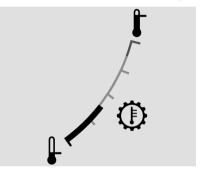
Round Gauge Shown, Others Similar

This gauge shows the engine coolant temperature.

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

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

Transmission Temperature Gauge



Round Gauge Shown, Others Similar

Caution

Do not drive the vehicle while the transmission fluid is overheating, or the transmission can be damaged. This could lead to costly repairs that would not be covered by the warranty.

If equipped, the transmission temperature gauge shows the transmission fluid temperature. If the gauge is reading in the red area and/or a message appears in the Driver

Information Center (DIC), the vehicle must be stopped and the cause checked. One possible cause is a low fluid level in the transmission.

Seat Belt Reminders

Driver Seat Belt Reminder Light

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



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

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

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

Front Passenger Seat Belt Reminder Light

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

⇒ 50.



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

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

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

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

Second Row Passenger Seat Belt Reminder Lights

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



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



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

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

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

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

Airbag Readiness Light

This light shows if there is an electrical problem with the airbag system.

It is located in the instrument cluster.

The system check includes the airbag sensor(s), the pretensioners, the airbag modules, the wiring, and the crash sensing and diagnostic module. For more information on the airbag system, see *Airbag System* \$ 46.



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*

50 for important safety information. The overhead console has a passenger airbag status indicator.





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

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

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

If, after several seconds, both status indicator lights remain on, or if there are no lights at all, 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 > 89 for more information, including important safety information.

Charging System Light



The charging system light comes on briefly when the ignition is turned on, but the engine is not running, as a check to show the light is working. It should go out when the engine is started.

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

When this light comes on, or is flashing, the Driver Information Center (DIC) also displays a message.

If a short distance must be driven with the light on, be sure to turn off all accessories, such as the radio and air conditioner. Find a safe place to stop the vehicle.

Malfunction Indicator Lamp

This light is part of the vehicle's emission control on-board diagnostic system. If this light is on while the engine is running, a malfunction has been detected and the vehicle may require service. The light should come on to show that it is working when the ignition is on and the engine is not running. See Ignition Positions.



Malfunctions are often indicated by the system before any problem is noticeable. Being aware of the light and seeking service promptly when it comes on may prevent damage.

Caution

If the vehicle is driven continually with this light on, the emission control system may not work as well, the fuel economy may be lower, and the vehicle may not run smoothly. This could lead to costly repairs that might not be covered by the vehicle warranty.

Caution

Modifications to the engine, transmission, exhaust, intake, or fuel system, or the use of replacement tires that do not meet the original tire specifications, can cause this light to come on. This could lead to costly repairs not covered by the vehicle warranty. This could also affect the vehicle's ability to pass an Emissions Inspection/Maintenance test. See Accessories and Modifications.

If the light is flashing: A malfunction has been detected that could damage the emission control system and increase vehicle emissions. Diagnosis and service may be required.

To help prevent damage, reduce vehicle speed and avoid hard accelerations and uphill grades. If towing a trailer, reduce the amount of cargo being hauled as soon as possible.

If the light continues to flash, find a safe place to park. Turn the vehicle off and wait at least 10 seconds before restarting the engine. If the light is still flashing, follow the previous guidelines and see your dealer for service as soon as possible.

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

Check the following:

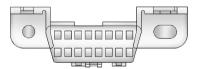
- If fuel has been added to the vehicle using the capless funnel adapter, make sure that it has been removed. See "Filling the Tank with a Portable Gas Can" under Filling the Tank. The diagnostic system can detect if the adapter has been left installed in the vehicle, allowing fuel to evaporate into the atmosphere. A few driving trips with the adapter removed may turn off the light.
- Poor fuel quality can cause inefficient engine operation and poor driveability, which may go away once the engine is warmed up. If this occurs, change the fuel

brand. It may require at least one full tank of the proper fuel to turn the light off. See Recommended Fuel ⇒ 205.

If the light remains on, see your dealer.

Emissions Inspection and Maintenance Programs

If the vehicle requires an Emissions Inspection/ Maintenance test, the test equipment will likely connect to the vehicle's Data Link Connector (DLC).



The DLC is under the instrument panel to the left of the steering wheel. Connecting devices that are not used to perform an Emissions Inspection/Maintenance test or to service the vehicle may affect vehicle operation. See Add-On Electrical Equipment. See your dealer if assistance is needed.

The vehicle may not pass inspection if:

• The light is on when the engine is running.

- The light does not come on when the ignition is on while the engine is off.
- Critical emission control systems have not been completely diagnosed. If this happens, the vehicle would not be ready for inspection and might require several days of routine driving before the system is ready for inspection. This can happen if the 12-volt battery has recently been replaced or run down, or if the vehicle has been recently serviced.

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

Brake System Warning Light



BRAKE

Metric

English

The brake system might not be working properly if the brake system warning light is on. Driving with the brake system warning light on can lead to a crash. If the light is still on after the vehicle has been pulled off the road and carefully stopped, have the vehicle towed for service

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

If the light comes on and stays on, there is a brake problem. Have the brake system inspected right away. This light may come on if the brake fluid is low. See *Brake Fluid* ⇒ 230.

If the light comes on while driving, pull off the road and stop carefully. The brake system has electric brake boost. Vehicle speed may be limited when the brake system warning light comes on. The brake pedal might be harder to push, or the brake pedal may go closer to the floor. It could take longer to stop. If the light is still on, have the vehicle towed for service. See *Transporting a Disabled Vehicle* ♀ 262.

Electric Parking Brake Light



PARK

Metric

English

This light comes on when the parking brake is applied. If the light continues flashing after the parking brake is released, or while driving, there is a problem with the Electric Parking Brake system. A message may also display in the Driver Information Center (DIC).

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

Service Electric Parking Brake Light



This light should come on briefly when the vehicle is turned on. If it does not come on, have it fixed so it will be ready to warn if there is a problem.

If this light stays on or comes on while driving, there is a problem with the Electric Parking Brake (EPB). Take the vehicle to a dealer as soon as possible. In addition to the parking brake, other safety functions that utilize the EPB may also be degraded. A message may also display in the Driver Information Center (DIC). See *Electric Parking Brake* ♀ 170.

Antilock Brake System (ABS) Warning Light



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

If the ABS warning light stays on, or comes on again while driving, the vehicle needs service. A chime may also sound when the light stays on.

If the ABS warning light is the only light on, the vehicle has regular brakes, but ABS is not functioning.

If both the ABS warning light and the brake system warning light are on, ABS is not functioning and there is a problem with the regular brakes. See your dealer for service.

All-Wheel-Drive Light



All-Wheel-Drive Light

94



Front-Wheel-Drive Light

If equipped, the corresponding light comes on when an All-Wheel Drive (AWD) mode or Front-Wheel-Drive mode is selected. See *Driver Mode Control* → 174.

If the light turns amber, there may be a malfunction. See your dealer.

Hill Descent Control Light



If equipped, the Hill Descent Control light comes on when the system is ready for use. When the light flashes, the system is active.

See Hill Descent Control (HDC) \$\Display\$ 174.

Automatic Vehicle Hold (AVH) Light

AUTO HOLD

This light comes on when AVH is actively holding the vehicle. See *Automatic Vehicle Hold* (AVH) ⇒ 172.

Lane Keep Assist (LKA) Light





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

Blank: LKA is disabled.

- White: Appears when the vehicle starts.
 A steady white light indicates that LKA is not ready to assist.
- Green: Appears when LKA is turned on and ready to assist. LKA will gently turn the steering wheel if the vehicle approaches a detected lane marking.
- Amber: Appears when LKA is active. The light flashes amber as a Lane Departure Warning (LDW) alert to indicate that the lane marking has been unintentionally crossed. If the system detects you are steering intentionally (to pass or change lanes), the LDW alert may not display. The amber light also appears 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 (BZSA).

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

Automatic Emergency Braking (AEB) Disabled Light



This indicator displays when you turn off Automatic Emergency Braking (AEB) or Front Pedestrian Braking (FPB).

This indicator will also display if AEB or FPB is unavailable due to malfunction, weather conditions, or if the windshield is not clean.

See Automatic Emergency Braking (AEB) \$\Display\$ 192. See Front Pedestrian Braking (FPB) System \$\Display\$ 196.

Vehicle Ahead Indicator



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

See Forward Collision Alert (FCA) System.

Pedestrian Ahead Indicator



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

See Front Pedestrian Braking (FPB) System.

Traction Off Light



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

The traction off light comes on when the Traction Control System (TCS) has been turned off. If StabiliTrak/Electronic Stability Control (ESC) is turned off, TCS is also turned off. To turn TCS and ESC off and on, see *Traction Control/Electronic Stability Control* ♥ 172.

If TCS is off, wheel slip during acceleration is not limited unless necessary to help protect the driveline from damage. Adjust driving accordingly.

Traction Control System (TCS)/ StabiliTrak Light



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

If the light is on and not flashing, the TCS and potentially the StabiliTrak/ESC system are not fully operational and may not assist in maintaining control. Adjust driving accordingly. If the condition persists, see your dealer as soon as possible. A Driver Information Center (DIC) message may display.

The light flashes when the TCS and/or the StabiliTrak/ESC system is actively working. See *Traction Control/Electronic Stability Control*

772.

Electronic Stability Control (ESC) Off Light



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

This light comes on when the StabiliTrak/ Electronic Stability Control (ESC) system is turned off. If StabiliTrak/ESC is off, the Traction Control System (TCS) is also off. To turn ESC off and on, see *Traction Control/Electronic* Stability Control ♥ 172.

If ESC and TCS are off, the systems do not assist in controlling the vehicle. Adjust driving accordingly.

Engine Coolant Temperature Warning Light



Caution

The engine coolant temperature warning light indicates that the vehicle has overheated. Driving with this light on can damage the engine and it may not be covered by the vehicle warranty. See Engine Overheating

≥ 228.

This light comes on briefly while starting the vehicle.

If it does not, have the vehicle serviced by your dealer. If the system is working normally the indicator light goes off.

The engine coolant temperature warning light comes on when the engine has overheated.

If this happens, pull over and turn off the engine as soon as possible. See Engine Overheating

⇒ 228

Driver Mode Control Light



This light comes on when Sport mode is selected.



This light comes on when Snow/Ice mode is selected.



This light comes on when Off-Road mode is selected.



This light comes on when the Tow/Haul mode is selected.

Tire Pressure Light



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

When the Light Is On Steady

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

A Driver Information Center (DIC) tire pressure message may also display. Stop as soon as possible, and inflate the tires to the pressure value shown on the Tire and Loading Information label. See *Tire Pressure* ♀ 244.

When the Light Flashes First and Then Is On Steady

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

246.

Engine Oil Pressure Light

Caution

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

If the engine oil pressure light comes on while driving:

- 1. Stop in a safe location and turn off the engine.
- 2. Check the oil level. See *Engine Oil* \$\sqrt{221}\$.
- 3. Add oil if the oil level is below the normal operating range.
- Restart the vehicle. If the engine oil pressure light stays on for more than 10 seconds, turn the vehicle back off. Do not restart the vehicle. See your dealer for service.

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

If the light comes on and stays on when the engine is running, it may not have adequate oil pressure. The oil level may be low or there may be some other oil system problem. Turn the engine off when it is safe to do so and contact your dealer.

Low Fuel Warning Light



A Low Fuel Warning Light near the fuel gauge comes on briefly when the ignition is turned on as a check to show it is working.

It also comes on when the fuel gauge indicator nears empty. The light turns off when fuel is added. If it does not, have the vehicle serviced.

Auto Stop Mode



This light comes on when the engine is in an Auto Stop.

See Stop/Start System \$\sim 162.

Security Light



The security light should come on briefly as the engine is started. If it does not come on, have the vehicle serviced by your dealer. If the system is working normally, the indicator light turns off.

If the light stays on and the engine does not start, there could be a problem with the theft-deterrent system. See *Immobilizer Operation* ⇒ 22.

High-Beam On Light



IntelliBeam Light



This light comes on when the IntelliBeam system, if equipped, is enabled. See Exterior Lamp Controls \$\Display\$ 105.

Lamps On Reminder



This light comes on when the exterior lamps are in use, except when only the Daytime Running Lamps (DRL) are active. See Exterior Lamp Controls

105.

Cruise Control Light



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

The light turns off when the cruise control is turned off. See *Adaptive Cruise Control* ❖ 175.

Adaptive Cruise Control Light



This light is white when the Adaptive Cruise Control (ACC) is on and ready, and turns green when the ACC is set and active.

Door Ajar Light



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

Information Displays 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 two main zones:

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 ∨: 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*

⇒ 101.

Information Displays

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

Left Zone

Trip Information: The Trip 1 or 2 displays 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 on the vehicle status screen.

The Average Fuel Economy display shows the approximate average liters per 100 kilometers (L/100 km), kilometers per liter (km/L), or miles per gallon (mpg). This number is calculated based on the number of L/100 km (mpg) or km/L recorded since the last time this menu item was reset. This number reflects only the approximate average fuel economy that the vehicle has right now, and will change as driving conditions change. The Average Fuel Economy can be reset along with the trip odometer by touching and holding the touchscreen display when trip odometer is displayed on the vehicle status screen.

Current Trip: Displays distance driven, fuel economy, and time elapsed since vehicle startup. It resets when you turn your vehicle off.

Time/Date: Displays current date, time, and temperature information.

Engine Hours: Displays the total number of hours the engine has run. This display also shows the engine idle hours.

Battery Voltage: Displays the current battery voltage.

Oil Life: Displays an estimate of the remaining oil life. If REMAINING OIL LIFE 99% is displayed, that means 99% of the current oil life remains.

When the remaining oil life is low, the CHANGE ENGINE OIL SOON message will appear on the display. The oil should be changed as soon as possible. See *Engine Oil* ⇔ 221. In addition to the engine oil life system monitoring the oil life, additional maintenance is recommended. See *Maintenance Schedule* ⇔ 276

The Oil Life display must be reset after each oil change. It will not reset itself. Do not reset the Oil Life display at any time other than when the oil has just been changed. It cannot be reset accurately until the next oil change. See *Engine Oil Life System* ❖ 223.

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

Oil Pressure: Displays the engine oil pressure in kPa (kilopascals) or psi (pounds per square inch).

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

Transmission Fluid Temperature: Displays the temperature of the automatic transmission fluid in either degrees Celsius (°C) or degrees Fahrenheit (°F).

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 ▷ 246 and Tire Pressure Monitor Operation ▷ 246.

Brake Pad Life: Displays an estimate of the remaining life of the front and back brake pads. Messages are displayed based on brake pad wear and the state of the system. Reset the Brake Pad Life display after replacing the brake pads. See Brake Pad Life System.

Air Filter Life: Displays an estimate of the remaining engine air filter life and the state of the system. Engine Air Filter Life 95% means 95% of the current air filter life remains.

Messages will display based on the engine air filter life and the state of the system. When the REPLACE AT NEXT OIL CHANGE message displays, the engine air filter should be replaced

at the time of the next oil change. When the REPLACE SOON message displays, the engine air filter should be replaced at the earliest convenience.

The Air Filter Life display must be reset after the engine air filter replacement. See Engine Air Filter Life System.

Oil Temperature: Displays the current oil temperature in either degrees Celsius (°C) or degrees Fahrenheit (°F).

Off: Allows for no information to be displayed in the cluster info display areas.

Right Zone

Audio Now Playing: Displays the actively playing audio.

Navigation: Displays a variety of navigation information.

Phone: Displays a variety of call information.

Off: Allows for no information to be displayed in the cluster info display areas.

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)* ▷ 99.

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.

Maintenance

Tire Pressure: Displays the approximate pressures of all four tires. Tire pressure is displayed in either kilopascal (kPa) or in pounds per square inch (psi). If the pressure is low,

the value for that tire is shown in amber. See Tire Pressure Monitor System and Tire Pressure Monitor Operation.

The following options may be chosen: Relearn Sensors and Add to Driver Display.

Brake Pad Life: Displays an estimate of the remaining life of the front and back brake pads. Messages are displayed based on brake pad wear and the state of the system.

The following options may be chosen: Turn Off/On, Reset Front Brake Pads, Reset Back Brake Pads, and Add to Driver Display. Reset the Brake Pad Life after replacing the brake pads. See Brake Pad Life System.

Oil Life: Displays an estimate of the remaining oil life. If REMAINING OIL LIFE 99% is displayed, that means 99% of the current oil life remains.

When the remaining oil life is low, the CHANGE ENGINE OIL SOON message will appear on the display. The oil should be changed as soon as possible. See *Engine Oil* ⇔ 221. In addition to the engine oil life system monitoring the oil life, additional maintenance is recommended. See *Maintenance Schedule* ❖ 276

The following options may be chosen: Reset and Add to Driver Display. The Oil Life must be reset after each oil change. It will not reset

itself. Do not reset the Oil Life display at any time other than when the oil has just been changed. It cannot be reset accurately until the next oil change. See Engine Oil Life System

⇒ 223.

Engine Air Filter Life: Displays an estimate of the remaining engine air filter life and the state of the system. Engine Air Filter Life 95% means 95% of the current air filter life remains. Messages are displayed based on the engine air filter life and the state of the system. When the REPLACE AT NEXT OIL CHANGE message displays, the engine air filter should be replaced at the time of the next oil change. When the REPLACE NOW message displays, the engine air filter should be replaced as soon as possible. The Air Filter Life display must be reset after the engine air filter replacement. See Engine Air Filter Life System.

The following options may be chosen: Turn Off/On, Reset, and Add to Driver Display.

Gauges

Battery Voltage: Displays the current battery voltage.

Add to Driver Display may be chosen.

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

Add to Driver Display may be chosen.

Transmission Fluid Temperature: Displays the temperature of the automatic transmission fluid in either degrees Celsius (°C) or degrees Fahrenheit (°F).

Add to Driver Display may be chosen.

Oil Pressure: Displays the engine oil pressure in kPa (kilopascals) or psi (pounds per square inch).

Add to Driver Display may be chosen.

Oil Temperature: Displays the current oil temperature in either degrees Celsius (°C) or degrees Fahrenheit (°F).

Add to Driver Display may be chosen.

Trip

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

Average Fuel Economy displays the approximate average liters per 100 kilometers (L/100 km) or miles per

gallon (mpg). This number is calculated based on the number of L/100 km (mpg) recorded since the last time this menu item was reset. This number reflects only the current, approximate average fuel economy and changes as driving conditions change.

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

The following options may be chosen: Reset Trip 1, Reset Trip 2, and Add to Driver Display.

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

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

Current Trip: Displays the current distance traveled, in either kilometers (km) or miles (mi).

It also includes the Average Fuel Economy. Average Fuel Economy shows the approximate average liters per 100 kilometers (L/100 km), kilometers per liter (km/L), or miles per gallon (mpg). This number only reflects the approximate Average Fuel Economy that the vehicle has at that moment, and changes as driving conditions change.

The timer shows the time in the current drive cucle.

All values in the Drive Summary are automatically reset each time the vehicle is started.

Add to Driver Display may be chosen.

Engine Hours: Displays the total number of hours the engine has run. This display also shows the engine idle hours.

Add to Driver Display may be chosen.

Vehicle Messages

Messages displayed on the Driver Information Center (DIC) indicate the status of the vehicle or some action that may be needed to correct a condition. Multiple messages may appear one after another

Vehicle status notifications are also sent to the infotainment display. Touching on the infotainment home screen displays active vehicle messages. Depending on the message, you can schedule a service or find the nearest dealer. When there are active messages that can be viewed, a red dot appears on top of the notification icon on the infotainment display.

The messages that do not require immediate action can be acknowledged and cleared by pressing ✓. The messages that require immediate action cannot be cleared until that action is performed.

All messages should be taken seriously; clearing the message does not correct the problem.

If a SERVICE message appears, see your dealer.

Follow the instructions given in the messages. The system displays messages regarding the following topics:

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

Engine Power Messages ENGINE POWER IS REDUCED

This message displays when the vehicle's propulsion power is reduced. A reduction in propulsion power can affect the vehicle's ability to accelerate. If this message is on, but there is no observed reduction in performance, proceed to your destination. Under certain conditions the performance may be reduced the next time the vehicle is driven. The vehicle may be driven while this message is on, but maximum acceleration and speed may be reduced. Anytime this message stays on, or displays repeatedly, the vehicle should be taken to your dealer for service as soon as possible.

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

Vehicle Speed Messages

SPEED LIMITED TO XXX KM/H (MPH)

This message shows that the vehicle speed has been limited to the speed displayed. The limited speed is a protection for various

propulsion and vehicle systems, such as lubrication; thermal; brake; suspension; tire; or, if equipped, Teen Driver.

Lighting

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Lighting

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Exterior Lighting Exterior Lamp Controls

The exterior lamp control is on the infotainment screen.

There are four positions:

む: Turns off the automatic headlamps and turns on Daytime Running Lamps (DRL). Turn the exterior lamp control to む again to turn the automatic headlamp back on.

AUTO: Automatically turns on the headlamps, parking lamps, taillamps, instrument panel lights, roof marker lamps, if equipped, license plate lamps or DRL (depending on outside light conditions).

FOOE: Turns on all the parking lamps. If the vehicle is not in P (Park), it turns on the DRL.

D: Turns on the headlamps with all the parking lamps.

Auto High Beams System

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

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

This light Documes on in the instrument cluster when the Auto High Beams is enabled.

Turning On and Enabling Auto High Beams

To enable and disable the Auto High Beams system on the infotainment home screen, select Controls App > Lights > Auto High Beams when the headlights are set in the AUTO position.

Driving with Auto High Beams

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

The blue high-beam on light appears on the instrument cluster when the high beams are on.

There is a sensor near the top center of the windshield that automatically controls the system. Keep this area of the windshield clear of debris to allow for best system performance.

106 Lighting

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

- The system detects an approaching vehicle's headlamps.
- The system detects a preceding vehicle's taillamps.
- The outside light is bright enough that high-beam headlamps are not required.
- The vehicle speed drops below 20 km/h (12 mph).
- The Auto High Beams system is manually disabled.

The high beams may not turn off automatically if the system cannot detect another vehicle lamps because of any of the following:

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

- The vehicle windshield is dirty, cracked, or obstructed by something that blocks the view of the light sensor.
- The vehicle is loaded such that the front end points upward, causing the light sensor to aim high and not detect headlamps and taillamps.
- The vehicle is being driven on winding or hilly roads.

The automatic high-beam headlamps may need to be disabled if any of the above conditions exist.

Exterior Lamps Off Reminder

A warning chime sounds if the driver door is opened while the ignition is off and the exterior lamps are on.

Headlamp High/Low-Beam Changer

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



This indicator light turns on in the instrument cluster when the high-beam headlamps are on.

Flash-to-Pass

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

Daytime Running Lamps (DRL)

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

Fully functional DRL are required on all vehicles first sold in Canada.

The DRL come on when all of the following conditions are met:

- The ignition is on.
- The exterior lamp control is in AUTO.
- The light sensor determines it is daytime.

The taillamps, instrument panel lights, and other lamps will not turn on when this feature is activated.

To turn off the DRL, set the exterior lamp control to 1.

For vehicles first sold in Canada, off will only work when the vehicle is parked.

Automatic Headlamp System

When the exterior lamp control is set to AUTO and it is dark enough outside, the headlamps come on automatically.



There is a light sensor on top of the instrument panel. Do not cover the sensor; otherwise the headlamps will come on when they are not needed.

The system may also turn on the headlamps when driving through a parking garage or tunnel.

If the vehicle is started in a dark garage, the automatic headlamp system comes on immediately. If it is light outside when the vehicle leaves the garage, there is a slight delay before the automatic headlamp system changes to the Daytime Running Lamps (DRL). During that delay, the instrument cluster may not be as bright as usual. Make sure the instrument panel brightness control is in the full bright position. See *Instrument Panel Illumination Control* ➡ 108.

When it is bright enough outside, the headlamps will turn off or may change to DRL.

The automatic headlamp system turns off when the exterior lamp control is turned to \circlearrowleft or the ignition is off.

Lights On with Wipers

If the windshield wipers are activated in daylight with the engine on, and the exterior lamp control is in AUTO, the headlamps, parking lamps, and other exterior lamps come on. The transition time for the lamps coming on varies based on wiper speed. When the wipers are not operating, these lamps turn off. Move the exterior lamp control to or 100 to disable this feature.

Hazard Warning Flashers



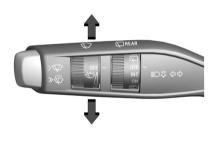
108 Lighting

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

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

Turn and Lane-Change Signals



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

An arrow on the instrument cluster will flash in the direction of the turn or lane change.

Raise or lower the lever until the arrow starts to flash to signal a lane change. Hold it there until the lane change is complete. If the lever is moved momentarily to the lane change position, the arrow will flash three times.

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

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

See your dealer for service. If a LED is not burned out, check the fuse. See *Instrument Panel Fuse Block* ♀ 240.

Front Fog Lamps

If equipped, the front fog lamps provide extra illumination to the sides of the road and improve visibility in fog or snow.

The ignition and the headlamps must be on for the front fog lamps to work.

The Front Fog Lights control is in the Controls App on the home screen of the infotainment system.

To operate, select the following option:

‡○: Touch to turn the front fog lamps on or off. An indicator light on the instrument cluster comes on when the fog lamps are on.

Interior Lighting Instrument Panel Illumination Control



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

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

The knob is functional at night, or when the headlamps or parking lamps are ON.

Dome Lamps

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

The dome lamps controls are in the Controls App on the infotainment home screen. Select Controls > Lights > Dome Lights.

ক্ষ **Dome Light:** Select to manually turn the dome lamps on or off.

Reading Lamps

There are reading lamps on the overhead console and over the rear seats. These lamps come on when any door is opened.



Front Reading Lamps

The front reading lamps are in the overhead console.

Press the lamp lenses to turn the front reading lamps on or off.



Rear Reading Lamps without Sunroof



Rear Reading Lamps with Sunroof

110 Lighting

The rear reading lamps are over the rear seats. Press the lamp lens to turn the rear passenger reading lamps on or off.

Lighting Features Entry Lighting

The interior lamps turn on when pressing and on the remote key or opening any doors, and the dome lamp control is in the door position.

Some exterior lamps also turn on when pressing on the remote key or opening any doors. Low-beam lamps will only turn on briefly at night, or in areas with limited lighting.

All lamps will eventually turn off after some time.

Entry lighting can be disabled manually by closing all doors, pressing $\widehat{\ }$ on the remote key, or starting the vehicle.

This feature can be changed. On the infotainment home screen, select Settings > Vehicle > Lighting.

Exit Lighting

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

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

The interior lights turn on when the vehicle is turned off.

The exterior lights turn off immediately by turning the exterior light control off.

This feature can be changed. On the infotainment home screen, select Settings > Vehicle > Lighting.

Battery Power Protection

This feature helps prevent the battery from being drained, if the interior courtesy lamps or reading lamps are accidentally left on. If any of these lamps are left on, they automatically turn off after 10 minutes, if the ignition is off. The lamps will not come back on again until one of the following occurs:

- The ignition is turned on.
- The doors are closed and then re-opened.

Exterior Lighting Battery Saver

The exterior lights turn off about 10 minutes after the vehicle is turned off, if the parking lights or headlights have been manually left on. This protects against draining the battery. To restart the 10-minute timer, turn the exterior light control to the ⊕ position and then back to the ≥00≤ or ≥0 position.

To keep the lights on for more than 10 minutes, the vehicle must be on or in accessory mode.

111

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 gray out 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.

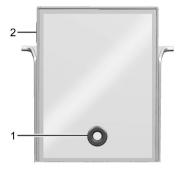
Active Noise Cancellation (ANC)

If equipped, ANC reduces engine noise in the vehicle's interior. ANC requires the factory-installed audio system, radio, speakers, amplifier (if equipped), induction system, and exhaust system to work properly. Deactivation is required by your dealer if related aftermarket equipment is installed.

Overview

Infotainment System

The infotainment system is controlled by using the infotainment display, controls on the center stack, steering wheel controls, and voice recognition, if available.



- 1. Volume
 - Turn to decrease or increase the volume.
- 2. Ů (Power)
 - Press to turn the power on.
 - Press to mute/unmute the system when on.
 - Press and hold to turn the power off.

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 to access the pages of icons.

Managing Infotainment Home Screen Icons

- Touch and hold any of the infotainment home screen icons to enter edit mode.
- 2. Continue holding the icon and drag it to the desired position.
- 3. Release your finger to drop the icon in the desired position.

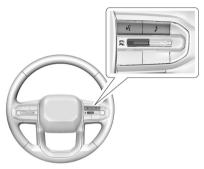
Move an Icon to Another Page

- 1. Drag the icon to the edge of the display toward the desired page.
- 2. Continue dragging and dropping application icons as desired.

Move an Icon to the Application Tray

To move an icon to the application tray, drag the icon to the applications tray.

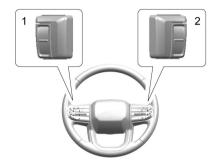
Steering Wheel Controls



If equipped, some audio controls can be adjusted at the steering wheel.

: Press to open the audio source list.

call. Toggle down to decline an incoming call, end a current call or to mute or unmute the infotainment system when not on a call.



The favorites and volume switches are on the back of the steering wheel.

- Favorite: When on a radio source, press to select the next or previous audio broadcast favorite. When listening to a media device, press to select the next or previous track.
- 2. Volume: Press to increase or decrease the volume.

Using the System

Audio

Touch the Audio icon to display the active audio source page. Examples of available sources may include AM, FM, USB, AUX, and Bluetooth.

Phone

Touch the Phone icon to display the Phone main page. See Bluetooth (Pairing and Using a Phone) \$\Display\$ 124 Bluetooth (Overview) \$\Display\$ 128.

Maps

If equipped, touch the Maps icon to display the navigation map. See *Using the Navigation System*

→ 119.

Google Assistant

If equipped, touch the Google Assistant icon to open the Google Assistant app. See *Voice Recognition* ♀ 123.

Google Play

If equipped, touch to download some of your favorite apps in your vehicle. Downloading apps on Google Play requires you to sign into a Google Account and have internet connectivity in your vehicle. Some third-party apps require a separate account and, in some cases, a paid subscription for in-vehicle access.

Settings

Touch the Settings icon to display the Settings menu. See Settings ⇒ 130.

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 \$\display\$ 129.

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 ⇔ 129.

Application Tray

The application tray is on the upper portion of the display and shows four applications.

Infotainment Display Features

Infotainment display features show on the display when available. When a feature is unavailable, it may gray out and be disabled. When a feature is touched, it may highlight.

Infotainment Gestures

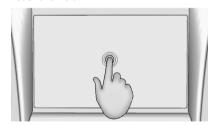
Use the following finger gestures to control the infotainment system.

Touch/Tap



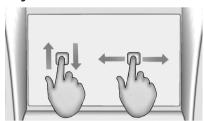
Touch/tap is used to select an icon or option, activate an application, or change the location inside a map.

Touch and Hold



Touch and hold can be used to start another gesture, or to move or delete an application.

Drag



Drag is used to move applications on the infotainment home screen, or to pan the map. To drag the item, it must be held and moved along the display to the new location. This can be done up, down, right, or left. This feature is only available when vehicle is parked and not in motion.

Nudge



Nudge is used to move items a short distance on a list or a map. To nudge, hold and move the selected item up or down to a new location.

Fling or Swipe



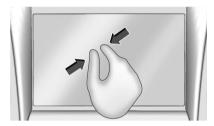
Fling or swipe is used to scroll through a list, pan the map, or change page views. Do this by placing a finger on the display then moving it rapidly up and down or right and left.

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 and Radio Displays

For vehicles with high gloss surfaces or vehicle displays, use a microfiber cloth to wipe surfaces. Before wiping the surface with the microfiber cloth, use a soft bristle brush to remove dirt that could scratch the surface. Then use the microfiber cloth by gently rubbing to clean. Never use window cleaners or solvents. Periodically hand wash the microfiber cloth

separately, using mild soap. Do not use bleach or fabric softener. Rinse thoroughly and air dry before next use.

Software Updates

Over-the-Air Software Updates

Radio AM-FM Radio

Playing the Radio

From the infotainment home screen, touch the Audio icon to display the now playing screen for the active audio source. Touch the source button such as FM, AM, or DAB in the left corner to change your source.

Finding a Station

Seeking a Station

From the AM, FM, or DAB screen, touch the back or forward buttons to search for the previous or next strong station.

Tune

Touch II IIII on the infotainment display to enter the Tune screen. Enter a frequency using the keypad.

Touch the to save the station as a favorite.

Entering a valid AM or FM frequency will automatically tune to the new station but not close the Tune screen.

Touch the Go button or frequency in the list to begin playing the station. The Tune screen will close and return to the now playing screen.

Storing Radio Station Favorites

Saved favorite stations will show at the bottom of the now playing screen.

AM, FM, and DAB (if applicable) favorites can be stored by pressing and holding a favorite slot.

Audio Settings

Audio settings vary by region.

From the now playing screen, touch **@** and the following may display.

Sound

- Equalizer
- Fade/Balance

Sound Mode (if equipped)

Manage Favorites

Displays a list of audio favorites that can be moved or deleted.

Radio Text (RDS)

When on, radio station call letters and messages from radio stations will be shown.

Radio Text (RDS) 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 Text - Radio Data Systems (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

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.

FΜ

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:

- 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.
- 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:

- On the audio now playing screen, select source and select the desired Bluetooth mobile device.
- 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 q.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* \$\simes\$ 130.

Voice Assistant

If equipped, Google Maps can be controlled by voice commands, see Google Assistant under *Voice Recognition* ♀ 123.

Language

To change the language, see *Settings* \Rightarrow 130.

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.

Compass

The Google Maps orientation can be changed between the current direction of travel, north and route overview. Touch the compass to switch between these options.

To recenter the map to the current location, touch the location icon.

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.
- 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.
- ${\it 3. \ \, Select the \, desired \, search \, result \, from \, the \, list.}$
- 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

- 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.
- 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.

Attimes, 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* ⇒ 122.

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

Inappropriate 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, park with the vehicle running for two to five minutes, until the vehicle position updates. Make sure the vehicle is parked in a location that is safe and has a clear view of the sky and away from large obstructions.

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 № on the steering wheel, touch Google Assistant on the infotainment home screen, or by 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 Wi-Fi 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

- Quickly press and release [™] 2 on the steering wheel controls, touch Google Assistant on the infotainment 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 [™] 2 and the wake word options to work.
- 2. Clearly speak one of the commands described later in this section.

Canceling Google Assistant

 Press 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 waypoints/points of interest (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 waypoint 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, Android Auto, or Apple CarPlay, press and hold w con the steering wheel controls until you hear a response from the phone's voice assistant, which will launch the Voice Assistant on the connected mobile phone (e.g., Google Assistant, Siri, etc.).

Phone

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 sustem.
- 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.

Pairing a Phone

- Make sure Bluetooth has been enabled on the phone before starting the pairing process.
- 2. Select the phone icon on the infotainment home screen.
- 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.
- Select Add Phone.
 If a phone has been previously added or disconnected, the "Add Phone" card will just be a "+" card.
- The code on both the phone and infotainment display need to be acknowledged for pairing to be successful.

- 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.
- 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.
- 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.

- 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.
- 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 submenu 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

- 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

- 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:

- 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:

- 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:

- Open the Device List Screen. See "Accessing the Device List Screen" previously in this section.
- 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 handsfree 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 handsfree 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:

- 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:

 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:

- 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:

- Select the Phone icon on the infotainment home screen.
- 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 we 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 of 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 son 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.

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

ա՛ք : 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* ⇔ 113.

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.

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

- 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 CarPlau.
- 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 factoryprovided USB cable, which should be replaced after significant wear to maintain connection quality. Aftermarket or thirdparty cables may not work.

- 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 **1** 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.

 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.

- 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) ⇒ 124 Bluetooth (Overview) ⇒ 128.
- 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.

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:

- 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 **1** 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.

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Select Ω on the center stack to exit Android Auto or Apple CarPlay. To enter back into Android Auto or Apple CarPlay, press and hold Ω 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 toggleto 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.

Apple CarPlay

Allows interacting directly with a mobile device on the infotainment display. See *Apple CarPlay* and *Android Auto* ⇔ 129.

Android Auto

Allows interacting directly with a mobile device on the infotainment display. See *Apple CarPlay* and *Android Auto* ⇔ 129.

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

Vehicle

The menu may contain the following:

Audio Settings

Allows adjustment of different audio settings.

Teen Driver

See Teen Driver \$\simes 133.

Rear Seat Reminder

Allows for a chime and a message when the rear door has been opened before or during operation of the vehicle.

Buckle to Drive

This feature can prevent shifting out of Park when the driver's, and if applicable the front passenger's, seat belt is not buckled. 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.

Suspension

Allows adjustment of different suspension settings.

Notifications

Shows a list of installed apps and the permissions used.

Date/Time

Allows setting of the clock.

Display

 $Allows \, adjust ment \, of the \, in fotain ment \, display.$

Sounds

Allows adjustment of the infotainment system sounds.

Profiles and Accounts

Modifies the infotainment system's profiles and provides access to the accounts assigned to the currently active profile.

Privacy

The menu may contain the following:

Microphone

Touch to view the Microphone screen.

Location

Touch to view the Location screen.

GM Privacy Statement

Touch to view the GM Privacy Statement screen.

App Permissions

Touch to view the Permission manager screen.

Infotainment System Data

Touch to view the Infotainment System Data screen.

Data Sharing with Google

Touch to manage the data you share with Google.

Google Legal

Touch to view the Google legal screen.

Accessibility

This menu shows the accessibility information on the infotainment system.

Assistant and Voice

This menu shows the assistant and voice settings.

Security

This menu allows adjustment of the infotainment security settings.

Apps

This menu allows adjustment of the infotainment apps settings.

System

The menu may contain the following:

Language

This will set the display language used on the infotainment display.

Keyboard and Speech

 $Touch to change \, key board \, and \, speech \, settings.$

Units

Touch to change units settings.

Reset Options

Touch to change reset settings.

Storage

Touch to view storage settings.

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 registered key, the Driver Information Center (DIC) displays a message that Teen Driver is active.

To access:

- From the infotainment home screen, select Settings > Vehicle > Teen Driver.
- Create a Personal Identification Number (PIN) by choosing a four-digit PIN. Re-enter the PIN to confirm. To change the PIN, touch Change PIN.

The PIN is required to:

- Set up/add or remove keys.
- Change Teen Driver settings.
- Change or clear the Teen Driver PIN.
- Access or delete Report Card data.

Set up/add keys to activate Teen Driver and assign restrictions to the key:

Any vehicle key can be registered, up to a maximum of eight keys. Label the key to tell it apart from the other keys.

For a pushbutton start system:

- 1. Start the vehicle.
- For automatic transmissions, the vehicle must be in P (Park). For manual transmissions, the vehicle must be stopped with the parking brake set.
- 3. From the infotainment home screen, select Settings > Vehicle > Teen Driver.
- 4. Enter the PIN.
- Place the remote key you wish to register in the transmitter pocket. The key does not need to be the one that started the vehicle.
- 6. From the Teen Driver menu, touch Setup Keys or Add/Remove Teen Driver Keys.

- If the remote key has not previously been registered, the option to add the key displays. Touch Add and a confirmation message displays. Teen Driver restrictions will be applied whenever this remote key is used to operate the vehicle.
- If the remote key has already been registered, the option to remove the key displays. If Remove is touched, the remote key is no longer registered. A confirmation message displays, and Teen Driver restrictions will not be applied if this remote key is used to operate the vehicle.

In vehicles with a pushbutton start system, if a Teen Driver and a non-Teen Driver key are both present at start up, the vehicle will recognize the non-Teen Driver key to start the vehicle. The Teen Driver settings will not be active.

For a keyed ignition system:

- 1. Start the vehicle.
- For automatic transmissions, the vehicle must be in P (Park). For manual transmissions, the vehicle must be stopped with the parking brake set.

- 3. From the infotainment home screen, select Settings > Vehicle > Teen Driver.
- 4. Fnter the PIN.
- Touch Setup Keys or Add/Remove Teen Driver Keys. The system displays instructions for registering or unregistering a key. A confirmation message displays.

Manage Settings or Teen Driver Settings

Depending on the options of your vehicle, the following menu items may be displayed:

Buckle to Drive: When turned ON, Buckle to Drive prevents the driver from shifting out of P (Park) for a period of time after the brake pedal is pressed if the driver, or on some vehicles the detected passenger, has not buckled their seat belt. On some vehicles, Buckle to Drive is always ON when Teen Driver is active and is not configurable.

Audio Volume Limit: Allows a maximum audio volume to be set. Turn the audio volume limit on or off. Use the arrows to choose the maximum allowable level for the audio volume. On some infotainment systems, touch Set Audio Volume Limit to choose the maximum allowable audio volume level.

Set Audio Volume Limit : Use the arrows to choose the maximum allowable level for the audio volume

Teen Driver Speed Limiter: Limits the maximum speed of the vehicle. When the speed limiter is turned on and the vehicle is started with a Teen Driver key, the DIC displays a message that the top speed is limited.

On certain vehicles, when the Speed Limiter is turned ON, the vehicle's maximum acceleration will be limited. The DIC will display a message that the acceleration is limited.

Teen Driver Speed Warning: Displays a warning in the DIC when exceeding a selectable speed. Turn the speed warning on or off and choose the desired speed warning level. The speed warning does not limit the speed of the vehicle. On some infotainment systems, touch Set Teen Driver Speed Warning to set the warning speed.

Set Teen Driver Speed Warning: Choose the desired speed warning level. The speed warning does not limit the speed of the vehicle.

When Teen Driver is Active:

- If equipped, the radio will mute when the driver seat belt, and in some vehicles the front passenger seat belt, is not buckled. The audio from any device paired to the vehicle will also be muted.
- An object placed on the front passenger seat, such as a briefcase, handbag, grocery bag, laptop, or other electronic device, could cause the passenger sensing system to falsely sense an unbuckled front passenger and mute the radio. If this happens, remove the object from the seat.
- Some safety systems, such as Automatic Emergency Braking, if equipped, cannot be turned off.
- The gap setting for Adaptive Cruise Control and alert timing for Forward Collision Alert, if equipped, cannot be changed.
- When trying to change a safety feature that is not configurable in Teen Driver, the feature may be grayed out or removed from the infotainment menu, or the DIC will display a message indicating that Teen Driver is active and the action is not available.
- Super Cruise, if equipped, is not available.

- Enhanced Low Fuel Warning (if equipped)

 When the vehicle is low on fuel, the low fuel light on the instrument cluster flashes and the DIC low fuel warning cannot be dismissed.
- Do not tow a trailer if equipped with Automatic Emergency Braking.
- Daytime Running Lights or headlights are always on when the vehicle is shifted out of P (Park). Even if the headlight control is set to Off or 2002, 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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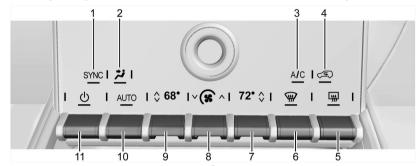
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Climate Controls

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Climate Control Systems

The heating, cooling, and ventilation for the vehicle can be controlled with this system.



- 1. SYNC
- 2. Air Delivery Mode Controls
- 3. Air Conditioning
- 4. Recirculation
- 5. Rear Window Defogger
- 6. Defrost
- 7. Passenger Temperature Control
- 8. Fan Control
- 9. Driver Temperature Control
- 10. AUTO (Automatic Operation)

11. ON/OFF

ON/OFF: Press to turn the fan off or on. When off is selected, the system will prevent air from flowing into the cabin. If on is selected, or any other button is pressed, the climate control system will turn on and return to delivering airflow as set. The temperature control and air delivery mode can still be adjusted.

Driver and Passenger Temperature Controls:

Turn the knob clockwise or counterclockwise to increase or decrease the driver or passenger temperature setting.

S: Turn the knob clockwise or counterclockwise to increase or decrease the fan speed.

Air Delivery Mode Controls: In the climate control display, press , , , , , or , or to change the direction of the airflow. Any combination of the three buttons can be selected. The current mode is as displayed. Pressing either button cancels automatic air delivery control and the direction of the airflow is controlled manually.

To change the current mode, select one or more of the following modes:

: Clears the windows of fog or moisture. Air is directed to the windshield.

: Air is directed to the instrument panel outlets.

: Air is directed to the floor outlets.

MAX: Air is directed to the windshield, the fan runs at a higher speed, and the temperature of the air is increased if not already at maximum. This mode overrides the previous mode selected and clears fog or frost from the windshield more quickly. When the button is pressed again, the system returns to the previous mode setting and fan speed.

For best results, clear all snow and ice from the windshield before defrosting and do not use recirculation.

A/C: Press to turn the air conditioning system on or off. If the climate control system is turned off or the outside temperature falls below freezing, the air conditioner will not run.

: Press to turn on recirculation. An indicator light comes on. Air is recirculated to quickly cool the inside of the vehicle or to reduce the entry of outside air and odors.

If selected during cool or cold weather, the windshield and windows may fog. Turn off recirculation to help clear the windshield and windows.

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.

REAR: Press to turn the rear window defogger on or off. An indicator light on the button comes on to show that the rear window defogger is on. The rear window defogger only works when the ignition is on. The defogger turns off when the vehicle is off or in accessory mode.

The rear window defogger can be set to automatic operation. To turn Auto Defog off or on, select Settings > Climate and Air Quality > Auto Rear Defog > Select ON or OFF. When Auto Rear Defog is selected, the rear window defogger turns on automatically when the interior temperature is cold and the outside temperature is about 10 °C (50 °F) and below. The auto rear defogger turns off automatically.

If the vehicle is equipped with heated outside mirrors, they turn on when the rear window defogger button is on and help to clear fog or frost from the surface of the mirror. See *Heated Mirrors*

≥ 23.

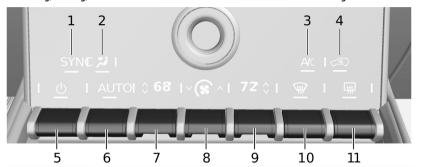
Remote Start Climate Control Operation: If equipped with remote start, the climate control system may run when the vehicle is started remotely. The system will use the defrost setting if it is cold outside or turn on using the coldest settings if it is hot outside. The rear defog may come on during remote start

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based on cold ambient conditions. The rear defog indicator light does not come on during a remote start.

Dual Automatic Climate Control System

The heating, cooling, and ventilation for the vehicle can be controlled with this system.



- 1. SYNC
- 2. Air Delivery Mode Controls
- 3. Air Conditioning
- 4. Recirculation
- 5. ON/OFF
- 6. AUTO (Automatic Operation)
- 7. Driver Temperature Control
- 8. Passenger Temperature Control
- 9. Fan Control
- 10. Defrost

11. Rear Window Defogger

Automatic Operation

The system automatically controls the fan speed, air delivery and air conditioning in order to heat or cool the vehicle to the desired temperature.

When AUTO is lit, all four functions operate automatically. Each function can also be manually set and the selected setting is displayed. Functions not manually set will continue to be automatically controlled, even if the AUTO indicator is not lit.

For automatic operation:

- Press AUTO.
- Set the temperature. Allow the system time to stabilize. Adjust the temperature as needed for best comfort.

To improve fuel efficiency and to cool the vehicle faster with A/C on, recirculation may be automatically selected in warm weather. Press (5) to select recirculation; press it again to select outside air.

Driver and Passenger Temperature Controls:

The temperature can be adjusted separately for the driver and the passenger. Turn the knob clockwise or counterclockwise to increase or decrease the driver or passenger temperature setting.

SYNC: Press to link all passenger temperature settings to the driver setting. The SYNC indicator light will turn on. When the passenger settings are adjusted, the SYNC indicator light turns off.

Manual Operation

ON/OFF: Press to turn the fan off or on. When off is selected, the system will prevent air from flowing into the cabin. If on is selected, or any other button is pressed, the climate control

142 Climate Controls

system will turn on and return to delivering airflow as set. The temperature control and air delivery mode can still be adjusted.

Fan Control: Press to increase or decrease the fan speed. The fan speed setting appears on the main display. Pressing any airflow mode button cancels automatic fan control and the fan is controlled manually. Press AUTO to return to automatic operation.

Air Delivery Mode Controls: In the climate control display, press , , , , to to change the direction of the airflow. Any combination of the three buttons can be selected. The current mode appears in the display. Pressing either button cancels automatic air delivery control and the direction of the airflow is controlled manually. Press AUTO to return to automatic operation.

To change the current mode, select one or more of the following modes:

: Clears the windows of fog or moisture. Air is directed to the windshield.

: Air is directed to the instrument panel outlets.

: Air is directed to the floor outlets.

Air is directed to the windshield, the fan runs at a higher speed, and the temperature of the air is increased if not already at maximum. This mode overrides the previous mode selected and clears fog or frost from the windshield more quickly. When the button is pressed again, the system returns to the previous mode setting and fan speed.

For best results, clear all snow and ice from the windshield before defrosting and do not use recirculation.

A/C: Press to turn the air conditioning system on or off. If the climate control system is turned off or the outside temperature falls below freezing, the air conditioner will not run.

Pressing this button cancels automatic air conditioning and turns off the air conditioner. Press AUTO to return to automatic operation and the air conditioner runs automatically as needed. When the indicator light is on, the air conditioner runs automatically to cool the air inside the vehicle or to dry the air needed to defog the windshield faster.

: Press to turn on recirculation. An indicator light comes on. Air is recirculated to quickly cool the inside of the vehicle or to reduce the entry of outside air and odors.

If selected during cool or cold weather, the windshield and windows may fog. Turn off recirculation to help clear the windshield and windows.

Auto Defog: The climate control system may have a sensor to automatically detect high humidity inside the vehicle. When high humidity is detected, the climate control system may adjust to outside air supply and turn on the air conditioner. The fan speed may slightly increase to help prevent fogging. If the climate control system does not detect possible window fogging, it returns to normal operation.

To turn Auto Defog off or on, select Settings > Climate and Air Quality > Auto Defog > Select ON or OFF.

Rear Window Defogger

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 ignition is on. The defogger turns off when the vehicle is off or in accessory mode.

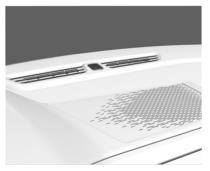
The rear window defogger can be set to automatic operation. To turn Auto Defog off or on, select Settings > Climate and Air Quality > Auto Rear Defog > Select ON or OFF. When Auto Rear Defog is selected, the rear window defogger turns on automatically when the interior temperature is cold and the outside temperature is about 7 °C (44 °F) and below. The auto rear defogger turns off automatically. If the vehicle is equipped with heated outside mirrors, they turn on when the rear window defogger button is on and help to clear fog or frost from the surface of the mirror. See Heated Mirrors ♀ 23

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.

Remote Start Climate Control Operation: If equipped with remote start, the climate control system may run when the vehicle is started remotely. The system will use the defrost setting if it is cold outside or turn on using the coldest settings if it is hot outside. 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.

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.

Do not cover the sensor; otherwise the automatic climate control system may not work properly.

Afterblow Feature

If equipped, under certain conditions, the fan may stay on or may turn on and off several times after you turn off and lock the vehicle. This is normal.

Air Vents



144 Climate Controls

Use the air outlets in the center and on the side of the instrument panel to direct the airflow. move the center knobs on the air outlets to open or close off the airflow.

Operation Tips

- Clear away any ice, snow, or leaves from the air inlets at the base of the windshield that can block the flow of air into the vehicle.
- Clear snow off the hood to improve visibility and help decrease moisture drawn into the vehicle
- Use of non-GM approved hood deflectors can adversely affect the performance of the system.
- Keep the path under all seats clear of objects to help circulate the air inside the vehicle more effectively.
- 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.

Maintenance

Passenger Compartment Air Filter

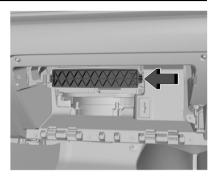
The filter removes dust, pollen, and other airborne irritants from outside air that is pulled into the vehicle.

The filter should be replaced as part of routine scheduled maintenance.

Open the glove box.



2. Squeeze both sides of the glove box bin inward to lower beyond the stops.



- Release the latches on the service door. Open the service door and remove the old filter
- 4. Install the new air filter. Ensure air filter orientation is correct.
- 5. Close the service door completely.
- 6. 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 Information Distracted Driving

Distraction comes in many forms and can take your focus from the task of driving. Exercise good judgment and do not let other activities divert your attention away from the road. Many local governments have enacted laws regarding driver distraction. Become familiar with the local laws in your area.

To avoid distracted driving, keep your eyes on the road, keep your hands on the steering wheel, and focus your attention on driving.

- Do not use a phone in demanding driving situations. Use a hands-free method to place or receive necessary phone calls.
- Watch the road. Do not read, take notes, or look up information on phones or other electronic devices.
- Designate a front seat passenger to handle potential distractions.
- Become familiar with vehicle features before driving, such as programming favorite radio stations and adjusting climate control and seat settings. Program all trip information into any navigation device prior to driving.

- Wait until the vehicle is parked to retrieve items that have fallen to the floor.
- Stop or park the vehicle to tend to children.
- Keep pets in an appropriate carrier or restraint.
- Avoid stressful conversations while driving, whether with a passenger or on a cell phone.

⚠ Warning

Taking your eyes off the road too long or too often could cause a crash resulting in injury or death. Focus your attention on driving.

Refer to the infotainment section for more information on using that system and the navigation system, if equipped, including pairing and using a cell phone.

Defensive Driving

Defensive driving means to always expect the unexpected. The first step in driving defensively is to wear a seat belt. See *Seat Belts* ⇔ 38.

- 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 threequarters of a second. In that time, a vehicle moving at 100 km/h (60 mph) travels 20 m (66 ft), which could be a lot of distance in an emergency.

Helpful braking tips to keep in mind include:

 Keep enough distance between you and the vehicle in front of you.

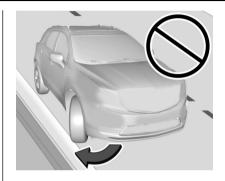
- Avoid needless heavy braking.
- · Keep pace with traffic.

If the engine ever stops while the vehicle is being driven, brake normally but do not pump the brakes. Doing so could make the pedal harder to push down. If the engine stops, there will be some power brake assist but it will be used when the brake is applied. Once the power assist is used up, it can take longer to stop and the brake pedal will be harder to push.

Steering

Caution

To avoid damage to the steering system, do not drive over curbs, parking barriers, or similar objects at speeds greater than 3 km/h (1 mph). Use care when driving over other objects such as lane dividers and speed bumps. Damage caused by misuse of the vehicle is not covered by the vehicle warranty.



Electric Power Steering

The vehicle is equipped with an electric power steering system, which reduces the amount of effort needed to steer the vehicle. It does not have power steering fluid. Regular maintenance is not required.

If the vehicle experiences a system malfunction and loses power steering, greater steering effort may be required. Power steering assist also may be reduced if you turn the steering wheel as far as it can turn and hold it there with force for an extended period of time.

See your dealer if there is a problem.

Curve Tips

- Take curves at a reasonable speed.
- Reduce speed before entering a curve.
- Maintain a reasonable steady speed through the curve.
- Wait until the vehicle is out of the curve before accelerating gently into the straightaway.

Steering in Emergencies

- There are some situations when steering around a problem may be more effective than braking.
- Holding both sides of the steering wheel allows you to turn 180 degrees without removing a hand.
- The Antilock Brake System (ABS) allows steering while braking.

Off-Road Recovery



The vehicle's right wheels can drop off the edge of a road onto the shoulder while driving. Follow these tips:

- 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 Skiddina

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.

Off-Road Driving

All-wheel-drive vehicles can be used for offroad driving. Vehicles without all-wheel drive and vehicles not equipped with All Terrain (AT) or On-Off Road (OOR) tires must not be driven off-road except on a level, solid surface. To contact the tire manufacturer for more information about the original equipment tires, see the warranty manual.

Controlling the vehicle is the key to successful off-road driving. One of the best ways to control the vehicle is to control the speed.

⚠ Warning

When driving off-road, bouncing and quick changes in direction can easily throw you out of position. This could cause you to lose control and crash. You and your passengers should always wear seat belts.

Before Driving Off-Road

- Have all necessary maintenance and service work completed.
- Fuel the vehicle, fill fluid levels, and check inflation pressure in all tires, including the spare, if equipped.
- Read all the information about all-wheeldrive vehicles in this manual.
- Make sure all underbody shields, if equipped, are properly attached.
- Know the local laws that apply to offroad driving.

Loading the Vehicle for Off-Road Driving

⚠ Warning

- Unsecured cargo on the load floor can be tossed about when driving over rough terrain. You or your passengers can be struck by flying objects. Secure the cargo properly.
- Keep cargo in the cargo area as far forward and as low as possible. The heaviest things should be on the floor, forward of the rear axle.
- Heavy loads on the roof raise the vehicle's center of gravity, making it more likely to roll over. You can be seriously or fatally injured if the vehicle rolls over. Put heavy loads inside the cargo area, not on the roof.

For more information about loading the vehicle, see *Vehicle Load Limits* ⇔ 156.

Environmental Concerns

 Always use established trails, roads, and areas that have been set aside for public off-road recreational driving and obey all posted regulations.

- Do not damage shrubs, flowers, trees, or grasses or disturb wildlife.
- Do not park over things that burn. See Parking over Things That Burn \$\sim\$ 164.

Driving on Hills

Driving safely on hills requires good judgment and an understanding of what the vehicle can and cannot do.

Marning

Many hills are simply too steep for any vehicle. Driving up hills can cause the vehicle to stall. Driving down hills can cause loss of control. Driving across hills can cause a rollover. You could be injured or killed. Do not drive on steep hills.

Before driving on a hill, assess the steepness, traction, and obstructions. If the terrain ahead cannot be seen, get out of the vehicle and walk the hill before driving further.

When driving on hills:

- Use a low gear and keep a firm grip on the steering wheel.
- Maintain a slow speed.

- When possible, drive straight up or down the hill.
- Slow down when approaching the top of the hill.
- Use headlamps even during the day to make the vehicle more visible.

⚠ Warning

Driving to the top of a hill at high speed can cause a crash. There could be a drop-off, embankment, cliff, or even another vehicle. You could be seriously injured or killed. As you near the top of a hill, slow down and stay alert.

- Never go downhill forward or backward with the transmission in N (Neutral). The brakes could overheat and you could lose control.
- When driving down a hill, keep the vehicle headed straight down. Use a low gear because the engine will work with the brakes to slow the vehicle and help keep the vehicle under control.

⚠ Warning

Heavy braking when going down a hill can cause your brakes to overheat and fade. This could cause loss of control and you or others could be injured or killed. Apply the brakes lightly when descending a hill and use a low gear to keep vehicle speed under control.

If the vehicle stalls on a hill:

- 1. Apply the brakes to stop the vehicle, and then apply the parking brake.
- 2. Shift into P (Park) and then restart the engine.
 - If driving uphill when the vehicle stalls, shift to R (Reverse), release the parking brake, and back straight down.
 - Never try to turn the vehicle around.
 If the hill is steep enough to stall the
 vehicle, it is steep enough to cause it
 to roll over.
 - If you cannot make it up the hill, back straight down the hill.

- Never back down a hill in N (Neutral) using only the brake. The vehicle can roll backward quickly and you could lose control
- If driving downhill when the vehicle stalls, shift to a lower gear, release the parking brake, and drive straight down the hill.
- If the vehicle cannot be restarted after stalling, set the parking brake, shift into P (Park), and turn the vehicle off.
 - 3.1 Leave the vehicle and seek help.
 - 3.2 Stay clear of the path the vehicle would take if it rolled downhill.
- Avoid turns that take the vehicle across the incline of the hill. A hill that can be driven straight up or down might be too steep to drive across. Driving across an incline puts more weight on the downhill wheels which could cause a downhill slide or a rollover.
- Surface conditions can be a problem. Loose gravel, muddy spots, or even wet grass can cause the tires to slip sideways, downhill. If the vehicle slips sideways, it can hit something that will trip it — a rock, a rut, etc. — and roll over.

- Hidden obstacles can make the steepness of the incline more severe. If a rock is driven across with the uphill wheels, or if the downhill wheels drop into a rut or depression, the vehicle can tilt even more.
- If an incline must be driven across, and the vehicle starts to slide, turn downhill. This should help straighten out the vehicle and prevent the side slipping.

⚠ Warning

Getting out of the vehicle on the downhill side when stopped across an incline is dangerous. If the vehicle rolls over, you could be crushed or killed. Always get out on the uphill side of the vehicle and stay well clear of the rollover path.

Driving in Mud, Sand, Snow, or Ice

Use a low gear when driving in mud — the deeper the mud, the lower the gear. Keep the vehicle moving to avoid getting stuck.

Traction changes when driving on sand. On loose sand, such as on beaches or sand dunes, the tires tend to sink into the sand. This affects

steering, accelerating, and braking. Drive at a reduced speed and avoid sharp turns or abrupt maneuvers.

Traction is reduced on hard packed snow and ice and it is easy to lose control. Reduce vehicle speed when driving on hard packed snow and ice.

Driving on frozen lakes, ponds, or rivers can be dangerous. Ice conditions vary greatly and the vehicle could fall through the ice; you and your passengers could drown. Drive your vehicle on safe surfaces only.

Driving in Water

⚠ Warning

Driving through rushing water can be dangerous. Deep water can sweep your vehicle downstream and you and your passengers could drown. If it is only shallow water, it can still wash away the ground from under your tires. Traction could be lost, and the vehicle could roll over. Do not drive through rushing water.

Caution

Do not drive through standing water if it is deep enough to cover the wheel hubs, axles, or exhaust pipe. Deep water can damage the axle and other vehicle parts.

If the standing water is not too deep, drive through it slowly. At faster speeds, water can get into the engine and cause it to stall. Stalling can occur if the exhaust pipe is under water. Do not turn off the ignition when driving through water. If the exhaust pipe is under water, the engine will not start. When going through water, the brakes get wet and it may take longer to stop. See *Driving on Wet Roads*

⇒ 153 later in this section.

After Off-Road Driving

Remove any brush or debris that has collected on the underbody or chassis, or under the hood. These accumulations can be a fire hazard.

After operation in mud or sand, have the brake linings cleaned and checked. These substances can cause glazing and uneven braking. Check the body structure, steering,

suspension, wheels, tires, and exhaust system for damage and check the fuel lines and cooling system for any leakage.

Morefrequent maintenance service is required. See *Maintenance Schedule* ♀ 276.

Driving on Wet Roads

Rain and wet roads can reduce vehicle traction and affect your ability to stop and accelerate. Always drive slower in these types of driving conditions and avoid driving through large puddles and deep-standing or flowing water.

⚠ Warning

Wet brakes can cause crashes. They might not work as well in a quick stop and could cause pulling to one side. You could lose control of the vehicle

After driving through a large puddle of water or a car/vehicle wash, lightly apply the brake pedal until the brakes work normally.

(Continued)

Warning (Continued)

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 wiping equipment in good shape.
- Keep the windshield washer fluid reservoir filled
- Have good tires with proper tread depth.
 See Tires ⇒ 243.
- Turn off cruise control.

Hill and Mountain Roads

Driving on steep hills or through mountains is different than driving on flat or rolling terrain. Tips include:

- Keep the vehicle serviced and in good shape.
- Check all fluid levels and brakes, tires, and cooling system.
- Shift to a lower gear when going down steep or long hills.

⚠ Warning

Using the brakes to slow the vehicle on a long downhill slope can cause brake overheating, can reduce brake

(Continued)

Warning (Continued)

performance, and could result in a loss of braking. Shift the transmission to a lower gear to let the engine assist the brakes on a steep downhill slope.

⚠ Warning

Coasting downhill in N (Neutral) or with the ignition off is dangerous. This can cause overheating of the brakes and loss of steering assist. Always have the engine running and the vehicle in gear.

- Drive at speeds that keep the vehicle in its own lane. Do not swing wide or cross the center line
- Be alert on top of hills; something could be in your lane (e.g., stalled car, crash).
- Pay attention to special road signs (e.g., falling rocks area, winding roads, long grades, passing or no-passing zones) and take appropriate action.

Winter Driving

Driving on Snow or Ice

Caution

To avoid damage to the wheels and brake components, always clear snow and ice from inside the wheels and underneath the vehicle before driving.

Snow or ice between the tires and the road creates less traction or grip, so drive carefully. Wet ice can occur at about 0 °C (32 °F) when freezing rain begins to fall. Avoid driving on wet ice or in freezing rain until roads can be treated.

For Slippery Road Driving:

- Accelerate gently. Accelerating too quickly causes the wheels to spin and makes the surface under the tires slick.
- Turn on Traction Control. See Traction Control/Electronic Stability Control

 172.
- 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)

 169.

- Allow greater following distance and watch for slippery spots. Icy patches can occur on otherwise clear roads in shaded areas. The surface of a curve or an overpass can remain icy when the surrounding roads are clear. Avoid sudden steering maneuvers and braking while on ice.
- Turn off cruise control.
- Select Snow/Ice mode for Front-Wheel Drive (FWD) or AWD mode for All-Wheel Drive (AWD). See *Driver Mode Control*
 ⇒ 174 and All-Wheel Drive ⇒ 169

Blizzard Conditions

Stop the vehicle in a safe place and signal for help. Stay with the vehicle unless there is help nearby. To get help and keep everyone in the vehicle safe:

- Turn on the hazard warning flashers.
- Tie a red cloth to an outside mirror.

⚠ Warning

Snow can trap engine exhaust under the vehicle. This may cause exhaust gases to get inside. Engine exhaust contains carbon monoxide (CO), which cannot be seen or smelled. It can cause unconsciousness and even death.

If the vehicle is stuck in snow:

- Clear snow from the base of the vehicle, especially any blocking the exhaust pipe.
- Open a window about 5 cm (2 in) on the vehicle side that is away from the wind, to bring in fresh air.
- Fully open the air outlets on or under the instrument panel.
- Adjust the climate control system to circulate the air inside the vehicle and set the fan speed to the highest setting. See "Climate Control Systems."

For more information about CO, see *Engine Exhaust* ⇒ 164.

To save fuel, run the engine for short periods to warm the vehicle and then shut the engine off and partially close the window. Moving about to keep warm also helps.

If it takes time for help to arrive, when running the engine, push the accelerator pedal slightly so the engine runs faster than the idle speed. This keeps the battery charged to restart the vehicle and to signal for help with the headlamps. Do this as little as possible, to save fuel.

If the Vehicle Is Stuck

Slowly and cautiously spin the wheels to free the vehicle when stuck in sand, mud, ice, or snow.

If stuck too severely for the traction system to free the vehicle, turn the traction system off and use the rocking method. See *Traction Control/Electronic Stability Control* 772.

⚠ Warning

If the vehicle's tires spin at high speed, they can explode, and you or others could be injured. The vehicle can overheat, (Continued)

Warning (Continued)

causing an engine compartment fire or other damage. Spin the wheels as little as possible and avoid going above 56 km/h (35 mph).

If equipped, select All-Wheel Drive (AWD) Mode. See All-Wheel Drive ⇒ 169.

Rocking the Vehicle to Get it Out

Turn the steering wheel left and right to clear the area around the front wheels. Turn off anu traction sustem. Shift back and forth between R (Reverse) and a low forward gear, spinning the wheels as little as possible. To prevent transmission wear, wait until the wheels stop spinning before shifting gears. Release the accelerator pedal while shifting, and press lightly on the accelerator pedal when the transmission is in gear. Slowly spinning the wheels in the forward and reverse directions causes a rocking motion that could free the vehicle. If that does not get the vehicle out after a few tries, it might need to be towed out. If the vehicle does need to be towed out, see Transporting a Disabled Vehicle \$\simeq\$ 262.

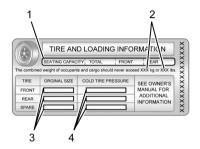
Vehicle Load Limits

It is very important to know how much weight the vehicle can carry. This weight is called the vehicle capacity weight and includes the weight of all occupants, cargo, and all nonfactory-installed options. Two labels on the vehicle may show how much weight it may properly carry, the Tire and Loading Information label and the Certification/Tire label.

Marning

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.

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* ⇒ 243 and *Tire Pressure* ⇒ 244.

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.

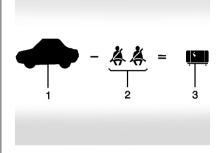
Steps for Determining Correct Load Limit

- 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.
- Subtract the combined weight of the driver and passengers from XXX kg or XXX lbs.
- 4. The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the "XXX"

amount equals 1400 lbs. and there will be five 150 lb passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lbs. (1400-750 (5 x 150) = 650 lbs.)

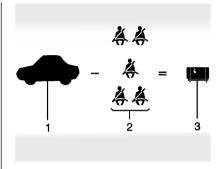
- 5. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.
- 6. If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.

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.



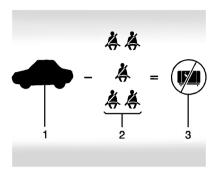
Example 1

- Vehicle Capacity Weight for Example 1 = 453 kg (1,000 lb)
 Then subtract Accessory Weight, for example a rooftop cargo box = 15.8 kg (35 lb)
- 2. Subtract Occupant Weight @ 68 kg (150 lb) × 2 = 136 kg (300 lb)
- 3. Remaining available capacity for Cargo Weight = 301.2 kg (665 lb)



Example 2

- 1. Vehicle Capacity Weight for Example 2 = 453 kg (1,000 lb)
 - Then subtract Accessory Weight, for example a rooftop cargo box = 18.1 kg (40 lb)
- Subtract Occupant Weight @ 68 kg (150 lb) x 5 = 340 kg (750 lb)
- 3. Remaining available capacity for Cargo Weight = 94.9 kg (210 lb)

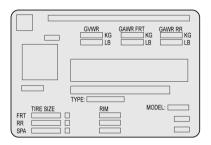


Example 3

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

Refer to the vehicle's tire and loading information label for specific information about the vehicle's capacity weight and seating positions. The combined weight of the driver, passengers, accessories, and cargo should never exceed the vehicle's capacity weight.

Certification/Tire Label



Label Example

A vehicle-specific Certification/Tire label is attached to the center pillar (B-pillar).

The label may show the size of the vehicle's original tires and the inflation pressures needed to obtain the gross weight capacity of the vehicle. The label shows the gross weight capacity of the vehicle. This is called the Gross Vehicle Weight Rating (GVWR). The GVWR includes the weight of the vehicle, all occupants, fuel, and cargo.

The Certification/Tire label may also show the maximum weights for the front and rear axles, called the Gross Axle Weight Rating (GAWR). To find out the actual loads on the front and rear axles, weigh the vehicle at a weigh station. Your dealer can help with this. Be sure to spread the load equally on both sides of the centerline.

Caution

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

⚠ Warning

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

(Continued)

Warning (Continued)

- Put things in the cargo area of the vehicle. In the cargo area, put them as far forward as possible. Try to spread the weight evenly.
- Never stack heavier things, like suitcases, inside the vehicle so that some of them are above the tops of the seats.
- Do not leave an unsecured child restraint in the vehicle.
- Secure loose items in the vehicle.
- Do not leave a seat folded down unless needed.

Starting and Operating New Vehicle Break-In

Caution

The vehicle does not need an elaborate break-in. But it will perform better in the long run if you follow these guidelines:

- Do not drive at any one constant speed, fast or slow, for the first 800 km (500 mi). Do not make full-throttle starts. Avoid downshifting to brake or slow the vehicle.
- Avoid making hard stops for the first 300 km (200 mi) or so. During this time the new brake linings are not yet broken in. Hard stops with new linings can mean premature wear and earlier replacement. Follow this breaking-in guideline every time you get new brake linings.
- Do not tow a trailer during break-in.
 See Trailer Towing \$\Display\$ 211 for the trailer towing capabilities of the vehicle and more information.

(Continued)

Caution (Continued)

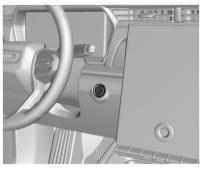
Following break-in, engine speed and load can be gradually increased.

On new vehicles, the various mechanical and electrical systems experience a "break-in" period during the first 6 400 km (4,000 mi) of routine driving. As the vehicle is driven, the mechanical systems adjust to provide optimal fuel economy and transmission shift performance.

Electrical systems will adapt and calibrate during the break-in period. A one-time occurrence of clicks and similar vehicle noises is normal during this process.

Normal driving charges the vehicle's battery to achieve the best operation of the vehicle, including fuel economy and the Stop/Start System. See Stop/Start System \$ 162.

Ignition Positions



This vehicle has pushbutton starting.

The remote key must be in the vehicle for the system to operate. If the pushbutton start is not working, the vehicle may be near a strong radio antenna signal causing interference to the Keyless Access system. See *Remote Key Operation* ▷ 7.

To shift out of P (Park), the ignition must be on or in Service Mode and the brake pedal must be applied.

Stopping the Engine/OFF (No Indicator Lights): When the vehicle is stopped, press ENGINE START/STOP once to turn the engine off.

If the vehicle is not in P (Park), the ignition will return to accessory mode and display the message SHIFT TO PARK in the Driver Information Center (DIC). When the vehicle is shifted into P (Park), the ignition will turn off.

Do not turn the engine off when the vehicle is moving. This will cause a loss of power assist in the brake and steering systems and disable the airbags.

If the vehicle must be shut off in an emergency:

- Brake using a firm and steady pressure. Do not pump the brakes repeatedly. This may deplete power assist, requiring increased brake pedal force.
- 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 the ignition off. The shift lever must be in P (Park) to turn the ignition off.

4. Set the parking brake. See *Electric Parking* Brake \$\phi\$ 170.

⚠ Warning

Turning off the vehicle while moving may cause loss of power assist in the brake and steering systems and disable the airbags. While driving, only shut the vehicle off in an emergency.

If the vehicle cannot be pulled over, and must be shut off while driving, press and hold ENGINE START/STOP for longer than two seconds, or press twice in five seconds.

Accessory Mode (Amber Indicator Light): This mode allows some electrical accessories to be used when the engine is off.

With the ignition off, pressing the button one time without the brake pedal applied will place the ignition system in accessory mode.

The ignition will switch from accessory mode to OFF after five minutes to prevent battery rundown.

ON/RUN/START (Green Indicator Light): This mode is for driving and starting. With the ignition off, and the brake pedal applied, pressing the button once will place the

ignition system in ON/RUN/START. Once engine cranking begins, release the button. Engine cranking will continue until the engine starts. See *Starting the Engine* ❖ *161*. The ignition will then remain in ON/RUN.

Service Mode

This power mode is available for service and diagnostics, and to verify the proper operation of the malfunction indicator lamp as may be required for emission inspection purposes. With the vehicle off, and the brake pedal not applied, pressing and holding ENGINE START/STOP for more than five seconds will place the vehicle in Service Mode. The instruments and audio systems will operate as they do in ON/RUN, but the vehicle will not be able to be driven. The engine will not start in Service Mode. Press the button again to turn the vehicle off.

Starting the Engine

Move the shift lever to P (Park) or N (Neutral). To restart the engine when the vehicle is already moving, use N (Neutral) only.

Caution

Do not try to shift to P (Park) if the vehicle is moving. If you do, you could damage the transmission. Shift to P (Park) only when the vehicle is stopped.

Caution

If you add electrical parts or accessories, you could change the way the vehicle operates. Any resulting damage would not be covered by the vehicle warranty.

Engine Starting Procedure

 With the Keyless Access system, the remote key must be in the vehicle. Press ENGINE START/STOP with the brake pedal applied. When the engine begins cranking, let go of the button.

The idle speed will go down as the engine gets warm. Do not race the engine immediately after starting it.

If the remote key is not in the vehicle, if there is interference, or if the remote key battery is low, a Driver Information Center (DIC) will display a message.

Caution

Cranking the engine for long periods of time, by trying to start the engine immediately after cranking has ended, can overheat and damage the cranking motor, and drain the battery. Wait at least 15 seconds between each try, to let the cranking motor cool down.

2. If the engine does not start after 5 to 10 seconds, especially in very cold weather (below -18 °C or 0 °F), it could be flooded with too much gasoline. Try pushing the accelerator pedal all the way to the floor and holding it there as you press ENGINE START/STOP. Wait at least 15 seconds between each tru, to allow the cranking motor to cool down. When the engine starts, release the accelerator. If the vehicle starts briefly but then stops again, do the same thing. This clears the extra gasoline from the engine. Do not race the engine immediately after starting it. Operate the engine and transmission gently until the oil warms up and lubricates all moving parts.

Stop/Start System

The Stop/Start system shuts off the engine to help conserve fuel. The system is designed to manage the increased number of starts.

⚠ Warning

The automatic engine Stop/Start feature causes the engine to shut off while the vehicle is still on. Do not exit the vehicle before shifting to P (Park). The vehicle may restart and move unexpectedly. Always shift to P (Park), and then turn the ignition off before exiting the vehicle.

Auto Engine Stop/Start

When the brakes are applied and the vehicle is at a complete stop, the engine may turn off. When stopped, the tachometer displays AUTO STOP. When the brake pedal is released or the accelerator pedal is pressed, the engine will restart.

To maintain vehicle performance, other conditions may cause the engine to automatically restart before the brake pedal is released.

Auto Stops may not occur and/or auto restarts may occur because:

- The climate control settings require the engine to be running to cool or heat the vehicle interior.
- The vehicle battery needs to charge.
- The vehicle battery has recently been disconnected.
- Minimum vehicle speed has not been reached since the last Auto Stop
- The accelerator pedal is pressed.
- The engine or transmission is not at the required operating temperature.
- The outside temperature is not in the required operating range.
- The vehicle is shifted out of D (Drive).
- Certain driver modes have been selected.
- The vehicle is on a steep hill or grade.
- The driver door has been opened or driver seat belt has been unbuckled.
- The hood has been opened.
- The Auto Stop has reached the maximum allowed time.

Auto Stop Disable Switch



The automatic engine Stop/Start feature can be disabled and enabled by pressing (A). Auto Stop/Start is enabled each time you start the vehicle.

When the A indicator is illuminated, the system is enabled.

Retained Accessory Power (RAP)

When the vehicle is turned from on to off, the following features (if equipped) will continue to function for up to 10 minutes, or until the driver door is opened. These features will also work when the vehicle is on or in accessory mode:

- Infotainment System
- Power Windows (during RAP this functionality will be lost when any door is opened)
- Sunroof (during RAP this functionality will be lost when any door is opened)
- Auxiliary Power Outlet
- Audio System
- OnStar System

Shifting Into Park

- 1. Hold the brake pedal down and set the parking brake. See *Electric Parking Brake*

 ⇒ 170.
- 2. Press the P (Park) Switch at the end of the shift lever.
- 3. The P indicator on the shift lever will turn red when the vehicle is in P (Park).
- 4. Turn the vehicle off.

Leaving the Vehicle with the Engine Running



It can be dangerous to leave the vehicle with the engine running. It could overheat and catch fire.

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

Do not leave the vehicle when the engine is running. If you have left the engine running, the vehicle can move suddenly. You or others could be injured. To be sure the vehicle will not move, even when you are on fairly level ground, always set the parking brake and shift to P (Park).

If you have to leave the vehicle with the engine running, be surethe vehicle is in P (Park) and the parking brake is set before you leave it. After pressing the P (Park) button, hold the regular brake pedal down. If you cannot see the P (Park) indicator in the instrument cluster, it means that the vehicle has not shifted to P (Park).

Shifting out of Park

This vehicle is equipped with an electronic shift lock release system. The shift lock release is designed to prevent movement of the shift lever out of P (Park), unless the ignition is on and the brake pedal is applied.

The shift lock release is always functional except in the case of an uncharged or low voltage (less than 9 volt) battery.

If the vehicle has an uncharged battery or a battery with low voltage, try charging or jump starting the battery. See *Jump Starting*

⇒ 260 for more information.

To shift out of P (Park):

- 1. Apply the brake pedal.
- 2. Release the parking brake. See *Electric* Parkina Brake \$\psi\$ 170.
- 3. Move the shift lever to the desired position.

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

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

If the vehicle cannot shift from P (Park), a Driver Information Center (DIC) message may be displayed. Check that the vehicle is on, 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.

Parking over Things That Burn



Things that can burn could touch hot exhaust parts under the vehicle and ignite. Do not park over papers, leaves, dry grass, or other things that can burn.

Extended Parking

It is best not to park with the vehicle running. If the vehicle is left running, be sure it will not move and there is adequate ventilation.

See Shifting Into Park \$\simeq\$ 163 and Engine Exhaust \$\simeq\$ 164.

If the vehicle is left parked and running with the remote key outside the vehicle, it will continue to run for up to 15 minutes.

If the vehicle is left parked and running with the remote key inside the vehicle, it will continue to run for up to 30 minutes.

The vehicle could turn off sooner if it is parked on a hill, due to lack of available fuel.

The timer will reset if the vehicle is taken out of P (Park) while it is running.

Engine Exhaust

Marning

Engine exhaust contains carbon monoxide (CO), which cannot be seen or smelled. Exposure to CO can cause unconsciousness and even death.

Exhaust may enter the vehicle if:

- The vehicle idles in areas with poor ventilation (parking garages, tunnels, deep snow that may block underbody airflow or tail pipes).
- The exhaust smells or sounds strange or different.

(Continued)

Warning (Continued)

- The exhaust system leaks due to corrosion or damage.
- The vehicle exhaust system has been modified, damaged, or improperly repaired.
- There are holes or openings in the vehicle body from damage or aftermarket modifications that are not completely sealed.

If unusual fumes are detected or if it is suspected that exhaust is coming into the vehicle:

- Drive it only with the windows completely down.
- Have the vehicle repaired immediately.

Never park the vehicle with the engine running in an enclosed area such as a garage or a building that has no fresh air ventilation.

Running the Vehicle While Parked

It is better not to park with the engine running.

If the vehicle is left with the engine running, follow the proper steps to be sure the vehicle will not move. See Shifting Into Park → 163 and Engine Exhaust → 164.

If parking on a hill and pulling a trailer, see Driving Characteristics and Towing Tips \$\sip\$ 208.

Automatic Transmission



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.

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

⚠ Warning

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

Do not leave the vehicle when the engine is running. If you have left the engine running, the vehicle can move suddenly.

(Continued)

Warning (Continued)

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 shift to P (Park).

If ENGINE START/STOP is pressed twice while at a relatively high speed, the vehicle will turn off and automatically shift to N (Neutral). When the vehicle is stopped, P (Park) can be selected

Service Shift Lever Message

If the message SERVICE SHIFTER SEE OWNER'S MANUAL appears in the Driver Information Center (DIC), the shifter needs service. Have the vehicle serviced as soon as possible. If the vehicle is automatically shifting into P (Park), check to see if the P (Park) button is stuck. To operate the vehicle, hold the shift lever in the desired gear, R (Reverse) or D (Drive), until vehicle speeds exceed 16 km/h (10 mph), then release the shift lever.

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

When the vehicle is stopped, press ENGINE START/STOP 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.

To shift in and out of P (Park), see "Shifting Into Park" and "Shifting out of Park."

R: Use this gear to back up.

If the vehicle is shifted from either R (Reverse) to D (Drive) or L (Low), or D (Drive) or L (Low) 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. Ris 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.
- 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 transmission. See "If the Vehicle Is Stuck."

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):

- 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. Car Wash Mode is not to be used for vehicle towing. If the vehicle needs to be towed, see "Transporting a Disabled Vehicle."

Caution

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

Car Wash Mode (Vehicle Off) – Driver In Vehicle

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

- 1. Drive to the entrance of the car wash.
- 2. Apply the brake pedal.
- 3. Shift to N (Neutral).

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

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

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

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

Car Wash Mode (Vehicle On) - Driver In Vehicle

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

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

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

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

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

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

Caution

A transmission hot message may display if the automatic transmission fluid is too hot. Driving under this condition can damage the vehicle. Stop and idle the engine to cool the automatic transmission fluid. This message clears when the transmission fluid has cooled sufficiently.

Caution

Spinning the tires or holding the vehicle in one place on a hill using only the accelerator pedal may damage the transmission. The repair will not be covered by the vehicle warranty. If the vehicle is stuck, do not spin the tires. When stopping on a hill, use the brakes to hold the vehicle in place.

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

L: This position provides additional coast braking for driving downhill, towing a trailer, or hauling a heavy load.

To use L (Low):

- 1. Ensure the vehicle is in D (Drive).
- 2. Press L (Low) on the steering wheel.

To exit L (Low) and shift into D (Drive): At any speed, shift to D (Drive) or press L on the steering wheel.

To exit L (Low) and shift into N (Neutral): At any speed, shift to N (Neutral).

To exit L (Low) and shift into P (Park) or R (Reverse):

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

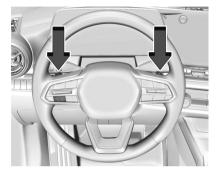
Cruise control can be used while the vehicle is in L (Low) mode.

Manual Mode

Tap Shift

Caution

Driving with the engine at a high rpm without upshifting while using Tap Shift, could damage the vehicle. Always upshift when necessary while using Tap Shift.



Electronic Range Select (ERS), or Manual Mode, allows for the selection of the range of gear positions. Use this mode when driving downhill or towing a trailer to limit the top gear and vehicle speed. The shift position indicator within the Driver Information Center (DIC) will display a number next to the L indicating the highest available gear.

To enter ERS or Manual Mode:

 With the vehicle in D (Drive), press L (Low) button on steering wheel. The L in the shift pattern will illuminate in red, and the D will switch to white.

- Tap the left steering wheel control to reduce the highest gear available, or the right control to increase the highest gear available.
- To exit L (Low) and shift into D (Drive), shift to D (Drive) or press L (Low) button. The D in the shift pattern will illuminate in red, and the L will switch to white.

When shifting to L (Low), the transmission will shift to a preset lower gear range. For this preset range, the highest gear available will be displayed next to the L in the DIC. See *Driver Information Center (DIC)* ⇒ 99. All gears below that number are available to use. For example, when 4 (Fourth) is shown next to the L, 1 (First) through 4 (Fourth) gears are shifted automatically. To shift to 5 (Fifth) gear, tap the right steering wheel control or shift into D (Drive).

L (Low) will prevent shifting to a lower gear range if the engine speed is too high. If the vehicle speed is not reduced within the time allowed, the lower gear range shift will not be completed. Slow the vehicle, then tap the left steering wheel control to the desired lower gear range.

Cruise control can be used while in ERS.

Drive Systems All-Wheel Drive

Vehicles with this feature can operate in All-Wheel Drive (AWD) Mode.



Press the switch to select AWD.

See Driver Mode Control \$\sip\$ 174.

When operated in two-wheel drive, the vehicle will deliver power to the front wheels only and may provide better fuel economy.

When using a compact spare tire on an AWD vehicle, the system automatically detects the compact spare and reduces AWD performance to protect the system. To restore full AWD operation and prevent excessive wear on the

system, replace the compact spare with a fullsize tire as soon as possible. See *Compact Spare Tire* ▷ 260

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 prevent a braking skid and maintain steering while braking hard.



If there is a problem with ABS, this warning light stays on. See Antilock Brake System (ABS) Warning Light ♀ 93.

ABS does not change the time needed to get a foot on the brake pedal and does not always decrease stopping distance. If you get too close to the vehicle ahead, there will not be enough time to apply the brakes if that vehicle suddenly slows or stops. Always leave enough room ahead to stop, even with ABS.

Using ABS

Do not pump the brakes. Just hold the brake pedal down firmly. Hearing and feeling ABS operate is normal.

Braking in Emergencies

ABS allows steering and braking at the same time. In many emergencies, steering can help even more 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* ♥ 93 and *Service Electric Parking Brake Light* ♥ 93. 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

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 FPR

If the EPB fails to apply, block the rear wheels to prevent vehicle movement.

EPB Release

To release the FPB:

- 1. Turn the ignition on or to ACC/ACCESSORY.
- 2. Apply and hold the brake pedal.
- 3. Press the EPB switch momentarily.

The EPB is released when the 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.

Caution

Driving with the parking brake on can overheat the brake system and cause premature wear or damage to brake system parts. Make sure that the parking brake is fully released and the brake warning light is off before driving.

Automatic EPB Release

The EPB will automatically release if the vehicle is running, placed into gear, and an attempt is made to drive away. Avoid rapid acceleration when the EPB is applied, to preserve parking brake lining life.

Brake Assist

Brake Assist detects rapid brake pedal applications due to emergency braking situations and provides additional braking to activate the Antilock Brake System (ABS) if the brake pedal is not pushed hard enough to activate ABS 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 relu on the HSA feature. HSA does not replace the need to pay attention and drive safelu. 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 \$\sime\$ 147.

When the vehicle is stopped on a grade, Hill Start Assist (HSA) temporarily 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 or automatically release after a few seconds. 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.

Ride Control Systems Traction Control/Electronic Stability Control

System Operation

The vehicle has a Traction Control System (TCS) and StabiliTrak/Electronic Stability Control (ESC). These systems help limit wheel spin and assist the driver in maintaining control, especially on slippery road conditions.

TCS activates if it senses that any of the drive wheels are spinning or beginning to lose traction. When this happens, TCS applies the brakes to the spinning wheels and reduces engine power to limit wheel spin.

StabiliTrak/ESC activates when the vehicle senses a difference between the intended path and the direction the vehicle is actually traveling. StabiliTrak/ESC selectively applies braking pressure to any one of the vehicle wheel brakes to assist the driver in keeping the vehicle on the intended path.

If cruise control is being used and TCS or StabiliTrak/ESC begins to limit wheel spin, cruise control will disengage. Cruise control may be turned back on when road conditions allow.

Both systems come on automatically when the vehicle is started and begins to move. The systems may be heard or felt while they are operating or while performing diagnostic checks. This is normal and does not mean there is a problem with the vehicle.

It is recommended to leave both systems on for normal driving conditions, but it may be necessary to turn TCS off if the vehicle gets stuck in sand, mud, ice, or snow. See *If the Vehicle Is Stuck* ▷ 155 and "Turning the Systems Off and On" later in this section.



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

- Flash when TCS is limiting wheel spin.
- Flash when StabiliTrak/ESC is activated.
- Turn on and stay on when either system is not working. See Traction Control System (TCS)/StabiliTrak Light

 95.

If either system fails to turn on or to activate, a message displays in the Driver Information Center (DIC), and $\stackrel{>}{\sim}$ comes on and stays on to indicate that the system is inactive and is not assisting the driver in maintaining control. Adjust driving accordingly.

If ${\begin{subarray}{l} \mathcal{R} comes on and stays on:} \end{subarray}}$

- 1. Stop the vehicle.
- 2. Turn the engine off and wait 15 seconds.
- 3. Start the engine.

Drive the vehicle. If $\stackrel{\frown}{\approx}$ comes on and stays on, see your dealer as soon as possible.

Turning the Systems Off and On

Caution

Do not repeatedly brake or accelerate heavily when TCS is off. The vehicle driveline could be damaged.

To turn Traction (TCS) on and off, in the Controls app on the infotainment home screen, select Controls > DRIVE & PARK > Traction Control. To turn StabiliTrak/ESC on or off, select > next to the Traction Control menu.

The following options appear:

- Traction Control Off
- Traction Control and ESC Off
- Traction Control and ESC On

The traction off light ⊕ displays in the instrument cluster when the traction control is turned off. When the traction control is turned back on, the traction off light ⊕ displayed in the instrument cluster will turn off. See Traction Off Light ➡ 95.

If TCS is actively limiting wheel spin when disabled, the system will not turn off until the wheels stop spinning. To turn StabiliTrak/ESC off, select > next to the Traction Control menu. Select the Traction Control and ESC Off option. The StabiliTrak/ESC off light ♣ will display in the instrument cluster. See Electronic Stability Control (ESC) Off Light ▷ 96.

StabiliTrak/ESC will automatically turn on if the vehicle exceeds 56 km/h (35 mph) and cannot be turned off again until speed is reduced.

Hill Descent Control (HDC)

HDC can be used when driving downhill. It sets and maintains vehicle speed while descending a very steep incline in a forward or reverse gear. HDC can be enabled or disabled on the infotainment screen. Vehicle speed must be below 35km/h (22 mph).



The HDC light displays on the instrument cluster when enabled

HDC can maintain vehicle speeds between 1.1 and 35 km/h (1 and 22 mph) on an incline greater than or equal to a 10% grade. A blinking HDC light indicates the system is actively applying the brakes to maintain vehicle speed.

When HDC is activated, the initial HDC speed is set to the current driving speed. It can be increased or decreased by pressing +RES or –SET on the steering wheel or by applying the accelerator or brake pedal. This adjusted speed becomes the new set speed.

HDC will remain enabled between 35 and 60 km/h (22 and 37 mph); however vehicle speed cannot be set or maintained in this range. It will automatically disable if the vehicle speed is above 80 km/h (50 mph) or above 60 km/h (37 mph) for at least 30 seconds. Press again to re-enable HDC.

Driver Mode Control

Driver Mode Control (DMC) allows the driver to adjust the overall driving experience to better suit driver preference by adjusting vehicle systems to fit specific driving needs. Drive Mode availability and affected vehicle systems are dependent on vehicle trim level, region, and optional features.



Driver Mode Control Switch

Mode Activation

Rotate the Driver Mode Control knob on the center console to make a mode selection.
Continue turning the knob through the available modes.

Mode Descriptions

Normal 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, engine sound, if equipped.

Snow/Ice Mode: Snow/Ice mode improves vehicle acceleration on snow covered roads. When active, Snow/Ice mode adjusts pedal tuning to optimize traction on slippery surfaces. This can affect the acceleration on dry asphalt.

Off-Road Mode: Use this mode for off-road recreational driving. Off-Road Mode should be used to improve driving at moderate speeds, on grass, gravel, dirt, unpaved roads, or snow-covered roads. The accelerator pedal is tuned for off-road use. This mode modifies Electronic Stability Control (ESC), and Traction Control System (TCS) Performance.

Tow/Haul Mode: This feature can assist when towing a heavy load. Use this mode to assist in maintaining desired vehicle speeds when driving on downhill grades by using the engine and transmission. When active, Tow/Haul mode modifies transmission shifting, suspension tuning, steering effort, and Trailer Sway Control. For AWD vehicles, choosing Tow/Haul mode also engages AWD.

Automatic Engine Grade Braking

Automatic Engine Grade Braking assists when driving downhill. It maintains vehicle speed by automatically implementing a shift pattern that uses the engine and transmission to slow the vehicle. The system will automatically command downshifts to reduce vehicle speed. The normal shift pattern will return once the vehicle is on a low grade or when the accelerator pedal is pressed.

While in the Electronic Range Select mode, grade braking is deactivated, allowing the driver to select a range and limiting the highest gear available. Grade braking is available for normal driving and in Tow/Haul mode.



AWD Mode: AWD mode provides drive torque to all four wheels. Select AWD to improve traction and control on slippery road surfaces, such as gravel, sand, wet pavement, snow, and ice.

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 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 camera and radar sensors.

If a vehicle is detected in your path, ACC can speed up the vehicle or apply limited, moderate braking to maintain the selected following gap. To disengage ACC, apply the brake. If ACC is controlling your vehicle speed when the traction control system (TCS) or StabiliTrak electronic stability control system activates, ACC may automatically disengage. See *Traction Control/Electronic*

Stability Control

→ 172. 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" 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* ❖ 147.

⚠ 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.
- Towing a trailer



- : Press to turn the system on or off. The indicator turns white on the instrument cluster when ACC is turned on.
- **+RES:** Press briefly to resume the previous set speed or to increase vehicle speed if ACC is already activated.
- **-SET:** Press briefly to set the speed and activate ACC or to decrease vehicle speed if ACC is already activated.
- Press to disengage ACC without erasing the selected set speed from memory.
- : Press to select a following gap time (or distance) setting for ACC of Far, Medium, or Near.

The speedometer reading can be displayed in either English or metric units. 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.





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, SET-/+RES could be pressed by mistake and engage ACC when not desired. Keep off when cruise is not being used.

Select the set speed desired for ACC. This is the vehicle speed when no vehicle is detected in its path.

While the vehicle is moving, ACC will not set at a speed below a minimum speed, although it can be resumed. The minimum allowable set speed is 25 km/h (15 mph).

To set ACC while moving:

- 1. Press (5).
- 2. Get up to the desired speed.
- 3. Press and release -SET.
- 4. Remove your 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.

The ACC indicator displays on the instrument cluster. When ACC is turned on, the indicator will be lit white. When ACC is engaged, the indicator will turn green.

Be mindful of speed limits, surrounding traffic speeds, and weather conditions when selecting the set speed.

Resuming a Set Speed

If the ACC is set at a desired speed and then the brakes are applied, the 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.
- Press and hold +RES until the desired set speed appears on the display, then release it.
- To increase vehicle speed in small increments, press +RES to the first detent.
- To increase vehicle speed in larger increments, press +RES to the second detent.
- The set speed can also be increased while the vehicle is stopped.
- If stopped with the brake applied, press +RES until the desired set speed is displayed.

- If ACC is holding the vehicle at a stop and there is another vehicle directly ahead, pressing +RES will increase the set speed.
- Pressing +RES when there is no longer a vehicle ahead or the vehicle ahead is pulling away and the brake is not applied will cause the ACC to resume.

When it is determined that there is no vehicle ahead, or the vehicle ahead is beyond the selectfollowing 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 displayed, then release it.
- To decrease the vehicle speed in smaller increments, press –SET to the first detent.
- To decrease speed in larger increments, press –SET to the second detent.

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. Subsequent presses cycle the gap button through three settings: Far, Medium, or Near. The gap setting will be maintained until it is changed.

Since each gap setting corresponds to a following time (Far, Medium, or Near), the following distance will vary based on vehicle speed. The faster the vehicle speed, the further back your vehicle will follow a vehicle detected ahead. Consider traffic and weather conditions

when selecting the following gap. The range of selectable gaps may not be appropriate for all drivers and driving conditions.

Changing the gap setting automatically changes the alert timing sensitivity (Far, Medium, or Near) for the Forward Collision Alert (FCA) feature. See Forward Collision Alert (FCA) System

190.

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 ⇒ 147.

Approaching and Following a Vehicle



The vehicle ahead indicator is in the instrument cluster. It only displays when a vehicle is detected in your vehicle's path moving in the same direction. If this symbol is not displaying, ACC will not respond to or brake for vehicles ahead.

ACC automatically slows the vehicle down and adjusts vehicle speed to follow a detected vehicle ahead at the selected follow 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 lamps 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

(Continued)

Warning (Continued)

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 when:

· The sensors are blocked.

- The Traction Control System (TCS) or StabiliTrak/ESC 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.
- A DIC message may display to indicate that ACC is temporarily unavailable.

The ACC active symbol will turn white when ACC is no longer active.

In some cases, when ACC will not activate, regular cruise control may be used. See "Switching Between ACC and Regular Cruise Control" previously in this section. Always consider driving conditions before using either cruise control system.

Notification to Resume ACC

ACC will maintain a following 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".

When the vehicle ahead drives away, ACC resumes automatically if the stop was brief. If necessary, press +RES or the accelerator pedal to resume ACC. If stopped for more than two minutes or if the driver door is opened and the driver seat belt is unbuckled, ACC automatically applies the Electric Parking Brake (EPB) to hold the vehicle. The Electric Parking Brake ight will turn on. See *Electric Parking Brake* 170. To release the EPB, press the accelerator pedal.

A DIC warning message may display indicating to shift to P (Park) before exiting the vehicle.

⚠ 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 (Continued)

Warning (Continued)

vehicle can move. When ACC is holding the vehicle at a stop, always be prepared to manually apply the brakes.

⚠ Warning

Leaving the vehicle without placing it in P (Park) can be dangerous. Do not leave the vehicle while it is being held at a stop by ACC. Always place the vehicle in P (Park) and turn off the ignition before leaving the vehicle.

ACC Override

If using the accelerator pedal while ACC is active, the ACC indicator turns blue on the instrument cluster indicating ACC braking will not occur. ACC will resume operation when the accelerator pedal is not being pressed.

⚠ Warning

The ACC will not automatically apply the brakes if your foot is resting on the accelerator pedal. You could crash into a vehicle ahead of you.

Curves in the Road

On curves, ACC may not detect a vehicle ahead in your lane. You could be startled if the vehicle accelerates up to the set speed, especially when following a vehicle exiting or entering exit ramps. You could lose control of the vehicle or crash. Do not use ACC while driving on an entrance or exit ramp. Always be ready to use the brakes if necessary.

⚠ Warning

On curves, ACC may respond to a vehicle in another lane, or may not have time to react to a vehicle in your lane. You could crash

(Continued)

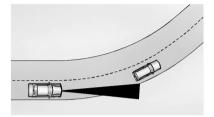
Warning (Continued)

into a vehicle ahead of you, or lose control of your vehicle. Give extra attention in curves and be ready to use the brakes if necessary. Select an appropriate speed while driving in curves.

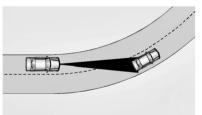
ACC may operate differently in a sharp curve. It may reduce the vehicle speed if the curve is too sharp.

If equipped, 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.

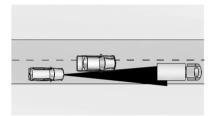


ACC may detect a vehicle that is not in your lane and apply the brakes.

ACC may occasionally provide an alert and/or braking that is considered unnecessary. It could respond to vehicles in different lanes, signs,

guardrails, and other 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



Do not use ACC when driving on steep hills as ACC may 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 three ways to disengage ACC:

- Step lightly on the brake pedal.
- Press ☒.
- Press 🕥.

Erasing Speed Memory

The cruise control set speed is erased from memory if \mathfrak{S} is pressed or if the ignition is turned off.

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 on a roof rack system. See *Roof Rack Sustem*

→ 75.

Do not modify the hood, headlamps, or fog lamps, as this may limit the camera's ability to detect an object.

Cleaning the Sensing System

The camera sensor on the windshield behind the rearview mirror can become blocked by snow, ice, dirt, mud, or debris. This area needs to be cleaned for ACC to operate properly.

The vehicle headlamps may need to be cleaned due to dirt, snow, or ice. Objects that are not illuminated correctly may be difficult to detect.

If ACC will not operate, regular cruise control may be available. See "Switching Between ACC and Regular Cruise Control" previously in this section. Always consider driving conditions before using either cruise control system.

For cleaning instructions, see "Washing the Vehicle" under Exterior Care ⇒ 267.

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 feel alerts or warnings provided by these systems. Failure to use proper care when driving may result in injury, death, or vehicle damage. See Defensive Driving ▷ 147.

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.

(Continued)

Warning (Continued)

- Work if the detection sensor is covered up, such as with a sticker, magnet, or metal plate.
- Work if the area surrounding the detection sensor is damaged or not properly repaired.

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

Audible or Safety Alert Seat

Some driver assistance features alert the driver of obstacles by beeping. To view available settings for this feature, touch the Settings icon on the infotainment home page. Select "Vehicle" to display the list of available options and select "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 for this feature, touch the Settings icon on the infotainment home

page. Select "Vehicle" to display the list of available options and select "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.

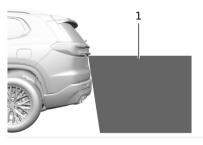




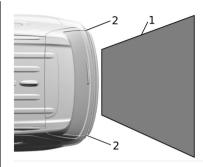
- Front and rear bumpers and the area below the bumpers
- Front grille and headlamps
- Front camera lens in the front grille or near the front emblem
- Front side and rear side panels
- Outside of the windshield in front of the rearview mirror
- Side camera lens on the bottom of the outside mirrors
- Rear side corner bumpers
- Rear Vision Camera above the license plate

Rear Vision Camera (RVC)

When the vehicle is shifted into R (Reverse), the Rear Vision Camera (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 Home or Back on the infotainment system, shift into P (Park), or raise the vehicle speed.



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 appear on the infotainment display to show that Rear Park Assist (RPA) or Rear Cross Traffic Alert (RCTA) has detected an object. This triangle changes from amber to red and increases in size the closer the object.

⚠ 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

If equipped, Surround Vision shows an image of the area surrounding the vehicle, along with the front or rear camera views 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.

The Surround Vision system can be accessed by selecting CAMERA in the infotainment display or when the vehicle is shifted into R (Reverse). To return to the previous screen sooner, when

not in R (Reverse) press Home or Back on the infotainment system, shift into P (Park), or raise the vehicle speed while in D (Drive).

⚠ 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.



1. Views Displayed by the Surround Vision Cameras

2. Area Not Shown



- Views Displayed by the Surround Vision Cameras
- 2. Area Not Shown

⚠ 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

(Continued)

Warning (Continued)

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.

Camera Views

Touch the Camera icon to display the camera views on the infotainment display.

The different view displays different image of the vehicle.

Parking Assist

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).

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 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.

<u> Marning</u>

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.

How the System Works

The vehicle may have a Park Assist amphitheatre-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. Vehicles equipped with RPA will show the amphitheater at the rear of the vehicle

Beeps sound to warn the driver of certain objects that are detected around the vehicle. The frequency of beeps increases as the vehicle gets closer to the object. When the object is very close to the vehicle, the beeps are continuous. The beeps may be muted by pressing the on screen mute button.

Turning the System On and Off

To view available settings for this feature, touch the Settings icon on the infotainment home page. Select "Vehicle" to display the list of available options and select "Collision/ Detection Systems".

If the vehicle has a trailer hitch attached, select ON - ATTACHED using the infotainment system menus to allow Park Assist to function properly. Park Assist is able to compensate for a trailer hitch up to 0.3 m (1 ft) in length and width.

Park Assist may not function properly with larger trailer hitches, as it can cause the system to provide inaccurate information of objects in the rear.

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 rear bumpers free of mud, dirt, snow, ice, and slush. For cleaning instructions, see Exterior Care

 267.
- 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.

Reverse Automatic Braking (RAB)

Backing Warning and Reverse Automatic Braking (RAB)

Vehicles with Adaptive Cruise Control (ACC) have the Backing Warning System and Reverse Automatic Braking (RAB) system. 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).

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.

⚠ Warning

The Backing Warning System only operates at speeds greater than 8 km/h (5 mph). It does not detect children, pedestrians, bicyclists, animals, or objects below the bumper or that are too close or too far from the vehicle. In some situations, such as at higher backing speeds, there may not be enough time for the short, sharp application of the vehicle brake system to occur. To prevent injury, death, or vehicle damage, even with the Backing Warning System, always check the area around the vehicle and check all mirrors before backing.

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.

⚠ Warning

RAB 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. It does not detect children, pedestrians. bicyclists, animals, or objects below the bumper or that are too close or too far from the vehicle. To prevent injury, death, or vehicle damage, even with RAB, always check the area around the vehicle before and while backing.

Pressing the brake pedal after the vehicle comes to a stop will release RAB. If the brake pedal is not pressed soon after the stop, the Electric Parking Brake (EPB) may be set. When it is safe, press the accelerator pedal firmly at any time to override RAB.

⚠ Warning

There may be instances where unexpected or undesired automatic braking occurs. If this happens, either press the brake pedal or firmly press the accelerator pedal to release the brakes from the RAB system. Before releasing the brakes, check the RVC and check the area around the vehicle to make sure it is safe to proceed.

Unexpected braking events are possible with a static installed accessory, such as a bike rack or hitch-mounted cargo carrier.

Turning the Features On or Off

RAB can be turned on or off using the infotainment system.

Rear Pedestrian Alert

If equipped, and under certain conditions, this feature can provide alerts for a pedestrian within the system's range directly behind the vehicle. This feature only works in R (Reverse) below 12 km/h (8 mph), and detects pedestrians 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 five beeps 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 beeps from the rear, or if equipped, seven pulses from both sides of the driver seat.

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:

(Continued)

Warning (Continued)

- The pedestrian is not directly behind the vehicle, fully visible to the Rear Vision Camera (RVC), or standing upright.
- 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*⇒ 147. Keep the RVC, taillights, and back-up lights clean and in good repair.

Rear Pedestrian Alert can be set to Off or Alert. To view available settings from the infotainment 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 screen, touch Settings > Vehicle > Collision/Detection Systems > Alert Type.

Rear Cross Traffic Alert (RCTA) System

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 beeps sound from the left or right, or three Safety Alert Seat pulses occur on the left or right side, depending on the direction of the detected vehicle.

Use caution while 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 beeps 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.

Forward Collision Alert (FCA) System

If equipped, the FCA system may help to avoid or reduce the harm caused by front-end crashes. When approaching a vehicle ahead too quickly, FCA provides a red flashing alert on the windshield and rapidly beeps or pulses the drivers seat. FCA also lights an amber visual alert if following another vehicle much too closely.

FCA detects vehicles within a distance of approximately 60 m (197 ft) and operates at speeds above 8 km/h (5 mph). If the vehicle has Adaptive Cruise Control (ACC), it can detect vehicles to distances of approximately 110 m (360 ft) and operates at all speeds. See Adaptive Cruise Control ⇒ 175.

⚠ Warning

FCA is a warning system and does not apply the brakes. When approaching a slowermoving or stopped vehicle ahead too rapidly, or when following a vehicle too closely, FCA may not provide a warning with enough time to help avoid a crash. It also may not provide any warning at all. FCA does not warn of pedestrians, animals, signs, guardrails, bridges, construction barrels, or other objects. Be ready to take action and apply the brakes. See *Defensive Driving*

147.

FCA can be disabled. To view available settings from the infotainment screen, touch Settings > Vehicle > Collision/Detection Systems.

Detecting the Vehicle Ahead



FCA warnings will not occur unless the FCA system detects a vehicle ahead. When a vehicle is detected, the vehicle ahead indicator will display green. Vehicles may not be detected on 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.

⚠ 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, (Continued)

Warning (Continued)

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 headlamps or windshield are not cleaned or in proper condition. Keep the windshield, headlamps, and FCA sensors clean and in good repair.

Collision Alert



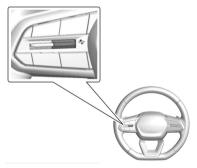
When your vehicle approaches another detected vehicle too rapidly, the red FCA display will flash on the windshield. Also, eight rapid high-pitched beeps will sound from the front, or the Safety Alert Seat will pulse five times. When this Collision Alert occurs, the brake system may prepare for driver 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 and will affect the timing of both the Collision Alert and the Tailgating Alert features. The timing of both alerts will vary based on vehicle speed. The faster the vehicle speed, the farther away the alert will occur. Consider traffic and weather conditions when selecting the alert timing. The range of selectable alert timings may not be appropriate for all drivers and driving conditions.

If your vehicle is equipped with Adaptive Cruise Control (ACC), changing the FCA timing setting automatically changes the following gap setting (Far, Medium, or Near).

Following Distance Indicator

The following distance to a moving vehicle ahead in your path is indicated in following time in seconds on the Driver Information Center (DIC). See *Driver Information Center* (DIC) ⇒ 99. The minimum following time is 0.5 seconds away.

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 headlamps.

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.

Marning

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.

⚠ 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.

The AEB system may help avoid or reduce the harm caused by front-end crashes. AEB also includes Intelligent Brake Assist (IBA). If the system detects a vehicle ahead, traveling in the same direction, it can assist with or automatically brake the vehicle to avoid a potential crash. 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) Sustem

190.

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).

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.

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.

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.

Intersection Automatic Emergency Braking (I-AEB) System

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).

⚠ Warning

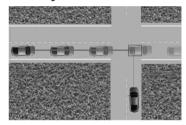
I-AEB is an emergency crash preparation feature. Do not rely on I-AEB to brake or avoid crashes. I-AEB will not brake outside of its operating speed range and only responds to detected intersecting vehicles. I-AEB may not:

- 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.

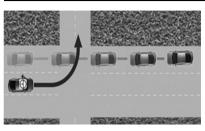
Vehicle Crossing the Path Ahead

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 ▷ 183. I-AEB can provide a boost to braking or automatically brake the vehicle.



Turning Left Across Oncoming Traffic

When the system detects that the vehicle is turning left and there is a risk of collision with an oncoming vehicle, I-AEB provides a red flashing alert on the windshield and rapidly beeps or pulses the driver seat. 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.



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.



Automatic Braking

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.

⚠ 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.

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

If equipped, the FPB system may help avoid or reduce the harm caused by front-end crashes with nearby pedestrians when driving in a forward gear. FPB displays an amber indicator, ↑, when a nearby pedestrian is detected 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. See Automatic Emergency Braking (AEB) \$\simes\$ 192.

The FPB system can detect and alert to pedestrians in a forward gear at speeds between 8 km/h (5 mph) and 80 km/h (50 mph). During daytime driving, the system detects pedestrians up to a distance of approximately 40 m (131 ft). During nighttime driving, system performance is very limited.

⚠ Warning

FPB does not provide an alert or automatically brake the vehicle, unless it detects a pedestrian. FPB may not detect pedestrians, including children:

- When the pedestrian is not directly ahead, fully visible, or standing upright, or when part of a group.
- Due to poor visibility, including nighttime conditions, fog, rain, or snow.
- If the FPB sensor is blocked by dirt, snow, or ice.
- If the headlamps or windshield are not cleaned or in proper condition.

Be ready to take action and apply the brakes. For more information, see *Defensive Driving*

→ 147. Keep the windshield, headlamps, and FPB sensor clean and in qood repair.

FPB can be set to Off, Alert, or Alert and Brake through vehicle personalization. To view available settings for this feature, touch the Settings icon on the infotainment home page. Select "Vehicle" to display the list of available options and select "Collision/Detection Systems".

Detecting the Pedestrian Ahead



FPB alerts and automatic braking will not occur unless the FPB system detects a pedestrian. When a nearby pedestrian is detected in front of the vehicle, the pedestrian ahead indicator will display amber.

Front Pedestrian Alert



When the vehicle approaches a pedestrian ahead too rapidly, the red FPB alert display will flash on the windshield. Eight rapid highpitched beeps will sound from the front, or both sides of the Safety Alert Seat will pulse five times. When this Pedestrian Alert occurs, the brake system may prepare for driver braking to

occur more rapidly which can cause a brief, mild deceleration. Continue to apply the brake pedal as needed. Cruise control may be disengaged when the Front Pedestrian Alert occurs.

Automatic Braking

If FPB detects it is about to crash into a pedestrian directly ahead, and the brakes have not been applied, FPB may automatically brake moderately or brake hard. This can help to avoid some very low speed pedestrian crashes or reduce pedestrian injury. FPB can automatically brake to detected pedestrians between 8 km/h (5 mph) and 80 km/h (50 mph). Automatic braking levels may be reduced under certain conditions, such as higher speeds.

If this happens, Automatic Braking may engage the Electric Parking Brake (EPB) to hold the vehicle at a stop. Release the EPB. A firm press of the accelerator pedal will also release Automatic Braking and the EPB.

⚠ Warning

FPB may alert or automatically brake the vehicle suddenly in situations where it is unexpected and undesired. It could falsely alert or brake for objects similar in shape or size to pedestrians, including shadows. This is normal operation and the vehicle does not need service. To override Automatic Braking, firmly press the accelerator pedal, if it is safe to do so.

Automatic Braking can be disabled through vehicle personalization. To view available settings for this feature, touch the Settings icon on the infotainment home page. Select "Vehicle" to display the list of available options and select "Collision/Detection Systems".

⚠ Warning

Using the Front Pedestrian Braking system while towing a trailer could cause you to lose control of the vehicle and crash. Turn the system to Alert or Off when towing a trailer.

Cleaning the System

If FPB does not seem to operate properly, cleaning the outside of the windshield in front of the rearview mirror may correct the issue.

Side Blind Zone Alert (SBZA)

If equipped, the SBZA system is a lane-changing aid that assists drivers with avoiding crashes that occur with moving vehicles in the side blind zone, or blind spot areas. When the vehicle is in a forward gear, the left or right side mirror display will light up if a moving vehicle is detected in that blind zone. If the turn signal is activated and a vehicle is also detected on the same side, the display will flash as an extra warning not to change lanes. Since this system is part of the Lane Change Alert (LCA) system, read the entire LCA section before using this feature.

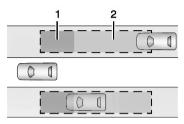
Lane Change Alert (LCA)

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 ▷ 267. 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

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.

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 Sustems.

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)

Marning

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.

- 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

(Continued)

Warning (Continued)

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) ⇒ 202. See Lane Change Alert (LCA) ⇒ 198.

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. 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 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). Traffic Sign Assistant requires an active OnStar subscription. 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.

(Continued)

Caution (Continued)

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 Instrument Cluster \$ 85.

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 > Display > Instrument Cluster.

Each time the vehicle is started, the customization options will be turned on.

System Reset

The content of the traffic sign display can be cleared. To view available settings from the infotainment screen, touch Settings > Display > Instrument Cluster.

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.

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.

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.

Lane Keep Assist (LKA)

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 at speeds between approximately 60 km/h (37 mph) and 180 km/h (112 mph). On some vehicles, the system will instead operate above 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 crosses a detected lane marking. This system is not intended to keep the vehicle centered in the lane. LKA will not assist and alert if the turn signal is active, 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 will not be given. Do not expect the LDW to occur when you are intentionally crossing a lane marker.

⚠ Warning

The LKA system does not continuously steer the vehicle. It may not keep the vehicle in the lane or give a Lane Departure Warning (LDW) alert, even if a lane marking is detected.

The LKA and LDW systems may not:

- Provide an alert or enough steering assist to avoid a lane departure or crash.
- Detect lane markings under poor weather or visibility conditions. This can occur if the windshield or headlamps 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

(Continued)

Warning (Continued)

attention on the road and maintain proper vehicle position within the lane, or vehicle damage, injury, or death could occur. Always keep the windshield, headlamps, and camera sensors clean and in good repair. Do not use LKA in bad weather conditions or on roads with unclear lane markings, such as construction zones.

⚠ Warning

Using LKA on slippery roads could cause loss of control of the vehicle and a crash. Turn the sustem off.

⚠ Warning

LKA will not alert the driver if a towed trailer crosses into an adjacent lane of travel. Serious injury or property damage may occur if the trailer moves into another lane. Always monitor the trailer position while towing to make sure it is within the same lane as the tow vehicle.

How the System Works

LKA uses a camera sensor installed on the windshield ahead of the rearview mirror to detect lane markings. It may provide brief steering assist if it detects an unintended lane departure. It may further provide an audible alert or the driver seat may pulse indicating that a lane marking has been crossed. The system does not provide a Lane Departure Warning (LDW) when intentionally steering across a lane marker

To turn LKA on and off, press / \ on the infotainment screen. If equipped, the indicator light on the button comes on when LKA is on and turns off when LKA is disabled.

When on, /\square\is white, if equipped, indicating that the system is not ready to assist. /\square\is green if LKA is ready to assist. LKA may assist by gently turning the steering wheel if the vehicle approaches a detected lane marking.

is amber when assisting. It may also provide a Lane Departure Warning (LDW) alert by flashing warming. Additionally, there may be three beeps, or the driver seat may pulse three times, on the right or left, depending on the lane departure direction.

Take Steering

The LKA system does not continuously steer the vehicle. If LKA does not detect active driver steering, an alert and chime may be provided. Steer the vehicle to dismiss. LKA may become temporarily unavailable after repeated take steering alerts.

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 camera blocked message may display if the camera is blocked. Some driver assistance systems may have reduced performance or not work at all. An LKA or LDW unavailable message may display if the systems are temporarily unavailable. This message could be due to a blocked camera. The LKA system does not need service. Clean the outside of the windshield behind the rearview mirror.

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.

Surround Vision Recorder

If equipped, this system records video from the surround vision cameras to a USB flash drive.
Audio is not recorded.

Continuous use of the Surround Vision Recorder will degrade the USB flash drive and reduce its longevity. A replacement flash drive will eventually be needed.

Insert a USB flash drive into the USB port in the center console. Eject the USB flash drive using the button in the settings menu before removing the USB flash drive from the vehicle. To access settings, select Surround Vision Recorder on the infotainment home

screen. Removing it without using the eject button could corrupt the video file and/or the USB flash drive

Activate: After inserting a USB flash drive, tap Surround Vision Recorder on the infotainment home screen and follow the prompts. Once completed, recording will start automatically when the app is closed. Recording continues until it is turned off in the settings screen, the app is reopened, or the vehicle is turned off.

Deactivate: Tap Surround Vision Recorder on the infotainment home screen. Toggle off Continuous Recording in settings.

Select from the following when the vehicle is in P (Park) and the video player is open:

Exit: Tap the infotainment home screen button to return to the home screen.

Video Timeline: Tap to view the video timeline. The video timeline displays video thumbnails from each drive that can be played back. Drag the timeline to the desired date/time to begin playback.

Rewind: Tap to return to the previous video.

Play/Pause: Tap to play or pause a recorded video.

Fast Forward: Tap to advance to the next video.

Camera Views: Tap the camera icon buttons on the vehicle image to switch between camera views. The default camera view shows the front of the vehicle.

In addition:

- The recorded video is stored on the USB flash drive in five-minute-long files.
- All files can be viewed on the playback app or when the USB flash drive is read by a personal computer (PC).
- Once the USB flash drive has recorded two hours of video, the oldest files will be overwritten.

Delete Data: Remove the USB flash drive from the vehicle and insert into a PC to manually delete the file.

Surround Vision Recorder may not work if:

- No USB flash drive is present. Make sure you have inserted a USB flash drive meeting the specifications. If already inserted, remove it and insert again.
- The USB flash drive or video files are corrupt.
 Remove the USB flash drive, format it on a computer, and try again.

- The USB flash drive does not have enough capacity. If previous data exists, remove it from the USB flash drive.
- There is a system error. Follow the prompts on screen to resolve the error.

Fuel

Top Tier Fuel

GM recommends the use of TOP TIER Detergent Gasoline to keep the engine clean, reduce engine deposits, and maintain optimal vehicle performance. Look for the TOP TIER Logo or see www.toptiergas.com for a list of TOP TIER Detergent Gasoline marketers and applicable countries.





Recommended Fuel



Use the recommended fuel for proper vehicle maintenance.

Use unleaded petrol with a posted octane rating of 91 RON or higher and with ethanol up to 10% by volume. Otherwise an audible knocking noise may be heard. If heavy knocking is heard when using gasoline rated at 91 RON or higher, the engine needs service.

Prohibited Fuels

Caution

Do not use fuels with any of the following conditions; doing so may damage the vehicle and void its warranty:

(Continued)

Caution (Continued)

- Fuel with any amount of methanol, methylal, ferrocene, and aniline.
 These fuels can corrode metal fuel system parts or damage plastic and rubber parts.
- Fuel containing metals such as methylcyclopentadienyl manganese tricarbonyl (MMT), which can damage the emissions control system and spark plugs.
- Fuel with a posted octane rating of less than the recommended fuel. Using this fuel will lower fuel economy and performance, and may decrease the life of the emissions catalyst.

Fuel Additives

TOP TIER Detergent Gasoline is highly recommended for use with your vehicle. If your country does not have TOP TIER Detergent Gasoline, add ACDelco Fuel System Treatment Plus – Gasoline to the vehicle's gasoline fuel tank at every oil change or 15 000 km (9,000 mi), whichever occurs first. TOP TIER Detergent Gasoline and ACDelco Fuel System Treatment

Plus-Gasoline will help keep your vehicle's engine fuel deposit free and performing optimally. If you are unable to obtain ACDelco Fuel System Treatment Plus - Gasoline, consult your dealer for the GM approved additive available in your country.

Filling the Tank

An arrow on the fuel gauge indicates which side of the vehicle the fuel door is on. See *Fuel Gauge*

⇒ 87

⚠ Warning

Fuel vapors and fuel fires burn violently and can cause injury or death.

Follow these guidelines to help avoid injuries to you and others:

- Read and follow all the instructions on the fuel pump island.
- Turn off the engine when refueling.
- Keep sparks, flames, and smoking materials away from fuel.
- Do not leave the fuel pump unattended.

(Continued)

Warning (Continued)

- Avoid using electronic devices while refueling.
- Do not re-enter the vehicle while pumping fuel.
- Keep children away from the fuel pump and never let children pump fuel.
- Before touching the fill nozzle, touch a metallic object to discharge static electricity from your body.
- Fuel can spray out if the fuel cap is opened too quickly. This spray can happen if the tank is nearly full, and is more likely in hot weather. Open the fuel cap slowly and wait for any hiss noise to stop, then unscrew the cap all the way.

The fuel door unlocks when the vehicle doors are unlocked. See *Remote Key Operation* ⋄ 7.



To open the fuel door, push and release the rearward center edge of the door.

The capless refueling system does not have a fuel cap. Fully insert and latch the fill nozzle, then begin fueling.

⚠ Warning

Overfilling the fuel tank by more than three clicks of a standard fill nozzle may cause:

- Vehicle performance issues, including engine stalling and damage to the fuel system.
- Fuel spills.
- Under certain conditions, fuel fires.

Be careful not to spill fuel. Wait five seconds after you have finished pumping before removing the fill nozzle. Clean fuel from painted surfaces as soon as possible. See Exterior Care ▷ 267. Push the fuel door closed until it latches.

⚠ Warning

If a fire starts while you are refueling, do not remove the fill nozzle. Shut off the flow of fuel by shutting off the pump or by notifying the station attendant. Leave the area immediately.

Filling the Tank with a Portable Fuel ContainerIf the vehicle runs out of fuel and must be filled from a portable fuel container:



 Locate the capless funnel adapter under the carpet in the trunk. 2. Insert and latch the funnel into the capless fuel system.

⚠ Warning

Attempting to refuel from a portable fuel container without using the funnel adapter may cause fuel spillage and damage the capless fuel system. This could cause a fire. You or others could be badly burned and the vehicle could be damaged.

3. Remove and clean the funnel adapter and return it to the storage location.

Filling a Portable Fuel Container

Never fill a portable fuel container while it is in the vehicle. Static electricity discharge from the container can ignite the fuel vapor. You or others could be badly burned and the vehicle could be damaged. To help avoid injury to you and others:

(Continued)

Warning (Continued)

- Dispense fuel only into approved containers.
- Do not fill a container while it is inside a vehicle, in a vehicle's trunk, in a pickup bed, or on any surface other than the ground.
- Bring the fill nozzle in contact with the inside of the fill opening before operating the nozzle. Maintain contact until filling is complete.
- Keep sparks, flames, and smoking materials away from fuel.
- Avoid using electronic devices while pumping fuel.

Trailer Towing General Towing Information

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* \Rightarrow 262. To tow the vehicle behind another vehicle such as a motor home, see *Recreational Vehicle Towing* \Rightarrow 264.

Driving Characteristics and Towing Tips

⚠ Warning

You can lose control when towing a trailer if the correct equipment is not used or the vehicle is not driven properly. For example, if the trailer is too heavy or the trailer brakes are inadequate for the load, the vehicle may not stop as expected. You and others could be seriously injured. The vehicle may also be damaged, and the repairs would not be covered by the vehicle warranty. Pull a trailer only if all the steps in this section have been followed. Ask your dealer for advice and information about towing a trailer with the vehicle.

Driving with a Trailer

Trailering is different than just driving the vehicle by itself. Trailering affects in handling, acceleration, braking, durability, and fuel economy on your vehicle. Successful, safe trailering takes correct equipment, and it has to be used properly.

The following information has many timetested, important trailering tips and safety rules. Many of these are important for your safety and that of your passengers. Read this section carefully before pulling a trailer.

When towing a trailer:

- Become familiar with, and follow all state and local laws that apply to trailer towing. These requirements vary from state to state.
- State laws may require the use of extended side view mirrors. If your visibility is limited or restricted while towing, install extended side view mirrors on your vehicle, even if not required.
- Do not tow a trailer during the first 800 km (500 mi) of vehicle use to prevent damage to the engine, axle, or other parts.

- Perform the first oil change before heavy towing.
- Do not drive over 80 km/h (50 mph) and do not make starts at full throttle during the first 800 km (500 mi) of trailer towing.
- Tow in D (Drive). If the transmission downshifts too often, a lower gear may be selected using Manual Mode See Manual Mode

 → 168.

If equipped, the following driver assistance features should be turned off when towing a trailer:

- Adaptive Cruise Control (ACC)
- Park Assist
- Reverse Automatic Braking (RAB)

The following advanced driver assistance features should be turned off when towing a trailer, and may turn off automatically when a trailer is detected:

- Park Assist
- Reverse Automatic Braking (RAB)
- Rear Cross Traffic Alert (RCTA)
- Rear Cross Traffic Braking (RCTB)
- Lane Change Alert (LCA)

⚠ Warning

To prevent serious injury or death from carbon monoxide (CO), when towing a trailer:

- Do not drive with the liftgate, trunk/ hatch, or rear-most window open.
- Fully open the air outlets on or under the instrument panel.
- Adjust the climate control system to a setting that brings in only outside air. See "Climate Control Systems" in the Index.

For more information about carbon monoxide, see *Engine Exhaust* ⇒ 164.

Towing a trailer requires experience. The combination of the vehicle and trailer is longer and not as responsive as the vehicle itself. Get used to the handling and braking of the combination by driving on a level road surface before driving on public roads.

The trailer structure, the tires, and the brakes must be all be rated to carry the intended cargo. Inadequate trailer equipment can cause the combination to operate in an unexpected or unsafe manner. Before driving, inspect all trailer hitch parts and attachments, safety chains, electrical connectors, lamps, tires, and mirrors. See *Towing Equipment* ▷ 214. If the trailer has electric brakes, start the combination moving and then manually apply the trailer brake controller to check that the trailer brakes work. During the trip, occasionally check that the cargo and trailer are secure and that the lamps and any trailer brakes are working.

Towing with a Stability Control System

When towing, the stability control system might be heard. The system reacts to vehicle movement caused by the trailer, which mainly occurs during cornering. This is normal when towing heavier trailers.

Following Distance

Stay at least twice as far behind the vehicle ahead as you would when driving without a trailer. This can help to avoid heavy braking and sudden turns.

Passing

More passing distance is needed when towing a trailer. The combination of the vehicle and trailer will not accelerate as quickly and is much longer than the vehicle alone. It is necessaru to go much farther beyond the passed vehicle before returning to the lane. Pass on level roadways. Avoid passing on hills if possible.

Backing Up

Hold the bottom of the steering wheel with one hand. To move the trailer to the left, move that hand to the left. To move the trailer to the right, move that hand to the right. Always back up slowly and, if possible, have someone quide you.

Making Turns

Caution

Turn more slowly and make wider arcs when towing a trailer to prevent damage to your vehicle. Making very sharp turns could cause the trailer to contact the vehicle.

Make wider turns than normal when towing, so trailer will not go over soft shoulders, over curbs, or strike road signs, trees, or other objects. Always signal turns well in advance. Do not steer or brake suddenly.

Driving on Grades

Reduce speed and shift to a lower gear before starting down a long or steep downhill grade. If the transmission is not shifted down, the brakes may overheat and result in reduced braking efficiency.

The vehicle can tow in D (Drive). Shift the transmission to a lower gear if the transmission shifts too often under heavy loads and/or hilly conditions.

When towing at higher altitudes, engine coolant will boil at a lower temperature than at lower altitudes. If the engine is turned off immediately after towing at high altitude on steep uphill grades, the vehicle could show signs similar to engine overheating. To avoid this, let the engine run, preferably on level ground, with the transmission in P (Park) for a few minutes before turning the engine off. If the overheat warning comes on, see Engine Overheating \$\sigma 228.

Parking on Hills



Warning

To prevent serious injury or death, always park uour vehicle and trailer on a level surface when possible.

When parking your vehicle and your trailer on a hill:

- 1. Press the brake pedal, but do not shift into P (Park) yet. Turn the wheels into the curb if facing downhill or into traffic if facing uphill.
- 2. Have someone place chocks under the trailer wheels.
- 3. When the wheel chocks are in place, gradually release the brake pedal to allow the chocks to absorb the load of the trailer.
- 4. Reapply the brake pedal. Then apply the parking brake and shift into P (Park).
- 5. Release the brake pedal.

Leaving After Parking on a Hill

- 1. Apply and hold the brake pedal.
 - Start the engine.

- Shift into a gear.
- Release the parking brake.
- 2. Let up on the brake pedal.
- 3. Drive slowly until the trailer is clear of the chocks
- 4. Stop and have someone pick up and store the chocks

Maintenance When Trailer Towing

The vehicle needs service more often when used to tow trailers. See Maintenance Schedule ⇒ 276. It is especially important to check the automatic transmission fluid, engine oil, axle lubricant, belts, cooling system, and brake system before and during each trip.

Check periodically that all nuts and bolts on the trailer hitch are tight.

Engine Cooling When Trailer Towing

The cooling system may temporarily overheat during severe operating conditions. See Engine Overheating \$\sigma 228.

Trailer Towing

Caution

Towing a trailer improperly can damage the vehicle and result in costly repairs not covered by the vehicle warranty. To tow a trailer correctly, follow the directions in this section and see uour dealer for important information about towing a trailer with the vehicle.

Trailer Weight



⚠ Warning

Never exceed the towing capacity for uour vehicle.

Safe trailering requires monitoring the weight, speed, altitude, road grades, outside temperature, dimensions of the front of the trailer, and how frequently the vehicle is used to tow a trailer.

Trailer Weight Ratings

When towing a trailer, the combined weight of the vehicle, vehicle contents, trailer, and trailer contents must be below all of the maximum. weight ratings for the vehicle, including:

- Gross Combined Weight Rating (GCWR)
- Gross Vehicle Weight Rating (GVWR)
- Maximum Trailer Weight Rating
- Maximum Trailer Tongue Weight Rating
- Gross Axle Weight Rating-Rear (GAWR-RR)

See "Trailer Brakes" under Towing Equipment on the trailer weight.

The only way to be sure the weight is not exceeding any of these ratings is to weigh the tow vehicle and trailer combination, fullu loaded for the trip, getting individual weights for each of these items.



You and others could be seriously injured or killed if the trailer is too heavy or the trailer brakes are inadequate for the (Continued)

Warning (Continued)

load. The vehicle may be damaged, and the repairs would not be covered by the vehicle warranty.

Only tow a trailer if all the steps in this section have been followed. Askyour dealer for advice and information about towing a trailer.

Gross Combined Weight Rating (GCWR)

GCWR is the total allowable weight of the completely loaded vehicle and trailer including any fuel, passengers, cargo, equipment, and accessories. Do not exceed the GCWR for your vehicle. The GCWR for the vehicle is on the Tow Rating Chart following.

Gross Vehicle Weight Rating (GVWR)

For information about the vehicle's maximum load capacity, see *Vehicle Load Limits* ⇒ 156. When calculating the GVWR with a trailer attached, the trailer tongue weight must be included as part of the weight the vehicle is carrying.

Maximum Trailer Weight

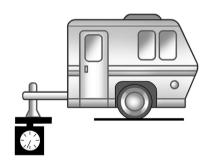
The maximum trailer weight rating is calculated assuming the tow vehicle has a driver, a front seat passenger, and all required trailering equipment. This value represents the heaviest trailer the vehicle can tow, but it may be necessary to reduce the trailer weight to stay within the GCW, GVWR, maximum trailer tongue load, or GAWR-RR for the vehicle.

Use the tow rating chart to determine how much the trailer can weigh, based on the vehicle model and options.

Vehicle	Maximum Trailer Weight with Trailer Brakes	GCWR
1.5L Gas FWD	680 kg (1,500 lb)	2 380 kg (5,247 lb)
1.5L Gas AWD	680 kg (1,500 lb)	2 480 kg (5,467 lb)

Maximum Trailer Tongue Weight

The Maximum Trailer Tongue Weight Rating is the allowable trailer tongue weight that the vehicle can support using a conventional trailer hitch. It may be necessary to reduce the overall trailer weight to stay within the maximum trailer tongue weight rating while still maintaining the correct trailer load balance.



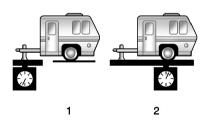
Do not exceed a maximum trailer tongue weight of 68 kg (150 lb).

The trailer tongue weight contributes to the Gross Vehicle Weight (GVW). GVW includes the CURB WEIGHT of your vehicle, any passengers, cargo, equipment and the trailer tongue weight. Vehicle options, passengers, cargo, and

equipment reduce the maximum allowable tongue weight the vehicle can carry, which also reduces the maximum allowable trailer weight.

Trailer Load Balance

The correct trailer load balance must be maintained to ensure trailer stability. Incorrect load balance is a leading cause of trailer sway.



The trailer tongue weight (1) should be 10–15% of the loaded trailer weight (2). Some specific trailer types, such as boat trailers, fall outside of this range. Always refer to the trailer owner's manual for the recommended trailer tongue weight for each trailer. Never exceed the maximum loads for your vehicle, hitch and trailer.

After loading the trailer, separately weigh the trailer and then the trailer tongue and calculate the trailer load balance percentage to see if the weights and distribution are appropriate for your vehicle. If the trailer weight is too high, it may be possible to trasfer some of the cargo into your vehicle. If the trailer tongue weight is too high or too low, it may be possible to rearrange some of the cargo inside of the trailer.

Do not exceed the maximum allowable tongue weight for your vehicle. Use the shortest hitch extension available to position the hitch ball closer to your vehicle. This will help reduce the effect of the trailer tongue weight on the trailer hitch and the rear axle.

If a cargo carrier is used in the trailer hitch receiver, choose a carrier that positions the load as close to the vehicle as possible. Make sure the total weight, including the carrier, is no more than half of the maximum allowable tongue weight for the vehicle or 227 kg (500 lb), whichever is less.

Rear Gross Axle Weight Rating (GAWR-RR)

The GAWR-RR is the total weight that can be supported by the rear axle of the vehicle. Do not exceed the GAWR-RR for the vehicle, with

the tow vehicle and trailer fully loaded for the trip including the weight of the trailer tongue. If using a weight-distributing hitch, do not exceed the GAWR-RR before applying the weight distribution spring bars.

For additional assistance with trailering or additional information, see your dealer.

Towing Equipment

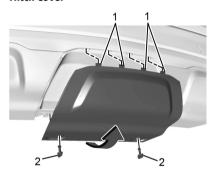
Hitches

Always use the correct hitch equipment for your vehicle. Crosswinds, large trucks going by, and rough roads can affect the trailer and the hitch.

Proper hitch equipment for your vehicle helps maintain control of the vehicle-trailer combination. Many trailers can be towed using a weight-carrying hitch which has a coupler latched to the hitch ball, or a tow eye latched to a pintle hook. Other trailers may require a weight-distributing hitch that uses spring bars to distribute the trailer tongue weight between your vehicle and trailer axles. See "Maximum Trailer Tongue Weight" under *Trailer Towing* ♀ 211 for weight limits with various hitch types.

Never attach rental hitches or other bumpertype hitches. Only use frame-mounted hitches that do not attach to the bumper.

Hitch Cover



To remove the hitch cover, if equipped:

- 1. Turn the two quarter-turn fasteners (2).
- 2. Pull the bottom edge of the cover rearward.
- 3. Disengage the cover at the upper attachments (1) and remove.

Consider using mechanical sway controls with any trailer. Ask a trailering professional about sway controls or refer to the trailer manufacturer's recommendations and instructions

Tires

- Do not tow a trailer while using a compact spare tire on the vehicle.
- Tires must be properly inflated to support loads while towing a trailer. See Tires

 243 for instructions on proper tire inflation.

Safety Chains

Always attach chains between the vehicle and the trailer, and attach the chains to the holes on the trailer hitch platform. Instructions about safety chains may be provided by the hitch manufacturer or by the trailer manufacturer.

Cross the safety chains under the tongue of the trailer to help prevent the tongue from contacting the road if it becomes separated from the hitch. Always leave just enough slack so the combination can turn. Never allow safety chains to drag on the ground.

Trailer Brakes

Loaded trailers over 450 kg (1,000 lb) must be equipped with brake systems and with brakes for each axle. Trailer braking equipment conforming to Canadian Standards Association (CSA) requirement CAN3-D313, or its equivalent, is recommended.

State or local regulations may require trailers to have their own braking system if the loaded weight of the trailer exceeds certain minimums that can vary from state to state. Read and follow the instructions for the trailer brakes so they are installed, adjusted, and maintained properly. Never attempt to tap into your vehicle's hydraulic brake system. If you do, both the vehicle anti-lock brakes and the trailer brakes may not function, which could result in a crash.

Trailer Lamps

Always check all trailer lamps are working at the beginning of each trip, and periodically on longer trips.

Turn Signals When Towing a Trailer

When properly connected, the trailer turn signals should will illuminate to indicate the vehicle is turning, changing lanes, or stopping. When towing a trailer, the arrows on the instrument cluster will illuminate even if the trailer is not properly connected or the bulbs are burned out.

Trailer Tires

Special Trailer (ST) tires differ from vehicle tires. Trailer tires are designed with stiff sidewalls to help prevent sway and to support heavy loads. These features can make it difficult to determine if the trailer tire pressures are low only based on a visual inspection.

Always check all trailer tire pressures before each trip when the tires are cool. Low trailer tire pressure is a leading cause of trailer tire blowouts.

Trailer tires deteriorate over time. The trailer tire sidewall will show the week and year the tire was manufactured. Many trailer tire manufacturers recommend replacing tires more than six years old.

Overloading is another leading cause of trailer tire blow-outs. Never load your trailer with more weight than the tires are designed to support. The load rating is located on the trailer tire sidewall.

Always know the maximum speed rating for the trailer tires before driving. This may be significantly lower than the vehicle tire speed rating. The speed rating may be on the trailer

tire sidewall. If the speed rating is not shown, the default trailer tire speed rating is 105 km/h (65 mph).

Conversions and Add-Ons Add-On Electrical Equipment

⚠ Warning

The Data Link Connector (DLC) is used for vehicle service and Emission Inspection/Maintenance testing. See Malfunction Indicator Lamp ⇒ 91. 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. The vehicle has an airbag system. Before attempting to add anything electrical to the vehicle, see Servicing the Airbag-Equipped Vehicle

53 and Adding Equipment to the Airbag-Equipped Vehicle

54.

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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 \Rightarrow 54.

Vehicle Checks Doing Your Own Service Work

Never try to do your own service on eAssist 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 intermediate voltage components should only be performed by a trained service technician with the proper knowledge and tools.

⚠ 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

53.

If the vehicle is equipped with remote vehicle start, open the hood before performing any service work to prevent remote starting the vehicle accidentally. See *Remote Vehicle Start*

⇒ 12

Keep a record with all parts receipts and list the mileage and the date of any service work performed.

Caution

Even small amounts of contamination can cause damage to vehicle systems. Do not allow contaminants to contact the fluids, reservoir caps, or dipsticks.

Hood

⚠ Warning

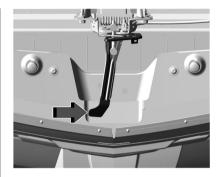
For vehicles with auto engine stop/start, turn the vehicle off before opening the hood. If the vehicle is on, the engine will start when the hood is opened. You or others could be injured.

Components under the hood can get hot from running the engine. To help avoid the risk of burning unprotected skin, never touch these components until they have cooled, and always use a glove or towel to avoid direct skin contact.

Clear any snow from the hood before opening.

To open the hood:

 Pull the hood release lever with the symbol. It is on the lower left side of the instrument panel.



- Go to the front of the vehicle and locate the secondary release lever under the front center of the hood. Push the secondary hood release lever to the right to release.
- After you have partially lifted the hood, the gas strut system will automatically lift the hood and hold it in the fully open position.

To close the hood:

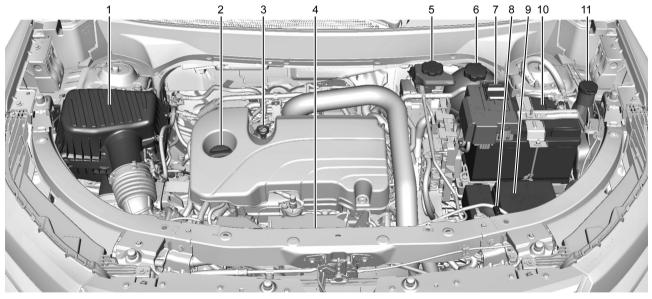
- Before closing the hood, be sure all filler caps are on properly, and all tools are removed.
- 2. Pull the hood down until the strut system is no longer holding up the hood.

 Allow the hood to fall. Check to make sure the hood is latched completely. Repeat this process with additional force if necessary.

⚠ 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.

Engine Compartment Overview



1.5L L4 Turbo Engine (LSD)

- Engine Air Cleaner. See Engine Air Cleaner/Filter.
- 2. Engine Oil Fill Cap. See Engine Oil \$\square\$ 221.
- 3. Engine Oil Dipstick. See Engine Oil \$\sigma 221.
- 4. Engine Cooling Fan (out of view). See Cooling System.
- 5. Brake Fluid Reservoir, See Brake Fluid.
- 6. Engine Coolant Surge Tank and Pressure Cap. See Cooling System.
- 7. Remote Positive (+) Terminal (Under Cover). See Jump Starting.
- 8. Remote Negative (-) Terminal. See Jump Starting.
- 9. Engine Compartment Fuse Block.
- 10. Battery.
- 11. Windshield Washer Fluid Reservoir. See Washer Fluid.

Engine Oil

To ensure proper engine performance and long life, careful attention must be paid to engine oil. Following these simple, but important steps will help protect your investment:

- Use engine oil approved to the proper specification and of the proper viscosity grade. See "Selecting the Right Engine Oil" in this section.
- Check the engine oil level regularly and maintain the proper oil level. See "Checking Engine Oil" and "When to Add Engine Oil" in this section.
- Always dispose of engine oil properly. See "What to Do with Used Oil" in this section.

Checking Engine Oil

Check the engine oil level regularly, every 650 km (400 mi), especially prior to a long trip. The engine oil dipstick handle is a loop. See Engine Compartment Overview for the location.

⚠ Warning

The engine oil dipstick handle may be hot; it could burn you. Use a towel or glove to touch the dipstick handle.

If a low oil Driver Information Center (DIC) message displays, check the oil level.

Follow these guidelines:

- To get an accurate reading, park the vehicle on level ground. Check the engine oil level after the engine has been off for at least two hours. Checking the engine oil level on steep grades or too soon after engine shutoff can result in incorrect readings. Accuracy improves when checking a cold engine prior to starting. Remove the dipstick and check the level.
- If unable to wait two hours, the engine must be off for at least 15 minutes if the engine is warm, or at least 30 minutes if the engine is not warm. Pull out the dipstick, wipe it with a clean paper towel or cloth, then push it back in all the way. Remove it again, keeping the tip down, and check the level.

When to Add Engine Oil



1.5L Engine (LSD)

If the oil is below the cross-hatched area at the tip of the dipstick and the engine has been off for at least 15 minutes, add 1 L (1 qt) of the recommended oil and then recheck the level. See "Selecting the Right Engine Oil" later in this section for an explanation of what kind of oil to use. For engine oil crankcase capacity, see Capacities and Specifications ▷ 283.

Caution

Do not add too much oil. Oil levels above or below the acceptable operating range shown on the dipstick are harmful to the engine. If the oil level is above the operating range (i.e., the engine has so much oil that the oil level gets above the cross-hatched area that shows the proper operating range), the engine could be damaged. Drain the excess oil or limit driving of the vehicle, and seek a service professional to remove the excess oil.

See Engine Compartment Overview for the location of the engine oil fill cap.

Add enough oil to put the level somewhere in the proper operating range. Push the dipstick all the way back in when through.

Selecting the Right Engine Oil

Selecting the right engine oil depends on both the proper oil specification and viscosity grade. See Recommended Fluids and Lubricants \$\display\$ 280.

Specification

Use full synthetic engine oils that meet the dexos1 specification.

Engine oils that have been approved by GM as meeting the dexos1 specification are marked with the dexos1 approved logo. See www.gmdexos.com.



Caution

Failure to use the recommended engine oil or equivalent can result in engine damage not covered by the vehicle warranty.

Viscosity Grade

Use SAE 0W-20 viscosity grade engine oil.

When selecting an oil of the appropriate viscosity grade, it is recommended to select an oil of the correct specification. See "Specification" earlier in this section.

Engine Oil Additives/Engine Oil Flushes

Do not add anything to the oil. The recommended oils meeting the dexos specification are all that is needed for good performance and engine protection.

Engine oil system flushes are not recommended and could cause engine damage not covered by the vehicle warranty.

What to Do with Used Oil

Used engine oil contains certain elements that can be unhealthy for your skin and could even cause cancer. Do not let used oil stay on your skin for very long. Clean your skin and nails with soap and water, or a good hand cleaner. Wash or properly dispose of clothing or rags containing used engine oil. See the manufacturer's warnings about the use and disposal of oil products.

Used oil can be a threat to the environment. If you change your own oil, be sure to drain all the oil from the filter before disposal. Never dispose of oil by putting it in the trash or

pouring it on the ground, into sewers, or into streams or bodies of water. Recycle it by taking it to a place that collects used oil.

Engine Oil Life System When to Change Engine Oil

is changed.

This vehicle has a computer system that indicates when to change the engine oil and filter. This is based on a combination of factors which include engine revolutions, engine temperature, and miles driven. Based on driving conditions, the mileage at which an oil change is indicated can vary considerably. For the oil life system to work properly, the system must be reset every time the oil

When the system has calculated that oil life has been diminished, a CHANGE ENGINE OIL SOON message comes on to indicate that an oil change is necessary. Change the oil as soon as possible within the next 1000 km (600 mi). It is possible that, if driving under the best conditions, the oil life system might indicate that an oil change is not necessary for up to a year. The engine oil and filter must be changed at least once a year and, at this time, the system must be reset. Your dealer has trained service people who will perform this

work and reset the system. It is also important to check the oil regularly over the course of an oil drain interval and keep it at the proper level. If the system is ever reset accidentally, the oil must be changed at 5 000 km (3,000 mi) since the last oil change. Remember to reset the oil

How to Reset the Engine Oil Life System

life system whenever the oil is changed.

Reset the system whenever the engine oil is changed so that the system can calculate the next engine oil change. Always reset the engine oil life to 100% after every oil change. It will not reset itself. To reset the engine oil life system:

- 1. Place the vehicle in P (Park).
- From the infotainment home screen, select Vehicle Status > Maintenance > Oil Life > Reset. See Vehicle Status \$\to\$ 101.
- Follow the menu and select Reset on the display screen. Then select Reset to confirm the reset. The percentage will change to 100%.

If the CHANGE ENGINE OIL SOON message comes back on when the vehicle is started and/or the OIL LIFE REMAINING is near 0%, the engine oil life system has not been reset. Repeat the procedure.

Automatic Transmission Fluid How to Check Automatic Transmission Fluid

It is not necessary to check the transmission fluid level. A transmission fluid leak is the only reason for fluid loss. If a leak occurs, take the vehicle to your dealer and have it repaired as soon as possible.

The vehicle is not equipped with a transmission fluid level dipstick. There is a special procedure for checking and changing the transmission fluid. Because this procedure is difficult, this should be done at the dealer.

Caution

Use of the incorrect automatic transmission fluid may damage the vehicle, and the damage may not be covered by the vehicle warranty. Always use the correct automatic transmission fluid. See *Recommended Fluids and Lubricants* ⇒ 280.

Change the fluid and filter at the intervals listed in *Maintenance Schedule* ⇒ 276, and be sure to use the fluid listed in *Recommended Fluids and Lubricants* ⇒ 280.

Engine Air Filter Life System

If equipped, this feature displays a Driver Information Center (DIC) message with the remaining air filter life and service timing schedule. Frequency of the service prompts depend on driving and environmental conditions.

When to Change Engine Air Filter

Change the engine air filter when the DIC message indicates to:

- Change the air filter at the next oil change.
- Replace the engine air filter at the earliest convenience.

If the DIC displays a message to check the engine air filter life system, see your dealer.

How to Reset Engine Air Filter Life System

To reset:

- 1. Place the vehicle in P (Park).
- 2. Display the Air Filter Life card in the vehicle information menu.
- 3. Select the card, touch the "Reset" to reset the filter life.

Engine Air Cleaner/Filter

The engine air cleaner/filter is in the engine compartment on the passenger side of the vehicle.

When to Inspect the Engine Air Cleaner/Filter

- For intervals on changing and inspecting the engine air filter, see Maintenance Schedule

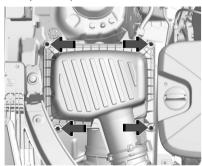
 276.
- If equipped with Engine Air Filter Life System, see Engine Air Filter Life System
 ⇒ 224.
- If driving in very dusty areas, follow the engine air filter inspecting and changing intervals, see Maintenance Schedule \$ 276.

How to Inspect/Replace the Engine Air Cleaner/Filter

Do not start the engine or have the engine running with the engine air cleaner/filter housing open. Before removing the engine air cleaner/filter, make sure that the engine air cleaner/filter housing and nearby components are free of dirt and debris. Remove the engine air cleaner/filter. Lightly tap and shake

the engine air cleaner/filter (away from the vehicle), to release loose dust and dirt. Inspect the engine air cleaner/filter for damage, and replace if damaged. Do not clean the engine air cleaner/filter or components with water or compressed air.

To inspect or replace the air cleaner/filter:



1.5T

 Remove the five screws and lift the cover out of the assembly.

⚠ Warning

If part replacement is necessary, the part must be replaced with one of the same part number or with an equivalent part. Use of a replacement part without the same fit, form, and function may result in personal injury or damage to the vehicle.

- Inspect or replace the engine air cleaner/filter.
- 3. Lower the cover and secure with the five screws.
- If equipped with Engine Air Filter Life System, reset the system after replacing the engine air filter. See Engine Air Filter Life System \$\triangle\$ 224.

⚠ Warning

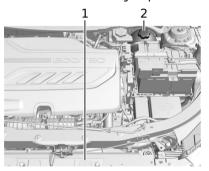
Operating the engine with the air cleaner/filter off can cause you or others to be burned. Use caution when working on the engine. Do not start the engine or drive the vehicle with the air cleaner/filter off, as flames may be present if the engine backfires.

Caution

If the air cleaner/filter is off, dirt can easily get into the engine, which could damage it. Always have the air cleaner/filter in place when driving.

Cooling System

The cooling system allows the engine to maintain the correct working temperature.



- 1. Engine Cooling Fan (Out of View)
- 2. Engine Coolant Surge Tank and Pressure Cap

⚠ Warning

An underhood electric fan can start up even when the engine is not running and can cause injury. Keep hands, clothing, and tools away from any underhood electric fan.

⚠ Warning

Do not touch heater or radiator hoses, or other engine parts. They can be very hot and can burn you. Do not run the engine if there is a leak; all coolant could leak out. That could cause an engine fire and can burn you. Fix any leak before driving the vehicle.

Engine Coolant

The cooling system in the vehicle is filled with DEX-COOL engine coolant. This coolant needs to be checked and replaced at appropriate intervals. See Maintenance Schedule № 276.

What to Use

⚠ Warning

Plain water, or other liquids such as alcohol, can boil before the proper coolant mixture will. With plain water or the wrong mixture, the engine could get too hot but there would not be an overheat warning. The engine could catch fire and you or others could be burned.

Use a 50/50 mixture of clean, drinkable water and DEX-COOL coolant. This mixture:

- Gives freezing protection down to -37 °C (-34 °F), outside temperature.
- Gives boiling protection up to 129 °C (265 °F), engine temperature.
- Protects against rust and corrosion.
- Will not damage aluminum parts.
- Helps keep the proper engine temperature.

Caution

Do not use anything other than a mix of DEX-COOL coolant that meets GM Standard GMW3420 and clean, drinkable water. Anything else can cause damage to the engine cooling system and the vehicle, which would not be covered by the vehicle warranty.

Never dispose of engine coolant by putting it in the trash, pouring it on the ground, or into sewers, streams, or bodies of water. Have the coolant changed by an authorized service center, familiar with legal requirements regarding used coolant disposal. This will help protect the environment and your health.

Checking Coolant

The vehicle must be on a level surface when checking the coolant level.



Check to see if coolant is visible in the coolant surge tank. If the coolant inside the coolant surge tank is boiling, do not do anything else until it cools down. If coolant is visible but the coolant level mark is not visible, add a 50/50 mixture of clean, drinkable water and DEX-COOL coolant at the coolant surge tank to the top rib on the middle of the tank, but be sure the cooling system is cool before this is done. See Engine Overheating \$\triangle\$ 228.

The coolant surge tank is located in the engine compartment on the driver side of the vehicle. See Engine Compartment Overview

220.

How to Add Coolant to the Coolant Surge Tank

⚠ Warning

Steam and scalding liquids from a hot cooling system are under pressure. Turning the pressure cap, even a little, can cause them to come out at high speed and you could be burned. Never turn the cap when the cooling system, including the pressure cap, is hot. Wait for the cooling system and pressure cap to cool.

⚠ Warning

Plain water, or other liquids such as alcohol, can boil before the proper coolant mixture will. With plain water or the wrong mixture, the engine could get too hot but there would not be an overheat warning. The engine could catch fire and you or others could be burned

⚠ Warning

Spilling coolant on hot engine parts can burn you. Coolant contains ethylene glycol and it will burn if the engine parts are hot enough.

Caution

Failure to follow the specific coolant fill procedure could cause the engine to overheat and could cause system damage. If coolant is not visible in the surge tank, contact your dealer.

If no problem is found, check to see if coolant is visible in the coolant surge tank. If coolant is visible but the coolant level is not at the indicated level mark, add a 50/50 mixture of clean, drinkable water and DEX-COOL coolant at the coolant surge tank, but be sure the cooling system, including the coolant surge tank pressure cap, is cool before you do it.



 Remove the coolant surge tank pressure cap when the cooling system, including the coolant surge tank pressure cap and upper radiator hose, is no longer hot.
 Turn the pressure cap slowly counterclockwise about one-quarter of a turn. If you hear a hiss, wait for that

to stop. This will allow any pressure still left

to be vented out the discharge hose.Keep turning the pressure cap slowly and remove it



- 3. Fill the coolant surge tank with the proper mixture to the indicated level mark
- 4. With the coolant surge tank pressure cap off, start the engine and let it run until you can feel the upper radiator hose getting hot. Watch out for the engine cooling fan. By this time, the coolant level inside the coolant surge tank may be lower. If the level is lower, add more of the proper mixture to the coolant surge tank until the level reaches the indicated level mark
- 5. Replace the pressure cap tightly.
- 6. Verify coolant level after the engine is shut off and the coolant is cold. If necessary, repeat coolant fill procedure Steps 1-6.

If the coolant still is not at the proper level when the system cools down again, see uour dealer.

Caution

If the pressure cap is not tightly installed, coolant loss and engine damage may occur. Be sure the cap is properly and tiahtlu secured.

Engine Overheating

Caution

Do not run the engine if there is a leak in the engine cooling system. This can cause a loss of all coolant and can damage the system and vehicle. Have any leaks fixed right away.

The vehicle has several indicators to warn of the engine overheating.

There is an engine coolant temperature gauge on the instrument cluster. See Engine Coolant *Temperature Gauge* \$8. The vehicle may also display a message on the Driver Information Center (DIC).

If the decision is made not to lift the hood when this warning appears, get service help right away.

If the decision is made to lift the hood, make sure the vehicle is parked on a level surface. Then check to see if the engine cooling fan is running. If the engine is overheating, the fan should be running. If it is not, do not continue to run the engine. Have the vehicle serviced.

If Steam Is Coming from the **Engine Compartment**

⚠ Warning

Steam and scalding liquids from a hot cooling system are under pressure. Turning the pressure cap, even a little, can cause them to come out at high speed and you could be burned. Never turn the cap when the cooling system, including the pressure cap, is hot. Wait for the cooling system and pressure cap to cool.

229

If No Steam Is Coming from the Engine Compartment

If an engine overheat warning is displayed but no steam can be seen or heard, the problem may not be too serious. Sometimes the engine can get a little too hot when the vehicle:

- · Climbs a long hill on a hot day.
- Stops after high-speed driving.
- Idles for long periods in traffic.

If the overheat warning is displayed with no sign of steam:

- 1. Turn the air conditioning off.
- Turn the heater on to the highest temperature and to the highest fan speed. Open the windows as necessary.
- When it is safe to do so, pull off the road, shift to P (Park) or N (Neutral), and let the engine idle.

If the engine coolant temperature gauge is no longer in the overheated area, the vehicle can be driven. Continue to drive the vehicle slowly for about 10 minutes. Keep a safe distance from the vehicle in front. If the warning does not

come back on, continue to drive normally and have the cooling system checked for proper fill and function.

If the warning continues, pull over, stop, and park the vehicle right away.

If there is no sign of steam, idle the engine for three minutes while parked. If the warning is still displayed, turn off the engine until it cools down.

Washer Fluid

What to Use

When 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



Open the cap with the washer symbol on it. Add washer fluid until the tank is full. See Engine Compartment Overview ⇒ 220 for reservoir location.

Caution

- Do not use washer fluid that contains any type of water repellent coating. This can cause the wiper blades to chatter or skip.
- Do not use engine coolant (antifreeze) in the 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.

(Continued)

Caution (Continued)

 Fill the washer fluid tank only threequarters full when it is very cold. This allows for fluid expansion if freezing occurs, which could damage the tank if it is completely full.

Brakes

The brake wear warning sound means that soon the brakes will not work well. That could lead to a crash. When the brake wear warning sound is heard, have the vehicle serviced.

Caution

Continuing to drive with worn-out brake linings could result in costly brake repairs.

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.

Properly torqued wheel nuts are necessary to help prevent brake pulsation. When tires are rotated, inspect brake linings for wear and evenly tighten wheel nuts in the proper sequence to torque specifications. See *Capacities and Specifications* ❖ 283.

Brake pads should be replaced as complete axle sets.

Brake Pedal Travel

See your dealer if the brake pedal does not return to normal height, or if there is a rapid increase in pedal travel. This could be a sign that brake service may be required.

Replacing Brake System Parts

Always replace brake system parts with new, approved replacement parts. If this is not done, the brakes may not work properly. The braking

performance can change in many ways if the wrong brake parts are installed or if parts are improperly installed.

Brake Fluid



The brake master cylinder reservoir is filled with GM approved DOT 4 brake fluid as indicated on the reservoir cap. See Engine Compartment Overview > 220 for the location of the reservoir

Checking Brake Fluid

With the vehicle in P (Park) on a level surface, the brake fluid level should be between the minimum and maximum marks on the brake fluid reservoir.

There are only two reasons why the brake fluid level in the reservoir may go down:

 Normal brake lining wear. When new linings are installed, the fluid level goes back up. A fluid leak in the brake hydraulic system.
 Have the brake hydraulic system fixed.
 With a leak, the brakes will not work well.

Always clean the brake fluid reservoir cap and the area around the cap before removing it.

Do not top off the brake fluid. Adding fluid does not correct a leak. If fluid is added when the linings are worn, there will be too much fluid when new brake linings are installed. Add or remove fluid, as necessary, only when work is done on the brake hydraulic system.

⚠ Warning

If too much brake fluid is added, it can spill on the engine and burn, if the engine is hot enough. You or others could be burned, and the vehicle could be damaged. Add brake fluid only when work is done on the brake hydraulic system.

When the brake fluid falls to a low level, the brake warning light comes on. See *Brake System Warning Light* ⇒ 92.

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* ♀ 276.

What to Add

Use only GM approved DOT 4 brake fluid from a clean, sealed container. See *Recommended Fluids and Lubricants* \$\sip\$ 280.

⚠ Warning

The wrong or contaminated brake fluid could result in damage to the brake system. This could result in the loss of braking leading to a possible injury. Always use the proper GM approved brake fluid.

Caution

If brake fluid is spilled on the vehicle's painted surfaces, the paint finish can be damaged. Immediately wash off any painted surface.

Battery

12-Volt Batteru

The original equipment battery is maintenance free. Do not remove the cap and do not add fluid.

The vehicle has a standard 12-volt battery. Refer to the replacement number on the original battery label when a new standard 12-volt battery is needed.

Intermediate Voltage Batteru

eAssist vehicles also have an intermediate voltage battery. Only a trained service technician with the proper knowledge and tools should inspect, test, or replace the intermediate voltage battery. See your dealer if the intermediate voltage battery needs service. The dealer has information on how to recycle the intermediate voltage battery. There is also information available at http://www.recyclemybattery.com.

⚠ 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.

Vehicle Storage

Infrequent Usage: Remove the black, negative (-) cable from the battery to keep the battery from running down.

Extended Storage: Remove the black, negative (–) cable from the battery or use a battery trickle charger.

All-Wheel Drive

Transfer Case

Under normal driving conditions, transfer case fluid does not require maintenance unless there is a fluid leak or unusual noise. If required, have the transfer case serviced by your dealer.

Park Brake and P (Park) Mechanism Check

⚠ Warning

When you are doing this check, the vehicle could begin to move. You or others could be injured and property could be damaged. Make sure there is room in front of the

(Continued)

Warning (Continued)

vehicle in case it begins to roll. Be ready to apply the regular brake at once should the vehicle begin to move.

Park on a steep hill, with the vehicle facing downhill. Keeping your foot on the regular brake, set the parking brake.

- To check the parking brake's holding ability:
 With the vehicle on and the transmission in
 N (Neutral), slowly remove foot pressure
 from the regular brake pedal. Do this
 until the vehicle is held by the parking
 brake only.
- To check the P (Park) mechanism's holding ability: With the vehicle on, shift to P (Park). Then release the parking brake and slowly remove pressure from the regular brake pedal.

Contact your dealer if service is required.

Wiper Blade Replacement

Windshield wiper blades should be inspected for wear and cracking. See *Maintenance* Schedule ⇒ 276.

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.

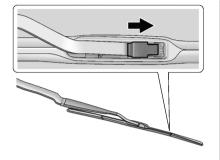
Front Wiper Blade Replacement

Caution

Damage may occur if the wiper blades are not in contact with the windshield before turning on the wiper system.

To replace the front wiper blades:

1. Pull the windshield wiper assembly away from the windshield.



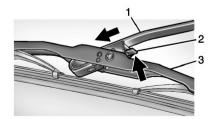
- 2. Lift up on the latch in the middle of the wiper blade where the wiper arm attaches.
- With the latch open, pull the wiper blade down toward the windshield far enough to release it from the J-hooked end of the wiper arm.
- 4. Remove the wiper blade.
- 5. Reverse Steps 1–3 for wiper blade replacement.

Rear Wiper Blade Replacement

To replace the rear wiper blade:



- Slide a plastic tool under the cover and push upward to unsnap.
- 2. Slide the cover toward the wiper blade tip to unhook it from the blade assembly.
- 3. Remove the cover.
- 4. Lift the wiper arm away from the windshield.



- Push the release lever (2) to disengage the hook and push the wiper arm (1) out of the blade assembly (3).
- Push the new blade assembly securely on the wiper arm until the release lever clicks into place.
- To reinstall the cover, ensure that the cover hook slides into the slot in the blade assemblu.
- 8. Snap the cover down to secure.

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 and Heated Wiper Park (HWP) Windshield

The vehicle is equipped with an acoustic and Heated Wiper Park (HWP) windshield. If the windshield needs replacement, make sure to use a GM compatible acoustic and HWP windshield to retain its features

Gas Strut(s)

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.

⚠ 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.



Hood



Trunk



Liftgate

Headlamp Aiming Front Headlamp Aiming

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

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

Bulb Replacement LED Lighting

This vehicle has several LED lamps. For replacement of any LED lighting assembly, contact your dealer.

Electrical System Electrical System Overload

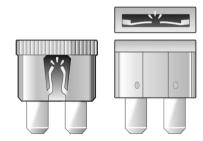
The vehicle has fuses and circuit breakers to protect against an electrical system overload.

When the current electrical load is too heavy, the circuit breaker opens and closes, protecting the circuit until the current load returns to normal or the problem is fixed. This greatly reduces the chance of circuit overload and fire caused by electrical problems.

Fuses and circuit breakers protect power devices in the vehicle.

If there is a problem on the road and a fuse needs to be replaced, the same amperage fuse can be borrowed. Choose some feature of the vehicle that is not needed to use and replace it as soon as possible.

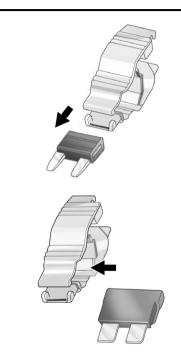
To check a fuse, look at the band inside the fuse. If the band is broken or melted, replace the fuse. Be sure to replace a bad fuse with a fuse of the identical size and rating.





Replacing a Blown Fuse

- 1. Turn off the vehicle.
- 2. Locate the fuse puller in the engine compartment fuse block.



3. Use the fuse puller to remove the fuse from the top or side, as shown above.

- 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.

Headlamp Wiring

An electrical overload may cause the lamps to go on and off, or in some cases to remain off. Have the headlamp wiring checked right away if the lamps go on and off or remain off.

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

The wiring circuits in the vehicle are protected from short circuits by a combination of fuses and circuit breakers. This greatly reduces the chance of damage caused by electrical problems.

⚠ Danger

Fuses and circuit breakers are marked with their ampere rating. Do not exceed the specified amperage rating when replacing fuses and circuit breakers. Use of an oversized fuse or circuit breaker can result in a vehicle fire. You and others could be seriously injured or killed.



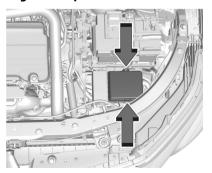
⚠ Warning

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.

See Accessories and Modifications $\stackrel{\triangleright}{\sim}$ 218 and General Information $\stackrel{\triangleright}{\sim}$ 218.

To check or replace a blown fuse, see *Electrical System Overload* \$\sip 235\$.

Engine Compartment Fuse Block



There are two clips on the side of the fuse block cover. See Engine Compartment Overview

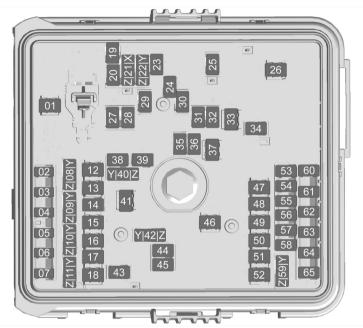
⇒ 220.



To remove the fuse block cover, squeeze the clips on the cover and lift it straight up.

Caution

Spilling liquid on any electrical component on the vehicle may damage it. Always keep the covers on any electrical component.

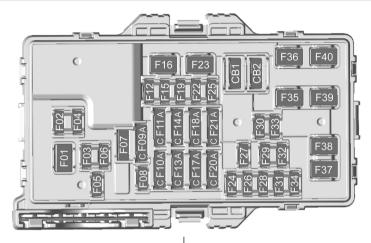


The vehicle may not be equipped with all of the fuses, relays, and features shown.

Fuses	Usage
F01	STRTR MTR – Starter Motor
F02	Spare
F03	ELM 5 – Exterior Lighting Module Battery 5
F04	Spare
F05	Spare
F06	FTZM – Fuel Tank Zone Module
F07	Spare
F08	Spare
F09Z	HSM_FT_BAT 1 – Heated Seat Module (Front) Battery 1
F09Y	HSM_FT_BAT 2 – Heated Seat Module (Front) Battery 2
F10Z	HSM_RR_1 – Heated Seat Module (Row2) Battery 1

	Fuses	Usage	Fuses	Usage
HSM_RR_2 – Heated Seat Module (Row2) Battery 2	F19	ECM PTIGN — Engine Control Module	F26	STRTR PINION – Starter Motor Pinion
MSG_LT – Seat Lumbar Switch (Driver)		ECM_PTIGN2 – Engine	F27	AWP– Auxiliary Water Pump Battery
MSG_RT – Seat Lumbar	F20	Control Module Powertrain Ignition 2	F28	Spare
	F317	OFF ENG 1 – Engine	F29	Spare
	FZIZ	Sensor Power	F30	Spare
Spare	F21Y	Spare	F31	TAOPM – Trans Aux Oil Pump Module Battery
Spare	F22Z			,
PWR_SEAT_DR -	5221/		F32	TCM_PCM – Transmission Control Module Battery
Memory Seat Module Power (Driver)	F22Y Solenoid Power	F33	Spare	
DSP-LT — Left Front	F23	Spare	F34	ST/TRN LT — Light_duty
Window Motor		ECM&PCM2 – Engine	134	Trailer Connector
PWR SEAT CO-Memory	124	Control Module Battery	F35	Spare
Seat Module Power (Co- Driver)	F25	A/C CLUTCH – Electric Variable Displacement	F36	ACM – Aero Shutter Module
DCDC 1 – DC-DC Converter Battery 1		Control Clutch		
	MSG_LT – Seat Lumbar Switch (Driver) MSG_RT – Seat Lumbar Switch (Co-Driver) DEFOG_RR – Window Defog Grid Rear Spare Spare PWR_SEAT_DR – Memory Seat Module Power (Driver) DSP-LT – Left Front Window Motor PWR_SEAT_CO – Memory Seat Module Power (Co-Driver) DCDC1 – DC-DC Converter	MSG_LT – Seat Lumbar Switch (Driver) MSG_RT – Seat Lumbar Switch (Co-Driver) DEFOG_RR – Window Defog Grid Rear Spare Spare F21Y Spare F22Z PWR_SEAT_DR – Memory Seat Module Power (Driver) DSP-LT – Left Front Window Motor PWR_SEAT_CO – Memory Seat Module Power (Co-Driver) F25 DCDC 1 – DC-DC Converter	MSG_LT - Seat Lumbar Switch (Driver) MSG_RT - Seat Lumbar Switch (Co-Driver) DEFOG_RR - Window Defog Grid Rear Spare Spare Spare Spare F217 Spare F227 COILIGNITION_PWR-Coil Ignition Power PWR_SEAT_DR - Memory Seat Module Power (Driver) DSP-LT - Left Front Window Motor PWR_SEAT_CO - Memory Seat Module Power (Co-Driver) PWR_SEAT_CO - Memory Seat Module Power (Co-Driver) F25 MCC CLUTCH - Electric Variable Displacement Control Clutch	Module (Row2) Battery 2 MSG_LT - Seat Lumbar Switch (Driver) MSG_RT - Seat Lumbar Switch (Co-Driver) DEFOG_RR - Window Defog Grid Rear Spare Spare F227 F227 F28 F29 F29 F29 F29 F29 F29 F29

Fuses	Usage	Fuses	Usage	Fuses	Usage
F37	EBCM1 – Electronic Brake Control Module Battery 1	F48	DSP-RT — Right Front Window Motor	F59Z	DSP_DR – Door Switch Panel Battery_Driver
F38	Spare	F49	PTM – Power Tailgate Module	F59Y	DSP_CO – Door Switch Panel Battery_Co-Driver
F39	WASH PUMP – Wash Pump Motor	F50 F51	SRC – Sunroof WIPER_FRT – Front Wiper Motor	F60	WIP_DE_ICE – De- Ice Wiper ST/TRN RT – Trailer Stop/
F40 F41	Spare Spare	F52	DASM – Driveline Smart Actuator Module Battery	F61 F62	Turn Lamp
F42	Spare	F53	Horn	F63	Spare Spare
F43	M17_REAR – Rear Wiper Motor	F54	BKUP – Trailer Connector Reverse Lamp	F64	Spare
F44	Spare	F55	PRK – Park Lamp	F65	Spare
F45	RFA – Remote Function Receiver Battery	F56	CVS – Canister Vent Solenoid		anel Fuse Block anel fuse block is under
F46	Spare	F57	Spare	the instrument panel above the driver side foot rest.	
F47	TRAILER – Heavy_Duty Trailer Connector Battery	F58	ELM 4 – Exterior Lighting Module Battery 4		ot be equipped with all of the hown.



Fuses	Usage	Fuses	Usage
F01	BLOWER – Front Blower Motor	F04	ELM 2 – Exterior Lighting Module Battery 2
F02	ELM 6 – Exterior Lighting Module Battery 6	F05	BCM 2 – Body Control Module 2
F03	HDLP_RT – Headlamp Right	F06	BCM1 – Body Control Module 1

Fuses	Usage
F07	SWC – Steering Wheel Controls
F08	ONSTAR
F09	ETRS/SWBK – Electronic Transmission Range Select / Switch Bank Battery
F10C	IPD – Instrument Panel Display
F10A	VCD – Virtual Cockpit Display
F11C	LAMP_RT — Tail Lamp- Right
F11A	HVAC_D_OHC_UGDO – Overhead Console Module Battery
F12	Spare
F13C	SAFETY2 – Side Blind Zone Alert Battery 2
F13A	LAMP_LT – Tail Lamp-Left

Fuses	Usage	Fuses	Usage	Fuses	Usage
F14C	RC_MISC_3 - RUN/ CRANK Miscellaneous_3	F20C	DLC – Data Link Connector	F27	HSWM—Heated Steering Wheel Module Battery
F14A	RC_MISC_4 - RUN/ CRANK Miscellaneous_4	F20A	CGM – Central Gateway Module	F28	ELM 7 – Exterior Lighting Module Battery 7
F15	Spare		VCU_JACK 1 – Virtual	F29	HDLP_LT -
	APO CARGO – Auxiliary	F21C	Cockpit Unit Jack	123	Headlamp Left
F16	DC Power Outlet		Battery 1	F30	Spare
F17C	SAFETY1_2 — Sensing & Diagnostic	F21A	VCU_JACK 2 – Virtual Cockpit Unit Jack Battery 2	F31	BCM 3 – Body Control Module 3
	Module Battery1_2 SAFETY1_1 – Sensing		ECM_TCM_IGN — Engine Control	F32	WCM – Wireless Charger Module
F17A	& Diagnostic Module Battery1_1	F22	Module_Transmission Control Module Ignition	F33	Spare
F18C	RC_MISC_1 – RUN/ CRANK Miscellaneous 1	F23	APO_USB – Auxiliary	F34	ELM 3 – Exterior Lighting Module Battery 3
	_		Power Outlet_USB	F35	AMP – Amplifier Audio
F18A	RC_MISC_2 – RUN/ CRANK Miscellaneous 2	F24	Spare		DCDC2 – DC-DC Converter
	SDM_RC – Sensing &	F25	Spare	F36	Battery 2
F19	Diagnostic Module	F26	ELM 1 – Exterior Lighting Module Battery 1	F37	Spare

Fuses	Usage
F38	Spare
F39	BCM 4 – Body Control Module 4
F40	VCU_2 – Virtual Cockpit Unit Battery 2
CB01	Spare
CB02	Spare

Wheels and Tires

Tires

Every new GM vehicle has high-quality tires made by a leading tire manufacturer. See the warranty manual for information regarding the tire warranty and where to get service. For additional information refer to the tire manufacturer.

⚠ Warning

- Poorly maintained and improperly used tires are dangerous.
- Overloading the tires can cause overheating as a result of too much flexing. There could be a blowout and a serious crash. See Vehicle Load Limits \$\precep\$ 156.
- 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*

⇒ 245 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 have a TPC specification code molded onto the sidewall. Original equipment allseason tires can be identified by the last two characters of this TPC code, which will be "MS." 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 ⇒ 244

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*

⇒ 251.

With winter tires, there may be decreased dry road traction, increased road noise, and shorter tread life. After changing to winter tires, be alert for changes in vehicle handling and braking.

If using winter tires:

- Use tires of the same brand and tread type on all four wheel positions.
- Use only radial ply tires of the same size, load range, and speed rating as the original equipment tires.

Winter tires with the same speed rating as the original equipment tires may not be available for H, V, W, Y, and ZR speed rated tires. If winter tires with a lower speed rating are chosen, never exceed the tire's maximum speed capability.

Tire 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*

⊅ 156.

How the vehicle is loaded affects vehicle handling and ride comfort. Never load the vehicle with more weight than it was designed to carry.

When to Check

Check the pressure of the tires once a month or more. Do not forget the spare, if the vehicle has one. The compact spare cold tire pressure should be at 420 kPa (60 psi). See Compact Spare Tire ▷ 260.

How to Check

Use a good quality pocket-type gauge to check tire pressure. Proper tire inflation cannot be determined by looking at the tire. Check the tire inflation pressure when

the tires are cold, meaning the vehicle has not been driven for at least three hours or no more than 1.6 km (1 mi).

Remove the valve cap from the tire valve stem. Press the tire gauge firmly onto the valve to get a pressure measurement. If the cold tire inflation pressure matches the recommended pressure on the Tire and Loading Information label, no further adjustment is necessary. If the inflation pressure is low, add air until the recommended pressure is reached. If the inflation pressure is high, press on the metal stem in the center of the tire valve to release air.

Recheck the tire pressure with the tire gauge.

Put the valve caps back on the valve stems to keep out dirt and moisture. Use only valve caps designed for the vehicle by GM. TPMS sensors could be damaged and would not be covered by the vehicle warranty.

Tire Pressure for High-Speed Operation

⚠ Warning

Driving at high speeds, 160 km/h (100 mph) or higher, puts additional strain on tires. Sustained high-speed driving causes excessive heat buildup and can cause sudden tire failure. This could cause a crash, and you or others could be killed. Some high-speed rated tires require inflation pressure adjustment for high-speed operation. When speed limits and road conditions allow the vehicle to be driven at high speeds, make sure the tires are rated for high-speed operation, are in excellent condition, and are set to the correct cold tire inflation pressure for the vehicle load.

Tire Pressure Monitor System

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 vehicle's 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* ⇒ 246 for additional information.

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 transmitthe tire pressure readings to a receiver located in the vehicle.



When a low tire pressure condition is detected, the TPMS illuminates the low tire pressure warning light on the instrument cluster. If the warning light comes on, stop as soon as possible and inflate the tires to the recommended pressure shown on the Tire and Loading Information label. See *Vehicle Load Limits*

⇒ 156.

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 at each ignition cycle until the tires are inflated to the correct inflation pressure. Using the DIC, tire pressure levels can be viewed. For additional information and details about the DIC operation and displays see *Driver Information Center (DIC)* ♀ 99.

The low tire pressure warning light may come on in cool weather when the vehicle is first started, and then turn off as the vehicle is driven. This could be an early indicator that the air pressure is getting low and needs to be inflated to the proper pressure.

A Tire and Loading Information label, attached to your vehicle, shows the size of the original equipment tires and the correct inflation pressure for the tires when they are cold. See *Vehicle Load Limits* \$\phi\$ 156, for an example of the Tire and Loading Information label and its location. Also see *Tire Pressure* \$\phi\$ 244.

The TPMS can warn about a low tire pressure condition but it does not replace normal tire maintenance. See *Tire Inspection* ⇒ 249, *Tire Rotation* ⇒ 249 and *Tires* ⇒ 243

Caution

Tire sealant materials are not all the same. A non-approved tire sealant could damage the TPMS sensors. TPMS sensor damage caused by using an incorrect tire sealant is not covered by the vehicle warranty.

(Continued)

Caution (Continued)

Always use only the GM approved tire sealant available through your dealer or included in the vehicle.

TPMS Malfunction Light and Message

The TPMS will not function properly if one or more of the TPMS sensors are missing or inoperable. When the system detects a malfunction, the low tire pressure warning light flashes for about one minute and then stays on for the remainder of the ignition cycle. A DIC warning message also displays. The malfunction light and DIC warning message come on at each ignition cycle until the problem is corrected. Some of the conditions that can cause these to come on are:

 One of the road tires has been replaced with the spare tire. The spare tire does not have a TPMS sensor. The malfunction light and DIC message should go off after the road tire is replaced and the sensor matching process is performed successfully. See "TPMS Sensor Matching Process" later in this section.

- The TPMS sensor matching process was not done or not completed successfully after rotating the tires. The malfunction light and the DIC message should go off after successfully completing the sensor matching process. See "TPMS Sensor Matching Process" later in this section.
- One or more TPMS sensors are missing or damaged. The malfunction light and the DIC message should go off when the TPMS sensors are installed and the sensor matching process is performed successfully. See your dealer for service.
- Replacement tires or wheels do not match the original equipment tires or wheels. Tires and wheels other than those recommended could prevent the TPMS from functioning properly. See Buying New Tires

 251.
- 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.
- Set the parking brake firmly.
- 3. Place the vehicle in P (Park).
- 4. Add air to the tire that is underinflated. The turn signal lamp will flash.

When the recommended pressure is reached, the horn sounds once and the turn signal lamp will stop flashing and briefly turn solid.

Repeat these steps for all underinflated tires that have illuminated the low tire pressure warning light.

⚠ Warning

Overinflating a tire could cause the tire to rupture and you or others could be injured. Do not exceed the maximum pressure listed on the tire sidewall

If the tire is overinflated by more than 35 kPa (5 psi), the horn will sound multiple times and the turn signal lamp will continue to flash for several seconds after filling stops. To release and correct the pressure, while the turn signal lamp is still flashing, briefly press the center of the valve stem. When the recommended pressure is reached, the horn sounds once.

If the turn signal lamp does not flash within 15 seconds after starting to inflate the tire, the tire fill alert has not been activated or is not working.

If the hazard warning flashers are on, the tire fill alert visual feedback will not work properly.

The TPMS will not activate the tire fill alert properly under the following conditions:

- There is interference from an external device or transmitter.
- The air pressure from the inflation device is not sufficient to inflate the tire.

- There is a malfunction in the TPMS.
- There is a malfunction in the horn or turn signal lamps.
- The identification code of the TPMS sensor is not registered to the system.
- The battery of the TPMS sensor 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) \$\sime\$ 99. 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.
- The tire has a puncture, cut, or other damage that cannot be repaired well because of the size or location of the damage.

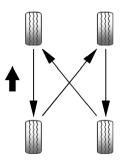
Tire Rotation

Tires should be rotated according to the interval specified in the Maintenance Schedule. See Maintenance Schedule

⇒ 276.

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 ♀ 250 and Wheel Replacement ♀ 252.



Use this rotation pattern when rotating the tires.

Do not include the compact spare tire in the tire rotation.

Adjust the front and rear tires to the recommended inflation pressure on the Tire and Loading Information label after the tires have been rotated. See *Tire Pressure* ⇒ 244 and *Vehicle Load Limits* ⇒ 156.

 Check that all wheel nuts are properly tightened. See "Wheel Nut Torque" under Capacities and Specifications \$\sip\$ 283, and "Removing the Flat Tire and Installing the Spare Tire" under Tire Changing \$\sip\$ 255.

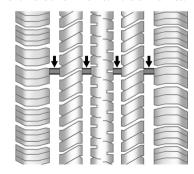
Rust or dirt on a wheel, or on the parts to which it is fastened, can cause wheel nuts to become loose over time. The wheel could come off and cause a crash. When changing a wheel, remove any rust or dirt from places where the wheel attaches to the vehicle. In an emergency, a cloth or paper towel can be used; however, use a scraper or wire brush later to remove all rust or dirt.

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

Do not apply grease to the wheel mounting surface, wheel conical seats, or the wheel nuts or bolts. Grease applied to these areas could cause a wheel to become loose or come off, resulting in a crash.

When It Is Time for New Tires

Factors, such as maintenance, temperatures, driving speeds, vehicle loading, and road conditions affect the wear rate of the tires.



Treadwear indicators are one way to tell when it is time for new tires. Treadwear indicators appear when the tires have only 1.6 mm (1/16 in) or less of tread remaining. See *Tire Inspection* ⇒ 249 and *Tire Rotation* ⇒ 249.

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 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*

⇒ 249.

⚠ 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.

Mixing tires of different sizes (other than those originally installed on the vehicle), brands, tread patterns, or types may cause loss of vehicle control, resulting in a crash or other vehicle damage. Use the correct size, brand, and type of tire on all wheels.

⚠ Warning

Using bias-ply tires on the vehicle may cause the wheel rim flanges to develop cracks after many miles of driving.
A tire and/or wheel could fail suddenly and cause a crash. Use only radial-ply tires with the wheels on the vehicle.

Winter tires with the same speed rating as the original equipment tires may not be available for H, V, W, Y and ZR speed rated tires. Never exceed the winter tires' maximum speed capability when using winter tires with a lower speed rating.

The Tire and Loading Information label indicates the original equipment tires on the vehicle. See *Vehicle Load Limits* ❖ 156.

Different Size Tires and Wheels

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.

Marning

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.

See Buying New Tires \$\dip 251 and Accessories and Modifications \$\dip 218.

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 crown of the road and/or other road surface variations such as troughs or ruts, is normal. If the vehicle is vibrating when driving on a smooth road, the tires and wheels may need to be rebalanced. See your dealer for proper diagnosis.

Wheel Replacement

Replace any wheel that is bent, cracked, or badly rusted or corroded. If wheel nuts keep coming loose, the wheel, wheel bolts, and wheel nuts should be replaced. If the wheel leaks air, replace it. Some 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 loadcarrying 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.

⚠ Warning

Using the wrong replacement wheels, wheel bolts, or wheel nuts can be dangerous. It could affect the braking and handling of the vehicle. Tires can lose air, and cause loss of control, causing 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.

The wrong wheel can also cause problems with bearing life, brake cooling, speedometer or odometer calibration, headlamp aim, bumper height, vehicle ground clearance, and tire or tire chain clearance to the body and chassis.

⚠ Warning

Wheel nuts used improperly or fastened improperly may cause the wheel to loosen or even fall off. This can lead to collision accidents. Be sure to use the correct wheel nuts. If the wheel nuts must be replaced, use new GM original equipment parts.

Caution

Improper fastening of wheel nuts can lead to brake pedal runout and brake disc damage. In order to avoid expensive braking maintenance, the wheel nuts should be tightened uniformly in the correct order and tightened to the appropriate torque specifications.

Tire Chains

⚠ Warning

Do not use tire chains. There is not enough clearance. Tire chains used on a vehicle without the proper amount of clearance can cause damage to the brakes, suspension, or other vehicle parts. The area damaged by the tire chains could cause loss of control and a crash

Use another type of traction device only if its manufacturer recommends it for the vehicle's tire size combination and road conditions. Follow that manufacturer's instructions. To avoid vehicle damage, drive slowly and readjust or remove the traction device if it contacts the vehicle. Do not spin the wheels. If traction devices are used, install them on the tires of the drive axle only.

If a Tire Goes Flat

It is unusual for a tire to blow out while driving, especially if the tires are maintained properly. See *Tires* \$\dip 243\$. If air goes out of a tire, it is much

more likely to leak out slowly. But if there is ever a blowout, here are a few tips about what to expect and what to do:

If a front tire fails, the flat tire creates a drag that pulls the vehicle toward that side. Take your foot off the accelerator pedal and grip the steering wheel firmly. Steer to maintain lane position, and then gently brake to a stop, well off the road, if possible.

A rear blowout, particularly on a curve, acts much like a skid and may require the same correction as used in a skid. Stop pressing the accelerator pedal and steer to straighten the vehicle. It may be very bumpy and noisy. Gently brake to a stop, well off the road, if possible.

⚠ Warning

Driving on a flat 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

(Continued)

Warning (Continued)

your dealer or an authorized tire service center repair or replace the flat tire as soon as possible.

⚠ Warning

Lifting a vehicle and getting under it to do maintenance or repairs is dangerous without the appropriate safety equipment and training. If a jack is provided with the vehicle, it is designed only for changing a flat tire. If it is used for anything else, you or others could be badly injured or killed if the vehicle slips off the jack. If a jack is provided with the vehicle, only use it for changing a flat tire.

If a tire goes flat, avoid further tire and wheel damage by driving slowly to a level place, well off the road, if possible. Turn on the hazard warning flashers. See Hazard Warning Flashers

→ 107.

If your vehicle is loaded at or near maximum cargo capacity, it may be difficult to fit the jack under the vehicle due to the environment

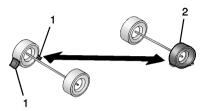
(shoulder slope, road debris, etc.). Removal of some weight may improve the ability to fit the jack under the vehicle at the correct jacking location.

⚠ Warning

Changing a tire can be dangerous. The vehicle can slip off the jack and roll over or fall causing injury or death. Find a level place to change the tire. To help prevent the vehicle from moving:

- 1. Set the parking brake firmly.
- 2. Put the vehicle in P (Park).
- 3. Turn the vehicle off and do not restart the vehicle while it is raised.
- 4. Do not allow passengers to remain in the vehicle.
- Place wheel blocks, if equipped, on both sides of the tire at the opposite corner of the tire being changed.

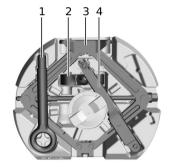
When the vehicle has a flat tire (2), use the following example as a guide to assist in the placement of the wheel blocks (1), if equipped.



- 1. Wheel Block (If Equipped)
- 2. Flat Tire

The following information explains how to repair or change a tire.

Tire Changing Removing the Spare Tire and Tools



- 1. Tow Eye (If Equipped)
- 2. Strap
- 3. Jack
- 4. Wheel Wrench

To access the spare tire and tools:

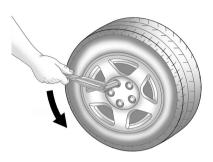
- 1. Open the liftgate. See *Liftgate* \$\sigma\$ 17.
- Fold the rear part of the load floor to the front, pull it rearward to disengage the clips, then pull upward to remove it.

- 3. Pull the spare tire cover forward and upward to remove it.
- Turn the retainer nut counterclockwise to remove the spare tire. Place the spare tire next to the tire being changed.
- The jack and tools are stored below the spare tire. Remove them from their container and place them near the tire being changed.

Removing the Flat Tire and Installing the Spare Tire

Take off the wheel cover or center cap, if the vehicle has one, to reach the wheel bolts.

- 1. Do a safety check before proceeding. See *If* a *Tire Goes Flat* \$\dip 253\$ for more information.
- Turn the wheel wrench counterclockwise to loosen and remove the wheel nut caps.
 Do not try to remove plastic caps from the cover or center cap.
- Pull the cover or center cap away from the wheel. Store the wheel cover in the cargo area until you have the flat tire repaired or replaced.



- 4. Turn the wheel wrench counterclockwise to loosen all the wheel nuts, but do not remove them yet.
- 5. Place the jack near the flat tire.
- 6. Put the compact spare tire near you.

⚠ Warning

Getting under a vehicle when it is lifted on a jack is dangerous. If the vehicle slips off the jack, you could be badly injured or killed. Never get under a vehicle when it is supported only by a jack.

⚠ Warning

Raising the vehicle with the jack improperly positioned can damage the vehicle and even make the vehicle fall. To help avoid personal injury and vehicle damage, be sure to fit the jack lift head into the proper location before raising the vehicle.

⚠ Warning

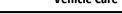
Lifting a vehicle and getting under it to do maintenance or repairs is dangerous without the appropriate safety equipment and training. If a jack is provided with the vehicle, it is designed only for changing a flat tire. If it is used for anything else, you or others could be badly injured or killed if the vehicle slips off the jack. If a jack is provided with the vehicle, only use it for changing a flat tire.

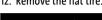
- Attach the wrench to the jack by fitting the hex end of the wrench over the hex head of the jack.
- 8. Place the jack under the vehicle.

Caution

Make sure that the jack lift head is in the correct position or you may damage your vehicle. The repairs would not be covered by your warranty.







⚠ Warning

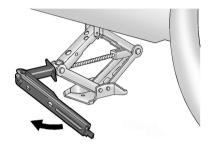
Rust or dirt on a wheel, or on the parts to which it is fastened, can cause wheel nuts to become loose over time. The wheel could come off and cause a crash. When changing a wheel, remove any rust or dirt from places where the wheel attaches to the vehicle. In an emergency, a cloth or paper towel can be used; however, use a scraper or wire brush later to remove all rust or dirt.



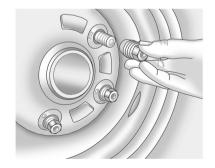
9. Position the jack lift head at the jack location nearest the flat tire. The location is indicated by a notch in the vertical bottom edge of the body side sheet metal.

The notches in the jack must align with the notch in the rocker pinch weld. The jack lift head lifts on the inward side of the pinch weld flange.

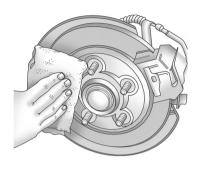
The jack must not be used in any other position.



10. Raise the vehicle by turning the jack handle clockwise. Raise the vehicle far enough off the ground so there is enough room for the road tire to clear the ground.



11. Remove all of the wheel nuts. 12. Remove the flat tire.



- 13. Remove any rust or dirt from the wheel bolts, mounting surfaces, and spare wheel.
- 14. Place the compact spare tire on the wheelmounting surface.

⚠ Warning

Never use oil or grease on bolts or nuts because the nuts might come loose. The vehicle's wheel could fall off, causing a crash.

 Reinstall the wheel nuts. Tighten each nut by hand until the wheel is held against the hub. 16. Lower the vehicle by turning the jack handle counterclockwise.

⚠ Warning

Caution

Improperly tightened wheel nuts can lead to brake pulsation and rotor damage. To avoid expensive brake repairs, evenly tighten the wheel nuts in the proper sequence and to the proper torque specification. See *Capacities and Specifications* ▷ 283 for the wheel nut torque specification.



- 17. Tighten the wheel nuts firmly in a crisscross sequence, as shown.
- 18. Lower the jack all the way and remove the jack from under the vehicle.
- 19. Tighten the wheel nuts firmly with the wheel wrench.

When reinstalling the wheel cover or center cap on the full-size tire, tighten all five plastic caps hand snug, then tighten them with the wheel wrench an additional one-quarter turn.

Caution

Wheel covers will not fit on the vehicle's compact spare. If you try to put a wheel cover on the compact spare, the cover or the spare could be damaged.

Storing a Flat or Spare Tire and Tools

⚠ Warning

Storing a jack, a tire, or other equipment in the passenger compartment of the vehicle could cause injury. In a sudden stop or collision, loose equipment could strike someone. Store all these in the proper place.

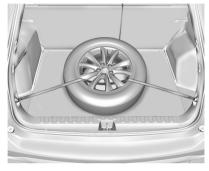
To store the flat tire:

- 1. Return the jack and tools to their original storage location.
- 2. Reinstall the spare tire cover.
- 3. Replace the load floor.
- 4. Place the flat tire, lying flat, in the rear storage compartment.



 Route the loop end of the strap through one of the cargo tie-downs in the rear of the vehicle.

Then route the hook through the loop and pull the strap to tighten around the cargo tie-down.



- 6. Route the strap through the wheel, as shown.
- Attach the other end of the strap to the other cargo tie-down in the rear of the vehicle.
- 8. Tighten the strap.

The compact spare is for temporary use only. Replace the compact spare tire with a full-size tire as soon as you can.

Compact Spare Tire

⚠ Warning

Driving with more than one compact spare tire at a time could result in loss of braking and handling. This could lead to a crash and you or others could be injured. Use only one compact spare tire at a time.

If this vehicle has a compact spare tire, it was fully inflated when new; however, it can lose air over time. Check the inflation pressure regularly. It should be 420 kPa (60 psi).

Stop as soon as possible and check that the spare tire is correctly inflated after being installed on the vehicle. The compact spare tire is designed for temporary use only. The vehicle will perform differently with the spare tire installed and it is recommended that the vehicle speed be limited to 80 km/h (50 mph). To conserve the tread of the spare tire, have the standard tire repaired or replaced as soon as convenient and return the spare tire to the storage area.

When using a compact spare tire, the AWD (if equipped), ABS, and Traction Control systems may engage until the spare tire is recognized by the vehicle, especially on slippery roads. Adjust driving to reduce possible wheel slip.

Caution

When the compact spare is installed, do not take the vehicle through an automatic car wash with guide rails. The compact spare can get caught on the rails which can damage the tire, wheel, and other parts of the vehicle.

Do not use the compact spare on other vehicles. Do not mix the compact spare tire or wheel with other wheels or tires. They will not fit. Keep the spare tire and its wheel together.

Caution

Tire chains will not fit the compact spare. Using them can damage the vehicle and the chains. Do not use tire chains on the compact spare.

Jump Starting

For more information about the vehicle battery, see *Battery* \Rightarrow 231.

If the battery has run down, try to use another vehicle and some jumper cables to start your vehicle. Be sure to use the following steps to do it safely.

⚠ Warning

Batteries can hurt you. They can be dangerous because:

- They contain acid that can burn you.
- They contain gas that can explode or ignite.
- They contain enough electricity to burn you.

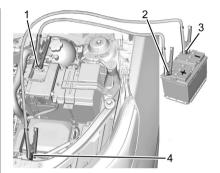
If you do not follow these steps exactly, some or all of these things can hurt you.

Caution

Ignoring these steps could result in costly damage to the vehicle that would not be covered by the vehicle warranty. Trying to start the vehicle by pushing or pulling it will not work, and it could damage the vehicle.

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 negative (–) grounding point and discharged battery (+) terminal are on the driver side of the vehicle.

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

The discharged battery positive (+) terminal is under a trim cover. Open the cover to expose the terminal.

 Check the other vehicle. It must have a 12-volt battery with a negative ground system.

Caution

If the other vehicle does not have a 12-volt system with a negative ground, both vehicles can be damaged. Only use a vehicle that has a 12-volt system with a negative ground for jump starting.

- Position the two vehicles so that they are not touching.

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.

 Turn the ignition off. Turn off all lights and accessories in both vehicles, except the hazard warning flashers if needed.

⚠ Warning

An electric fan can start up even when the engine is not running and can injure you. Keep hands, clothing, and tools away from any underhood electric fan.

⚠ Warning

Using a match near a battery can cause battery gas to explode. People have been hurt doing this, and some have been blinded. Use a flashlight if you need more light.

Battery fluid contains acid that can burn you. Do not get it on you. If you accidentally get it in your eyes or on your skin, flush the place with water and get medical help immediately.

⚠ Warning

Fans or other moving engine parts can injure you badly. Keep your hands away from moving parts once the engine is running.

- Connect one end of the red positive (+) cable to the discharged battery positive (+) terminal.
- Connect the other end of the red positive
 (+) cable to the good battery positive
 (+) terminal.
- Connect one end of the black negative

 cable to the good battery negative
 terminal.
- Connect the other end of the black negative

 cable to the discharged battery negative
 grounding point.
- Start the engine in the vehicle with the good battery and run the engine at idle speed for at least four minutes.
- 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 the sequence exactly when removing the jumper cables.

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

Towing the Vehicle Transporting a Disabled Vehicle

Caution

Incorrectly transporting a disabled vehicle may cause damage to the vehicle. Use proper tire straps to secure the vehicle to the flatbed tow truck. Do not strap or hook to any frame, underbody, or suspension component not specified below. Do not move vehicles with drive axle tires on the ground. Damage is not covered by the vehicle warranty.

Caution

The vehicle may be equipped with an Electric Parking Brake (EPB) and/or an electronic shifter. In the event of a loss of 12-volt battery power, the EPB cannot be released, and the vehicle cannot be shifted to N (Neutral). Tire skates or dollies must be used under the non-rolling tires to prevent damage while loading/unloading the vehicle. Dragging the vehicle will cause damage not covered by the vehicle warranty.

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 sparetire 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.

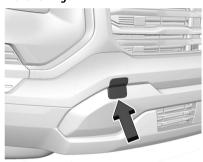
- If the vehicle is equipped with car wash mode and has 12-volt battery power, see "Car Wash Mode" under Automatic Transmission

 165 to place the vehicle in N (Neutral).
- If the 12-volt battery is dead and/or the engine will not start, the vehicle will not move. See Jump Starting

 260 and if the jump start is successful, retry the "Car Wash Mode" procedure.

If unsuccessful, the vehicle will not move. Tire skates or dollies must be used under the non-rolling tires to prevent vehicle damage.

Front Tow Eue



Carefully open the cover by using the small notch that conceals the front tow eye socket.



Install the tow eye into the socket and turn it until it is fully tightened.

When the tow eye is removed, reinstall the cover with the notch in the original position.

Rear Tow Eye

If the vehicle is equipped with a hitch, there is no provision to use the tow eye in the rear of the vehicle. The hitch may be used to load the vehicle onto a flatbed tow truck



If equipped, carefully open the cover by using the small notch that conceals the rear tow eye socket.



Install the tow eye into the socket and turn it until it is fully tightened.

When the tow eye is removed, reinstall the cover with the notch in the original position.

To tow the vehicle behind another vehicle for recreational purposes, such as behind a motor home, see *Recreational Vehicle Towing* ⇒ 264.

Recreational Vehicle Towing

Recreational vehicle towing means towing the vehicle behind another vehicle, such as behind a motor home. The two most common types of recreational vehicle towing are known as dinghy towing and dolly towing. Dinghy towing is towing the vehicle with all four wheels on the ground. Dolly towing is towing the vehicle with two wheels on the ground and two wheels up on a device known as a dolly.

Here are some important things to consider before recreational vehicle towing:

- Become familiar with the local laws that apply to recreational vehicle towing. These laws may vary by region.
- Be sure you know the towing capacity of the towing vehicle. Read the tow vehicle manufacturer's recommendations.

- Know how far the vehicle will be towed.
 Some vehicles have restrictions on how far and how long they can tow.
- Get the proper towing equipment.
 See your dealer or trailering professional for additional advice and equipment recommendations.
- If the vehicle is ready to be towed, just as preparing the vehicle for a long trip, ensure the vehicle is prepared to be towed.

Dinghy Towing

Run the ignition of a vehicle that is being dinghy towed in the beginning of each day, and at each fuel stop for about five minutes to ensure proper lubrication of transmission components.

Caution

Too much or too little fluid can damage the transmission. Be sure that the transmission fluid is at the proper level before towing with all four wheels on the ground.

Caution

Do not tow a vehicle with the front drive wheels on the ground if one of the front tires is a compact spare tire. Towing with two different tire sizes on the front of the vehicle can cause severe damage to the transmission.

To dinghy tow:

- Position the front of the vehicle being towed—with all four wheels on the ground —behind the towing vehicle.
- 2. Secure it to the towing vehicle.
- 3. Put the vehicle in N (Neutral).
- 4. Shut engine off (vehicle will remain in accessory mode).
- Release the Electric Parking Brake (EPB), if applied.
- 6. Disconnect the negative (-) terminal connector from the 12-volt battery.
- 7. Close the hood of the vehicle.

Caution

If the vehicle is towed without performing each of the steps listed under "Dinghy Towing," the automatic transmission could be damaged. Be sure to follow all steps of the dinghy towing procedure prior to and after towing the vehicle.

Caution

If 105 km/h (65 mph) is exceeded while towing the vehicle, it could be damaged. Never exceed 105 km/h (65 mph) while towing the vehicle.

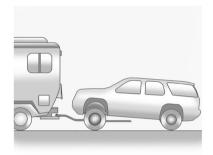
Once the destination is reached:

- 1. Shift the vehicle to P (Park).
- 2. Reconnect the negative (-) terminal connector to the 12-volt battery.
- 3. Start the engine and let it idle for more than three minutes before driving the vehicle.

For AWD vehicles only, a lubrication cycle is recommended after 2 700 km (1,700 miles) of recreational dinghy towing. Drive the vehicle in AWD up to 40 km/h (25 mph)

for a minimum of 30 seconds to distribute lubrication throughout the rear drive module and protect the system for additional dinghy towing.

Dolly Towing



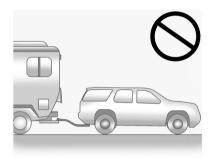
To tow the vehicle from the front with the rear wheels on the ground:

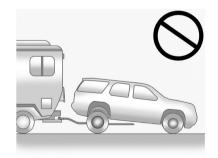
- 1. Put the front wheels on a dolly.
- 2. Move the shift lever to P (Park).
- 3. Set the parking brake.
- 4. Secure the vehicle to the dolly.

- Follow the dolly manufacturer's instructions for preparing the vehicle and dolly for towing.
- 6. Release the parking brake.
- 7. Turn vehicle off.
- 8. Disconnect the negative (-) terminal connector from the 12-volt battery.
- 9. Close the hood of the vehicle.

For AWD vehicles only, a lubrication cycle is recommended after 2 700 km (1,700 miles) of recreational dolly towing. Drive the vehicle in AWD up to 40 km/h (25 mph) for a minimum of 30 seconds to distribute lubrication throughout the rear drive module and protect the system for additional dolly towing.

Towing the Vehicle from the Rear





Caution

Towing the vehicle from the rear could damage it. Also, repairs would not be covered by the vehicle warranty. Never have the vehicle towed from the rear.

Appearance Care Exterior Care

Locks

Locks are lubricated at the factory. Use a deicing agent only when absolutely necessary, and have the locks greased after using. See Recommended Fluids and Lubricants \$\display\$ 280.

Washing the Vehicle

To preserve the vehicle's finish, wash it often and out of direct sunlight.

Caution

Do not use petroleum-based, acidic, or abrasive cleaning agents as they can damage the vehicle's paint, metal, (Continued)

Caution (Continued)

or plastic parts. If damage occurs, it would not be covered by the vehicle warranty. Approved cleaning products can be obtained from your dealer. Follow all manufacturer directions regarding correct product usage, necessary safety precautions, and appropriate disposal of any vehicle care product.

Caution

Avoid using high-pressure washers closer than 30 cm (12 in) to the surface of the vehicle. Use of power washers exceeding 8,274 kPa (1,200 psi) can result in damage or removal of paint and decals.

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 that has this with symbol.

This could cause damage that would not be covered by the vehicle warranty.

Solvents or aggressive cleaners may harm underhood components. The usages of these chemicals should be avoided

Recommend water only.

A pressure washer may be used, but care must be utilized. The following criteria must be followed:

 Water pressure must be kept below 14 000 KPa (2,000 PSI).

- Water temperature must be below 80 °C (180 °F).
- Spray nozzle with a 40 degree wide angle spray pattern or wider must be used.
- Nozzle must be kept at least 30 cm (1ft) away from all surfaces.

Finish Care

Application of aftermarket clearcoat sealant/wax materials is not recommended. If painted surfaces are damaged, see your dealer to have the damage assessed and repaired. Foreign materials such as calcium chloride and other salts, ice melting agents, road oil and tar, tree sap, bird droppings, chemicals from industrial chimneys, etc., can damage the vehicle's finish if they remain on painted surfaces. Wash the vehicle as soon as possible. If necessary, use non-abrasive cleaners that are marked safe for painted surfaces to remove foreign matter.

Occasional hand waxing or mild polishing should be done to remove residue from the paint finish. See your dealer for approved cleaning products.

Do not apply waxes or polishes to uncoated plastic, vinyl, rubber, decals, simulated wood, or flat paint as damage can occur.

Caution

Machine compounding or aggressive polishing on a basecoat/clearcoat paint finish may damage it. Use only nonabrasive waxes and polishes that are made for a basecoat/clearcoat paint finish on the vehicle.

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 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 Lamps/Lenses, Emblems, Decals, and Stripes

Use only lukewarm or cold water, a soft cloth, and a car washing soap to clean exterior lamps, lenses, emblems, decals, and stripes. Follow instructions under "Washing the Vehicle" previously in this section.

Lamp covers are made of plastic, and some have a UV protective coating. Do not clean or wipe them when dry.

Do not use any of the following on lamp covers:

- Abrasive or caustic agents
- Washer fluids and other cleaning agents in higher concentrations than suggested by the manufacturer
- Solvents, alcohols, fuels, or other harsh cleaners
- Ice scrapers or other hard items
- Aftermarket appearance caps or covers while the lamps are illuminated, due to excessive heat generated

Caution

Failure to clean lamps properly can cause damage to the lamp cover that would not be covered by the vehicle warranty.

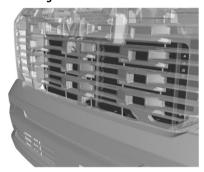
Caution

Using wax on low gloss black finish stripes can increase the gloss level and create a non-uniform finish. Clean low gloss stripes with soap and water only.

Air Intakes

Clear debris from the air intakes, between the hood and windshield, when washing the vehicle.

Shutter System



The vehicle may have a shutter system designed to help improve fuel economy. Keep the shutter system clear of debris, snow and ice. If the check engine light is activated, please check to see if the shutter system is clear of debris, snow or ice.

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 weatherstrip 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. See Recommended Fluids and Lubricants \$\times 280\$.

Tires

Use a stiff brush with tire cleaner to clean the 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.

Wheels and Wheel Trim

Use a soft, clean cloth with mild soap and water to clean the wheels. After rinsing thoroughly with clean water, dry with a soft, clean towel. A wax may then be applied.

Caution

Chrome wheels and 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.

Brake System

Visually inspect brake lines and hoses for proper attachment, connections, binding, leaks, cracks, chafing, etc. Inspect disc brake pads for wear and rotors for surface condition. Inspect drum brake linings/shoes for wear or cracks. Inspect all other brake parts for cracks and leaks.

Steering, Suspension, and Chassis Components

Visually inspect steering, suspension, and chassis components for damaged, loose, or missing parts or signs of wear at least once a year.

Inspect power steering for proper electrical connections, binding, cracks, chafing, etc.

Visually check constant velocity joint boots and axle seals for leaks.

Body Component Lubrication

Lubricate all key lock cylinders, hood hinges, liftgate hinges, and the steel fuel door hinges, unless the components are plastic. Applying silicone grease on weatherstrips with a clean cloth will make them last longer, seal better, and not stick or squeak.

Underbody Maintenance

At least twice a year, spring and fall, use plain water to flush any corrosive materials from the underbody. Take care to thoroughly clean any areas where mud and other debris can collect.

Do not directly power wash the transfer case and/or front/rear axle output seals. High pressure water can overcome the seals and contaminate the fluid. Contaminated fluid will decrease the life of the transfer case and/or axles and should be replaced.

Sheet Metal Damage

If the vehicle is damaged and requires sheet metal repair or replacement, make sure the body repair shop applies anti-corrosion material to parts repaired or replaced to restore corrosion protection.

Original manufacturer replacement parts will provide the corrosion protection while maintaining the vehicle warranty.

Finish Damage

Quickly repair minor chips and scratches with touch-up materials available from your dealer to avoid corrosion. Larger areas of finish damage can be corrected in your dealer's body and paint shop.

Chemical Paint Spotting

Airborne pollutants can fall upon and attack painted vehicle surfaces causing blotchy, ringshaped discolorations, and small, irregular dark spots etched into the paint surface. See "Finish Care" previously in this section.

Interior Care

To prevent dirt particle abrasions, regularly clean the vehicle's interior. Immediately remove any soils. Newspapers or dark garments can transfer color to the vehicle's interior.

Use a soft bristle brush to remove dust from knobs and crevices on the instrument cluster. Using a mild soap and water solution, immediately remove hand lotions, sunscreen, and insect repellent from all interior surfaces or permanent damage may result.

For liquid cleaners, use approximately 20 drops per 3.8 L (1gal) of water. A concentrated soap solution will create streaks and attract dirt.

Use cleaners specifically designed for the surfaces being cleaned to prevent permanent damage. Apply all cleaners directly to the cleaning cloth. Do not spray cleaners on any switches or controls. Remove cleaners quickly. Before using cleaners, read and follow all safety instructions on the label. While cleaning the interior, open the doors and windows to get proper ventilation.

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.

Interior Glass

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

Caution

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

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

Speaker Covers

Vacuum around a speaker cover gently, so that the speaker will not be damaged. Clean spots with water and mild soap.

Coated Moldings

Coated moldings should be cleaned.

- When lightly soiled, wipe with a sponge or soft, lint-free cloth dampened with water.
- When heavily soiled, use warm soapy water.

Fabric/Carpet/Suede

Start by vacuuming the surface using a soft brush attachment. If a rotating vacuum brush attachment is being used, only use it on the floor carpet. Before cleaning, gently remove as much of the soil as possible:

- Gently blot liquids with a paper towel.
 Continue blotting until no more soil can be removed.
- For solid soils, remove as much as possible prior to vacuuming.

To clean:

- 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.
- 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 in to the fabric.
- 4. Continue gently rubbing the soiled area until there is no longer any color transfer from the soil to the cleaning cloth.
- 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 Information and Radio Displays

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.

Caution

Do not attach a device with a suction cup to the display. This may cause damage and would not be covered by the vehicle warranty.

Instrument Panel, Leather, Vinyl, Other Plastic Surfaces, Low Gloss Paint Surfaces, and Natural Open Pore Wood Surfaces

Use a soft microfiber cloth dampened with water to remove dust and loose dirt. For a more thorough cleaning, use a soft microfiber cloth dampened with a mild soap solution.

Caution

Soaking or saturating leather, especially perforated leather, as well as other interior surfaces, may cause permanent damage. Wipe excess moisture from these surfaces after cleaning and allow them to dry naturally. Never use heat, steam, or spot removers. Do not use cleaners that contain silicone or wax-based products. Cleaners containing these solvents can permanently change the appearance and feel of leather or soft trim, and are not recommended.

Do not use cleaners that increase gloss, especially on the instrument panel. Reflected glare can decrease visibility through the windshield under certain conditions.

Caution

Use of air fresheners may cause permanent damage to plastics and painted surfaces. If an air freshener comes in contact with any plastic or painted surface in the vehicle, blot immediately and clean with a soft cloth dampened with a mild soap solution. Damage caused by air fresheners would not be covered by the vehicle warranty.

Cargo Cover and Convenience Net

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

Keep belts clean and dry.

⚠ Warning

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

Floor Mats

⚠ Warning

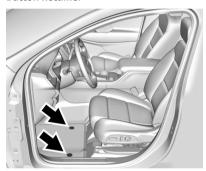
If a floor mat is the wrong size or is not properly installed, it can interfere with the pedals. Interference with the pedals can cause unintended acceleration and/or increased stopping distance which can cause a crash and injury. Make sure the floor mat does not interfere with the pedals.

Use the following guidelines for proper floor mat usage.

- The original equipment floor mats were designed for your vehicle. If the floor mats need replacing, it is recommended that GM certified floor mats be purchased. Non-GM floor mats may not fit properly and may interfere with the accelerator or brake pedal. 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.

Button Retainer



Some vehicles have floor mats with a buttontype retainer.

Removing and Replacing the Floor Mat

1. Pull up on the rear of the mat to unlock and remove.

- Reinstall the floor mat by lining up the floor mat opening over the carpet retainer and snapping into position.
- Make sure the floor mat is properly secured.
 Verify the floor mat does not interfere with the pedals.

Cleaning Rubber Floor Mats (All-Weather Mats and Floor Liners)

⚠ Warning

Do not use cleaners that contain silicone, wax-based products, or cleaners that increase gloss on rubber floor mats/liners. These cleaners can permanently change the appearance and feel of the rubber and can make the floor mats/liners slippery. Your foot could slip while operating the vehicle, and you could lose control, resulting in a crash. You or others could be injured.

Use a soft cloth and/or a brush dampened with water to remove dust and loose dirt. For more thorough cleaning, use a mild soap solution.

Service and Maintenance

275

Service and Maintenance

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General Information

Your vehicle is an important investment. This section describes the required maintenance for the vehicle. Follow this schedule to help protect against major repair expenses resulting from neglect or inadequate maintenance. It may also help to maintain the value of the vehicle if it is sold. It is the responsibility of the owner to have all required maintenance performed.

Your dealer has trained technicians who can perform required maintenance using genuine replacement parts. They have upto-date tools and equipment for fast and accurate diagnostics. Many dealers have extended evening and Saturday hours, courtesy transportation, and online scheduling to assist with service needs.

Your dealer recognizes the importance of providing competitively priced maintenance and repair services. With trained technicians, the dealer is the place for routine maintenance such as oil changes and tire rotations and additional maintenance items like tires, brakes, batteries, and wiper blades.

Caution

Damage caused by improper maintenance can lead to costly repairs and may not be covered by the vehicle warranty.

Maintenance intervals, checks, inspections, recommended fluids, and lubricants are important to keep the vehicle in good working condition.

Do not have chemical flushes that are not approved by GM performed on the vehicle. The use of flushes, solvents, cleaners, or lubricants that are not approved by GM could damage the vehicle, requiring expensive repairs that are not covered by the vehicle warranty.

The Tire Rotation and Required Services are the responsibility of the vehicle owner. It is recommended to have your dealer perform these services every 10 000 km. Proper vehicle maintenance helps to keep the vehicle in good working condition, improves fuel economy, and reduces vehicle emissions.

276 Service and Maintenance

Because of the way people use vehicles, maintenance needs vary. There may need to be more frequent checks and services. The Additional Required Services - Normal Service are for vehicles that:

- Are driven on reasonable road surfaces within legal driving limits.
- Use the recommended fuel. See Recommended Fuel \$\display 205.

Refer to the information in Additional Required Services - Normal Service

The Additional Required Services - Severe Service are for vehicles that are:

- Mainly driven in heavy city traffic in hot weather.
- Mainly driven in hilly or mountainous terrain.
- Frequently towing a trailer.
- Used for high speed or competitive driving.
- Used for taxi, police, or delivery service.

Refer to the information in Additional Required Services - Severe Service.

⚠ Warning

Performing maintenance work can be dangerous and can cause serious injury. Perform maintenance work only if the required information, proper tools, and equipment are available. If they are not, see your dealer to have a trained technician do the work. See *Doing Your Own Service Work*

⇒ 218.

Maintenance Schedule

Tire Rotation and Required Services Every 12 000 km

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 ▷ 250 and Wheel Replacement ▷ 252.

- Check engine oil level and oil life percentage. If needed, change engine oil and filter, and reset oil life system. See Engine Oil

 221 and Engine Oil Life System
 ⇒ 223

- Check tire inflation pressures, including the spare. See Tire Pressure \$\triangle\$ 244.
- Inspect tire wear. See Tire Inspection ⇒ 249.
- Visually check for fluid leaks.

- 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 \$ 267.

- Inspect power steering for proper attachment, connections, binding, leaks, cracks, chafing, etc.
- Visually inspect halfshafts and driveshafts 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.
- Visually inspect the fuel system including the evaporative (EVAP) system for damage or leaks. Visually check all fuel pipes, vapor lines, and hoses for proper attachment, connection, routing, and condition.
- Visually inspect exhaust system and nearby heat shields for loose or damaged parts.
- Lubricate body components. See Exterior Care ⇒ 267.
- Check parking brake and automatic transmission park mechanism. See Park Brake and P (Park) Mechanism Check ⇒ 232.

- Check accelerator pedal for damage, high effort, or binding. Replace if needed.
- Visually inspect windshield wiper blades for wear, cracking, or contamination. See Exterior Care ⇒ 267. Replace worn or damaged wiper blades. See Wiper Blade Replacement ⇒ 232.
- 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)

 234.

Engine Oil Change

When the CHANGE ENGINE OIL SOON message displays, have the engine oil and filter changed within the next 1 000 km. If driven under the best conditions, the engine oil life system may not indicate the need for vehicle service for up to a year. The engine oil and filter must be changed at least once a year and the oil life system must be reset. Your trained dealer technician can perform this work. If the engine oil life system is reset accidentally, service the vehicle within 5 000 km since the last service. Reset the oil life system when the oil is changed. See Engine Oil Life System

≥ 223.

Additional Required Services — Normal Service

Every 12 000 km

- When the REPLACE ENGINE AIR FILTER SOON message displays, the engine air filter should be replaced at the earliest convenience. Reset the engine air filter life system after the engine air filter is replaced.
 See Engine Air Filter Life System

 224.
- 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 90 000 km

Replace spark plugs. Inspect spark plug wires and/or boots.

278 Service and Maintenance

Every 160 000 km

 Replace hood and/or body lift support gas struts. Or every 10 years, whichever comes first. See Gas Strut(s) ⇒ 234.

Every 240 000 km

- Change rear axle fluid, if equipped with AWD. Do not directly power wash the transfer case and/or front/rear axle output seals. High pressure water can overcome the seals and contaminate the transfer case fluid. Contaminated fluid will decrease the life of the transfer case and/or axles and should be replaced.
- Drain and fill engine cooling system. Or every six years, whichever comes first. See Cooling System

 225.

Severe Conditions Requiring More Frequent Maintenance*

- Public service, military, or commercial use vehicles to include the following:
 - Ambulances, police cars, and emergency rescue vehicles.

- Civilian vehicles such as light duty pick-up trucks, SUVs, and passenger cars that are used in military applications.
- Recovery vehicles such as tow trucks and flatbed single vehicle carriers or any vehicle that is consistently used in towing trailers or other loads.
- High use commercial vehicles such as courier delivery vehicles, private security patrol vehicles, or any vehicles that operate on a 24– hour basis.
- Any vehicle consistently operated in a high sand or dust environment such as those used on oil pipelines and similar applications.
- Vehicles that are regularly used for short trips of 6 km or less.

The Oil Life Indicator will show you when to change the oil and filter. Under severe conditions the indicator may come on before 10 000 km. The indicator won't detect dust in the oil, so if you drive in a dusty area you may have to change the oil and filter sooner than every 10 000 km.

* Footnote: Under extreme driving conditions listed above, it may be necessary to replace your spark plugs at more frequent intervals. For further assistance in determining the most suitable service maintenance intervals for your vehicle, please contact your authorized GM Dealer.

Additional Required Services — Severe Service

Every 70 000 km

- Change automatic transmission fluid. (8 Speed Transmission)
- Change automatic transmission fluid and filter. (Continuously Variable Ratio (CVT) Transmission)

Every 120 000 km

 Change rear axle fluid, if equipped with AWD. Do not directly power wash the transfer case and/or front/rear axle output seals. High pressure water can overcome the seals and contaminate the transfer case fluid. Contaminated fluid will decrease the life of the transfer case and/or axles and should be replaced.

Owner Checks and Services

Every Five Years

• Replace brake fluid.

Every Seven Years

 Replace Air Conditioning Desiccant every seven years. The air conditioning system requires maintenance every seven years. This service requires replacement of the desiccant to help the longevity and efficient operation of the air conditioning system. This service can be complex. See your dealer.

280 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
Automatic Transmission (9 Speed)	DEXRON-VI Automatic Transmission Fluid.
Automatic Transmission (CVT)	High Performance CVT Fluid. See your dealer.
Engine Oil	Engine oil meeting the dexos1 specification of the proper SAE viscosity grade. ACDelco dexos1 full synthetic is recommended. See <i>Engine Oil</i> \diamondsuit 221.
Engine Coolant	50/50 mixture of clean, drinkable water and use only DEX-COOL Coolant. See <i>Cooling System</i> ⇒ 225.
Hood Latch Assembly, Secondary Latch, Pivots, Spring Anchor, and Release Pawl	Lubriplate Lubricant Aerosol or lubricant meeting requirements of NLGI #2, Category LB or GC-LB.
Hydraulic Brake System	DOT 4 Hydraulic Brake Fluid.
Key Lock Cylinders, Hood and Door Hinges	Multi-Purpose Lubricant, Superlube. See your dealer.
Rear Axle	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.

Date	Odometer Reading	Serviced By	Maintenance Stamp	Services Performed

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Technical Data

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Vehicle Identification Vehicle Identification Number (VIN)



This legal identifier is in the front corner of the instrument panel, on the driver side of the vehicle. It can be seen through the windshield from outside. The Vehicle Identification Number (VIN) also appears on the Vehicle Certification label and certificates of title and registration.

Engine Identification

The eighth character in the VIN is the engine code. This code identifies the vehicle's engine, specifications, and replacement parts. See "Engine Specifications" under *Capacities and Specifications* ⇔ 283 for the vehicle's engine code.

Service Parts Identification

There may be a large barcode on the certification label on the center pillar that you 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. See *Recommended Fluids and Lubricants* \diamondsuit 280 for more information.

Application	Capacities		
Application	Metric	English	
Air Conditioning Refrigerant	For the air conditioning system refrigerant type and charge amount, see the refrigerant label under the hood. See your dealer for more information.		
Engine Cooling System*			
1.5L L4 Engine (LSD)	6.1 L	6.4 qt	
Engine Oil with Filter			
1.5L L4 Engine (LSD) AWD	5.0 L	5.3 qt	
Fuel Tank			
AWD	59.0 L	15.6 gal	
Transfer Case Fluid	0.5 L	0.53 qt	
Wheel Nut Torque	140 N •m	100 lb ft	

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Application	Capacities	
Аррисаціон	Metric	English

All capacities are approximate. When adding, be sure to fill to the approximate level, as recommended in this manual. Recheck fluid level after filling.

Engine Specifications

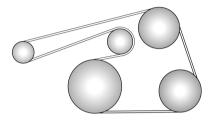
Engine	VIN Code	Horsepower	Torque	Spark Plug Gap
1.5L L4 Gas Engine (LSD)	G	130.5 kW (175 hp) @ 5600 rpm	275 N• m (203 lb ft) @ 2000– 4000 rpm	0.60-0.70 mm (0.024-0.028 in)
Spark plug gans are preset by the manufacturer. Re-ganning the spark plug is not recommended and can damage the spark plug				

Vehicle Top Speed

Engine	Metric	English
1.5L L4 Gas Engine (LSD)	210 km/h	130 mph

^{*}Engine cooling system capacity values are based on the entire cooling system and its components.

Engine Drive Belt Routing



1.5L L4 Engine (LSD)

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Customer Information

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Declaration of Conformity

Radio Frequency Devices

Nigeria

Connection and use of this communications equipment is permitted by the Nigerian Communications Commission.

Immobilizer

Jordan

Type Approval No. TRC/34/7199/2023

Oman

OMAN TRA TA-R/6714/18 D172338

United Arab Emirates (UAE)

TDRA Authorization No. ER37553/15

PEPS Module

Jordan

Ref. No. T/4/11/11/6125 Model U2NA0

Oman

Model U2NAO: TRA/TA-R/2028/14 D100428 Model U2NBO: TRA/TA-R/2448/15 D080134 Model U22BO: TRA/TA-R/2438/15 D080134 Model UPEO1: TRA/TA-R/0828/12 D100428

United Arab Emirates (UAE)

TRA
REGISTERED No:
ER47756/16
DEALER No:
not found

Radar Hands Free (B2111)

Jordan

Type Approval No. TRC/32/9519/2022

Oman

OMAN TRA TA-R/13032/22 D100428

Customer Information

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United Arab Emirates (UAE)

TRA
REGISTERED No:
ER04644/22
DEALER No:
not available

Radar Short Range (RS5.3A)

Jordan

Type Approval No. TRC/31/10345/2022

Oman

OMAN TRA TA-R/14101/22 D172338

United Arab Emirates (UAE)



TDRA – United Arab Emirates
Dealer ID: DA44932/15
TA RTTE: ER11776/22
Model: RS5.3A



Radar Side Blind Zone (LCA 3.5)

Jordan

Ref. No. T/4/11/11/4070

Oman

OMAN TRA TA-R/3856/17 D080134

United Arab Emirates (UAE)

TRA
REGISTERED No:
ER41346/15
DEALER No:
D080134

Remote Function Receiver (RFR) Jordan

Type Approval No. TRC/34/7197/2023

Oman

OMAN TRA R/6715/18 D172338

United Arab Emirates (UAE)

TRA
REGISTERED No:
ER39773/15
DEALER No:
not found

Remote Key (Denso) Oman

OMAN - TRA R/8039/19 D080134

Remote Key (Huf)

Jordan

Type Approval No. TRC/34/7116/2020

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Oman

OMAN TRA TA-R/7981/19 D172249

United Arab Emirates (UAE)

TRA
REGISTERED No:
ER73891/19
DEALER No:
DA36976/14

Tire Pressure Sensor (AG6SP4) Jordan

Type Approval No. TRC/32/8239/2021

Oman

OMAN TRA R2606/15 D080134

United Arab Emirates (UAE)





Wireless Charging Module (Gen 2 GA)

Type Approval No. TRC/20/10279/2022

Oman

OMAN TRA TA-R/13939/22 D202897

United Arab Emirates (UAE)

TRA
REGISTERED No:
ER11542/22
DEALER No:
Not Available

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.gmceurope.com.

Importer

GM Mobility Europe GmbH Bethmannstraße 50-54 Ort 60311 Frankfurt am Main Hessen

Germanu

Immobilizer (PFJPK4G2)

Robert Bosch LLC 15000 Haggerty Rd Plymouth, MI 48170 Frequency Range: 0.125–0.125 MHz

, , ,

Low Radio

LG Electronics Inc.

Customer Information

222, LG-ro, Jinwi-myeon, Pyeongtaek-si, Gueonggi-do, 451-713, Korea Frequency Range: 2402-5825 MHz

Maximum Output Power: 2.4 GHz, 5.5 GHz,

5.8 GHz

PEPS Module

DENSO Corporation

1-1. Showa-cho, Kariya-shi, Aichi-ken, 448-8661, Japan

Operating Frequency: 125 KHz

Maximum Output Power (ERP): 0.97 mW

Radar Hands Free (B2111)

Alps Alpine Co, Ltd

ALPS ALPINE CO., LTD

6-3-36, Furukawanakazato Osaki Citu, Miyagi-pref

Japan

Frequency Range: 59-64 KHz

Power (Watts): 0.0020

Radar Short Range (RS5.3A)

HELLA GmbH & Co. KGaA

Rixbecker Strasse 75

Lippstadt, D-59552

Germanu

Frequency Range: 76-77 GHz Output Watts: 0.4365

Radar Side Blind Zone (LCA 3.5)

Hella KGaA Hueck & Co. Rixbecker Strasse 75 Lippstadt, D-59552

Germanu

Frequency Range: 24050.0-24250.0 MHz

Remote Function Receiver (RFR)

15000 Haggerty Rd

Robert Bosch LLC

Plymouth, MI 48170

Frequency Range: 433.92-433.92 MHz Remote Key (Denso)

DENSO Corporation

1-1, Showa-cho, Kariya-shi, Aichi-ken, 448-8661, Japan

Frequency/Power of Operation: 433.92 MHz /

0.79 mW or less (Peak)

Remote Key (Huf)

Huf Huelsbeck & Fuerst GmbH & Co. KG

Steeger Str. 17 Velbert, 42551

Germanu

Frequency Range: 433.2-434.64 MHz

Tire Pressure Sensor (AG6SP4)

Schrader Electronics Ltd.

Output Watts: 0.000022

11 Technology Park

Belfast Road Antrim BT4110S

Ireland

Frequency/Band: 432-438 MHz Output Power (EIRP): 0.03 mW

Wireless Charging Module (Gen 2 GA)

BH EVS Co., Ltd. Leaders Avenue

Magok 2nd Floor, 791-7, Magokdong, Gangseoqu

Seoul, Korea, 07794

Frequency: 144.93 KHz (5W)

Output Power: 3.48 dBuA/m@ 10m

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Vehicle Data Recording and Privacy

The vehicle has a number of computers that record information about the vehicle's performance and how it is driven or used. For example, the vehicle uses computer modules to monitor and control engine and transmission performance, to monitor the conditions for airbag deployment and deploy them in a crash, and, if equipped, to provide antilock braking to help the driver control the vehicle. These modules may store data to help the dealer technician service the vehicle or to help GM improve safety or features. Some modules may also store data about how the vehicle is operated, such as rate of fuel consumption or average speed. These modules may retain personal preferences, such as radio presets, seat positions, and temperature settings.

Cybersecurity

GM collects information about the use of your vehicle including operational and safety related information. We collect this information to provide, evaluate, improve, and troubleshoot our products and services and to develop new products and services.

The protection of vehicle electronics systems and customer data from unauthorized outside electronic access or control is important to GM. GM maintains appropriate security standards, practices, guidelines and controls aimed at defending the vehicle and the vehicle service ecosystem against unauthorized electronic access, detecting possible malicious activity in related networks, and responding to suspected cubersecurity 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 \Rightarrow 294.

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.

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OnStar

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OnStar Overview









- Privacy Button
- Blue OnStar Button
- **809** 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.gmcarabia.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 (h) 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 on 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 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 oo or call one of the following phone numbers.

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Country	Phone Number
Bahrain	800 06956
Kuwait	22285334
UAE	800 04444433
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, when the vehicle alarm system is armed and the alarm is activated, a notification by text, email, or app push will be sent. If the vehicle is stolen, an OnStar Advisor can work with authorities to recover the vehicle.

OnStar Additional Information

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.gmcarabia.com.
- Press on 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 will need to be changed the first time when speaking with an Advisor. To change the OnStar PIN, contact an OnStar Advisor by pressing of or calling. See "Contacting Onstar" later in this section.

Warranty

On Star 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 an ignition cycle. 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.

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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. 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 mau remotely deliver them to the vehicle.

Privacy

The complete OnStar Privacy Statement may be found at my.gmcarabia.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. See "Contacting Onstar" later in this section.

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 of or call one of the following phone numbers.

OnStar	297
Olistai	_,.

Country	Phone Number
Bahrain	80006956
Kuwait	22285334
UAE	800 04444433
Saudi Arabia STC	800 8449102
Saudi Arabia not STC	800 8500674

298 eCall

eCall

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eCall Overview

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 ⁶⁰⁹ on the overhead console to contact the nearest 999 emergency center. Press ⁶⁰⁹ 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 houtton 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 \bigcirc 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

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

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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://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.

300 Connected Services

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 (3), 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.gmcarabia.com (GMC).

Connections

The following services help with staying connected.

For more information, see mu.gmcarabia.com (GMC).

Ensuring Security

- Change the default passwords for the Wi-Fi hotspot and myGMC mobile application.
 Make these passwords different from each other and use a combination of letters and numbers to increase the securitu.
- Change the default name of the Service Set Identifier (SSID). This is the network name visible to other wireless devices. Choose a unique name and avoid family names or vehicle descriptions.

Wi-Fi Hotspot (If Equipped)

The vehicle may have a built-in Wi-Fi hotspot that provides access to the Internet and web content up to 5G speed, if equipped and enabled. Multiple devices can be connected. A data plan is required. Use the in-vehicle controls only when it is safe to do so.

- To retrieve Wi-Fi hotspot information, press

 to open the OnStar app on the infotainment display, then select Wi-Fi Hotspot. On some vehicles, touch Wi-Fi or Wi-Fi Settings on the screen.
- 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). 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 or call to connect with an Advisor. On some vehicles, the SSID and password can be changed in the Wi-Fi Hotspot menu.

302 Connected Services

Country	Phone Number
Bahrain	80006956
Kuwait	22285334
UAE	800 04444433
Saudi Arabia STC	800 8449102
Saudi Arabia not STC	800 8500674

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 myGMC mobile app, or by contacting an OnStar Advisor. On some vehicles, Wi-Fi can also be managed from the Wi-Fi Hotspot menu.

myGMC Mobile App (If Available)

Download the myGMC mobile app to compatible Apple and Android smartphones. GMC users can access the following services from a smartphone:

- Remotely start/stop the vehicle, if factoryequipped.
- Lock/unlock doors, if equipped with automatic locks.

- Activate the horn and lamps.
- Check the vehicle's energy level, range, or tire pressure, if factory-equipped with the Tire Pressure Monitor Sustem.
- Turn the vehicle's Wi-Fi hotspot on/ off, manage settings, and monitor data consumption, if equipped.
- Locate a dealer and schedule service.
- Request roadside assistance.
- Connect with GMC on social media.

Features are subject to change. For myGMC mobile app information and compatibility, see my.gmc.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 my.gmc.comfor details and system limitations.

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.gmcarabia.com. Message and data rates may apply.

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