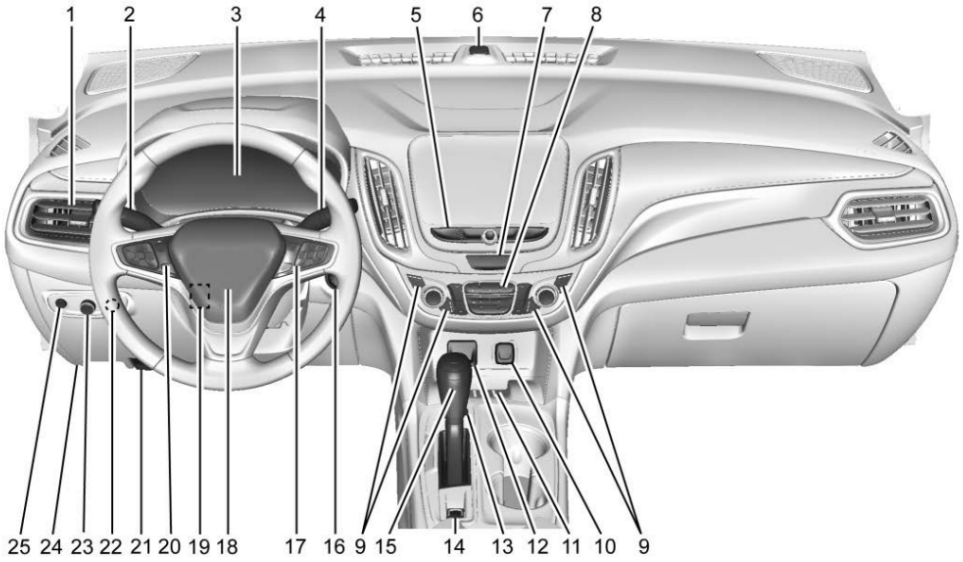
Owner's manual Car

Introduction

Instrument Panel Overview



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Keys, Doors, and Windows

Keys and Locks

Keys

The key that is part of the Remote Keyless Entry (RKE) transmitter can be used for all locks.

Remove the key by pressing the button on the side of the RKE transmitter near the bottom and pull the key out. Never pull the key out without pressing the button.

If it becomes difficult to turn the key, inspect the key blade for debris. See your dealer if a new transmitter is needed.

If locked out of the vehicle, see Roadside Assistance Program → 381.

With an active OnStar or connected service plan, an OnStar Advisor may remotely unlock the vehicle. See OnStar Overview → 391.

Remote Keyless Entry (RKE) System

See Radio Frequency Statement → 387.

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

- Check the distance. The transmitter may be too far from the vehicle.
- Check the location. Other vehicles or objects may be blocking the signal.
- Check the transmitter's battery. See “Battery Replacement” later in this section.
- If the transmitter is still not working correctly, see your dealer or a qualified technician for service.

Remote Keyless Entry (RKE) System Operation

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

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

Other conditions can affect the performance of the transmitter. See Remote Keyless Entry (RKE) System → 8.

With Remote Start and Power Liftgate Shown

The following may be available:

: Press to lock all doors. The turn signal indicators may flash and/or the horn may sound on the second press to indicate locking. See Vehicle Personalization → 134. If the driver door is open when is pressed and Open Door Anti-Lockout is enabled, all doors will lock and then the driver door will immediately unlock. See Vehicle Personalization → 134. If a passenger door is open when is pressed, all doors lock. Pressing may also arm the theft-deterrent system. See Vehicle Alarm System → 26.

: Press to unlock the driver door. Press again within five seconds to unlock all doors. The RKE transmitter can be programmed to unlock all doors on the first button press. See Vehicle Personalization → 134. The turn signal indicators may flash to indicate unlocking has occurred. See Vehicle Personalization → 134. Pressing may also disarm the theft-deterrent system. See Vehicle Alarm System → 26.

If equipped with the manual liftgate, unlocking all doors will also unlock the liftgate.

Press and hold until the windows fully open. Windows will not operate unless remote window operation is enabled. See Vehicle Personalization → 134.

: Press twice quickly to open or close the power liftgate, if equipped. Press again to stop the power liftgate.

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

: If equipped, first press and release then immediately press and hold for at least four seconds to start the engine from outside the vehicle using the RKE transmitter. See Remote Vehicle Start → 15.

Keyless Access Operation

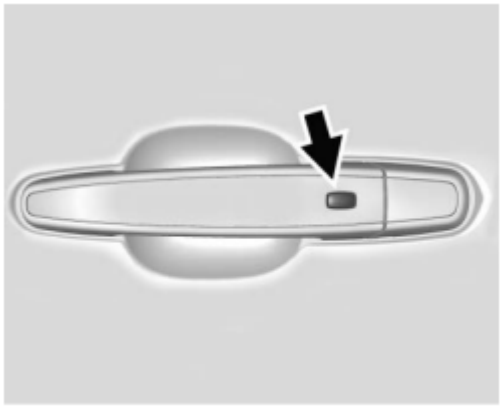
With the Keyless Access system, you can lock and unlock the doors and access the liftgate without removing the RKE transmitter from your pocket, purse, briefcase, etc. The RKE transmitter should be within 1 m (3 ft) of the liftgate or door being opened. If equipped, there will be buttons on the outside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

Keyless Access can be programmed to unlock all doors on the first lock/unlock press from the driver door. See Vehicle Personalization → 134.

If equipped with memory seats, RKE transmitters 1 and 2 are linked to seating positions of memory 1 or 2. See Memory Seats → 40.

Keyless Unlocking/Locking from the Driver Door

When the doors are locked and the RKE transmitter 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 the Front Passenger Door

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

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

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

Passive Locking

If equipped with Keyless Access, this vehicle will lock several seconds after all doors are closed if the vehicle is off and at least one RKE transmitter has been removed or none remain in the interior.

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

To customize the doors to automatically lock when exiting the vehicle, see “Remote Lock, Unlock, Start” under Vehicle Personalization → 134.

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:

- 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 →190.

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

Manual Liftgate

To unlock the liftgate, press  on the power door lock switch or press  on the Remote Keyless Entry (RKE) transmitter twice within five seconds. See Remote Keyless Entry (RKE) System Operation → 8.

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

If equipped with Keyless Access, the liftgate can be opened when locked if the RKE transmitter is within 1 m (3 ft) of the liftgate. See Remote Keyless Entry (RKE) System Operation → 8.

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

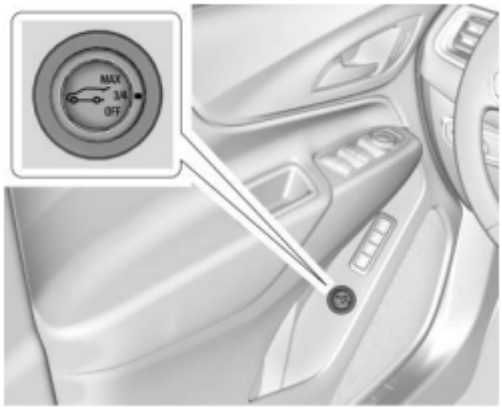
The liftgate has an electric latch. If the battery is disconnected or has low voltage, the liftgate will not open. The liftgate will resume operation when the battery is reconnected and charged.

Always close the liftgate before driving

Power Liftgate Operation

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

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



The power liftgate switch is on the driver door. The vehicle must be in P (Park). The taillamps flash when the power liftgate moves.

The modes are:

- MAX: Opens to maximum height.

- 3/4: Opens to a reduced height that can be set from 3/4 to fully open. 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.

To open or close the power liftgate, select MAX or 3/4 mode.

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

Press o n the bottom of the liftgate next to the pull cup to close.

Press any liftgate button, the touch pad, or x2 on the RKE transmitter while the liftgate is moving to stop it. Pressing any liftgate button or pressing x2 twice quickly on the RKE transmitter again 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 Driver Information Center (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, This 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.

Pinch sensors are on the side edges of the liftgate. If an object is caught between the liftgate and the vehicle and presses against a sensor, the liftgate will reverse direction and then stop. The liftgate will remain open until it is activated again or closed manually

Setting the 3/4 Mode

To change the position the liftgate stops at when opening:

1. Select MAX or 3/4 mode and power open the liftgate.
2. Stop the liftgate movement at the desired height by pressing any liftgate button. Manually adjust the liftgate position if needed.
3. Press and hold  n ext to the pull cup 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. Manual Operation Select OFF to manually operate the liftgate. See “Manual Liftgate” at the beginning of this section.

Caution: Attempting to move the liftgate too quickly and with excessive force may result in damage to the vehicle.

Operate the liftgate manually with a smooth motion and moderate speed. The system includes a feature which limits the manual closing speed to protect the components.

Hands-Free Operation

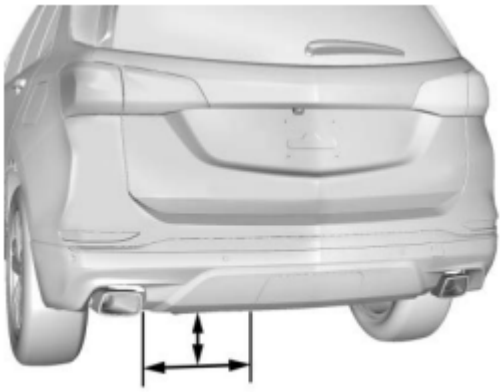
The liftgate may be operated with a kicking motion under the rear bumper between the left exhaust pipe and the license plate.

The RKE transmitter must be within 1 m (3 ft) of the rear bumper to operate the power liftgate hands-free.

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

The hands-free feature can be customized. See Vehicle Personalization → 134. Choose from the following:

- On-Open and Close : The kicking motion is activated to both open and close the liftgate.
- On-Open Only : The kicking motion is activated to only open the liftgate.
- Off : The feature is disabled.



Length of Kick Zone

To operate, kick your foot straight up in one swift motion under the rear bumper between the left exhaust pipe and the license plate, then pull it back.

Caution: Splashing water may cause the liftgate to open. Keep the RKE transmitter away from the rear bumper detection area or turn the liftgate mode to OFF when cleaning or working near the rear bumper to avoid accidental opening.

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

When closing the liftgate using this feature, there will be a short delay. The taillamps will flash and a chime will sound. Step away from the liftgate before it starts moving.

Seats and Restraints

Head Restraints

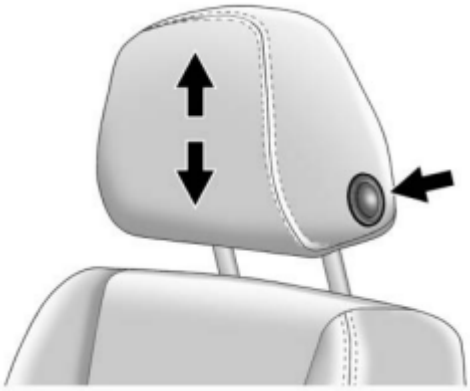
The vehicle’s front seats have adjustable head restraints in the outboard seating positions.

Warning: With head restraints that are not installed and adjusted properly, there is a greater chance that occupants will suffer a neck/ spinal injury in a crash. Do not drive until the head restraints for all occupants are installed and adjusted properly. If your vehicle has rear head restraints that fold down, always return them to the full upright position whenever an occupant is seated in the seat.

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

Front Seats

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



- 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

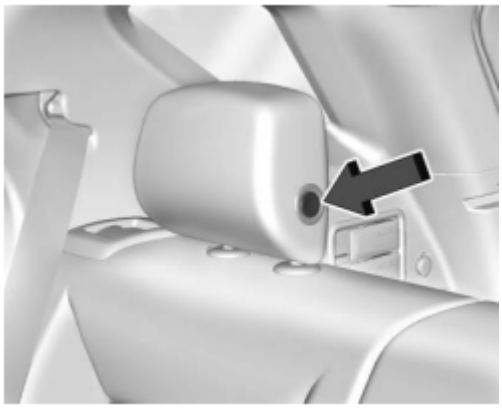
Adjusting the Rear Head Restraint

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

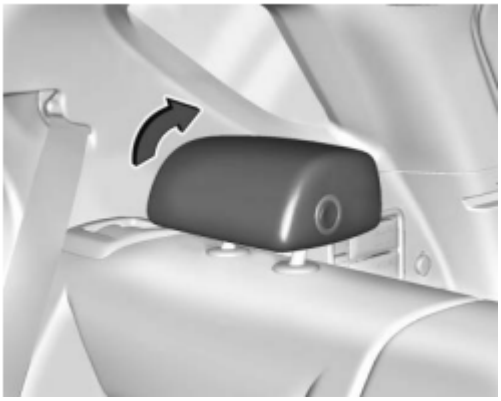
- To lower the head restraint, press the button, located on the top of the seatback, and push the head restraint down. Try to move the head restraint after the button is released to make sure that it is locked in place.

Folding the Rear Head Restraint

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



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



- The head restraint will fold rearward automatically.
- When an occupant or child restraint is in the seat, always return the head restraint to the full upright position. Pull the head restraint up and forward until it locks into place. Push and pull on the head restraint to make sure that it is locked.
- Always adjust the head restraint so that the top of the restraint is at the same height as the top of the occupant's head.
- Rear outboard head restraints are not removable.

Front Seats

Seat Adjustment

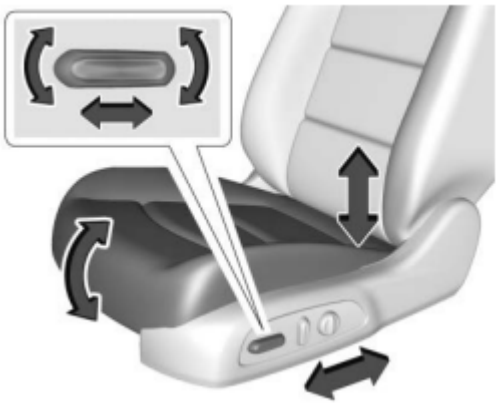
To adjust the seat position:

1. Pull the handle at the front of the seat cushion to unlock it.
2. Move the seat forward or rearward and release the handle.
3. Try to move the seat back and forth to be sure it is locked in place.

Seat Height Adjuster

Move the lever up or down to raise or lower the seat.

Power Seat Adjustment



To adjust a power seat, if equipped:

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

To adjust the seatback, see Reclining Seatbacks → 39.

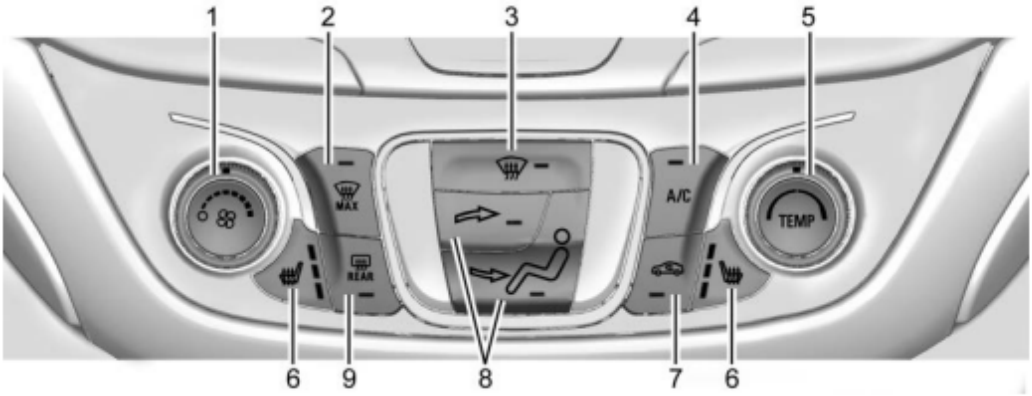
Lumbar Adjustment

- If equipped, press and hold the front or rear of the control to increase or decrease lumbar support.

Climate Controls

Climate Control Systems

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



1. Fan Control
2. MAX Defrost
3. Defrost/Defog
4. A/C (Air Conditioning)
5. Temperature Control
6. Driver and Passenger Heated Seats (If Equipped)
7. Recirculation
8. Air Delivery Mode Controls
9. Rear Window Defogger

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

TEMP : Turn the knob clockwise or counterclockwise to increase or decrease the temperature.

Air Delivery Mode Controls :

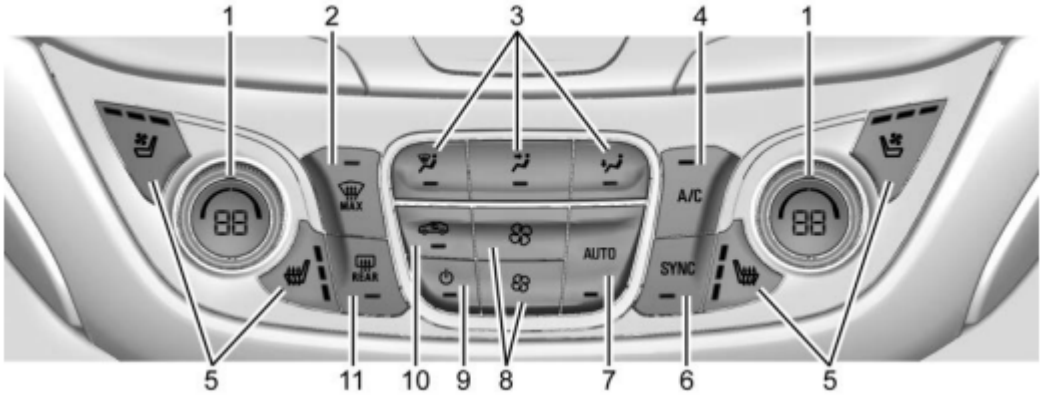
- Press  ,  , and  or a combination of the buttons to change the direction of the airflow. The indicator light in the button will turn on.
- To change the current mode, select one or more of the following:
  -  : Clears the windows of fog or moisture. Air is directed to the windshield.
  -  : Air is directed to the instrument panel outlets.
  -  : Air is directed to the floor outlets.
  -  MAX : Air is directed to the windshield and the fan runs at a higher speed. Fog or frost is cleared from the windshield more quickly. When the button is pressed again, the system returns to the previous mode setting. For best results, clear all snow and ice from the windshield before defrosting.
  - A/C : Press to turn the air conditioning system on or off. If the climate control system is turned off or the outside temperature falls below freezing, the air conditioner will not run.
  -  : 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.

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 defogger can be turned off by turning the ignition off or to ACC/ ACCESSORY.
- The rear window defogger can be set to automatic operation. See “Climate and Air Quality” under Vehicle Personalization → 134. 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 → 29
-  or  : If equipped, press  or  to heat the driver or passenger seat. See Heated and Ventilated Front Seats → 43.

Dual Automatic Climate Control System

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



1. Driver and Passenger Temperature Controls
2. MAX Defrost
3. Air Delivery Mode Controls
4. A/C (Air Conditioning)
5. Heated and Ventilated Front Seats (If Equipped)
6. SYNC (Synchronized Temperature)
7. AUTO (Automatic Operation)
8. Fan Control
9. Power
10. Recirculation
11. Rear Window Defogger

Automatic Operation

The system automatically heats or cools the vehicle to the desired temperature:

- Fan Speed
- Air Delivery Mode
- Air Conditioning
- Recirculation

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.

1. For automatic operation: 1. Press AUTO.
2. 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, recirculation may be automatically selected in warm weather. The recirculation light will not come on. Press  to select recirculation; press it again to select outside air.

Air Vents

Use the louvers located on the air vents to change the direction of the airflow.

To open or close off the airflow:

- On the center air vents, move the slider knobs up or down.
- On the outer and rear air vents, move the slider knobs right or left.

Operation Tips

- Clear away any ice, snow, or leaves from air inlets at the base of the windshield that could block the flow of air into the vehicle.
- Clear snow off the hood to improve visibility and help decrease moisture drawn into the vehicle, which may improve long term system performance.
- Keep the path under the front seats clear of objects to help circulate the air inside of the vehicle more effectively.
- Use of non-GM approved hood deflectors can adversely affect the performance of the system. Check with your dealer before adding equipment to the outside of the vehicle.
- Do not attach any devices to the air vent slats. This restricts airflow and may cause damage to the air vents.

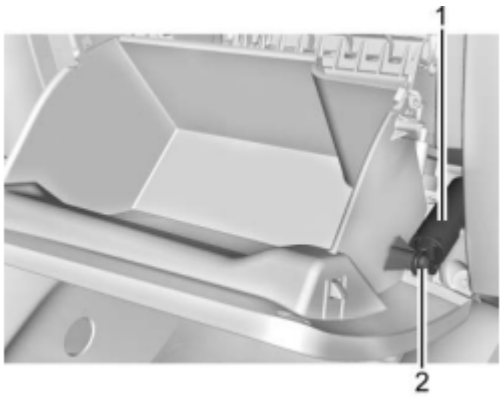
Maintenance

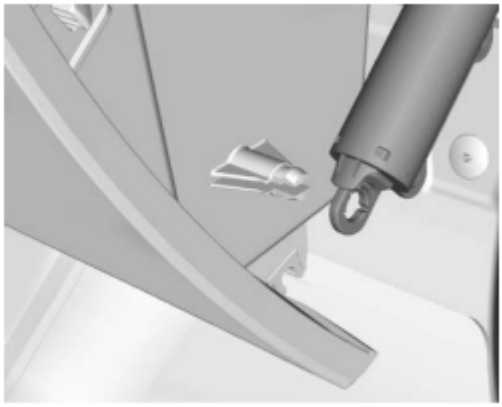
Passenger Compartment Air Filter

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. See Maintenance Schedule → 360. To find out what type of filter to use, see Maintenance Replacement Parts → 370.

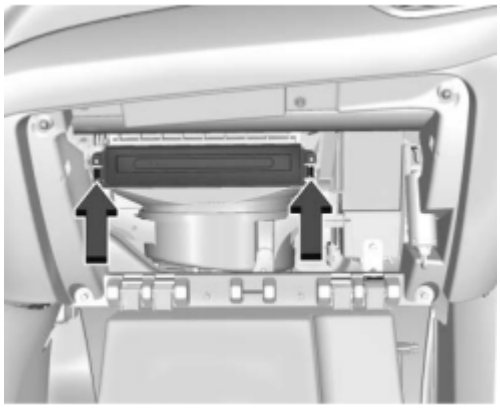
1. Open the glove box.





2. Disconnect the glove box door damper (1) from the glove box door assembly by squeezing the pivot (2) to release the damper ring.

3. Squeeze both sides of the glove box bin inward to lower beyond the stops.



4. Remove the two screws securing the door.

5. Press the latches on either side of the service door inward to release. Open the service door and remove the old filter.

6. Install the new air filter.

7. Close the service door completely.

8. 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 Maintenance Schedule → 360

Vehicle Care

Vehicle Checks

Doing Your Own Service Work

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

If doing some of your own service work, use the proper service manual. It tells you much more about how to service the vehicle than this manual can. To order the proper service manual, see Publication Ordering Information → 386.

This vehicle has an airbag system. Before attempting to do your own service work, see Servicing the Airbag-Equipped Vehicle → 66.

If equipped with remote vehicle start, open the hood before performing any service work to prevent remote starting the vehicle accidentally. See Remote Vehicle Start → 15

Keep a record with all parts receipts and list the mileage and the date of any service work performed. See Maintenance Records → 372.

Caution: Even small amounts of contamination can cause damage to vehicle systems. Do not allow contaminants to contact the fluids, reservoir caps, or dipstick.

Hood

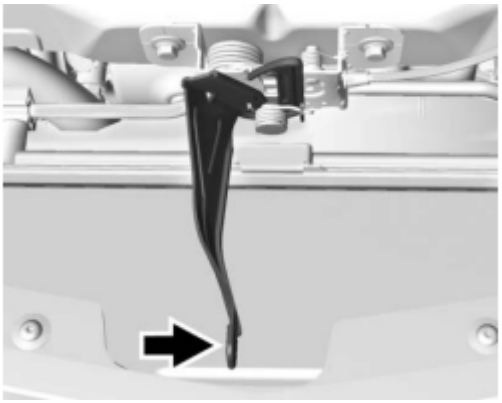
Warning: For vehicles with auto engine stop/start, turn the vehicle off before opening the hood. If the vehicle is on, the engine will start when the hood is opened. You or others could be injured.

Warning: Components under the hood can get hot from running the engine. To help avoid the risk of burning unprotected skin, never touch these components until they have cooled, and always use a glove or towel to avoid direct skin contact.

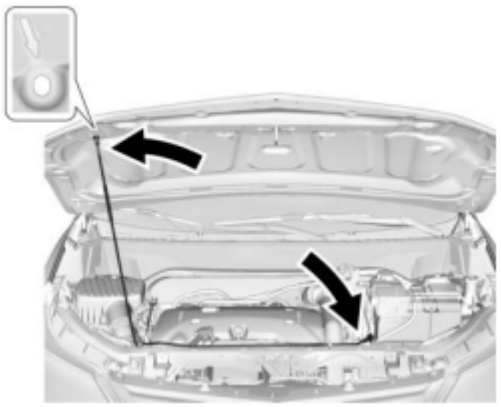
Clear any snow from the hood before opening.

To open the hood:

1. Pull the hood release lever with the  symbol. It is on the lower left side of the instrument panel.



2. 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.



3. Lift the hood and release the hood prop rod from its retainer in the front of the engine compartment. Securely insert the rod end into the slot marked with an arrow, on the underside of the hood.

To close the hood:

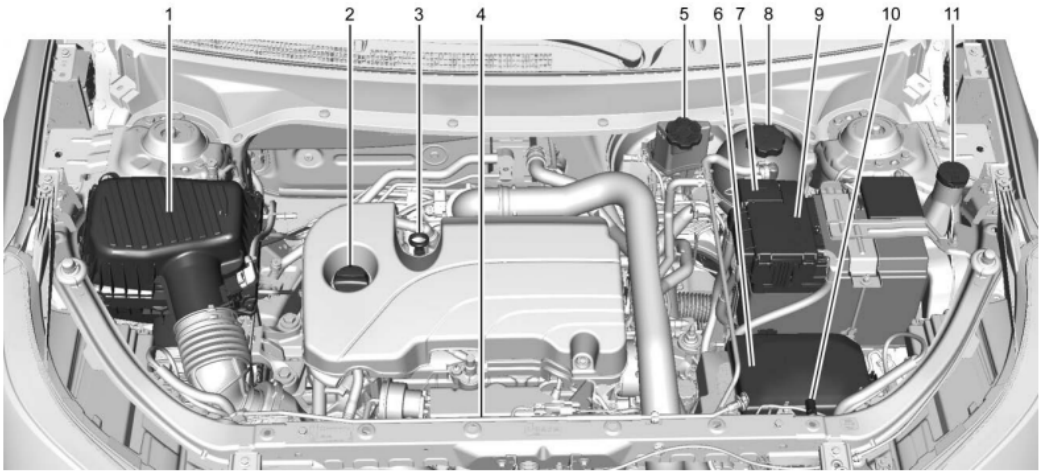
1. Before closing the hood, be sure all filler caps are on properly, and all tools are removed.

2. Lift the hood and remove the hood prop rod from the underside of the hood. Return the prop rod to its retainer. The prop rod must click into place when returning it to the retainer to prevent hood damage.

3. Lower the hood 20 cm (8 in) above the vehicle and release it. 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.

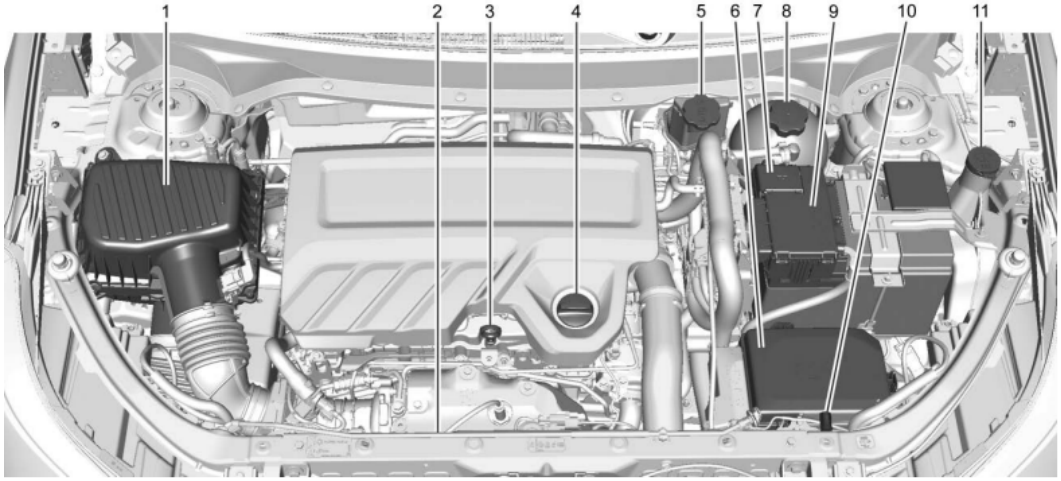
Engine Compartment Overview



1.5L Gas Engine

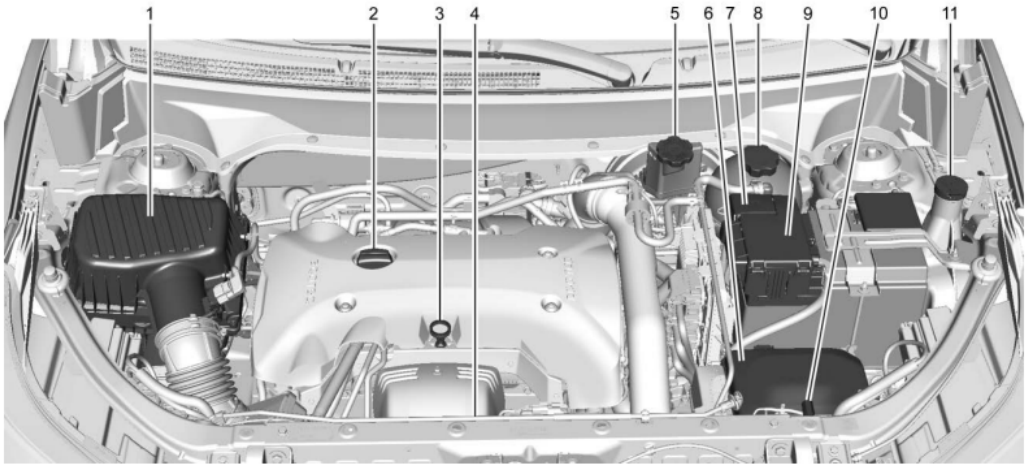
1. Engine Air Cleaner/Filter → 280.
2. Engine Oil Fill Cap. See Engine Oil → 275.

3. Engine Oil Dipstick. See Engine Oil → 275.
4. Engine Cooling Fan. See Cooling System → 282.
5. Brake Fluid Reservoir. See Brake Fluid → 289.
6. Engine Compartment Fuse Block → 299.
7. Remote Positive (+) Terminal (Under Cover). See Jump Starting - North America → 341.
8. Engine Coolant Surge Tank and Pressure Cap. See Cooling System → 282.
9. Battery - North America → 290.
10. Remote Negative (−) Terminal. See Jump Starting - North America → 341.
11. Windshield Washer Fluid Reservoir. See Washer Fluid → 287.



1.6L L4 Diesel Engine

1. 1. Engine Air Cleaner/Filter → 280.
2. Engine Cooling Fan. See Cooling System → 282.
3. Engine Oil Dipstick. See Engine Oil → 275.
4. Engine Oil Fill Cap. See Engine Oil → 275.
5. Brake Fluid Reservoir. See Brake Fluid → 289.
6. Engine Compartment Fuse Block → 299.
7. Remote Positive (+) Terminal (Under Cover). See Jump Starting - North America → 341.
8. Engine Coolant Surge Tank and Pressure Cap. See Cooling System → 282.
9. Battery - North America → 290.
10. Remote Negative (−) Terminal. See Jump Starting - North America → 341.
11. Windshield Washer Fluid Reservoir. See Washer Fluid → 287.



2.0L Gas Engine

1. Engine Air Cleaner/Filter →280.
2. Engine Oil Fill Cap. See Engine Oil →275.
3. Engine Oil Dipstick. See Engine Oil →275.
4. Engine Cooling Fan. See Cooling System →282.
5. Brake Fluid Reservoir. See Brake Fluid →289.
6. Engine Compartment Fuse Block →299.
7. Remote Positive (+) Terminal (Under Cover). See Jump Starting - North America →341.
8. Engine Coolant Surge Tank and Pressure Cap. See Cooling System → 282.
9. Battery - North America → 290.
10. Remote Negative (−) Terminal. See Jump Starting - North America →341.
11. Windshield Washer Fluid Reservoir. See Washer Fluid →287.

Engine Oil

To ensure proper engine performance and long life, careful attention must be paid to engine oil. Following these simple, but important steps will help protect your investment:

- Use engine oil approved to the proper specification and of the proper viscosity grade. See “Selecting the Right Engine Oil” in this section.
- Check the engine oil level regularly and maintain the proper oil level. See “Checking Engine Oil” and “When to Add Engine Oil” in this section.
- Change the engine oil at the appropriate time. See Engine Oil Life System → 279.
- 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 → 270 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. If the oil is not low and the low oil message remains on, take the vehicle to your dealer for service.

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.

Engine Oil Life System

When to Change Engine Oil

This vehicle has a computer system that indicates when to change the engine oil and filter. This is based on a combination of factors which include engine revolutions, engine temperature, and miles driven. Based on driving conditions, the mileage at which an oil change is indicated can vary considerably. For the oil life system to work properly, the system must be reset every time the oil is changed.

When the system has calculated that oil life has been diminished, it indicates that an oil change is necessary. A CHANGE ENGINE OIL SOON message comes on. Change the oil as soon as possible within the next 1 000 km (600 mi). It is possible that, if driving under the best conditions, the oil life system may indicate that an oil change is not necessary for up to a year. The engine oil and filter must be changed at least once a year and, at this time, the system must be reset. Your dealer has trained service people who will perform this work and reset the system. It is also important to check the oil regularly over the course of an oil drain interval and keep it at the proper level.

If the system is ever reset accidentally, the oil must be changed at 5 000 km (3,000 mi) since the last oil change. Remember to reset the oil life system whenever the oil is changed

How to Reset the Engine Oil Life System

Reset the system whenever the engine oil is changed so that the system can calculate the next engine oil change. To reset the system:

1. Display REMAINING OIL LIFE on the DIC menu. See Driver Information Center (DIC) (Base Level and Midlevel) 0 123 or Driver Information Center (DIC) (Uplevel) → 129.

2. Press and hold V for several seconds while the Oil Life display is active to reset the Oil Life system
3. REMAINING OIL LIFE 100% will be displayed when the oil life system is successfully reset.

The oil life system can also be reset as follows:

1. Place the ignition in Service Mode. See Ignition Positions → 180.
2. Display REMAINING OIL LIFE on the DIC menu. See Driver Information Center (DIC) (Base Level and Midlevel) → 123 or Driver Information Center (DIC) (Uplevel) → 129.
3. Fully press and release the accelerator pedal three times within five seconds.
4. If the display changes to 100%, the system is reset.

If the CHANGE ENGINE OIL SOON message comes back on when the vehicle is started, the engine oil life system has not reset. Repeat the procedure.

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.

Change the fluid at the intervals listed in Maintenance Schedule → 360, and be sure to use the transmission fluid listed in Recommended Fluids and Lubricants → 369.

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 → 369.

There is a special procedure for checking and changing the transmission fluid. Because this procedure is difficult, this should be done by your dealer.

Engine Air Cleaner/Filter

The engine air cleaner/filter is in the engine compartment on the passenger side of the vehicle. See Engine Compartment Overview → 270.

When to Inspect the Engine Air Cleaner/Filter

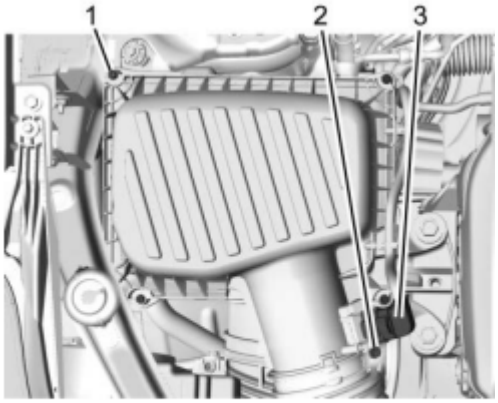
For intervals on changing and inspecting the engine air cleaner/ filter, see Maintenance Schedule → 360.

How to Inspect the Engine Air Cleaner/Filter

Do not start the engine or have the engine running with the engine air cleaner/filter housing open. Before removing the engine air cleaner/ filter, make sure that the engine air cleaner/filter housing and nearby components are free of dirt and debris. Remove the engine air cleaner/filter. Lightly tap and shake the engine air cleaner/filter (away from the vehicle), to release loose dust and dirt.

Inspect the engine air cleaner/filter for damage, and replace if damaged. Do not clean the engine air cleaner/filter or components with water or compressed air.

To inspect or replace the engine air cleaner/filter:



1.5L Gas Engine Shown, 1.6L Diesel Engine and 2.0L Gas Engine Similar

1. Screws
2. Air Duct Clamp
3. Electrical Connector

1. Open the hood. See Hood → 268.
2. Loosen the screw on the air duct clamp (2) and remove the air duct hose from the cover.
3. Remove the four screws (1) and remove the air cleaner/ filter cover, keeping the wiring harness electrical connector (3) connected to the sensor.
4. Pull straight up on the cover, and while holding the cover, remove the air cleaner/filter.
5. Inspect or replace the air cleaner/filter.

How to Reinstall the Engine Air Cleaner/Filter

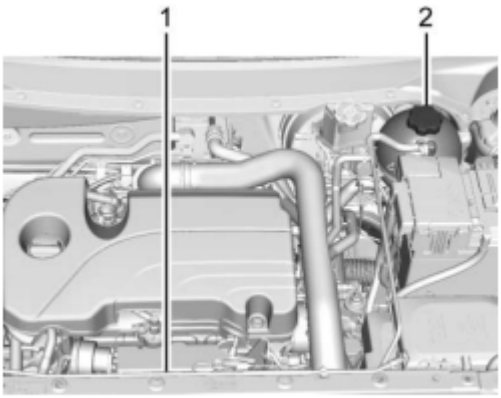
1. Align the air cleaner/filter with the indicated point on the base of the air cleaner/filter housing and install the air cleaner/filter. The outer air cleaner/filter seal must be fitted properly in the air cleaner/filter housing.

2. Align the air cleaner/filter housing cover tabs to the air cleaner/filter housing.
3. Install the air cleaner/filter housing cover using the four screws.
4. Slide the air duct onto the cover assembly and tighten the screw on the air duct clamp.
5. Verify that the wiring harness connector is fully connected to the sensor on the air cleaner/ filter housing.

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.

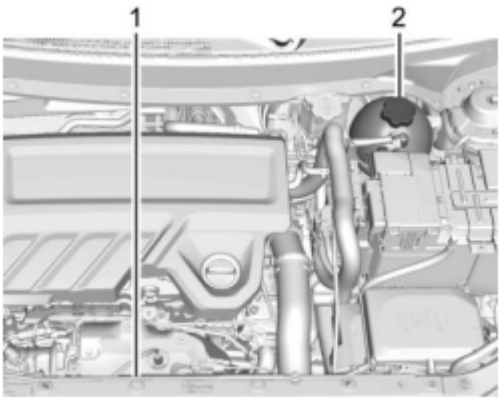
Caution: If the air cleaner/filter is off, dirt can easily get into the engine, which could damage it. Always have the air cleaner/filter in place when driving

Cooling System



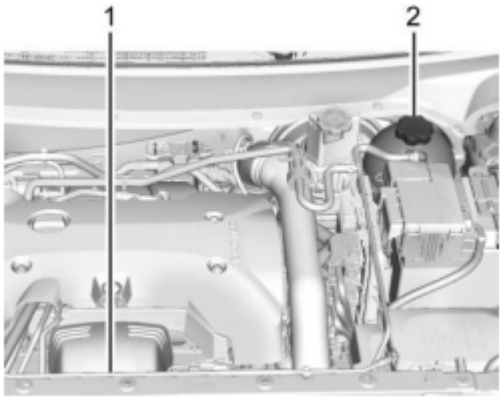
1.5L Gas Engine

1. Engine Cooling Fan (Out of View)
2. Engine Coolant Surge Tank and Pressure Cap



1.6L Diesel Engine

1. Engine Cooling Fan (Out of View)
2. Engine Coolant Surge Tank and Pressure Cap



2.0L Gas Engine

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.

If the coolant inside the coolant surge tank is boiling, do not do anything else until it cools down. The vehicle should be parked on a level surface.

The coolant level should be at the top rib on the middle of the tank. If it is not, the vehicle may have a leak at the radiator hoses, heater hoses, radiator, water pump, or somewhere else in the cooling system.

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.

If there seems to be no leak, with the engine on, check to see if the electric engine cooling fan is running. If the engine is overheating, the fan should be running. If it is not, the vehicle needs service. Turn off the engine.

Engine Coolant

The engine cooling system in the vehicle is filled with DEX-COOL engine coolant mixture. This coolant needs to be checked and changed at appropriate levels. See Recommended Fluids and Lubricants 0 369 and Maintenance Schedule → 360.

The following explains the cooling system and how to check and add coolant when it is low. If there is a problem with engine overheating, see Engine Overheating → 286

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. If using this mixture, nothing else needs to be added. 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 pouring 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 → 286.

The coolant surge tank is located in the engine compartment on the driver side of the vehicle. See Engine Compartment Overview → 270

How to Add Coolant to the Surge Tank

Warning: Spilling coolant on hot engine parts can burn you. Coolant contains ethylene glycol and it will burn if the engine parts are hot enough

Warning: Steam and scalding liquids from a hot cooling system are under pressure. Turning the pressure cap, even a little, can cause them to 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.

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.

The coolant surge tank pressure cap can be removed when the cooling system, including the surge tank pressure cap and upper radiator hose, is no longer hot.

1. Turn the pressure cap slowly counterclockwise. If a hiss is heard, wait for that to stop. A hiss means there is still some pressure left.
2. Keep turning the pressure cap slowly and remove it.
3. Fill the coolant surge tank with the proper mixture to the mark pointed to on the front of the coolant surge tank.
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 fans. 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 mark pointed to on the front of the coolant surge tank.
5. Replace the pressure cap tightly

Caution: If the pressure cap is not tightly installed, coolant loss and engine damage may occur. Be sure the cap is properly and tightly secured.

Engine Overheating

The vehicle has an engine coolant temperature gauge on the instrument cluster and overheat messages in the Driver Information Center (DIC) to warn of engine overheating. See Engine Coolant Temperature Gauge → 111. The DIC also displays overheat messages.

The decision may be made not to lift the hood when the engine coolant temperature gauge is in the overheat zone or an engine overheat DIC message displays, but instead to get service help right away. See Roadside Assistance Program → 381.

If the decision to lift the hood is made, 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, and have the vehicle serviced.

Caution: Do not run the engine if there is a leak in the engine cooling system. This can cause a loss of all coolant and can damage the system and vehicle. Have any leaks fixed right away

If Steam Is Coming from the Engine Compartment

Warning: Steam and scalding liquids from a hot cooling system are under pressure. Turning the pressure cap, even a little, can cause them to come out at high speed and you could be burned. Never turn the cap when the cooling system, including the pressure cap, is hot. Wait for the cooling system and pressure cap to cool.

If No Steam Is Coming from the Engine Compartment

If the engine coolant temperature gauge is in the overheat zone or an engine overheat DIC message 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
- Tows a trailer

If the engine coolant temperature gauge is in the overheat zone and an overheat DIC message is displayed with no sign of steam:

1. Turn the air conditioning off.
2. Turn the heater on to the highest temperature and to the highest fan speed. Open the windows as necessary.
3. When it is safe to do so, pull off the road, shift to P (Park) or N (Neutral), and let the engine idle.

If the engine coolant temperature gauge is no longer in the overheat zone or an overheat DIC message no longer displays, the vehicle can be driven. Continue to drive the vehicle slowly for about 10 minutes. Keep a safe distance from the vehicle in front. If the engine coolant temperature gauge does not go back to the overheat zone or an overheat DIC message does not display, continue to drive normally and have the cooling system checked for proper fill and function.

If the engine coolant temperature gauge is still in the overheat zone or an overheat DIC message still displays, pull over, stop, and park the vehicle right away. If overheat messages appear repeatedly, see your dealer.

If there is no sign of steam, idle the engine for three minutes while parked. If the engine coolant temperature gauge is still in the overheat zone or an overheat DIC message displays, 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 → 270 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.
- Fill the washer fluid tank only three-quarters full when it is very cold. This allows for fluid expansion if freezing occurs, which could damage the tank if it is completely full.

Brakes

Disc brake pads have built-in wear indicators that make a high-pitched warning sound when the brake pads are worn and new pads are needed. The sound can come and go or can be heard all the time when the vehicle is moving, except when applying the brake pedal firmly

Warning: The brake wear warning sound means that soon the brakes will not work well. That could lead to a crash. When the brake wear warning sound is heard, have the vehicle serviced.

Caution: Continuing to drive with worn-out brake pads could result in costly brake repair.

Some driving conditions or climates can cause a brake squeal when the brakes are first applied or lightly applied. This does not mean something is wrong with the brakes.

Properly torqued wheel nuts are necessary to help prevent brake pulsation. When tires are rotated, inspect brake pads for wear and evenly tighten wheel nuts in the proper sequence to torque specifications. See Capacities and Specifications → 374.

Brake pads should be replaced as complete sets

Brake Pedal Travel

See your dealer if the brake pedal does not return to normal height, or if there is a rapid increase in pedal travel. This could be a sign that brake service may be required

Replacing Brake System Parts

Always replace brake system parts with new, approved replacement parts. If this is not done, the brakes may not work properly. The braking performance expected can change in many other ways if the wrong replacement brake parts are installed or if parts are improperly installed.

Brake Fluid

The brake master cylinder reservoir is filled with GM approved DOT 3 brake fluid as indicated on the reservoir cap. See Engine Compartment Overview → 270 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 → 116.

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 → 360.

What to Add

Use only GM approved DOT 3 brake fluid from a clean, sealed container. See Recommended Fluids and Lubricants → 369

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 - North America

The original equipment battery is maintenance free. Do not remove the cap and do not add fluid.

Refer to the replacement number shown on the original battery label when a new battery is needed. See Engine Compartment Overview → 270 for battery location.

For replacement of the battery, see your dealer.

The vehicle has an Absorbed Glass Mat (AGM) 12-volt battery. Installation of a standard 12-volt battery will result in reduced 12-volt battery life.

When using a 12-volt battery charger on the 12-volt AGM battery, some chargers have an AGM battery setting on the charger. If available, use the AGM setting on the charger, to limit charge voltage to 14.8 volts. Follow the charger manufacturer's instructions.

Stop/Start System

The vehicle has a Stop/Start system to shut off the engine to help conserve fuel. See Stop/Start System → 184.

Warning: Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Batteries also contain other chemicals known to the State of California to cause cancer. WASH HANDS AFTER HANDLING. For more information go to www.P65Warnings.ca.gov/passenger-vehicle.

See California Proposition 65 Warning → 266 and the back cover.

Vehicle Storage

Warning: Batteries have acid that can burn you and gas that can explode. You can be badly hurt if you are not careful. See Jump Starting - North America → 341 for tips on working around a battery without getting hurt.

Infrequent Usage: Remove the black, negative (−) cable from the battery to keep the battery from running down.

Extended Storage: Remove the black, negative (−) cable from the battery or use a battery trickle charger.

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.

Starter Switch Check

Warning: When you are doing this inspection, the vehicle could move suddenly. If the vehicle moves, you or others could be injured.

1. Before starting this check, be sure there is enough room around the vehicle.
2. Apply both the parking brake and the regular brake. Do not use the accelerator pedal, and be ready to turn off the engine immediately if it starts.
3. Try to start the engine in each gear. The vehicle should start only in P (Park) or N (Neutral). If the vehicle starts in any other position, contact your dealer for service.

Automatic Transmission Shift Lock Control Function Check

Warning: When you are doing this inspection, the vehicle could move suddenly. If the vehicle moves, you or others could be injured.

1. Before starting this check, be sure there is enough room around the vehicle. It should be parked on a level surface.
2. Apply the parking brake. Be ready to apply the regular brake immediately if the vehicle begins to move.
3. With the engine off, turn the ignition on, but do not start the engine. Without applying the regular brake, try to move the shift lever out of P (Park) with normal effort. If the shift lever moves out of P (Park), contact your dealer for service

Park Brake and P (Park) Mechanism Check

Warning: When you are doing this check, the vehicle could begin to move. You or others could be injured and property could be damaged. Make sure there is room in front of the vehicle in case it begins to roll. Be ready to apply the regular brake at once should the vehicle begin to move.

Park on a fairly 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 engine running and the transmission in N (Neutral), slowly remove foot pressure from the regular brake pedal. Do this until the vehicle is held by the parking brake only.
- To check the P (Park) mechanism's holding ability: With the engine running, shift to P (Park). Then release the parking brake followed by the regular brake.

Contact your dealer if service is required.

Wiper Blade Replacement

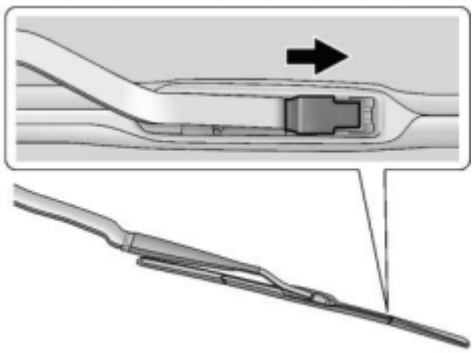
- Windshield wiper blades should be replaced periodically. See Maintenance Schedule → 360.
- Replacement blades come in different types and are removed in different ways. For proper type and length, see Maintenance Replacement Parts → 370.

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

To replace the wiper blade:

1. Pull the wiper assembly away from the windshield.



2. Lift up on the latch in the middle of the wiper blade where the wiper arm attaches.
3. 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

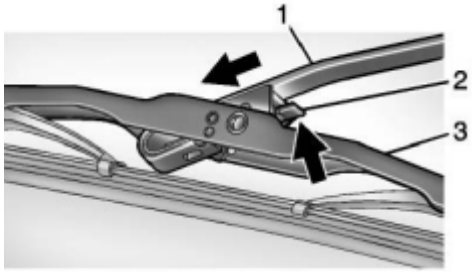
The rear wiper blade and wiper arm have a cover for protection.

To remove the cover:

1. 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. After wiper blade replacement, ensure that the cover hook slides into the slot in the blade assembly.
5. Snap the cover down to secure.

To replace the wiper blade:

1. Lift the wiper arm away from the windshield.



2. Push the release lever (2) to disengage the hook and push the wiper arm (1) out of the blade assembly (3).

3. Push the new blade assembly securely on the wiper arm until the release lever clicks into place.

Windshield Replacement

Driver Assistance Systems

If the windshield needs to be replaced and the vehicle is equipped with a front camera sensor for the Driver Assistance Systems, a GM replacement windshield is recommended. The replacement windshield must be installed according to GM specifications for proper alignment. If it is not, these systems may not work properly, they may display messages, or they may not work at all. See your dealer for proper windshield replacement

Acoustic Windshield

The vehicle is equipped with an acoustic windshield. If the windshield needs to be replaced, be sure to get an acoustic windshield so you will continue to have the benefits an acoustic windshield can provide.

Gas Strut(s)

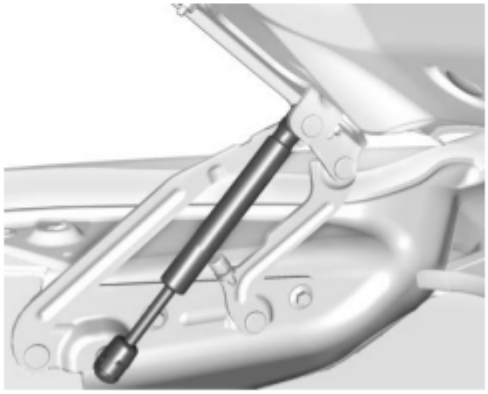
This vehicle is equipped with gas strut(s) to provide assistance in lifting and holding open the hood/trunk/liftgate system in full open position.

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.

See Maintenance Schedule → 360 .

Hood



Trunk

Liftgate

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

For the proper type of replacement bulbs, or any bulb changing procedure not listed in this section, contact your dealer

Caution: Do not replace incandescent bulbs with aftermarket LED replacement bulbs. This can cause damage to the vehicle electrical system.

Halogen Bulbs

Warning: Halogen bulbs have pressurized gas inside and can burst if you drop or scratch the bulb. You or others could be injured. Be sure to read and follow the instructions on the bulb package.

High Intensity Discharge (HID) Lighting

Warning: The High Intensity Discharge (HID) lighting system operates at a very high voltage. If you try to service any of the system components, you could be seriously injured. Have your dealer or a qualified technician service them.

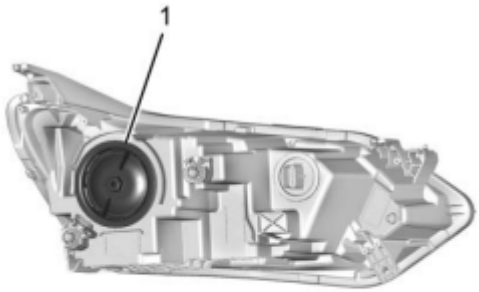
After an HID headlamp bulb has been replaced, the beam might be a slightly different shade than it was originally. This is normal.

LED Lighting

This vehicle has several LED lamps. For replacement of any LED lighting assembly, contact your dealer.

Headlamps

Bi-halogen headlamp shown.

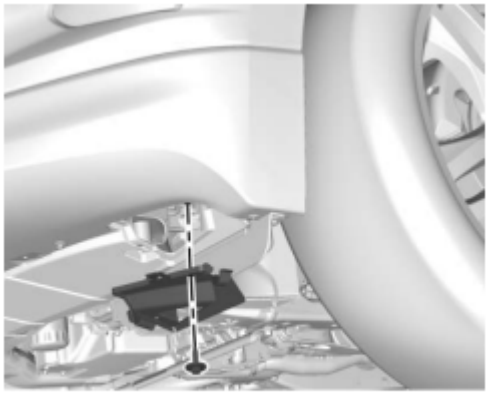


Driver Side Shown, Passenger Side Similar

To replace one of the headlamp bulbs:

1. Open the hood. See Hood → 268.
2. For the driver side bulb, remove the battery cover. Remove the windshield washer bottle filler neck by firmly pulling it straight up and out of the bottle. For the passenger side, remove the air cleaner cover.
3. Remove the cover from the back of the headlamp assembly by turning it counterclockwise.
4. Disconnect the electrical connector.
5. Remove the bulb from the lamp assembly by turning counterclockwise.
6. Install a new bulb in the lamp assembly.
7. Connect the electrical connector.
8. Replace the cover from the back of the headlamp assembly by turning it clockwise.
9. For the driver side, reinstall the battery cover. Reinstall the windshield washer bottle filler neck by firmly pushing it straight into the bottle. Make sure that the filler neck clip engages into the bracket on the upper tie-bar. For the passenger side, reinstall the air cleaner cover.

Front Turn Signal and Fog Lamps

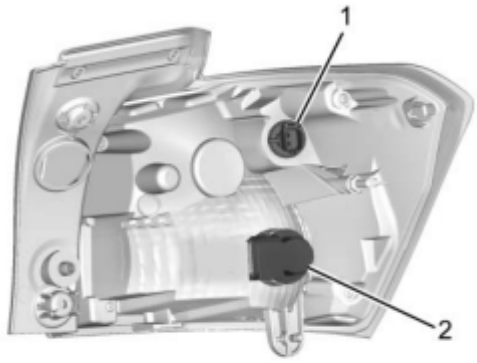


Driver Side Shown, Passenger Side Similar

To replace one of these lamps:

1. Remove the fastener to remove the access panel.
2. Access the lamp through the hole in the underbody air deflector.
3. Disconnect the electrical connector from the bulb assembly.
4. Turn the bulb socket counterclockwise and pull the bulb straight out of the socket.
5. Replace the bulb and reverse Steps 1–4 to reinstall.

Taillamps



Driver Side Shown, Passenger Side Similar

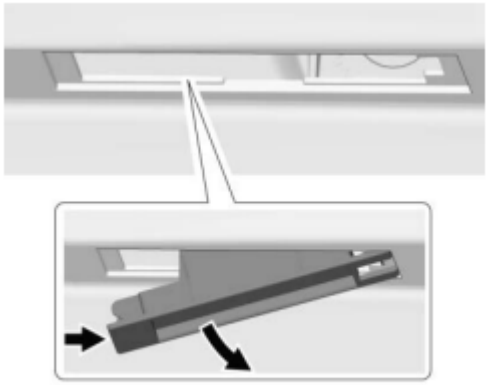
1. Sidemarker
2. Stoplamp/Taillamp/Rear Turn Signal

To replace one of these lamps:

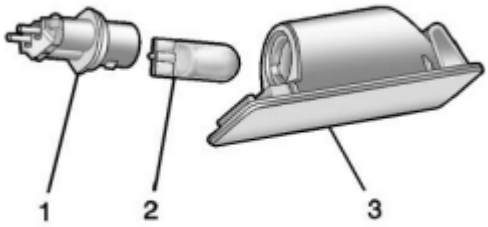
1. Open the liftgate. See Liftgate → 21.
2. Remove the two screw covers from the taillamp assembly.
3. Remove the two screws securing the taillamp assembly.
4. Pull the taillamp assembly out of the vehicle body.

5. Disconnect the lamp wiring harness.
6. Turn the bulb socket counterclockwise and pull it out.
7. Pull the bulb straight out of the socket.
8. Install the new bulb.
9. Push the bulb socket in and turn it clockwise.
10. Reverse Steps 2–5 to reinstall the lamp assembly

License Plate Lamp



Lamp Assembly



Bulb Assembly

1. Bulb Socket
2. Bulb
3. Lamp Assembly

To replace one of these bulbs:

1. Open the liftgate partway. See Liftgate → 21.
2. Push the lamp assembly outboard to remove.
3. Pull the lamp assembly down to remove it from the liftgate.
4. Turn the bulb socket (1) counterclockwise to remove it from the lamp assembly (3).
5. Pull the bulb (2) straight out of the bulb socket (1).

6. Push the replacement bulb straight into the bulb socket and turn the bulb socket clockwise to install it into the lamp assembly.
7. Push the lamp assembly into the liftgate engaging the clip side first.
8. Push on the lamp side opposite the clip until the lamp assembly snaps into place.

Appearance Care

Exterior Care

Locks

Locks are lubricated at the factory. Use a de-icing agent only when absolutely necessary, and have the locks greased after using. See Recommended Fluids and Lubricants → 369.

Washing the Vehicle

To preserve the vehicle's finish, wash it often and out of direct sunlight.

Caution: Do not use petroleum-based, acidic, or abrasive cleaning agents as they can damage the vehicle's paint, metal, or plastic parts. If damage occurs, it would not be covered by the vehicle warranty. Approved cleaning products can be obtained from your dealer. Follow all manufacturer directions regarding correct product usage, necessary safety precautions, and appropriate disposal of any vehicle care product.

Caution: Avoid using high-pressure washes closer than 30 cm (12 in) to the surface of the vehicle. Use of power washers exceeding 8,274 kPa (1,200 psi) can result in damage or removal of paint and decals.

Caution: Do not power wash any component under the hood that has this  symbol. This could cause damage that would not be covered by the vehicle warranty.

If using an automatic car wash, follow the car wash instructions. The 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.

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 non-abrasive 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 increase fuel economy. Keep the shutter system clean for proper operation.

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 → 369

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.

Steering, Suspension, and Chassis Components

Visually inspect steering, suspension, and chassis components for damaged, loose, or missing parts or signs of wear at least once a year.

Inspect power steering for proper attachment, connections, binding, leaks, cracks, chafing, etc.

Visually check constant velocity joint boots and axle seals for leaks.

Body Component Lubrication

Lubricate all key lock cylinders, hood hinges, liftgate hinges, steel fuel door hinges, and power assist step hinges, unless the components are plastic. Applying silicone grease on weatherstrips with a clean cloth will make them last longer, seal better, and not stick or squeak.

Underbody Maintenance

At least twice a year, spring and fall, use plain water to flush any corrosive materials from the underbody. Take care to thoroughly clean any areas where mud and other debris can collect.

Do not directly power wash the transfer case and/or front/rear axle output seals. High pressure water can overcome the seals and contaminate the fluid. Contaminated fluid will decrease the life of the transfer case and/or axles and should be replaced.

Sheet Metal Damage

If the vehicle is damaged and requires sheet metal repair or replacement, make sure the body repair shop applies anti-corrosion material to parts repaired or replaced to restore corrosion protection. Original manufacturer replacement parts will provide the corrosion protection while maintaining the vehicle warranty.

Finish Damage

Quickly repair minor chips and scratches with touch-up materials available from your dealer to avoid corrosion. Larger areas of finish damage can be corrected in your dealer's body and paint shop.

Chemical Paint Spotting

Airborne pollutants can fall upon and attack painted vehicle surfaces causing blotchy, ring-shaped 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 solution, immediately remove hand lotions, sunscreen, and insect repellent from all interior surfaces or permanent damage may result. Use cleaners specifically designed for the surfaces being cleaned to prevent permanent damage. Apply all cleaners directly to the cleaning cloth. Do not spray cleaners on any switches or controls. Remove cleaners quickly.

Before using cleaners, read and follow all safety instructions on the label. While cleaning the interior, open the doors and windows to get proper ventilation.

To prevent damage, do not clean the interior using the following cleaners or techniques:

- Never use a razor or any other sharp object to remove soil from any interior surface.
- Never use a brush with stiff bristles.
- Never rub any surface aggressively or with too much pressure.
- Do not use laundry detergents or dishwashing soaps with degreasers. For liquid cleaners, use approximately 20 drops per 3.8 L (1 gal) of water. A concentrated soap solution will create streaks and attract dirt. Do not use solutions that contain strong or caustic soap.
- Do not heavily saturate the upholstery when cleaning.
- Do not use solvents or cleaners containing solvents.

Interior Glass

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

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

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

Speaker Covers

Vacuum around a speaker cover gently, so that the speaker will not be damaged. Clean spots with water and mild soap

Coated 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:

1. Saturate a clean, lint-free colorfast cloth with water. Microfiber cloth is recommended to prevent lint transfer to the fabric or carpet.
2. Remove excess moisture by gently wringing until water does not drip from the cleaning cloth.
3. Start on the outside edge of the soil and gently rub toward the center. Fold the cleaning cloth to a clean area frequently to prevent forcing the soil 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.
5. If the soil is not completely removed, use a mild soap solution followed only by plain water.

If the soil is not completely removed, it may be necessary to use a commercial upholstery cleaner or spot lifter. Test a small hidden area for colorfastness before using a commercial upholstery cleaner or spot lifter. If ring formation occurs, clean the entire fabric or carpet.

After cleaning, use a paper towel to blot excess moisture.

Cleaning High Gloss Surfaces and Vehicle 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

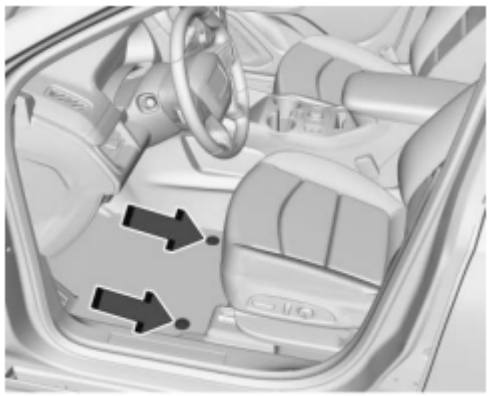
Warning: If a floor mat is the wrong size or is not properly installed, it can interfere with the pedals. Interference with the pedals can cause unintended acceleration and/or increased stopping distance which can cause a crash and injury. Make sure the floor mat does not interfere with the pedals.

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.

Removing and Replacing the Floor Mat



The driver side floor mat is held in place by two retainers.

1. Pull up on the rear of the floor mat to unlock each retainer and remove.
2. Reinstall by lining up the floor mat retainer openings over the carpet retainers and snap into position.
3. Make sure the floor mat is properly secured in place. Verify the floor mat does not interfere with the pedals.

Service and Maintenance

Maintenance Schedule

Owner Checks and Services

At Each Fuel Stop .

- Check the engine oil level. See Engine Oil → 275.

Once a Month .

- Check the tire inflation pressures. See Tire Pressure → 313.
- Inspect the tires for wear. See Tire Inspection → 320.
- Check the windshield washer fluid level. See Washer Fluid → 287.

Engine Oil Change

When the CHANGE ENGINE OIL SOON message displays, have the engine oil and filter changed within the next 1 000 km/600 mi. If driven under the best conditions, the engine oil life system may not indicate the need for vehicle service for up to a year. The engine oil and filter must be changed at least once a year and the oil life system must be reset. Your trained dealer technician can perform this work. If the engine oil life system is reset accidentally, service the vehicle within 5 000 km/3,000 mi since the last service. Reset the oil life system when the oil is changed. See Engine Oil Life System → 279.

On vehicles with diesel engines, it is recommended to drain the diesel fuel filter of water when the oil is changed or when the WATER IN FUEL CONTACT SERVICE message displays.

Air Conditioning Desiccant (Replace Every Seven Years)

The air conditioning system requires maintenance every seven years. This service requires replacement of the desiccant to help the longevity and efficient operation of the air conditioning system. This service can be complex. See your dealer

Tire Rotation and Required Services Every 12 000 km/ 7,500 mi

Rotate the tires, if recommended for the vehicle, and perform the following services. See Tire Rotation → 320

- Check engine oil level and oil life percentage. If needed, change engine oil and filter, and reset oil life system. See Engine Oil → 275 and Engine Oil Life System → 279.
- Check engine coolant level. See Cooling System → 282.
- Check windshield washer fluid level. See Washer Fluid → 287.
- Check tire inflation pressures. See Tire Pressure → 313.
- Inspect tire wear. See Tire Inspection → 320.
- Visually check for fluid leaks.
- Inspect engine air cleaner filter. See Engine Air Cleaner/Filter → 280.
- Inspect brake system. See Exterior Care → 349.
- 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 → 349.
- Inspect power steering for proper attachment, connections, binding, leaks, cracks, chafing, etc.
- Visually inspect halfshafts and drive shafts for excessive wear, lubricant leaks, and/or damage including: tube dents or cracks, constant velocity joint or universal joint looseness, cracked or missing boots, loose or missing boot clamps, center bearing excessive looseness, loose or missing fasteners, and axle seal leaks.
- Check restraint system components. See Safety System Check → 55.
- Visually inspect fuel system for damage or leaks.

- Visually inspect exhaust system and nearby heat shields for loose or damaged parts.
- Lubricate body components. See Exterior Care → 349.
- Check starter switch. See Starter Switch Check → 291.
- Check automatic transmission shift lock control function. See Automatic Transmission Shift Lock Control Function Check → 291.
- Check parking brake and automatic transmission park mechanism. See Park Brake and P (Park) Mechanism Check → 292.
- Check accelerator pedal for damage, high effort, or binding. Replace if needed.
- Visually inspect gas strut for signs of wear, cracks, or other damage. Check the hold open ability of the strut. If the hold open ability is low, service the gas strut. See Gas Strut(s) → 294.
- Check tire sealant expiration date, if equipped. See Tire Sealant and Compressor Kit → 328.
- Inspect sunroof track and seal, if equipped. See Sunroof → 33.

Maintenance Schedule Additional Required Services - Normal	12 000 km/7,500 mi	24 000 km/15,000 mi	36 000 km/22,500 mi	48 000 km/30,000 mi	60 000 km/37,500 mi	72 000 km/45,000 mi	84 000 km/52,500 mi	96 000 km/60,000 mi	108 000 km/67,500 mi	120 000 km/75,000 mi	132 000 km/82,500 mi	144 000 km/90,000 mi	156 000 km/97,500 mi	168 000 km/105,000 mi	180 000 km/112,500 mi	192 000 km/120,000 mi	204 000 km/127,500 mi	216 000 km/135,000 mi	228 000 km/142,500 mi	240 000 km/150,000 mi
Rotate tires and perform Required Services. Check engine oil level and oil life percentage. Change engine oil and filter, if needed. Drain the diesel fuel filter of water. (Diesel Only)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Replace passenger compartment air filter. (1)			✓			✓			✓			✓			✓			✓		
Inspect evaporative control system. (2)						✓						✓						✓		
Diesel Engine Only: Replace fuel filter. (3)					✓					✓					✓					✓
Replace engine air cleaner filter. (4)						✓						✓						✓		
Replace spark plugs. Inspect spark plug wires.								✓								✓				
Change rear axle fluid, if equipped with AWD. (5)																				✓
Drain and fill engine cooling system. (6)																				✓
Visually inspect accessory drive belts. (7)																				✓
Replace brake fluid. (8)																				
Replace windshield wiper blades. (9)		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓
Replace hood and/or body lift support gas struts. (10)										✓										✓
Replace air conditioning desiccant. (11)																				

Footnotes — Maintenance Schedule Additional Required Services - Normal

(1) Or every two years, 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.

(2) Visually check all fuel and vapor lines and hoses for proper attachment, connection, routing, and condition.

(3) Or as indicated by the Driver Information Center (DIC) or two years whichever comes first. The fuel filter may need to be replaced more often based on biodiesel usage, driving in climates with severe dust, off-road driving, or towing a trailer for extended periods.

(4) Or every four years, whichever comes first. If driving in dusty conditions, inspect the filter at each oil change or more often as needed. See Engine Air Cleaner/Filter → 280.

(5) 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.

(6) Or every five years, whichever comes first. See Cooling System → 282.

(7) Or every 10 years, whichever comes first. Inspect for fraying, excessive cracking, or damage; replace, if needed.

(8) Replace brake fluid every five years. See Brake Fluid → 289.

(9) Or every 12 months, whichever comes first. See Wiper Blade Replacement → 292.

(10) Or every 10 years, whichever comes first. See Gas Strut(s) → 294.

(11) Replace air conditioning desiccant every seven years.

Maintenance Schedule Additional Required Services - Severe	12 000 km/7,500 mi	24 000 km/15,000 mi	36 000 km/22,500 mi	48 000 km/30,000 mi	60 000 km/37,500 mi	72 000 km/45,000 mi	84 000 km/52,500 mi	96 000 km/60,000 mi	108 000 km/67,500 mi	120 000 km/75,000 mi	132 000 km/82,500 mi	144 000 km/90,000 mi	156 000 km/97,500 mi	168 000 km/105,000 mi	180 000 km/112,500 mi	192 000 km/120,000 mi	204 000 km/127,500 mi	216 000 km/135,000 mi	228 000 km/142,500 mi	240 000 km/150,000 mi
Rotate tires and perform Required Services. Check engine oil level and oil life percentage. Change engine oil and filter, if needed. Drain the diesel fuel filter of water. (Diesel Only)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Replace passenger compartment air filter. (1)			✓			✓			✓			✓			✓			✓		
Inspect evaporative control system. (2)						✓						✓						✓		
Diesel Engine Only: Replace fuel filter. (3)					✓					✓					✓					✓
Replace engine air cleaner filter. (4)						✓						✓						✓		
Change automatic transmission fluid.						✓						✓						✓		
Replace spark plugs. Inspect spark plug wires.								✓								✓				
Change rear axle fluid, if equipped with AWD. (5)										✓										✓
Drain and fill engine cooling system. (6)																				✓
Visually inspect accessory drive belts. (7)																				✓
Replace brake fluid. (8)																				
Replace windshield wiper blades. (9)		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓
Replace hood and/or body lift support gas struts. (10)										✓										✓
Replace air conditioning desiccant. (11)																				

Footnotes — Maintenance Schedule Additional Required Services - Severe

(1) Or every two years, 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.

(2) Visually check all fuel and vapor lines and hoses for proper attachment, connection, routing, and condition.

3) Or as indicated by the Driver Information Center (DIC) or two years whichever comes first. The fuel filter may need to be replaced more often based on biodiesel usage, driving in climates with severe dust, off-road driving, or towing a trailer for extended periods.

(4) Or every four years, whichever comes first. If driving in dusty conditions, inspect the filter at each oil change or more often as needed. See Engine Air Cleaner/Filter → 280.

(5) 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.

(6) Or every five years, whichever comes first. See Cooling System → 282.

(7) Or every 10 years, whichever comes first. Inspect for fraying, excessive cracking, or damage; replace, if needed.

(8) Replace brake fluid every five years. See Brake Fluid → 289.

(9) Or every 12 months, whichever comes first. See Wiper Blade Replacement → 292.

(10) Or every 10 years, whichever comes first. See Gas Strut(s) → 294.

(11) Replace air conditioning desiccant every seven years.

Additional Maintenance and Care

Your vehicle is an important investment and caring for it properly may help to avoid future costly repairs. To maintain vehicle performance, additional maintenance services may be required.

It is recommended that your dealer perform these services — their trained dealer technicians know your vehicle best. Your dealer can also perform a thorough assessment with a multi-point inspection to recommend when your vehicle may need attention.

The following list is intended to explain the services and conditions to look for that may indicate services are required.

Battery

The 12-volt battery supplies power to start the engine and operate any additional electrical accessories.

- To avoid break-down or failure to start the vehicle, maintain a battery with full cranking power. . Trained dealer technicians have the diagnostic equipment to test the battery and ensure that the connections and cables are corrosion-free.

Belts

- Belts may need replacing if they squeak or show signs of cracking or splitting.
- Trained dealer technicians have access to tools and equipment to inspect the belts and recommend adjustment or replacement when necessary.

Brakes

Brakes stop the vehicle and are crucial to safe driving.

- Signs of brake wear may include chirping, grinding, or squealing noises, or difficulty stopping.
- Trained dealer technicians have access to tools and equipment to inspect the brakes and recommend quality parts engineered for the vehicle.

Fluids

Proper fluid levels and approved fluids protect the vehicle's systems and components. See Recommended Fluids and Lubricants → 369 for GM approved fluids.

- Engine oil and windshield washer fluid levels should be checked at every fuel fill.
- Instrument cluster lights may come on to indicate that fluids may be low and need to be filled.

Hoses

Hoses transport fluids and should be regularly inspected to ensure that there are no cracks or leaks. With a multi-point inspection, your dealer can inspect the hoses and advise if replacement is needed

Lamps

Properly working headlamps, taillamps, and brake lamps are important to see and be seen on the road.

- Signs that the headlamps need attention include dimming, failure to light, cracking, or damage. The brake lamps need to be checked periodically to ensure that they light when braking.
- With a multi-point inspection, your dealer can check the lamps and note any concerns.

Shocks and Struts

Shocks and struts help aid in control for a smoother ride.

- Signs of wear may include steering wheel vibration, bounce/ sway while braking, longer stopping distance, or uneven tire wear.
- As part of the multi-point inspection, trained dealer technicians can visually inspect the shocks and struts for signs of leaking, blown seals, or damage, and can advise when service is needed.

Tires

Tires need to be properly inflated, rotated, and balanced. Maintaining the tires can save money and fuel, and can reduce the risk of tire failure.

- Signs that the tires need to be replaced include three or more visible treadwear indicators; cord or fabric showing through the rubber; cracks or cuts in the tread or sidewall; or a bulge or split in the tire.

- Trained dealer technicians can inspect and recommend the right tires. Your dealer can also provide tire/wheel balancing services to ensure smooth vehicle operation at all speeds. Your dealer sells and services name brand tires.

Vehicle Care

To help keep the vehicle looking like new, vehicle care products are available from your dealer. For information on how to clean and protect the vehicle's interior and exterior, see Interior Care → 353 and Exterior Care → 349.

Wheel Alignment

Wheel alignment is critical for ensuring that the tires deliver optimal wear and performance.

- Signs that the alignment may need to be adjusted include pulling, improper vehicle handling, or unusual tire wear.
- Your dealer has the required equipment to ensure proper wheel alignment.

Windshield

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

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

Wiper Blades

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

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