Front and Rear Park Assist

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

**Automatic Parking Assist (APA)**

Automatic Parking Assist can search for and steer your vehicle into a parallel or perpendicular parking space. While the feature steers, you’ll brake, accelerate and follow directions to shift gears.

**Reverse Automatic Braking (RAB)**

Reverse Automatic Braking can help avoid or reduce the severity of backing collisions with certain objects it detects directly behind you when you’re in Reverse. It provides alerts and can even automatically provide hard emergency braking if you have not already begun hard braking.

**Rear Pedestrian Alert**

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

Rear Cross Traffic Alert (RCTA) System

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

**Forward Collision Alert (FCA) System**

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

**Automatic Emergency Braking (AEB)**

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

**Front Pedestrian Braking (FPB) System**

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

**Side Blind Zone Alert (SBZA)**

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

**Lane Change Alert (LCA)**

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

**Lane Keep Assist (LKA)**

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

Cleaning

Depending on vehicle options, keep these areas of the vehicle clean to ensure the best driver assistance feature performance. Driver Information Center (DIC) messages may display when the systems are unavailable or blocked.

- Front and rear bumpers and the area below the bumpers
- Front grille and headlamps
- Front camera lens in the front grille or near the front emblem
- Front side and rear side panels
- Outside of the windshield in front of the rearview mirror
- Side camera lens on the bottom of the outside mirrors
- Rear side corner bumpers
- Rear Vision Camera above the license plate

Radio Frequency

This vehicle may be equipped with driver assistance systems that operate using radio frequency. See Radio Frequency Statement \(\text{\textbullet}\) 131.

Charging

When to Charge

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

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

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

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

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

*See Hill and Mountain Roads 63 for important information about driving on grades.*

Plug-In Charging

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

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

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

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

GM recommends the following:

- Unless your drive requires a full charge, charge the high voltage battery to 80% or less.
- Avoid allowing the high voltage battery to fall below 20% charged, if possible. See Battery North America 97.
- If your route includes steep mountain terrain or if you are towing a trailer, it is important that your battery charge level is 80% or less to maximize regenerative braking performance.

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

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

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

**Caution**

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

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

**Charging Override**

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

- Override of the charge settings by the owner.
80 Driving and Operating

- Unintended interruption of AC power at the vehicle’s charge port.
- Interruption of charging by the utility company.

AC Charging

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

2. Push the top right corner of the charge port door and release to open the door. In cold weather conditions, ice may form around the charge port door. Remove ice from the area before attempting to open or close the charge port door.

3. Open the liftgate, lift the load floor cover, and remove the charge cord. See your owner’s manual.

4. Plug the charge cord into the electrical outlet. To verify the charge cord status, see your owner’s manual and Charge Cord 84. For instructions to set cord limit settings for a charge session, see your owner’s manual.

5. Plug in the AC charge cord into the vehicle charge port. Make sure the AC vehicle plug is fully connected to the AC charge port. If it is not properly connected, the vehicle may not be charged.
6. Verify that the charge status light turns on and an audible chirp occurs. See your owner’s manual.

To End AC Charging

1. Unlock the charge cord from the vehicle by pressing the button on the top of the charge cord plug. Unplug the charge cord from the vehicle. The charge port door will automatically close when the charge cord is unplugged.

2. Press the button to manually close the charge port door.

3. Unplug the charge cord from the electrical outlet.

4. Place the charge cord into the storage compartment.

DC Charging

DC Charging Station Hardware

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

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

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

⚠️ Warning

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

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

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

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

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

To Start DC Charging

1. Put the vehicle in P (Park).
2. Push the top right corner of the charge port door and release to open the door. In cold weather conditions, ice may form around the charge port door. Remove ice from the area before attempting to open or close the charge port door.

3. Unlatch the DC charging dust cover and lower it fully.

4. Plug in the DC charge cord into the vehicle charge port. Make sure that the DC vehicle plug is fully connected to the DC charge port. If it is not properly connected, the vehicle may not be charged. Check the Driver Information Center (DIC) to make sure the vehicle plug is connected properly.

5. Follow the steps listed on the charging station to start charging.

6. When charging is active, the DC vehicle plug is locked to the DC charge port and cannot be disconnected.

7. Verify that the charge status light turns on and an audible chirp occurs. See your owner’s manual.

**Caution**

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

**To End DC Charging**

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

If the vehicle plug does not unlock from the vehicle charge port after a charge, contact Roadside Assistance. See Roadside Assistance Program ∅ 127 or Roadside Assistance Program ∅ 128.

1. Unplug the DC vehicle plug from the DC charge port on the vehicle and close the dust cover.

2. The charge port door will automatically close when the charge cord is unplugged.
3. Press the button to manually close the charge port door.

4. Manually disengage the Electric Parking Brake (EPB) before driving the vehicle.

**Emergency Manual Charge Cord Release**

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

1. Open the hood. See *Hood* \(\Rightarrow 92\).

2. The emergency manual charge cord release is below the underhood access covers. To remove, see *Underhood Access Covers* \(\Rightarrow 94\).

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

**To Stop AC or DC Charging**

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

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

IMPORTANT SAFETY INSTRUCTIONS

This symbol indicates risk of electrical shock.
See Radio Frequency Statement 0 131.

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

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

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

Important Information about Portable Electric Vehicle Charging

- Charging an electric vehicle can stress a building’s electrical system more than a typical household appliance.
- Before plugging the charge cord into any electrical outlet, have a qualified electrician inspect and verify the electrical system (electrical outlet, wiring, junctions, and protection devices) is suitable for a heavy-duty service.
- Electrical outlets may wear out with normal usage or may be damaged over time, making them unsuitable for electric vehicle charging.
- Check the electrical outlet/plug while charging and discontinue use if the electrical outlet/plug is hot, then have the electrical outlet serviced by a qualified electrician.
- When outdoors, plug into an electrical outlet that is weatherproof while in use.
- Do not attempt to use the charge cord with non-utility supplied electrical power sources such as backup generating equipment.
- If the charge cord overheats, remove from direct sunlight.
- Disconnect the charge cord from the vehicle before disconnecting the attachment plug from the wall.
- When charging your vehicle, ensure all components are connected properly, there is no damage, and the outlet has power.
- Do not use the charge cord in severe weather conditions.
Danger

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

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

Warning

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

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

Warning

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

(Continued)
Driving and Operating

Warning (Continued)

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

Installing and Operating the Portable Charge Cord

The charge cord must be on a dedicated individual branch circuit. A dedicated circuit ensures that there is enough power available without overloading the system. If a dedicated circuit is not used, the circuit breaker could trip or open. If a dedicated circuit is not available, contact a qualified electrician. See “Grounding Instructions” later on in this section.

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

2. Mount the charge cord to reduce strain on the electrical outlet/plug. Mount the control box in a suitable location to prevent physical stress on the electrical outlets and charge cord components. Mount the control box directly to the wall or stud near a suitable electrical outlet. The retention eyelets on the control box are optimized for use with #10 drywall screws.
3. Handle electrical cables with care. Do not sharply bend, pull, or crush cables.

4. Connect the attachment plug to the electrical outlet. Refer to the “Charge Cord Status Indicator” section to ensure the charge cord is working properly.

5. Insert the vehicle plug into the vehicle charge port to initiate charging.

6. To disconnect the charge cord, press and hold the latch release button on the vehicle plug. Once disconnected from the vehicle, the charge cord can be unplugged from the wall.

Avoid the following actions:
- Placing the control box and charge cord in a location it may be submerged in water (or other liquid substances) or subject to physical abuse.
- Coiling or storing the charge cord in a location it may be crushed or forced into space to form a circle smaller than 178 mm (7 in).
- Restricting the cable rotation or applying excessive pulling force while wrapping.
- Wrapping the cable around the housing of the control box.

Charge Cord Status Indicator
After plugging in the charge cord, it will perform a quick self test. Verify the charge cord status on the charge cord control box. The charge cord uses a combination of red, blue, and amber indicators to display the status of the charge cord.
## Driving and Operating

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