Jeep®

2022 WRANGLER 4xe

HYBRID SUPPLEMENT




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INTRODUCTION

Dear Customer,

Electrification is the next giant technological leap for Wrangler. The "Original" go anywhere-4x4 continues its undisputed 4x4 leadership with 4xe technology. Wrangler 4xe plug-in hybrid electric vehicle technology enhances the fun, freedom, and adventure Wrangler is known for, while providing unprecedented performance, fuel economy, and environmental friendliness. Wrangler 4xe makes it more capable off-road and on-road with no compromise to the top down and doors off fun and freedom customers expect from the Jeep® icon.

This Hybrid Supplement has been prepared with the assistance of service and engineering specialists to acquaint you with the operation and maintenance of your Jeep®. Within this information, you will find a description of the hybrid services that FCA US LLC offers to its customers. Please take the time to read all of this publication carefully before driving your vehicle for the first time. Following the instructions, recommendations, tips, and important warnings in this manual will help ensure safe and enjoyable operation of your vehicle. For additional information, refer to your vehicle's Owner's Manual.

When it comes to service, remember that authorized dealers know your Jeep® best, have factory-trained technicians, genuine Mopar® parts, and care about your satisfaction.

SYMBOLS KEY

WARNING!	These statements are against operating procedures that could result in a collision, bodily injury and/or death.
CAUTION!	These statements are against procedures that could result in damage to your vehicle.
NOTE:	A suggestion which will improve installation, operation, and reliability. If not followed, may result in damage.
TIP:	General ideas/solutions/suggestions on easier use of the product or functionality.
PAGE REFERENCE ARROW 	Follow this reference for additional information on a particular feature.
FOOTNOTE 	Supplementary and relevant information pertaining to the topic.

If you do not read the entire Owner's Manual, you may miss important information. Observe all Cautions and Warnings.

SYMBOL GLOSSARY

Some car components have colored labels with symbols indicating precautions to be observed when using this component. It is important to follow all warnings when operating your vehicle. See below for the definition of each symbol ⇨ page 42.

NOTE:
Warning and Indicator lights are different based upon equipment options and current vehicle status. Some telltales are optional and may not appear.

Red Warning Lights	
	Stop Safely Vehicle Will Shut Off Soon ⇨ page 42
	Hybrid Electric Vehicle System Service Light ⇨ page 42
	Plug Status Fault Warning Light ⇨ page 42
	Torque Limited Warning Light ⇨ page 43

Green Indicator Lights	
	Ready To Drive Indicator Light ➪ page 43
	Plug Status Indicator Light ➪ page 43
	Max Regeneration Indicator Light ➪ page 43

White Indicator Lights	
	Max Regeneration Indicator Light ➪ page 43

HIGH VOLTAGE BATTERY

Your vehicle is equipped with a Lithium-ion high voltage battery that is used to power the electric powertrain systems and the 12 Volt vehicle electrical system.

The high voltage battery is located under the rear seat.

Lithium-ion batteries provide the following benefits:

- Lithium-ion batteries are much lighter than other types of rechargeable batteries of the same size.
- Lithium-ion batteries hold their charge; they only lose approximately three percent of their charge per month.
- Lithium-ion batteries have no memory, which means that you do not have to completely discharge them before recharging, as with some other batteries.
- Lithium-ion batteries can be recharged and discharged thousands of times.

High Voltage Battery Service Disconnect

The high voltage battery service disconnect is located under the access panel, under the left side rear seat.

If your vehicle requires high voltage battery service, see an authorized dealer.

WARNING!
Never try to remove the high voltage battery service disconnect. The high voltage battery service disconnect is used when your vehicle requires service by a trained technician at an authorized dealer. Failure to follow this warning can cause severe burns or electrical shock that may result in serious injury or death.

Disposal of the High Voltage Battery

Your vehicle's high voltage battery is designed to last the life of your vehicle. See an authorized dealer for information on the disposal of the battery if it should require replacement.

General Information

The vehicle is also equipped with a Battery Management system that is designed to:

- Ensure safe operation
- Maximize driving range
- Maximize the life expectancy of the high voltage battery

NOTE:

During vehicle start up and shut down, a clicking noise may be heard from within the vehicle. When the vehicle is preparing to start, the high voltage battery contactors inside the battery are closed to make the stored electricity inside available for vehicle use. After the vehicle is shut down, the contactors open to electrically isolate the battery from other vehicle systems. The clicking noise is the sound of these contactors as they open and close during normal operation.

Battery Conditioning

In extreme temperatures, high or low, the high voltage battery may need to be conditioned, and therefore may require the vehicle to be plugged in.

If the ambient temperature is 5°F (-15°C) or below at vehicle shut down, the instrument cluster will display the message “Plug In Vehicle To Condition Battery”.

If the battery temperature is below -22°F (-30°C), or 131°F (55°C) or above, the vehicle will NOT start:

- If the vehicle is plugged in at these battery temperatures, the instrument cluster will display the message “Please Leave Key In RUN — Battery Conditioning Needed”.
- If the vehicle is not plugged in at these battery temperatures, the “Plug In Vehicle To Condition Battery” will be shown in the instrument cluster display.

NOTE:

- When the “Please Leave Key In RUN — Battery Conditioning Needed” message is displayed, keep the ignition in the RUN position for the battery to recover. Place the ignition back in the OFF position when the message disappears, and then start the vehicle. When this message is displayed, do not operate any air conditioning controls.
- Under these high or low temperatures, while the vehicle is plugged in and the ignition is in the OFF position, the vehicle may “wake up” to precondition the high voltage battery for use.
- It is recommended that the vehicle be plugged in overnight when possible to maximize the electric range of the vehicle.
- It is recommended that the high voltage battery not be exposed to direct sunlight in high temperature environments while the vehicle is OFF. This may lower the life of the battery.

The messages will only be displayed when the ignition is in the RUN position and the high voltage battery is not ready to provide propulsion power. The messages will also display if there was a failed attempt to achieve READY state when the high voltage battery cell temperatures were either too cold, or too hot.

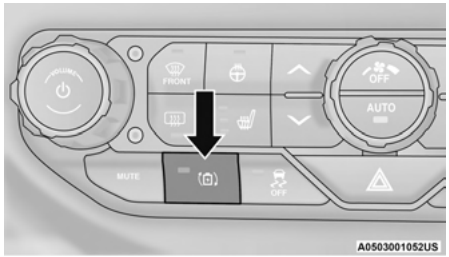
Regenerative Braking System (RBS)

Your vehicle has a RBS. The RBS replenishes the vehicle's high voltage battery during deceleration, and is particularly useful in stop-and-go city traffic. The electric motors, which propel the vehicle forward, can operate as generators when braking. The RBS recharges the high voltage battery under certain braking conditions by recapturing energy that would otherwise be lost while braking. The electric power that is generated goes back into the high voltage battery for later use, for example when acceleration is desired.

The RBS uses conventional hydraulic friction brakes, regenerative braking, or a combination to slow the vehicle. If the system detects slippery conditions while braking, ONLY friction is used to slow the vehicle. The RBS can result in extended life of the hydraulic service brakes; however, all inspection, scheduled maintenance, and service intervals for the vehicle service brakes must be followed.

Max Regeneration

Max Regeneration is a supplemental feature of the RBS. When activated, it will use the RBS to help slow the vehicle when the driver releases the accelerator pedal. This feature allows you to moderately reduce driving speed without pressing the brake pedal. It is always necessary to apply the brake pedal to bring the vehicle to a complete stop.



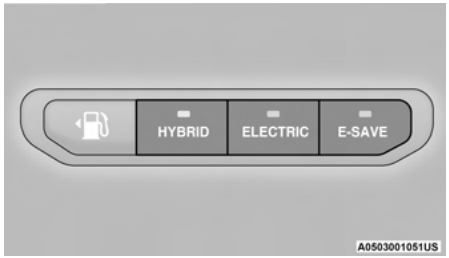
Max Regeneration Button

This feature can be activated by pressing the Max Regeneration button, below the radio screen.

NOTE:
The Max Regeneration feature will remain on once selected, even after the vehicle is restarted.

E-SELECT MODE

This system allows the driver to select different modes by pushing the following buttons located below the headlight switch.



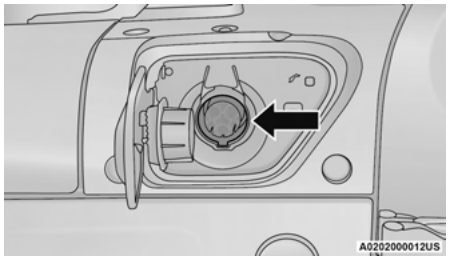
E-Select Mode Switch

- Hybrid: Depletes electric range first, then gas range.
  - Automatically switches between using gas and battery for greatest efficiency and performance.
  - Best HVAC and acceleration performance.
  - Default Mode.
- Electric: Prevents the engine from running, unless you absolutely need it.
  - Acceleration and heating performance may be degraded.
  - Engine will switch on during a Wide Open Throttle (WOT) event, or if cruise control requires it.
  - Vehicle will automatically switch to Hybrid mode upon reaching 0% State Of Charge (SOC) or due to system needs.
  - Not allowed with manual gate operation unless in 4WD Low and Selec-Speed Control (SSC) is active.
- E-Save: Engine only. Saves the current SOC/ Electric range for later.
  - SOC/Electric range may increase, but will not decrease under most driving conditions. Under heavy load, such as while pulling a trailer, SOC may decrease.
  - Engine may turn off at a stop.
  - You can further customize the E-Save operation in the Radio, refer to the Uconnect Settings section of your owner's manual for more information.

HIGH VOLTAGE CHARGING OPERATION

SAE J1772 Charging Inlet

Your vehicle uses an industry standard SAE J1772 charge inlet (vehicle charge inlet) for both AC Level 1 (120 V) and AC Level 2 (240 V) charging.

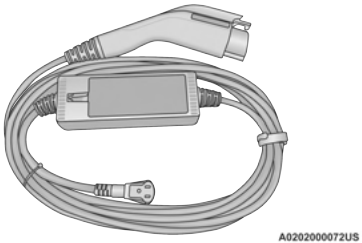


Vehicle Charge Inlet Location

Open the charge port door by pushing near the rear outer edge of the door, near the center to unlatch. Then use your hand to rotate charge port door to the full open position. To close the charge port door, rotate the door to the closed position then engage the door latch by pushing on the rear outer edge near the center.

AC Level 1 Charging (120 Volt, 12 Amp)

Your vehicle is equipped with a 120 Volt AC, SAE J1772 Level 1 Electric Vehicle Supply Equipment (EVSE), also referred to as a Portable Charging Cordset. AC Level 1 charging requires a conventional NEMA 5-15R 120 Volt AC grounded wall receptacle along with the EVSE provided with the vehicle.



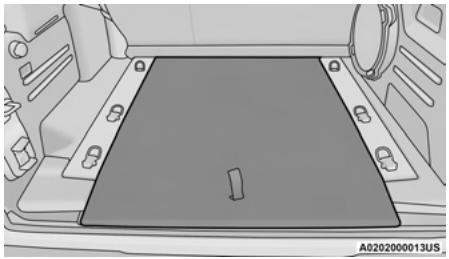
Portable Charging Cordset (EVSE)

WARNING!
INSTRUCTIONS PERTAINING TO A RISK OF FIRE OR ELECTRIC SHOCK: Shock, fire, property damage, or personal injury may occur if the Portable Charging Cordset (EVSE) is not used properly. There are no serviceable parts contained in the Portable Charging Cordset (EVSE). Any attempt to service it may result in shock, fire, property damage, or personal injury.

The EVSE is stored in the rear cargo area below the load floor. To access this area, lift up the cargo strap of the load floor cover, and remove the EVSE from the storage bag in the bin below.

Moving, Transporting, And Storage Instructions

After use, the EVSE should be placed in the storage bag and put back in the cargo storage area. If the EVSE will be left outside the vehicle, be sure to protect the device's connection end from moisture, dirt, and debris accumulation and contamination.



Load Floor Cover

NOTE:
The EVSE is used for AC Level 1 charging only.

WARNING!

IMPORTANT SAFETY INSTRUCTIONS PERTAINING TO A RISK OF FIRE OR ELECTRIC SHOCK: This manual contains important instructions that should be followed during installation, operation, and maintenance of the unit. When using electric products, basic precautions should always be followed, including the following:

- Read all instructions before using this product.
- Do not put fingers or objects into the Charge Connector.
- Do not use this product if the flexible power cord or Portable Charging Cordset (EVSE) is frayed, broken, has cracked insulation or any other signs of damage.
- Do not use this product if the enclosure or the Charge Connector is broken, cracked, open, or shows any other indication of damage.
- Do not use the Portable Charging Cordset (EVSE) with an extension cord. Use of an extension cord may cause burns, fire, or other damage or injury.

(Continued)

WARNING!

- This device may attempt to reset and run after a power interruption.
- There are no user serviceable parts inside the AC Level 1 charging cordset. Do not attempt to repair or service the Portable Charging Cordset (EVSE) yourself – personal injury may result.
- When using a charging station with the charging cable attached, ensure the cable is not visibly damaged before plugging into the vehicle.
- Do not allow children to operate this device. Adult supervision is mandatory when children are in proximity to a charge station that is in use.
- Do not use a charge station or vehicle receptacle that is worn or damaged with the AC Level 2 charging cable. Plugging into worn or damaged receptacles may cause damage to the Portable Charging Cordset (EVSE) and vehicle.

(Continued)

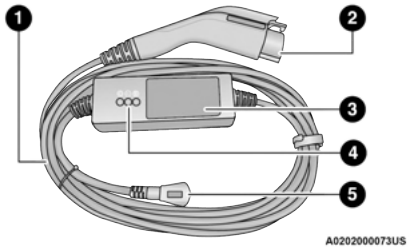
WARNING!

- Ensure that the Portable Charging Cordset (EVSE) is always stored in a safe place. Do not expose the EVSE J1772 Vehicle Connector to rain or wet conditions. Avoid allowing water or other liquids to pour or drip on to the vehicle connection end of the J1772 EVSE connector. If water penetrates the electrical device, the risk of electrical shock increases. Ensure that all plugs and cables are free of moisture before using the Portable Charging Cordset (EVSE).
- The charging cable has been tested for use in temperatures ranging from -40°F to 122°F (-40°C to 50°C).
- The charging cable should be stored at temperatures between -40°F and 176°F (-40°C and 80°C).
- SAVE THESE INSTRUCTIONS.

Portable Charging Cordset (EVSE)

The EVSE is compliant with SAE J1772, and applicable for use with vehicles fitted with standard SAE J1772 charge inlets.
The EVSE includes:

- A Charge Connector
- A NEMA 6 rated enclosure with a Charge Current Interrupt Device (CCID) with status indicator display
- An AC Power Cord with a NEMA 5–15P right angle plug
- An indoor/outdoor charge cable, EV-rated
- A Status Indicator Display



Portable Charging Cordset (EVSE)

1 — Charge Cable
2 — Charge Connector
3 — EVSE Enclosure
4 — Status Indicator Display
5 — AC Plug

Grounding Instructions

For A Grounded, Cord-Connected Product:

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

WARNING!

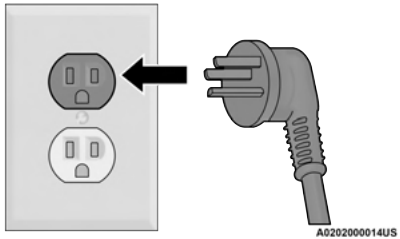
INSTRUCTIONS PERTAINING TO A RISK OF FIRE OR ELECTRIC SHOCK: Improper connection of the equipment-grounding conductor could result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the wall receptacle is properly grounded. Do not modify the plug provided with the product – if it does not fit the outlet, you must have a proper outlet installed by a qualified electrician.

Charging Cordset (EVSE) Installation And Operating Instructions

1. Insert the AC plug of the EVSE into a 15 A, or 20 A, 120 VAC, 60 Hz, grounded wall receptacle. Do not use an extension cord, outlet/plug adapter, or a worn outlet. The EVSE will not operate safely unless it is plugged directly into the wall receptacle.

NOTE:

The EVSE should be plugged into a dedicated circuit, not a circuit shared with other devices drawing electricity on the circuit.

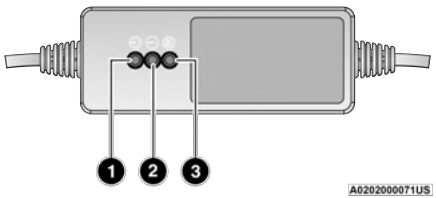


AC Plug And Wall Receptacle

WARNING!

INSTRUCTIONS PERTAINING TO A RISK OF FIRE OR ELECTRIC SHOCK: Improper connection of the equipment-grounding conductor could result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the wall receptacle is properly grounded. Do not modify the plug provided with the product – if it does not fit the outlet, you must have a proper outlet installed by a qualified electrician.

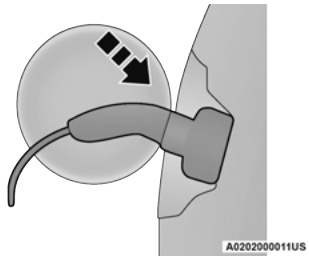
2. Check to see if the charging cable is ready to charge by reviewing the indicator lights.



Portable Charging Cordset (EVSE) Indicator Lights

1 — AC Power Indicator Light
2 — Fault Indicator Light
3 — Check Outlet Indicator Light

3. If the EVSE is ready to charge, ensure the vehicle is in PARK, and then connect the charge connector to the vehicle's charge inlet. You will hear a "click" when the charge connector is inserted correctly and coupled with the vehicle's charge inlet.



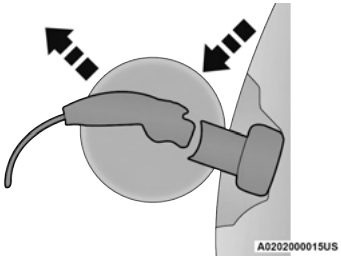
Inserting The Charge Connector Into The Vehicle Charge Inlet

4. When the vehicle commences charging, the green indicator light will turn on.

NOTE:
The vehicle should start charging automatically. If not, please check the following:

- Portable Charging Cordset (EVSE) — The EVSE status indicators illuminate green, red, or yellow to identify the charging status ➪ page 15.
- Wall Receptacle — Check whether the wall receptacle is functional (no power outage) and/or plug the EVSE into a different wall receptacle.
- Charging Schedule — Check whether the charging schedules have been enabled. If enabled, check that you are within the scheduled time and day of the week. If a charging schedule has been enabled in the vehicle, and it is outside the time and day of the week, you may override the schedule for this charging event by plugging in the charge connector, unplugging it, and then plugging it back into the vehicle charge inlet. Complete the double plug sequence within 10 seconds for it to override the set schedule.
- Hood Ajar — Check whether the hood is open. Charging is disabled while the hood is open, and will resume when the hood closes.

5. To stop the charging process, disconnect the vehicle charge connector first and then the charging cable from the wall receptacle. To disengage the vehicle coupler, remove the connector from the vehicle charge inlet.



Removing The Charge Connector From The Vehicle Charge Inlet

6. Close the inlet door when an EVSE is not connected to the vehicle.

NOTE:
It is good practice to keep the ignition in the OFF position while conducting Level 1 charging. This minimizes any additional vehicle loads the EVSE has to support. The additional electrical loads will extend the high voltage battery charging time.

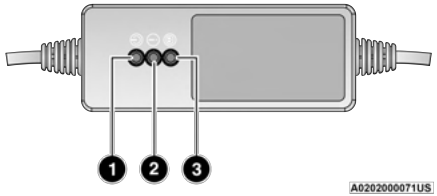
Troubleshooting Using The Status Indicator Display

If the vehicle is not charging properly, consult the status indicator lights.

The **Green LED** signals correct operation of the system.

The **Red LED** signals a failure in the charging system.

The **Yellow LED** signals a failure with the outlet.



LED Indicator Lights

1 — Green LED
2 — Red LED
3 — Yellow LED

Any faults in charging are displayed by the LEDs, either steady or flashing, located on the status indicator display of the EVSE. Refer to the following table.

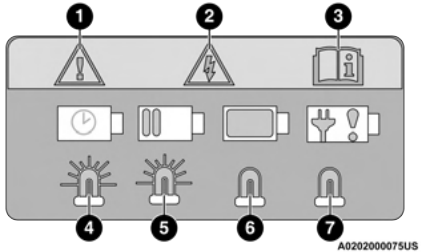
Portable Charging Cordset (EVSE) Charging System Failure				
Green LED	**Red LED**	**Yellow LED**	**Description**	**Action/Consequences**
OFF	OFF	OFF	Charging cable not connected to the domestic charging socket or power failure in the domestic power supply mains.	
ON	OFF	OFF	There are no faults in the domestic power supply mains, so the charging cable can be connected to the charge inlet on the vehicle.	
ON	ON (Flashing)	ON	Overheating at the charging socket of the domestic power supply mains.	When the normal temperature is reached, the system will make a new charge attempt at a lower current level.
ON	OFF	ON (Flashing)	Charging to a lower current level due to overheating of the charging socket of the domestic power supply mains.	
ON	ON	ON (Flashing)	Overheating at the charging socket of the domestic power supply mains.	Carefully disconnect the charge cable from both the vehicle and power outlet and wait for the plug and outlet to return to normal temperatures. Then, reconnect the cable to the power outlet and vehicle and charge again. Contact a certified electrician in case of a new anomaly.
ON	ON (2 Blinks)	ON (2 Blinks)	Lack of grounding cable in the charging socket of the domestic power supply mains.	The system will make a new charge attempt after 30 seconds (6 attempts in total).

Portable Charging Cordset (EVSE) Charging System Failure				
Green LED	**Red LED**	**Yellow LED**	**Description**	**Action/Consequences**
ON	ON	ON (2 Blinks)	Lack of grounding cable in the charging socket of the domestic power supply mains.	The new charge attempt failed. Disconnect the charge cable from the vehicle and the outlet and reconnect it, then try to charge again. Contact a certified electrician in case of a new anomaly.
ON (Flashing)	OFF	OFF	Domestic mains power incorrectly supplied.	The system will make a new charge attempt after 30 seconds (6 attempts total). If the fault persists, disconnect the charge cable from the vehicle and the outlet and reconnect it, then try to charge again. Contact a certified electrician in case of a new anomaly.
ON	ON (Flashing)	OFF	Charge Current Interrupt Device (CCID) fault trip over one second after relay closure. Cordset retrying to charge the vehicle.	The system will make a new charge attempt after 30 seconds (6 attempts in total).
ON	ON	OFF	Charge Current Interrupt Device (CCID) fault, Retry Exhausted or Retry is disallowed if trips within one second of relay closure.	The new charge attempt failed. Disconnect the charge cable from the vehicle and the outlet and reconnect it, then try to charge again. Contact an authorized dealer in case of a new anomaly.

Portable Charging Cordset (EVSE) Charging System Failure				
Green LED	**Red LED**	**Yellow LED**	**Description**	**Action/Consequences**
ON	ON	OFF	Dispersion of the electricity on the vehicle.	Disconnect the charge cable from the vehicle and the outlet and reconnect it, then try to charge again. Contact an authorized dealer in case of a new anomaly.
ON	ON (Flashing)	OFF	Electric charging current too high.	The system will make a new charge attempt after 30 seconds (6 attempts total).
ON	ON (7 Blinks)	OFF	Electric charging current too high.	The new charge attempt failed. Disconnect the charge cable from the vehicle and the outlet and reconnect it, then try to charge again. Contact an authorized dealer in case of a new anomaly.
ON	ON (2 Blinks)	OFF	Charging abnormality on the vehicle.	The system will make a new charge attempt after 30 seconds (6 attempts total). If the fault persists, disconnect the charge cable from the vehicle and the domestic power outlet and reconnect it, then try to charge again. Contact an authorized dealer in case of a new anomaly.
ON	ON (3 Blinks)	OFF	Charging cable failure.	
ON	ON (4 Blinks)	OFF		
ON	ON (5 Blinks)	OFF		
ON	ON (6 Blinks)	OFF		

Guidelines for preventing fire and electric shock:

- Ensure the charging cable is positioned so it will not be stepped on, tripped over, or otherwise subjected to damage or stress.
- There are no user serviceable parts inside.
- Do not use the charging cable if it is visibly damaged. Contact an authorized dealer for service.
- Do not place fingers, or any other objects inside the charge connector.
- Do not allow children to operate this device. Adult supervision is mandatory when children are in proximity when the charging cable is in use.
- Do not use the charging cable with an extension cord.
- Do not connect or disconnect the components of the charging cable while it is in use.



Charging Inlet Warning Label

1 — Dangerous Situation
2 — Risk Of Electric Shock
3 — Reference Supplement
4 — Charging Timer Set
5 — Charging Procedure In Progress
6 — Charging Procedure Complete
7 — Fault In Charging Procedure

NOTE:
During normal operation, the charge connector or AC plug may feel warm. If either one feels hot during charging, unplug the charging cable and have a qualified electrician inspect the wall receptacle before you continue charging.

WARNING!

INSTRUCTIONS PERTAINING TO A RISK OF FIRE OR ELECTRIC SHOCK: Do not use the charging cordset with a receptacle that is worn or damaged. Using the Portable Charging Cordset (EVSE) with a worn or damaged receptacle may cause burns or start a fire.

GENERAL INFORMATION

The following regulatory statement applies to all Radio Frequency (RF) devices equipped in this vehicle:

This device complies with Part 15 of the FCC Rules and with Innovation, Science and Economic Development Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d`Innovation, Science and Economic Development applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. l'appareil ne doit pas produire de brouillage, et
2. l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

La operación de este equipo está sujeta a las siguientes dos condiciones:

1. es posible que este equipo o dispositivo no cause interferencia perjudicial y
2. este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

NOTE:
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This unit complies with ICES-003E of Innovation, Science, and Economic Development (ISED) Canada, and EMC Directive 2004/108/EC.

AC Level 2 Charging (240 Volt, 40 Amp)

AC Level 2 (240 Volt) charging requires a 240 Volt, Level 2 EVSE (Charging station). A 40 Amp Level 2 EVSE for home installation is recommended.

When using public charging stations, ensure the charging station is ready to provide charge and the vehicle is in PARK before the charge connector is plugged into the vehicle's charge inlet. You will hear a "click" when the charge connector is inserted correctly and is coupled with the vehicle's charge inlet.

NOTE:
The vehicle should start charging automatically. If not, please check the following:

- Charging Station — Check the indications and instructions at the charging station.
- Charging Schedule — Check whether the charging schedule is enabled and if so, whether the vehicle is currently within the scheduled charge time/day (weekday/weekend). If the charging schedule is enabled within the vehicle, you may override it for this charging event by plugging in the charge connector, unplugging it, and then plugging it back into the vehicle charge inlet. Complete the double plug sequence within 10 seconds for it to override the set schedule.
- Hood Ajar — Check whether the hood is open. Charging is disabled while the hood is open, and will resume when the hood closes.

To stop the charging process:

- Press the "STOP" button located on the front of the EVSE station.
- Remove the connector from the vehicle charge inlet.
- Plug the charge handle into the EVSE station and coil the charging cord onto its holder. Do not leave the charging cord lying on the ground.

Charging Times

The following factors determine the time it takes to charge the high voltage battery:

- The high voltage battery's current state of charge
- The type of EVSE used (Level 1 – 120 V or Level 2 – 240 V)
- Ambient temperature
- Whether the vehicle's ignition is in the RUN position during charging

NOTE:

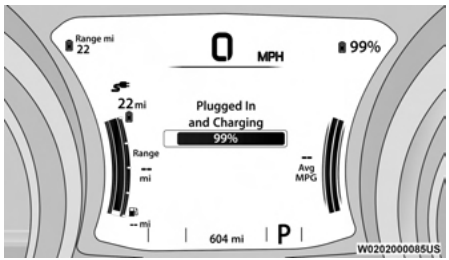
- The following charging times are estimates based on charging a high voltage battery that has a <1% State Of Charge (SOC) value displayed in the instrument cluster.
- Charging times will vary based on the age, condition, state of charge, available current being provided to the charger from its energy source, and temperature of the high voltage battery.
- Charging times may be longer if a thermal self-protection reduces the charging current from the EVSE.
- If the vehicle's ignition is in either the ACC or RUN position, the vehicle charge indicator may not indicate greater than a 99% state of charge, and will continue to charge the vehicle, due to the vehicle loads.

Type of EVSE	Estimated Charge Time
Level 1 (120 V/15 A)	Approximately 12 hours
Level 2 (240 V/30 A or 32 A)	Approximately 2 hours

VEHICLE CHARGE INDICATORS

Instrument Cluster High Voltage Battery Display

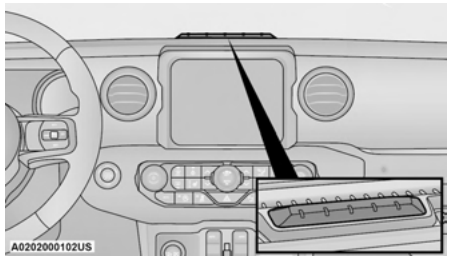
There is a battery display indicator located on the instrument cluster. The battery display will indicate the current state of charge for the high voltage battery, with the percentage value located to the right of the symbol. When plugged in, the battery symbol also indicates the battery level along with messages about the charge or whether the system is waiting to charge due to the charge schedule. These will appear unless there is a charging fault. A green plug telltale will be shown in the cluster, as well as applicable messaging when charging.



High Voltage Battery Display

Instrument Panel State Of Charge Indicator

In addition to the battery display in the instrument cluster, your vehicle is equipped with a visual state of charge indicator. The state of charge indicator is made up of five lights that are mounted to the top center of the instrument panel, which will illuminate when the vehicle is plugged into the EVSE.



State Of Charge Indicator

The state of charge indicator provides a visual indication of the high voltage battery's charge status during charging. It is also used to indicate a charging problem as well as waiting for a scheduled charge to begin.

NOTE:

The lights scroll one at a time when the vehicle is plugged in outside of its charging schedule time/ day of the week, and it is waiting on the schedule to begin charging.

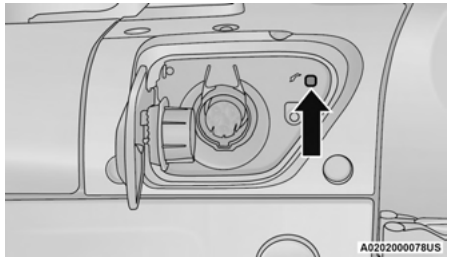
In extreme hot or cold environments, the lights on the state of charge indicator may not illuminate. Charge status is available in the instrument cluster display. In the event of an error in the charging process, the outer two lights will blink.

When the hood is open, the lights on the state of charge indicator will not be illuminated.

Number Of Indicator Lights Illuminated	Percent Of Battery Charge
1st light blinks	0 – 20%
1st light on, 2nd light blinks	21 – 40%
1st and 2nd lights on, 3rd light blinks	41 – 60%
1st, 2nd, and 3rd lights on, 4th light blinks	61 – 80%
1st, 2nd, 3rd, and 4th lights on, 5th light blinks	81 – 99%
All five lights on	100%
Two outer lights are blinking	Indicates an error in the charging process
Lights turn on one at a time from left to right (when looking at the front of the vehicle)	Indicates system is waiting for scheduled time in charge schedule to begin charging
All lights turn on, then immediately turn off	Indicates a successful plug-in

NOTE:
For each segment of lights illuminated indicating the percent of battery charge, two different blink rates are used. A blink rate of 1 second on/1 second off indicates that the first half is charging. The blink rate will increase to 0.5 second on/0.5 second off to indicate that the second half is charging. When the battery is fully charged, the blinking stops and the lights remain illuminated as charging continues.

Next to the charging inlet, there is an LED that changes color based on charging status.

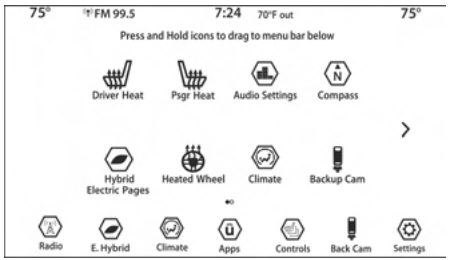


Charging Inlet LED Location

LED Charging Inlet	
LED Light Color	**Status**
Blue	Indicates that the system is waiting for a scheduled recharge.
Flashing Green	Charging process in place.
Solid Green	Indicates the vehicle is fully charged.
Blinking Red	Indicates a fault in the charging system.

HYBRID ELECTRIC PAGES

Within your Uconnect system is the Hybrid Electric Pages App that allows you to see your vehicle's power flow, understand your drive history, and set an EVSE charging schedule for your vehicle's high voltage battery. To access this App, press the Apps button on the main menu bar of the radio's touchscreen, and locate the Hybrid Electric Pages icon. Pressing the App button brings you to a set of four pages: Power Flow, Driving History, Charging Schedule, and e-Save.

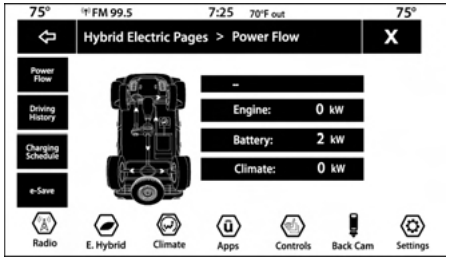


Apps Menu Screen

Power Flow

The first screen within the Hybrid Electric Pages App is the Power Flow screen. The Power Flow screen shows the current power readings for all of the following:

- Engine - Shows the amount of power (in kW) the engine is generating. Based on vehicle operating conditions, this power is used to: propel the vehicle, provide passenger compartment heating, power vehicle electrical loads, and charge the high voltage battery. Engine operation is controlled to maximize fuel economy.
- Battery - Shows the amount of power (in kW) the high voltage battery is currently providing/absorbing. A negative kW indicates the vehicle's high voltage battery is charging.
- Climate - Shows the amount of power (in kW) the Climate Control system is using to maintain the current interior temperature.



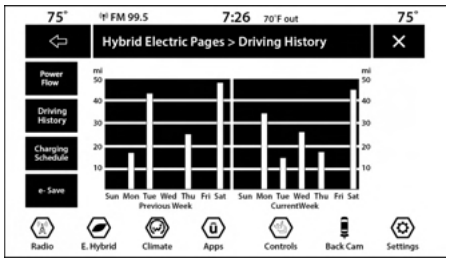
Power Flow Screen

Power Flow paths are indicated by the direction of the arrows on the touchscreen.

Driving History

The second screen in the Hybrid Electric Pages App is the Driving History screen. The Driving History screen shows the miles (km) driven in both Full Electric and Hybrid modes for both the previous week and the current week. The data is displayed in a bar graph: miles driven in Electric mode displayed in green, and miles driven using the gas engine (Hybrid mode) in tan.

On the bar graph, miles (km) driven on the same day in Electric mode (battery only) are always shown below miles (km) driven in Hybrid mode (using the gas engine). When one day of the week exceeds 100 miles (160 km) driven, the values of miles (km) driven in Electric and Hybrid modes will be listed above the bar graph in respective colors (green for Electric and tan for Hybrid).



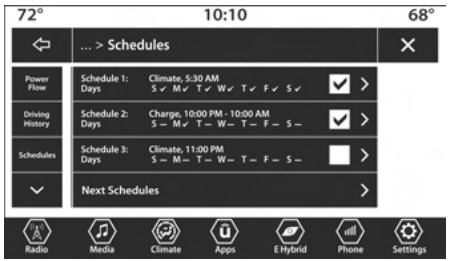
Driving History Screen

Charging Schedule

The third screen within the Hybrid Electric Pages App is Charging Schedules. From this screen, you can set when you want your vehicle to charge. The charging schedule can also be set using the Uconnect App on your smartphone.

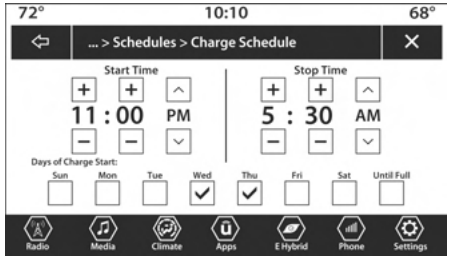
To set a Charging Schedule, select the Hybrid Electric Pages App on the touchscreen and follow these steps:

1. Select “Schedules”.
2. Select one of the three available schedules by pressing the arrow on the right side of the screen.



Schedules Screen

3. Select if Scheduled Charging should charge “Until Full”.
4. Set the Charge Start Time: Hours, Minutes, and AM/PM.



Set Charge Time And Days

NOTE:
This is to occur every week (as long as the vehicle is connected to the EVSE).

5. When done, press the back arrow. The active schedule will be indicated by the check mark to the right of the schedule event line. The Event Action and Time will be displayed.
6. To add another Scheduled Charging event, repeat these steps.

NOTE:
A maximum of three independent Scheduled Charging events can be scheduled at a given time.

NOTE:
For vehicles equipped with an 8.4-in radio screen, press the check box next to the setting “Enable Schedule” until a check mark appears in the box, then press the “Weekdays” or “Weekends” schedule to adjust the start and end time of desired charging. You can also choose “Charge Until Full” instead of choosing an end time, allowing the vehicle to continue to charge until the battery is full.

If “Charge Until Full” is selected, the vehicle must be plugged in within five minutes of the start time. The following are situations in which “Charge Until Full” may not be honored:

- If selected for five days (Monday through Friday), and the vehicle is plugged in five or more minutes after the start time on any of those days, “Charge Until Full” will not be honored for that day. “Charge Until Full” will resume on the next day at the scheduled time.
- If there are multiple plug/unplug events after first being plugged in within five minutes, “Charge Until Full” will not be honored for that day.
- If other schedules (Charge Interval, etc.) are set at a later time in addition to “Charge Until Full” being selected, and the vehicle is plugged in after five minutes of the start time, “Charge Until Full” will not be honored for that day. The next available schedule will be followed.

NOTE:

- If the charging schedule is not enabled, the vehicle will charge whenever plugged in. It is not necessary to set up the charging schedule to charge the vehicle.
- If “Charge Until Full” is selected, and the vehicle is plugged in after the start time of the schedule, the vehicle will start charging when it reaches the start time the next day. If you would like to begin charging immediately, and continue charging until the vehicle is fully charged, you must select the “Charge Now” option or use the double plug override option.
- If the vehicle is plugged in outside of the set charging schedule (and “Charge Until Full” is not selected), the vehicle’s battery will not charge. Charging will only begin immediately if the vehicle is plugged in within the time and day of the week set in the schedule or the schedule is bypassed. Otherwise, charging will automatically begin when the selected charge time and day of the week occurs when plugged in.

SCHEDULE BYPASS

NOTE:
If the vehicle is turned off outside of the charging window, a radio pop-up message will be displayed. The pop-up message asks the driver if they would like to “Charge Now?” and provides the next charging schedule start time and estimated time to charge the battery to 100%. If within one hour of selecting “Yes”, the vehicle is connected to a powered EVSE, the vehicle will immediately begin to charge (temporarily ignoring any set charge schedule). To fully deactivate the charge schedule, select the “Enable Schedule” checkbox until the check mark is removed from the box.

The charging schedule can also be overridden if the EVSE is plugged in, unplugged, and then plugged in a second time to the vehicle. This double plug sequence will override the set schedule in the Hybrid Electric Pages App, and begin charging the vehicle immediately. The double plug sequence must be completed within 10 seconds for it to override the programmed schedule.

e-Save

The fourth screen within the Hybrid Electric Pages App is the e-Save screen. From this screen, you can specify the behavior of the e-Save drive mode:

- Battery Save - Maintains the high voltage State of Charge at its current level.
- Battery Charge - Uses additional power from the gas engine to increase the high voltage State of Charge, up to 95% capacity.

NOTE:
For information on jump starting your vehicle, refer to the “In Case Of Emergency” chapter in the Owner’s Manual.

IGNITION SWITCH

This feature allows the driver to operate the ignition switch with the push of a button as long as the key fob is in the passenger compartment.

NOTE:

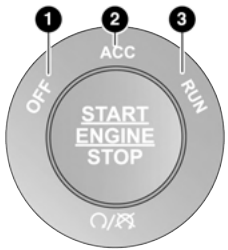
This vehicle is equipped with an automatic shutdown feature. If the vehicle is left with the ignition in the RUN position (engine not running) with gear selector in PARK for 30 minutes, it will automatically turn off the vehicle. If the driver door is opened, then closed while propulsion is active and the vehicle is in PARK, the vehicle will shut down. Notifications have been designed into this feature to raise awareness of the timed event. The instrument cluster display will show the message "Ready to Drive" accompanied with three audible chimes while exiting. The interior warnings will occur regardless of whether the key fob remains in the vehicle or is removed. The horn will sound three times, and the turn signals will flash, if the key fob is removed from the vehicle while the ignition state is in READY mode.

To restart the vehicle, follow the normal process for starting your vehicle.

The Keyless Push Button Ignition has several operating modes that are labeled and will illuminate when in position. These modes are OFF, ACC, RUN, and START.

NOTE:

- Pushing the START/STOP ignition button may only activate the Electric Propulsion system and not start the vehicle's engine (if running the engine is not currently required by the Hybrid system). READY will show in the instrument cluster display whenever the vehicle is operating in Electric mode and the vehicle is stationary.
- If the vehicle's ignition is in either ACC or RUN, the vehicle charge indicator may not display a value greater than 99% state of charge due to vehicle loads.



Keyless Push Button Ignition

1 — OFF
2 — ACC
3 — RUN

The ignition can be placed in the following positions:

OFF

- The vehicle is stopped
- Some electrical devices are available

ACC

- Some electrical devices are available
- Mechanical power (Vehicle Propulsion) is not available

RUN

- Driving position
- All electrical devices are available
- As long as READY appears in the instrument cluster display, it does not matter if the engine is running or not, vehicle propulsion is available

START

- The vehicle will start

NOTE:

Vehicle propulsion is only available after the vehicle has passed through the START position.

Conditions Which May Cause The Engine To Run

- When the Hybrid Battery State of Charge (SOC) has reached <1%
- When applying maximum vehicle acceleration
- While maintaining the Exhaust System Catalyst Temperature in Hybrid or e-Save modes
- When the hood is open with the ignition in RUN, post-START mode
- When Manual Mode/Tip Mode is in use
- When the engine is temporarily operating in Fuel and Oil Refresh Mode (e.g. if the system detects a stale fuel or aged oil condition after a long period without combustion engine operation)
- When the vehicle is started in very cold ambient temperatures
- When the vehicle is in a lower ambient temperature and may need to support passenger compartment heating

In case the ignition switch does not change with the push of the START/STOP ignition button, the key fob may have a low or depleted battery. In this situation, a backup method can be used to operate the ignition switch. Put the nose side of the key fob (side with the mechanical flip key) against the START/STOP ignition button and push to operate the ignition switch.

CAUTION!

- Do not use the Mechanical Key against the START/STOP ignition button.
- Do not use sharp metal objects (e.g. screwdriver etc.) to pry the button out of the ignition switch. This button comes as an assembly, and is not removable. This can damage the silicone shield.

NOTE:

In extreme climates (hot or cold environments), the vehicle will need to be plugged in prior to starting the vehicle, or the vehicle may not start.

WARNING!

- When leaving the vehicle, always remove the key fob from the vehicle and lock your vehicle.
- Never leave children alone in a vehicle, or with access to an unlocked vehicle.

(Continued)

WARNING!

- Allowing children to be in a vehicle unattended is dangerous for a number of reasons. A child or others could be seriously or fatally injured. Children should be warned not to touch the parking brake, brake pedal or the gear selector.
- Do not leave the key fob in or near the vehicle, or in a location accessible to children, and do not leave the Keyless Enter ‘n Go™ Ignition in the RUN position. A child could operate power windows, other controls, or move the vehicle.
- Do not leave children or animals inside parked vehicles in hot weather. Interior heat buildup may cause serious injury or death.

CAUTION!

An unlocked vehicle is an invitation. Always turn the vehicle off, remove the key fobs from the vehicle, and lock all the doors when leaving the vehicle unattended.

NOTE:
If the brake is pressed and the ignition is placed in the RUN position with an EVSE connected to the vehicle, the instrument cluster display will not display the READY state. When the Electric Vehicle Supply Equipment (EVSE) is unplugged from the vehicle, the vehicle will go into the READY state. If the vehicle is not shifted out of PARK 30 minutes after being unplugged, the vehicle will disable the READY state. After an additional 30 minutes with no change in ignition status, the ignition will turn off and the vehicle will power down.

For more information on normal starting, see ⇨ page 44.

REMOTE START — IF EQUIPPED

NOTE:
Remote Start while the vehicle is plugged in may not always start the engine.



This system uses the key fob to start the vehicle conveniently from outside the vehicle while still maintaining security. The system has a range of 328 ft (100 m).

Remote Start also activates the Climate Control system in temperatures above 80°F (26.7°C), and the heated seats (if equipped) and heated steering wheel (if equipped) in temperatures below 40°F (4.4°C).

NOTE:
Obstructions between the vehicle and key fob may reduce this range.

How To Use Remote Start

All of the following conditions must be met before the vehicle will remote start:

- Gear selector in PARK
- Doors closed
- Hood closed
- Swing gate closed
- Hazard switch off
- Brake switch inactive (brake pedal not pressed)
- 12 Volt battery at an acceptable charge level
- Key fob Panic button not pushed
- System not disabled from previous Remote Start event
- Vehicle Security system indicator flashing
- Ignition in OFF position
- Fuel level meets minimum requirement
- All removable doors must not be removed
- Malfunction Indicator Light (MIL) is off while the vehicle's propulsion system is active

WARNING!

- Do not start or run an engine in a closed garage or confined area. Exhaust gas contains Carbon Monoxide (CO) which is odorless and colorless. Carbon Monoxide is poisonous and can cause serious injury or death when inhaled.
- Keep key fobs away from children. Operation of the Remote Start system, windows, door locks or other controls could cause serious injury or death.

To Enter Remote Start Mode

Push and release the Remote Start button on the key fob twice within five seconds. The vehicle doors will lock, the turn signals will flash twice (if enabled in Uconnect Settings), and the horn will chirp twice (if enabled in Uconnect Settings). Then the engine/vehicle will start, and the vehicle will remain in the Remote Start mode for a 15 minute cycle.

NOTE:

- The vehicle can be started two consecutive times (two 15 minute cycles) using the key fob. After two remote start events have occurred, the ignition must be placed in the RUN position before any additional remote start requests can be received.
- The parking lights will turn on and remain on during Remote Start mode.
- For security, power window operation is disabled when the vehicle is in the Remote Start mode.

To Exit Remote Start Mode Without Driving The Vehicle

Push and release the Remote Start button one time or allow the Remote Start cycle to complete the entire 15 minute cycle.

In addition, the ignition can be placed in the RUN (Propulsion System Available) position by pushing the ignition button with the key fob inside the vehicle, and then pushing the ignition button one more time to place the ignition in the OFF position.

NOTE:
To avoid unintentional shutdowns, the system will disable for two seconds after receiving a valid Remote Start request.

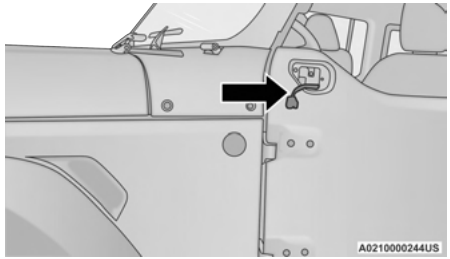
Refer to the Owner's Manual for further information.

DOORS

Half-Door Mirror Installation — If Equipped

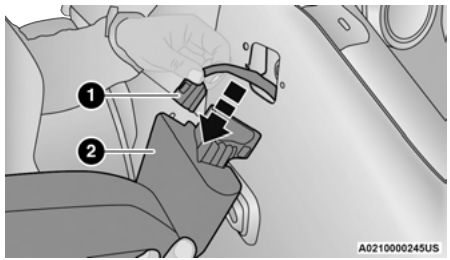
To install the front door exterior mirrors on the half-doors, proceed as follows:

1. Locate the wiring harness on the outside of the front half-door.



Wiring Harness Location

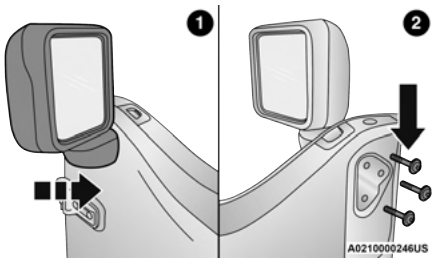
2. Insert the wiring harness firmly into the connection on the driver's side exterior mirror.



Connect Wiring Harness To Exterior Mirror

1 — Wiring Harness
2 — Exterior Mirror

3. Place the base of the exterior mirror into the hole on the door, and support it while attaching the three mirror bolts through the inside of the door using a #T40 Torx head driver.



Attach Exterior Mirror

1 — Support Mirror From Outside
2 — Attach Three Mirror Bolts From Inside

NOTE:
Recommended torque for the mirror bolts is 5.9 ft· lb / 8.0 N·m.

4. Repeat steps 1-3 on the opposite side front door.

SEATS

Seats are a part of the Occupant Restraint system of the vehicle.

WARNING!

- It is dangerous to ride in a cargo area, inside or outside of a vehicle. In a collision, people riding in these areas are more likely to be seriously injured or killed.
- Do not allow people to ride in any area of your vehicle that is not equipped with seats and seat belts. In a collision, people riding in these areas are more likely to be seriously injured or killed.
- Be sure everyone in your vehicle is in a seat and using a seat belt properly.

MANUAL ADJUSTMENT (REAR SEATS)

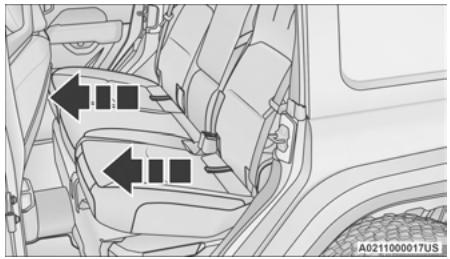
WARNING!

Do not pile luggage or cargo higher than the top of the seatback. This could impair visibility or become a dangerous projectile in a sudden stop or collision.

Flip And Fold Rear Seat

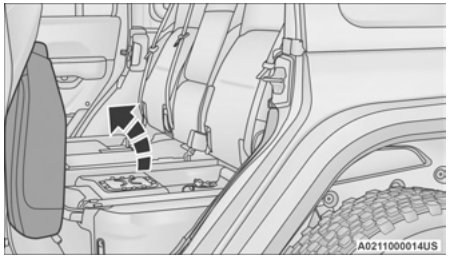
The 60/40 split rear seat can be folded down for added cargo space. To fold the rear seat, proceed as follows:

1. Pull the cushion strap (located at the rear center of either seat cushion) forward to lift the seat cushion.



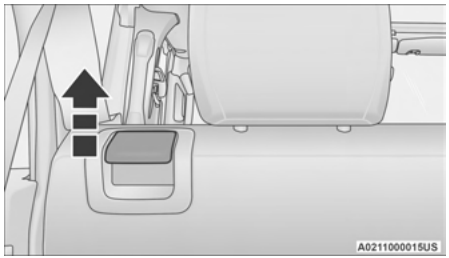
Pull Release Strap Forward

2. Flip the seat cushion up and forward.



Flip Seat Bottom Forward

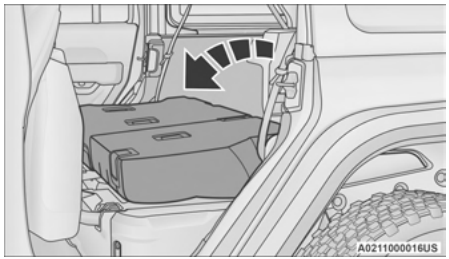
3. Pull the seatback release lever upward fully (located on the outboard side of the rear seatback).



Lift Seatback Release Lever Up

NOTE:
Pulling the lever partway will fold the head restraint forward. Pulling it all the way up will release the seatback.

4. Fold the seatback forward against the floor.



Fold Seatback Down

5. Repeat on the other side if desired.

To Raise The Rear Seat

1. Raise the seatback and lock it into place.

NOTE:
If interference from the cargo area prevents the seatback from fully locking, you will have difficulty returning the seat to its proper position.

2. Raise the head restraint until it locks into place.
3. Return the seat cushion to its original position.

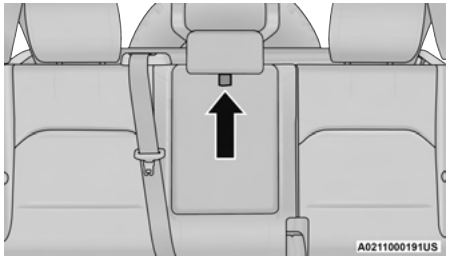
WARNING!

- Be certain that the seatback is securely locked into position. If the seatback is not securely locked into position the seat will not provide the proper stability for child seats and/or passengers. An improperly latched seat could cause serious injury.
- Do not store items on top of the battery underneath the seat cushion. The rear seat bottom must not have any obstruction that prevents it from being in the fully lowered position, otherwise the bottom may not lock during frontal impact. If the seat cushion is not fully lowered, serious injury could occur.

Unfolding The Rear Armrest

Raise the rear center head restraint, then pull the rear armrest tab to release it from the seat and pull forward.

Pull the rear armrest tab to release it from the seat and pull forward.



Armrest Tab Location

The center part of the rear seat can also be used as a rear armrest with cupholders.

HEAD RESTRAINTS

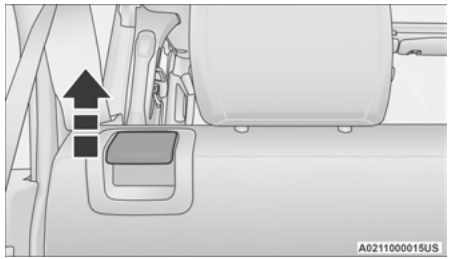
Head restraints are designed to reduce the risk of injury by restricting head movement in the event of a rear impact. Head restraints should be adjusted so that the top of the head restraint is located above the top of your ear.

WARNING!

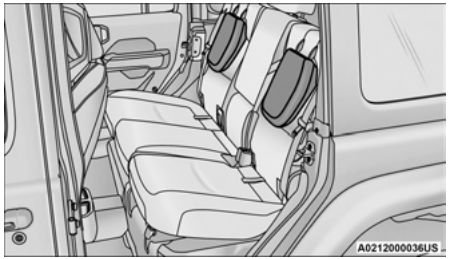
- All occupants, including the driver, should not operate a vehicle or sit in a vehicle's seat until the head restraints are placed in their proper positions in order to minimize the risk of neck injury in the event of a crash.
- Head restraints should never be adjusted while the vehicle is in motion. Driving a vehicle with the head restraints improperly adjusted or removed could cause serious injury or death in the event of a collision.

Rear Seat Head Restraints

The outboard head restraints are non-adjustable, but can be folded down for improved rearward visibility, or when folding the seatback down. Pull the seatback release lever upward partway to fold the head restraint. To return the head restraint to its upright position, push upward on the head restraint until it locks back into place.



Lift Seatback Release Lever Up



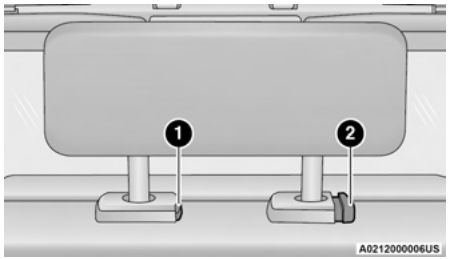
Rear Head Restraints Folded

NOTE:
Pulling the lever partway will fold the head restraint forward. Pulling it all the way up will release the seatback.

WARNING!

Sitting in a seat with the head restraint in its lowered position could result in serious injury or death in a collision. Always make sure the outboard head restraints are in their upright positions when the seat is to be occupied.

To raise the center head restraint, lift up on the head restraint. To lower the center head restraint, push the adjustment button, located at the base of the head restraint, and push down on the head restraint.



Center Head Restraint

1 — Release Button
2 — Adjustment Button

NOTE:
Lower the center head restraint to avoid contact with the seat bottom cushion when folding the seat down.

To remove the center head restraint, push the release button and the adjustment button at the same time while pulling upward on the head restraint.

To reinstall the head restraint, put the head restraint posts into the holes and push downward. Then, adjust the head restraint to the appropriate height. Refer to “Occupant Restraint Systems” in “Safety” in the Owner’s Manual for information on child seat tether routing.

WARNING!

- A loose head restraint thrown forward in a collision or hard stop could cause serious injury or death to occupants of the vehicle. Always securely stow removed head restraints in a location outside the occupant compartment.
- ALL the head restraints MUST be reinstalled in the vehicle to properly protect the occupants. Follow the preceding reinstallation instructions prior to operating the vehicle or occupying a seat.

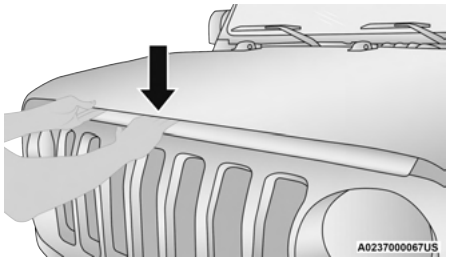
HOOD

OPENING

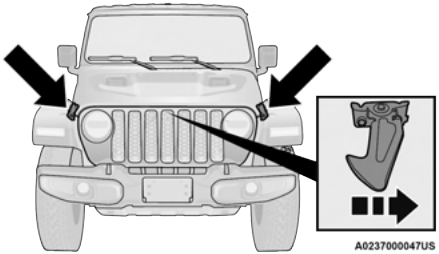
WARNING!
Always place the ignition in the OFF position before opening the hood. If the ignition is in the RUN position and the Propulsion System is active when the hood is opened, the engine will automatically start, and persons not clear of the vehicle could be injured by the engine's moving parts.

Release both of the outside hood latches.

Raise the hood slightly, and place a hand palm-side down in the center of the hood opening. Locate the safety latch in the middle, and push the latch to the right to open.



Place Hand In Hood Opening



Hood Latch Locations

Remove the support rod from the hood, and insert it into the radiator crossmember.

NOTE:

- You may have to push down slightly on the hood before pushing the safety latch.
- Before lifting the hood, check that the wiper arms are not in motion and not in the lifted position.
- While lifting the hood, use both hands.
- Vehicle must be at a stop and the automatic transmission must be in PARK.
- If the vehicle was actively charging the high voltage battery when the hood was opened, the vehicle will stop charging until the hood is closed.

CLOSING

To close the hood, remove the support rod from the slot and replace it on the hood panel retaining clip. Lower the hood slowly. Secure both of the hood latches.

NOTE:

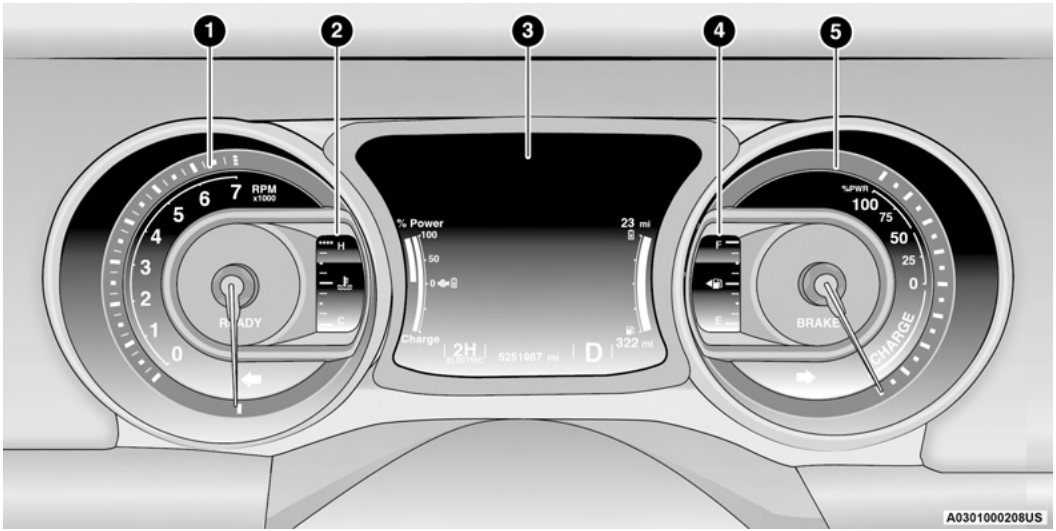
If the vehicle stopped charging the high voltage battery when the hood was opened, the vehicle will resume charging when the hood closes.

WARNING!
Be sure the hood is fully latched before driving your vehicle. If the hood is not fully latched, it could open when the vehicle is in motion and block your vision. Failure to follow this warning could result in serious injury or death.

CAUTION!
To prevent possible damage, do not slam the hood to close it.

GETTING TO KNOW YOUR INSTRUMENT PANEL

INSTRUMENT CLUSTER



INSTRUMENT CLUSTER DESCRIPTIONS

1. Tachometer
   - Indicates the engine speed in revolutions per minute (RPM x 1000).

CAUTION!
Do not operate the engine with the tachometer pointer in the red area. Engine damage will occur.

2. Engine Coolant Temperature
   - This gauge shows the engine coolant temperature. The gauge pointer will likely show higher temperatures when driving in hot weather, up mountain grades, or in heavy stop and go traffic. If the red Warning Light turns on while driving, safely bring the vehicle to a stop, and turn off the engine. DO NOT operate the vehicle until the cause is corrected.

WARNING!
A hot engine cooling system is dangerous. You or others could be badly burned by steam or boiling coolant. You may want to call an authorized dealer for service if your vehicle overheats.

WARNING!
Driving with a hot engine cooling system could damage your vehicle. If the temperature gauge reads “H” pull over and stop the vehicle. Idle the vehicle with the air conditioner turned off until the pointer drops back into the normal range. If the pointer remains on the “H”, turn the engine off immediately and call an authorized dealer for service.

3. Instrument Cluster Display
   - The instrument cluster display features a driver interactive display. When the appropriate conditions exist, this display shows messages ⇨ page 36.
4. Fuel Gauge
   - The pointer shows the level of fuel in the fuel tank when the ignition is in the ON/RUN position.



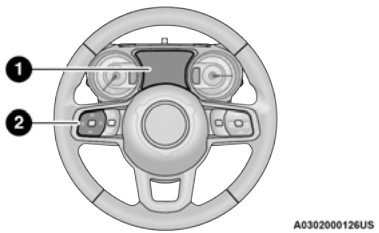
   - The fuel pump symbol points to the side of the vehicle where the fuel door is located.
5. Power/Charge Gauge
   - This gauge represents the source of the power utilized to accelerate the vehicle. The green outer ring represents the High Voltage (HV) battery output during acceleration, and input power during regeneration. The yellow inner ring represents the engine output power.

INSTRUMENT CLUSTER DISPLAY

Your vehicle is equipped with an instrument cluster display, which offers useful information to the driver. With the ignition in the OFF mode, opening/closing of a door will activate the display for viewing, and display the total miles or kilometers in the odometer. Your instrument cluster display is designed to display important information about your vehicle’s systems and features. Using a driver interactive display located on the instrument panel, your instrument cluster display can show you how systems are working and give you warnings when they are not. The steering wheel mounted controls allow you to scroll through and enter the main menus and submenus. You can access the specific information you want and make selections and adjustments.

INSTRUMENT CLUSTER DISPLAY LOCATION AND CONTROLS

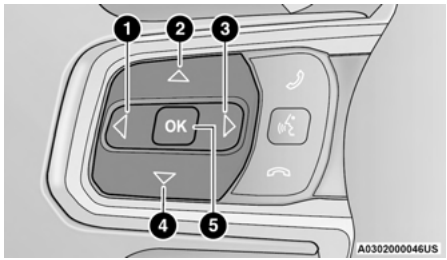
The Instrument Cluster Display is located in the center of the instrument cluster.



Instrument Cluster Display Location

1 — Instrument Cluster Display Screen
2 — Instrument Cluster Display Controls

The system allows the driver to select information by pushing the following buttons mounted on the steering wheel:



Instrument Cluster Display Control Buttons

1 — Left Arrow Button
2 — Up Arrow Button
3 — Right Arrow Button
4 — Down Arrow Button
5 — OK Button

- **Back/Left Arrow Button**

  Push and release the **left** ◁ arrow button to access the information screens or submenu screens of a main menu item.

- **Up Arrow Button**

  Push and release the **up** △ arrow button to scroll upward through the Main Menu items.

- **Right Arrow Button**

  Push and release the **right** ▷ arrow button to access the information screens or submenu screens of a main menu item.

- **Down Arrow Button**

  Push and release the **down** ▽ arrow button to scroll downward through the Main Menu items.

- **OK Button**

  Push the **OK** button to access/select the information screens or submenu screens of a Main Menu item. Push and hold the **OK** arrow button for one second to reset displayed/selected features that can be reset.

OIL LIFE RESET

- Your vehicle is equipped with an engine oil change indicator system. The “Oil Change Due” message will display for approximately five seconds after a single chime has sounded, to indicate the next scheduled oil change interval has been reached. The engine oil change indicator system is duty cycle based, which means the engine oil change interval may fluctuate due to ambient temperatures, engine warm-up and personal driving style.
- Unless reset, this message will continue to display each time the ignition is placed in the ON/RUN position.

- To reset the oil change indicator, refer to the following procedure.

NOTE:
This procedure should only be performed after scheduled maintenance is completed. Resetting oil life other than when associated with a scheduled maintenance may result in damage due to not properly maintaining the engine oil.

1. Without pressing the brake pedal, push the ENGINE START/STOP button and place the ignition in the ON/RUN position (do not start the vehicle.)
2. Push the **OK** button to enter the instrument cluster display menu screen.
3. Push and release the **down** ▽ arrow button to access the "Vehicle Info" menu screen.
4. Push the **left** ◁ arrow button or **right** ▷ arrow button to access the "Oil Life" submenu.
5. Hold the **OK** button to reset the "Oil Life" to 100%.
6. Push the **up** △ arrow button to exit the instrument cluster display menu screen.

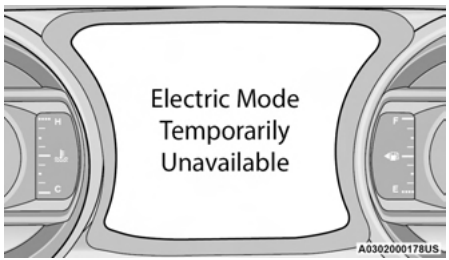
Secondary Method For Oil Life Reset Procedure

1. Without pushing the brake pedal, place the ignition in the ON/RUN position (do not start the engine).
2. Fully press the accelerator pedal, slowly, three times within 10 seconds.
3. Without pushing the brake pedal, place the ignition in the OFF position.

NOTE:
If the indicator message illuminates when you start the vehicle, the oil change indicator system did not reset. If necessary, repeat this procedure.

ELECTRIC MODE TEMPORARILY UNAVAILABLE

If electric drive mode is unavailable, the reason will display for five seconds at start up. If your check engine light comes on, see an authorized dealer immediately.



Electric Mode Temporarily Unavailable Message

See the following information for the most common reasons that the electric mode would be unavailable:

Operator Choices that can inhibit Electric Mode - and what to do about it

- Transmission in Manual Shift mode - Shift to Drive to use Electric mode.
- Heavily depressed accelerator pedal position, requesting high power demand - Beyond the limits of the electric drivetrain, will cause engine to run, enabling the powertrain to produce its full combined power available in Hybrid mode.
- Sustained high speed operation in Electric mode - Using the engine is more efficient for high speeds than Electric drive.
- Transfer case and drive mode selection - eSave mode almost always runs the engine. Hybrid mode, in 4WD Low, will also run the engine.
- Electric range is depleted - You need to recharge to enjoy Electric mode, or you can continue normally in Hybrid.
- Hood open (or a hood switch fault) - This is to prevent unexpected engine starts with the hood open.

Thermal Protection that can inhibit Electric Mode - and why

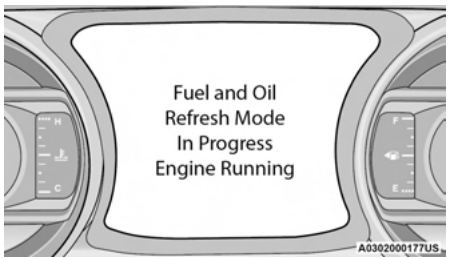
- Engine, transmission or engine starting belt too cold - Some systems require warm-up to function properly if the outside temperature is below 32°F (15°F in Electric drive mode).
- Electric cabin heating capacity limits (or electric cabin heater fault) - Unlike Battery Electric Vehicles (BEV's), the PHEV Wrangler can warm the cabin more efficiently with engine heat when operating below 15°F outside temperature.
- HV battery, motors or contactors over temperature - This is a temporary hardware protection feature. Vehicle performance will resume once protection is no longer required. If the vehicle performance is accompanied with a Malfunction Indicator Lamp (MIL) , have the vehicle serviced at an authorized dealership.

Component Protection that can inhibit Electric Mode - and what to do about it

- HV battery undervoltage - Sustained EV operation at high speed, especially with aftermarket wheels and tires, can induce this.
- Other electric propulsion system faults indicated by a MIL - Please bring the vehicle to your dealership for service.
- Fuel-Oil Refresh Mode - See the following section.

Fuel And Oil Refresh Mode

Since it is possible to operate this vehicle for extended periods of time without running the gas engine, the fuel within the vehicle's fuel tank can become stale or the engine oil's lubricating properties can be reduced. To prevent engine and/or fuel system damage due to stale fuel, as well as maintaining internal engine lubrication, this vehicle is equipped with a Fuel and Oil Refresh Mode.



Fuel and Oil Refresh Mode Message

The vehicle will automatically enter into the Fuel and Oil Refresh Mode to minimize potential for stale fuel, and to ensure lubrication of internal engine components. When operating in this mode, the gas engine will run to provide vehicle propulsion (electric only operation is inhibited). A message will be displayed in the instrument cluster whenever Fuel and Oil Refresh Mode is active.

The vehicle will automatically exit the Fuel and Oil Refresh Mode when fuel and lubrication conditions have been satisfied. If the vehicle enters Fuel and Oil Refresh Mode, due to fuel which has been in the fuel tank for a long period of time (becoming stale fuel), the engine will run whenever the vehicle is operational (no electric only operation) until the low fuel level warning is activated. It is also possible to exit the Fuel and Oil Refresh Mode sooner by adding a minimum of four gallons of new fuel to the vehicle's fuel tank.

NOTE:

If the vehicle enters Fuel and Oil Refresh Mode to maintain engine lubrication, adding fuel will not exit the mode sooner.

If the vehicle enters Fuel and Oil Refresh Mode to maintain engine lubrication properties, the engine may run for a period of up to 2.5 hours when fully warm whenever the vehicle is operational (no electric only operation). If the vehicle is shut down before conditions to exit the refresh mode have been satisfied, the engine may run for additional time on subsequent trips. Oil refresh may take significantly longer in freezing temperatures.

NOTE:

- Frequent short trips at low ambient temperature conditions where the engine does not reach normal operating temperatures are more likely to trigger the lubrication based mode.
- Electric drive mode will be temporarily unavailable while the Fuel Oil Refresh Mode (FORM) is active. Do not attempt to return to Electric Mode until the FORM cycle is complete.

CAUTION!
If the instrument cluster instructs you to change the engine oil, do not reset the service indicator without changing the oil. Engine damage may result.

INSTRUMENT CLUSTER DISPLAY MENU ITEMS

NOTE:
The instrument cluster display menu items display in the center of the instrument cluster. Menu items may vary depending on your vehicle features.

Energy Economy

Push and release the **up** △ or **down** ▽ arrow button until Energy Economy is highlighted in the instrument cluster display. Push the **left** ◁ or **right** ▷ arrow button to scroll through the following information submenus:

- Average Energy Economy gauge + value (hold **OK** to reset)
- Current Energy Economy gauge + value
- Total Range

Hybrid Info

Push and release the **up** △ or **down** ▽ arrow button until Hybrid Info is highlighted in the instrument cluster display. Push the **left** ◁ or **right** ▷ arrow button to scroll through the following information submenus:

Range to Empty

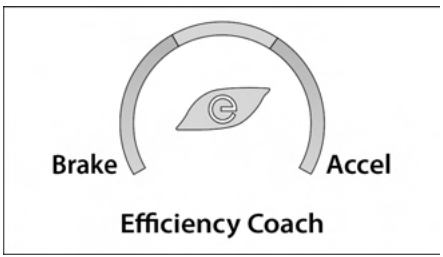
- Electric Range
- Hybrid Range
- Total Range

Efficiency Coach

Efficiency Coach will monitor your current driving to help you drive as efficient as possible.

- "Accel" is based on amount of acceleration (Different from MPG).
  - The gauge will only move up when accelerator pedal is pushed (or accelerating with Cruise Control or ACC).
  - Above a certain rate of change will be considered inefficient.
  - The color of the gauge bar will change from green to yellow to orange.

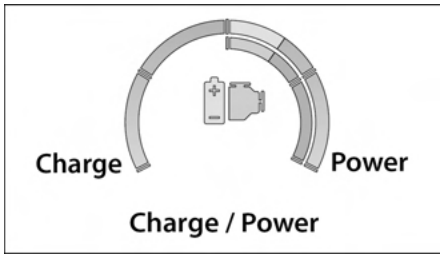
- "Brake" is based on amount of deceleration (slowing down).
  - The gauge will only move down when brake pedal is pushed (or decelerating with Cruise Control or ACC).
  - The color of the gauge bar will change from green to yellow to orange.
- The gauge bar color will transition smoothly up and down, and have a gradual change based on efficiency.
  - Center of gauge is 0% Accel and 0% Brake.
  - +/-0-35% of gauge fills green, +/-36-80% yellow, and +/-81-100% orange (with a blend between each color).



Efficiency Coach Gauge

Charge/Power

- Charging is represented by the gauge filling on the left hand side.
- Power is represented by the gauge filling on the right hand side.



Charge/Power Gauge

E-Drive Mode

- Hybrid automatically adapts for most efficient driving.
- Electric mode saves fuel for later use.
- e-Save mode saves battery for later use.

STOP SAFELY VEHICLE WILL SHUT OFF SOON



Stop Safely Vehicle Will Shut Off Soon Warning Message

This warning will be displayed on the instrument panel display when the vehicle has determined an operational issue will occur shortly, which will cause the vehicle's propulsion system to turn off. If the light turns on while driving, stop the vehicle in a safe location as soon as possible. Have the vehicle transported to an authorized dealer.

- This is a high priority message
- This message will be displayed continuously
- Cannot be cleared with button press
- A single chime will sound

Trip Info

Push and release the **up** △ or **down** ▽ arrow button until Trip Info is highlighted in the instrument cluster display. Push the **left** ◁ or **right** ▷ arrow button to scroll through the Trip A and Trip B submenus. The Trip information will display the following:

Trip A

- Distance Electric
- Distance Hybrid
- Distance Total
- Average Energy Economy
- Elapsed Time

Hold the **OK** button to reset feature information.

Trip B

- Distance Electric
- Distance Hybrid
- Distance Total
- Average Energy Economy
- Elapsed Time

Hold the **OK** button to reset feature information.

WARNING LIGHTS AND MESSAGES

The warning/indicator lights will illuminate in the instrument panel together with a dedicated message and/or acoustic signal when applicable. These indications are indicative and precautionary and as such must not be considered as exhaustive and/or alternative to the information contained in the Owner's Manual, which you are advised to read carefully in all cases. Always refer to the information in this chapter in the event of a failure indication. All active telltales will display first if applicable. The system check menu may appear different based upon equipment options and current vehicle status. Some telltales are optional and may not appear.

RED WARNING LIGHTS

Stop Safely Vehicle Will Shut Off Soon



This warning will be displayed when the vehicle has determined an operational issue, which will cause the vehicle's propulsion system to turn off, will occur shortly. If the light turns on while driving, stop the vehicle in a safe location as soon as possible. Have the vehicle transported to an authorized dealer for service.

Hybrid Electric Vehicle System Service Light



This warning light will illuminate when service to the hybrid electric system is needed. It will be accompanied by a "Service Hybrid Electric Vehicle System" message in the cluster. If the telltale stays on or continues to come on, contact an authorized dealer as soon as possible.

Plug Status Fault Warning Light



This warning light will illuminate when a plug status fault is detected (when vehicle not in motion). It will be accompanied by a cluster message indicating the type of fault. You may receive one of the following messages if a fault is detected:

- "Service Charging System" – If you see this message, it is recommended to unplug and plug in again, or try a different charging station. If an issue continues, contact an authorized dealer to service your high voltage charging system.
- "Issue Detected Check External Charging Station" – If you see this message, the charging station might be powered off, have an internal fault or be scheduled to charge later. It is recommended to try a different charging station. If an issue continues, then contact an authorized dealer.

NOTE:

- Older or non-compliant J1772 EVSE models may not support charging of this vehicle. If this vehicle does not charge, it may be connected to a non-compliant Level 2 EVSE, and will flash indicators. Please identify this failure to the site operator and/or EVSE provider.
- Before this vehicle can be driven, the EVSE Charging Cord must be disconnected from the vehicle.

Torque Limited Warning Light



This warning light illuminates when vehicle acceleration is limited due to a reduction in engine or electric motor performance. Contact an authorized dealer for service if illumination persists.

GREEN INDICATOR LIGHTS

Ready To Drive Indicator Light



This indicator light will illuminate to indicate that the vehicle has enough power to be driven, regardless of the speed of the vehicle.

Plug Status Indicator Light



When plugged in, the green plug indicator light will illuminate if the Electric Vehicle Supply Equipment (EVSE) charging plug is securely attached to the charging port. This indicates that the plug is detected, but doesn't mean it is charging. It will be accompanied with a cluster message indicating the charge status:

- "Plugged In And Charging"
- "Plugged In And Waiting to Charge On A Set Schedule"
- "Plugged in and Charging Complete"

NOTE:
The vehicle cannot be driven until it is unplugged.

Max Regeneration Indicator Light



This indicator light will illuminate to indicate that Max Regeneration is on and capable.

When the switch is pressed, the following instrument cluster messages will be seen:

- "Max Regeneration On" – appears when the feature is turned on.
- "Max Regeneration Off" – appears when the feature is turned off.
- "Max Regeneration Unavailable" – appears when the feature is requested, but the vehicle is unable to comply. LED will flash for five seconds to indicate unavailability ➪ page 8.

WHITE INDICATOR LIGHTS

Max Regeneration Indicator Light



This indicator light will illuminate to indicate that Max Regeneration is on and not ready.

When the switch is pressed, the following instrument cluster messages will be seen:

- "Max Regeneration On" – appears when the feature is turned on.
- "Max Regeneration Off" – appears when the feature is turned off.
- "Max Regeneration Unavailable" – appears when the feature is requested, but the vehicle is unable to comply. LED will flash for five seconds to indicate unavailability ➪ page 8.

STARTING THE VEHICLE

Before starting your vehicle, adjust your seat, adjust both inside and outside mirrors, and fasten your seat belts.

WARNING!

- When exiting the vehicle, always remove the key fob from the vehicle and lock your vehicle.
- Never leave children alone in a vehicle, or with access to an unlocked vehicle.
- Allowing children to be in a vehicle unattended is dangerous for a number of reasons. A child or others could be seriously or fatally injured. Children should be warned not to touch the parking brake, brake pedal or the transmission gear selector.
- Do not leave the key fob in or near the vehicle, or in a location accessible to children, and do not leave the ignition of a vehicle equipped with Keyless Enter 'n Go™ in the ACC or ON/RUN position. A child could operate power windows, other controls, or move the vehicle.

(Continued)

WARNING!

- Do not leave children or animals inside parked vehicles in hot weather. Interior heat buildup may cause serious injury or death.

Activate the Propulsion System Active (PSA) or Ready to Drive mode with the gear selector in the PARK (P) position. Apply the brake before shifting to any driving range.

In extreme temperatures, high or low, the high voltage battery may need to be conditioned, and therefore may require the vehicle to be plugged in ⇨ page 8.

NOTE:
If the ignition switch does not change with the push of a button, the key fob may have a low or depleted battery. In this situation, a back-up method can be used to operate the ignition switch. Put the key fob against the ENGINE START/STOP button and push to operate the ignition switch.

NORMAL STARTING

Achieving vehicle READY using the ENGINE START/STOP button.

1. The transmission must be in PARK or NEUTRAL.
2. Press and hold the brake pedal while pushing the ENGINE START/STOP button once.
3. The READY indicator will appear in the instrument cluster display when the vehicle is in Ready to Drive mode, which may include the start of the engine depending on conditions such as battery state of charge and engine temperature.
4. If you wish to terminate Ready to Drive mode, push the button again.

ENGINE START/STOP Button Functions — With Driver's Foot Off The Brake Pedal (In PARK Or NEUTRAL Position)

The ENGINE START/STOP button operates similar to an ignition switch by providing three positions: OFF, ACC and ON/RUN. To change the ignition position without starting the vehicle (to power certain accessories), follow these steps:

1. Start with the ignition in the OFF position.
2. Push the ENGINE START/STOP button once, without the brake pedal being pressed, to place the ignition in the ACC position (instrument cluster will display "ACC").
3. Push the ENGINE START/STOP button a second time, without the brake pedal being pressed, to place the ignition in the ON/RUN position (instrument cluster will display "Ignition or Accessory On").

   NOTE:

   - The vehicle is not able to be driven in the Ignition or Accessory On position, see "Achieving vehicle READY using the ENGINE START/STOP button" previously defined in this section for further information.
4. Push the ENGINE START/STOP button a third time, without the brake pedal being pressed, to return the ignition to the OFF position (instrument cluster will display "OFF").

NOTE:
Only press one pedal at a time while driving the vehicle. Torque performance of the vehicle could be reduced if both pedals are pressed at the same time. If pressure is detected on both pedals simultaneously, a warning message will display in the instrument cluster ⇨ page 36.

AUTOPARK

AutoPark is a supplemental feature to assist in placing the vehicle in PARK should the situations on the following pages occur. It is a back-up system and should not be relied upon as the primary method by which the driver shifts the vehicle into PARK.

The conditions under which AutoPark will engage are outlined on the following pages.

WARNING!

- Driver inattention could lead to failure to place the vehicle in PARK. ALWAYS DO A VISUAL CHECK that your vehicle is in PARK by verifying that a solid (not blinking) "P" is indicated in the instrument cluster display and on the gear selector. If the "P" indicator is blinking, your vehicle is not in PARK. As an added precaution, always apply the parking brake when exiting the vehicle.

(Continued)

WARNING!

- AutoPark is a supplemental feature. It is not designed to replace the need to shift your vehicle into PARK. It is a back-up system and should not be relied upon as the primary method by which the driver shifts the vehicle into PARK.

If the vehicle is not in PARK and the driver turns off the engine, the vehicle may AutoPark.

AutoPark will engage when all of these conditions are met:

- Driver's door is ajar or the driver's door is removed and the driver is not on the seat (seat pad sensor detects driver missing)
- Vehicle is not in PARK
- Vehicle speed is 1.2 mph (1.9 km/h) or less
- Ignition is switched from ON/RUN to OFF

NOTE:
For Keyless Enter 'n Go™ equipped vehicles, the engine will turn off and the ignition switch will change to ACC position. After 30 minutes the ignition switches to OFF automatically, unless the driver turns the ignition switch OFF.

If the vehicle is not in PARK and the driver exits the vehicle with the engine running, the vehicle may AutoPark.

AutoPark will engage when all of these conditions are met:

- Driver's door is ajar or the driver's door is removed and the driver is not on the seat (seat pad sensor detects driver missing)
- Vehicle is not in PARK
- Vehicle speed is 1.2 mph (1.9 km/h) or less
- Driver's seat belt is unbuckled
- Brake pedal is not pressed

The message "**AutoPark Engaged Shift To P Then Shift To Gear**" will display in the instrument cluster.

NOTE:
In some cases the ParkSense graphic will be displayed in the instrument cluster. In these cases, the gear selector must be returned to "P" to select desired gear.

If the driver shifts into PARK while moving, the vehicle may AutoPark.

AutoPark will engage **ONLY** when vehicle speed is 1.2 mph (1.9 km/h) or less.

The message "**Vehicle Speed Is Too High To Shift To P**" will be displayed in the instrument cluster if vehicle speed is above 1.2 mph (1.9 km/h).

WARNING!

If vehicle speed is above 1.2 mph (1.9 km/h), the transmission will default to NEUTRAL until the vehicle speed drops below 1.2 mph (1.9 km/h). A vehicle left in the NEUTRAL position can roll. As an added precaution, always apply the parking brake when exiting the vehicle.

4WD LOW

AutoPark will be disabled when operating the vehicle in 4WD LOW.

The message "**AutoPark Disabled**" will be displayed in the instrument cluster.

Additional customer warnings will be given when both of these conditions are met:

- Vehicle is not in PARK
- Driver's door is ajar

The message "**AutoPark Not Engaged**" will be displayed in the instrument cluster. A warning chime will continue until you shift the vehicle into PARK or the driver's door is closed.

ALWAYS DO A VISUAL CHECK that your vehicle is in PARK by looking for the "P" in the instrument cluster display and on the gear selector. As an added precaution, always apply the parking brake when exiting the vehicle.

AFTER STARTING

To optimize energy efficiency, the vehicle will automatically control engine operation.

TO TURN OFF THE VEHICLE USING ENGINE START/STOP BUTTON

1. Place the gear selector in PARK, then push and release the ENGINE START/STOP button.
2. The ignition button indicator will return to the OFF position.
3. If the gear selector is not in PARK, with vehicle speed less than 5 mph (8 km/h), when the ENGINE START/STOP button is pushed, the instrument cluster display will display a "Vehicle Not In Park" message, and the vehicle will remain running.
4. If the gear selector is not in PARK, with vehicle speed greater than 5 mph (8 km/h), when the ENGINE START/STOP button is pushed continuously for at least two seconds (or three short pushes in a row), the vehicle ignition will exit the Ready mode and enter Accessory mode. Never leave a vehicle out of the PARK position, or it could roll.

NOTE:

- This vehicle is equipped with an automatic shut-down feature. If the vehicle is left in a READY state (vehicle running) with the gear selector in PARK for 30 minutes, the vehicle will automatically turn itself off.
- The vehicle provides automatic notification using a three horn chirp alert, cluster chiming, and a cluster message (“Key Fob Has Left The Vehicle”) if the vehicle was not turned off (still “Ready to Drive”) and a valid key fob for the vehicle is not detected within the passenger cabin, following the opening and closing of any passenger compartment door (requires all doors to be closed before the key fob check will occur). These automatic alerts are to remind the driver to turn off the vehicle before leaving it, as well as, to let the driver know that the vehicle's key fob may have been unintentionally removed from the vehicle by an exiting passenger. After providing the horn chirp alert, additional auto chirps will be inhibited until the gear selector has been moved out of PARK or ignition cycled.

AUTOMATIC TRANSMISSION

NOTE:
You must press and hold the brake pedal while shifting out of PARK.

WARNING!

- Never use the PARK position as a substitute for the parking brake. Always apply the parking brake fully when exiting the vehicle to guard against vehicle movement and possible injury or damage.
- Your vehicle could move and injure you and others if it is not in PARK. Check by trying to move the transmission gear selector out of PARK with the brake pedal released. Make sure the transmission is in PARK before exiting the vehicle.
- The transmission may not engage PARK if the vehicle is moving. Always bring the vehicle to a complete stop before shifting to PARK, and verify that the transmission gear position indicator solidly indicates PARK (P) without blinking. Ensure that the vehicle is completely stopped, and the PARK position is properly indicated, before exiting the vehicle.

(Continued)

WARNING!

- It is dangerous to shift out of PARK or NEUTRAL if the engine speed is higher than idle speed. If your foot is not firmly pressing the brake pedal, the vehicle could accelerate quickly forward or in reverse. You could lose control of the vehicle and hit someone or something. Only shift into gear when the engine is idling normally and your foot is firmly pressing the brake pedal.
- Unintended movement of a vehicle could injure those in or near the vehicle. As with all vehicles, you should never exit a vehicle while the engine is running. Before exiting a vehicle, always come to a complete stop, then apply the parking brake, shift the transmission into PARK, and turn the ignition OFF. When the ignition is in the OFF position, the transmission is locked in PARK, securing the vehicle against unwanted movement.
- When exiting the vehicle, always make sure the ignition is in the OFF position, remove the key fob from the vehicle, and lock the vehicle.

(Continued)

WARNING!

- Never leave children alone in a vehicle, or with access to an unlocked vehicle. Allowing children to be in a vehicle unattended is dangerous for a number of reasons. A child or others could be seriously or fatally injured. Children should be warned not to touch the parking brake, brake pedal or the transmission gear selector.
- Do not leave the key fob in or near the vehicle (or in a location accessible to children), and do not leave the ignition in the ACC or ON/RUN position. A child could operate power windows, other controls, or move the vehicle.

CAUTION!

- Shift into or out of PARK or REVERSE only after the vehicle has come to a complete stop.
- Do not shift between PARK, REVERSE, NEUTRAL, or DRIVE when the engine is above idle speed.
- Before shifting into any gear, make sure your foot is firmly pressing the brake pedal.

IGNITION PARK INTERLOCK

This vehicle is equipped with an Ignition Park Interlock which requires the transmission to be in PARK before the ignition can be turned to the OFF position. This helps the driver avoid inadvertently leaving the vehicle without placing the transmission in PARK. This system also locks the transmission in PARK whenever the ignition is in the OFF position.

NOTE:
The transmission is NOT locked in PARK when the ignition is in the ACC position (even though the engine will be off). Ensure that the transmission is in PARK, and the ignition is **OFF** (not in ACC position) before exiting the vehicle.

BRAKE/TRANSMISSION SHIFT INTERLOCK (BTSI) SYSTEM

This vehicle is equipped with a BTSI system that holds the transmission gear selector in PARK unless the brakes are applied. To shift the transmission out of PARK, the engine must be running and the brake pedal must be pressed. The brake pedal must also be pressed to shift from NEUTRAL into DRIVE or REVERSE when the vehicle is stopped or moving at low speeds.

8–SPEED AUTOMATIC TRANSMISSION

The transmission gear range (PRNDM) is displayed both beside the gear selector and in the instrument cluster. To select a gear range, push the lock button on the gear selector and move the selector rearward or forward. To shift the transmission out of PARK, the engine must be running and the brake pedal must be pressed. You must also press the brake pedal to shift from NEUTRAL into DRIVE or REVERSE when the vehicle is stopped or moving at low speeds. Select the DRIVE range for normal driving.

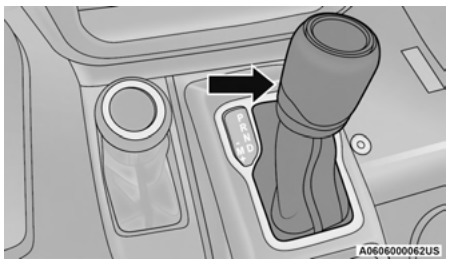
NOTE:

- The transmission electronics are self-calibrating; therefore, the first few shifts on a new vehicle may be somewhat abrupt. This is a normal condition, and precision shifts will develop within a few hundred miles (kilometers).
- In the event of a mismatch between the gear selector position and the actual transmission gear (for example, driver selects PARK while driving), the position indicator will blink continuously until the selector is returned to the proper position, or the requested shift can be completed.

The electronically controlled transmission adapts its shift schedule based on driver inputs, along with environmental and road conditions.

Only shift from DRIVE to PARK or REVERSE when the accelerator pedal is released and the vehicle is stopped. Be sure to keep your foot on the brake pedal when shifting between these gears.

The transmission gear selector provides PARK, REVERSE, NEUTRAL, DRIVE and MANUAL (AutoStick) shift positions. Manual shifts can be made using the AutoStick shift control. Toggling the gear selector forward (-) or rearward (+) while in the MANUAL (AutoStick) position (beside the DRIVE position) will manually select the transmission gear, and will display the current gear in the instrument cluster ⇨ page 51.



Gear Selector

NOTE:
If the gear selector cannot be moved to the PARK, REVERSE, or NEUTRAL position (when pushed forward), it is probably in the AutoStick (+/-) position (beside the DRIVE position).

In AutoStick mode, the transmission gear (1, 2, 3, etc.) is displayed in the instrument cluster. Move the gear selector to the right (into the DRIVE [D] position) for access to PARK, REVERSE, and NEUTRAL.

Gear Ranges

Do not press the accelerator pedal when shifting out of PARK or NEUTRAL.

NOTE:
After selecting any gear range, wait a moment to allow the selected gear to engage before accelerating. This is especially important when the engine is cold.

PARK (P)

This range supplements the parking brake by locking the transmission. The engine can be started in this range. Never attempt to use PARK while the vehicle is in motion. Apply the parking brake when exiting the vehicle in this range.

When parking on a hill, apply the parking brake before shifting the transmission to PARK. As an added precaution, turn the front wheels toward the curb on a downhill grade and away from the curb on an uphill grade.

When exiting the vehicle, always:

- Apply the parking brake
- Shift the transmission into PARK
- Turn the ignition off
- Remove the key fob from the vehicle

NOTE:
On four-wheel drive vehicles be sure that the transfer case is in a drive position.

CAUTION!
• Before moving the transmission gear selector out of PARK, you must start the engine, and also press the brake pedal. Otherwise, damage to the gear selector could result. • DO NOT race the engine when shifting from PARK or NEUTRAL into another gear range, as this can damage the drivetrain.

The following indicators should be used to ensure that you have properly engaged the transmission into the PARK position:

- When shifting into PARK, push the lock button on the gear selector and firmly move the gear selector all the way forward until it stops and is fully seated.
- Look at the transmission gear position display and verify that it indicates the PARK position (P), and is not blinking.
- With brake pedal released, verify that the gear selector will not move out of PARK.

REVERSE (R)

This range is for moving the vehicle backward. Shift into REVERSE only after the vehicle has come to a complete stop.

NEUTRAL (N)

Use this range when the vehicle is standing for prolonged periods with the engine running. Apply the parking brake and shift the transmission into PARK if you must exit the vehicle.

WARNING!

Do not coast in NEUTRAL and never turn off the ignition to coast down a hill. These are unsafe practices that limit your response to changing traffic or road conditions. You might lose control of the vehicle and have a collision.

CAUTION!

Towing the vehicle, coasting, or driving for any other reason with the transmission in NEUTRAL can cause severe transmission damage.

Refer to “Recreational Towing” in “Starting And Operating” and “Towing A Disabled Vehicle” in “In Case Of Emergency” in your Owner’s Manual.

DRIVE (D)

This range should be used for most city and highway driving. It provides the smoothest upshifts and downshifts, and the best fuel economy. The transmission automatically upshifts through all forward gears.

When frequent transmission shifting occurs (such as when operating the vehicle under heavy loading conditions, in hilly terrain, traveling into strong head winds, or while towing a heavy trailer), use the AutoStick shift control to select a lower gear ➪ page 51. Under these conditions, using a lower gear will improve performance and extend transmission life by reducing excessive shifting and heat buildup.

During extremely cold temperatures (-22°F [-30°C] or below), transmission operation may be modified depending on engine and transmission temperature as well as vehicle speed. Normal operation will resume once the transmission temperature has risen to a suitable level.

MANUAL (M)

The MANUAL (M, +/-) position (beside the DRIVE position) enables full manual control of transmission shifting also known as AutoStick mode. Toggling the gear selector forward (-) or rearward (+) while in the MANUAL (AutoStick) position will manually select the transmission gear, and will display the current gear in the instrument cluster ➪ page 51.

Transmission Limp Home Mode

Transmission function is monitored electronically for abnormal conditions. If a condition is detected that could result in transmission damage, Transmission Limp Home Mode is activated. In this mode, the transmission may operate only in certain gears, or may not shift at all. Vehicle performance may be severely degraded and the engine may stall. In some situations, the transmission may not re-engage if the engine is turned off and restarted. The Malfunction Indicator Light (MIL) may be illuminated. A message in the instrument cluster display will inform the driver of the more serious conditions, and indicate what actions may be necessary.

In the event of a momentary problem, the transmission can be reset to regain all forward gears by performing the following steps:

NOTE:
In cases where the instrument cluster display message indicates the transmission may not re-engage after engine shutdown, perform this procedure only in a desired location (preferably, at an authorized dealer).

1. Stop the vehicle.
2. Shift the transmission into PARK, if possible. If not, shift the transmission to NEUTRAL.
3. Push and hold the ignition switch until the engine turns off.

4. Wait approximately 30 seconds.
5. Restart the engine.
6. Shift into the desired gear range. If the problem is no longer detected, the transmission will return to normal operation.

NOTE:
Even if the transmission can be reset, we recommend that you visit an authorized dealer at your earliest possible convenience. An authorized dealer has diagnostic equipment to assess the condition of your transmission.

If the transmission cannot be reset, authorized dealer service is required.

AutoStick

AutoStick is a driver-interactive transmission feature providing manual shift control, giving you more control of the vehicle. AutoStick allows you to maximize engine braking, eliminate undesirable upshifts and downshifts, and improve overall vehicle performance. This feature can also provide you with more control during passing, city driving, cold slippery conditions, mountain driving, trailer towing, and many other situations.

Operation

To activate AutoStick mode, move the gear selector into the MANUAL (M) position (beside the DRIVE position). The current transmission gear will be displayed in the instrument cluster. In AutoStick mode, you can use the gear selector (in the MANUAL position) to manually shift the transmission. Tapping the gear selector forward (-) while in the MANUAL (M) position will downshift the transmission to the next lower gear. Tapping the selector rearward (+) will command an upshift.

NOTE:
If the vehicle is being operated in Electric mode, and the driver moves the gear selector into MANUAL (M) position, then the drive mode will automatically switch to Hybrid. If the driver is operating in MANUAL (M) position and attempts to select Electric mode, the drive mode switch will be inhibited.

In AutoStick mode, the transmission will shift up or down when (+/-) is manually selected by the driver, unless an engine lugging or overspeed condition would result. It will remain in the selected gear until another upshift or downshift is chosen, except as described below:

- The transmission will automatically downshift as the vehicle slows (to prevent engine lugging) and will display the current gear.
- The transmission will automatically downshift to FIRST gear when coming to a stop. After a stop, the driver should manually upshift (+) the transmission as the vehicle is accelerated.
- You can start out, from a stop, in FIRST or SECOND gear (or THIRD gear, in 4WD LOW range). Tapping (+) (at a stop) will allow starting in SECOND gear. Starting out in SECOND or THIRD gear can be helpful in snowy or icy conditions.
- If a requested downshift would cause the engine to overspeed, that shift will not occur.
- The system will ignore attempts to upshift at too low of a vehicle speed.

- Holding the gear selector in the (-) position will downshift the transmission to the lowest gear possible at the current speed.
- Transmission shifting will be more noticeable when AutoStick is enabled.
- The system may revert to automatic shift mode if a fault or overheat condition is detected.

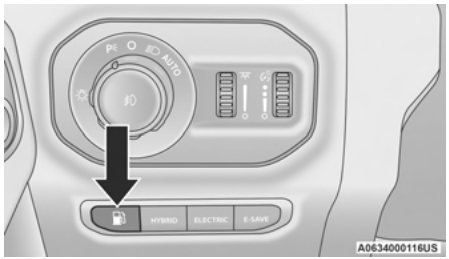
NOTE:
When Selec-Speed Control is enabled, AutoStick is not active.

To disengage AutoStick mode, return the gear selector to the DRIVE position. You can shift in or out of the AutoStick position at any time without taking your foot off the accelerator pedal.

WARNING!
Do not downshift for additional engine braking on a slippery surface. The drive wheels could lose their grip and the vehicle could skid, causing a collision or personal injury.

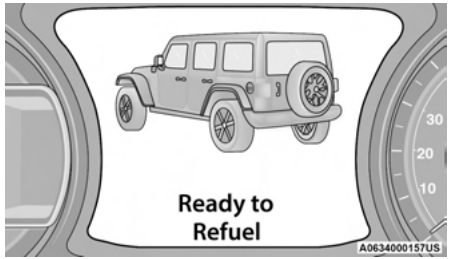
REFUELING THE VEHICLE

1. Put the vehicle in the PARK position.
2. Push the fuel filler door release button (located below the headlight switch).



Fuel Filler Door Release Switch

3. Pushing the button will initiate a sequence of events to depressurize the fuel system. A message will display in the cluster when the vehicle is ready to be fueled.



Instrument Cluster Message

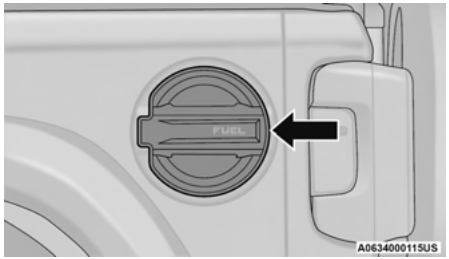
NOTE:

- After pushing the release button you will have 20 minutes to fuel the vehicle; beyond 20 minutes you will need to push the release button again.
- The fuel door should take 15 seconds to open under normal conditions. It may take longer to open in some situations, such as high ambient temperatures.
- If you hear a hissing sound when the fuel cap is removed, wait to begin fueling the vehicle until after the hissing sound stops.

4. The fuel door pops away from the vehicle when it has been released. To finish opening the fuel door, manually rotate it away from the vehicle.

NOTE:

- If the service station fuel pump repeatedly clicks off (stops delivering fuel) before the fuel tank has been filled, push the fuel door release button again.
- If pushing the fuel door release button a second time does not correct the problem, try using a different fuel pump. If premature fuel pump shutoff continues to be a problem, take the vehicle to an authorized dealer for service.
- If the fuel door does not re-latch upon closure, push the fuel door release button again to reset the latch. If pushing the fuel door release button a second time does not correct the problem, take the vehicle to an authorized dealer for service.



Fuel Filler Door

NOTE:

In certain cold conditions, ice may prevent the fuel door from opening. If this occurs, lightly push on the fuel door to break the ice buildup and re-release the fuel door using the inside release button. Do not pry on the door.

5. Remove the fuel filler cap.
6. Insert the nozzle and fill the vehicle with fuel; when the fuel nozzle “clicks” or shuts off the fuel tank is full.
7. Wait five seconds before removing the fuel nozzle to allow excess fuel to drain from nozzle.
8. Remove the fuel nozzle, replace the fuel filler cap by turning until you hear one click, and then close the fuel door.

NOTE:

- Tighten the fuel filler cap about a quarter turn until you hear one click. This is an indication that the cap is properly tightened.
- After the click, pull on the cap at the handle to verify it is secure and fastened.
- If it is loose, and not secured to the filler tube, reinstall and tighten again about a quarter turn until you hear the click.
- Verify the cap tether is not pinched between the cap and filler tube.
- If the fuel filler cap is not tightened properly, the yellow Loose Fuel Filler Cap Warning Light and the “Check Fuel Cap” message will appear in the instrument cluster.
- Be sure the cap is tightened every time the vehicle is refueled.

WARNING!

- Never have any smoking materials lit in or near the vehicle when the fuel door is open or the tank is being filled.
- Never add fuel when the engine is running. This is in violation of most state and federal fire regulations and may cause the Malfunction Indicator Light to turn on.
- A fire may result if fuel is pumped into a portable container that is inside of a vehicle. You could be burned. Always place fuel containers on the ground while filling.

CAUTION!

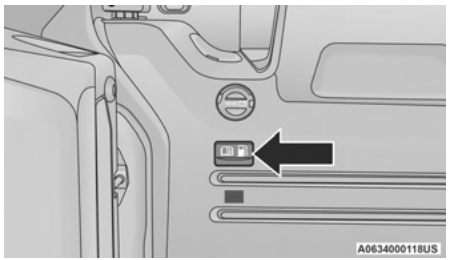
To avoid fuel spillage and overfilling, do not “top off” the fuel tank after filling.

Emergency Fuel Door Release

1. Place the vehicle's ignition in the RUN position (Propulsion System Active (PSA) not active).

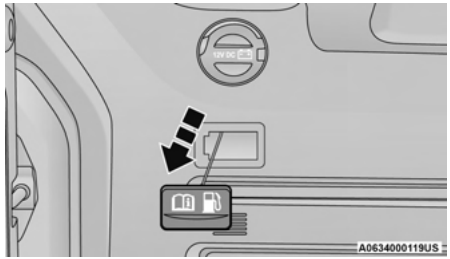
NOTE:
If this is not performed, then the tank vent valve will not open. This will result in premature fuel pump shutoffs.

2. Access the rear quarter trim panel in the cargo area on the left side of the vehicle.



Release Cap Location

3. Remove the release cap from the quarter trim panel.
4. After removing the release cap, pull it directly away from the quarter trim panel to release the fuel door.



Fuel Door Emergency Release

5. Reinstall the release cap into the quarter trim when completed.
6. Wait 15 seconds and then begin fueling your vehicle.

Loose Fuel Filler Cap Message



After fuel has been added, the vehicle diagnostic system can determine if the fuel filler cap is possibly loose, improperly installed, or damaged. If the system detects a malfunction, the "Check Fuel Cap" message will display in the instrument cluster. Reinstall the fuel cap and tighten until the "click" sound is heard. This indicates that the fuel cap is properly tightened. After the click, pull on the cap at the handle to check that it is secured and fastened. Verify the cap tether is not pinched between the cap and filler tube. If found not secured, remove cap, and retighten it to one click. Push the odometer reset button to turn off the message. If the problem persists, the message will appear the next time the vehicle is started. This might indicate a damaged cap. If the problem is detected twice in a row, the system will turn on the yellow Loose Fuel Filler Cap Warning Light. Resolving the problem will turn off the warning light.

TRAILER TOWING

Trailer Towing Weights (Maximum Trailer Weight Ratings)

Model	GCWR	Frontal Area	Maximum GTW	Maximum Trailer TW
Sport/Sahara	9,000 lb (4,082 kg)	30 ft2 (2.79 m2)	3,500 lb (1,587 kg)	350 lb (158 kg)
Rubicon	9,200 lb (4,173 kg)	30 ft2 (2.79 m2)	3,500 lb (1,587 kg)	350 lb (158 kg)
Refer to local laws for maximum trailer towing speeds.				

IN CASE OF EMERGENCY

MOVING A DISABLED VEHICLE

The vehicle does not include a Manual Pull Out of Park feature (to allow shifting the vehicle transmission into NEUTRAL without the engine running). If the vehicle has become disabled (cannot achieve “Ready” to Drive), it may be possible to move the vehicle to the side of the road by pushing it.

Follow These Steps To Move A Disabled Vehicle:

1. Press the ENGINE START/STOP button until RUN has been selected.
2. Press brake pedal and Turn Off the Electric Park Brake (EPB) if it was engaged.
3. Press the brake pedal and shift out of PARK.
4. Release brake pedal — vehicle should now be free to roll. Make sure to maintain control of the vehicle while the EPB is not applied and the vehicle is not in PARK.
5. After moving the vehicle, shift transmission back into PARK. Apply EPB as appropriate.

NOTE:

- If the vehicle's 12 Volt battery has been depleted to a point that it cannot provide sufficient power to allow shifting out of PARK or disengaging the EPB, a 12 Volt DC jump pack can be connected to the under hood vehicle battery posts. However, if connection is lost to this auxiliary power source, or the auxiliary source becomes discharged, the vehicle may attempt to secure itself by shifting back into PARK.
- If the vehicle is being pushed, it should not be pushed more than 1 mile (1.6 km), and the pushing speed should not exceed 10 mph (16 km/h).

SAFETY FEATURES

AUDIBLE PEDESTRIAN WARNING SYSTEM

Your vehicle is equipped with an Audible Pedestrian Warning system. The Audible Pedestrian Warning system uses distinct sounds to alert pedestrians that your vehicle is approaching. In addition, the system will indicate changes in vehicle speed by varying the relative volume.

The system uses two external speakers. One is located in the under-hood compartment and the other is in the rear of the vehicle. The Audible Pedestrian Warning system is active when the vehicle is not in PARK and is traveling at lower speeds. Depending on the selected gear (REVERSE, DRIVE, or NEUTRAL), the system activates the corresponding speaker location based on the intended direction of travel.

NOTE:
The system is active when driving in Electric mode only.

WARNING!
The Audible Pedestrian Warning system is not intended to avoid a collision. It is always the driver's responsibility to be attentive to the vehicle's distance between other vehicles, people, and objects, and most importantly brake operation to ensure safe operation of the vehicle under all road conditions. Your complete attention is always required while driving to maintain safe control of your vehicle. Failure to follow this warning could result in a collision or serious personal injury.

OCCUPANT RESTRAINT SYSTEMS

SUPPLEMENTAL RESTRAINT SYSTEMS (SRS)

This supplement describes the features of the occupant restraint systems that are unique to your hybrid vehicle. The vehicle's Owner's Manual contains the complete instructions for these important safety features. Please read the complete instructions for the supplemental restraint systems in the vehicle's Owner's Manual.

Enhanced Accident Response System Reset Procedure

After an event occurs requiring activation of the Enhanced Accident Response System, when the system is active, a "Service Hybrid Electric Vehicle System" message will be displayed on the instrument cluster. The vehicle is not drivable in this state.

In order to reset the high voltage battery and engine, the vehicle must be towed to an authorized dealer immediately to be inspected and have the Enhanced Accident Response System reset.

In order to immediately reset the hazard flashers, interior lights, power door locks, or the HVAC blower motor, the ignition switch must be changed from START or ON/RUN to ignition OFF.

SERVICING AND MAINTENANCE

SCHEDULED SERVICING

Your vehicle is equipped with an automatic oil change indicator system. The oil change indicator system will remind you that it is time to take your vehicle in for scheduled maintenance.

Based on engine operation conditions, the oil change indicator message will illuminate. This means that service is required for your vehicle. Operating conditions such as frequent short trips, trailer tow, or extremely hot or cold ambient temperatures will influence when the “Change Oil” or “Oil Change Required” message is displayed. Have your vehicle serviced as soon as possible, within the next 500 miles (805 km).

On vehicles equipped with an instrument cluster display, “Oil Change Required” will be displayed and a single chime will sound, indicating that an oil change is necessary.

On non-instrument cluster display equipped vehicles, “Change Oil” will flash in the instrument cluster odometer and a single chime will sound, indicating that an oil change is necessary.

NOTE:
Even though the vehicle may not have been driven, both the fuel in the tank and oil in the engine will still degrade over time. Additionally, there will be a notification to the driver if the engine is being run to maintain the oil and fuel systems.

An authorized dealer will reset the oil change indicator message after completing the scheduled oil change. If a scheduled oil change is performed by someone other than an authorized dealer, the message can be reset by referring to the steps described under Instrument Cluster Display
➪ page 36.

NOTE:
Under no circumstances should oil change intervals exceed 10,000 miles (16,000 km), 12 months or 350 hours of engine run time, whichever comes first. The 350 hours of engine run or idle time is generally only a concern for fleet customers.

Once A Month Or Before A Long Trip:

- Check the engine oil level.
- Check the windshield washer fluid level.
- Check the tire inflation pressures and look for unusual wear or damage; rotate at the first sign of irregular wear.
- Check the fluid levels of the coolant reservoirs, brake master cylinder, and power steering, and fill as needed.
- Check the function of all interior and exterior lights.

MAINTENANCE PLAN

At Every Oil Change Interval As Indicated By Oil Change Indicator System:
● Change oil and filter.
● Rotate the tires at the first sign of irregular wear, even if it occurs before the oil indicator system turns on.
● Inspect the 12 Volt battery and clean and tighten terminals as required.
● Inspect the CV/Universal joints.
● Inspect brake pads, shoes, rotors, drums, hoses and parking brake.
● Inspect engine cooling system protection and hoses.
● Inspect exhaust system.
● Inspect engine air cleaner filter if using in dusty or off-road conditions, replace the engine air cleaner filter if necessary.
● Inspect all door latches for presence of grease, reapply if necessary.

NOTE:
Using white lithium grease, lubricate the door hinge joints twice a year to prevent premature wear.

Mileage Or Time Passed (Whichever Comes First):	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000	150,000
Or Years:	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Or Kilometers:	32,000	48,000	64,000	80,000	96,000	112,000	128,000	144,000	160,000	176,000	192,000	208,000	224,000	240,000
Additional Inspections														
Inspect the CV/Universal joints	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Inspect front suspension, tie rod ends, rear suspension, and replace if necessary	X		X		X		X		X		X		X	
Inspect the front and rear axle fluid	X				X				X				X	
Inspect the brake linings, replace as necessary	X		X		X		X		X		X		X	
Adjust parking brake on vehicles equipped with four wheel disc brakes	X		X		X		X		X		X		X	
Inspect transfer case fluid		X						X						X
Additional Maintenance														
Replace engine air cleaner filter		X			X			X			X			X
Replace cabin air filter	To be replaced every 12,000 miles (19,000 km).													
Replace Spark Plugs – 2.0L Engine[1]					X						X			
Flush and replace the engine, power electronics, and battery coolant at 10 years or 150,000 miles (240,000 km), whichever comes first									X					X

Mileage Or Time Passed (Whichever Comes First):	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	110,000	120,000	130,000	140,000	150,000
Or Years:	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Or Kilometers:	32,000	48,000	64,000	80,000	96,000	112,000	128,000	144,000	160,000	176,000	192,000	208,000	224,000	240,000
Change transfer case fluid if using your vehicle for any of the following: police, taxi, fleet, or frequent trailer towing					X						X			
Inspect and replace PCV valve if necessary									X					
Change front and rear axle fluid if using your vehicle for police, taxi, fleet, off-road or frequent trailer towing			X				X				X			

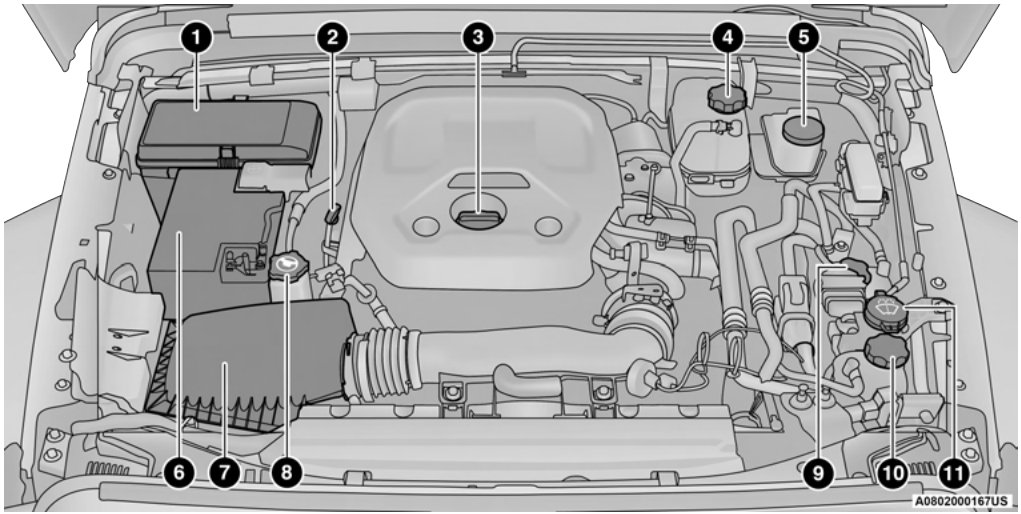
1. The spark plug change interval is mileage based only, yearly intervals do not apply.

7

WARNING!

- You can be badly injured working on or around a motor vehicle. Do only service work for which you have the knowledge and the right equipment. If you have any doubt about your ability to perform a service job, take your vehicle to a competent mechanic.
- Failure to properly inspect and maintain your vehicle could result in a component malfunction and affect vehicle handling and performance. This could cause an accident.

ENGINE COMPARTMENT — 2.0L HYBRID



1 — Power Distribution Center (Fuses)
2 — Engine Oil Dipstick
3 — Engine Oil Fill
4 — Engine Coolant Reservoir Cap
5 — Brake Fluid Reservoir Cap
6 — 12 Volt Battery
7 — Engine Air Cleaner Filter
8 — Power Steering Fluid Reservoir
9 — Battery Coolant Reservoir
10 — Intercooler/Power Electronics Coolant Reservoir Cap
11 — Washer Fluid Reservoir

VEHICLE MAINTENANCE

An authorized dealer has the qualified service personnel, special tools, and equipment to perform all service operations in an expert manner. Service Manuals are available which include detailed service information for your vehicle. Refer to these Service Manuals before attempting any procedure yourself.

NOTE:
Intentional tampering with emissions control systems may void your warranty and could result in civil penalties being assessed against you.

WARNING!

You can be badly injured working on or around a motor vehicle. Only do service work for which you have the knowledge and the proper equipment. If you have any doubt about your ability to perform a service job, take your vehicle to a competent mechanic.

COOLING SYSTEM

WARNING!

- Turn vehicle off and disconnect the fan motor lead before working near the radiator cooling fan.

(Continued)

WARNING!

- You or others can be badly burned by hot engine coolant (antifreeze) or steam from your radiator. If you see or hear steam coming from under the hood, do not open the hood until the radiator has had time to cool. Never open a cooling system pressure cap when the radiator or coolant bottle is hot.
- Do not put your hands, tools, clothing, and jewelry near the radiator cooling fan. The fan may start at any time, whether the ignition is on or off.



Cooling Fan Warning Label

This vehicle is equipped with an electric cooling fan mounted behind the radiator that starts automatically, and may start at any time. Your vehicle may determine the fan needs to start and to run if vehicle coolant is too hot, or if the ambient air temperature is too high. Even after the vehicle is turned off, the fan may start without warning and run for several minutes. Be aware of this if you are working in the engine compartment. Always keep fingers and tools away from the fan blades.

The radiator fan and surrounding components must be serviced by an authorized dealer.

Engine Coolant Checks

Check the engine coolant (antifreeze) protection every 12 months (before the onset of freezing weather, where applicable). If the engine coolant is dirty, the system should be drained, flushed, and refilled with fresh Organic Additive Technology (OAT) coolant (conforming to MS.90032) by an authorized dealer. Check the front of the A/C condenser for any accumulation of bugs, leaves, etc. If dirty, clean by gently spraying water from a garden hose vertically down the face of the condenser.

NOTE:
If the engine coolant protection is changed, you must also adjust the coolant protection for the Electric/Battery Coolant systems ➪ page 64.

Check the engine cooling system hoses for brittle rubber, cracking, tears, cuts, and tightness of the connection at the coolant recovery bottle and radiator. Inspect the entire system for leaks.
DO NOT REMOVE THE COOLANT PRESSURE CAP WHEN THE COOLING SYSTEM IS HOT.

Cooling System — Drain, Flush And Refill

NOTE:

Some vehicles require special tools to add coolant properly. Failure to fill these systems properly could lead to severe internal engine or electrical system damage. If any coolant is needed to be added to the system please contact an authorized dealer.

If the engine coolant (antifreeze) is dirty or contains visible sediment, have an authorized dealer clean and flush with OAT coolant (conforming to MS.90032).

For proper maintenance intervals ➪ page 59.

Electric/Battery Coolant System

These coolant systems must be serviced by an authorized dealer. If the coolant level is below what is specified on the reservoir, contact an authorized dealer for service.

These systems require the use of high purity water, such as deionized, or distilled water, when mixing the water and coolant (antifreeze) solution. The use of lower quality water will reduce the amount of corrosion protection in the cooling systems. If the coolant level of the battery coolant system is low, the Hybrid Electric Vehicle System Service Light will be illuminated on the instrument cluster.

Selection Of Coolant

For further information ➪ page 78.

NOTE:

- Mixing of engine coolant (antifreeze) other than specified Organic Additive Technology (OAT) engine coolant, may result in engine damage and may decrease corrosion protection. OAT engine coolant is different and should not be mixed with Hybrid Organic Additive Technology (HOAT) engine coolant or any “globally compatible” coolant. If a non-OAT engine coolant is introduced into the cooling system in an emergency, the cooling system will need to be drained, flushed, and refilled with fresh OAT coolant (conforming to MS.90032), by an authorized dealer as soon as possible.
- Do not use water alone or alcohol-based engine coolant products. Do not use additional rust inhibitors or antirust products, as they may not be compatible with the radiator engine coolant and may plug the radiator.
- This vehicle has not been designed for use with propylene glycol-based engine coolant. Use of propylene glycol-based engine coolant is not recommended.
- Some vehicles require special tools to add coolant properly. Failure to fill these systems properly could lead to severe internal engine damage. If any coolant is needed to be added to the system please contact an authorized dealer.

Adding Coolant

Your vehicle has been built with an improved coolant (OAT coolant conforming to MS.90032) that allows extended maintenance intervals. This coolant (antifreeze) can be used up to ten years or 150,000 miles (240,000 km) before replacement. To prevent reducing this extended maintenance period, it is important that you use the same coolant (OAT coolant conforming to MS.90032) throughout the life of your vehicle.

Please review these recommendations for using Organic Additive Technology (OAT) coolant that meets the requirements of the manufacturer Material Standard MS.90032. When adding coolant:

- We recommend using Mopar® Antifreeze/ Coolant 10 Year/150,000 Mile (240,000 km) Formula OAT that meets the requirements of the manufacturer Material Standard MS.90032.
- Mix a minimum solution of 50% OAT coolant that meets the requirements of the manufacturer Material Standard MS.90032 and deionized, or distilled water. Use higher concentrations (not to exceed 70%) if temperatures below −34 °F (−37 °C) are anticipated.

CAUTION!

Use only high purity water such as deionized, or distilled water when mixing the water/ coolant (antifreeze) solution for the engine, battery or high voltage electronics cooling systems.
The use of lower quality water will reduce the amount of corrosion protection in the engine cooling system.

Please note that it is the owner's responsibility to maintain the proper level of protection against freezing according to the temperatures occurring in the area where the vehicle is operated.

NOTE:

- Mixing coolant types is not recommended and can result in cooling system damage. If HOAT and OAT coolant are mixed in an emergency, have an authorized dealer drain, flush, and refill with OAT coolant (conforming to MS.90032) as soon as possible.
- Low pressure expansion bottles for power electronics and battery cooling require a special tool for removing the cap from the expansion bottle. For the battery coolant bottle, it is important to not add coolant if level is low. The vehicle should be taken to an authorized dealer for proper servicing of the battery coolant loop if this should occur.

Cooling System Pressure Cap

The cap must be fully tightened to prevent loss of engine coolant (antifreeze), and to ensure that engine coolant will return to the radiator from the coolant expansion bottle/recovery tank (if equipped).

The cap should be inspected and cleaned if there is any accumulation of foreign material on the sealing surfaces.

WARNING!

- Do not open a hot engine cooling system. Never add engine coolant (antifreeze) when the engine is overheated. Do not loosen or remove the cap to cool an overheated engine. Heat causes pressure to build up in the cooling system. To prevent scalding or injury, do not remove the pressure cap while the system is hot or under pressure.
- Do not use a pressure cap other than the one specified for your vehicle. Personal injury or engine damage may result.

Disposal Of Used Coolant

Used ethylene glycol-based coolant is a regulated substance requiring proper disposal. Check with your local authorities to determine the disposal rules for your community. To prevent ingestion by animals or children, do not store ethylene glycol-based coolant in open containers or allow it to remain in puddles on the ground, clean up any ground spills immediately. If ingested by a child or pet, seek emergency assistance immediately.

Coolant Level

The coolant expansion bottle provides a quick visual method for determining that the coolant level is adequate. With the engine off and cold, the level of the coolant (antifreeze) in the bottle should be between the “MAX” and “MIN” lines marked on the bottle.

As long as the engine operating temperature is satisfactory, the coolant only needs to be checked once a month.

When additional coolant is needed to maintain the proper level, it should be added to the coolant bottle. Do not overfill.

See an authorized dealer for service.

Cooling System Notes

NOTE:

When the vehicle is stopped after a few miles/kilometers of operation, you may observe vapor coming from the front of the engine compartment. This is normally a result of moisture from rain, snow, or high humidity accumulating on the radiator and being vaporized when the thermostat opens, allowing hot engine coolant (antifreeze) to enter the radiator.

If an examination of the engine compartment shows no evidence of radiator or hose leaks, the vehicle may be safely driven. The vapor will soon dissipate.

- Do not overfill the coolant expansion bottle.
- Check the coolant freeze point in the radiator and in the coolant expansion bottle. If engine coolant needs to be added, the contents of the coolant expansion bottle must also be protected against freezing.
- If frequent engine coolant additions are required, the cooling system should be pressure tested for leaks.
- Maintain coolant concentration at a minimum of 50% OAT coolant (conforming to MS.90032) and deionized, or distilled water.
- Use only high purity water such as deionized, or distilled water when mixing the water/coolant solution for the engine, battery or high voltage electronics cooling systems. The use of lower quality water will reduce the amount of corrosion protection in the cooling system.
- Make sure that the coolant expansion bottle overflow hoses are not kinked or obstructed.
- Keep the front of the radiator clean. If your vehicle is equipped with air conditioning, keep the front of the condenser clean.
- Do not change the thermostat for Summer or Winter operation. If replacement is ever necessary, install ONLY the correct type thermostat. Other designs may result in unsatisfactory factory engine cooling performance, poor gas mileage, and increased emissions.
- The coolant freeze point in the battery and power electronics loop should be checked by an authorized dealer as a special tool is required to remove the cap from those expansion bottles.
- Electric/Battery coolant system must be serviced by an authorized dealer. If the coolant level is below what is specified on the reservoir, contact an authorized dealer for service. These systems require the use of high purity water such as deionized, or distilled water when mixing the water and coolant solution. The use of lower quality water will reduce the amount of corrosion protection in the cooling systems.

FUSES

General Information

The fuses protect electrical systems against excessive current.

When a device does not work, you must check the fuse element inside the blade fuse for a break/melt.

Also, please be aware that using power outlets for extended periods of time with the engine off may result in vehicle battery discharge.

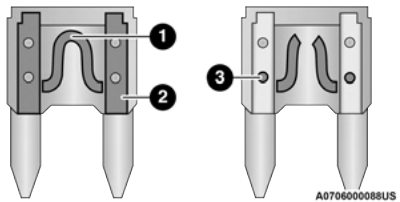
WARNING!

- When replacing a blown fuse, always use an appropriate replacement fuse with the same amp rating as the original fuse. Never replace a fuse with another fuse of higher amp rating. The use of a fuse with a rating other than indicated may result in a dangerous electrical system overload. If a properly rated fuse continues to blow, it indicates a problem in the circuit that must be corrected. Never replace a blown fuse with metal wires or any other material. Failure to use proper fuses may result in serious personal injury, fire and/or property damage.
- Before replacing a fuse, make sure that the ignition is off and that all the other services are switched off and/or disengaged.

(Continued)

WARNING!

- If the replaced fuse blows again, contact an authorized dealer.
- If a general protection fuse for safety systems (air bag system, braking system), power unit systems (engine system, gearbox system) or steering system blows, contact an authorized dealer.



Blade Fuses

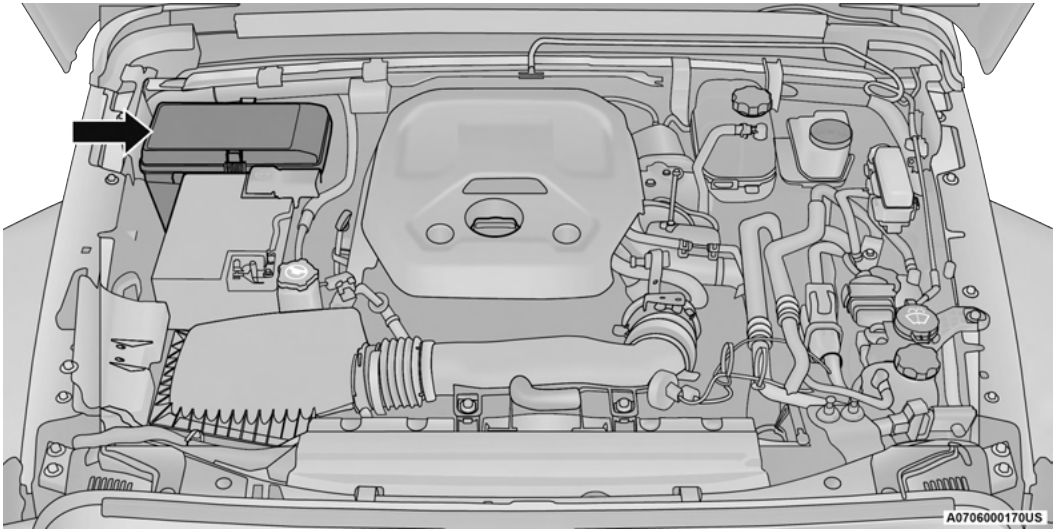
1 — Fuse Element
2 — Blade Fuse with a good/functional fuse element
3 — Blade fuse with a bad/not functional fuse element (blown fuse)

Power Distribution Center (PDC)

The Power Distribution Center is located in the engine compartment near the battery. This center contains cartridge fuses, mini fuses, and relays. The PDC top cover is labeled with each serviceable fuse/relay location, function, and size.

CAUTION!

When installing the power distribution center cover, it is important to ensure the cover is properly positioned and fully latched. Failure to do so may allow water to get into the power distribution center and possibly result in an electrical system failure.



Power Distribution Center

Cavity	Cartridge Fuse	Micro Fuse	Description
*** If Equipped**			
F01	–	5 Amp Tan	HV Electric Coolant Heater Enable
F02	–	–	Spare*
F03	–	5 Amp Tan	Intelligent Battery Sensor (IBS)

Cavity	Cartridge Fuse	Micro Fuse	Description
		* If Equipped	
F04	–	20 Amp Yellow	Fuel Pump MTR / FPCM
F05	–	5 Amp Tan	Security Gateway
F06	–	15 Amp Blue	BPCM
F07	–	15 Amp Blue	PECP-2 (LTR COOLANT PUMP)
F08	–	15 Amp Blue	Trans Control Module TCM-8HP CYGNUS
F09	–	5 Amp Tan	IDCM
F10	–	15 Amp Blue	Keyless Ignition Node (KIN) / Radio Frequency Hub (RFHUB) / Electric Steering Column Lock (ESCL)
F11	–	10 Amp Red	UCI Port (USB & AUX)
F12	–	25 Amp Clear	HIFI Amplifier
F13	–	10 Amp Red	PIM - Redundant Main Pwr Supply
F14	–	10 Amp Red	PIM - Main Pwr Supply
F15	–	15 Amp Blue	Instrument Panel Cluster (IPC) / Switch Bank-Heavy Duty Electrical Pkg (SWITCH BANK-HD ELEC)
F16	–	–	Spare*
F17	–	–	Spare*
F18	–	10 Amp Red	Electric Air Conditioning Compressor
F19	–	5 Amp Tan	Change Port Indicator
F20	30 Amp Pink	–	Central Body Controller (CBC) 1-INTERIOR LIGHTS
F21	–	20 Amp Yellow	Rear Wiper
F22	–	10 Amp Red	ECM / PIM

Cavity	Cartridge Fuse	Micro Fuse	Description
* If Equipped			
F23	–	–	Spare*
F24	–	–	Spare*
F25	–	10 Amp Red	Module Shift By Wire (MOD_SBW)
F26	40 Amp Green	–	Central Body Controller (CBC) 2-EXTERIOR LIGHTS #1
F27	30 Amp Pink	–	Front Wipers
F28	40 Amp Green	–	Central Body Controller (CBC) 3-POWER LOCKS
F29	40 Amp Green	–	Central Body Controller (CBC) 4-EXTERIOR LIGHTS #2
F30	–	–	Spare*
F31	–	10 Amp Red	DIAGNOSTIC PORT
F32	–	10 Amp Red	Heating Ventilation Air Conditioning Mod (HVAC CTRL MOD) / Steering Column Lock (SCL) / Occupant Classification Module (OCM) / Driver Presence Detection Module (DPDM)
F33	–	10 Amp Red	PTS / IRCM MODULE
F34	–	10 Amp Red	Electronic Stability Control (ESC) / Electric Hydraulic Power Steering (EHPS) / Smart Bar Control Module (SBCM) WAKE UP
F35	–	–	Spare*
F36	30 Amp Pink	–	Trailer Tow Electric Brake Mod
F37	30 Amp Pink	–	Trailer Tow Conn 7W
F38	20 Amp Blue	–	Engine Control Module (ECM)
F39	–	–	Spare*

Cavity	Cartridge Fuse	Micro Fuse	Description
		* If Equipped	
F40	–	15 Amp Blue	DriveTrain Control Module (DTCM) / Axle Lock (AXLE LOC) FT_RR
F41	–	15 Amp Blue	Instrument Cluster (IC) / Security GateWay (SGW) WAKE UP
F42	–	–	Spare*
F43	–	20 Amp Yellow	PWR OUTLET (CARGO) BATT
F44	–	10 Amp Red	InfraRed Camera (IRCAM) HEATERS
F45	–	20 Amp Yellow	PWR OUTLET (CARGO) IGN*
F46	–	10 Amp Red	AUTO HDLP LVL MOD/LVL MTR / HDLP SW
F47	–	10 Amp Red	QVPM - Quiet Vehicle Pedestrian Module
F48	–	10 Amp Red	Spare*
F49	–	10 Amp Red	Occupant Restraint Controller (ORC)
F50	–	10 Amp Red	HD ACC
F51	–	10 Amp Red	USB / ISRVM / Compass Mod / HLRS / ECM / PIM
F52	–	20 Amp Yellow	CIGAR LTR
F53	–	–	Spare*
F54	–	–	Spare*
F55	–	10 Amp Red	CVPM
F56	–	10 Amp Red	IN-CAR TEMP SENSOR / PTC HTR COIL FEED
F57	–	20 Amp Yellow	Front Driver Heated Seat
F58	–	20 Amp Yellow	Front Pass Heated Seat

Cavity	Cartridge Fuse	Micro Fuse	Description
* If Equipped			
F59	–	–	Spare*
F60	–	15 Amp Blue	Comfort Steering Wheel Module (CSWM) (HTD STR WHEEL)
F61	–	10 Amp Red	Left Blind Spot Sensor (LBSS) / Right Blind Spot Sensor (RBSS)
F62	–	–	Spare*
F63	–	10 Amp Red	Occupant Restraint Controller (ORC)
F64	–	–	Spare*
F65	50 Amp Red	–	ESC - ECU & Valves
F66	40 Amp Green	–	HVAC BLOWER MTR Front
F67	–	15 Amp Blue	BCP - Lo Temp Active Pump
F68	–	–	Spare*
F69	–	–	Spare*
F70	–	25 Amp Clear	IGN COIL / FUEL INJECTOR
F71	–	10 Amp Red	Battery Coolant Heater
F72	–	10 Amp Red	HD ELEC ACC PKG
F73	20 Amp Blue	–	PWR TOP LT
F74	20 Amp Blue	–	PWR TOP RT
F75	–	5 Amp Tan	Battery Charge Indicator / Sw Bank PHEV Mode
F76	–	20 Amp Yellow	ECM
F77	–	10 Amp Red	HEATED MIRRORS

Cavity	Cartridge Fuse	Micro Fuse	Description
* If Equipped			
F78	–	10 Amp Red	INTRUSION Mod / SIREN / INTRUSION SENSORS
F79	–	20 Amp Yellow	SMART BAR CTRL MOD
F80	–	15 Amp Blue	SOL 1 2 BLOCK SHIFT / MOD ELCM / SOL FUEL TANK
F81	30 Amp Pink	–	REAR DEFROSTER (EBL)
F82	–	–	Spare*
F83	40 Amp Green	–	Trans Oil Pump
F84	20 Amp Blue	–	PIM - Power Inverter Module - High Side Drive Power
F85	–	15 Amp Blue	PECP - Lo Temp Passive Pump
F86	–	–	Spare*
F87	–	15 Amp Blue	AHP - Hi Temp Aux Pump
F88	–	–	Spare*
F89	–	10 Amp Red	SCCM / CRUISE CTL / EVIC / DTV / AIRBAG DISABLE LMP
F90	20 Amp Blue	–	TRAILER TOW PARK LMP
F91	–	20 Amp Yellow	HORN
F92	40 Amp Green	–	HD ACCY #2
F93	40 Amp Green	–	HD ACCY #1
F94	–	–	Spare*
F95	–	–	Spare*
F96	–	10 Amp Red	PWR MIRROR SW
F97	–	20 Amp Yellow	RADIO / TBM

Cavity	Cartridge Fuse	Micro Fuse	Description
		* If Equipped	
F98	–	10 Amp Red	SW BANK-HD ELEC / OFF ROAD
F99	–	–	Spare*
F100	–	–	Spare*
F101	30 Amp Pink	–	DriveTrain Control Module (DTCM)
F102	–	15 Amp Blue	DUAL USB PORT
F103	–	15 Amp Blue	HD ACCY #3
F104	–	–	Spare*
F105	–	10 Amp Red	Integrated Center Stack (ICS) / Heat Ventilation Air Conditioning (HVAC)
F106	50 Amp Red	–	Electronic Speed Control (ESC)-PUMP MTR
F107	–	20 Amp Yellow	TRAILER TOW STOP / TURN LT
F108	–	15 Amp Blue	HD ACCY #4
F109	–	20 Amp Yellow	TRAILER TOW STOP / TURN RT
F110	30 Amp Pink	–	POWER INVERTER
F111	20 Amp Blue	–	TRAILER TOW BACKUP

Customer can select to switch the Cargo Power Outlet from F43 battery fed power to F45 which is fed when the ignition is ON.

TIRES

SNOW TRACTION DEVICES

Use of traction devices require sufficient tire-to-body clearance. Due to limited clearance, the following snow traction devices are recommended. Follow these recommendations to guard against damage.

- Snow traction device must be of proper size for the tire, as recommended by the snow traction device manufacturer.
- No other tire sizes are recommended for use with the snow traction device.
- Please follow the table below for the recommended tire size, axle and snow traction device:

Trim Level	Axle	Tire/Wheel Size	Snow Traction Device (maximum projection beyond tire profile or equivalent)
Sport Sahara	Rear	275/55R20	Autosock
Willys		LT255/75R17C	
Rubicon		LT285/70R17C	

WARNING!
Using tires of different size and type (M+S, Snow) between front and rear axles can cause unpredictable handling. You could lose control and have a collision.

CAUTION!

To avoid damage to your vehicle or tires, observe the following precautions:

- Because of restricted traction device clearance between tires and other suspension components, it is important that only traction devices in good condition are used. Broken devices can cause serious damage. Stop the vehicle immediately if noise occurs that could indicate device breakage. Remove the damaged parts of the device before further use.
- Install device as tightly as possible and then retighten after driving about ½ mile (0.8 km). Autosock traction devices do not require retightening.
- Do not exceed 30 mph (48 km/h).
- Drive cautiously and avoid severe turns and large bumps, especially with a loaded vehicle.
- Do not drive for a prolonged period on dry pavement.
- Observe the traction device manufacturer's instructions on the method of installation, operating speed, and conditions for use. Always use the suggested operating speed of the device manufacturer's if it is less than 30 mph (48 km/h).

(Continued)

CAUTION!

- Do not use traction devices on a compact spare tire.

STORING THE VEHICLE

If the vehicle should remain stationary for more than a month, observe the following precautions:

- Park your vehicle in a covered, dry and possibly airy location with the windows open slightly.
- Check that the parking brake is not engaged.
- Disconnect the negative (-) terminal from the battery post and be sure that the battery is fully charged. During storage check battery charge quarterly.

NOTE:

Disconnecting the 12 Volt battery will prevent the High Voltage (HV) battery from accepting a charge from the Electric Vehicle Supply Equipment (EVSE). Also, the vehicle will not condition the HV battery (if needed and connected to a powered EVSE). If the HV battery is not able to condition itself and it becomes cold enough (or hot enough), the vehicle will not start until the HV battery's cell temperatures are between -22°F (-30°C) and 122°F (50°C).

- If you do not disconnect the battery from the electrical system, check the battery charge every 30 days.
- Whenever you leave the vehicle stationary for two weeks or more, idle the vehicle for approximately five minutes, with the air conditioning system on and high fan speed. This will ensure proper lubrication of the system, thus minimizing the possibility of damage to the compressor when the vehicle is put back into operation.
- Plug in the vehicle when not using it whenever possible.

NOTE:

The hybrid has a feature of periodic wake-up that occurs every three weeks. This feature charges the 12 Volt battery from the HV battery. This will happen as long as the HV battery remains above the minimum state of charge ➪ page 44.

CAUTION!

Before removal of the positive and negative terminals to the battery, wait at least a minute with ignition switch in the OFF position and close the driver's door. When reconnecting the positive and negative terminals to the battery be sure the ignition switch is in the OFF position and the driver's door is closed.

TECHNICAL SPECIFICATIONS

FLUID CAPACITIES

	US	Metric
Fuel (Approximate)		
ALL	17.2 Gallons	65 Liters
Engine Oil With Filter		
2.0L Engine	5 Quarts	4.7 Liters
Cooling System*		
2.0L Engine	12.5 Quarts	11.8 Liters
Battery Coolant (Contact an authorized dealer for service)	5.4 Quarts	5.3 Liters
Power Electronics Coolant (Contact an authorized dealer for service)	5.7 Quarts	5.4 Liters
* Includes heater and coolant reservoir filled to MAX level.		

NOTE:
Battery Coolant and Power Electronics Coolant reservoir require a special tool to service the coolant system. Contact an authorized dealer for service.

ENGINE FLUIDS AND LUBRICANTS

Component	Fluid, Lubricant, or Genuine Part
Engine, Battery, and Power Electric Coolant	We recommend using Mopar® Antifreeze/Coolant 10 Year/150,000 Mile (240,000 km) Formula OAT (Organic Additive Technology) with deionized, or distilled water for proper corrosion protection or equivalent meeting the requirements of the manufacturer Material Standard MS.90032.
Engine Oil – 2.0L Engine	We recommend using Mopar® API SP/GF-6A Certified SAE 5W-30 Full Synthetic Engine Oil which meets the requirements of the manufacturer Material Standard MS-13340. Equivalent full synthetic 5W-30 API SP engine oil can be used but must have the API Donut trademark
	CAUTION!
	Failure to use the recommended API SP/GF-6A or equivalent oil can cause engine damage not covered by the vehicle warranty.
Engine Oil Filter	We recommend using a Mopar® Engine Oil Filter. If a Mopar® Engine Oil Filter is unavailable only use filters that meet or exceed SAE/USCAR-36 Filter Performance Requirements.
Fuel Selection	87 Octane (R+M)/2 Method, 0-15% Ethanol.

CAUTION!
• Mixing of engine coolant (antifreeze) other than specified Organic Additive Technology (OAT) engine coolant (antifreeze), may result in engine damage and may decrease corrosion protection. Organic Additive Technology (OAT) engine coolant is different and should not be mixed with Hybrid Organic Additive Technology (HOAT) engine coolant (antifreeze) or any "globally compatible" coolant (antifreeze). If a non-OAT engine coolant (antifreeze) is introduced into the cooling system in an emergency, the cooling system will need to be drained, flushed, and refilled with fresh OAT coolant (conforming to MS.90032), by an authorized dealer as soon as possible. • Do not use water alone or alcohol-based engine coolant (antifreeze) products. Do not use additional rust inhibitors or antirust products, as they may not be compatible with the radiator engine coolant and may plug the radiator. • This vehicle has not been designed for use with propylene glycol-based engine coolant (antifreeze). Use of propylene glycol-based engine coolant (antifreeze) is not recommended.

CHASSIS FLUIDS AND LUBRICANTS

Component	Fluid, Lubricant, or Genuine Part
Automatic Transmission	Use only Mopar® ZF 8 & 9 Speed Automatic Transmission Fluid (ATF) or equivalent. Failure to use the correct fluid may affect the function or performance of your transmission.
Transfer Case	We recommend using Mopar® ATF+4 Automatic Transmission Fluid.
Front Axle Differential	We recommend using Mopar® Gear & Axle Lubricant (SAE 75W85) (API GL-5).
Rear Axle Differential	We recommend using Mopar® Gear & Axle Lubricant (SAE 75W85) (API GL-5). Models equipped with Trac-Lok Limited Slip Differential require a friction modifier additive.
Brake Master Cylinder	We recommend using Mopar® DOT 3 Brake Fluid, SAE J1703.
Power Steering Reservoir	We recommend using Mopar® Electric Steering Pump Fluid.

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Be sure to follow all instructions in owner's manual for removal of top, doors and lowering of windshield. Driving with the doors off and windshield down is for off-road use only. FCA US LLC strongly recommends that the driver use extreme caution when using any device or feature that may take their attention off the road. Do not attempt water fording unless depth is known and consistent with the vehicle's water fording rating. Traversing water can cause damage that may not be covered by the new vehicle warranty. Always off road responsibly in approved areas.

Jeep



SCAN TO ACCESS YOUR VEHICLE'S VIDEO PLAYLIST

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