Driving Condition	Load	Turbocharger Temperature	Idle Time (min.) Before Engine Shutdown
Stop and Go	Empty	Cool	None
Stop and Go	Medium		0.5
Highway Speeds	Medium	Warm	1.0
City Traffic	Maximum GCWR		1.5
Highway Speeds	Maximum GCWR		2.0
Uphill Grade	Maximum GCWR	Hot	2.5

NOTE:
Under certain conditions the engine fan will run after the engine is turned off. These conditions are under high load and high temperature conditions.

Do Not Operate The Engine With Low Oil Pressure

If the low oil pressure warning light turns on while driving, stop the vehicle and shut down the engine as soon as possible. A chime will sound when the light turns on.

NOTE:
Do not operate the vehicle until the cause is corrected. This light does not show how much oil is in the engine. The engine oil level must be checked under the hood.

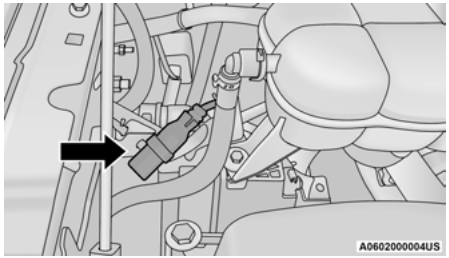
CAUTION!
If oil pressure falls to less than normal readings, shut the engine off immediately. Failure to do so could result in immediate and severe engine damage.

Do Not Operate The Engine With Failed Parts

All engine failures give some warning before the parts fail. Some important observations are:

- Engine misfiring or vibrating severely
- Sudden loss of power
- Unusual engine noises
- Fuel, oil or coolant leaks
- Sudden change, outside the normal operating range, in the engine operating temperature
- Excessive smoke
- Oil pressure drop

ENGINE BLOCK HEATER — IF EQUIPPED



Engine Block Heater Cord Location

The engine block heater warms engine coolant and permits quicker starts in cold weather. Connect the heater cord to a ground-fault interrupter protected 110–115 Volt AC electrical outlet with a grounded, three-wire extension cord.

For diesel engines, its use is recommended for environments that routinely fall below -10°F (-23°C). It should be used when the vehicle has not been running for long periods of time and should be plugged in two hours prior to start. Its use is required for cold starts with temperatures under -20°F (-28°C).

To ensure reliable starting at these temperatures, use of an externally powered electric engine block heater (available from an authorized dealer) is recommended.

The engine block heater cord is routed under the hood on the passenger side of the vehicle next to the engine coolant reservoir.

WARNING!
Remember to disconnect the engine block heater cord before driving. Damage to the 110-115 Volt electrical cord could cause electrocution.

ENGINE BREAK-IN RECOMMENDATIONS — GASOLINE ENGINE

A long break-in period is not required for the engine and drivetrain (transmission and axle) in your vehicle.

Drive moderately during the first 300 miles (500 km). After the initial 60 miles (100 km), speeds up to 50 or 55 mph (80 or 90 km/h) are desirable.

While cruising, brief full-throttle acceleration within the limits of local traffic laws contributes to a good break-in. Wide-open throttle acceleration in low gear can be detrimental and should be avoided.

The engine oil installed in the engine at the factory is a high-quality energy conserving type lubricant. Oil changes should be consistent with anticipated climate conditions under which vehicle operations will occur. For the recommended viscosity and quality grades ➪ page 475.

CAUTION!
Never use Non-Detergent Oil or Straight Mineral Oil in the engine or damage may result.

NOTE:
A new engine may consume some oil during its first few thousand miles (kilometers) of operation. This should be considered a normal part of the break-in and not interpreted as a problem. Please check your oil level with the engine oil indicator often during the break in period. Add oil as required.

ENGINE BREAK-IN RECOMMENDATIONS — DIESEL ENGINE

The diesel engine does not require a break-in period due to its construction. Normal operation is allowed, providing the following recommendations are followed:

- Warm up the engine before placing it under load.
- Do not operate the engine at idle for prolonged periods.
- Observe vehicle oil pressure and temperature indicators.
- Check the coolant and oil levels frequently.
- Vary throttle position at highway speeds when carrying or towing significant weight.

NOTE:
Light duty operation such as light trailer towing or no load operation will extend the time before the engine is at full efficiency. Reduced fuel economy and power may be seen at this time.

The engine oil installed in the engine at the factory is a high-quality energy conserving type lubricant. Oil changes should be consistent with anticipated climate conditions under which vehicle operations will occur. For the recommended viscosity and quality grades ➪ page 475.

NOTE:
NON-DETERGENT OR STRAIGHT MINERAL OILS MUST NEVER BE USED.

PARKING BRAKE

ELECTRIC PARK BRAKE (EPB)

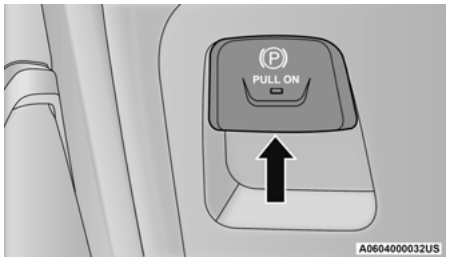
Your vehicle is equipped with an EPB that offers simple operation, and some additional features that make the parking brake more convenient and useful.

The parking brake is primarily intended to prevent the vehicle from rolling while parked. Before leaving the vehicle, make sure that the parking brake is applied. Also, be certain to leave the transmission in PARK.

You can engage the parking brake in two ways:

- Manually, by applying the parking brake switch.
- Automatically, by enabling the Auto Park Brake feature in the customer programmable features section of the Uconnect settings.

The parking brake switch is located on the instrument panel to the left of the steering wheel (below the headlamp switch).



Electric Park Brake Switch

To apply the parking brake manually, pull up on the switch momentarily. You may hear a slight sound from the back of the vehicle while the parking brake engages. Once the park brake is fully engaged, the BRAKE telltale light in the instrument cluster and an indicator on the switch will illuminate. If your foot is on the brake pedal while you apply the parking brake, you may notice a small amount of brake pedal movement. The parking brake can be applied even when the ignition switch is OFF but the BRAKE telltale light will not illuminate, however, it can only be released when the ignition is in the ON/RUN mode.

NOTE:
The EPB fault light will illuminate if the EPB switch is held for longer than 20 seconds in either the released or applied position. The light will extinguish upon releasing the switch.

If the Auto Park Brake feature is enabled, the parking brake will automatically engage whenever the transmission is placed into PARK. If your foot is on the brake pedal, you may notice a small amount of brake pedal movement while the parking brake is engaging.

The parking brake will release automatically when the ignition is ON, the transmission is in DRIVE or REVERSE, the driver seat belt is buckled, and an attempt is made to drive away.

To release the parking brake manually, the ignition switch must be in the ON/RUN mode. Put your foot on the brake pedal, then push the parking brake switch down momentarily. You may hear a slight whirring sound from the back of the vehicle while the parking brake disengages. You may also notice a small amount of movement in the brake pedal. Once the parking brake is fully disengaged, The BRAKE telltale light in the instrument cluster and the LED indicator on the switch will extinguish.

NOTE:
When parking on a hill, it is important to turn the front wheels toward the curb on a downhill grade and away from the curb on an uphill grade. Apply the parking brake before placing the gear selector in PARK, otherwise the load on the transmission locking mechanism may make it difficult to move the gear selector out of PARK.

WARNING!

- Never use the PARK position as a substitute for the parking brake. Always apply the parking brake fully when parked to guard against vehicle movement and possible injury or damage.
- When exiting the vehicle, always remove the key fob from the ignition 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 gear selector.

(Continued)

WARNING! *(Continued)*

- Do not leave the key fob in or near the vehicle, or in a location accessible to children, and do not leave a vehicle equipped with Keyless Enter-N-Go in the ACC or ON/RUN mode. A child could operate power windows, other controls, or move the vehicle.
- Be sure the parking brake is fully disengaged before driving; failure to do so can lead to brake failure and a collision.
- Always fully apply the parking brake when leaving your vehicle, or it may roll and cause damage or injury. Also be certain to leave the transmission in PARK. Failure to do so may allow the vehicle to roll and cause damage or injury.

CAUTION!

If the Brake System Warning Light remains on with the parking brake released, a brake system malfunction is indicated. Have the brake system serviced by an authorized dealer immediately.

If exceptional circumstances should make it necessary to engage the parking brake while the vehicle is in motion, maintain upward pressure on the EPB switch for as long as engagement is desired. The BRAKE telltale light will illuminate, and a continuous chime will sound. The rear stop lamps will also be illuminated automatically while the vehicle remains in motion.

To disengage the parking brake while the vehicle is in motion, release the switch. If the vehicle is brought to a complete stop using the parking brake, when the vehicle reaches approximately 3 mph, (5 km/h) the parking brake will remain engaged.

WARNING!
Driving the vehicle with the parking brake engaged, or repeated use of the parking brake to slow the vehicle may cause serious damage to the brake system. Be sure the parking brake is fully disengaged before driving; failure to do so can lead to brake failure and a collision.

In the unlikely event of a malfunction of the EPB system, a yellow EPB fault light will illuminate. This may be accompanied by the BRAKE telltale light flashing. In this event, urgent service of the EPB system is required. Do not rely on the parking brake to hold the vehicle stationary.

Auto Park Brake

The Electric Park Brake (EPB) can be programmed to be applied automatically whenever the vehicle is at a standstill and the automatic transmission is placed in PARK. Auto Park Brake is enabled and disabled by customer selection through the customer programmable features section of the Uconnect Settings ➪ page 245.

Any single Auto Park Brake application can be bypassed by pushing the EPB switch to the release position while the transmission is placed in PARK.

SafeHold

SafeHold is a safety feature of the Electric Park Brake (EPB) system that will engage the parking brake automatically if the vehicle is left unsecured while the ignition is in ON/RUN.

The parking brake will automatically engage if all of the following conditions are met:

- The vehicle is at a standstill.
- There is no attempt to press the brake pedal and accelerator pedal.
- The seat belt is unbuckled.
- The driver door is open.

SafeHold can be temporarily bypassed by pushing the EPB switch while the driver door is open. Once manually bypassed, SafeHold will be enabled again once the vehicle reaches 12 mph (20 km/h) or the ignition is turned to the OFF position and back to ON again.

Brake Service Mode

We recommend having your brakes serviced by an authorized dealer. You should only make repairs for which you have the knowledge and the right equipment. You should only enter Brake Service Mode during brake service.

When servicing your rear brakes, it may be necessary for you or your technician to push the rear piston into the rear caliper bore. With the Electric Park Brake (EPB) system, this can only be done after retracting the EPB actuator.

Fortunately, actuator retraction can be done easily by entering the Brake Service Mode through the Uconnect Settings in your vehicle. This menu based system will guide you through the steps necessary to retract the EPB actuator in order to perform rear brake service.

Service Mode has requirements that must be met in order to be activated:

- The vehicle must be at a standstill.
- The parking brake must be unapplied.
- The transmission must be in PARK or NEUTRAL.

While in Service Mode, the EPB fault lamp will flash continuously while the ignition is ON.

When brake service work is complete, the following steps must be followed to reset the park brake system to normal operation:

- Ensure the vehicle is at a standstill.
- Press the brake pedal with moderate force.
- Apply the EPB Switch.

WARNING!

You can be badly injured working on or around a motor vehicle. Do only that 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.

AUTOMATIC TRANSMISSION

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.

(Continued)

WARNING! *(Continued)*

- 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.
- 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.

(Continued)

WARNING! *(Continued)*

- 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 mode, 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 mode, remove the key fob from the vehicle, and lock the 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.

(Continued)

WARNING! *(Continued)*

- 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 mode. 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 mode. 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 mode.

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

Brake/Transmission Shift Interlock System

This vehicle is equipped with a Brake Transmission Shift Interlock (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.

EIGHT-SPEED AUTOMATIC TRANSMISSION

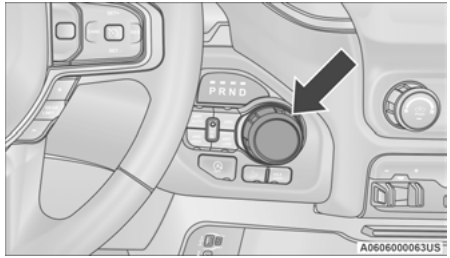
The transmission is controlled using a rotary electronic gear selector located on the instrument panel. The transmission gear range (PRND) is displayed both above the gear selector and in the instrument cluster. To select a gear range, simply rotate the gear selector. You must press the brake pedal to shift the transmission out of PARK (or NEUTRAL, when the vehicle is stopped or moving at low speeds). To shift past multiple gear ranges at once (such as PARK to DRIVE), simply rotate the gear selector to the appropriate detent. Select the DRIVE range for normal driving.

NOTE:
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. 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).

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 has only PARK, REVERSE, NEUTRAL, and DRIVE positions. Manual downshifts can be made using the Electronic Range Select (ERS) shift control. Pressing the GEAR-/GEAR+ switches (on the steering wheel) while in the DRIVE position will select the highest available transmission gear, and will display that gear limit in the instrument cluster as 1, 2, 3, etc ➪ page 159. Some models will display both the selected gear limit, and the actual current gear, while in ERS mode.



Electronic Transmission Gear Selector

Gear Ranges

Do not press the accelerator pedal when shifting from PARK or NEUTRAL into another gear range.

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.

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

When exiting the vehicle, always:

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

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.

(Continued)

WARNING! *(Continued)*

- 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.
- 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.

(Continued)

WARNING! *(Continued)*

- 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 mode, 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 mode, remove the key fob from the vehicle, and lock the 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.

(Continued)

WARNING! *(Continued)*

- 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 mode. A child could operate power windows, other controls, or move the vehicle.

CAUTION!

- DO NOT race the engine when shifting from PARK or NEUTRAL into another gear range, as this can damage the drivetrain.
- 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.

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

- 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.

For Recreational Towing ➪ page 231.

For Towing A Disabled Vehicle ➪ page 392.

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), select TOW/HAUL mode or use the Electronic Range Select (ERS) shift control to select a lower gear range ➪ page 159. Under these conditions, using a lower gear range 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.

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 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 message indicates the transmission may not re-engage after engine shutdown, perform this procedure only in a desired location (preferably, at an authorized dealer).

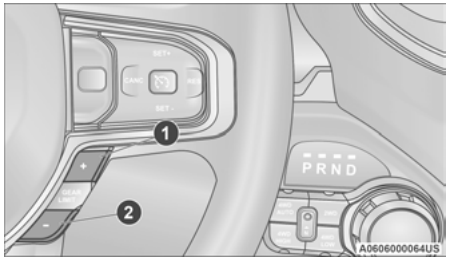
1. Stop the vehicle.
2. Shift the transmission into PARK, if possible. If not, shift the transmission to NEUTRAL.
3. Push and hold the ignition switch until the engine turns off.
4. Wait approximately 30 seconds.
5. Restart the engine.
6. Shift into the desired gear range. If the problem is no longer 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, an authorized dealer service is required.

Electronic Range Select (ERS) Operation

The Electronic Range Select (ERS) shift control allows the driver to limit the highest available gear when the transmission is in DRIVE and ERS mode is not active. For example, if you set the transmission gear limit to FOURTH gear, the transmission will not shift above FOURTH gear (except to prevent engine overspeed), but will shift through the lower gears normally.

You can switch between DRIVE and ERS mode at any vehicle speed. When the transmission gear selector is in DRIVE, the transmission will operate automatically, shifting between all available gears. Tapping the - button (on the steering wheel) will activate ERS mode, display the current gear in the instrument cluster, and set that gear as the top available gear. Once in ERS mode, tapping the - or + button will change the top available gear.



Electronic Range Select (ERS)

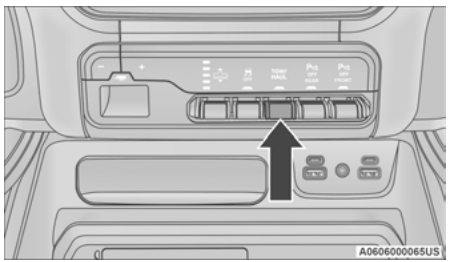
1 — Shift Up (+)
2 — Shift Down (–)

To exit ERS mode, simply push and hold the + button until the gear limit display disappears from the instrument cluster.

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.

When to Use TOW/HAUL Mode

Select TOW/HAUL mode when driving in conditions such as: driving in hilly areas, towing a trailer, carrying a heavy load, etc. This mode will improve performance and reduce the potential for transmission overheating or failure due to excessive shifting.



TOW/HAUL Switch

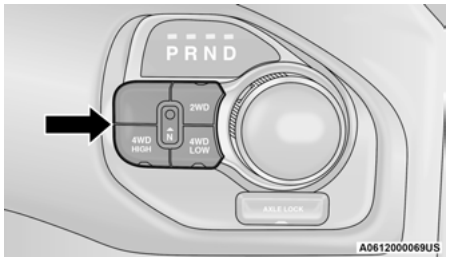
The “TOW/HAUL Indicator Light” will illuminate in the instrument cluster to indicate that TOW/HAUL mode has been activated. Pushing the switch a second time restores normal operation. Normal operation is always the default at engine start-up. If TOW/HAUL mode is desired, the switch must be pushed each time the engine is started.

WARNING!
Do not use the “TOW/HAUL” feature when driving in icy or slippery conditions. The increased engine braking can cause the rear wheels to slide, and the vehicle to swing around with the possible loss of vehicle control, which may cause an accident possibly resulting in personal injury or death.

FOUR-WHEEL DRIVE OPERATION — IF EQUIPPED

FOUR-POSITION ELECTRONICALLY SHIFTED TRANSFER CASE — IF EQUIPPED

This is an electronic shift transfer case and is operated by the 4WD Control Switch (Transfer Case Switch), located on the instrument panel.



Four-Position/On-Demand Transfer Case

This electronically shifted transfer case provides four mode positions:

- Two-Wheel Drive High Range (2WD) — This range is for normal street and highway driving on dry hard surfaced roads. Driving the vehicle in 2WD will have greater fuel economy benefits as the front axle is not engaged in 2WD.
- Four-Wheel Drive High Range (4WD HIGH) — This range provides torque to the front drive-shaft (engages four-wheel drive) which allows front and rear wheels to spin at the same speed. This provides additional traction for loose or slippery road surfaces only.
- Four-Wheel Drive Low Range (4WD LOW) — This range provides low speed four-wheel drive. It maximizes torque (increased torque over 4WD HIGH) to the front driveshaft; allowing front and rear wheels to rotate at the same speed. This range provides additional traction and maximum pulling power for loose or slippery road surfaces only. Do not exceed 25 mph (40 km/h) in this range.
- N (Neutral) — This range disengages both the front and rear driveshafts from the power-train. To be used for flat towing behind another vehicle ➪ page 231.

WARNING!

- You or others could be injured or killed if you leave the vehicle unattended with the transfer case in the N (Neutral) position without first fully engaging the parking brake. The transfer case N (Neutral) position disengages both the front and rear drive shaft from the powertrain, and will allow the vehicle to roll, even if the transmission is in PARK. The parking brake should always be applied when the driver is not in 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.

NOTE:

- The 4WD High and 4WD Low positions are designed for loose, slippery road surfaces only. Driving in the 4WD High and 4WD Low positions on dry, hard surfaced roads may cause increased tire wear and damage to the driveline components.
- The transfer case N (Neutral) button is located in the center of the 4WD Control Switch and is pushed by using a ballpoint pen or similar object. The transfer case N (Neutral) position is to be used for recreational towing only ➪ page 231.

Transfer Case Position Indicator Lights

The Transfer Case Position Indicator Lights (4WD High and 4WD Low) are located in the instrument cluster and indicate the current and desired transfer case selection. When you select a different transfer case position, the indicator lights will do the following:

1. The current position indicator light will turn off.
2. The selected position indicator light will flash until the transfer case completes the shift.
3. When the shift is complete, the indicator light for the selected position will stop flashing and remain on.

If the transfer case does not shift into the desired position, one or more of the following events may occur:

1. The indicator light for the current position will remain on.
2. The newly selected position indicator light will continue to flash.
3. If the transfer case **will not** shift, a message will appear on the cluster stating the 4WD shift has canceled.

NOTE:
Before retrying a selection, make certain that all the necessary requirements for selecting a new transfer case position have been met. To retry the selection, push the current position, wait five seconds, and retry selection.

The “SVC 4WD Warning Light” monitors the electronic shift four-wheel drive system. If this light remains on after engine start up or illuminates during driving, it means that the four-wheel drive system is not functioning properly and that service is required.

WARNING!
Always engage the parking brake when powering down the vehicle if the “SVC 4WD Warning Light” is illuminated. Not engaging the parking brake may allow the vehicle to roll which may cause personal injury or death.

NOTE:
Do not attempt to make a shift while only the front or rear wheels are spinning. This could cause damage to driveline components.

When operating your vehicle in 4WD Low, the engine speed is approximately three times that of the 2WD or 4WD High positions at a given road speed. Take care not to overspeed the engine and do not exceed 25 mph (40 km/h).

Proper operation of four-wheel drive vehicles depends on tires of equal size, type and circumference on each wheel. Any difference in tire size can cause damage to the drivetrain.

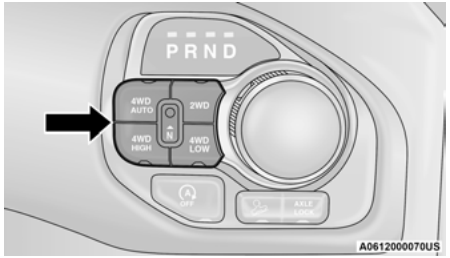
Because four-wheel drive provides improved traction, there is a tendency to exceed safe turning and stopping speeds. Do not go faster than road conditions permit.

Shifting Procedure

- If any of the requirements to select a new transfer case position have not been met, then the transfer case will not shift. The position indicator light for the previous position will remain on and the newly selected position indicator light will continue to flash until all the requirements for the selected position have been met.
- If all the requirements to select a new transfer case position have been met, then the current position indicator light will turn off and the selected position indicator light will flash until the transfer case completes the shift. When the shift is complete, the position indicator light for the selected position will stop flashing and remain on.

FIVE-POSITION ELECTRONICALLY SHIFTED TRANSFER CASE — IF EQUIPPED

This is an electronic shift transfer case and is operated by the 4WD Control Switch (Transfer Case Switch), which is located on the instrument panel.



Five-Position/On-Demand Transfer Case

This electronically shifted transfer case provides five mode positions:

- Two-Wheel Drive High Range (2WD) — This range is for normal street and highway driving on dry hard surfaced roads. Driving the vehicle in 2WD will have greater fuel economy benefits as the front axle is not engaged in 2WD.
- Four-Wheel Drive Automatic High Range (4WD AUTO) — This range sends power to the front wheels automatically when the vehicle senses a loss of traction. This range may be used during varying road conditions.
- Four-Wheel Drive High Range (4WD HIGH) — This range provides torque to the front driveshaft (engages four-wheel drive) which allows front and rear wheels to spin at the same speed. This provides additional traction for loose or slippery road surfaces only.
- Four-Wheel Drive Low Range (4WD LOW) — This range provides low speed four-wheel drive. It maximizes torque (increased torque over 4WD HIGH) to the front driveshaft; allowing front and rear wheels to rotate at the same speed. This range provides additional traction and maximum pulling power for loose or slippery road surfaces only. Do not exceed 25 mph (40 km/h) in this range.
- N (Neutral) — This range disengages both the front and rear driveshafts from the powertrain. To be used for flat towing behind another vehicle ➪ page 231.

WARNING!

- You or others could be injured or killed if you leave the vehicle unattended with the transfer case in the N (Neutral) position without first fully engaging the parking brake. The transfer case N (Neutral) position disengages both the front and rear drive shaft from the powertrain, and will allow the vehicle to roll, even if the transmission is in PARK. The parking brake should always be applied when the driver is not in 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.

NOTE:

- The 4WD High and 4WD Low positions are designed for loose, slippery road surfaces only. Driving in the 4WD High and 4WD Low positions on dry hard surfaced roads may cause increased tire wear and damage to the driveline components.
- The transfer case N (Neutral) button is located in the center of the 4WD Control Switch and is pushed by using a ballpoint pen or similar object. The transfer case N (Neutral) position is to be used for recreational towing only ➪ page 231.

Transfer Case Position Indicator Lights

The Transfer Case Position Indicator Lights (4WD High, 4WD Low, and 4WD Auto) are located in the instrument cluster and indicate the current and desired transfer case selection. When you select a different transfer case position, the indicator lights will do the following:

1. The current position indicator light will turn off.
2. The selected position indicator light will flash until the transfer case completes the shift.
3. When the shift is complete, the indicator light for the selected position will stop flashing and remain on.

If the transfer case does not shift into the desired position, one or more of the following events may occur:

1. The indicator light for the current position will remain on.
2. The newly selected position indicator light will continue to flash.
3. If the transfer case **will not** shift, there will be a cluster message stating the 4WD shift has canceled.

NOTE:
Before retrying a selection, make certain that all the necessary requirements for selecting a new transfer case position have been met. To retry the selection, push the current position, wait five seconds, and retry selection.

The “SVC 4WD Warning Light” monitors the electronic shift four-wheel drive system. If this light remains on after engine start up or illuminates during driving, it means that the four-wheel drive system is not functioning properly and that service is required.

WARNING!
Always engage the parking brake when powering down the vehicle if the “SVC 4WD Warning Light” is illuminated. Not engaging the parking brake may allow the vehicle to roll which may cause personal injury or death.

NOTE:
Do not attempt to make a shift while only the front or rear wheels are spinning. This could cause damage to driveline components.

When operating your vehicle in 4WD Low, the engine speed is approximately three times that of the 2WD, 4WD Auto or 4WD High positions at a given road speed. Take care not to overspeed the engine and do not exceed 25 mph (40 km/h).

Proper operation of four-wheel drive vehicles depends on tires of equal size, type and circumference on each wheel. Any difference in tire size can cause damage to the drivetrain.

Because four-wheel drive provides improved traction, there is a tendency to exceed safe turning and stopping speeds. Do not go faster than road conditions permit.

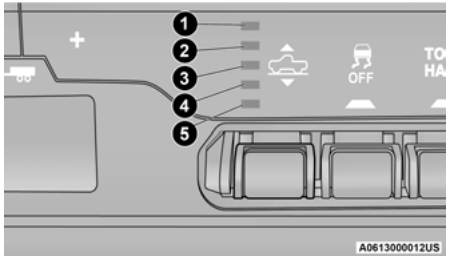
Shifting Procedure

- If any of the requirements to select a new transfer case position have not been met, then the transfer case will not shift. The position indicator light for the previous position will remain on and the newly selected position indicator light will continue to flash until all the requirements for the selected position have been met.
- If all the requirements to select a new transfer case position have been met, then the current position indicator light will turn off and the selected position indicator light will flash until the transfer case completes the shift. When the shift is complete, the position indicator light for the selected position will stop flashing and remain on.

ACTIVE-LEVEL FOUR CORNER AIR SUSPENSION SYSTEM — IF EQUIPPED

DESCRIPTION

The air suspension system provides full time load leveling capability along with the benefit of being able to adjust vehicle height by using the toggle switch.



Air Suspension Switch

1 — Off-Road 2 Indicator (Customer Selectable)
2 — Off-Road 1 Indicator (Customer Selectable)
3 — Normal Ride Height Indicator (Customer Selectable)
4 — Aero Mode Indicator (Customer Selectable)
5 — Entry/Exit Mode Indicator (Customer Selectable)

- **Normal Ride Height (NRH)** – This is the standard position of the suspension and is meant for normal driving.
- **Off-Road 1 (OR1) (Raises the vehicle approximately 1 inch (26 mm))** – This position should be the primary position for all off-road driving until Off-Road 2 (OR2) is needed. A smoother and more comfortable ride will result. To enter OR1, push the

height selector switch up once from the NRH position while the vehicle speed is below 35 mph (56 km/h). When in the OR1 position, if the vehicle speed remains between 40 mph (64 km/h) and 50 mph (80 km/h) for greater than 20 seconds or if the vehicle speed exceeds 50 mph (80 km/h), the vehicle will be automatically lowered to NRH. Off-Road 1 may not be available due to vehicle payload, an instrument cluster message will be displayed when this occurs ➪ page 114.

- **Off-Road 2 (OR2) (Raises the vehicle approximately 2 inches (51 mm))** – This position is intended for off-roading use only where maximum ground clearance is required. To enter OR2, push the height selector switch up twice from the NRH position or once from the OR1 position while vehicle speed is below 20 mph (32 km/h). While in OR2, if the vehicle speed exceeds 25 mph (40 km/h) the vehicle height will be automatically lowered to OR1. Off-Road 2 may not be available due to vehicle payload, an instrument cluster message will be displayed when this occurs ➪ page 114.

CAUTION!
If the vehicle is in OFFROAD1 or OFFROAD2 setting, be aware of your surroundings, you may not have the clearance required for certain areas and vehicle damage may occur.

- **Aero Mode (Lowers the vehicle approximately 0.6 inch [15 mm])** – This position provides improved aerodynamics by lowering the vehicle. The vehicle will automatically enter Aero Mode when the vehicle speed remains between 62 mph (100 km/h) and 66 mph (106 km/h) for greater than 20 seconds or if the vehicle speed exceeds 66 mph (106 km/h). The vehicle will return to NRH from Aero Mode if the vehicle speed remains between 30 mph (48 km/h) and 35 mph (56 km/h) for greater than 20 seconds or if the vehicle speed falls below 30 mph (48 km/h).

NOTE:

- The vehicle will automatically enter Aero Mode when the vehicle speed remains between 62 mph (100 km/h) and 66 mph (106 km/h) for greater than 20 seconds or if the vehicle speed exceeds 66 mph (106 km/h).
- Speed thresholds for raising the vehicle only apply if Automatic Aero Mode is enabled.

  To enter Aero Mode manually push the height selector switch down once from NRH at any vehicle speed. To return to NRH push the height selector switch up once while vehicle speed is less than 56 mph (90 km/h).

NOTE:
Automatic Aero Mode may be disabled through vehicle settings in the instrument cluster display ➪ page 114 or through your Uconnect Radio if equipped ➪ page 237.

- **Entry/Exit Mode (Lowers the vehicle approximately 2 inches (51 mm))** – This position lowers the vehicle for easier passenger entry and exit as well as lowering the rear of the vehicle for easier loading and unloading of cargo. To enter Entry/Exit Mode, push the height selector switch down once from the NRH while the vehicle speed is below 33 mph (53 km/h). Once the vehicle speed goes below 15 mph (24 km/h) the vehicle height will begin to lower. If the vehicle speed remains between 15 mph (24 km/h) and 25 mph (40 km/h) for greater than 60 seconds, or the vehicle speed exceeds 25 mph (40 km/h) the Entry/Exit change will be canceled. To return

to Normal Height Mode, push the height selector switch up once while in Entry/Exit or drive the vehicle over 15 mph (24 km/h). Entry/Exit mode may not be available due to vehicle payload, an instrument cluster message will be displayed when this occurs ➪ page 114.

NOTE:
Entry/Exit mode may be achieved using your key fob for easier entry/loading ➪ page 17.

CAUTION!
When in ENTRY/EXIT setting, be aware of your surroundings, you may not have the clearance required for certain areas and vehicle damage may occur.

The system requires that the ignition be in the ON/RUN position or the engine running for all user requested changes. When lowering the vehicle, all of the doors must be closed. If a door is opened at any time while the vehicle is lowering, the change will not be completed until the open door(s) is closed.

This system uses a lifting and lowering pattern which keeps the headlights from incorrectly shining into oncoming traffic. When raising the vehicle, the rear of the vehicle will move up first and then the front. When lowering the vehicle, the front will move down first and then the rear.

After the engine is turned off, it may be noticed that the air suspension system operates briefly; this is normal. The system is correcting the position of the vehicle to ensure a proper appearance.

To assist with changing a spare tire, the air suspension system has a feature which allows the automatic leveling to be disabled ➪ page 114.

NOTE:
If equipped with a touchscreen radio, all enabling/disabling of air suspension features must be done through the radio ➪ page 237.

WARNING!
The air suspension system uses a high pressure volume of air to operate the system. To avoid personal injury or damage to the system, see an authorized dealer for service.

Air Suspension Modes

The air suspension system has multiple modes to protect the system in unique situations. The engine should be running to change between Air Suspension Modes.

Automatic AERO Mode

To improve aerodynamics, the air suspension system has a feature which will put the vehicle into AERO height automatically ➪ page 114.

Automatic Aero Mode may be disabled through vehicle settings in the Uconnect Radio (if equipped) ➪ page 237.

Tire Jack Mode

To assist with changing a tire, the air suspension system has a feature which allows the automatic leveling to be disabled ➪ page 237.

Transport Mode

For towing your vehicle with four wheels off the road, the air suspension system has a feature which will put the vehicle into Entry/Exit height and disable the automatic load leveling system ➪ page 237.

Wheel Alignment Mode

Before performing a wheel alignment, this mode must be enabled ➪ page 237.

Protection Strategy

In order to “protect” the air suspension system, the vehicle will disable load leveling as required (suspension overloaded, battery charge low, etc.). Load leveling will automatically resume as soon as system operation requirements are met. See an authorized dealer if system does not resume.

NOTE:
For towing with air suspension ➪ page 214.

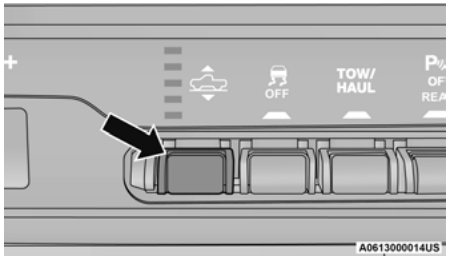
Instrument Cluster Display Messages

When the appropriate conditions exist, a message will appear in the instrument cluster display ➪ page 114.

An audible chime will be heard whenever a system error has been detected.

See an authorized dealer for system service if normal operation does not resume.

Operation



Air Suspension Switch

The indicator lamps 1 through 5 will illuminate to show the current position of the vehicle. Flashing indicator lamps will show a position which the system is working to achieve. When raising, if multiple indicator lamps are flashing, the highest flashing indicator lamp is the position the system is working to achieve. When lowering, if multiple indicators are flashing, the lowest solid indicator lamp is the position the system is working to achieve.

Pushing the height selector up once will move the suspension one position higher from the current position, assuming all conditions are met (i.e. key in ON/RUN position, engine running, speed below threshold, etc). The height selector switch can be pushed up multiple times, each push will raise the requested level by one position up to a maximum position of OR2 or the highest position allowed based on current conditions (i.e. vehicle speed, etc).

Pushing the height selector down once will move the suspension one position lower from the current level, assuming all conditions are met (i.e. key in ON/RUN position, engine running, doors closed, speed below threshold, etc). The height selector switch can be pushed down multiple times, each push will lower the requested level by one position down to a minimum of Entry/Exit Mode or the lowest position allowed based on current conditions (i.e. vehicle speed, etc.)

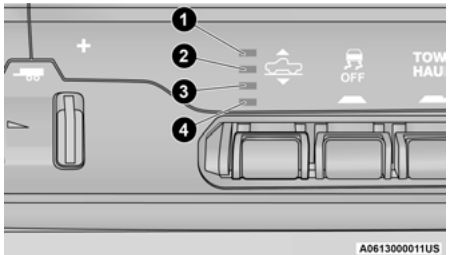
Automatic height changes will occur based on vehicle speed and the current vehicle height. The indicator lamps and instrument cluster display messages will operate the same for automatic changes and user requested changes.

- Off-Road 2 (OR2) – Indicator lamps 5, 4, 3, 2 and 1 will be illuminated when the vehicle is in OR2.
- Off-Road 1 (OR1) – Indicator lamps 5, 4, 3 and 2 will be illuminated when the vehicle is in OR1.
- Normal Ride Height (NRH) – Indicator lamps 5, 4 and 3 will be illuminated when the vehicle is in this position.
- Aero Mode – Indicator lamps 5 and 4 will be illuminated when the vehicle is in this position.
- Entry/Exit Mode – Indicator lamp 5 will be illuminated when the vehicle is in Entry Exit Mode. Entry/Exit mode can be requested up to 33 mph (53 km/h). If vehicle speed is reduced to, and kept below, 15 mph (24 km/h) indicator lamp 4 will flash and indicator lamp 5 will remain solid until Entry/Exit Mode is achieved at which point indicator lamp 4 will turn off.
- Transport Mode – No indicator lamps will be illuminated. Transport Mode is disabled by driving the vehicle.
- Tire/Jack Mode – Indicator lamps 5 and 1 will be illuminated. Tire/Jack Mode is disabled by driving the vehicle.
- Wheel Alignment Mode – Indicator lamps 3, 4, and 5 will be illuminated. Wheel Alignment Mode is disabled by driving the vehicle.

ACTIVE-LEVEL FOUR CORNER AIR SUSPENSION SYSTEM (REBEL MODELS ONLY) — IF EQUIPPED

DESCRIPTION

The air suspension system provides full time load leveling capability along with the benefit of being able to adjust vehicle height by using the toggle switch.



Rebel Air Suspension Controls

1 — Off-Road Indicator (Customer selectable)
2 — Normal Ride Height Indicator (Customer selectable)
3 — Aerodynamic Height Indicator (Customer Selectable)
4 — Entry/Exit Mode Indicator (Customer selectable)

- **Normal Ride Height (NRH)** – This is the standard position of the suspension and is meant for normal driving.
- **Off-Road (OR) (Raises the vehicle approximately 1 inch (26 mm))** – This position is intended for off-roading use only where maximum ground clearance is required. To enter OR, push the height selector switch up once from the NRH position while vehicle speed is below 20 mph (32 km/h). While in

OR, if the vehicle speed exceeds 25 mph (40 km/h) the vehicle height will be automatically lowered to NRH. Off-Road may not be available due to vehicle payload, an instrument cluster display message will be shown when this occurs ➪ page 114.

CAUTION!
If the vehicle is in Off-Road setting, be aware of your surroundings, you may not have the clearance required for certain areas and vehicle damage may occur.

- **Aero Mode (Lowers the vehicle approximately 0.6 inches (15 mm))** – This position provides improved aerodynamics by lowering the vehicle. The vehicle will automatically enter Aero Mode when the vehicle speed remains between 62 mph (100 km/h) and 66 mph (106 km/h) for greater than 20 seconds or if the vehicle speed exceeds 66 mph (106 km/h). The vehicle will return to NRH from Aero Mode if the vehicle speed remains between 30 mph (48 km/h) and 35 mph (56 km/h) for greater than 20 seconds or if the vehicle speed falls below 30 mph (48 km/h).

NOTE:

- The vehicle will automatically enter Aero Mode when the vehicle speed remains between 62 mph (100 km/h) and 66 mph (106 km/h) for greater than 20 seconds or if the vehicle speed exceeds 66 mph (106 km/h).
- Speed thresholds for raising the vehicle only apply if Automatic Aero Mode is enabled.
- To enter Aero Mode manually push the height selector switch down once from NRH at any vehicle speed. To return to NRH push the height selector switch up once while vehicle speed is less than 56 mph (90 km/h).
- Automatic Aero Mode may be disabled through vehicle settings on your Uconnect Radio.

- **Entry/Exit Mode (Lowers the vehicle approximately 3 inches (73 mm))** – This position lowers the vehicle for easier passenger entry and exit as well as lowering the rear of the vehicle for easier loading and unloading of cargo. To enter Entry/Exit Mode, push the height selector switch down twice from the NRH while the vehicle speed is below 33 mph (53 km/h). Once the vehicle speed goes below 15 mph (24 km/h) the vehicle height will begin to lower. If the vehicle speed remains between 15 mph (24 km/h) and 25 mph (40 km/h) for greater than 60 seconds, or the vehicle speed exceeds 25 mph (40 km/h) the Entry/Exit change will be canceled. To return to Normal Height Mode, push the height selector switch up twice while in Entry/Exit or drive the vehicle over 15 mph (24 km/h). Entry/Exit mode may not be available due to vehicle payload, an instrument cluster display message will be shown when this occurs ➪ page 114.

CAUTION!
When in ENTRY/EXIT setting, be aware of your surroundings, you may not have the clearance required for certain areas and vehicle damage may occur.

The system requires that the ignition be in the ON/RUN position or the engine running for all user requested changes. When lowering the vehicle, all of the doors must be closed. If a door is opened at any time while the vehicle is lowering, the change will not be completed until the open door(s) is closed.

This system uses a lifting and lowering pattern which keeps the headlights from incorrectly shining into oncoming traffic. When raising the vehicle, the rear of the vehicle will move up first and then the front. When lowering the vehicle, the front will move down first and then the rear.

After the engine is turned off, it may be noticed that the air suspension system operates briefly; this is normal. The system is correcting the position of the vehicle to ensure a proper appearance.

To assist with changing a spare tire, the air suspension system has a feature which allows the automatic leveling to be disabled ➪ page 237.

NOTE:
If equipped with a touchscreen radio, all enabling/disabling of air suspension features must be done through the radio ➪ page 237.

WARNING!
The air suspension system uses a high pressure volume of air to operate the system. To avoid personal injury or damage to the system, see an authorized dealer for service.

Air Suspension Modes

The Air Suspension system has multiple modes to protect the system in unique situations:

AERO Mode

To improve aerodynamics, the air suspension system has a feature which will put the vehicle into AERO height automatically ➪ page 114.

Tire Jack Mode

To assist with changing a tire, the air suspension system has a feature which allows the automatic leveling to be disabled ➪ page 237.

Transport Mode

For towing your vehicle with four wheels off the road, the air suspension system has a feature which will put the vehicle into Entry/Exit height and disable the automatic load leveling system ➪ page 237.

Wheel Alignment Mode

Before performing a wheel alignment, this mode must be enabled ➪ page 237.

Protection Strategy

In order to “protect” the air suspension system, the vehicle will disable load leveling as required (suspension overloaded, battery charge low, etc.). Load leveling will automatically resume as soon as system operation requirements are met. See an authorized dealer if system does not resume.

NOTE:
For towing with air suspension ➪ page 214.

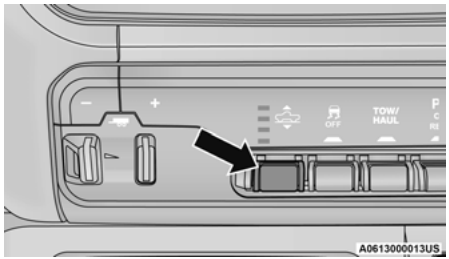
Instrument Cluster Display Messages

When the appropriate conditions exist, a message will appear in the instrument cluster display ➪ page 114.

An audible chime will be heard whenever a system error has been detected.

See an authorized dealer for system service if normal operation does not resume.

OPERATION



Air Suspension Switch

The indicator lamps 1 through 4 will illuminate to show the current position of the vehicle. Flashing indicator lamps will show a position which the system is working to achieve. When raising or lowering, the flashing indicator lamp is the position the system is working to achieve.

Pushing the height selector switch up once will move the suspension one position higher from the current position, assuming all conditions are met (i.e. key in ON/RUN position, engine running, speed below threshold, etc). The height selector switch can be pushed up multiple times, each push will raise the requested level by one position up to a maximum position of OR or the highest position allowed based on current conditions (i.e. vehicle speed, etc).

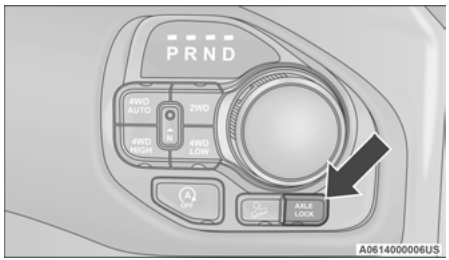
Pushing the height selector switch down once will move the suspension one position lower from the current level, assuming all conditions are met (i.e. key in ON/RUN position, engine running, doors closed, speed below threshold, etc). The height selector switch can be pushed down multiple times, each push will lower the requested level by one position down to a minimum of Entry/Exit Mode or the lowest position allowed based on current conditions (i.e. vehicle speed, etc.)

Automatic height changes will occur based on vehicle speed and the current vehicle height. The indicator lamps and instrument cluster display messages will operate the same for automatic changes and user requested changes.

- Off-Road 1 (OR1) – Indicator lamps 4, 3, 2, and 1 will be illuminated when the vehicle is in OR1.
- Normal Ride Height (NRH) – Indicator lamps 4, 3, and 2 will be illuminated when the vehicle is in this position.
- Aero Mode – Indicator lamps 4 and 3 will be illuminated when the vehicle is in this position.
- Entry/Exit Mode – Indicator lamp 4 will be illuminated when the vehicle is in Entry Exit Mode. Entry/Exit mode can be requested up to 33 mph (53 km/h). If vehicle speed is reduced to, and kept below, 15 mph (24 km/h) indicator lamp 3 will flash and indicator lamp 4 will remain solid until Entry/Exit Mode is achieved at which point indicator lamp 3 will turn off.
- Transport Mode – No indicator lamps will be illuminated. Transport Mode is disabled by driving the vehicle.
- Tire/Jack Mode – Indicator lamps 4 and 1 will be illuminated. Tire/Jack Mode is disabled by driving the vehicle.
- Wheel Alignment Mode – Indicator lamps 2, 3, and 4 will be illuminated. Wheel Alignment Mode is disabled by driving the vehicle.

AXLE LOCK SYSTEM — IF EQUIPPED

This vehicle is equipped with an electronically locking rear differential. When engaged, this differential locks the axle shafts forcing the wheels to spin at an equal rate. The locking of the rear differential should only be engaged during low-speed, extreme off-road situations where one wheel is likely to not be in contact with the ground. It is not recommended to drive the vehicle with the differentials locked on pavement due to the reduced ability to turn and speed limitations.



Axle Lock Button

CAUTION!

- Do not lock the rear axle on hard surfaced roads. The ability to steer the vehicle is reduced and damage to the drivetrain may occur when the axle is locked on hard surfaced roads.
- Do not try to lock the rear axle if the vehicle is stuck and the tires are spinning. You can damage drivetrain components. Lock the rear axle before attempting situations or navigating terrain, which could possibly cause the vehicle to become stuck.

The locking rear axle is controlled by the AXLE LOCK button.

Under normal driving conditions, the rear axle should be unlocked.

During the command to lock the rear axle, the indicator light will flash until the axle is locked. After the lock command has been successfully executed, the light will remain on solid.

Operating in 4WD LOW the locker can be engaged up to 40 mph (64 km/h) and will remain engaged throughout the 4WD LOW speed range.

Operating the locker in 2WD, 4WD AUTO, and 4WD LOCK/HIGH, the locker can be engaged up to 20 mph (32 km/h). While driving with the locker engaged, if speed exceeds 25 mph (40 km/h), the locker will automatically disengage, but will automatically reengage at 20 mph (32 km/h).

NOTE:
Left to right wheel speed difference may be necessary to allow the rear axle to fully lock. If the indicator light is flashing after selecting the rear axle lock mode, drive the vehicle in a turn or on loose gravel to expedite the locking action.

The axle locker could become torque locked due to side to side loads on the rear axle. Driving slowly while turning the steering wheel from a left hand turn to a right hand turn or driving in REVERSE for a short distance may be required to release the torque lock and unlock the axles.

To unlock the rear axle; push the AXLE LOCK button. The AXLE LOCK indicator light will go out when the rear axle is unlocked.

LIMITED-SLIP DIFFERENTIAL — IF EQUIPPED

The limited-slip differential provides additional traction on snow, ice, mud, sand and gravel, particularly when there is a difference between the traction characteristics of the surface under the right and left rear wheels. During normal driving and cornering, the limited-slip unit performs similarly to a conventional differential. On slippery surfaces, however, the differential delivers more of the driving effort to the rear wheel having the better traction.

The limited-slip differential is especially helpful during slippery driving conditions. With both rear wheels on a slippery surface, a slight application of the accelerator will supply maximum traction. When starting with only one rear wheel on an excessively slippery surface, slight momentary application of the parking brake may be necessary to gain maximum traction.

WARNING!
When servicing vehicles equipped with a limited-slip or locking differential never run the engine with one rear wheel off the ground since the vehicle may drive through the rear wheel remaining on the ground and result in unintended movement.

Care should be taken to avoid sudden accelerations when both rear wheels are on a slippery surface. This could cause both rear wheels to spin, and allow the vehicle to slide sideways on the crowned surface of a road or in a turn.

POWER STEERING

Electric Power Steering

The electric power steering system will provide increased vehicle response and ease of maneuverability. The power steering system adapts to different driving conditions.

If the steering icon is flashing, it indicates that the vehicle needs to be taken to the dealer for service. It is likely the vehicle has lost power steering assistance.

If the steering icon is displayed and the “POWER STEERING SYSTEM OVER TEMP” message is displayed on the instrument cluster screen, this indicates an over temperature condition in the power steering system. Once driving conditions are safe, pull over and let the vehicle idle for a few moments until the icon and message turn off ➪ page 114.

If the steering icon is displayed and the “SERVICE POWER STEERING – ASSIST OFF” message is displayed the instrument cluster screen, this indicates the vehicle needs to be taken to the dealer for service ➪ page 114.

NOTE:

- Even if the power steering assistance is no longer operational, it is still possible to steer the vehicle. Under these conditions there will be a substantial increase in steering effort, especially at low speeds and during parking maneuvers.
- If the condition persists, see an authorized dealer for service.

FUEL SAVER TECHNOLOGY 5.7L ENGINES ONLY — IF EQUIPPED

This feature offers improved fuel economy by shutting off four of the engine's eight cylinders during light load and cruise conditions. The system is automatic with no driver inputs or additional driving skills required.

NOTE:
This system may take some time to return to full functionality after a battery disconnect.

STOP/START SYSTEM — IF EQUIPPED

The Stop/Start function is developed to save fuel and reduce emissions. The system will stop the engine automatically during a vehicle stop if the required conditions are met. Releasing the brake pedal or shifting out of DRIVE will automatically restart the engine.

Vehicles equipped with eTorque contain a heavy duty motor generator and an additional hybrid electric battery to store energy from vehicle deceleration for use on engine startup after a stop as well as providing launch torque assist.

AUTOSTOP MODE

The Stop/Start feature is enabled after every normal customer engine start. It will remain in STOP/START NOT READY until you drive forward with a vehicle speed greater than 2 mph (3 km/h). At that time, the system will go into STOP/START READY.

To Activate The Autostop Mode, The Following Must Occur:

1. The system must be in STOP/START READY state. A STOP/START READY message will be displayed in the instrument cluster within the Stop/Start section ➪ page 114.
2. The vehicle must be completely stopped.
3. The transmission gear selector must be in DRIVE and the brake pedal pressed.

The engine will shut down, the tachometer will move to the zero position and the stop/start telltale will illuminate indicating you are in an Autostop. While in an Autostop, the Climate Controls system may automatically adjust airflow to maintain cabin comfort. Customer settings will be maintained upon return to an engine running condition.

POSSIBLE REASONS THE ENGINE DOES NOT AUTOSTOP

Prior to engine shut down, the system will check many safety and comfort conditions to see if they are fulfilled. In following situations, the engine will not Autostop:

- Driver's seat belt is not buckled
- Driver's door is not closed
- The vehicle is on a steep grade
- Cabin heating or cooling is in process and an acceptable cabin temperature has not been achieved
- HVAC is set to full defrost mode at a high blower speed
- Engine has not reached normal operating temperature
- Engine temperature too high
- The battery is charging
- The transmission is not in DRIVE
- Hood is open
- Transfer case is in 4WD LOW

- TOW/HAUL mode is selected
- Accelerator pedal input
- Excessive 12 Volt loads

It may be possible to operate the vehicle several consecutive times in extreme conditions and not meet all criteria to enable an Autostop state.

To Start The Engine While In Autostop Mode

While in DRIVE, the engine will start when the brake pedal is released or the throttle pedal is pressed and the transmission will automatically reengage upon engine restart.

Conditions That Will Cause The Engine To Start Automatically While In Autostop Mode

The engine will start automatically when:

- The transmission selector is moved from DRIVE to REVERSE, NEUTRAL, or PARK
- To maintain cabin temperature near the HVAC settings
- HVAC is set to full defrost mode
- 12 Volt demand requires engine restart
- Stop/Start OFF switch is pushed
- Transfer case is in 4WD LOW
- The emissions system override is present
- A Stop/Start system error present

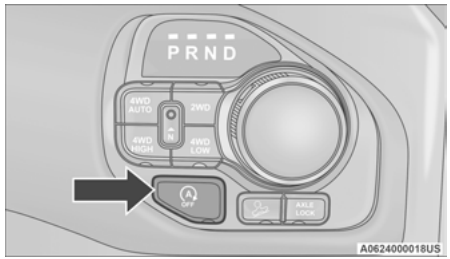
Conditions That Force An Automatic Shift To Park While In Autostop Mode

The engine will not start automatically and the transmission will be placed in PARK if:

- The driver door is open and brake pedal released
- The driver door is open and the driver seat belt is unbuckled
- The engine hood has been opened
- A Stop/Start system error present

The engine may then be restarted by moving the transmission shift selector out of PARK (e.g. to DRIVE) or, in some cases, only by a KEY START. The instrument cluster will display a SHIFT OUT OF PARK message, or a STOP/START KEY START REQUIRED message, to indicate which action is required ➪ page 114.

To Manually Turn Off The Stop Start System



Stop/Start OFF Switch

Push the Stop/Start OFF switch (located on the switch bank). The light on the switch will illuminate. The “STOP/START OFF” message will appear in the instrument cluster display and the autostop mode will be disabled ➪ page 114.

NOTE:
The Stop/Start system will reset itself back to the ON mode every time the ignition is turned OFF and back ON.

To Manually Turn On The Stop Start System

Push the Stop/Start OFF switch (located on the switch bank). The light on the switch will turn off.

System Malfunction

If there is a malfunction in the Stop/Start system, the system will not shut down the engine. A “SERVICE STOP/START SYSTEM” message will appear in the instrument cluster display ➪ page 126.

The system will need to be checked by an authorized dealer.

CRUISE CONTROL SYSTEMS — IF EQUIPPED

Your vehicle may be equipped with the Cruise Control system, or the Adaptive Cruise Control (ACC) system:

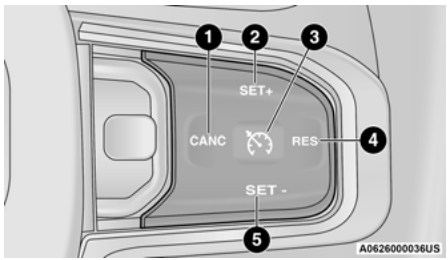
- Cruise Control for cruising at a constant preset speed.
- Adaptive Cruise Control (ACC) for maintaining a set distance between you and the vehicle ahead using Fixed Speed Cruise Control to automatically adjust the preset speed.

NOTE:
In vehicles equipped with ACC, if an ACC distance is not set, Fixed Speed Cruise Control will not detect vehicles directly ahead of you. Always be aware of the mode selected.

Cruise Control — If Equipped

When engaged, the Cruise Control takes over accelerator operations at speeds greater than 20 mph (32 km/h).

The Cruise Control buttons are located on the right side of the steering wheel.



Cruise Control Buttons

1 — CANC/Cancel
2 — SET (+)/Accel
3 — On/Off
4 — RES/Resume
5 — SET (-)/Decel

NOTE:
In order to ensure proper operation, the Cruise Control system has been designed to shut down if multiple Cruise Control functions are operated at the same time. If this occurs, the Cruise Control system can be reactivated by pushing the Cruise Control on/off button and resetting the desired vehicle set speed.

WARNING!
Cruise Control can be dangerous where the system cannot maintain a constant speed. Your vehicle could go too fast for the conditions, and you could lose control and have an accident. Do not use Cruise Control in heavy traffic or on roads that are winding, icy, snow-covered or slippery.

To Activate

Push the on/off button to activate the Cruise Control. The cruise indicator light in the instrument cluster display will illuminate. To turn the system off, push the on/off button a

second time. The cruise indicator light will turn off. The system should be turned off when not in use.

WARNING!
Leaving the Cruise Control system on when not in use is dangerous. You could accidentally set the system or cause it to go faster than you want. You could lose control and have an accident. Always ensure the system is off when you are not using it.

To Set A Desired Speed

Turn the Cruise Control on.

When the vehicle has reached the desired speed, push the SET (+) or SET (-) button and release. Release the accelerator and the vehicle will operate at the selected speed.

NOTE:
The vehicle should be traveling at a steady speed and on level ground before pushing the SET (+) or SET (-) button.

To Vary The Speed Setting

To Increase Or Decrease The Set Speed

When the Cruise Control is set, you can increase speed by pushing the SET **(+)** button, or decrease speed by pushing the SET **(-)** button.

U.S. Speed (mph)

- Pushing the SET **(+)**, or SET **(-)** button once will result in a 1 mph speed adjustment. Each subsequent tap of the button results in an adjustment of 1 mph.
- If the button is continually pushed, the set speed will continue to adjust until the button is released, then the new set speed will be established.

Metric Speed (km/h)

- Pushing the SET **(+)**, or SET **(-)** button once will result in a 1 km/h speed adjustment. Each subsequent tap of the button results in an adjustment of 1 km/h.
- If the button is continually pushed, the set speed will continue to adjust until the button is released, then the new set speed will be established.

To Accelerate For Passing

While the Cruise Control is set, press the accelerator to pass as you would normally. When the pedal is released, the vehicle will return to the set speed.

Using Cruise Control On Hills

The transmission may downshift on hills to maintain the vehicle set speed.

NOTE:
The Cruise Control system maintains speed up and down hills. A slight speed change on moderate hills is normal.

On steep hills, a greater speed loss or gain may occur so it may be preferable to drive without Cruise Control.

WARNING!
Cruise Control can be dangerous where the system cannot maintain a constant speed. Your vehicle could go too fast for the conditions, and you could lose control and have an accident. Do not use Cruise Control in heavy traffic or on roads that are winding, icy, snow-covered or slippery.

To Resume Speed

To resume a previously set speed, push the RES button and release. Resume can be used at any speed above 20 mph (32 km/h).

To Deactivate

A tap on the brake pedal, pushing the CANC (cancel) button, or normal brake pressure while slowing the vehicle will deactivate the Cruise Control system without erasing the set speed from memory.

The following conditions will also deactivate the Cruise Control system without erasing the set speed from memory:

- Vehicle parking brake is applied
- Stability event occurs
- Gear selector is moved out of DRIVE
- Engine overspeed occurs

Pushing the on/off button or placing the ignition in the OFF position, erases the set speed from memory.

ADAPTIVE CRUISE CONTROL (ACC) — IF EQUIPPED

Adaptive Cruise Control (ACC) increases the driving convenience provided by Cruise Control while traveling on highways and major roadways. However, it is not a safety system and not designed to prevent collisions. The Cruise Control function performs differently ➪ page 177.

ACC will allow you to keep Cruise Control engaged in light to moderate traffic conditions without the constant need to reset your speed. ACC utilizes a radar sensor and a forward facing camera designed to detect a vehicle directly ahead of you to maintain a set speed.

NOTE:

- If the ACC sensor detects a vehicle ahead, ACC will apply limited braking or acceleration (not to exceed the original set speed) automatically to maintain a preset following distance, while matching the speed of the vehicle ahead.
- Any chassis/suspension or tire size modifications to the vehicle will affect the performance of the Adaptive Cruise Control and Forward Collision Warning system.
- Fixed Speed Cruise Control alone (an ACC distance not set) will not detect vehicles directly ahead of you. Always be aware of the mode selected.

WARNING!

- Adaptive Cruise Control (ACC) is a convenience system. It is not a substitute for active driver involvement. It is always the driver's responsibility to be attentive of road, traffic, and weather conditions, vehicle speed, distance to the vehicle ahead; 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 these warnings can result in a collision and death or serious personal injury.

(Continued)

WARNING! *(Continued)*

- The ACC system:
  - Does not react to pedestrians, oncoming vehicles, and stationary objects (e.g., a stopped vehicle in a traffic jam or a disabled vehicle).
  - Cannot take street, traffic, and weather conditions into account, and may be limited upon adverse sight distance conditions.
  - Does not always fully recognize complex driving conditions, which can result in wrong or missing distance warnings.
  - Will bring your vehicle to a complete stop while following a vehicle ahead and hold your vehicle for approximately three minutes in the stop position. If the vehicle ahead does not start moving within three minutes the parking brake will be activated, and the ACC system will be cancelled.

(Continued)

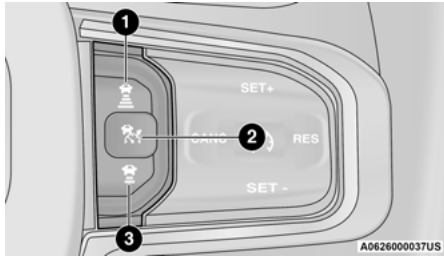
WARNING! *(Continued)*

You should switch off the ACC system:

- When driving in fog, heavy rain, heavy snow, sleet, heavy traffic, and complex driving situations (i.e., in highway construction zones).
- When entering a turn lane or highway off ramp; when driving on roads that are winding, icy, snow-covered, slippery, or have steep uphill or downhill slopes.
- When towing a trailer up or down steep slopes.
- When circumstances do not allow safe driving at a constant speed.

Adaptive Cruise Control (ACC) Operation

The buttons on the right side of the steering wheel operate the Adaptive Cruise Control system.



Adaptive Cruise Control Buttons

1 — Distance Setting Increase
2 — Adaptive Cruise Control (ACC) On/Off
3 — Distance Setting Decrease

Adaptive Cruise Control (ACC) Menu

The instrument cluster display will show the current ACC system settings. The information it displays depends on ACC system status.

Push the Adaptive Cruise Control (ACC) on/off button until one of the following appears in the instrument cluster display:

Adaptive Cruise Control Off

When ACC is deactivated, the display will read “Adaptive Cruise Control Off.”

Adaptive Cruise Control Ready

When ACC is activated, but the vehicle speed setting has not been selected, the display will read “Adaptive Cruise Control Ready.”

Adaptive Cruise Control Set

When the SET (+) or the SET (-) button is pushed, the display will read “ACC SET.”

When ACC is set, the set speed will show in the instrument cluster display.

The ACC screen may display once again if any of the following ACC activity occurs:

- System Cancel
- Driver Override
- System Off
- ACC Proximity Warning
- ACC Unavailable Warning

The instrument cluster display will return to the last display selected after five seconds of no ACC display activity.

Activating Adaptive Cruise Control (ACC)

The minimum set speed for the ACC system is 20 mph (32 km/h).

When the system is turned on and in the ready state, the instrument cluster display will read “ACC Ready.”

When the system is off, the instrument cluster display will read “Adaptive Cruise Control (ACC) Off.”

NOTE:
You cannot engage ACC under the following conditions:

- When in 4WD Low
- When the brakes are applied
- When the parking brake is applied
- When the automatic transmission is in PARK, REVERSE or NEUTRAL
- When the vehicle speed is below the minimum speed range
- When the brakes are overheated
- When the driver’s door is open at low speeds
- When the driver’s seat belt is unbuckled at low speeds
- When there is a stationary vehicle in front of your vehicle in close proximity
- ESC Full Off mode is active

To Activate/Deactivate

Push and release the Adaptive Cruise Control (ACC) on/off button. The ACC menu in the instrument cluster displays “ACC Ready.”

To turn the system off, push and release the Adaptive Cruise Control (ACC) on/off button again. At this time, the system will turn off and the instrument cluster display will show “Adaptive Cruise Control (ACC) Off.”

WARNING!
Leaving the Adaptive Cruise Control (ACC) system on when not in use is dangerous. You could accidentally set the system or cause it to go faster than you want. You could lose control and have a collision. Always leave the system off when you are not using it.

To Set A Desired ACC Speed

When the vehicle reaches the speed desired, push the SET **(+)** button or the SET **(-)** button and release. The instrument cluster display will show the set speed.

NOTE:
Fixed Speed Cruise Control can be used without an ACC distance set. To change between the different modes, push the ACC on/off button which turns the ACC and the Fixed Speed Cruise Control off. Pushing the Fixed Speed Cruise Control on/off button will result in turning on (changing to) Fixed Speed Cruise Control mode.

WARNING!
In the Fixed Speed Cruise Control mode, the system will not react to vehicles ahead. In addition, the proximity warning does not activate and no alarm will sound even if you are too close to the vehicle ahead since neither the presence of the vehicle ahead nor the vehicle-to-vehicle distance is detected. Be sure to maintain a safe distance between your vehicle and the vehicle ahead. Always be aware which mode is selected.

If ACC is set when the vehicle speed is **below** 20 mph (32 km/h), the set speed will default to 20 mph (20 km/h).

NOTE:
Fixed Speed Cruise Control cannot be set below 20 mph (32 km/h).

If either system is set when the vehicle speed is **above** 20 mph (32 km/h), the set speed shall be the current speed of the vehicle.

NOTE:

- Keeping your foot on the accelerator pedal can cause the vehicle to continue to accelerate beyond the set speed. If this occurs, the message “ACC DRIVER OVERRIDE” will display in the instrument cluster display.
- If you continue to accelerate beyond the set speed while an ACC distance is also set, the system will not be controlling the distance between your vehicle and the vehicle ahead. The vehicle speed will only be determined by the position of the accelerator pedal.

To Cancel

The following conditions cancel the ACC or Fixed Speed Cruise Control systems:

- The brake pedal is applied
- The CANC (cancel) button is pushed
- The Anti-Lock Brake system (ABS) activates
- The trailer brake is applied manually (if equipped)
- The gear selector is removed from the DRIVE position
- The Electronic Stability Control/Traction Control System (ESC/TCS) activates
- The vehicle parking brake is applied
- The Trailer Sway Control (TSC) activates
- The driver switches ESC to Full Off mode
- The braking temperature exceeds normal range (overheated)

The following conditions will only cancel the ACC system:

- Driver seat belt is unbuckled at low speeds
- Driver door is opened at low speeds

To Turn Off

The system will turn off and clear the set speed in memory if:

- The Adaptive Cruise Control (ACC) on/off button is pushed
- The Fixed Speed Cruise Control on/off button is pushed
- The ignition is placed in the OFF position
- 4WD Low is engaged

To Resume

If there is a set speed in memory, push the RES (resume) button and then remove your foot from the accelerator pedal. The instrument cluster display will display the last set speed.

Resume can be used at any speed above 20 mph (32 km/h) when only Fixed Speed Cruise Control is being used.

Resume can be used at any speed above 0 mph (0 km/h) when ACC is active.

NOTE:

- While in ACC mode when the vehicle comes to a complete stop longer than two seconds, the system will cancel. The driver will have to apply the brakes to keep the vehicle at a standstill.
- ACC cannot be resumed if there is a stationary vehicle in front of your vehicle in close proximity.

WARNING!
The Resume function should only be used if traffic and road conditions permit. Resuming a set speed that is too high or too low for prevailing traffic and road conditions could cause the vehicle to accelerate or decelerate too sharply for safe operation. Failure to follow these warnings can result in a collision and death or serious personal injury.

To Vary The Speed Setting

To Increase Or Decrease The Set Speed

After setting a speed, you can increase the set speed by pushing the SET **(+)** button, or decrease speed by pushing the SET **(-)** button.

U.S. Speed (mph)

- Pushing the SET **(+)**, or SET **(-)** button once will result in a 1 mph speed adjustment. Each subsequent tap of the button results in an adjustment of 1 mph.
- If the button is continually pushed, the set speed will continue to adjust in 5 mph increments until the button is released. The new set speed is reflected in the instrument cluster display.

Metric Speed (km/h)

- Pushing the SET **(+)**, or SET **(-)** button once will result in a 1 km/h speed adjustment. Each subsequent tap of the button results in an adjustment of 1 km/h.
- If the button is continually pushed, the set speed will continue to adjust in 10 km/h increments until the button is released. The new set speed is reflected in the instrument cluster display.

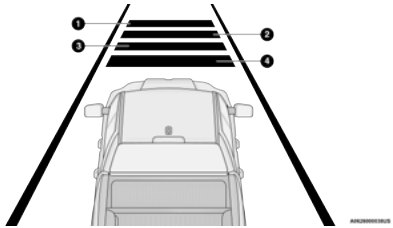
NOTE:
When you override and push the SET **(+)** button or SET **(-)** buttons, the new set speed will be the current speed of the vehicle.

When An ACC Distance Is Also Set:

- When you use the SET (-) button to decelerate, if the engine's braking power does not slow the vehicle sufficiently to reach the set speed, the brake system will automatically slow the vehicle.
- The ACC system decelerates the vehicle to a full stop when following the vehicle in front. If your vehicle follows the vehicle in front to a standstill, after two seconds the driver will either have to push the RES (resume) button, or apply the accelerator pedal to reengage the ACC to the existing set speed.
- The ACC system maintains set speed when driving uphill and downhill. However, a slight speed change on moderate hills is normal. In addition, downshifting may occur while climbing uphill or descending downhill. This is normal operation and necessary to maintain set speed. When driving uphill and downhill, the ACC system will cancel if the braking temperature exceeds normal range (overheated).

Setting The Following Distance In ACC

The specified following distance for Adaptive Cruise Control (ACC) can be set by varying the distance setting between four bars (longest), three bars (long), two bars (medium) and one bar (short). Using this distance setting and the vehicle speed, ACC calculates and sets the distance to the vehicle ahead. This distance setting displays in the instrument cluster display.



Distance Settings

1 — Longest Distance Setting (Four Bars)
2 — Long Distance Setting (Three Bars)
3 — Medium Distance Setting (Two Bars)
4 — Short Distance Setting (One Bar)

To increase the distance setting, push the Distance Increase button and release. Each time the button is pushed, the distance setting increases by one bar (longer).

To decrease the distance setting, push the Distance Decrease button and release. Each time the button is pushed, the distance setting decreases by one bar (shorter).

If there is no vehicle ahead, the vehicle will maintain the set speed. If a slower moving vehicle is detected in the same lane, the instrument cluster displays the ACC Set With Target Detected Indicator Light, and the system adjusts vehicle speed automatically to maintain the distance setting, regardless of the set speed.

The vehicle will then maintain the set distance until:

- The vehicle ahead accelerates to a speed above the set speed.
- The vehicle ahead moves out of your lane or view of the sensor.
- The distance setting is changed.
- The system disengages.

The maximum braking applied by ACC is limited; however, the driver can always apply the brakes manually, if necessary.

NOTE:
The brake lights will illuminate whenever the ACC system applies the brakes.

A Proximity Warning will alert the driver if ACC predicts that its maximum braking level is not sufficient to maintain the set distance. If this occurs, a visual alert “BRAKE” will flash in the instrument cluster display and a chime will sound while ACC continues to apply its maximum braking capacity.

NOTE:
The “BRAKE!” Screen in the instrument cluster display is a warning for the driver to take action and does not necessarily mean that the Forward Collision Warning system is applying the brakes autonomously.

Overtake Aid

When driving with Adaptive Cruise Control (ACC) engaged, and following a vehicle, the system will provide an additional acceleration up to the ACC set speed to assist in passing the vehicle. This additional acceleration is triggered when the driver utilizes the left turn signal and will only be active when passing on the left hand side.

ACC Operation At Stop

If the ACC system brings your vehicle to a standstill while following the vehicle in front, your vehicle will resume motion without any diver intervention if the vehicle in front starts moving within two seconds.

If the vehicle in front does not start moving within two seconds of your vehicle coming to a standstill, the driver will either have to push the RES (resume) button, or apply the accelerator pedal to reengage the ACC to the existing set speed.

NOTE:
After the ACC system holds your vehicle at a standstill for approximately three consecutive minutes, the parking brake will be activated, and the ACC system will be cancelled.

While ACC is holding your vehicle at a standstill, if the driver seat belt is unbuckled or the driver door is opened, the parking brake will be activated, and the ACC system will be cancelled.

WARNING!
When the ACC system is resumed, the driver must ensure that there are no pedestrians, vehicles or objects in the path of the vehicle. Failure to follow these warnings can result in a collision and death or serious personal injury.

Display Warnings And Maintenance

“Wipe Front Radar Sensor In Front Of Vehicle” Warning

The “ACC/FCW Unavailable Wipe Front Radar Sensor” warning will display and also a chime will indicate when conditions temporarily limit system performance.

This most often occurs at times of poor visibility, such as in snow or heavy rain. The ACC system may also become temporarily blinded due to obstructions, such as mud, dirt or ice. In these cases, the instrument cluster display will display “ACC/FCW Unavailable Wipe Front Radar Sensor” and the system will deactivate.

The “ACC/FCW Unavailable Wipe Front Radar Sensor” message can sometimes be displayed while driving in highly reflective areas (i.e. ice

and snow, or tunnels with reflective tiles). The ACC system will recover after the vehicle has left these areas. Under rare conditions, when the radar is not tracking any vehicles or objects in its path this warning may temporarily occur.

NOTE:
If the "ACC/FCW Unavailable Wipe Front Radar Sensor" warning is active, Fixed Speed Cruise Control is still available.

If weather conditions are not a factor, the driver should examine the sensor. It may require cleaning or removal of an obstruction. The sensor is located in the camera in the center of the windshield, on the forward side of the rearview mirror.

To keep the ACC system operating properly, it is important to note the following maintenance items:

- Always keep the sensor clean. Carefully clear the windshield.
- Do not remove any screws from the sensor. Doing so could cause an ACC system malfunction or failure and require a sensor realignment.
- Do not attach or install any accessories near the sensor, including transparent material. Doing so could cause an ACC system failure or malfunction.

When the condition that deactivated the system is no longer present, the system will return to the "Adaptive Cruise Control Off" state and will resume function by simply reactivating it.

NOTE:

- If the "ACC/FCW Unavailable Wipe Front Radar Sensor" message occurs frequently (e.g. more than once on every trip) without any snow, rain, mud, or other obstruction, have the radar sensor realigned at an authorized dealer.
- Installing a snow plow, front-end protector, an aftermarket grille or modifying the grille is not recommended. Doing so may block the sensor and inhibit ACC/FCW operation.

"Clean Front Windshield" Warning

The "ACC/FCW Limited Functionality Clean Front Windshield" warning will display and also a chime will indicate when conditions temporarily limit system performance. This most often occurs at times of poor visibility, such as in snow or heavy rain and fog. The ACC system may also become temporarily blinded due to obstructions, such as mud, dirt, or ice on windshield, driving directly into the sun and fog on the inside of glass. In these cases, the instrument cluster display will show "ACC/FCW Limited Functionality Clean Front Windshield" and the system will have degraded performance.

This message can sometimes be displayed while driving in adverse weather conditions. The ACC/FCW system will recover after the vehicle has left these areas. Under rare conditions, when the camera is not tracking any vehicles or objects in its path this warning may temporarily occur.

If weather conditions are not a factor, the driver should examine the windshield and the camera located on the back side of the inside rear view mirror. They may require cleaning or removal of an obstruction.

When the condition that created limited functionality is no longer present, the system will return to full functionality.

NOTE:
If the “ACC/FCW Limited Functionality Clean Front Windshield” message occurs frequently (e.g. more than once on every trip) without any snow, rain, mud, or other obstruction, have the windshield and forward facing camera inspected at an authorized dealer.

Service ACC/FCW Warning

If the system turns off, and the instrument cluster displays “ACC/FCW Unavailable Service Required” or “Cruise/FCW Unavailable Service Required”, there may be an internal system fault or a temporary malfunction that limits ACC functionality. Although the vehicle is still drivable under normal conditions, ACC will be temporarily unavailable. If this occurs, try activating ACC again later, following an ignition cycle. If the problem persists, see an authorized dealer.

Precautions While Driving With ACC

NOTE:

- Aftermarket add-ons such as snow plows, lift kits, and brush/grille bars can hinder module performance. Ensure the radar/camera has no obstructions in the field of view.
- Height modifications can limit module performance and functionality.
- Do not put stickers or easy passes over the camera/radar field of view.
- Any modifications to the vehicle that may obstruct the field of view of the radar/camera are not recommended.

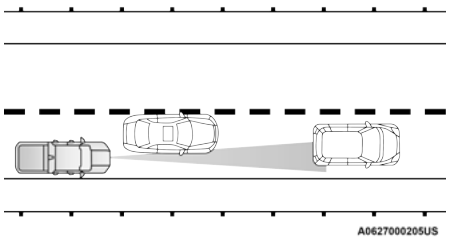
In certain driving situations, ACC may have detection issues. In these cases, ACC may brake late or unexpectedly. The driver needs to stay alert and may need to intervene. The following are examples of these types of situations:

Towing A Trailer

ACC while towing a trailer is recommended only with an Integrated Trailer Brake Controller. Aftermarket trailer brake controllers will not activate the trailer brakes when ACC is braking.

Offset Driving

ACC may not detect a vehicle in the same lane that is offset from your direct line of travel, or a vehicle merging in from a side lane. There may not be sufficient distance to the vehicle ahead. The offset vehicle may move in and out of the line of travel, which can cause your vehicle to brake or accelerate unexpectedly.

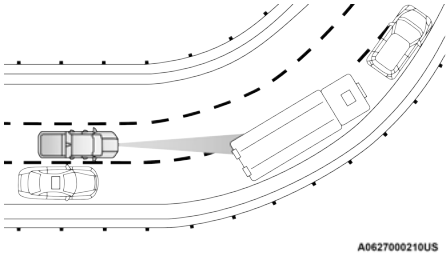


Offset Driving Condition Example

Turns And Bends

When driving on a curve with ACC engaged, the system may decrease the vehicle speed and acceleration for stability reasons, with no vehicle in front detected. Once the vehicle is out of the curve the system will resume your original set speed. This is a part of normal ACC system functionality.

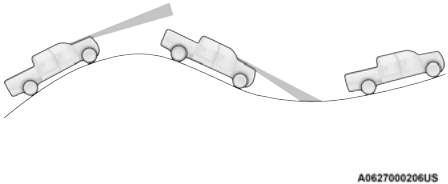
NOTE:
On tight turns ACC performance may be limited.



Turn Or Bend Example

Using ACC On Hills

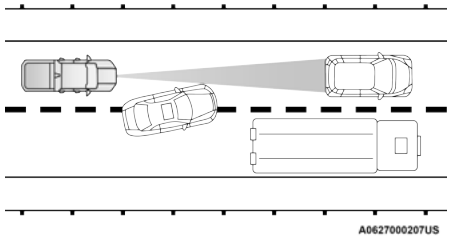
When driving on hills, ACC may not detect a vehicle in your lane. Depending on the speed, vehicle load, traffic conditions, and the steepness of the hills, ACC performance may be limited.



ACC Hill Example

Lane Changing

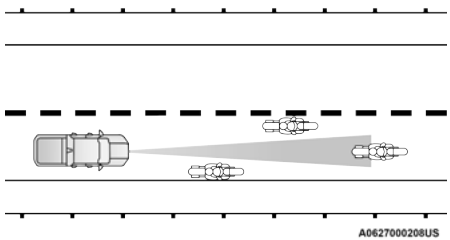
ACC may not detect a vehicle until it is completely in the lane in which you are traveling. In the lane changing example below, ACC has not yet detected the vehicle changing lanes and it may not detect the vehicle until it's too late for the ACC system to take action. ACC may not detect a vehicle until it is completely in the lane. There may not be sufficient distance to the lane-changing vehicle. Always be attentive and ready to apply the brakes if necessary.



Lane Changing Example

Narrow Vehicles

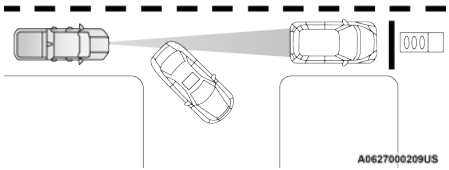
Some narrow vehicles traveling near the outer edges of the lane or edging into the lane are not detected until they have moved fully into the lane. There may not be sufficient distance to the vehicle ahead.



Narrow Vehicle Example

Stationary Objects And Vehicles

ACC does not react to stationary objects and stationary vehicles. For example, ACC will not react in situations where the vehicle you are following exits your lane and the vehicle ahead is stopped in your lane. Always be attentive and ready to apply the brakes if necessary ➪ page 482.



Stationary Object And Stationary Vehicle Example

PARKSENSE FRONT/REAR PARK ASSIST SYSTEM — IF EQUIPPED

The ParkSense Park Assist system provides visual and audible indications of the distance between the rear and/or front fascia/bumper and a detected obstacle when backing up or moving forward (e.g. during a parking maneuver). If your vehicle is equipped with the automatic braking function, the vehicle brakes may be automatically applied and released when the vehicle is in REVERSE if the system detects a possible collision with an obstacle.

NOTE:

- The driver can disable the automatic braking function by turning ParkSense off via the ParkSense switch. The driver can also override automatic braking by changing the gear or by pressing the gas pedal over 90% of its capacity during the braking event.
- Automatic brakes will not be available if the vehicle is in 4WD Low.
- Automatic brakes will not be available if ESC is not available.
- Automatic brakes will not be available if there is a faulted condition detected with the ParkSense Park Assist system or the Braking System.
- The automatic braking function may only be applied if the vehicle deceleration is not enough to avoid colliding with a detected obstacle.
- The automatic braking function may not be applied fast enough for obstacles that move toward the rear of the vehicle from the left and/or right sides.
- The automatic braking function can be enabled/disabled from the Customer Programmable Features section of the Uconnect system.
- ParkSense will retain its last known configuration state for the automatic braking function through ignition cycles.
- Trailer hitch ball assembly may cause false braking events if left attached after towing.

The automatic braking function is intended to assist the driver in avoiding possible collisions with detected obstacles when backing up in REVERSE gear.

NOTE:

- The system is provided to assist the driver and not to substitute the driver.
- The driver must stay in full control of the vehicle's acceleration and braking and is responsible for the vehicle's movements.

For limitations of this system and usage precautions, see ➪ page 194.

ParkSense will retain the last system state (enabled or disabled) from the last ignition cycle when the ignition is placed in the ON/RUN position.

ParkSense can be active only when the gear selector is in REVERSE or DRIVE. If ParkSense is enabled while in one of these gears, the system will remain active until the vehicle speed is increased to approximately 7 mph (11 km/h) or above. A warning will appear in the instrument cluster display indicating the vehicle is above ParkSense operating speed. The system will become active again if the vehicle speed is decreased to speeds less than approximately 6 mph (9 km/h).

ParkSense Sensors

The four ParkSense sensors (six if equipped with Active Parksense), located in the front fascia/bumper, monitor the area in front of the vehicle that is within the sensors' field of view, and the four ParkSense sensors, located in the rear fascia/bumper, monitor the area behind the vehicle that is within the sensors' field of view. The front sensors can detect obstacles from approximately 12 inches (30 cm) up to 47 inches (120 cm) from the front fascia/bumper. The rear sensors can detect obstacles from approximately 12 inches (30 cm) up to 79 inches (200 cm). These distances depend on the location, type and orientation of the obstacle in the horizontal direction.

ParkSense Warning Display

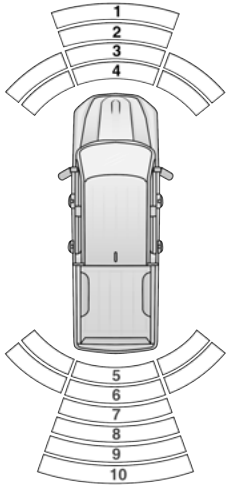
The ParkSense Warning screen is located within the instrument cluster display ➪ page 114. It provides visual warnings to indicate the distance between the rear fascia/bumper and/or front fascia/bumper and the detected obstacle.

ParkSense Display

The warning display will turn on indicating the system status when the vehicle is in REVERSE or when the vehicle is in DRIVE and an obstacle has been detected.

The system will indicate a detected obstacle by showing a single arc in the left, right, or center regions based on the obstacle's distance and location relative to the vehicle.

If an obstacle is detected in the left, right, or center regions, the display will show a single arc in the left and/or right regions and the system will produce a tone. As the vehicle moves closer to the obstacle, the display will show the single arc moving closer to the vehicle and the tone will change from a single 1/2 second tone to slow, to fast, to continuous.



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Front/Rear ParkSense Arcs

1 — No Tone/Solid Arc	6 — Fast Tone/Flashing Arc
2 — No Tone/Flashing Arc	7 — Fast Tone/Flashing Arc
3 — Fast Tone/Flashing Arc	8 — Slow Tone/Solid Arc
4 — Continuous Tone/Solid Arc	9 — Slow Tone/Solid Arc
5 — Continuous Tone/Solid Arc	10 — Single 1/2 Second Tone/Solid Arc

The vehicle is close to the obstacle when the display shows one flashing arc and sounds a continuous tone. The following chart shows the warning alert operation when the system is detecting an obstacle:

WARNING ALERTS FOR REAR							
Rear Distance (inches/cm)	Greater than 79 inches (200 cm)	79-59 inches (200-150 cm)	59-47 inches (150-120 cm)	47-39 inches (120-100 cm)	39-25 inches (100-65 cm)	25-12 inches (65-30 cm)	Less than 12 inches (30cm)
Audible Alert (Chime)	None	Single 1/2 Second Tone	Slow	Medium	Fast	Fast	Continuous
Arcs-Left	None	None	None	None	None	6th Flashing	5th Solid
Arcs-Center	None	10th Solid	9th Solid	8th Solid	7th Flashing	6th Flashing	5th Solid
Arcs-Right	None	None	None	None	None	6th Flashing	5th Solid
Radio Volume Reduced	No	Yes	Yes	Yes	Yes	Yes	Yes

WARNING ALERTS FOR FRONT					
Front Distance (inches/cm)	Greater than 47 inches (120 cm)	47-39 inches (120-100 cm)	39-25 inches (100-65 cm)	25-12 inches (65-30 cm)	Less than 12 inches (30 cm)
Audible Alert (Chime)	None	None	None	Fast	Continuous
Arcs-Left	None	None	None	3rd Flashing	4th Solid
Arcs-Center	None	1st Solid	2nd Flashing	3rd Flashing	4th Solid
Arcs-Right	None	None	None	3rd Flashing	4th Solid
Radio Volume Reduced	No	Yes	Yes	Yes	Yes

NOTE:
ParkSense will reduce the volume of the radio, if on, when the system is sounding an audio tone.

Front Park Assist Audible Alerts

ParkSense will turn off the Front Park Assist audible alert (chime) after approximately three seconds when an obstacle has been detected, the vehicle is stationary, and brake pedal is applied.

Adjustable Chime Volume Settings

The Front and Rear chime volume settings are programmable through the Uconnect system ➪ page 237.

Enabling And Disabling Front And/Or Rear ParkSense

Front ParkSense can be enabled and disabled with the Front ParkSense switch.

Rear ParkSense can be enabled and disabled with the Rear ParkSense switch.

When the Front or Rear ParkSense switch is pushed to disable the system, the instrument cluster display ➪ page 114 will show a vehicle graphic of the Front or Rear ParkSense on/off state for two seconds.

When the gear selector is moved to REVERSE and the Front or Rear system is disabled, the instrument cluster display will show a vehicle graphic with “OFF” on the corresponding side. This vehicle graphic will be displayed for as long as the vehicle is in REVERSE.

NOTE:
Arc alerts from the enabled ParkSense system, will interrupt the five second messages, and the instrument cluster display will show the vehicle graphic with the corresponding arcs and “OFF” message.

The Front or Rear ParkSense switch LED will be on when Front or Rear ParkSense is disabled or requires service. The Front or Rear ParkSense switch LED will be off when the Front or Rear system is enabled. If the Front or Rear ParkSense switch is pushed, and the system requires service, the Front or Rear ParkSense switch LED will blink momentarily, and then the LED will be on.

Service The ParkSense Park Assist System

During vehicle start up, when the ParkSense System has detected a faulted condition, the instrument cluster will actuate a single chime, once per ignition cycle, and it will display the "PARKSENSE UNAVAILABLE WIPE REAR SENSORS", "PARKSENSE UNAVAILABLE WIPE FRONT SENSORS", or the "PARKSENSE UNAVAILABLE SERVICE REQUIRED" message for five seconds. When the gear selector is moved to REVERSE and the system has detected a faulted condition, the instrument cluster display will display a "WIPE OFF" message on the corresponding blocked system while the vehicle is in REVERSE. The system will continue to provide arc alerts for the side that is functioning properly.

If "PARKSENSE UNAVAILABLE WIPE REAR SENSORS" or "PARKSENSE UNAVAILABLE WIPE FRONT SENSORS" appears in the instrument cluster display make sure the outer surface and the underside of the rear fascia/bumper and/or front fascia/bumper is clean and clear of snow, ice, mud, dirt or other obstruction and then cycle the ignition. If the message continues to appear see an authorized dealer.

NOTE:
Water from a car wash or road slush in freezing weather may also cause sensors to become blocked.

If the "PARKSENSE UNAVAILABLE SERVICE REQUIRED" message appears in the instrument cluster display, see your authorized dealer.

Cleaning The ParkSense System

Clean the ParkSense sensors with water, car wash soap and a soft cloth. Do not use rough or hard cloths. Do not scratch or poke the sensors.

ParkSense System Usage Precautions

NOTE:

- Ensure that the front and rear fascias/ bumpers are free of snow, ice, mud, dirt and debris to keep the ParkSense system operating properly.
- Jackhammers, large trucks, and other vibrations could affect the performance of ParkSense.
- When you turn Front or Rear ParkSense off, the instrument cluster display will show a vehicle graphic of the Front or Rear ParkSense on/off state for two seconds. Furthermore, once you turn Front or Rear ParkSense off, it remains off until you turn it on again, even if you cycle the ignition.
- When you move the gear selector to the REVERSE position and Front or Rear ParkSense is turned off, the instrument cluster display will show a vehicle graphic with "OFF" in the corresponding side. This vehicle graphic will be displayed for as long as the vehicle is in REVERSE.
- ParkSense, when on, will reduce the volume of the radio when it is sounding a tone.
- Clean the ParkSense sensors regularly, taking care not to scratch or damage them. The sensors must not be covered with ice, snow, slush, mud, dirt or debris. Failure to do so can result in the system not working properly. The ParkSense system might not detect an obstacle behind or in front of the fascia/ bumper, or it could provide a false indication that an obstacle is behind or in front of the fascia/bumper.
- Use the ParkSense switch to turn the ParkSense system off if obstacles such as bicycle carriers, trailer hitches, etc. are placed near the rear fascia/bumper. Failure to do so can result in the system misinterpreting a close obstacle as a sensor problem, causing the “PARKSENSE UNAVAILABLE SERVICE REQUIRED” message to be appear in the instrument cluster display.
- ParkSense should be disabled when the tailgate is in the lowered or open position. A lowered tailgate could provide a false indication that an obstacle is behind the vehicle and could also cause a false braking event.
- The Rear ParkSense system will automatically disable when the system detects that a trailer with trailer brakes has been connected to the Integrated Trailer Brake Module.
- The Front ParkSense system will automatically disable if a snow plow has been connected to the vehicle.

WARNING!

- Drivers must be careful when backing up even when using ParkSense. Always check carefully behind your vehicle, look behind you, and be sure to check for pedestrians, animals, other vehicles, obstructions, and blind spots before backing up. You are responsible for safety and must continue to pay attention to your surroundings. Failure to do so can result in serious injury or death.
- Before using ParkSense, it is strongly recommended that the ball mount and hitch ball assembly is disconnected from the vehicle when the vehicle is not used for towing. Failure to do so can result in injury or damage to vehicles or obstacles because the hitch ball will be much closer to the obstacle than the rear fascia when the loudspeaker sounds the continuous tone. Also, the sensors could detect the ball mount and hitch ball assembly, depending on its size and shape, and give a false indication that an obstacle is behind the vehicle, and could cause false braking.

CAUTION!

- ParkSense is only a parking aid and it is unable to recognize every obstacle, including small obstacles. Parking curbs might be temporarily detected or not detected at all. Obstacles located above or below the sensors will not be detected when they are in close proximity.
- The vehicle must be driven slowly when using ParkSense in order to be able to stop in time when an obstacle is detected. It is recommended that the driver looks over his/her shoulder when using ParkSense.

PARKSENSE ACTIVE PARK ASSIST SYSTEM — IF EQUIPPED

The ParkSense Active Park Assist system is intended to assist the driver during parallel and perpendicular parking maneuvers by identifying a proper parking space, providing audible/visual instructions, and controlling the steering wheel. The ParkSense Active Park Assist system is defined as “semi-automatic” since the driver maintains control of the accelerator, gear selector and brakes. Depending on the driver's parking maneuver selection, the ParkSense Active Park Assist system is capable of maneuvering a vehicle into a parallel or a perpendicular parking space on either side (i.e., driver side or passenger side).

NOTE:

- The driver is always responsible for controlling the vehicle, responsible for any surrounding objects, and must intervene as required.
- The system is provided to assist the driver and not to substitute the driver.
- During a semi-automatic maneuver, if the driver touches the steering wheel after being instructed to remove their hands from the steering wheel, the system will cancel, and the driver will be required to manually complete the parking maneuver.
- The system may not work in all conditions (e.g. environmental conditions such as heavy rain, snow, etc., or if searching for a parking space that has surfaces that will absorb the ultrasonic sensor waves).

- New vehicles from the dealership must have at least 30 miles (48 km) accumulated before the ParkSense Active Park Assist system is fully calibrated and performs accurately. This is due to the system's dynamic vehicle calibration to improve the performance of the feature.
- The driver must control the vehicle's brakes. The automatic emergency braking feature is NOT intended to substitute for the driver during REVERSE maneuvers.

Enabling And Disabling The ParkSense Active Park Assist System

The ParkSense Active Park Assist system can be enabled and disabled with the ParkSense Active Park Assist switch, located on the switch panel below the Uconnect display.

NOTE:
If your vehicle is equipped with a 12-inch Uconnect display, the ParkSense Active Park Assist switch is located above the display.

To enable or disable the ParkSense Active Park Assist system, push the ParkSense Active Park Assist switch once (LED turns on). Pushing the switch a second time will disable the system (LED turns off).

The ParkSense Active Park Assist system will turn off automatically for any of the following conditions:

- Parking maneuver is completed.
- Vehicle speed is greater than 18 mph (30 km/h) when searching for a parking space.
- Vehicle speed is greater than 5 mph (7 km/h) during active steering guidance into the parking space.
- Steering wheel is touched during active steering guidance into the parking space.
- ParkSense Front/Rear Park Assist switch is pushed.
- Driver's door is opened.
- Tailgate is opened.
- Electronic Stability Control/Anti-Lock Braking System intervention.

NOTE:
The ParkSense Active Park Assist system will allow a maximum of eight shifts between DRIVE and REVERSE. If the maneuver cannot be completed within eight shifts, the system will cancel and the instrument cluster display will instruct the driver to complete the maneuver manually.

The ParkSense Active Park Assist system will only operate and search for a parking space when the following conditions are present:

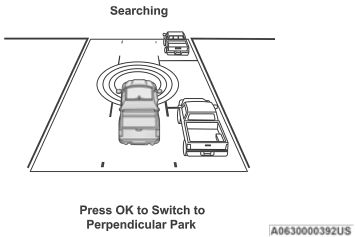
- Gear selector is in DRIVE.
- The ignition is in the ON/RUN position.
- The ParkSense Active Park Assist switch is activated.
- Driver's door is closed.
- Tailgate is closed.
- Vehicle speed is less than 15 mph (25 km/h).
- The outer surface and the underside of the front and rear fascias/bumpers are clean and clear of snow, ice, mud, dirt or other obstruction.

NOTE:
If the vehicle is driven above approximately 15 mph (25 km/h), the instrument cluster display will instruct the driver to slow down. If the vehicle is driven above approximately 18 mph (30 km/h), the system will cancel. The driver must then reactivate the system by pushing the ParkSense Active Park Assist switch.

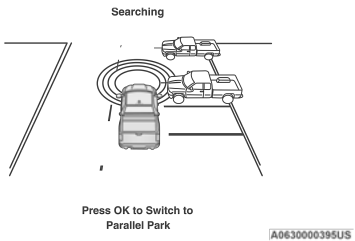
When pushed, the LED on the ParkSense Active Park Assist switch will blink momentarily, and then the LED will turn off if any of the above conditions are not present.

Parallel/Perpendicular Parking Space Assistance Operation

When the ParkSense Active Park Assist system is enabled, the messages “Active ParkSense Searching - Push OK To Switch To Perpendicular Park” or “Active ParkSense Searching - Push OK to Switch to Parallel Park” will appear in the instrument cluster display. Push the OK button on the left side of the steering wheel to change your parking space setting. You can switch between perpendicular and parallel parking maneuvers.



Press OK to Switch to Perpendicular Park

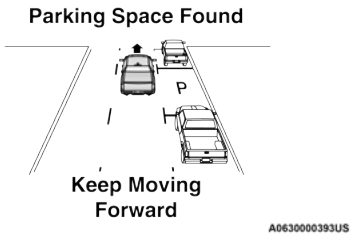


Press OK to Switch to Parallel Park

NOTE:

- When searching for a parking space, use the turn signal indicator to select which side of the vehicle you want to perform the parking maneuver. The ParkSense Active Park Assist system will automatically search for a parking space on the passenger's side of the vehicle if the turn signal is not activated.
- The driver needs to make sure that the selected parking space for the maneuver remains free and clear of any obstructions (e.g. pedestrians, bicycles, etc.).
- The driver is responsible to ensure that the selected parking space is suitable for the maneuver and free/clear of anything that may be overhanging or protruding into the parking space (e.g., ladders, tailgates, etc. from surrounding objects/vehicles).
- When searching for a parking space, the driver should drive as parallel or perpendicular (depending on the type of maneuver) to other vehicles as possible.
- The feature will only indicate the last detected parking space (example: if passing multiple available parking spaces, the system will only indicate the last detected parking space for the maneuver). A parking space is considered invalid after the vehicle is 32 ft (10 m) or more away from it.

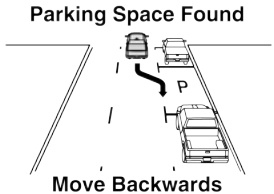
When an available parking space has been found, and the vehicle is not in position, you will be instructed to move forward to position the vehicle for a perpendicular or parallel parking sequence (depending on the type of maneuver being performed).



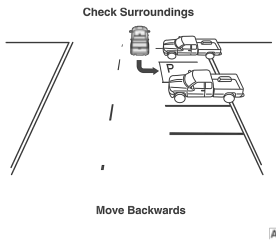
Space Found — Keep Moving Forward

Once the vehicle is in position, you will be instructed to stop the vehicle's movement and remove your hands from the steering wheel. When the vehicle comes to a standstill (your hands still removed from the steering wheel), you will be instructed to place the gear selector into the REVERSE position.

The system may then instruct the driver to wait for steering to complete before then instructing to check surroundings and move backward.



Move Backward Into Parallel Parking Space



Move Backward Into Perpendicular Parking Space

The system may instruct several more gear shifts (DRIVE and REVERSE), with hands off of the steering wheel, before instructing the driver to check surroundings and complete the parking maneuver.

When the vehicle is in the parking position, the maneuver is complete and the driver will be instructed to check the vehicle's parking position, then shift the vehicle into PARK. The message "Active ParkSense Complete - Check Parking Position" will be displayed momentarily.

NOTE:

- It is the driver's responsibility to use the brake and accelerator during the semi-automatic parking maneuver.
- It is the driver's responsibility to use the brake and stop the vehicle. The driver should check their surroundings and be prepared to stop the vehicle either when instructed to, or when driver intervention is required.
- When the system instructs the driver to remove their hands from the steering wheel, the driver should check their surroundings and begin to back up slowly.
- The ParkSense Active Park Assist system will allow a maximum of eight shifts between DRIVE and REVERSE. If the maneuver cannot be completed within eight shifts, the system will cancel and the instrument cluster display will instruct the driver to complete the maneuver manually.