New 2019 Ram 1500
SAFETY & SECURITY

All-new 2019 Ram 1500 Offers More than 100 Safety and Security Features

- All-new 2019 Ram 1500 delivers innovative and advanced safety and security features, including:
  - 360-degree Surround View Camera with bird’s-eye perspective of vehicle and its surroundings, including forward, side and rear views independently or split screen
  - Adaptive Cruise Control with Stop, Go and Hold maintains distance between the vehicle and the one in front of it; can bring vehicle to a controlled stop under certain circumstances and return to set speed when traffic clears
  - Blind-spot monitoring including easy-to-use trailer coverage
  - Forward Collision Warning-Plus warns the driver if impact appears imminent, and assist with driver response by deploying brakes
  - Ready Alert Braking and Trailer-sway Dampening control
  - LaneSense Lane Departure Warning-Plus leverages electronic power steering (EPS) by delivering a torque input to alert and assist the driver with corrective action
  - Full LED Adaptive Front-lighting System (AFS), including twin bi-functional projector headlamps, fog lamps and tail lamps
  - ParkSense Parallel/Perpendicular Park Assist uses ultrasonic sensors to guide driver into parking spaces
  - Hill-start Assist aids drivers when starting a vehicle from a stop on a hill
  - Largest brakes in segment at 14.9 inches
  - New adaptive Bi-LED and Quad-LED projector headlamps provide improved range of and up to 150 additional lumens
Six airbags – full cab side-curtain and seat-mounted side
Core body structure includes 54 percent high-strength steel
Frame includes 98 percent high-strength steel

With more than 100 available safety and security features, the 2019 Ram 1500 offers the latest in advanced technology including Blind-spot Monitoring, Adaptive Cruise Control and Ready Alert Braking. As part of FCA US’s ongoing and continuous efforts to proliferate the most advanced materials engineering, the Ram 1500 frame and body structures feature 98 and 54 percent high-strength steel, respectively.

Available for the first time on the all-new Ram 1500 is Blind-spot monitoring to aid the driver when changing lanes or if being passed by or passing unseen vehicles. Additionally, a Surround View Camera uses four cameras positioned around the vehicle to provide a bird’s-eye perspective of the truck and its surroundings. With fully stitched images on the new Uconnect 12-inch diagonal touchscreen, customers can clearly see a full 360 degrees around the vehicle. Drivers can also select different camera views, including front and rear cross path views.

The new Ram 1500 frame features the same impact countermeasures on all configurations. Exclusive splayed and tapered frame rail technology creates a highly efficient energy absorbing front frame rail structure for all impact modes. Frame-mounted high-strength steel tire blockers are placed at front cab location to redirect the tire outbound in a front-offset impact. Side rails are fully boxed for additional strength.

The all-new Ram 1500 uses a variety of high-strength steels in the body panels and core structure to maximize impact performance and reduce overall weight, including the A-, B- and C-pillars, and door beams. Increased resistance spot welds reduce the heat exposure to surrounding metal to maintain long-term durability.
More than 100 standard and available safety and security features in the all-new 2019 Ram 1500:

**Driver warning and assist, chassis control and brake systems**

Available systems featuring ultrasonic, radar, camera and other technologies combine to offer the driver 360-degree awareness and, when circumstances dictate, course-correction assistance.

- **Adaptive Cruise Control (ACC) with Stop, Go and Hold:** Helps maintain a driver-adjustable distance between the vehicle and the one in front of it, and can bring the vehicle to a controlled stop and hold it there. This system works by decreasing the vehicle’s pre-set cruise-control speed when closing in on another vehicle in the same lane, or when another vehicle moves into the same lane. ACC will accelerate the vehicle back to the pre-set rate once the vehicle in front speeds up or moves into another lane, including full stop

- **Adaptive Front-lighting System (AFS):** Points headlamps in the planned direction the vehicle is traveling using steering wheel input to point light around turns, driveways and parking lots

- **Advance Brake Assist:** If inadequate force is applied to brakes in response to signal from Full-speed Forward Collision Warning-Plus, Advance Brake Assist increases brake force automatically

- **All-speed traction control system:** Part of the standard anti-lock brake system (ABS), helps keep driving wheels from spinning during acceleration from a stop or during all speeds by applying individual brakes alone or in combination with engine torque limitation to prevent wheel slip

- **Anti-lock brake system (ABS):** Senses and prevents wheel lockup, offering improved steering control under extreme braking and/or slippery conditions

- **Anti-lock brake system with rough-road detection:** Anti-lock brake system detects the vehicle is driving on a rough road by the oscillations in the wheel speed signals. When rough road is detected on off-road surfaces or trails, ABS enters a different pressure control where it will hold the brake pressure for longer pulses

- **Blind-spot Monitoring (BSM):** Uses dual ultra-wideband radar sensors to aid the driver when changing lanes or if being passed by or passing unseen vehicles. The system notifies the driver of vehicle(s) in their blind spot via illuminated icons on the side-view mirror. BSM also includes easy-to-use trailer coverage
- **Brake assist**: In an emergency brake situation, the system applies maximum braking power, minimizing the stopping distance.

- **Brake-throttle override**: Allows driver to stop the vehicle when throttle and brake inputs occur simultaneously; electronic throttle control reduces engine-power output until vehicle stops or pedal inputs cease.

- **Brake/park interlock**: Prevents the transmission from being shifted out of “Park” unless the brake pedal is pushed.

- **Brake traction-control system (BTCS)**: Helps to keep driving wheels from spinning during acceleration from a stop or during slow speeds by applying individual brakes to the slipping wheel(s).

- **Electric parking brake (EPB)**: Utilizes parking brake switch mounted in the instrument panel, a motor on caliper (MOC) at each rear wheel and an electronic control module. Four modes of operation: static apply and release, dynamic apply, drive away release and safe hold.

- **Electronic brake-force distribution**: Assists the driver to optimize stopping distances and control under all vehicle loading conditions by regulating braking pressure front-to-rear.

- **Electronic roll mitigation (ERM)**: An extension of electronic stability control (ESC). Uses input from ESC sensors to anticipate if the vehicle is at risk of entering a potential roll situation, then applies the brakes individually and modulates the throttle position as needed.

- **Electronic stability control (ESC)**: Enhances driver control and helps maintain directional stability under all conditions. Provides the benefit in critical driving situations such as turns, and is valuable when driving on mixed surface conditions including snow, ice or gravel. If there is a discernible difference between driver input through the steering wheel and the vehicle’s path, ESC applies selective braking and throttle input to guide the vehicle back on to the driver’s intended path.

- **Anti-spin differential**: Creates a limited amount of differentiation between the rear wheels to provide additional traction in low-speed, low-traction conditions.

- **Electronic locking axle**: Locks both rear wheels to the driveline to provide maximum traction in low-speed, low-traction conditions.

- **Forward Collision Warning-Plus**: Utilizes radar and video sensors to detect whether the Ram 1500 is approaching another vehicle or large obstacle in its path too rapidly, and warns or assists the driver in avoiding/mitigating the incident.
• **Frequency Response Damping:** New shock design features a two-valve system to properly adjust wheel movement depending on road input. With two valves, additional tuning helps keep tires to the ground on rough surfaces.

• **Hill-start Assist (HSA):** Assists drivers when starting a vehicle from a stop on a hill by maintaining the level of brake pressure applied for a short period of time after the driver’s foot is removed from the brake pedal. If throttle is not applied within a short period of time after the driver’s foot is removed from the brake pedal, brake pressure will be released.

• **LaneSense Lane Departure Warning-Plus:** Leverages electronic power steering (EPS) to deliver a torque input to alert and assist the driver with corrective action.

• **Largest brakes in segment:** The all-new Ram 1500 features the largest available front brakes at 14.9 inches for superb stopping distance.

• **ParkSense Parallel/Perpendicular Park Assist:** Ultrasonic parking sensors on bumper guide the driver into the parking space. The system automatically controls steering-wheel angle, while the driver controls gear position, brake and accelerator. Parallel parking is possible on either side of vehicle by selecting the direction with the turn signal; for perpendicular parking, vehicle backs itself into space.

• **ParkSense park assist with reverse stop:** The system utilizes ultrasonic sensors at low speeds in reverse to detect stationary objects. The system provides haptic feedback to the driver, with an application of the brake before releasing if a collision is imminent. At speeds below 4 miles per hour, the system will bring the vehicle to a stop before releasing. The forward system utilizes ultrasonic sensors at low speeds to detect stationary objects in front of the vehicle.

• **ParkView rear backup camera:** Provides a wide-angle view of the area immediately behind the vehicle with zoom-in capability, giving the driver greater peace of mind before reversing at low speeds. Contains dynamic grid lines to aid the driver when maneuvering into parking spaces or narrow areas. The image is displayed on the navigation screen when the transmission is shifted into Reverse.

• **Rain brake support:** Uses the ESC pump to occasionally push brake pads lightly against brake rotors in rainy conditions to keep rotors dry.

• **Ready Alert Braking (RAB):** Anticipates situations when the driver may initiate an emergency brake stop and uses the ESC pump to set brake pads against rotors to decrease the time required for full brake application.
• **Rear Cross Path (RCP) detection:** In parking lot situations, this system warns drivers backing out of parking spaces of traffic moving toward their vehicle. It activates any time the vehicle is in Reverse. The driver is notified of vehicle(s) crossing behind the vehicle via illuminated icons on the side-view mirror and with an audible chime.

• **Safe hold:** Automatically applies electric park brake if detects that the driver has left the vehicle without shifting into park.

• **Surround View Camera:** Uses four cameras positioned around the vehicle to provide a bird’s-eye perspective of the vehicle and its immediate surroundings. Driver can also select other views, including front or rear cross path.

• **Trailer-sway control (TSC):** Reduces trailer sway and improves handling in adverse towing conditions caused by crosswinds and traffic. The system monitors the vehicle’s movement relative to the driver’s intended path, then applies alternating brake pressure to slow the vehicle and then increases the pressure on one front wheel to counteract the sway induced by the trailer.

**Occupant restraint technology**

• **Advanced multistage air bags:** Inflate with a force appropriate to the severity of the impact. Meet FMVSS 208 advanced air bag requirements for smaller, out-of-position occupants.

• **Full-length side-curtain air bags:** Extend protection to all outboard front- and rear-seat passengers. Each side air bag has its own impact sensor that autonomously triggers the air bag on the side where an impact occurs. This type of air bag is housed in the headliner just above side windows.

• **BeltAlert:** Activates a chime and/or illuminates an icon in the instrument cluster to remind the driver and front passenger to buckle up if a vehicle is driven without belted front-seat occupants.

• **Child seat anchor system:** LATCH (Lower Anchors and Tethers for Children) designed to ease installation of compatible aftermarket child seats.

• **Constant-force retractors (CFR):** Regulate the force exerted on the occupants by the seat belts and then gradually release seat-belt webbing in a controlled manner.

• **Driver’s side knee blocker:** Located below the instrument panel, the knee blocker deploys when the driver air bag deploys and is designed to properly position the occupant during impact and offer additional lower leg protection.
• **Passenger side knee blocker:** Located below the instrument panel, the knee blocker deploys when the passenger air bag deploys and is designed to properly position the occupant during impact and offer additional lower leg protection.

• **Four-way head restraints:** Designed to reduce injuries by minimizing gap between occupant’s head and the head restraint.

• **Front seat-belt adaptive/active load limiters:** Designed to optimize the chest loading in an impact event.

• **Front seat-belt pretensioners:** During a collision, impact sensors initiate front seat-belt pretensioners to remove slack in the seat belt system, thereby reducing the forward movement of the occupant’s head and torso.

• **Front-seat mounted side pelvic thorax air bags:** Provide enhanced protection to the driver and front outboard passenger in certain impacts. Each side air bag has its own impact sensor that autonomously triggers the air bag on the side where an impact occurs. Standard side air bags are housed within the outboard side of each front seat.

• **Height-adjustable seat belts (front row):** Outboard seat belts feature height adjustment, allowing for the seat belt to be placed in the optimal position for any driver or passenger.

• **Occupant Restraint Controller:** Detects an impact and determines whether a crash is severe enough to trigger air bag deployment and whether the primary or secondary stage inflation is sufficient. In addition, the controller detects side impacts and determines whether the rail-curtain and side seat-mounted (thorax protection) air bags should deploy. Engagement of front seat-belt pretensioners are also managed through the controller.

• **Three-point seat belts:** All three front seating positions and all three rear seating positions include lap and shoulder belts (Quad and Crew cabs).

**Structural systems**

• **Energy-absorbing steering column:** The manual-adjust steering column utilizes two hydroformed coaxial tubes that can move relative to each other to allow the column to move forward for enhanced energy absorption during a crash.

• **Energy management system:** Three front load paths designed from high-strength steel help maintain structural integrity and minimize cabin intrusion.

• **Most advanced frame in the segment:** Composed of 98 percent high-strength steel.
• **Tire blockers**: Frame-mounted high-strength steel tire blockers are placed at front cab location to redirect the tire outbound in a front-offset impact

• **Front and rear crumple zones**: Specially formed structural members that crumple and absorb energy in a collision, helping protect the occupant cabin

• **Laminated glass**: Plastic sandwiched between glass panes to provide added protection against break-ins

• **Exclusive splayed frame rails**: Technology (patent pending) creates a highly efficient energy absorbing front frame rail structure for frontal impact modes

• **Safety cage body structure**: Protects occupants by managing and controlling energy in the event of an impact

• **Side guard door beams**: Reinforcement beams inside the doors that increase occupant protection in a side collision

**Lighting and visibility systems**

• **Active turn signals**: Turn signal flashes three times when stalk is depressed for one second to indicate a lane change

• **Auto-dimming rearview mirror**: Auto-dimming mirror automatically reduces glare from bright light in the rearview mirror at night for a clearer view of the road ahead

• **Automatic defog**: Enables the automatic temperature control (ATC) system to measure humidity inside the vehicle and provide a fog-free windshield automatically without driver intervention

• **Automatic headlamps**: Headlamps turn on and off automatically depending on exterior light levels and when the windshield wipers are turned on or off

• **Automatic high-beam headlamps**: Headlamp system adjusts to oncoming traffic to deliver maximum lighting

• **Center high-mount stop lamp**: Illuminates when brakes are applied; makes the vehicle more visible in traffic

• **Daytime running lamps (DRL)**: Lights that illuminate during daytime conditions, increasing the vehicle’s visibility to other drivers

• **Enhanced Accident Response System (EARS)**: Makes it easier for emergency personnel to see and reach occupants in the event of an accident by turning on the
interior lighting and unlocking doors after air bag deployment. Also shuts off flow of fuel to the engine

- **Heated sideview mirrors:** Prevents buildup of snow or ice on sideview mirrors to maintain visibility
- **LED bi-functional projector headlights:** Provide twice the lumens when compared to previous headlights and more controlled illumination for increased visibility
- **LED fog lamps:** Provide improved illumination during inclement weather
- **LED tail lamps:** Provide dual-function illumination (brake, stop, turn and running light functions); light-emitting diode technology ensures light output is consistent throughout the tail lamp
- **Lit Signature forward lighting:** On both mid and premium LED headlamps have two linear "lit signature" elements along the top and bottom of the headlamps. The recognizable signature remains on during normal operation while the twin projectors (low and high beams) only come on at dusk/evening
- **Rain-sensing wipers:** A driver convenience feature that automatically senses moisture on the windshield and activates wipers
- **Supplemental turn signals:** Signal lamps built into the housing of exterior mirrors allow turn signals to be viewed from the front, sides and rear of the vehicle to alert oncoming traffic and pedestrians
- **Rear-window electric defrost:** Automatically activates with remote start when ambient temperature is below prescribed threshold

**Emergency connectivity and other safety and security features**

The new 2019 Ram 1500 benefits from the unique and widely acclaimed Uconnect technology.

- **9-1-1 Call/Assist Call:** Mirror-mounted buttons for emergency services, roadside assistance, Uconnect Customer Care and non-collision related emergencies
- **Auto-reverse sunroof:** When equipped with the power sunroof, the system automatically reverses when it senses an obstruction during closing
- **Auto-reverse windows:** The window automatically reverses when it senses an obstruction during closing
- **Capless fuel-filler door:** Provides fuel-filling simplicity and eliminates contact with any fuel spillage
• **Child-protection rear door locks**: Disables the rear doors’ inside-release handle by adjusting a small lever on the door-shut face

• **Dual-note electric horn**: Produces two different tones at the same time, to cut through ambient noise

• **Driver information display (DID)**: Provides the driver with trip, temperature, tire pressure and other vehicle information within the instrument cluster

• **Express up/down windows**: One-touch powered express up/down window button located on the front driver and passenger-side doors

• **Global position sensor (GPS)**: Used for navigation guidance and electronic vehicle tracking

• **Intelligent battery sensor (IBS)**: Continually measures flow of current into and out of battery; if battery is running low, system shuts off less-critical electrical systems to conserve power; icon in cluster denotes activation

• **Keyless Enter ‘n Go**: When an individual enters the vehicle, electronic sensors detect if the vehicle key fob is present. The vehicle will then allow the individual to push a button to start the vehicle without having to insert the key into the ignition

• **Mopar Electronic Vehicle Tracking System (EVTS)**: State-of-the-art GPS-enabled stolen vehicle recovery system. EVTS includes nationwide tracking including 24/7 emergency service dispatch, security fence, arrival/departure notification, excessive speed notification and trace maps of past locations (in selected markets)

• **Remote keyless entry**: Locks and unlocks doors and turns on interior lamps. If the vehicle is equipped with a security alarm, the remote also arms and disarms that system

• **Remote start**: Conveniently starts the engine by using the key fob while maintaining vehicle security

• **Security alarm**: Deters vandalism and theft, frequently lowering insurance premiums. System protects the vehicle from theft by monitoring door-ajar switches and the ignition circuit for unauthorized entry

• **Sentry Key engine immobilizer**: Utilizes an engine key that has an embedded transponder with a preprogrammed security code to discourage vehicle theft. When the ignition button is pressed, the controller sends a random number to the transponder and the engine is allowed to start. If an incorrect key is used, the vehicle will not respond to ignition change requests
• **Siri Eyes Free**: Allows the user to use voice recognition to command a compatible Apple device without taking hands off the wheel.

• **SiriusXM Traffic**: Works with the vehicle’s navigation system to display traffic speed and flow information, along with accident information to assist drivers in routing around congested areas.

• **SiriusXM Travel Link**: Real-time local fuel prices, weather conditions, sports scores and movie locations and times all featured in this subscription-based system provided by SiriusXM Radio.

• **Speed-sensitive door locks**: System automatically locks doors when vehicle acceleration reaches prescribed threshold.

• **Tailgate power release and Passive Entry**: Allows the operator to release the tailgate using the key FOB or unlock automatically with combination of key FOB presence and hand motion under tailgate handle.

• **Tailgate ajar notification**: Notifies the operator the tailgate is not fully closed with a warning light in the gauge cluster.

• **Thin-film transistor (TFT) instrument cluster display**: Offers drivers a wide range of customization options, from a basic analog read-out to a full digital display that clearly communicates vehicle information with easy-to-understand icons.

• **Tilt-and-telescoping steering column**: Allows steering column to tilt and move toward or away from the driver to achieve a safe and comfortable distance from the advanced multi-stage front driver air bag, if deployed.

• **Tire-fill alert**: When adding air pressure to tires, a new tire-fill alert system chirps the horn once you have reached the recommended pressure.

• **Tire-pressure monitoring (TPM) system**: Informs driver when tire pressure is too low. Pressure-sensor modules within the valve stems of all four wheels send continuous radio-frequency signals to a receiver and the system. Tire-pressure monitoring system self-learns tire position after rotation or tire is moved to a new location.

• **Uconnect Access mobile hot spot**: Turns vehicle into mobile Internet hotspot; available to registered Uconnect Access subscribers.

• **Uconnect Access remote services**: Enables registered Uconnect Access subscribers with compatible cell phones to lock or unlock their vehicles or activate panic alarm; can also activate remote start.
• **Uconnect Access voice-to-text**: Enables cloud-based text-message dictation via compatible Bluetooth-enabled cell phones; available to registered Uconnect Access subscribers

• **Uconnect Access Stolen Vehicle Location Assistance**: Leverages GPS data-sending capability to help authorities find stolen vehicles

• **Uconnect Drag and Drop menu bar**: Drivers can drag key usage buttons and move them to their Uconnect system’s main menu bar for easier access

• **Uconnect Voice Command with Bluetooth**: Voice-recognition technology enables handsfree navigation system inputs and the use of Bluetooth-enabled phones while keeping drivers’ hands on the wheel and eyes on the road

• **Universal garage door opener**: Programmable radio frequency codes for garage door, security gate and security lighting