



The following are among the additional safety and security features available in FCA US vehicles

Structural System Technology

- **Energy-absorbing steering column:** Manual-adjust steering column features two hydroformed coaxial tubes that move relative to each other to allow for enhanced energy absorption during an impact; power-adjust steering column employs a calibrated bending element that deforms during column stroke for optimal energy management
- **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 strength; discourages break-ins
- **Safety-cage body structure:** Helps protect occupants by managing and controlling energy in the event of an impact
- **Side-guard door beams:** Reinforcement beams inside the doors that help provide occupant protection in certain side collisions

Driver Warning and Assist, Chassis Control and Brake Systems

- **Advance Brake Assist:** Works with Full-speed Forward Collision Warning-Plus; increases deceleration if driver does not apply brake with sufficient force to respond to collision condition
- **Adaptive Cruise Control-Plus with Full Stop:** Helps maintain distance from vehicle ahead; under certain traffic conditions, system can bring vehicle to full stop without driver intervention
- **All-speed traction control system:** While driving, helps keep wheels from spinning during acceleration from a stop or at speed by applying brakes alone or in combination with engine torque limitation
- **Anti-lock Brake System (ABS):** Senses and prevents wheel lockup, offering improved steering control under extreme braking and/or slippery conditions
- **Blind-spot Monitoring (BSM):** Uses radar sensors to aid driver when changing lanes, passing or being passed; blind-spot vehicle presence noted via illuminated icons in sideview mirrors and driver-selectable audible chime

- **Brake Assist:** System applies maximum braking power in emergency braking situations, minimizing stopping distance
- **Brake-lock Differential System (BLDS):** Allows the vehicle to maintain forward motion if one or two wheels lose traction by selectively and aggressively applying brakes to the spinning wheels
- **Brake-throttle override:** Standard equipment on every FCA US vehicle, it allows driver to stop the vehicle when throttle and brake inputs occur simultaneously; electronic throttle control also reduces engine-power output
- **Brake/park interlock:** Prevents transmission from being shifted out of "Park" unless the brake pedal is pushed
- **Brake Traction-control System (BTCS):** Helps to keep wheels from spinning during acceleration from a stop or during slow speeds by applying individual brakes to the slipping wheel(s)
- **Electronic Brake-force Distribution (EBD):** Optimizes stopping distances and control under all vehicle loading conditions by regulating braking pressure, front-to-rear
- **Electronic Roll Mitigation (ERM):** Uses input from electronic stability control (ESC) sensors to anticipate potential rollover conditions; applies brakes individually and modulates the throttle position to help driver maintain control
- **Electronic Stability Control (ESC):** Enhances directional control and stability of vehicle in various driving conditions; activation occurs when steering-wheel angle differs inconsistent with vehicle; automatically reduces throttle input and/or selectively deploys brakes to counteract oversteer or understeer
- **Full-speed Forward Collision Warning-Plus:** Radar and camera technology combine to determine if frontal impact with another vehicle appears imminent; if so, system pre-fills brakes, then transmits audible and visual warnings for driver to intervene; no driver response triggers brief brake application as tactile alert; if driver remains unresponsive and frontal collision risk remains, brakes are applied to slow vehicle before impact; system may bring vehicle to full stop if imminent frontal collision detected at speeds below 25 mph
- **Forward Collision Warning-Plus:** Radar and camera technology combine to determine if frontal impact with another vehicle appears imminent; if so, system pre-fills brakes, then transmits audible and visual warnings for driver to intervene; no driver response triggers brief brake application as tactile alert; if driver remains unresponsive and frontal collision risk remains, brakes are applied to slow vehicle before impact
- **Forward Collision Warning:** Radar determines if a frontal impact with another vehicle appears imminent; if so, system pre-fills brakes, then transmits audible and visual warnings for driver to intervene

- **Hill-start Assist:** Assists drivers when starting from a stop on a hill; maintains brake pressure for short period of time after driver's foot is removed from the brake pedal; if throttle is not applied within short period of time thereafter, brake pressure will be released
- **Lane Departure Warning with Lane-Keep Assist:** Alerts and assists driver; leverages electric power steering (EPS) to deliver subtle steering-wheel input when system detects need for course correction
- **ParkSense Parallel/Perpendicular Park Assist:** Features ultrasonic sensors on the bumper to find and guide driver into parking space; guidance system automatically controls the steering angle while driver controls gear position, brake, and accelerator; parallel parking possible on either side of the car; to accommodate perpendicular parking, vehicle is backed into the space
- **ParkSense Rear Park Assist Systems with Stop and Release:** In reverse, at low speeds, ultrasonic sensors detect stationary objects; if imminent collision is detected, system will provide momentary, autonomous brake pulse; below 4.4 mph, system will bring vehicle to a stop before releasing
- **ParkView rear backup camera:** Provides wide-angle view of area immediately behind vehicle, giving driver greater peace of mind before reversing; features dynamic grid lines to aid driver when maneuvering into parking spaces or narrow areas; also assists when lining up trailer to vehicle's hitch, when so equipped; image displayed on the navigation screen when the transmission is shifted into Reverse
- **Rain brake support:** In rainy conditions, occasionally pushes brake pads lightly against brake rotors to keep rotors dry
- **Ready Alert Braking (RAB):** Anticipates situations when driver may initiate an emergency brake stop and uses ESC pump to set brake pads against rotors, decreasing time required for full brake application
- **Rear Cross Path (RCP) Detection:** In parking-lot situations, warns drivers of lateral traffic when backing out of parking spaces; automatically activates any time a vehicle is in reverse gear; driver alerted of approaching vehicle(s) via illuminated icons on sideview mirrors and driver-selected audible chime
- **Trailer-sway mitigation:** Uses input from electronic stability control (ESC) sensors to anticipate potential trailer-induced yaw conditions; applies brakes individually and modulates throttle to help driver maintain control

Occupant Restraint Technology

- **Active head restraints:** Deploy during collision; designed to help reduce injuries by minimizing gap between occupant's head and the head restraint
- **Advanced multistage driver and front-passenger air bags:** Inflate with force appropriate to the severity of the impact; meet FMVSS 208 advanced air bag

requirements for smaller, out-of-position occupants

- **All-row, full-length side-curtain air bags:** Extend to all outboard front- and rear-seat passengers; housed in headliner above side windows, each side air bag has its own impact sensor that triggers deployment on the side of the vehicle where impact occurs
- **BeltAlert:** Activates chime and/or illuminates icon in instrument cluster to remind driver and front passenger to buckle up if 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:** Regulates force exerted on occupant by seat belt, then gradually releases webbing in controlled manner
- **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 bags:** Help provide enhanced protection to driver and front passenger in certain impacts; each side air bag has its own impact sensor that triggers deployment on side where an impact occurs
- **Driver's-side knee air bag:** Deploys with advanced multistage driver air bag; located below instrument panel, device designed to properly position occupant during impact
- **Height-adjustable seat belts (front row):** Outboard seat belts feature height adjustment, allowing for seat belt to be placed in optimal position for any driver
- **Occupant restraint controller:** Detects impact and determines if air bag deployment, and degree of deployment is appropriate; also deploys front seat-belt pretensioners

Lighting and Visibility Systems

- **Active turn signals:** Turn signal flashes three times when stalk is depressed for one second
- **Auto-adjust exterior mirrors:** Sideview mirrors automatically adjust to accommodate rearview when vehicle shifted into reverse
- **Auto-dimming rearview mirror:** Auto-dimming mirror automatically reduces glare from bright light allowing driver to have a clearer view of the road ahead
- **Automatic defog:** Automatic temperature control system measures interior humidity and activates defogging system without driver intervention

- **Automatic headlamps:** Headlamps turn on and off automatically depending on exterior light levels and if windshield wipers are operating
- **Automatic high-beam headlamps:** Headlamp system adjusts to ambient light and oncoming traffic to deliver maximum lighting
- **Daytime Running Lamps (DRL):** Low-intensity halogen or signature LED lights that illuminate during daytime conditions, increasing 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 windshield washer nozzles:** Delivers heated washer fluid to more efficiently clear windshield in inclement weather
- **High-intensity Discharge (HID) Headlamps:** Provide approximately three times the light output than conventional reflector lamps
- **Halogen Infrared Reflecting Bulbs (HIR):** Unique component coating delivers greater light output than conventional bulbs
- **LED fog lamps:** Provide improved illumination during inclement weather
- **LED tail lamps:** Provide dual-function illumination (brake, stop, turn and running light functions)
- **LED headlamps:** Provide improved illumination
- **Rain-sensing wipers:** A driver convenience feature that automatically senses moisture on the windshield and activates wipers

Emergency Connectivity and Other Features

- **9-1-1 call/Assist Call:** Enabled by built-in data connection, rearview mirror-mounted button connects occupants directly with emergency service providers; for roadside assistance or Uconnect system questions, a separate button establishes direct contact with appropriate call-takers
- **Auto-reverse sunroof:** Automatically reverses when it senses an obstruction while closing
- **Auto-reverse windows:** Automatically reverses when it senses an obstruction while closing
- **Capless fuel-filler door:** Enables fuel-filling simplicity

- **Child-protection rear door locks:** Disables rear doors' inside-release handle by adjusting a small lever opposite the doorjamb
- **Electronic locking fuel-filler door:** Prevents theft or tampering, which can lead to damage, inefficiency and unwanted fuel vapor release
- **Express up/down windows:** One-touch express up/down window button located on the front driver and passenger-side door
- **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
- **Inside emergency trunk-lid release:** Glow-in-the-dark handle enables unlocking from inside trunk
- **Keyless Enter 'n Go:** Electronic sensors detect if unique vehicle key fob is present, which enables passive cabin entry and trunk access; illuminates interior lamps and enables push-button ignition – no need to insert key
- **Remote Keyless Entry:** Locks and unlocks doors and turns on interior lamps. If vehicle is equipped with security alarm, remote also arms and disarms system
- **Remote start:** Fob-activated convenience; starts engine and activates interior climate settings while maintaining vehicle security
- **Sentry Key engine immobilizer:** Utilizes engine key with embedded transponder and preprogrammed security code to discourage vehicle theft; when key is inserted into the ignition, controller sends a random number to the transponder and engine is allowed to start; engine will shut off after a few seconds if an incorrect key is used
- **SiriusXM Traffic:** Real-time local traffic updates via SiriusXM Radio
- **SiriusXM Travel Link:** Provides passengers with real-time weather, information and entertainment to make every trip more efficient and secure
- **Speed-sensitive door locks:** System automatically locks doors when vehicle acceleration reaches prescribed threshold
- **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 multistage front driver air bag, if deployed
- **Tire-pressure Monitoring (TPM) System – Lock-on Sync:** Informs driver when tire pressure is too low; pressure-sensor modules within valve stems of all four wheels send

continuous radio-frequency signals to a receiver; available systems use graphic display to indicate tire-specific pressure

- **Uconnect Access Mobile Hot Spot:** Turns vehicle into mobile Internet hot spot; 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 Voice Command:** Voice-recognition technology enables handsfree navigation-system inputs and access to real-time information, such as weather forecasts via SiriusXM Travel Link
- **Uconnect Voice Command with Bluetooth:** Voice-recognition technology enables drivers to use Bluetooth-enabled phones while keeping their hands on the wheel and eyes on the road