

# 2010 SAFETY & SECURITY FEATURES

Chrysler Group LLC's 2010 models offer the latest safety and security technology.

The company employs a two-fold safety approach: conventional safety features, such as pretensioning, Constant-force Seat-belt Retractors (CFR) and supplemental side-curtain air bags, combined with accident-avoidance features, including Chrysler Group LLC's exclusive Rear Cross Path (RCP), minivan-exclusive Blind-spot Monitoring (BSM), Electronic Stability Control (ESC), Electronic-roll Mitigation (ERM) and Trailer-sway Control (TSC). In addition, security features, such as Sentry Key® engine immobilizer, provide the ultimate in vehicle-theft protection.

For added customer benefit and value, Chrysler Group LLC has expanded the availability of many stability system features. TSC reduces trailer sway and improves handling in adverse towing conditions. TSC is offered on the Dodge Journey, Dodge Ram and the Jeep Wrangler. Hill-start Assist (HSA), which aids a driver when starting a vehicle on a hill, is available on the Dodge Challenger. ESC is now available or standard on all new 2010 models.

## SAFETY AND SECURITY GLOSSARY FOR CHRYSLER, JEEP AND DODGE VEHICLES

Safety and security features available on 2010 model-year Chrysler, Jeep and Dodge vehicles are below. Also included are features available on the 2011 Jeep Grand Cherokee.

**Active turn signals:**

Turn signal flashes three times when stalk is depressed for 1 second in order to indicate a lane change.

**Adaptive-cruise Control (ACC):**

Automatically decreases the vehicle's preset cruise-control speed when closing in on another vehicle in the same lane or when another vehicle pulls into the same lane. The system will accelerate to the preset speed when the vehicle in front speeds up or moves into another lane. ACC will maintain a specific distance between the vehicle and the one in front of it, allowing the use of cruise control in light traffic without having to continuously adjust settings.

**Advanced multi-stage air bags:**

Uses either an Occupant-classification System (OCS) or a Low-risk Deployment Air Bag to regulate the amount of air bag necessary for the front passenger.

**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 is capable of detecting if the vehicle is driving on a rough road by the oscillations in the wheel speed signals. Rough road is detected on off-road surfaces or trails, and ABS enters a different pressure control where it will hold the brake pressure for longer pulses.

**Auto-reverse sun roof:**

Advanced sensing system automatically engages and reverses the sun roof (to the open position) when an obstruction exists.

**Auto-reverse windows:**

Automatically engages and reverses the window (to the down position) when an obstruction exists.

**BeltAlert:**

Periodically activates a chime and illuminates an icon in the instrument cluster to remind the driver to buckle up if a vehicle is driven without being properly belted.

**Blind-spot Monitoring (BSM):**

Uses dual ultra-wideband radar sensors to aid the driver when changing lanes or when being passed by or passing unseen vehicles. The system notifies the driver via illuminated icons on the side-view mirror and/or with a driver-selected audible chime.

**Brake Assist:**

In a panic-brake condition, the system applies maximum braking power, providing the shortest possible stopping distance.

**Brake/Park interlock:**

Prevents an automatic transmission or transaxle from being shifted out of Park unless the brake pedal is applied.

**Child seat anchor system:**

LATCH (Lower Anchors and Tethers for CHildren) is designed to ease installation of compatible aftermarket child seats.

**Child-protection rear-door locks:**

Disables the rear doors' inside-release handle via a small lever on the door-shut face.

**Constant-force Retractors (CFR):**

Distribute force or load exerted on a seat belt, and then gradually release seat-belt webbing in a controlled manner.

**Crumple zones:**

Designed to compress during an accident in order to absorb energy from an impact, decreasing transfer of that energy to occupants.

**Door Alert:**

Reverses sliding doors if there is an obstruction.

**Digressive load-limiting seat belts:**

Retractor senses a vehicle impact and immediately applies a load to the seat belt in order to properly position the occupant before the full load of the vehicle impact is imparted onto the occupant. It then reduces the seat-belt load in order to moderate forces imparted onto the occupant during the impact event.

**Electronic Brake-force Distribution (EBD):**

Adjusts braking pressure front to rear, based on weight distribution of passengers and cargo in order to minimize brake dive during hard braking.

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**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 reacts immediately, applying the brakes individually and modulating throttle position as needed in order to attempt avoiding the roll situation.

**Electronic Stability Control (ESC):**

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

**Energy-absorbing steering column:**

The manual-adjust steering column utilizes two hydroformed coaxial tubes that can move relative to each other in order to allow the column to move forward for enhanced energy absorption during a crash. The power-adjust steering column employs a calibrated-bending element that collapses during column stroke for optimal energy management.

**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 interior lighting, flashing hazard lamps and unlocking doors after air-bag deployment. Also shuts off the flow of fuel to the engine.

**Height-adjustable seat belts:**

Allows occupants to raise and lower the shoulder belt. This system encourages seat-belt usage by offering a more comfortable fit.

**High-intensity Discharge (HID) headlamps:**

Provide approximately three times the light output of conventional reflector lamps for improved nighttime illumination.

**Hill-descent Control (HDC):**

Allows smooth and controlled descent on rough or slippery terrain without the driver having to touch the brake pedal. The system applies brakes to each wheel individually when needed in order to reduce forward motion when negotiating down steep grades.

**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 a 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.

**HomeLink universal transceiver:**

Stores three separate transmitter radio-frequency codes to operate garage-door openers, security gates, security lighting or other radio-controlled devices.

**Inflatable knee blocker:**

An air bag for the driver's knees that deploys whenever the primary driver air bag deploys, helping position the driver relative to the primary air bag.

**Inside emergency trunk release:**

A glow-in-the-dark release handle that may be activated in the event of an adult or child being inadvertently trapped inside the trunk.

**Interior head-impact protection:**

Interior pillars above the beltline and instrument panel, including areas around the windshield and rear-window headers, roof and side-rail structures, and shoulder-belt turning loops specifically designed to limit head-impact force.

**Knee bolsters:**

The lower instrument panel and the glove box door are designed to properly position the occupant, enabling air bags to work effectively.

**Low-risk deployment air bag:**

Front-passenger air bag uses unique shape, venting, folding patterns, advanced inflators or a combination of these four technologies to position and inflate the restraint properly for a belted passenger, while also meeting federal safety requirements for out-of-position, small occupants and rear-facing infant seats. Occupants are advised to always sit properly in their seats with the seat belt fastened. Children 12 years old and younger should always be seated in the back seat correctly using an infant or child restraint system, or have the seat belt positioned correctly for their age and weight.

**Octagonal frame-rail tips:**

Designed to collapse in a controlled manner during a frontal or offset front impact, decreasing transfer of energy to occupants.

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**Occupant-classification System (OCS):**

Measures the conditions for activation or deactivation of the front-passenger side air bag based on the weight of the occupant. Occupants are advised to always sit properly in their seats with the seat belt fastened. Children 12 years old and younger should always be seated in the back seat correctly using an infant or child restraint system or have the seat belt positioned correctly for their age and weight.

**ParkSense® Rear-park Assist System:**

Assists at low speeds in Reverse to detect stationary objects. Consists of visible (interior lights seen with rearview mirror) and audible warnings for the driver.

**ParkView™ Rear Back-up Camera:**

Provides a wide-angle view of the area immediately behind the vehicle, giving the driver greater peace of mind before backing up. Also aids in lining up a trailer to the vehicle's trailer hitch, when so equipped. The image automatically displays on the navigation screen when the transmission is shifted into Reverse.

**Power-adjustable pedals:**

Allows brake, accelerator and clutch (if equipped) pedals to move toward or away from the driver in order to help achieve a safe and comfortable seating position for improved vehicle control.

**Rain-sensing wipers:**

A driver convenience feature that automatically senses moisture on the windshield and activates wipers.

**Rear Cross Path (RCP):**

In parking lot situations, RCP warns drivers who are backing out of parking spaces of traffic moving toward their vehicle. It activates when the vehicle is in Reverse. The driver is notified of vehicle(s) crossing behind the vehicle via an illuminated icon on the sideview mirror and with an audible chime.

**Rear-interior conversation mirror:**

A convex mirror located in the overhead console above the inside rearview mirror allows the driver to see rear-seat occupants without turning and looking back.

**Remote keyless entry:**

Locks and unlocks doors, and turns on interior lamps. If the vehicle is equipped with a vehicle-theft security alarm, the remote also arms and disarms that system.

**Remote start:**

Conveniently starts the engine from outside the vehicle by using the key fob while maintaining vehicle security.

**Seat-belt pretensioners:**

During a collision, impact sensors initiate front seat-belt pretensioners in order to immediately remove slack, thereby reducing the forward movement of occupants' heads and torsos.

**Sentry Key® engine immobilizer:**

Utilizes an engine key that has an embedded transponder with a pre-programmed security code to discourage vehicle theft. When the key is inserted into the ignition, the controller sends a random number to the transponder, and the engine is allowed to start. If an incorrect key is used, the engine will shut off after a few seconds.

**Side-occupant protection system:**

Includes side-curtain air bags with extended up-time, tethers and roll-detection system that deploy in certain rollover situations and side-impact events. The system utilizes information from multiple sensors in order to determine the severity and type of the impact.

**Signal mirrors:**

Signal lamp built into the housing of exterior mirrors allows turn signals to be viewed from the front, as well as the sides and rear of the vehicle in order to alert oncoming traffic and pedestrians.

**SmartBeam® headlamps:**

Intelligent headlamp system adjusts to ambient light and oncoming traffic in order to deliver maximum lighting.

**Supplemental side air bags:**

Provide enhanced protection to the driver and front outboard passenger in certain impacts. Supplemental side air bags are housed within the outboard side of each front seat.

**Supplemental side-curtain air bags:**

Extend protection to all outboard front- and rear-seat passengers, including third-row outboard passengers in vehicles so equipped. The system includes sensors, adjacent to both front-and rear-seat occupants, that are calibrated to deploy the side airbag and curtain during impacts that require air bag occupant protection.

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**Tire-pressure Monitoring (TPM):**

Informs driver when tire pressure is too low. Pressure-sensor modules within valve stems of all four road wheels send continuous radio-frequency signals to a receiver and the system.

**Traction Control System (TCS):**

Helps to keep driving wheels from spinning during acceleration from a stop or during slow speeds by applying individual brakes alone or in combination with engine torque limitation to prevent wheel slip.

**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, applies brake pressure to slow the vehicle and then increases the pressure on one front wheel to counteract the sway induced by the trailer.

**Voice Command:**

Chrysler Group LLC's hands-free voice recognition system helps drivers keep their eyes on the road. Many features are operable using Voice Command®, including selection of radio stations, SIRIUS satellite radio channels and navigation destinations. Voice Command is standard with Uconnect Phone.