



Safety & Technology GLOSSARY

Chrysler Canada: 2013 Safety, Security and Technology Features

Safety, Security and Technology Glossary for Chrysler, Dodge, Jeep®, Fiat, SRT and Ram Truck Vehicles

(A)

Abarth-tuned “Sport” mode: Enables more engaging driving experience in the Fiat 500 Abarth; button activates sportier calibration of the 1.4-litre MultiAir Turbo, marked by more linear throttle response and performance-weighted steering feedback; when “Sport” mode is not engaged, the Fiat 500 Abarth operates in “Normal” mode, limiting torque in first and second gears to enhance fuel-efficiency and minimize CO₂ emissions

Active transfer case and front-axle disconnect: Technologies not offered in combination by any other manufacturer; system seamlessly transitions between RWD and AWD – without driver intervention – by disconnecting the front wheels from the drivetrain; result is reduced friction and rotational inertia; system also provides optimal traction and improved performance, safety and security

Active turn signals: Lane-change convenience feature that illuminates turn signals three times when stalk is depressed for one second

Adaptive Cruise Control (ACC): Decreases vehicle’s preset speed when closing in on another vehicle in the same lane or when another vehicle pulls into the same lane; system will accelerate to preset speed when vehicle in front speeds up or moves into another lane; ACC maintains a distance – determined by the driver – between the driver’s vehicle and the one in front of it, allowing use of the feature in light traffic without continual adjustments

Advanced high-strength steel: Delivers the same stiffness and strength as high-strength steel, with the added benefit of enhanced energy-absorption – a property derived from a manufacturing process that changes its microstructure; applications include B-pillars and side sills

Air bags:

- **Advanced multistage, driver and front-passenger air bag:** Inflates with a force appropriate to the severity of a frontal or near-frontal impact
- **Advanced supplemental side-curtain air bags:** Provides additional protection to front-, second- and third-row outboard occupants in the event of a rollover; housed in the headliner just above side windows, each side-curtain air bag has its own impact sensor that autonomously triggers deployment on the side where impact occurs



- **Advanced supplemental front-seat side air bags:** Provide additional protection in a side-impact collision and enhanced protection for the driver and front outboard passenger in certain other impacts; each side air bag has its own impact sensor that autonomously triggers deployment on the side where impact occurs
- **Knee blocker air bag:** Located below the instrument panel, air bag is designed to properly position occupant in the event of an impact while offering additional lower leg protection
- **Rear-seat mounted air bags:** Deploy for enhanced pelvis protection in the event of a side impact

All-speed traction control system: Part of the standard Anti-lock Brake System (ABS), helps keep driving wheels from spinning while accelerating from a stop or slipping at cruising speeds by applying individual brakes alone or in combination with engine-torque reduction

Alpine premium audio systems: Audiophile-quality audio systems that immerse occupants in premium sound; nine-speaker system comprises ...

- 12-channel amplifier with 506-watts of power
- Digital signal processing (DSP) for 7.1-adapted surround sound
- Three 3.5-inch speakers located in instrument panel
- Two 6x9-inch speakers located in front doors
- Two 3.5-inch speakers located in rear-shelf area
- Two 6x9-inch speakers located in rear doors
- One 8-inch subwoofer centre-positioned in rear-shelf area

Auto-dimming rearview mirror: Detects and reduces glare from headlamps of trailing vehicles without driver intervention

Anti-lock Brake System (ABS): Senses and prevents wheel-lockup, delivering improved handling under extreme braking and/or slippery conditions

Anti-lock Brake System (ABS) with rough-road detection: Anti-lock Brake System (ABS) detects rough roads from wheel-speed oscillation; upon detection of rough roads such as off-road surfaces or trails, ABS protocol sustains brake pulses for longer intervals

Anti-lock, four-channel braking system: Senses and prevents wheel-lockup independently at all four wheels, offering improved steering control under extreme braking and/or slippery conditions; monitors speed of each wheel and enables individual wheel-braking for superior control; also affords system redundancy – backup braking capability for deployment in the unlikely failure of a braking circuit

Automatic headlamps: Activates headlamps without driver intervention when driving conditions would benefit from additional light

Automatic humidity sensor: Measures humidity inside vehicle through automatic temperature control (ATC) system to provide a fog-free windshield without driver intervention



Auto-reverse sunroof: Advanced sensing system automatically engages and reverses the sunroof (to the open position) when obstruction is detected

Auto-reverse windows: Automatically engages and reverses the window (to down position) when obstruction is detected

(B)

BeltAlert: A chime and illuminated icon in the instrument cluster reminding occupants to buckle up if they are not properly wearing shoulder harnesses

Bi-halogen projector headlamps: Provide wide and focused light pattern for improve forward visibility at night

Blind-Spot Monitoring (BSM): Uses dual ultra wide-band radar sensors to aid the driver when changing lanes and passing; system uses illuminated icons located in side-view mirrors to alert driver of approaching vehicle(s) in blind spots; driver-selected audible chime affords additional notification

Blue&Me™ hands-free communication technology: In-vehicle, voice-activated communication system that allows driver to operate a Bluetooth®-compatible phone while keeping his or her hands on the wheel and eyes on the road; driver can place phone calls, access a phone's address book or listen to MP3s using voice commands

Bluetooth streaming audio: Affords convenient access to music libraries by linking iPods® or other Bluetooth-capable MP3 players to the vehicle's Uconnect™ Media Centre and car audio system; negates need for special plugs or wires and allows operators to keep music storage devices out of sight for security

Bose® premium audio system: Delivers high-performance sound; features a standard Bose Energy Efficient Series (EES) premium audio system with six premium speakers and subwoofer

Brake assist: Applies maximum braking power, minimizing stopping distances in emergency braking situations

Brake-Lock Differential System (BLDS): Allows 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: 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; first appeared on 2003 Ram 1500, it is now featured on every Chrysler Group vehicle

Brake/park interlock: Prevents automatic transmission or transaxle from being shifted out of park unless brake pedal is applied

Brake Traction-Control System (BTCS): Helps keep driving wheels from spinning during acceleration from a stop or at slow speeds by applying individual brakes to the slipping wheel(s)



(C)

Child-protection rear-door locks: Activated from the driver's position by push of a button; system helps prevent children from opening vehicle doors by disabling rear passenger-door latch operation

CNG (Compressed Natural Gas): Alternative fuel; Chrysler Group's Ram 2500 Heavy Duty CNG is the first factory-assembled CNG-powered pickup on the North American market; features a 5.7L HEMI® V8 that runs on either CNG or gasoline; truck equipped with CNG storage tank and a 30-litre (8-gallon) gasoline tank. Canadian customers can opt for 132-litre (35-gallon) gasoline tank.

Compact U.S. Wide (CUS-wide) electrical architecture: Backbone of Dodge Dart's electrical system; delivers connectivity, enhanced driver-awareness and in-vehicle personalization capability; adapted from Fiat-based Compact Electrical Architecture used on Alfa Romeo Giulietta; allows both high- and low-speed data networks to be equipped with as many as 40 individual modules, all designed to improve vehicle performance and enhance comfort and safety of driver and passengers; each module (e.g., Electronic Stability Control) processes data and transmits appropriate commands to activate associated systems (e.g., anti-lock brakes)

Constant-Force Retractors (CFR): Regulate force exerted on occupant by a seat belt

Conversation mirror: Convex mirror located in overhead console above rear-view mirror; allows driver to see rear-seat occupants without facing rearward

Courtesy puddle lamps: Provide additional ground lighting for safe, easy entry and exit; mounted in side-view mirrors, lamps work in conjunction with the dome light and the remote keyless entry system

Crumple zones: Vehicle body structures designed to deform during impacts to absorb energy, decreasing transfer of that energy to occupants

(D)

Digressive load-limiting retractors: Two-stage load-limiting feature that modulates force on seat-belt webbing to mitigate energy exerted on occupant's upper torso in the event of an impact

Door alert: Alerts other drivers that a vehicle occupant may be exiting by flashing brake and indicator lights when a sliding door is opened



(E)

ECO indicator: Located on Electronic Vehicle Information Centre (EVIC); informs drivers of 5.7-litre HEMI®-powered vehicles when engines are in four-cylinder mode and achieving maximum fuel-efficiency; enabled by FuelSaver Technology

Electronically Controlled Coupling (ECC): Electromagnetic system enables seamless, automatic transition between rear-wheel drive and all-wheel drive, as needed; power to front wheels is de-coupled unless snow, ice or other low-traction conditions require all-wheel-drive operation; all-wheel drive also enabled on dry pavement between speeds of 40 km/h and 105 km/h to enhance handling during spirited driving

Electronic brake-force distribution: Optimizes stopping distances and driver-control under all vehicle-load conditions by modulating braking pressure, front-to-rear

Electronic Roll Mitigation (ERM): Anticipates if vehicle at risk of entering a potential roll situation by tapping input from Electronic Stability Control (ESC) sensors; applies brakes individually and modulates throttle position as needed

Electronic Stability Control (ESC): Enhances driver-control and helps maintain directional stability; reconciles steering-wheel position with vehicle path by activating individual brakes and reducing throttle input; beneficial in turns and when driving on surfaces affected by snow, ice or gravel

Electronic variable assist: Provides maximum steering response at low speeds using electronically controlled pump in power steering system; assist level reduced to enhance control at higher speeds

Electronic Vehicle Information Centre (EVIC): Configurable displays that deliver important vehicle information such as direction of travel, real-time fuel economy and distance to empty

Emergency trunk release: Glow-in-the-dark handle inside the trunk that releases trunk latch to prevent an adult or child being inadvertently trapped

Enhanced Accident Response System (EARS): Activates interior lighting and unlocks doors after air bag deployment to help first-responders see and reach occupants more easily; system also shuts off fuel-flow to engine

Express up/down windows: One-touch up/down power window feature activated by buttons on driver's door and front passenger's door

(F)

Forward Collision Warning (FCW): Uses forward-facing radar sensors to detect when vehicle may be approaching another vehicle too rapidly and alerts the driver accordingly

FuelSaver Technology: Featured on 5.7-litre HEMI®; enables seamless transition to highly fuel-efficient four-cylinder mode when conditions demand less power, and equally smooth return to V8 operation when superior performance is required



(G)

Garmin® navigation system: Easy-to-use maps with audible turn-by-turn directions, more than 6 million points of interest and lane guidance

(H)

High-intensity discharge (HID) headlamps: Provide approximately three times the light output of conventional reflector lamps for improved nighttime illumination

High-strength steel: Affords more stiffness and strength than base-grade steel; used in applications such as floor pans, where it also benefits noise, vibration and harshness (NVH).

Hill-Descent Control (HDC): Allows smooth, controlled descent on rough or slippery terrain without brake-pedal inputs; automatically brakes each wheel, as needed, to manage momentum on steep descents

Hill-Start Assist (HSA): Automatically holds vehicle to avoid rollback when starting on an incline; maintains braking long enough for driver to reposition foot from brake pedal to accelerator

HomeLink universal transceiver: Stores three radio-transmission codes to conveniently operate garage-door openers, security gates, security lighting or other remote-controlled devices

(I)

Integrated trailer-brake control: Enables greater stopping power on downhill grades when towing properly equipped trailers

Intelligent battery sensor (IBS): Continually measures flow of current into and out of the battery; if the battery is running low, the system intelligently shuts off less-critical electrical systems to help prevent a customer from being stranded due to a low or depleted battery; when IBS conducts load-shedding, an icon appears in cluster display.

Interactive decel fuel shut-off (iDFSO): Improves fuel economy by cutting fuel-flow to engine when sensors detect engine-speed decline; indicator on instrument cluster illuminates when system is active

(K)

Key fob: Small, convenient keychain-attachable device used for activating select vehicle features such as the alarm system, remote keyless entry or power liftgate/sliding doors

Keyless Enter 'n Go™: Sensor-equipped system that detects when key fob is present anywhere in vehicle, enabling push-button start

Knee bolsters: Area around lower instrument panel and the glove-box door designed to properly position occupant during impact, enabling air bags to work effectively



(L)

Light-emitting diode (LED): Advanced lighting technology affords harmonious and consistent illumination for functions ranging from taillamps to Thin Film Transistor LED reconfigurable gauge clusters

Lock on Sync tire-pressure monitors: Tire-Pressure Monitoring System self-learns tire position after rotation, or if tire is moved to a new location

Lower Anchors and Tethers for Children (LATCH): Child-seat mooring system designed to accommodate proper installation of compatible aftermarket child seats

(M)

MultiAir®: Electrohydraulic variable valve-actuation technology that optimizes intake-valve opening schedules, increasing power and torque as much as 10 per cent and 15 per cent, respectively, while improving fuel economy by up to 7.5 per cent; also affords significant emissions reduction

(O)

Occupant restraint controller: Detects an impact and determines whether a crash is severe enough to trigger air bag deployment and whether primary- or secondary-stage inflation is warranted; detects side impacts and determines whether the rail-curtain and side-seat-mounted (thorax protection) air bags should deploy; system also manages front seat-belt pretensioners

(P)

Park-Sense® Rear Park-Assist System: Driver aid that detects most stationary objects when vehicle is in reverse; emits audible alerts and features visual warning on display in the Electronic Vehicle Information Centre (EVIC)

ParkView® Rear Backup Camera: Provides wide-angle view of area immediately behind vehicle when reverse gear selected; displays grid line to assist with maneuvers such as backing into parking spaces or aligning a trailer with the vehicle's trailer hitch

Power-adjustable pedals: Enables driver to establish safe, comfortable seating position by moving brake, accelerator and clutch (if equipped) pedals forward or rearward

Powernet electrical architecture: Backbone of Ram 1500's electrical system; allows both high- and low-speed data networks to be equipped with as many as 40 individual modules, all designed to improve vehicle performance and enhance comfort and safety; each module (e.g., Electronic Stability Control) processes data and transmits appropriate commands to activate supplemental systems (e.g. anti-lock brakes and cruise control)



(Q)

Quadra-Lift™ air suspension system: Jeep® technology that adds up to 4.1 inches (104mm) of lift span, supported by four-corner air springs that provide cushioned, premium ride in all five settings; closed-type system stores pressurized air from a reservoir to lift front and rear air springs; operates automatically or may be controlled manually via console dial

Quadra-Drive II™: Jeep-brand four-wheel-drive system featuring rear Electronic Limited Slip Differential (ELSD) that delivers industry-leading traction; instantly detects wheel slip and smoothly distributes engine torque to tires with traction; in some cases, vehicle will anticipate low traction and adjust to proactively limit or eliminate slip with the ability to transfer up to 100 per cent of available torque to one wheel

Quadra-Trac I™: Jeep-brand four-wheel drive system; features lightweight, single-speed transfer case that automatically delivers smooth operation a variety of road conditions

Quadra-Trac II™: Features two-speed transfer case that actively manages torque and uses input from a variety of sensors to determine wheel slip and respond with up to 100 per cent of available torque delivered to the axle with the most traction

(R)

Rain brake support: Uses ESC pump to occasionally brush brake pads lightly against brake rotors, keeping them dry for optimal performance

Rain-sensing wipers: Windshield wipers that activate automatically when system detects precipitation on windshield

RamBox® cargo management system: Industry-first cargo management system; weatherproof, lockable, illuminated and drainable storage bins built into Ram pickup bed rails; bins can hold tools or leisure gear or your favourite beverages; complemented by bed divider, 2 foot. bed extender and cargo-rail system with four sliding, adjustable cleats

Reactive front head restraint: Deploys in the event of a rear collision; restraints designed to reduce injuries by minimizing the gap between the head restraint and the occupant's head

Ready Alert Braking (RAB): Anticipates situations when driver may initiate emergency stop; uses ESC pump to set brake pads against rotors to decrease time required for full brake application

Rear Cross-Path (RCP) detection: Detects traffic moving toward vehicle when driver is backing out of parking space; activates when vehicle is in reverse; warns driver with illuminated icons in side-view mirror and with a driver-selected audible chime



Rear-seat entertainment system: Vehicle Entertainment System (VES) which includes dual DVD players and screens that deliver variety of programming choices, with ports to connect games and media players (including iPods) with audio- and video-output capability; Uconnect Media Centre or VES remote can control multiple screen inputs so each screen can play something different

Remote keyless entry: Enabled by key fob; locks and unlocks doors and turns on interior lamps; disarms security alarm if vehicle is so-equipped

Remote start: Enabled by key fob; conveniently starts engine and activates comfort settings based on ambient conditions; vehicle remains locked until fob used to open

Removable flashlight: Mounts in cargo area of certain Chrysler Group models; snaps out of bezel that serves as charging port for quick, easy access; functions as dome light when mounted

Roll-detection system: Senses rollover and deploys seat-belt pretensioners and/or standard full-length side-curtain air bags as needed

(S)

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

Seat-belt pretensioner: Removes slack in restraint system when sensors detect collision; limits forward movement of occupant's head and torso

Selec-Terrain™ traction control system: Jeep feature that enables driver to match vehicle capability with five driving conditions – Auto (normal), Sand/Mud, Sport, Snow and Rock

Sentry Key® antitheft engine immobilizer: Utilizes engine key equipped with embedded transponder programmed with a security code to discourage vehicle theft; when key is inserted into ignition, controller sends random number to transponder and engine is allowed to start

Side-guard door beams: Front- and rear-door components that provide occupant protection during a side impact

Signal mirror: Exterior mirror that features signal lamps built into its housing; allows turn signals to be viewed from the front, sides and rear of vehicle to alert oncoming traffic and pedestrians

SiriusXM™ Satellite radio: Provides continuous coast-to-coast programming from more than 140 themed, commercial-free, digital music and information channels; enabled by global positioning satellite technology; accessed via Chrysler Group's Uconnect™ infotainment system

SmartBeam™ Headlamps: Headlamp system that adjusts to ambient light and oncoming traffic to deliver maximum lighting

Smart pedals: Pedal assembly that moves out of the way in the event of an impact to help protect the driver's feet and legs



(T)

Thin Film Transistor (TFT) instrument cluster: Customizable instrument cluster display; customization options range from basic analog readouts to full digital display – all clearly communicating vehicle information in the manner preferred by the customer; enabled by LED technology

Tilt steering column: Enables driver to position steering wheel at a preferred angle

Tilt-and-telescopic steering column: Enables positioning of steering wheel at a preferred angle and distance from the driver

Tire-Pressure Monitoring (TPMS) System: Informs driver when tire pressure is too low via sensor modules in the valve stems of all four wheels

TomTom® Navigation: 4.3-inch touch-screen navigation system (featuring more than 7 million points of interest) for Fiat 500; complements Blue&Me™ hands-free communication system; mounts with unique instrument-panel docking system for added driver convenience

Traction-Control System (TCS): Helps keep driving wheels from spinning during acceleration from a stop or while traveling at slow speeds by applying individual brakes alone or in combination with engine torque reduction

Trailer-Sway Control: Reduces trailer sway and improves handling while exposed to crosswinds or other adverse towing conditions; system monitors vehicle's movement relative to driver's intended path and activates brakes accordingly, counteracting sway induced by trailer and otherwise managing momentum

Turbocharging: Boosts engine power by increasing air induction; turbocharger turbine converts heat and pressure to rotational force that drives a compressor; compressor draws in ambient air that is forced into engine cylinders, generating increased power from combustion event

(U)

Uconnect™ Media Centre: Combines touch-screen and voice-command capability for convenient control of multiple media sources

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